DEVELOPMENT AND INSTITUTIONAL CHANGE IN CHINESE AGRICULTURE. A CASE STUDY OF KIANGSU PROVINCE, 1946 - 1957.



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#### ABSTRACT

Before 1949 tenancy existed in various forms and degrees in Kiangsu. Although such relationships were eliminated by the land reform of 1950-52 and despite the sacrifice of social gains in the interest of economic advance, the economic impact of this first stage of agrarian reform was minimal.

The Mutual Aid Team Movement was the first attempt to achieve greater co-operation in agriculture. However, because of its inherent limitations its appeal was confined to the poorer peasants and it failed to attract those whose potential contribution to agricultural growth was greatest. A more radical change was the creation of agricultural producers' co-operatives. Until 1955 these existed in relatively small numbers, but between mid-1955 and mid-1956 an extraordinary upsurge of activity occurred which led not merely to the rapid semi-socialist co-operativization of agriculture but indeed to its fully-socialist collectivization.

An examination of quantitative indicators of agriculture's performance in Kiangsu during these years suggests that institutional change failed to generate the growth that had been hoped for. The rate of growth of output of the most important crops during the 1950's (especially the First Five Year Plan period) was extremely disappointing. Productivity levels remained low and there continued to exist alarming gaps in both production and consumption between different parts of the province. At the most general level there was a clear economic dichotomy between the relatively prosperous areas of south Kiangsu and the more backward and depressed regions of the north.

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More surprising is the evidence of declining production over the longer run. Output of a number of major crops, particularly when viewed in per capita terms, was lower in the 1950's than in the 1930's. In this case there were however two successes to be set against the failures: a more rational cropping pattern was introduced throughout the province and the production of rice, the most important food crop, showed an upward trend.

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## PREFACE

The aim of this study is threefold: first, to describe the institutional changes in agriculture which took place under the auspices of the Chinese Communist Party in Kiangsu province and to examine their impact upon agricultural productivity in that province. Second, to trace quantitative trends in agricultural production during the years in which these changes were taking place, analyzing them in terms of economic as well as institutional factors. Finally, to make a comparison between agricultural production in the 1930's and the 1950's.

Two aspects of the study should be stressed: the first is that it is a study of a single province; the second, that it attempts to bridge the watershed of 1949, the year when the People's Republic of China was established.

During the last two decades most studies of the Chinese economy by Western scholars have been conducted at the level of the whole of China and one of the reasons that prompted the decision to undertake a provincial study was the belief that a deeper understanding of the process of economic (more specifically, agricultural) development in China might be gained by examining, in depth, a single province. However much of a commonplace, it remains an important truth that China's vast geographical area and consequent regional diversity carry the danger of making aggregate studies misleading. This is not, of course, to deny the value of the work done in recent years, but it is to suggest that we have now reached a point where investigations of the organization and structure of provincial economies can be expected to throw useful light on the findings

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of work already carried out at the national level.

Doubtless, strong reasons could be found to support the choice of any province in China as a case-study and for Kiangsu there is certainly no lack. Historically, Kiangsu assumed a place of special importance in the Chinese economy: this was true of the economy before 1840 (the "feudal" economy, following the Chinese Communist interpretation), when it remained overwhelmingly agricultural and the chief economic aim of the government was to ensure adequate revenue through agricultural taxation (that is, grain tribute); and in the "semi-feudal, semi-colonial" phase of economic development after 1840, when despite the continuing heavy agricultural bias, contact with Western nations exposed China to new influences and led to the emergence of a new kind of economy, typified by the treaty-ports sector. In the present century, the natural conditions of Kiangsu and the structural changes which have taken place in the provincial economy make it an ideal focus for an analysis of many of the problems encountered in China's recent economic development: for example, the effects of urbanization on the agricultural sector and rural-urban relations; the impact of industrialization; the question of "surplus labour" in agriculture; and the problem of maintaining a correct balance between the production of food grains and economic crops. Finally, an important consideration has been that rich sources of information on the agricultural sector are available for Kiangsu both before and after 1949.

The second point concerns the attempt to span developments before and after 1949. Clearly, any judgement of the economic achievements of

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China's new government pre-supposes some assumed level of development before 1949. However, our knowledge of rural economic conditions and developments in this earlier period remains pitifully deficient. Some attempts have been made to assess developments in the 1950's by comparing them with conditions in the 1930's, but for a variety of reasons none of them has been entirely satisfactory. It is hoped that by being able to consider in greater depth a wider range of source materials than is possible in a study of all China, we may be able to throw light on the nature and direction of agricultural development between the 1930's and the 1950's.

The arrangement of the thesis is as follows: the introductory chapter provides some necessary background information by describing the historical and natural setting of Kiangsu. The three chapters in Part One then examine the institutional changes which took place in the agricultural sector of the province between 1949 and 1957. Land reform is viewed against the traditional tenurial and land-ownership system and the subsequent emergence of mutual-aid teams, agricultural co-operatives and collectives is considered both in its historical and economic context. However, emphasis is placed throughout on an assessment of the economic implications of the institutional reforms.

Part Two comprises two chapters which analyze agricultural development in more quantitative terms. In the first, the period from 1949 to 1957 is considered on its own. Total levels of aggregate production, as well as the output of important individual crops, are presented and from these per capita estimates are derived. Where possible, an indication of changing levels of land and labour productivity is given. In discussing the

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trends which emerge, attention is drawn to regional differentials within the province.

In the final chapter, a brief account of the difficulties of interpreting pre-war agricultural data precedes an attempt to derive estimates of total and per capita output, and average yields, of selected crops grown in Kiangsu during the 1930's. This forms the basis of an assessment of long-run development as shown by the changing level and structure of agricultural production in the province.

#### CHAPTER ONE

#### Introduction

## I Kiangsu: The Historical Setting

In view of its favourable strategic and economic position in the rich and fertile valley of the lower Yangtze, it was inevitable that  $Kiangsu^{(1)}$ should assume an important place in Chinese history. A useful concept in this respect is the "Key Economic Area" used by Chi Ch'ao-ting in his study of the regional basis of central power in pre-1840 China.<sup>(2)</sup>

# Chi points out:

"... the unity or centralization of state power in China could only mean the control of an economic area where agricultural productivity and facilities of transport would make possible the supply of a grain tribute so predominantly superior to that of other areas that any group which controlled this area had the key to the conquest and unity of all China. It is areas of this kind which must be designated as the Key Economic Areas." (3)

Until the period of the Six Dynasties (222 - 589 AD), China's Key Economic Area comprised the Ching-Wei basin and lower Yellow River valley in north China. However, during this period a rival area began to emerge in the form of the lower Yangtze Valley (including Kiangsu) and by the T'ang Dynasty (618 - 906 AD) this had become the undisputed new Key Economic Area of China - a position which it maintained until 1840, the end-date of Chi's study.

This shift in China's economic centre of gravity was reflected in Kiangsu, where after the fourth century AD, south Kiangsu (that is, the area south of the Yangtze) emerged as the most important economic region in the province, displacing north Kiangsu which had hitherto held that position. Another indication of the growing importance of the area was the establishment of Nanking as the capital of the Eastern Chin

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Dynasty (317 - 419 AD). But perhaps the single most significant development was the construction during the Sui Dynasty (589 - 617 AD) of the Grand Canal, linking the Yellow River with the Hwai and Yangtze Rivers, and stretching from the capital in the north  $^{(4)}$  to Hangchow, in Chekiang province. This waterway was constructed in order to transport grain from the rich southern provinces to the capital and it remained the principal line of communication between north and south until the present century. Moreover, it passed through the whole of Kiangsu:<sup>(5)</sup> entering from Shantung, it flowed south-east to Hwai-an, then south to Yang-chou and Chinkiang (respectively situated on the northern and southern banks of the Yangtze),<sup>(6)</sup> and continued southwards around Lake T'ai Hu out of the province.<sup>(7)</sup> In view of the crucial importance of the canal, it was natural that the principal stations along its course should develop into prominent cities. Thus Hwai-an fulfilled a strategic role until this century, when its position was usurped by Hstl-chou, situated at the intersection of two important railways.<sup>(8)</sup> Chinkiang and Yang-chou occupied positions of similar importance and Yang-chou, in particular, grew into a great commercial city.<sup>(9)</sup>

Astonishing evidence of the rapid rise of the lower Yangtze Valley to a position of economic pre-eminence in China is afforded by the fact that during the T'ang Dynasty, "... the land tax of Kiangnan<sup>(10)</sup> had already reached the alarming proportion of nine-tenths of the total land tax of the country".<sup>(11)</sup> However, it would be wrong to think of the Yangtze Valley as an integrated unit at this period; rather, it comprised a number of small units loosely linked together. Not until the twelfth and thirteenth centuries did the region finally emerge as a cohesive unit.

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By this time, it was the richest region in the whole of China - "an area of surplus crops and woven goods, producing rice, silk, tea and fish products in abundance".<sup>(12)</sup> At the same time, the economic imbalance between north and south Kiangsu became more pronounced and as the prosperity of the south grew, so the economy of the north fell into a secular decline. As we shall see, this dichotomy remained one of the most striking characteristics of the provincial economy well into the 1950's.

The importance of the lower Yangtze region in general and of south Kiangsu in particular was underlined by the choice of Nanking as the capital of the Ming Dynasty on its inception in 1368. Although the capital was later moved to Peking, Nanking remained the second city in China and indeed, after the foundation of the Chinese Republic in 1912, its former pre-eminent role was re-asserted.

During the Ming Dynasty, strong encouragement was given to the extension of economic crops. Cotton and silk cocoons were being produced in the lower Yangtze region as early as the Sung Dynasty (960 - 1126 AD) but not until the Ming did large-scale expansion get under way. By the late sixteenth and early seventeenth centuries, coastal areas of south Kiangsu had developed into national centres of production. <sup>(13)</sup> Simultaneously, there was a rapid development of handicraft and textile industries, Sung-chiang becoming the manufacturing centre of cotton textiles in China and Nanking and Soochow<sup>(14)</sup> of silk textiles. Development of the textile industry continued into the Ch'ing Dynasty (1644 - 1911) and, by the early nineteenth century "in the belt comprising Sung-chiang, T'ai-ts'ang and Nan-t'ung, a situation developed where the fields of cotton

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crops were crowding out the fields of staple crops".<sup>(15)</sup> It is no coincidence that this part of Kiangsu remained the single most important base for textile manufactures in China during the 1950's.

The economic penetration of China by Western nations, which began in the mid-nineteenth century, represents a very real watershed in Chinese history and signifies the emergence of "modern China". One consequence was that the mechanism of the Key Economic Area ceased to have any relevance; instead, the key to the political and economic control of China lay with the foreign-controlled treaty-ports. However, the position of Kiangsu was little affected by the changed circumstances. In the following century, its favourable geographical situation and natural conditions, the relatively developed state of its economy and, above all, the rapid growth of Shanghai - all assured the province (or at least, that part south of the Yangtze) of a continuing important place in the national economy.

The most important economic developments in the province between 1840 and 1949 were the growing industrialization and urbanization of south Kiangsu, and the general rural decline occasioned by the breakdown of central authority and emergence of regional military cliques and rival political parties in China. Only a short summary of these developments is possible here, although something more than cursory consideration must be given to two events which had particularly serious implications for Kiangsu's economic development: the Taiping Rebellion of 1850-64 and the Sino-Japanese War of 1937-45.

A detailed account of the growth of Shanghai is beyond the scope of an introductory chapter such as this. (16) Suffice it to say that in the

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second half of the nineteenth century and especially after 1890, the economic development of Shanghai was extremely rapid and by the early decades of the present century it had become the most important national centre of trade, industry, banking and finance.<sup>(17)</sup> Industrialization was also under way in other cities near Shanghai - notably Wusih, Soochow, Nan-t'ung (the only important industrial city in Kiangsu which lay north of the Yangtze) and Ch'ang-chou (also called Wu-chin). In all these cities the emphasis was on light, consumer industries: of 2,623 factories in Shanghai listed in one source,<sup>(18)</sup> only 274 (10.45%) were producing goods which did not fall into this category.

It is well-known that the treaty-ports sector was never more than peripheral to the traditional Chinese agricultural economy; it was, as it were, merely grafted on to the rural sector. Thus, the lack of any purposeful national economic policy combined with the domination of the treaty-ports by foreign capital meant that any beneficial linkage effects which might have developed were lost. In Kiangsu, the impact of the growth of Shanghai and other cities on the rest of the provincial economy were mainly reflected in increasing urbanization on the one hand and the deterioration of rural subsidiaries on the other.

The effect of the growth of modern industry can be briefly summarized: the appearance of textile manufactures of factory origin on the domestic market and the subsequent growth of a modern textile industry had serious implications for textile handicrafts in south Kiangsu. These were highly developed and an important source of income for a large part of the rural population. But unable to compete either with the low prices or

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the quality uniformity of the machine-made products, the handicraft sector fell into a serious decline. <sup>(19)</sup> Many peasants and handicraft workers went bankrupt and these swelled the increasing supply of cheap labour drifting into the cities in search of work.

The relationship between industrialization and the growth of urban population is too obvious to require comment. In Kiangsu the development of modern industry in the southern part of the province caused considerable displacement of population, eventually making the province one of the most urbanized in China. However, further consideration of population growth and changes between the rural and urban sectors is left until the next section of this chapter.

A consequence of the breakdown of central power between 1840 and 1911 was a deterioration in the agricultural economy. Increasing corruption led to heavier exactions on peasants by local officials; the weakening of the central government resulted in the neglect of the largescale water-control works - the dikes and embankments, the upkeep of which required resources beyond the capacity of local communities and which were therefore traditionally the responsibility of the government. But the clearest indication of the serious situation was the outbreak in 1850 of the Taiping Rebellion. This uprising had long-run effects on Kiangsu's economy, for the area worst affected was the lower Yangtze Valley (the provinces of Kiangsu, Chekiang, Anhwei and Kiangsi). This region was the focus of much of the fighting and was ravaged by both government and rebel armies. Tens of thousands of peasants were killed and large numbers of those that survived were pressed into the service

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of the rebels as soldiers. South Kiangsu, in particular, was badly hit and whole areas were depopulated. (20) The following data show the fall in the population of two southern <u>hsien</u> following the Rebellion: (21)

	Pre-Taiping population	Post-Taiping population	decline in population
Liu-ho	318,683 (1781)	115,155 (1882)	63.9
Li-shui	230,618 (1775)	37,188 (1874)	83.9

Devastation on this scale led to a grave shortage of labour in certain parts of south Kiangsu. At the same time, losses to working capital (farm tools, buildings, seeds, draft animals) must also have been heavy so that even those farmers who survived the uprising were often impoverished and lacked capital for rehabilitation and renewed development.<sup>(22)</sup>

The shortage of labour combined with the attraction of the fertile land encouraged immigration from other parts of Kiangsu and from other provinces once the rebels had been defeated. From Hupei, whole villages uprooted themselves and moved into the empty region of south Kiangsu to establish farms; immigration also got under way from Hunan, Honan and of course north Kiangsu. However, labour shortages continued and recovery was slow: even in the 1890's officials were memorializing the emperor on the large amounts of land that remained uncultivated. <sup>(23)</sup> Indeed, so great was the destruction caused by the Taiping Rebellion that even in the 1950's its effects could still be seen. 1953 population figures for Chekiang, Anhwei and Kiangsi are all lower than those for 1850. Of all the provinces in the lower Yangtze Valley, Kiangsu alone had recovered from the depopulation. The figures for Kiangsu are as follows:<sup>(24)</sup>

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Total population	Total population	Percentage
in 1850	in 1953	change
44,155,000	47,456,609	+7.5

But the 1953 figure includes Shanghai and there can be no doubt that the reason for Kiangsu's population growth was the rapid urbanization which occurred in the century after 1850. Thus, if Shanghai's population is excluded in 1953, the experience of Kiangsu is the same as that of the other provinces:

Total population in 1850	Total population in 1953 (excl. Shanghai)	Percentage change
44,155,000	41,252,192	-6.5

The end of the Ch'ing Dynasty, far from reversing the process of agricultural decline, served principally to exacerbate it. All semblance of centralized power was now lost. The breakdown of large-scale watercontrol works continued and at the hands of the various warlord armies, destruction of crops, items of fixed and working capital and human and animal lives occurred on a wide scale. Tenants increased in numbers and were exposed to the worst excesses of the one-way tenurial relationship. The warlords abused what power they had: taxes were grossly increased, a wide variety of new levies introduced, and peasants were commonly compelled to pay taxes years in advance in order to provide funds for the competing armies. Kiangsu was no exception to these trends and most contemporary investigations suggest stagnation or decline in the rural sector. (25) During the warlord period (1916 - 28) Kiansu was most seriously affected by the activities of the warlord, Sun Ch'uan-fang and his rivals. In 1924-25 the First and Second "Kiangsu-Chekiang Wars" were fought in south Kiangsu and Sun emerged as the dominant military

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figure in the province. Not until 1927 and the advance of the Northern Expedition<sup>(26)</sup> was he pushed across the Yangtze<sup>(27)</sup> and so finally ousted from Kiangsu. Meanwhile, banditry increased as more and more peasants were forced off the land through poverty and bankruptcy.

Taxation was another heavy burden on the agricultural sector which increased still further after 1911. The following data on land taxes are indicative of the deteriorating situation:

Table I.1:	An ind	lex of ch	anges in	n regula	r and su	pplemer	ntary
	taxes	levied p	er mou	of land i	n Kiang	su and C	China
PADDY LAND:	1912	1931	1932	1933	1934	1935	1936
China (average)	59	100	107	108	108	101	101
Kiangsu	65	100	116	123	117	109	
DRY-CROP FLAT LAN	D						
China (average)	62	100	109	111	111	103	101
Kiangsu	76	100	105	104	108	98	96
DRY-CROP HILLY LAN	ND .						
China (average)	61	100	108	111	111	104	101
Kiangsu	59	100	102	104	107	102	95

Source:	Chang Yu-i, Chung-kuo chin-tai nung-yeh
	shih-tzu-liao, (Source Materials on Modern
	Chinese Agricultural History), hereafter CKNY,
	vol.3, 1927-37, pp.9-11, citing "Nung-ch'ing
	pao-kao" ("Crop Reports"), vol.7, no.4;
	April, 1939.

Note: 1 mou is 0.067 hectares, or 0.1647 acres.

Except for the last two years, when a reduction in the land tax was decreed, the upward trend in taxation is clearly visible.

A more specific illustration of the increase in taxes is afforded by the following table which shows the fluctuations in the incidence of land tax in Wusih hsien, south Kiangsu, between 1923 and 1934:

		Land tax per mou	Index with 1923 = 100
1923		0.626 ytlan	100
1924		0.726	116
1925		0.648	108
1926		0.986	157
1927		0.936	149
1928		0.962	153
1929		0.942	151
1930		1.118	178
1931		1.036	165
1932		0.916	146
1933		1.182	189
1934		0.969	155
	Source:	Wang T'ien-tzu,	"Wu-hsi Pei-hsia ti nung-

Table I.2: The land tax in Wusih hsien

ts 'un ching-chi" ("The Rural Economy of Pei-hsia in Wusih") in NHYK, vol.2, no.11, November 1935: pp.15-31.

A distinction needs to be made between "regular taxes" (cheng-shui) and "supplementary taxes" (fu-shui). In the 1920's and 1930's, a wide range of new levies was introduced, the burden of which gradually came to outweigh that of the regular taxes. In Kiangsu, for example, one source lists three provincial, but 31 hsien, supplementary taxes in the early 1930's.<sup>(28)</sup> The evidence of Chang Yu-i is even more astonishing, for he cites 147 "supplementary land taxes" (t'ien-fu fu-chia) being levied in Kiangsu at this time - the highest figure by far in any province of China.<sup>(29)</sup>

To these purely endogenous factors must be added the effects of two sets of external factors. First, natural disasters: these were common occurrences in Kiangsu.<sup>(30)</sup> For example, between 1928 and 1935,

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various parts of the province were affected by the following disasters:

Table I.3:	Natural disasters in Kiangsu: 1928 - 1935
1928	Drought
1929	Insect infestation
1930	Floods and drought
1931	Floods
1933	Locust plague
1934	Floods and drought. Locust plague
1935	Floods (overflowing of Yangtze)
Source:	CKNY, vol.3, op. cit., pp. 610-612.

Of course, the severity of these disasters varied from year to year: sometimes they were localized; at other times, vast areas were affected. However, north Kiangsu was peculiarly vulnerable to flooding and according to historical statistics "... for the period of 250 years before Liberation (1949), the Hsti-Hwai areas in the lower reaches of the Rivers I, Ssu and Shu averaged one big flood every four years, and in the six consecutive years immediately preceding Liberation, a calamity occurred each year. "<sup>(31)</sup> Further, "... for the period of 430 years before Liberation, the Li-hsia Ho and Kao-Pao lake area in the lower reaches of the Hwai River averaged a big flood once every three years. "<sup>(32)</sup>

Of the natural disasters listed above, 1931 and 1934 were the worst. The area and population of Kiangsu affected by the floods of 1931 is not known, but Chang Yu-i<sup>(33)</sup> states that in the eight provinces in which flooding occurred, 100 million (sic) people were affected, 255 million mou of arable land submerged by water and 265, 154 people drowned. Ch'u T'ing-ju<sup>(34)</sup> attributes the bankruptcy of the villages of Kiangsu's second-largest <u>hsien</u>, Tung-t'ai, to the severe floods of this year. The

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worst aspect of the 1934 disasters in Kiangsu was probably the drought: in the T'ai Hu Basin in the south of the province, for example, the water-level in some rivers fell to record levels and one dried up completely.<sup>(35)</sup>

The second external effect, the impact of the world economic depression of the 1930's on Kiangsu, can be briefly summarized. As one writer put it:

"The slowed down demand for agricultural exports and the entry of a great volume of foreign rice, wheat and cotton resulted in a drastic price drop in agricultural products. Between 1930-34 the price of rice in Kiangsu province dropped by more than half; the peasants engaging in silkworm culture went bankrupt, as they were not able to net enough to cover the expenses of production, and it was impossible to count those who had abandoned their fields of mulberry plantings." (36)

Despite some signs of recovery in the two or three years immediately preceding the outbreak of the Sino-Japanese War, the years after 1911 generally seemed to be witnessing the breakdown of the Kiangsu economy. In the agricultural sector the most serious manifestations of the deteriorating situation were the growing impoverishment of farmers and the increase in tenancy. Impoverishment of farmers was reflected in the exhaustion of village finance and the increasing necessity to enter into usurious loans. Traditionally, credit had been available from a variety of sources: money-changers; pawn-shops; societies formed voluntarily by peasants, each investing money into a central fund and receiving in return the right to borrow from it; banks and co-operatives (though in general, banks benefited only the richer farmers and credit co-operatives never really took root in the countryside). However, as the rural situation grew worse and whole villages were threatened by bankruptcy, most of

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these sources dried up and peasants were forced to negotiate loans with individual rich households in the villages (especially landlords). Inevitably, the terms of such loans were onerous and this, combined with the fact that loans were rarely made for productive purposes, <sup>(37)</sup> further aggravated the situation.

We may conclude this historical survey by giving a very brief account of the events of the Sino-Japanese War in Kiangsu. For not only did these ensure a strong base for the Chinese Communist Party in the province following the defeat of Japan, but they also had important implications for Kiangsu's agricultural development after 1949.<sup>(38)</sup>

After the outbreak of war in 1937, there were a number of Communist military and guerilla units operating in south Kiangsu, the most important being part of the New Fourth Army. In the early years of the war, north Kiangsu remained under the control of the Kuomintang. However, in late 1939, expansion of Communist influence north of the Yangtze began to take place and clashes between the Kuomintang and Chinese Communist forces first occurred. In 1940, Japanese action in south Kiangsu succeeded in pushing the Communist forces northwards across the Yangtze and later in the same year, heavy military action between Han Te-ch'in, Commander of the Kuomintang armies, and Kuan Wen-wei and Ch'en Yi, in charge of the Communist forces, resulted in a decisive Communist victory. By September, 1940, the Communists held all north Kiangsu east of the Grand Canal.<sup>(39)</sup>

The end of 1940 saw the re-organization of the Communist forces and the establishment of the North Kiangsu Special Administrative Committee. (40)

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This was an event of considerable significance, for it marked "... the first step in bringing the civilian population of north Kiangsu into the Communist war effort".<sup>(41)</sup> Despite attempts by the Japanese to clear the area, north Kiangsu thereafter remained in Communist hands for the rest of the war.

The importance of these events for the purposes of this study is two fold. First, the success of the Chinese Communist Party in north Kiangsu provided them for the first time with a strong base in the province, from which they could operate after the war.<sup>(42)</sup> But more important, continued control of the area after 1945 enabled the Party leaders to begin implementing land reform in north Kiangsu as early as 1946 - three years before the formal establishment of the People's Republic of China. The experience so gained can only have benefited the administration when it began to execute its new agrarian policies in the rest of the province after 1949.<sup>(43)</sup>

# II Kiangsu: The Natural and Economic Setting

For purposes of economic analysis, Kiangsu<sup>(44)</sup> is best seen as one of the three provinces of the lower Yangtze Valley (the others are Anhwei and Chekiang). Traditionally, historical and economic ties between these provinces have been close and after 1949 the economic unity of the area was recognized by the creation of the East China Economic Region.<sup>(45)</sup>

The relationship, in terms of area and total population, between Kiangsu, the East China Economic Region<sup>(46)</sup> and China during the late 1950's is shown in the following table:

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	Table I.4:	Tota Kian and	otal and arable area and total population in iangsu, the East China Economic Region nd China in 1957			
	China	Eas Chin	t na —	Kiangsu (incl. Shanghai)	Kiangsu (excl. Shanghai)	
Population (millions)	656.63 <sup>a</sup>	110.	.97 <sup>a</sup>	52.13 <sup>a</sup>	45.23 <sup>a</sup>	
Total surfa area (milli square kilometres	on 9.56 <sup>b</sup>	0.	. 35 <sup>b</sup>	0.11 <sup>b</sup>	4	
Arable are (million hectares)	a 112.6 <sup>c</sup>	14.	35 <sup>d</sup>	6.24 <sup>e</sup>	4	
Sources: a State Statistical Bure shih-nien ( <u>Ten Great</u> 1959; p.6 and p.9. b Nai-ruenn Chen, <u>Chir</u> <u>Statistics</u> , Edinburgh 1967, p.123, Table 1		a	State St shih-nic 1959; p	atistical Bure en ( <u>Ten Great</u> .6 and p.9.	au, <u>Wei-ta ti</u> <u>Years</u> ), Peking,	
		uese Economic University Press, .1.				
		c Wei-ta ti shih-nien, op. cit., p.113.				
		d	D.H. P in China Chicago	erkins, <u>Agric</u> a, 1368-1968, o, 1969; p.236	ultural Development Aldine Publishing Co.	
e Sun Ching-chih, op. c			cit., p.53			

Although some might question the exact magnitude of these figures, the overall pattern is not in doubt. The richness of the East China Economic Region in general and of Kiangsu in particular emerges clearly. Thus, East China, with only 3.7% of China's total surface area, nevertheless contains about 17% of its total population. Similarly, Kiangsu accounts for 46.98% of the total population of East China (40.76% if Shanghai is excluded), but has only 31.43% of the region's total land area. The reason for such differentials lies in the relatively high cultivation index of the lower Yangtze Valley. In the three provinces of East China taken as a whole, approximately 27.5% of the land area can be cultivated and in Kiangsu the corresponding figure is well over 50%.

Hills and plains are the dominant topographical feature of the East China Region. Climatically, the whole area falls roughly into the temperate zone, although regional variations between north and south are considerable, with a general tendency for temperature and rainfall to increase as one moves southwards. A concomitant feature is a relatively long growing season so that in most areas double-cropping is feasible. (47) Of special importance is the Yangtze River, which flows through the centre of the region: not only does this provide a vital communications link with central China, but its subsidiaries also form a dense river network. important for transportation and irrigation. The second most important river in the region is the Hwai, flowing through central Anhwei and into north Kiangsu. This river has been most notable for its vulnerability to severe flooding and consequent threat to agricultural production over a wide area. It was for this reason that the construction project to control the Hwai was accorded a high priority in agricultural investment plans after 1949.

In view of the high population density of East China, it is not surprising that the largest proportion of arable land has been devoted to food grains, with rice holding a pre-eminent position. In 1957, the last year of the First Five Year Plan (FFYP), output of rice was 62% of total grain production in the East China Region and represented 22% of China's total rice output. <sup>(48)</sup>. Wheat was the second crop, though it was highly commercialized and mostly used as a raw material for flour-milling in the cities. Other grains, such as sweet potatoes, barley, corn and maize, were also grown,

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especially in the northern parts of the region where the climate was cooler and drier. Taken as a whole, in 1957, food grain output in East China was 16.7% of total national output and was used chiefly for consumption within the region. <sup>(49)</sup>

Traditionally, economic crops have been widely planted - especially raw cotton, hemp and mulberry trees (for raising silkworms). Textile handicrafts were established early and in the nineteenth century, development of a modern textile industry also got under way. In the 1950's textiles remained one of the most flourishing industries, its gross value output accounting for 32% or total regional industrial gross value output in 1957. It produced 40% of China's cotton goods; more than 60% of its woollen goods; and over 50% of silk products.<sup>(50)</sup>

So much for the immediate geographical and economic setting of Kiangsu. Kiangsu itself is a coastal province, located at the lower reaches of the Yangtze and Hwai Rivers. Topographically, it contains a very large area of plains and in the southwest corner and at its northern boundaries a few hills and uplands. These latter, however, are on a small scale: Kiangsu's highest peak, Yttn-t'ai shan, is only about 2,000 feet high. Although recent data are not available, the following table (based on a pre-war source) probably gives a fairly accurate picture of how the total surface area in the province was distributed in the 1950's:

Table I. 5:Distribution of the total surface area of Kiangsuinto three topographical categories:1933

Topographical category	Percentage of total surface area in each category
Plains	86.1
Hills and uplands	6.7
Water	7.2
27	TOTAL 100.0

Source: HB, op. cit., p.8.

The data presented earlier in Table I. 4 suggest the crucial importance of the relationship between total area and arable area. Only 12% of China's vast surface area was cultivated in the late 1950's, compared with almost 30% in East China (Anhwei, Chekiang and Kiangsu) and over 50% in Kiangsu. On this basis Kiangsu was one of the richest provinces in the whole country. <sup>(51)</sup> Moreover, for all the economic imbalance that existed between north and south, the cultivation seems to have been much the same in both halves of the province:

Table I.6:

The relationship between total and arable area in north and south Kiangsu

	North of Yangtze	South of Yangtze
Total surface area (million mou)	115.60	47.40
Total arable area (million mou)	65.21	26.19
Cultivation index	56.40%	55.70%

Source: HB, op. cit., pp. 6-8 and pp. 23-24.

It is true that these figures show the situation in the early 1930's, not the late 1950's. But the average cultivation index of 58% cited by a Chinese source in 1958 suggests that only a relatively small change had taken place in the intervening 25 years.<sup>(52)</sup> Nevertheless, it is a pity that sub-provincial information is not available to show how far the differential between north and south had widened. <u>A priori</u>, we should expect that the greater scope for land reclamation north of the Yangtze had permitted a more rapid expansion of arable area than was possible in the south.

The geographical relationship between Kiangsu and the Yangtze and Hwai Rivers is a significant one, for whereas the Yangtze has tended to benefit the surrounding economy (53) through the provision of transport and irrigation facilities, the impact of the Hwai has been largely negative. Special mention should also be made of the T'ai Hu water system, comprising all the rivers and streams south of the Yangtze (and so-called after the T'ai Hu Lake, the largest in this region with a surface area of about 2,250 square kilometres). The T'ai Hu Basin, in fact, has the highest river density in China<sup>(54)</sup> and the advantages afforded by this network for irrigation and transport are obvious: irrigation is possible virtually everywhere and every village is accessible by boat. The main threats to agriculture in this region are the nature of the terrain and the presence of the Yangtze: in particular, extremely flat land around T'ai Hu means that the water flow is sluggish and while in drought periods, the Yangtze aids agriculture by providing supplementary irrigation, in times of heavy rain, there is a considerable danger of overflowing and flooding.

Alluvial soils are most commonly found in Kiangsu and the most important use to which they are put is the growing of rice (especially in the fertile regions of south Kiangsu and Li-hsia Ho). Further north, but south of the defunct bed of the Yellow River, the soil tends to be sandy and suitable for cotton or rice cultivation. In the northernmost region, the most common soil consists of a combination of sand and clay: this is said to be highly fertile and suitable for the growing of various crops, including cotton and wheat. In the hilly areas of the southwest and along the northern border, is found a brown earth of low fertility. Finally, the coastal areas contain large expanses of relatively unfertile, saline soil

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which is not favourable to crop cultivation.

With its long coastline and dense network of rivers, streams, canals and lakes, it is not surprising that the most important means of transport and communication in Kiangsu was water.<sup>(56)</sup> The most important waterways were, of course, the Yangtze and the Grand Canal: the first linking the coastal provinces with central China and the second serving as one of the most important north-south trunk lines in the country. In addition, there were many smaller canals between the important cities which, together with the dense network of rivers, facilitated intra-provincial communications. Only in the most northerly part of the province were there fewer waterways.

The more developed state of the south Kiangsu economy and in particular, the higher degree of industrialization and urbanization were reflected in the uneven distribution of railways and roads. The most obvious need was to link the industrial centres of south Kiangsu and this is precisely what the Shanghai-Nanking Railway (opened in 1908) achieved. Starting in Shanghai, it passed through Soochow, Wusih, Ch'ang-chou (Wu-chin) to Nanking and from its inception, it was an important trading and commercial route. Another line ran south from Shanghai to Hangchow, thereby providing a through-route to the southern provinces; and part of the long Tientsin-P'u-k'ou Railway also ran through Kiangsu. In the north of the province, the final section of the Lung-Hai Railway, coming from Shensi and Honan, ran east across north Kiangsu to Lien-yttn-kang, intersecting the Tientsin-P'u-k'ou line at Hstd-chou.

The imbalance between north and south Kiangsu was most clearly seen

in the provision of roads, for while north Kiangsu comprised 70% of the total provincial land area, it accounted for only 25% of road mileage before 1949. Moreover, the roads in this area were much inferior to those south of the Yangtze. As in the case of the railways, the busiest were those which linked the cities in the south, although even in the 1930's a road (of sorts) ran from near Yang-chou, on the Yangtze, north to Hwai-yin and Shu-yang, where it met another road from Hstd-chou. Total road mileage in 1950 was 4,627 kilometres.<sup>(57)</sup>

We must now give some consideration to the growth and distribution of population in Kiangsu. In Appendix B we have attempted to derive estimates of total, urban, rural and agricultural population in Kiangsu (including and excluding Shanghai) for every year between 1949 and 1957. These, we believe, offer a reasonably accurate picture of the demographic changes that were taking place between the establishment of the People's Republic of China and the end of the FFYP. For a detailed account of population changes in these years, therefore, reference should be made to these estimates.

For the present, however, we are more concerned with longer-run trends. How rapidly did population grow between the 1930's and 1950's and how does this rate of growth compare with those of earlier periods? How rapidly was urbanization taking place within Kiangsu? These are the questions we shall ask here. But it needs to be emphasized that in order to answer them, data from a wide variety of sources which often cannot be corroborated must be used. Accordingly, the figures shown in the following tables should not be considered definitive, although it is hoped that the trends which they reveal will give a fairly accurate picture of the growth and structural changes in the population of Kiangsu.

The first table sets out available estimates of total population in Kiangsu (including Shanghai) for selected years between 1850 and 1957:

	Table I.7:	Estimates of population in Kiangsu (including Shanghai): 1850 - 1957		
	Total population (millions)	Index with 1873 = 100	Index with 1926 = 100	
1850	44.155	167.9	122.6	
1873	26.300	100.0	73.2	
1893	28.400	108.0	78.8	
1913	33.700	128.2	93.6	
1926	36.020	136.9	100.0	
1933	38.500 <sup>a</sup>	146.4	106.9	
1947	40.943 <sup>b</sup>	155.7	113.8	
1949	43.596	165.8	121.0	
1953	47.672	181.3	132.4	
1957	52.130	198.3	144.9	
	Sources:			
	1850	Ho Ping-ti, op. cit.	, p.246.	
	1873	CKNY, vol. 3, op. 0 D.H. Perkins, Ag China, 1368-1968,	cit., pp.907-908. See ricultural Development in op.cit., p.212, Table A.5	
	1893	Ibid.		
	1913	Ibid.		
	1926	China Yearbook 19 made by the Mariti	29-30, citing an estimate me Customs.	
	1933	See note a below.		
	1947	See note b below.		
	1949	See Appendix B.		
	1953	Ibid.		
	1957	Wei-ta ti shih-nien	, op. cit., p. 9.	

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#### Notes:

а

b

The starting point for the 1933 figure is Liu and Yeh's estimate of 34.9 millions (T.C. Liu and K.C. Yeh, The Economy of the Chinese Mainland: National Income and Economic Development, 1933-1959, Princeton University Press, 1965; p. 178, Table 51). But this excludes Shanghai for which an estimate must therefore be made. In the above table, on the basis of the 1926 Shanghai population of 3, 259, 114 made by the Maritime Customs, a figure for 1933 has been obtained by projecting forward on the assumption of a simple average rate of growth of 1.5% p.a. This gives a population of 3,600,000 for Shanghai in 1933. Thus, Kiangsu's total population is 34.9 + 3.6 = 38.50 millions.

The 1947 figure shown in the table is from Ho Ping-ti, op. cit., pp. 94-95, citing <u>China Yearbook 1948</u>. But this may be an under-estimate. For one thing, estimates given in various editions of the <u>China</u> <u>Yearbook</u> appear to be on the low side. More specifically, the Shanghai population included in the 1947 estimate is given as 3,853,511; yet Sun Chingchih, <u>op. cit.</u>, p. 82, cites a figure of 5,200,000 for 1948. If Sun is correct, the Shanghai information contained in the <u>China Yearbook</u> must be too low. The wide gap between the 1947 and 1949 estimates presented in Table 1.7 give further support to this argument.

Kiangsu's total population grew rapidly during the hundred years after 1850, especially in the latter part of the period. Between 1873 -1926 the overall increase was 36.9%, implying a simple average rate of growth of 0.7% p.a. But in the subsequent thirty years the growth rate more than doubled so that by 1957 there was a further 45% rise in total population.

Although information on the distribution of population within Kiangsu is not available, some indication can be given of the broad division between north and south on the basis of <u>hsien</u> data from the early 1930's. Thus:

		Regional population as percentage of total population
Kiangsu north of Yangtze		59.0
Kiangsu south of Yangtze (but excluding Shanghai		30.8
and Manking)		50.8
Shanghai and Nanking		10.2
	TOTAL	100.0

Table I.8:The distribution of total population between<br/>north and south Kiangsu: 1932

Source: HB, op. cit., pp. 9-10.

When set against the earlier estimates of total and arable area, the relative prosperity of south Kiangsu becomes apparent. Possessing less than 30% of both total surface and arable area, it nevertheless contained more than 40% of the population. Moreover, in view of the rapid urban expansion in the area between the 1930's and 1950's, there can be little doubt that data for 1957 would show a further demographic shift towards the south.

The most notable expression of urbanization was the growth of Shanghai. As the following figures indicate, this took place very rapidly once the presence of Western nations in China had been firmly established:

	Table I.9:	Population growth in Shanghai: 1865-1957	
	Shanghai population	Index with 1865 = 100	Index with 1926 = 100
1865	690,000	100.00	21.17
1910	1,185,859	171.86	36.39
1926	3,259,114	472.34	100.00
1933	3,600,000	521.74	110.46
1948	5,200,000 <sup>a</sup>	753.62	159.55
1949	5,000,000	724.64	153.42
1953	6,026,030 <sup>b</sup>	873.34	184.90
1957	7,200,000	1043.48	220.92
	Commence		

Sources:

1865	Sun Ching-chih, op. cit., p. 82.
1910	D.K. Lieu, <u>op.cit</u> ., p.243. See also <u>HB</u> , <u>op.cit</u> ., p.86.
1926	China Yearbook 1929-30, op. cit., citing the Maritime Customs.
1933	Table I.7.
1948	Sun Ching-chih, op. cit., p. 82
1949	Appendix B.
1953	Ibid.
1957	C.B. Howe, Employment and Economic Growth in Urban China 1949-1957, Cambridge University Press, 1971: p. 34, Table 11.

## Notes:

a

Sun's figure contrasts sharply with an estimate of 4, 423,000 derived by M. Ullman in his <u>Cities</u> of <u>Mainland China</u>: 1953-58, Washington, U.S. Department of Commerce, Bureau of the Census, 1961. However, acceptance of Ullman's figure would seem to imply an unreasonably high rate of growth for Shanghai between 1948-53.

b

The 1953 census data gave a slightly higher population for Shanghai: 6,204,417. (See <u>T'ung-chi</u> <u>kung-tso t'ung-hstin (Statistical Work Report)</u>, hereafter <u>TCKTTH</u>, November 1958, "Communique of the Results of the Population Census of the Whole Country," p.2.) But for reasons of consistency we have preferred the estimate derived in Appendix B. In any case, the difference between the two is very small.
Shanghai's population increased more than tenfold in less than a hundred years. But in contrast to the experience of Kiangsu as a whole, the period of most rapid growth was before 1926. Between 1865 and 1926 the simple average rate of population growth in the city was 6.1% p. a., whereas in the thirty years after 1926 it slowed down to 3.9%. There was, however, renewed expansion after 1949 and during the First Plan period, Shanghai's population rose by 19.5%, compared with 7.9% for the rest of the province.<sup>(58)</sup>

If Shanghai provided the most outstanding example of urbanization in Kiangsu, the growth of other cities was by no means insignificant. Consider, for example, the increase in population of the next four largest cities in the province:

	Table I.10:	Population growth in Nanking, Wusih, Soochow and Hst-chou: 1938-1958		
		1938	1953	1958
Nanking		440,000	1,091,600	1,419,000
Wusih		272,000	581,500	613,000
Soochow		388,000	474,000	633,000
Hstl-chou		205,000	373,000	676,000
	TOTAL	1,305,000	2,520,100	3,341,000
	Source:			
	1938	From M.	Ullman, op.	cit.
	1953 & Ernest Ni, Distribution of the Urban and Rural			
	1958	Population of Mainland China: 1953 and 1958, U.S. Bureau of the Census, 1960, p.17.		

In other words, between 1938 and 1953 the population of these cities increased by 93.18% (an average rate of growth of 6.22% p.a.) and in the five years between 1953 and 1958, by a further 32.6% (6.51% p.a.). It is perhaps because Shanghai grew so rapidly in the earlier part of the century that in recent decades the expansion of other cities such as those shown above has contributed more to the process of urbanization.

We may conclude this discussion of demographic change in Kiangsu by summarizing the changing relationship between rural and urban population between the early 1930's and the end of the FFYP. The relevant information is set out below:

Table I.11:	The distribution of total population between cities and countryside in Kiangsu		
	1933	1957	
Total population (including Shanghai)	38,500,000	52,130,000	
Urban population	6,040,000	12,925,000	
Urban as pe <b>rcentage</b> of total population	15.7	25.0	
Rural population	32,640,000	39,204,475	
Urban population (excluding Shanghai)	2,440,000	5,723,148	
Sources:			
1933	Derived from information in <u>HB</u> , op. cit., p. 11 and Table I.9.		
1957	Appendix B.		

The rates of increase over the entire period implied by these figures are as follows:

Rural population:	÷	20.11%
Urban population (including Shanghai)	+	113.99%
Urban population (excluding Shanghai)	f	134.56%

Clearly, the growth of urban population was very rapid indeed and far in excess of that of the rural population, which increased on average by only 0.84% p.a. In fact, by 1957 Kiangsu had become the most highly urbanized province in the whole country.<sup>(59)</sup> The urban concentration was particularly apparent in the south, where 43% of the total population were living in cities.<sup>(60)</sup> The implications of this expansion were very serious: for in addition to meeting its own needs and providing raw materials for the developing industries, the agricultural sector of Kiangsu had to supply an increasingly large surplus for the growing urban population.

Other implications of the high degree of urbanization in the province may be briefly summarized. First the proximity to large cities led to the increasing commercialization of agriculture. Second, the existence of a thriving urban sector offered peasants a constant temptation to move away from their villages, but particularly when times were bad. Thus, large-scale rural-urban migration occurred both before and after 1949. Finally, the growth of cities provided new investment opportunities for landlords in the years before 1949 and during the 1930's more and more of them became involved in commercial and industrial ventures. A concomitant of this was an increasing tendency, at least in south Kiangsu, towards absentee landlordism.

The relationship between population and arable area is of course a crucial one and the following table shows that between the 1930's and 1950's availability of land for farming became an increasingly serious problem in Kiangsu:

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Table I.12:	Changes in the availability of arable land in Kiangsu		
	1933	1957	
Fotal arable land area (mou)	91,681,580	9 <mark>4</mark> ,000,000	
Rural population	32,460,000	39,204,475	
Arable area per head of rural population (mou	) 2.81	2.40	

Source:

Population data from Table I.11. See below, Tables V.3 and VI.3

The figures indicate that per capita availability of arable land in the rural sector fell by 15% between the two periods. Although the absolute decline of 0.41 mou (about one-fifteenth of an acre) looks trivial, where holdings are already tiny the loss may be very significant. On the other hand, the man-land ratios calculated above are for the rural, not agricultural, population<sup>(61)</sup> and while the downward trend presumably applied equally to the latter, its smaller size would have resulted in a higher per capita average. This is borne out by Sun Ching-chih who cites a "rough average" of 2.6 mou of arable land per head of agricultural population for the late 1950's.<sup>(62)</sup>

However, such average data are misleading. Before 1949 tenancy was common and land was distributed very unevenly among the rural population. Demographic factors also affected the size of land-holding: along the Yangtze, where population was most dense, per capita availability of arable land was often little more than one mou, whereas in the far north of the province it might be as high as three or four mou.

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#### III The Agricultural Economy in Kiangsu: A Regional Analysis

In the broadest terms it is possible to distinguish two regions within Kiangsu, divided by the former Hwai River. To the north the province falls into the 'North China region', <sup>(63)</sup> with hot, humid summers and cold, long winters. Rainfall is low and unpredictable, but the long frost-free period (210-240 days) permits a growing-season of about eight months. The poverty of the region and the poor state of communications meant that the supposedly typical cellular pattern of Chinese agriculture was more in evidence here than in other parts of the province. Natural conditions have favoured the cultivation of winter wheat, summer kaoliang (sorghum) and millet, soyabeans, maize, sweet potatoes and cotton.

South of the Hwai Kiangsu is part of the 'Lower Yangtze region', characterized by hot, moist summers and cold, dry winters. The frostfree period extends from late March into early December and gives a growing season of about nine months. Double-cropping is commonly practised here and the most important crops have been summer rice and winter wheat, barley, soyabeans and cotton.

But such a simple division as this conceals many important characteristics which will help us to understand the nature of agricultural development in Kiangsu during the 1950's. In the remainder of this chapter, therefore, we shall go beyond this dichotomy and examine the agricultural sector of the province in terms of five economic regions:<sup>(64)</sup>

- (1) T'ai Hu Region
- (2) Nanking Chinkiang hilly Region
- (3) T'ung-yang Region
- (4) Li-hsia-ho Region
- (5) Hstl-chou Hwai-yin Region

(1) <u>The T'ai Hu Region</u>: with its fertile soil, developed irrigation facilities, <sup>(65)</sup> ready sources of natural fertilizers from the many rivers and lakes, <sup>(66)</sup> and mild climate, conditions here favoured agricultural operations. This was in fact the most productive and most stable agricultural region in Kiangsu. The high population density provided an abundant supply of labour to the agricultural sector<sup>(67)</sup> and led to an intensive pattern of cultivation and the simultaneous development of subsidiaries (especially fishing and silk production). The dense water network made transport relatively easy and enabled the rural sector to become more commercially oriented. Agricultural and subsidiary products were shipped to the cities (notably Shanghai and Wusih) where they could be exchanged for industrial goods.

About 70% of the land in T'ai Hu was cultivated, the most common pattern being double-cropping of rice and wheat. The multiple cropping index was put as high as 194% in 1957.<sup>(68)</sup> As a rice-producing area, T'ai Hu has been of first importance: in 1957, for example, it contributed more than 25% of Kiangsu's total rice output.<sup>(69)</sup> Moreover, most of the rice was of the high-quality, non-glutinous variety. The continued importance of rice production in T'ai Hu is indicated by the fact that in the late 1950's paddy fields represented 84% of the region's arable area.<sup>(70)</sup>

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The second most important crop was winter wheat, which was sown immediately after the rice harvest. However, because of the emphasis on rice production its cultivation was neglected and the sown area was considerably smaller than that of rice. In the 1950's at least, such neglect was reflected in low yields per unit area.

Other agricultural activities may be summarized more briefly. T'ai Hu was an important production area for rape (one of the chief sources of oil in the rural sector). In the southeast corner of the region, where the ground is higher, and along the Yangtze cotton was also traditionally planted. <sup>(71)</sup> But although yields were high, cultivation of this crop remained on a small scale. In the suburbs of cities such as Soochow and Wusih, vegetable production became quite important after 1949 and in K'un-shan and Wu-chiang <u>hsien</u> a similar expansion took place to meet the needs of Shanghai. The growth of these cities also encouraged the development of animal husbandry, especially the rearing of pigs and poultry.

Finally, mention should be made of the highly-developed fresh-water fishing industry in T'ai Hu; of tea and fruit production (peaches, loquats, strawberries); and of the rearing of silkworm coccons - a subsidiary occupation which has a particularly long history.<sup>(72)</sup>

(2) <u>The Nanking-Chinkiang hilly Region</u>: situated in the southwest corner of Kiangsu and mostly south of the Yangtze, 78% of Kiangsu's hill area was concentrated in this region. Climatic conditions rivalled those of T'ai Hu, but because much of the cultivated land was on higher

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ground, dependence on rainfall alone for irrigation made the region more subject to drought.  $\binom{(73)}{}$  By contrast, the lower-lying farm land comprised diked fields which because of their low elevation and poor drainage were subject to flooding. As a result, agricultural production was below that of the T'ai Hu region. For example, 1932 data<sup>(74)</sup> reveal that this area was producing something less than 55% of T'ai Hu's rice output and around 48% of its wheat output.

More than 80% of arable land in this region was devoted to food crops a higher proportion than in any other part of the province. The chief food crop was rice followed by wheat, barley and oats; some soyabeans were also planted. Traditionally, economic crops were of little importance<sup>(75)</sup> although some expansion of the economic crop area was envisaged in the 1950's.

In the diked fields (about 20% of the total arable area) single-cropping of rice was generally practised but elsewhere double-cropping was common, being carried out on some 60% of the arable area. Usually, rice was double-cropped with wheat, although in areas particularly susceptible to drought the pattern might be wheat with soya. Rice yields were second only to those of T'ai Hu. However, yields of wheat and other winter crops were low because of careless cultivation techniques and general neglect.

Although conditions were favourable, subsidiaries such as animal husbandry and fishing remained relatively undeveloped.

(3) <u>The T'ung-yang Region</u>: lying mostly north of the Yangtze but south of the T'ung-yang canal and including the whole of Nan-t'ung Special

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District, this was a rich agricultural area with a climate similar to that of Tai Hu. Population density here was the highest in the whole province: indeed, the average figure of 615 persons per square kilometre for Nan-t'ung Special District<sup>(76)</sup> made it one of the most densely populated areas of China. As a result of the high man-land ratio<sup>(77)</sup> and because of the intensive and careful cultivation techniques, crop yields were high and not far below those of T'ai Hu.<sup>(78)</sup>

The cultivation index in T'ung-yang was very high.<sup>(79)</sup> In general, the proportion of arable area taken up by food grains (around 60%) was less than elsewhere in Kiangsu and much greater emphasis was placed on the cultivation of industrial crops. Moreover, comparatively little rice was planted in the region, wheat and other dry crops such as maize and barley being grown instead.

The T'ung-yang region has been most notable for its economic crops above all, cotton. <sup>(80)</sup> In the late 1920's and early 1930's it produced perhaps 55% of Kiangsu's raw cotton<sup>(81)</sup> and contained more than 50% of the total cotton area. Although the suitability of the region for the cultivation of high-value economic crops was what had originally attracted large numbers of peasants to settle in T'ung-yang, full employment of the agricultural population was not guaranteed and several hundred thousand cotton farmers were forced to leave Nan-t'ung Special District and move to the Yen-ch'eng -Fou-ning area. In the 1950's, as many as 10% of the <u>hsien</u> population along the Yangtze worked in Shanghai.<sup>(82)</sup>

Another result of the high population density and cultivation pattern based on economic crops was that self-sufficiency in food grains was never

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achieved and the rural population was forced to rely on imports from other areas. After 1949 rapid expansion of the economic crop area continued, but by 1956-57 the problem of food supplies had become so acute that plans were made to reduce the sown area under cotton in order to increase grain production.<sup>(83)</sup>

(4) <u>The Li-hsia-ho Region</u>: this low-lying, flat region north of the T'ung-yang Canal but south of the old Hwai River was traditionally susceptible to serious natural disasters. Above all, it was subject to the vagaries of the Hwai River which presented a constant threat to agricultural production. A concomitant of these unfavourable natural conditions was a low multiple cropping index, a lack of draft animals and working capital, and poor cultivation techniques. As a result, in the 1930's Li-hsia-ho was contributing only about 12-13% of Kiangsu's total rice and wheat output and 8-9% of its cotton output. <sup>(84)</sup>

But after 1949 construction of water-control works (in particular the Hwai River Control Project)<sup>(85)</sup> transformed the region into one of the potentially richest areas of the province. It was anticipated that improvements in cultivation techniques, including methods of irrigation, fertilizer application, seed-selection, etc., would contribute to the creation of a high-output, double-cropping paddy and wheat area. Progress was, however, slow and in 1957 unit area paddy yields were only 314 chin per mou - barely 55% of the T'ai Hu level. Nevertheless, something of the hoped-for expansion in Li-hsia-ho is indicated by the fact that target yields for 1967 were 900 chin,<sup>(86)</sup> the attainment of which required an increase of 187% in ten years.

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But if top priority was given to food crops, the planned expansion of raw cotton was also significant. By the late 1950's the T'ung-yang and Li-hsia-ho regions together contained 65% of Kiangsu's total cotton acreage and were producing 63% of the province's total cotton output.<sup>(87)</sup> Moreover, along the coastal area of Li-hsia-ho stretched over one million mou of waste land suitable for reclamation and conversion to cotton fields.

One final agricultural activity deserving mention, since it has a long history in the region, is salt production. Kiangsu was the leading producer of salt in China and of the 19 salt fields in the province 11 were situated in the Li-hsia-ho region. Thus, the eleven years between 1921 and 1931 on average, 56% of total exports from Kiangsu came from Li-hsia-ho.<sup>(88)</sup>

(5) <u>The Hstd-chou - Hwai-yin Region</u>: this last economic region was located north of the old Hwai River in the two Special Districts of Hstd-chou and Hwai-yin. 'Perverse' natural conditions, <sup>(89)</sup> a low rate of land utilization and backward cultivation techniques all conspired to make this the poorest area in Kiangsu, constantly threatened by natural disasters. <sup>(90)</sup> In view of the hostile natural environment it is not surprising that production was low<sup>(91)</sup> and unstable, nor that it was the least densely populated region in the province. In the late 1950's Hwai-yin Special District had an agri-cultural population of 4.825 millions and a total arable area of 17.8 million mou:<sup>(92)</sup> per capita availability of arable land was therefore 3.68 mou (considerably higher than the provincial average). In terms of the agri-cultural labour force the figure was 6.98 mou, an impossibly heavy burden when set against the time constraints of farming operations.<sup>(93)</sup>

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But if the economic base of the region was poor, its potential for rapid development was very considerable. Progress after 1949 may be regarded with optimism or pessimism. On the one hand, thanks mainly to improvements in water control the rate of agricultural growth in Hst-Hwai exceeded that of any other part of the province. For example, unit area grain yields rose, on average, by 50% during the First Plan period. <sup>(94)</sup> On the other hand, technical expertise was lacking and standards of cultivation remained poor so that it was still one of the lowest-output and most unstable areas. Average yields of food grains were only one-fifth to one-third those of south Kiangsu.

Well into the 1950's virtually all the arable area comprised arid land most suitable for the cultivation of drought-tolerant dry crops.<sup>(95)</sup> Doublecropping was not well developed, though a pattern of three crops (usually wheat followed by soya or maize and sweet potatoes) every two years was common. During the Second Five Year Plan period (1958-62) it was anticipated that further water-control measures would finally remove flood threats completely and by improving irrigation facilities transform the region into a new double-cropping rice and wheat area. At the same time, the sown area of cotton was gradually extended and plans were made for the development of Hst-Hwai into one of the most important cotton areas in the province.

#### Notes to Chapter One

- Only in the Ch'ing Dynasty (1644-1911) did the province become known as Kiangsu. On the earlier history of the province, see Bureau of Foreign Trade, Ministry of Industry, <u>China Industrial</u> Handbooks: Kiangsu, hereafter <u>HB</u>, Shanghai, 1933; pp.3-4.
- (2) Chi Ch'ao-ting, <u>Key Economic Areas in Chinese History</u>, Allen and Unwin Ltd., London, 1936. Reprinted 1963 by Paragon Book Reprint Corp., New York.
- (3) <u>Ibid.</u>, p. 5.
- (4) Although the key economic area shifted southwards to the lower Yangtze Valley, the political centre of gravity remained in the north.
- (5) The total length of the Grand Canal within Kiangsu was 800 <u>li</u> (one <u>li</u> being approximately one-third of a mile). See HB, op. cit., p. 13.
- (6) According to the strict rules of the Wade-Giles Romanization System, Chinkiang should be written Chen-chiang. However, in the case of proper names which are already well-known in a form other than Wade-Giles (for example, Kiangsu instead of Chiang-su), our practice throughout this thesis will be to retain the 'popular' form. Hence, Chinkiang.
- (7) A map of Kiangsu will be found in Appendix A.
- (8) Chi Ch'ao-ting, <u>op. cit.</u>, p. 118, makes the point that the section of the Grand Canal from Hwai-an to Yang-chou crossed territory which was "... the main battlefield between North and South China. For centuries, before railroads changed the situation, the great strategic value of the city of Hwai-an, guarding the northern terminus of the canal, was over and over again demonstrated by history, clearly indicating the crucial position which the canal occupied."
- (9) Its importance as a commercial centre seems to have been established as early as the T'ang Dynasty, for reports speak of large numbers of foreigners (Persians, Arabs, Koreans) having been killed there in 760 AD. (Reischauer and Fairbank, <u>East Asia: The Great Tradition</u>, Houghton Mifflin Co., Boston, 1958; p. 217.) Another source states that during the T'ien Pao reign of the T'ang (742 - 755 AD), the population of Yang-chou reached 460,000, making it the largest city in China. See Sun Ching-chih, <u>Hua-tung ti-ch'u ching-chi ti-li</u> (An Economic Geography of East China), Science Publishing House, Peking, 1959. An English translation of this is available in Joint Publications Research Service (hereafter, JPRS), no.11,438.
- (10) The term "Kiangnan" (literally "south of the River [Yangtze]") is a confusing one: in the present context it obviously refers to the provinces of the lower Yangtze Valley (Kiangsu, Anhwei, Chekiang

and Kiangsi). After 1949 it is also used more narrowly to mean that part of Kiangsu lying south of the Yangtze.

- (11) Chi Ch'ao-ting, op. cit., p. 125.
- (12) Sun Ching-chih, op. cit., p.2.
- (13) In the Sung-chiang and Shanghai regions, over 50% of the arable area was planted under cotton and in some individual areas, the figure was as high as 70%. See Sun Ching-chih, op.cit., p.21.
- (14) In addition to its fame as the city with the most beautiful women in China, Soochow was an important trading, financial and industrial centre. Economically, it was most noted for its dyeing and weaving of silk and according to Sun, "the northeastern half of the town of Soochow was completely occupied by handicraft workshops of the silk textile industry, run on a very large production scale and concentrating great numbers of employed workers with special techniques." Sun Ching-chih, op. cit., p. 22.
- (15) Ibid., p.22.
- (16) For an account of the growth and industrial development of Shanghai see D.K. Lieu, <u>The Growth and Industrialization of Shanghai</u>, China, Institute of Pacific Relations, 1936, especially chapter 2. Sun Chingchih, op. cit., also contains useful information and data.
- (17) A very full survey of industrial and other economic activities in Shanghai during the early 1930's is given in HB, op. cit., pp. 73-96.
- (18) Ibid., pp. 89-92.
- (19) While it was textile handicrafts (especially cotton) that were most seriously affected, the growth of modern industry had similar effects on other subsidiary activities in the rural sector.
- (20) The exception was the Sung-chiang region which was protected by its proximity to Shanghai.
- (21) Cited by Ho Ping-ti, <u>Studies on the Population of China</u>, 1368-1953, Harvard University Press, Cambridge, Mass., 1959; p.241.
- (22) A third effect of the Taiping Rebellion was to introduce a special kind of tenurial relationship in south Kiangsu - namely, the division of land between landlord and tenant on the basis of "surface rights" and "sub-soil rights".
- (23) See, for example, Ho Ping-ti, <u>op.cit.</u>, p.244, citing a memorial of Liu K'un-i, Governor-General of Kiangsu and Anhwei. In the same passage, Ho refers to a gentry-scholar who advocated the purchase and use of Western farm machinery in south Kiangsu as a means of over-

coming the labour shortage - one of the earliest references, one would assume, to agricultural mechanization in Kiangsu.

 (24) Taken from Ho Ping-ti, <u>op.cit.</u>, p.246, citing Yen Chung-p'ing, <u>Chung-kuo chin-tai ching-chi shih t'ung-chi tzu-liao hsttan-chi</u> (Selected Statistical Materials of Modern Chinese Economic History), Peking, Science Publishing House, 1955. The figures for the other three provinces are as follows:

	1850	1953	Percentage	
			change	
Chekiang	30,027,000	22,865,747	-23.8	
Anhwei	37,611,000	30,343,637	-19.3	
Kiangsi	24, 515, 000	16,772,865	-31.4	

The population of the entire lower Yangtze Valley declined by 14% between 1850 and 1953.

- (25) The most detailed survey of rural conditions in Kiangsu is contained in Hsing-cheng-yttan nung-ts'un fu-hsing wei-yttan-hui (The Rural Recovery Commission of the Executive Yttan), <u>Chiang-su-sheng nung-</u> ts'un tiao-ch'a (A Rural Survey of Kiangsu Province), Commercial Press, Shanghai, 1934, hereafter <u>CSSNTTC</u>.
- (26) The Northern Expedition was the military campaign launched by Chiang Kai-shek in 1926 in an effort to destroy the warlords of north and south China and re-unify the country. This goal was achieved with the occupation of Peking in spring, 1928.
- (27) The disastrous effect of Sun's armies on north Kiangsu's rural economy is hinted at in Lu Kuo-hsiang, "Su-pei wu-hsien chih kao-tai" (Highinterest Loans in Five Hsien of North Kiangsu"), in <u>Nung-hang ytteh-k'an</u> (<u>Monthly Journal of the Farmers' Bank of China</u>), hereafter <u>NHYK</u>, vol. 1, no. 1; May, 1934; pp. 25-29.
- (28) CSSNTTC, op. cit., p. 63.
- (29) <u>CKNY</u>, vol. 3, <u>op. cit.</u>, p. 16, citing Chou Fang, "Chung-kuo t'ien-fu fu-chia ti chung-lei" ("Types of Supplementary Land Taxes") in <u>Tung-</u> fang tsa-chih (Eastern Miscellany), vol. 31, no. 141; July, 1934.
- (30) Especially in north Kiangsu: after 1194 AD, the Yellow River broke its southern bank and flowed southward taking the channel of the Hwai River as its new course. In so doing, it posed a constant threat of flooding in the lower Hwai Valley and north Kiangsu.
- (31) Hst Chih-ch'an, "The Outlook for Water Conservancy in North Kiangsu" in <u>Ti-li chih-shih</u> (Geographical Knowledge), hereafter TLCS, February, 1958; p. 54.
- (32) <u>Ibid.</u>, p. 54.
- (33) In CKNY, vol. 3, op. cit., p. 611.

- (34) Ch'u T'ing-ju, "Tung-t'ai hsien nung-ts'un kai-k'uang" ("The Rural Situation in Tung-t'ai <u>Hsien</u>") in <u>NHYK</u>, vol.2, no.10; October, 1935; pp.27-29.
- (35) Hst Chih-ch'an, "Water Conservancy in T'ai Hu" in <u>TLCS</u>, February, 1958; pp.157-160.
- (36) Sun Ching-chih, <u>op. cit.</u>, p. 25. The leaves of the mulberry trees were, of course, used to feed the caterpillars which spun the cocoons from which the raw silk was obtained.
- (37) This is not to suggest that most peasant loans were used for ceremonial obligations such as funerals or weddings (as has been emphasised by some writers); a more common reason was simply to obtain food for survival.
- (38) The account that follows is based largely on Chalmers A. Johnson, <u>Peasant Nationalism and Communist Power: The Emergence of</u> <u>Revolutionary China, 1937 - 1945</u>, Stanford University Press, Stanford, California, 1963. See especially, chapter 5, "The New Fourth Army and the North Kiangsu Base."
- (39) Ibid., p.136.
- (40) Su-pei lin-shih hsing-cheng wei-ytlan-hui.
- (41) Johnson, op. cit., p. 142.
- (42) Before the Sino-Japanese War, the Chinese Communist Party had never assumed a position of any importance in north Kiangsu. One Communist unit in Nan-t'ung did meet with some success in 1930, but it was shortlived. Peasant rebelliousness and national consciousness were both lacking in pre-war north Kiangsu and yet by 1942 the region was entirely in Communist hands. It is no coincidence that after 1949, Kiangsu was administered as two separate units - the North Kiangsu Administrative Region and South Kiangsu Administrative Region - a reflection of the advances made in the north of the province. Not until November, 1952 was Kiangsu re-united and administered as a single province.
- (43) See below, chapter 2.
- (44) Although traditionally an integral part of Kiangsu, after 1949 Shanghai was given a special status which in many ways set it apart from the rest of the province. Economic ties between Shanghai and Kiangsu remained close, but from an economic point of view the two were treated as separate planning units. In 1958, the Shanghai Municipality became even more important as many <u>hsien</u> from Sung-chiang Special District were absorbed into it.
- (45) This should not be confused with the East China Great Administrative Area (comprising Anhwei, Chekiang, Fukien, Kiangsu and Shantung)

which existed between 1949 and 1954. Administrative, not economic, reasons were responsible for the creation of this larger unit.

- (46) In order to avoid confusion, it should be noted that 'East China', as used later in this thesis, will be taken to include Anhwei, Chekiang, Kiangsu and Fukien. Any exceptions to this will be made clear in the text.
- (47) Double-cropping means the growing of two crops in one year. Treblecropping is also practised in Chekiang, but not in Kiangsu where the length of the frost-free, growing period is too short. Note that "feasible" means only that it is possible in terms of <u>natural conditions</u> - it is assumed that other necessary factors (labour, water, draft animals, etc.) are all available in the required amounts.
- (48) Sun Ching-chih, op. cit., p. 5.
- (49) Ibid., p.5.
- (50) Ibid., p.4.
- (51) In terms of the cultivation index (arable area divided by total area multiplied by 100) Kiangsu would appear to be the richest province in China. See, for example, Ho Ping-ti, op. cit., pp. 125-126, Table 30. But the greater possibilities for double- and treble-cropping further south need to be taken into account and on this basis, provinces such as Fukien and Kwangtung would emerge above Kiangsu.
- (52) Sun Ching-chih, op. cit., p. 53.
- (53) Thanks to the elevated embankments along the lower Yangtze in south Kiangsu, it has been possible to some extent to avert disastrous floods in this area.
- (54) Sun Ching-chih, <u>op. cit.</u>, p. 10, points out that in many places here, there is a river or stream every 100 metres.
- (55) A full account of the characteristics of the T'ai Hu Region and the problem of water control is given by Hst Chih-ch'an in <u>TLCS</u>, February, 1958, <u>op. cit.</u>, pp. 157-160. Hst also points to the dangers which arise from the fact that the southeast corner of the basin borders on open sea: in order to protect against inundation and consequent salinization, seawalls must be constantly strengthened.
- (56) For a very detailed description of the transportation network in the 1930's and 1950's, see <u>HB</u>, <u>op.cit.</u>, Book 10, chapters 1-3; and Sun Ching-chih, op.cit., pp.72-81.
- (57) Sun Ching-chih, op. cit., p. 79. The same source gives road mileage for 1957 as 7,052 km. - an increase of 52.4% over 1950.

- (58) These figures are for the four years between 1953 and 1957. See Appendix B.
- (59) In 1957 the urban population represented only 14.2% of the total Chinese population. See Liu and Yeh, op. cit., p.212, Table 67.
- (60) Sun Ching-chih, op. cit., p.28.
- (61) The rural population is larger than the agricultural population by the number of people living in the countryside, but not engaged in agricultural pursuits. These would include craftsmen, shop-keepers, itinerant peddlars, etc.
- (62) Sun Ching-chih, op. cit., p. 53.
- (63) See J.L. Buck, Land Utilization in China, Shanghai, 1937. Reprinted by Paragon Book Reprint Corp., 1964; pp.23-91.
- (64) This regional classification is based on that in Mechanization Bureau of the Ministry of Agriculture, <u>Chung-kuo nung-yeh chi-chieh-hua wen-</u> <u>t'i (Problems of Agricultural Mechanization in China)</u>, hereafter <u>CKNYCCHWT</u>, Paoting, 1958, p.231. For a list of the <u>hsien</u> in each region and a map of all five, see Appendix A.

Notice that if Shanghai were included as a separate region, there would be six economic regions in the province. But the Municipality played a peripheral role in agricultural development during the 1950's, its primary function being to supply vegetables (and some grain) to its urban inhabitants. In 1958 vegetables represented over 60% of Shanghai's total sown area (see Sun Ching-chih, op. cit., pp. 89-91).

- (65) In 1957 more than 30% of the arable area in T'ai Hu was pumped and irrigated by power-driven methods, making it the most advanced region in China. Sun Ching-chih, op.cit., p.91. See also chapter 5 below.
- (66) Plentiful supplies of nightsoil were also available from the large cities in the area.
- (67) Ch'eng Lu-yang et al., "Chiang-su-sheng Su-Hsi ti-ch'ti nung-yeh ch'ti-hua ("A Classification of Agricultural Regions in Soochow and Wusih, Kiangsu Province"), in Ti-li hstieh-pao, vol.25, no.3, June, 1959, p. 184, states that availability of arable land per head of the agricultural population in the Soochow-Wusih area (which comprised a large part of T'ai Hu) was 1.8 mou; and the arable area per head of the agricultural labour force was 4.0 mou. However, talk of an "abundant" supply of labour must be set against the work which the labour force had to carry out and we shall show later that when viewed in these terms, the "abundance" of labour turns out to be more mythical than real.

- (68) Sun Ching-chih, <u>op.cit.</u>, p.91. Ch'eng Lu-yang <u>et al.</u>, <u>op.cit.</u>, give a MCI of "about 190%" for Soochow-Wusih. However, these high figures may only apply to the end of the FFYP period: in <u>Jen-min</u> <u>jih-pao</u> (<u>People's Daily</u>), hereafter <u>JMJP</u>, 2/2/56, "Kiangsu's Agriculture Has Unlimited Potential", it was pointed out that by implementing a crop rotation system of food grains, cotton and green fertilizers and promoting double-cropping, the MCI in T'ai <u>hsien</u>, where conditions were the same as in T'ai Hu, had been raised from 137 to 191.
- (69) Sun Ching-chih, op. cit., p. 91.
- (70) Ch'eng Lu-yang et al., op. cit., p. 189.
- (71) Data in HB, <u>op. cit.</u>, pp. 201-205 suggest that T'ai Hu's contribution to total provincial cotton output may have been around 11% in the early 1930's. Investigations undertaken by the Chinese Cotton Mill Owners' Association and the Statistical Department of the Legislative Ytlan revealed the following results:

Percentage contribution to total output

1929	10.56
1930	12.60
1931	9.41
1932	18.00
1933	13.50

- (72) Despite the wartime destruction of many mulberry orchards, T'ai Hu remained the most important area raising silkworms for cocoons in China in the 1950's.
- (73) Twenty to thirty days without rain resulted in drought in this region.
- (74) HB, op. cit., pp. 143-144 and 158-159.
- (75) Only 2% of total cotton output came from here in the early 1930's. Ibid., pp.201-205.
- (76) Hu Huan-yung "The Population Density of Nan-t'ung Special District" in Ti-li-hstleh pao, vol.24, no.1, February, 1958.
- (77) Sun Ching-chih, <u>op. cit.</u>, p. 109, gives an average per capita arable area of 1.6 mou. The same figure is cited by Hu Huan-yung, <u>op. cit.</u>, for Nan-t'ung.
- (78) In 1957 average yields of paddy and ginned cotton were 500 chin per mou and 50 chin per mou respectively, compared with 570 chin and 60 chin for T'ai Hu. See Hu Huan-yung, op. cit.; and Sun Ching-chih, op. cit. 1 chin is 0.501 kg. or 1.1023 lbs.

- (79) Hu Huan-yung put Nan-t'ung's cultivation index at 68%.
- (80) Other industrial crops included jute, sweet basil, pyrethrum, indigo, etc.
- (81) This is the figure suggested by data in HB, op. cit., pp. 198-205.
- (82) This information is taken from Hu Huan-yung, op. cit.
- (83) <u>Hsin-hua jih-pao (New China Daily</u>), hereafter <u>HHJP</u>, 20/4/57, p.2, "Nan-t'ung Special District Adjusts the Sown Areas of Cotton and Food Grains". See also below, chapter 5.
- (84) From data in HB, op. cit., pp. 143-144, 158-159 and 203-205.
- (85) For a brief description of the Hwai River Control Project see T. Shabad, <u>China's Changing Map</u> (Revised Edition, Methuen and Co. Ltd., London, 1972), pp.17-18. The programme envisaged the construction of detention reservoirs, dams and dikes, dredging and - most important for Kiangsu - the building of a new outlet to the Yellow Sea, running across North Kiangsu from Lake Hung-tse.
- (86) HHJP, 21/12/57, p.2, "Plans for the Development of Agriculture in the Six Main Regions of Kiangsu."
- (87) Sun Ching-chih, op. cit., p. 109.
- (88) Derived from HB, op. cit., p. 301.
- (89) Hst-Hwai was situated on the downstream stretches of four rivers: the Hwai, I, Mu and Ssu. During the rainy season between July and September, when 60-70% of the annual rainfall occurred, these rivers rose rapidly to flood the surrounding countryside. Subsequently, as the waters subsided, the river beds tended to dry up and since the subsurface water level was low and not properly utilized, drought also occurred.
- (90) The 35 years between 1906-1940 saw 12 disastrous floods. After 1945 flooding occurred for five consecutive years. See Sun Ching-chih, op. cit., p. 114.
- (91) Sung Chia-t'ai et al., "Chiang-su-sheng Hwai-yin chuan-ch't nung-yeh ch't-hua" ("The Agricultural Regions of Hwai-yin Special District, Kiangsu Province") in <u>Ti-li hstleh-pao</u>, vol.25, no.2, April, 1959, p. 122 state that in 1949 average per capita availability of food grains in Hwai-yin was only 180 chin.
- (92) Ibid., p.134, Table 1.
- (93) See below, chapter 5. Also K.R. Walker, "Organization for Agricultural Production" in A. Eckstein, W. Galenson and T.C. Liu (eds.),

Economic Trends in Communist China, Edinburgh University Press, 1968; especially pp. 409-413.

- (94) Sun Ching-chih, op. cit., p. 115. Moreover, despite serious natural disasters in 1954, a bumper harvest was still achieved.
- (95) Hsti-Hwai was the most important dry crop area of the province. In the early 1930's it produced about 30% of total wheat output in Kiangsu but less than 1% of rice output. See <u>HB</u>, <u>op.cit.</u>, pp.143-144 and 158-159.

# PART I

Institutional Change in the Agricultural Sector

# CHAPTER TWO

#### Land Reform in Kiangsu: 1946-1952

## I Introduction

# (1) The institutional framework of agriculture before 1949:<sup>(1)</sup>

Land ownership in Kiangsu was very unequal before 1949. Investigation<sup>s</sup> conducted by the Rural Rehabilitation Commission in four <u>hsien</u> in different parts of the province between 1928 and 1933 revealed that well over half of landowners had holdings smaller than 10 mou (1.65 acres). <sup>(2)</sup> By contrast, farms of 15 acres or more were extremely rare. In addition there were large numbers of landless peasants: in Ch'ang-shu <u>hsien</u>, for example, almost eight out of every ten peasants had no land of their own. <sup>(3)</sup>

Tenancy was one way of alleviating land hunger and it existed to some extent throughout the province. If anything, it seems likely that the proportion of peasants compelled to farm land as tenants was increasing during the decades before 1949. As conditions in the rural sector deteriorated, more and more peasants sought credit to tide them over their difficulties. In the absence of organized financial institutions, the main source of such help was the local money-lender to whom they "pledged" or "mortgaged"<sup>(4)</sup> their land in return for a proportion of its value. Failure to repay the loan within a stipulated period involved the peasant in forfeiture of his ownership rights and a decline to the status of outright tenant or landless labourer.

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The pattern of tenancy in Kiangsu was a complex one. In the north of the province it was most prevalent in the <u>hsien</u> bordering the Yangtze and in the coastal areas.<sup>(5)</sup> In the central northern area and along the border with Shantung, where conditions were poor and communications undeveloped, fewer peasants rented land and owner-occupation was more common.<sup>(6)</sup>

<u>A priori</u> reasoning would suggest a high rate of tenancy south of the Yangtze.<sup>(7)</sup> It is true that one post-1949 source stated that the landlords of this region (comprising 2% of the total population) owned about 40% of the land.<sup>(8)</sup> But it would be wrong to conclude from this that a correspondingly high incidence of tenancy existed throughout Kiangnan. On the contrary, regional variations were very significant. For example, information published in the early 1930's indicated that the average rate of tenancy for the whole area was only 25.48% and that in 13 out of 24 south Kiangsu <u>hsien</u> the proportion of agricultural households farming land as outright tenants was less than 20%.<sup>(9)</sup> Such low rates of tenancy, apparently at variance with <u>a priori</u> reasoning, were in fact the logical product of a set of historical and economic conditions peculiar to south Kiangsu. In particular, the process of industrialization and urbanization seems to have attracted wealth away from the purchase of land into more profitable investments in trade, industry and ancillary services.<sup>(10)</sup>

The case of Meiji Japan has shown that where landlords are progressive a high rate of tenancy can co-exist with a rapid rate of agricultural growth.<sup>(11)</sup> However, the evidence for progressive landlords in Kiangsu would appear to be entirely lacking.<sup>(12)</sup> Their responsibilities were

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limited to the collection of rents from their tenants and the payment of taxes to the government. The relationship between landlord and tenant was governed by economic, not social (far less ethical) considerations, but economic interest did not extend as far as carrying out land improvements or agricultural investment. The growth of large cities made relations even more remote by increasing the tendency towards absentee landlordism.<sup>(13)</sup>

Rents in Kiangsu were paid as a fixed amount, in kind or cash, or as a proportion of output. Fixed rents in kind, which served the interests of both landlord and tenant, <sup>(14)</sup> were most common and reflected the fertility of much of the province. Cash rents were also frequently found as was to be expected in a province where some degree of economic modernization had taken place and where economic crops were widely grown. South of the Yangtze a kind of intermediate system existed whereby rent was fixed in kind but could be converted at the discretion of the landlord to a cash payment. Share-cropping was less common, being found mainly in the north where it offered some protection against poor and unstable harvests engendered by adverse natural conditions.<sup>(15)</sup>

On average, rents in Kiangsu absorbed 40-50% of a tenant's annual production, although there were local variations depending on area, the quality of the land and the nature of the rental system. In general, rent levels were higher in the north than in the south, a fact which reflected not only different socio-economic conditions but also a perverse relationship between rents and land productivity. <sup>(16)</sup>

At a general level the welfare implications to an individual peasant -59-

of having to hand over 40% or more of his farm output each year are easily appreciated. Attempting to quantify the economic implications is a more difficult task, though an important one if we are to understand the attraction of a programme of land redistribution. In this connection an analysis of the income and expenditure per mou of land for a tenant farmer and an owner-cultivator in a district of Wusih hsien in the mid-1930's is of special interest.<sup>(17)</sup> It revealed that rent accounted for 43.45% of the tenant's annual per mou expenditure. The only comparable obligation on the owner-cultivator was the payment of taxes, but these absorbed less than 30% of his expenditure. In any case, the absolute sum involved was a mere 0.969 ytlan per mou compared with the rent of 13.134 ytlan (per mou). For both categories income and other costs were the same. Yet when total income was compared with total expenditure, the ownercultivator emerged with a surplus of 11.186 yttan per mou while the tenant suffered a deficit of -0.979 vitan. Although information was not provided in the original article, presumably only the possibility of subsidiary earnings made the tenant's economic position viable. (18)

It is obvious that without the need to pay rent a tenant's ability to undertake net investment would be much improved.  $(^{19})$  The economic meaning of this was well brought out in an interesting article comparing expenditures by tenants and owner-cultivators on various items of working capital (for example, tools, fertilisers, draft animals, hired labour) in Ch'i-tung <u>hsien</u>.  $(^{20})$  All such expenditure promised to contribute significantly to increases in productivity. Yet only a quarter of all tenant households were spending anything on animal husbandry, hired labour and fertilizer purchases  $(^{21})$  and in every case the average expenditure

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per tenant household was substantially lower than that of owner-cultivators. Rent and subsistence requirements took 91% of tenants' total household expenditure so that only 9% was left for productive investment (including replacement investment). But for owner-cultivators the absence of a rent burden not only permitted them to spend more on subsistence but also left them a much greater amount to use for production p poses.

This brief survey of the institutional framework of agriculture before 1949 is sufficient to show that there was a strong case in favour of some kind of agrarian reform in Kiangsu.<sup>(22)</sup> Moreover, the onesidedness of tenurial arrangements ensured that many peasants would respond with enthusiasm to a programme which reallocated land to the landless and land-hungry. To the extent that it removed economic constraints inherent in the tenancy system, it could also be expected to have a favourable effect on agricultural efficiency.

But was institutional change enough? Was it sufficient to remove the economic as well as the socio-economic constraints upon rises in production? For tenancy was not the only obstacle to sustained agricultural growth in the province. An equally serious problem was the absolute shortage of resources such as tools, draft animals and even labour.<sup>(23)</sup> Nor was land in unlimited supply, as the characteristically small operational holdings indicated.<sup>(24)</sup> In these circumstances the effects of reallocation were limited. In addition, while some peasants would welcome policies of redistribution, others (the rich peasants) would see them as a threat to their economic position.<sup>(25)</sup> All these considerations should be borne in mind when we examine the implementation of and reform in Kiangsu.

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# (2) Land reform in Kiangsu before 1949:

Communist activity in Kiangsu prior to the Sino-Japanese War was notably chiefly for its absence. Peasant agitation and demands for rent reduction did occur sporadically and were said to be led by members of the Chinese Communist Party (CCP). Such a case occurred in I-hsing hsien (south Kiangsu) in 1927, <sup>(26)</sup> but these were isolated outbreaks which never developed on a wide scale. In the 1930's suggestions that land should be purchased from landlords and redistributed to poor peasants were also dubbed "Communistic" although the connection with the CCP and Communist ideology was more imagined than real.<sup>(27)</sup> It was not until the Sino-Japanese War that the Communist Party started to operate on any scale in the province. The most significant event was the retreat in 1940 of Communist guerilla forces across the Yangtze: soon afterwards north Kiangsu became an important CCP base and remained such after the defeat of the Japanese in 1945. <sup>(28)</sup> It was in this context that land reform came to be implemented in north Kiangsu earlier than in other parts of the province.

During the war years agrarian reform in north Kiangsu followed the relatively moderate policy of "Double Reduction" being followed elsewhere in China.<sup>(29)</sup> The result, we are told, was three-fold; production increased, rural living standards improved and the anti-Japanese front became stronger and more unified.<sup>(30)</sup> As early as 1944 an investigation of 431 <u>hsiang</u> in five <u>hsien</u> of the Yen-ch'eng - Fou-ning region revealed that the numbers of poor peasant and landlord households had fallen while middle peasant numbers had increased.<sup>(31)</sup> Translated into economic terms this pointed to a definite improvement: landlords represented the non-productive

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(even counter-productive) elements of rural society and a fall in their numbers was to be reckoned an economic gain. Poor peasants were by definition those farmers who lacked land and essential working capital and who were therefore a depressing influence on the agricultural sector. Their declining importance could only be a reflection of the increasing importance of other more productive classes (in this case, middle peasants).

A single example must suffice to show the results of agrarian reform during these early years. In the Yen-ch'eng - Fou-ning region, a report cited the case of a peasant household of eight persons which had previously owned no land but rented 13 mou of inferior land. After the implementation of rent reduction in 1942 this household was able to buy eight mou of land of its own and by 1943 it was also raising two pigs. In this way what had originally been a tenant household was transformed into a semi-owner cultivating household.<sup>(32)</sup>

For the war years as a whole, a survey of 2,500 households in 11 <u>hsien</u> of "central Kiangsu"<sup>(33)</sup> showed the following percentage changes in the composition of rural society between 1939 and 1945:

Table II. 1	Changes in the relative importance of
	various rural classes in north Kiangsu
	between 1939-45

	As percentage of rural population	As percentage of rural population	Percentage change
	1939	1945	
Hired agricultural			
labourers	3.24	2.44	- 24.69
Poor peasants	46.75	33.39	- 28.58
Middle peasants	32.07	41.79	+ 30.31
Rich peasants*	13.69	19.03	+ 39.01
Landlords	4.25	3.35	- 21.18

\* Obtained by deducting the total for the other four categories from 100.00.

Source: SPJP, 30/6/51, op. cit., p.4.

The two investigations cited by the 'North Kiangsu Daily' and allegedly representative of conditions throughout north Kiangsu indicate that considerable changes in the class-composition of rural society were taking place. From an economic point of view the changes were clearly desirable. Middle peasants were replacing poor peasants to become the most important class (numerically) in the countryside, while the numbers of hired agricultural labourers, poor peasants and landlords were all falling. Significant too, was the increase in the relative importance of rich peasants.

However, the overall situation was probably not as favourable as the data above suggest. CCP control was weaker in some areas than in others and there were parts of north Kiangsu where agrarian reform policies were carried out much less thoroughly or even not at all. In addition, rent and interest reduction often met with the determined opposition of the landlord class, who used various methods ranging from mere cunning to open sabotage to prevent the implementation of the new policies. <sup>(34)</sup> In the face of such opposition poor peasants were frequently unwilling to give active support to the CCP and special organizations had to be formed to mobilize them against the recalcitrant landlords. The most important of these, the "Peasants' National Salvation Association" and "Rent Investigation Corps"<sup>(35)</sup> were the forerunners of the Peasant Associations of the 1950's and fulfilled many of the same roles. For example, when landlords refused to reduce rents, the Peasants' National

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Salvation Movement (which comprised mainly poor and middle peasants) would send representatives to organize and guide the peasant masses. It usually only required the Association to make the large landlords reduce their rents for the smaller ones to follow suit. But in cases where landlord opposition continued, 'struggle meetings' were organized and landlords were directly confronted by their tenants.

A further complication at this time was the peasant's frequent ignorance of the implications of CCP policies. One peasant in north Kiangsu hearing that the Party was about to establish itself in his area, took the money and grain he had accumulated and consumed the whole lot in the belief that "... under communism whatever is yours is also mine."<sup>(36)</sup>

Nevertheless, these early reforms were generally a success. Living standards were improved for a large number of peasants; economic conditions in the countryside were more favourable; and a firm foundation was laid for the land reform campaigns of the 1950's.

After the surrender of the Japanese the latent conflict between the Kuomintang (Nationalist) and Chinese Communist armies erupted into civil war and in the summer of 1946 the Communist-held areas of north Kiangsu came under attack. It was at this point that the earlier more moderate policies of rent and interest reduction began to be replaced in parts of north Kiangsu by outright land confiscation and redistribution. The chronology of events during the post-war years is confused although it seems reasonable to suppose that the course of events which occurred elsewhere in China was repeated in north Kiangsu. <sup>(37)</sup> In any case, whatever the precise timing, "double reduction" was now replaced by the policy of

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giving "land to the tiller". (38)

The principal strands of the new land policy are easily summarized: first, rent and interest reduction remained the necessary preliminaries to land confiscation and continued to be carried out in all areas. Next came the "settling of accounts" which involved the confiscation of land belonging to "enemies and traitors"<sup>(39)</sup> and its redistribution to peasants with little or no land or their own. Land was not always forcibly taken: in parts of north Kiangsu, for example, many landlords and Party members or cadres from landlord backgrounds were reported to have voluntarily handed over all land that was not required to support themselves or their families. One official of the 'Kiangsu-Anhwei Border Region Government' presented 1,333 mou of land for redistribution, retaining only 60 mou for his own family of five.<sup>(40)</sup> Land which had previously been left uncultivated (huang-ti) was also given to peasants to farm.

Between the summer of 1946 and autumn of 1947 deviations from the official line and violence in the implementation of land reform were at their greatest throughout China. To what extent this pattern was followed in north Kiangsu it is difficult to say although there are certainly indications that this was a period of fierce struggle between landlords and peasants. <sup>(41)</sup> Contemporary reports speak of the Communist-held areas in the north of the province launching a "gun in one hand, abacus in the other" struggle <sup>(42)</sup> against the landlords and of "bitter, hard and fierce" confrontations between landlords and tenants.

The situation was in fact a complicated one. In some areas the supremacy of the CCP had remained unchallenged, land had been confiscated

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and reallocated and a new pattern of class relations was emerging. In others, rent reduction had been reversed after re-occupation by the Kuomintang forces and as a result, despite the re-establishment of CCP control, "... land relations remained confused".<sup>(43)</sup> Finally, there were areas which had always remained in Kuomintang hands and where land reform had never been carried out. Here landlords continued to collect high rents and concentration in landownership was still much in evidence.

Ideally we should like to give some quantitative indication of the impact of the pre-1949 agrarian reforms in Kiangsu. However, such data are almost totally lacking and the only reference to the number of peasants who had been involved in land reform states that between 1946 and 1949 an area containing 4,000,000 peasants had fully implemented land reform in north Kiangsu. Nevertheless, this is a useful indicator of the achievements of these years for it indicates that even before Kiangsu was completely under the control of the CCP, over 20% of north Kiangsu's agricultural population had already completed land reform. <sup>(44)</sup>

In the late 1940's south Kiangsu fell rapidly into the hands of the Chinese Communist forces. By November 1948, CCP control throughout China extended to the northern banks of the Yangtze. In April, 1949 the armies crossed the river and Nanking was "liberated". On May 27th Shanghai also fell and by June 2nd, 1949 the whole of Kiangsu was in the hands of the CCP. The stage was now set for the next phase of the agrarian reforms, the implementation throughout the province of a thorough-going land reform.

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# II The Land Reform Movement in Kiangsu: A Chronological Account.

(1) The directives of the Central Government and the East China Military Administration

The theoretical framework within which land reform took place in Kiangsu was provided by the 'Agrarian Reform Law of the People's Republic of China<sup>(45)</sup> promulgated by the Central Government on 30th June, 1950. This provided for the confiscation and requisition<sup>(46)</sup> of rented land and other property belonging to landlords (except that used for industrial and commercial purposes) and land owned by rich peasants which was in excess of that which they cultivated themselves or with the help of hired labour. The confiscated land and property were to be distributed to local peasants who owned "little or no land" of their own.<sup>(47)</sup> Other sections dealt with methods of implementing land reform and the treatment of special land problems.

Almost simultaneously other laws were passed to help in the smooth working of the Agrarian Reform Law: for example, the 'Decisions concerning the Differentiation of Class Status in the Countryside' and the 'General Regulations Governing the Organization of Peasants' Associations'<sup>(48)</sup> (both promulgated in the summer of 1950). Special regulations governing land reform were also issued for the large administrative regions of China as well as for provinces. Thus, in February, 1950 the Committee of the East China Military Administration (ECMA)<sup>(49)</sup> passed the 'Regulations for Rent Reduction in the Villages of the Newly Liberated Areas of East China'<sup>(50)</sup> the first document that was directly relevant to the land reform programme in Kiangsu. By this time rent reduction had already been incorporated into the 'Common Programme'<sup>(51)</sup> as an essential precondition to the implementation of land reform in the 'newly-liberated' regions. In many ways the provisions for rent reduction in East China were simply a restatement of the principles that had been followed before 1949. Rents were to be reduced by 25% or 30% and a rent ceiling of 35% of the output of the main crop in a 'normal'year was imposed. Advance payment of rent and other exploitative devices were abolished. All debts between peasants and landlords or "old-style" rich peasants incurred before 1949 were annulled. Other provisions dealt with the distribution of supplementary crops and the question of exemption from rent reduction for certain categories of rentiers such as workers, revolutionaries, widows, orphans, etc.

But in other ways the rent reduction regulations struck a new and surprising note. For example, in spite of the clear aim of lessening the exploitation which resulted from the tenancy system, any hint of extreme anti-landlord sentiment was entirely absent from the document. Indeed, Article Two emphasized the continuing ownership rights of the landlords after rent reduction had been implemented and the legal obligation of tenants to pay rent. Land belonging to landlords who had run away was to be leased out for them <u>in absentia</u> by the <u>hsien</u> government and the rent (appropriately reduced) retained for the owner until he returned.<sup>(52)</sup> Clearly it was hoped that alienation on a wide scale could be avoided and rent reduction carried out as smoothly as possible.<sup>(53)</sup>

The first statement of a time-table for the implementation of land reform on East China came in an ECMA directive published in March,

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1950.<sup>(54)</sup> It stated that where preparatory work had been completed, the confiscation and reallocation of land could begin after the 1950 autumn harvest. Elsewhere it should be delayed until late 1951 or even 1952. As our later analysis will show, in the context of what actually happened, the emphasis on a relatively long time-horizon was noteworthy.

One of the preoccupations of the planners throughout the land reform campaigns was how to ensure that production activities were not hindered by the institutional changes that were taking place. In 1950 this was a particularly important consideration since natural disasters had badly affected harvests in many parts of East China. In south Kiangsu more than 4,000,000 mou of land were flooded<sup>(55)</sup> and in the north 17,000,000 mou were flooded with the consequent loss of 1,000 million chin of food grains.<sup>(56)</sup> In these circumstances it was essential that land reform activities should not disrupt normal agricultural work. Thus, the March directive emphasized the critical importance of the spring period for agricultural operations and the need for the closest co-ordination between relief and production work and the preparations for land reform.

The crucial preparatory tasks at this time were to investigate local conditions, train cadres and spread the aims and policies of land reform to all classes of rural society. Not until this had been completed could representative experiments take place<sup>(57)</sup> to provide actual experience of land reform. Throughout these preparations the legal rights of land-lords were reaffirmed although it is significant that a warning was also issued against illegal landlord activities, such as land transfers or the deliberate destruction of property.

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This directive provided the guidelines for land reform and production activities throughout spring and summer and the next ECMA directive, which was concerned with agricultural production policies during the autumn and winter of 1950-51, did not appear until September, 1950.<sup>(58)</sup> Though short this document is of considerable interest for its information on the counterproductive effects which land reform was continuing to have. Because of the uncertainty about what and how much land they would receive during redistribution many peasants were simply letting their agricultural work lapse and in some places even ceasing to cultivate the land at all. The logic of their action (or inaction) was clear: if the land which they cultivated was subsequently reallocated together with its output to another peasant, the original peasant's efforts would have been worth nothing. Just how serious a problem this was it is difficult to say; but it was certainly serious enough for the ECMA to set down specific provisions to guarantee that peasants received the output of the land they had tilled. <sup>(59)</sup> In this way it was hoped that the neglect of agricultural work could be stopped.

On 26th November, 1950 the ECMA Committee promulgated the 'Regulations on the Methods of Implementing Land Reform in East China<sup>(60)</sup> and it is to this important document that we must now turn. In some respects, it is true, the policies it set out simply followed the provisions of the Agrarian Reform Law; but in other ways, through different emphasis or the amplification of certain aspects of the parent law, it took on a clear identity of its own.

A serious dilemma which confronted the CCP during the land reform campaigns arose out of the conflicting aims of pursuing the new land

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policies and protecting industry and trade. The need to ensure that industry and trade were disrupted as little as possible meant that some way had to be found of implementing land confiscation without affecting landlords' participation in industrial and commercial activities. This problem had already received attention in the earlier directives<sup>(61)</sup> and as was to be expected in a region where the industrial and urban sectors were highly developed, a considerable amount of space was devoted to it in the East China Land Reform Regulations.

In general the regulations followed Article Four of the Agrarian Reform Law in calling for the protection of industry and trade, including enterprises run by landlords and property in the villages (other than land) which belonged to industrialists and merchants. But more interesting were some qualifications which were added to the rule that land and property owned by landlords should be subject to confiscation. For example, draft animals used for handicraft production or transport were to be left untouched and only those tools which were used specifically in agricultural work were to be taken from landlords. The same distinction between agricultural and non-agricultural employment as a criterion for confiscation was applied to surplus buildings owned by landlords. A final provision also stipulated that all landlord property in the cities should not be made available for redistribution.

If the landlords held a key position vis-a-vis industry and trade, within the agricultural sector itself one of the most sensitive problems was the treatment of rich peasants.  $^{(62)}$  In economic terms the position of this group was particularly important. With more resources at their disposal than most peasants not only did they tend to be the most efficient farmers but by the same token they were also able to undertake net investment in agriculture. However, a corollary of this was that their holdings were larger than those of middle and poor peasants and in some cases they even rented out land.<sup>(63)</sup> In the context of a land reform they were obviously in a vulnerable position. (64) But from the point of view of the agricultural economy it was in the interests of the government to retain their support and accordingly after 1949 a new policy was advocated to "preserve the rich peasant economy".<sup>(65)</sup> Thus, Article Six of the Agrarian Reform Law had called for the protection of "... land owned by rich peasants and cultivated by themselves or by hired labour ... "(66) and even permitted rich peasants to continue renting out small amounts of land. To a large extent this was also the line followed by the ECMA. However, it is of some interest that the sub-section dealing with the treatment of land rented out by rich peasants was differently worded in each document.

In the Agrarian Reform Law the relevant section stated that:

"If the portion of land rented out by rich peasants of a semilandlord type exceed in size the land tilled by themselves and by their hired labour, the land rented out should be requisitioned." (67)

The equivalent passage in the ECMA document was:

"In requisitioning land rented out by rich peasants of a semilandlord type in the new areas, if the land cultivated by a rich peasant himself and by hired labour is smaller than the average amount of land per capita for a particular area, then he should be permitted to retain an amount of land (including that cultivated by himself) equivalent to the average per capita for the area." (68)

The significant point of difference in these two statements seems to

lie in the assumptions behind each. In the first it is assumed that the requisition of rich peasant land will only be carried out in special circumstances (that is, where the amount of land rented out exceeds a certain area). By contrast, the assumption behind the second appears to be that land rented out by rich peasants is normally subject to requisition and that only in special conditions will a rich peasant be able to retain such land.

If this interpretation is correct the difference in wording is an interesting reflection of some of the limitations on land reform in the East China region. The economic benefits of land reallocation depended on the average amount of land available to each peasant. One of the features of East China agriculture was a high man-land ratio and a correspondingly high demand for confiscated land. Given that the amount of land that could be taken from landlords was fixed and that there was little possibility of extending the arable area, the only way of obtaining more land for reallocation was by encroaching upon that owned by the rich peasants.

Even a brief analysis such as this suggests that conditions in East China were sufficiently distinctive to require changes in emphasis and revisions of some aspects of the Agrarian Reform Law. Nevertheless, the East China regulations remained essentially moderate and pragmatic. The confiscation and reallocation of land should cause as little disruption as possible. If the poor and middle peasants were to be the real beneficiaries of land reform, interference with the rich peasant economy was also to be kept to a minimum; and in certain circumstances even the interests of the landlords were to be protected. In the agricultural sector every

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effort should be made to ensure that land reform preparations did not interfere with production operations.

This emphasis on caution deserves special mention in view of the very different tone of the ECMA directive 'On Completing Land Reform Ahead of Time' promulgated by the East China Branch of the CCP on 5th December, 1950.<sup>(69)</sup> Up to this point the approach to land reform had been one of gradualism: where conditions permitted, land confiscation and distribution were to take place during the winter of 1950-51; but if preparations were not sufficiently advanced there should be a postponement until the following winter or even later. Now however, the new directive suddenly demanded that except for parts of Fukien and north Anhwei<sup>(70)</sup> "... the whole of the East China Region should strive to basically complete land reform by April, 1951."<sup>(71)</sup>

This change was of course reflected in the plans for north and south Kiangsu and we shall examine the reasons for it in more detail when we come to discuss land reform in these areas. For the present it is sufficient to note that the East China Bureau of the CCP Central Committee attributed the decision to China's recent entry into the Korean War.<sup>(72)</sup> China was coming under attack from the United States and its allies and "... inside and outside the country counter-revolutionary elements are intensifying their subversive activities. "<sup>(73)</sup> Moreover East China occupied a strategic defensive position and yet "imperialist forces and Kuomintarg remnants" had still not been entirely eliminated from the area.<sup>(74)</sup> In this situation only if land reform were accelerated and rapidly completed could the earlier achievements be consolidated and any new eventualities be forestalled. -75However, pressing though these external factors may have been, it seems likely that it was the critical state of the land reform campaign itself that forced the planners to revise their earlier gradualist approach in favour of more rapid confiscation and reallocation. In November, 1950 a conference on land reform in East China had already referred to problems which had emerged during the campaign. Landlords had not been slow to use the moderate tone of the earlier directives to their own advantage and had allegedly engaged in a wide range of sabotage activities, including the transfer of land, destruction of property and arson.  $(^{75})$  They had committed murders and beatings and were engaged in various subversive activities designed to undermine government policy. The situation was exacerbated by the frequent failure of cadres to implement land reform properly: some were accused of "commandism"  $(^{76})$  or for monopolizing all activities, others were criticized for their vacillating and careless attitudes.

Clearly the situation was serious enough to warrant a change in the time-table for land reform.<sup>(77)</sup> This was the basic decision taken at the November conference and it was echoed by the new tone in the December directive. In contrast to the earlier emphasis on conciliation the new document was more vituperative, returning to the more extreme language of the pre-1949 years. Increasing reliance was placed on mass-mobilization as the key to the elimination of the "feudal power of the landlord class in the villages". This was the context in which land reform in East China proceeded to its conclusion.<sup>(78)</sup>

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#### (2) Land reform in north Kiangsu:

Preparatory work for land reform got under way in the "newly liberated" areas of north Kiangsu in the spring of 1950. Throughout the spring and summer months some 11,000 cadres were trained in preparation for the coming campaigns.<sup>(79)</sup> After finishing their training they were sent to all parts of the region to carry out the work of co-ordinating land reform and production relief work (this was the period when north Kiangsu was seriously affected by natural disasters). Simultaneously the cadres carried out propaganda work, set up Peasant Associations<sup>(80)</sup> and generally strengthened the organizational base in the countryside. There followed conferences at which this work and the experience it had provided were analyzed and discussed.

During August and September small areas were chosen for the implementation of land reform on an experimental basis and between August and the end of October such trials were conducted in 43 "representative" <u>hsiang</u>. Progress at this stage was slow and cautious, in accordance with the directives of the ECMA. But in November preparatory work moved to a higher level and land distribution began to get under way over a wider area of north Kiangsu. By the end of that month preparations had been basically completed and in the two southern-most Special Districts of north Kiangsu (Nan-t'ung and T'ai-chou),<sup>(81)</sup> 146 <u>hsiang</u> were reported to have completed the confiscation and reallocation of land. <sup>(82)</sup>

The reports on which the above chronological account is based give no hint that preparatory work had gone other than smoothly and according

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to plan. Against this background another article which appeared in the second week of December is therefore of special interest for the indication it gives of outstanding problems.<sup>(83)</sup> It revealed that two shortcomings in particular were threatening to undermine the future progress of land reform in the region. The first (also noted in ECMA documents) was inadequate mass mobilization against "feudal power and the remaining obstacles to land reform".<sup>(84)</sup> Action was not being taken against the subversive activities of the landlords and peasants in some areas even showed "boundless leniency" towards those who were guilty of such acts. As a result, despite the regulations which had been issued to regulate landlord subversion,<sup>(85)</sup> opposition by this class continued to threaten the movement.

The second problem arose out of the excessive demands of the Peasant Associations and their tendency towards "close-door sectarianism". <sup>(86)</sup> This may have gone some way to explaining the ineffectiveness of mass mobilization in some areas, for it was admitted that the adoption of membership criteria that were too restrictive had alienated certain categories of peasants whose support was urgently needed for the successful implementation of land reform.

It was at this point, against the background of the Korean War and growing internal problems, that the North Kiangsu Administration issued a directive calling for an acceleration of land reform in the area. It is interesting that the document gave much more attention to the immediate problems being encountered in the agricultural sector than to the potential threat posed by the Korean War, supporting the earlier proposition that

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the more rapid pace of land reform was chiefly the product of endogenous factors. Significantly it was emphasized that "... all levels of leadership must recognize the new character and new methods of land reform under the changed circumstances. They must beware of and overcome old, narrow-minded ideas of empiricism ... "<sup>(87)</sup>. It was planned that during the winter of 1950-51 75% of the new areas would complete land reform leaving the remaining 25% to do so during the spring of 1951. In other words, within about four months it was anticipated that land reform in north Kiansu would be completed.

The actual regulations for implementing land reform were published on 18th December. <sup>(88)</sup> They were arranged in three sections corresponding to the "old liberated", the "rehabilitated" and the "newly liberated" areas of north Kiangsu. <sup>(89)</sup> In those areas which had remained under CCP control throughout the middle and late 1940's the confiscation and reallocation of land had already taken place and the main consideration was now to ensure that the ownership rights of the peasants who had received land were protected and that no attempt was made to take the land away from them. Although an obvious provision this was also a significant one, for a later part of the north Kiangsu regulations makes it clear that this kind of illegal confiscation had resulted in the dispossession of <u>middle</u> peasants.<sup>(90)</sup>

Other articles dealt with the distribution of land and "movable property"<sup>(91)</sup> which had been confiscated but not yet distributed. Priority was to be given to poor peasants, demobilized soldiers and unemployed workers from the cities but special attention was also drawn

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to "... middle peasants who have been wrongly attacked ... (and) ... those rich peasants and landlords who have too little land and are unable to make a living".<sup>(92)</sup> Where too much land had been reallocated, it could be redistributed again as long as the peasant voluntarily disclaimed his rights to it. In general, all unresolved problems relating to land, such as the ownership of paths or ponds lying adjacent to the newlyacquired plots of two peasants, were to be settled in accordance with the principles of benefiting production and promoting social unity.

All in all, the provisions for the old areas seem to have been characterized by an emphasis on conciliation that is more reminiscent of the spirit of the earlier directives than of this later period with all its problems. It may be that this was related to the greater ease with which land reform could be implemented in these "old liberated" regions compared with other parts of north Kiangsu. Certainly the other provisions show how much more complicated the situation was in those other more recently "liberated" areas.

The "rehabilitated areas" were those in which some agrarian reform had been carried out during the 1940's but where the subsequent re-occupation by Kuomintang forces had caused the earlier decisions to be reversed. As a result landlords and rich peasants had taken back the land and other property which had earlier been taken from them and given to poor peasants. The December regulations stated that all illegal acquisitions made by landlords were again to be confiscated, as was that land and property due for confiscation which they still retained. At the same time land forcibly taken from peasants was to be recovered, and

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all sales or transfers of land transacted by landlords were declared null and void. Any losses that the peasants had suffered as a result of these transactions were to be borne by the landlords. Similar provisions also applied to rich peasants who had taken the opportunity of Kuomintang occupation during the late 1940's to recover their lost wealth.

To a large extent the provisions for the "newly liberated" areas followed the principles that had been laid down in the Agrarian Reform Law and the ECMA regulations. Landlords were to receive the same amounts of land as other peasants. Rich peasants were to be permitted to retain small amounts of rented-out land as long as there was sufficient to meet the demands of the poor peasants and hired agricultural labourers. If this condition was not met, part or all of the (rented-out) land could be requisitioned.

An interesting provision related to the distribution of draft animals and tools. The distinction between agricultural and non-agricultural use was again used as the criterion for confiscation, but a qualification was added to the effect that where the production requirements of a locality called for a greater or smaller supply of draft animals, <sup>(93)</sup> as long as permission was granted by the North Kiangsu Administration, the provision of the ECMA relating to draft animals could be ignored. In other words, in certain circumstances animals originally used for non-agricultural purposes might be allocated to peasants for agricultural work. It seems clear that this less restrictive attitude to draft animal confiscation was a recognition of the serious problem caused by their shortage in north Kiangsu.

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The final substantive article dealt with land in the new areas which had been transferred or dispersed by landlords (for example, through sales or mortgages) but which was subject to confiscation. As a general principle Article Eight of the Agrarian Reform Law was cited<sup>(94)</sup> but in order to meet the special circumstances of north Kiangsu, some supplementary provisions were added. Thus peasants who were entitled to receive land and who had acquired land through transactions with landlords were allowed to keep this in the interests of production. At the same time cash received by the landlords in the course of these transactions was to be surrendered and distributed among the peasants. In cases where a hsien government had granted land to a peasant since 'Liberation', care was to be taken during the reallocation to protect the "peasant tiller". even if his land was strictly scheduled for redistribution. Finally, all sales of land between peasants were to be legally recognized on condition that they did not result in any peasant having a smaller amount of cultivated land than the average for his locality.

The north Kiangsu land reform regulations are an interesting mixture of conciliation and severity corresponding to the particular conditions in each of the three areas of the region. But it is noteworthy that the urgency of the earlier directive calling for an acceleration of land reform is entirely absent from the document. Indeed it is more characterized by those very "narrow-minded ideas of empiricism" which had come under attack only a week before. In view of this background and the speed with which land reform was in fact completed in the area, it seems likely that the north Kiangsu regulations were - even at the time of their publication - rapidly being superseded by the course of events.

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In December the land reform movement in north Kiangsu entered the stage of "all-round" advance and by March, 1951 the confiscation and reallocation of land had basically been completed. A report made by the Vice-Chairman of the North Kiangsu Land Reform Committee some months later looked back upon this period as one of untroubled progress:

"The government adopted urgent measures, gave support to the peasants' righteous struggle, set up People's Courts and brought lawless landlords under control. The movement merged with the 'Resist-U.S., Support-Korea' and counter-revolutionary campaigns and the enthusiasm of the masses reached unprecedented heights. Blazing like fire set to a dry tinder, the struggle systematically developed to become the high-tide of the anti-feudal mass movement. "(95)

At the end of 1951 such a roseate view of earlier events may have seemed justified. However, a more revealing account published shortly after land distribution had been completed shows clearly that the final stages of land reform were not so trouble-free. (96) Erroneous tendencies among both cadres and peasants persisted and most serious of all, landlords continued to show strong opposition to the new policies. The slaughter of draft animals and the destruction of farm tools occurred frequently. Both were vital factors in the agricultural sector and the potential effect of their loss upon production was very serious. There were reports of landlords concealing arms, murdering peasants and infiltrating peasant organizations. In a village of Sui-ning <u>hsien</u>, a landlord had murdered one of his permanent hired labourers out of fear that this peasant would disclose the whereabouts of some silver dollars and opium that he had hidden. In another case a landlord was reported to have bribed a work brigade (<u>kung-tso tui</u>) with a payment of 2.4 million ytian. (97)

Such incidents continued well after the completion of land redistribution. -83As late as August, 1951 the 'North Kiangsu Daily' reported a resurgence of "lawless landlords". <sup>(98)</sup> The failure of cadres (either through fear or indifference) to take firm action against such elements was enabling them to take back land which had been confiscated. The old device of concealing land posed another problem: in a village of T'ai-hsing <u>hsien</u>, for example, an investigation conducted in April revealed that over 141 mou of land had been successfully concealed from the authorities, representing 9.58% of the total arable area of the village. <sup>(99)</sup> Most astonishing of all, in some areas landlords were still secretly collecting rents!

But in spite of these difficulties land reform was gradually wound up. After confiscation and redistribution, title deeds were issued to the new owners of the land. In the context of the clearly-expressed intention of the Chinese planners to move towards a socialized agriculture, such acts may appear to be little more than empty gestures. However, it is not difficult to see that for the peasants who acquired land of their own for the first time, they must have had a very real significance. In any case, by the end of 1951 land reform in north Kiangsu had been completed and even if resistance had not been totally extinguished, the economic base of the landlords had been eliminated and a new class of small owner-occupiers had emerged.

## (2) Land reform in south Kiangsu:

The Chinese Communist forces crossed the Yangtze in April, 1949 and complete the 'Liberation' of south Kiangsu by the beginning of June. During these months priority was given to bringing the military situation under control and normalizing conditions in the cities - a particularly important task in view of the region's advanced industrial sector. By contrast, although

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remnants of Kuomintang forces were still creating disorder and the landlords exerting considerable power in the villages, rural work was neglected. As a result, peasant discontent became a serious problem and by July and August a critical situation had developed in the villages. On the one hand, natural disasters had caused the flooding of more than four million mou of arable land and on the other, "feudal" elements were taking the opportunity of the uncertain conditions to stir up trouble. Landlords carried out sabotage and other subversive activities and even prevented the establishment of basic political organs in the countryside.<sup>(100)</sup>

The immediate tasks of the CCP in south Kiangsu were, then, to carry out disaster-relief operations, eliminate the Kuomintang "bandits" still roaming the countryside and stabilize the precarious situation. Gradually this was accomplished: order was largely restored to many of the villages, the Party was strengthened and activists began to emerge from among the peasants to become cadres. Moreover, at the end of July emphasis was shifted from the cities to the villages and cadre organizations were sent down to the countryside. At the end of the following month two "village work corps" (<u>nung-ts'un kung-tso t'uan</u>) were formed and their two thousand members dispatched to carry out experimental work in Wu and Wusih <u>hsien</u>. Work brigades (<u>kung-tso tui</u>) of varying sizes were also established in all the other <u>hsien</u> and a further eight thousand cadres moved to the countryside. Throughout south Kiangsu over 160,000 Peasant Association members were mobilized and by the end of August conditions were ready for the preparatory stages of land reform to get under way.

By September, 1949 the situation had improved considerably. As propa-

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ganda work got under way and Party control extended down to the village level the peasants were increasingly won over to the new policies. Action continued to be taken against Kuomintang supporters, anti-flood measures were successfully adopted and some of the problems associated with the failure of the autumn crop were overcome. The prime consideration in October was production work and the maintenance of the sown area. Throughout November and December the "autumn levy" (the acquisition of grain by the state for storage and distribution) was successfully completed. <sup>(101)</sup> By the end of the year Peasant Association members numbered over 2,234,000 (21.82% of the agricultural population), an increase of two million over the summer figure.

But despite the optimism with which 1950 seems to have opened the situation was not without its problems. It was freely admitted that there were many deficiencies in the peasant movement. (102) The most noticeable perhaps was the uneven way in which the movement had developed: in some areas mass mobilization was well under way, but in others landlord power remained intact. A major problem was peasant reluctance to speak out (let alone take positive action) against the landlords: this enabled the landlords to use all the familiar devices to escape rent reduction. They wept false tears and feigned poverty to their tenants, made loans to peasants on terms that would provide them with a substitute for the rent that had been deducted; they used the legal provisions of official directives to their own advantage, exaggerated cadres' shortcomings and even threatened to take back land rented out to tenants. (103) In some places they were able to manipulate whole bodies, such as Peasant Associations, for their own ends. To some extent these problems were also a reflection of

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cadre deficiencies, for inevitably there were some who were motivated by self-interest and succumbed to bribery and others who fell prey to such erroneous tendencies as forced collectivisation of labour, excessive "formalism", "close-door sectarianism" and so on.

That such problems existed is hardly surprising. Even in north Kiangsu similar difficulties had arisen; yet south Kiangsu was more recently "liberated" and lacked the experience and advantages which the north had enjoyed as a result of CCP occupation in the years before 1949. In addition, economically and socially, south Kiangsu was a more complex region - above all because of its important industrial and urban sector. <sup>(104)</sup> A corollary was that thorough preparations and a gradualist approach to land reform were even more necessary in the south if land reform were to be carried out successfully. How far such considerations were acted upon will become apparent later.

A directive published towards the end of March, 1950<sup>(105)</sup> gave the first indication of the planned time-schedule for land reform in south Kiangsu. It stated that the redistribution of confiscated land should begin after the autumn harvest (1950), but only on condition that the preparations had been fully carried out and the peasants properly organized. Where these conditions were not met, reallocation was to be postponed until after the autumn harvest of 1951. Meanwhile preparatory work (investigations of the situation in the villages, the drafting of plans for each area, propaganda and trial land reform on a representative basis) should simultaneously get under way. A policy of gradualism was rigidly upheld.

The co-ordination of land reform preparations with production work

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in the fields was even more important in south Kiangsu than it had been in the north. Kiangnan was part of the richest agricultural region in the whole country and it was essential to maintain and increase levels of production in the area. It is significant that where land distribution was scheduled to begin in autumn, 1950, cadres were exhorted to make sure it was completed before the spring-ploughing period of the following year. Nor is it coincidence that emphasis was also placed on the importance of pressing ahead with the grain levy.

In addition, the effects of the natural disasters had not been completely overcome. One article pointed out that any delay in spring ploughing would affect the autumn harvest and so prolong the consequences of the disasters.<sup>(106)</sup> In those areas which had been severely hit the situation was critical and it was "... not simply a question of how to solve the problem of livelihood, but of how to save lives".<sup>(107)</sup>

Throughout the spring and summer the movement seems generally to have gone according to plan. Investigations were conducted and detailed studies made of the land situation in south Kiangsu and the problems of land reform policy. By the end of July 3,600 cadres had been trained and 20,000 more places were expected to be filled by the autumn harvest. <sup>(108)</sup> Peasant Associations were set up in every <u>hsiang</u> in south Kiangsu and these took the lead in production work and relief operations. <sup>(109)</sup> The "brigade" (<u>kung-tso tui</u>) had already started experimental work in representative <u>hsiang</u> and similar trials were planned to get under way elsewhere in August. Of course, not all problems had been overcome and in particular landlord opposition continued on a wide scale. <sup>(110)</sup>

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Nevertheless, preparations were considered sufficiently well in hand to permit the implementation of land reform in accordance with the original plan and in August the south Kiangsu Administration reaffirmed the decision to start land confiscation and reallocation after the autumn harvest. <sup>(111)</sup> In itself this was hardly noteworthy; yet it is precisely that the original plan was being adhered to that is so interesting, for exactly one month later a new directive was issued announcing the decision to <u>complete</u> land reform in south Kiangsu during the winter and spring of 1950-51. <sup>(112)</sup>

This new decision was the outcome of the 'First South Kiangsu Peasant Representative Conference' held in the municipality of Wusih between 2nd-6th September and specially called to discuss land reform. Opening speeches on the current situation and future tasks were made by Ch'en P'i-hsien and Ou-yang Hui-lin<sup>(113)</sup> and their reports were subsequently discussed by the conference delegates. Much of the conference was taken up with denunciations of the landlords: reference was constantly made to their exploitation of peasants and the responsibility they bore for rural poverty.<sup>(114)</sup> The sabotage and other subversive activities they had carried out were strongly criticized. There followed demands that the government adopt strict measures to curb these activities and bring the landlords under control.<sup>(115)</sup>

On the final day of the conference four resolutions were passed. Of these the most interesting was one calling for the completion of land reform within about six months.<sup>(116)</sup> In one sense this was hardly surprising: after all the ECMA and North Kiangsu Administration had both stated their intention to accelerate the land reform programme. However, both these

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decisions had been taken after China's entry into the Korean War and indeed it was the dangerous international situation which had provided the ostensible reason for the change in plan. What is particularly interesting about the south Kiangsu resolution is that it was taken on 6th September, 1950: in other words, before China had entered the war and a full three months before the same decision was made in the north of the province.

What was the reason for this sudden change? The preoccupation of the delegates with the problems caused by continuing landlord opposition to rural policies offers a possible answer for it seems likely that this, combined with weaknesses in peasant mass mobilization, had led to an impasse which was threatening the future of the land reform movement. The way out of this impasse was to intensify propaganda work, emphasize the class nature of the struggle and hope that the difficulties could be overcome by pushing ahead more rapidly.

Support for this interpretation is not only provided by the tone and content of the conference itself but also by an analysis of the revised plans for land reform which was published on the same day that the new decision was made. <sup>(117)</sup> The whole weight of this article was that the future of the land reform movement in south Kiangsu depended on the class struggle against the landlords. The antagonism between the peasants and landlords reflected the relationship between the elimination of "feudal" exploitation and the "liberation" of the rural productive forces and development of agricultural production. Of course class differentiation had always been a fundamental part of the land reform campaign; but to a large extent, the conciliatory content of earlier directives had tended to play it down. Now class struggle

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was re-emphasized. <sup>(118)</sup> Thus "... unless effective measures are taken ... social order will be destroyed and it will be difficult to implement land reform in an orderly and steady manner. If lawless landlords are not dealt with strictly the people's leniency towards those landlords who do uphold the laws cannot be shown. "<sup>(119)</sup>

The proceedings of a second conference provide further evidence to support our analysis. This was the Second Plenum of the First Session of the Conference of People's Representatives from All Spheres of South Kiangsu, <sup>(120)</sup> also held in Wusih and formally opened on 5th September, 1950 by Ch'en P'i-hsien.

The speeches made by the various delegates at this second conference give a clear picture of how the land reform situation in south Kiangsu was viewed at this time and how seriously the threat posed by landlord opposition was taken. Virtually all the speakers repeated the accusation that the landlord class was the root cause of peasant poverty, backwardness and oppression and followed the example of the earlier conference in calling for strict measures to control and stop the criminal activities of the landlords.<sup>(121)</sup>

More interesting however were the attacks on the still-prevalent belief that "south Kiangsu isn't feudal". <sup>(122)</sup> The argument behind this was that since urbanization and industrialization had reached an advanced stage in south Kiangsu and many landlords were engaged in industrial and commercial enterprises, the "feudal" characteristics of landlordism evident in other parts of China were absent in this region. Moreover, not only were there no "big" landlords in south Kiangsu but landlord numbers

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in general were much fewer. To a certain extent such attitudes were fostered by those provisions of the Agrarian Reform Law and other regional directives which had placed so much emphasis on the special treatment that landlords with industrial and commercial interests should receive. <sup>(123)</sup> In any case, the ultimate conclusion of the argument was that exploitation by landlords south of the Yangtze was of relatively small importance. The point was most clearly made by Ch'en Ythn-ke in a speech attacking those people who took the attitude that peasant demands were wrong and who sided with the landlords. <sup>(124)</sup> Representative Huang Li-yeh similarly called on conference delegates to take the standpoint of the peasants, not the landlords. <sup>(125)</sup>

The speech made by Chou Mei-ch'u was clearly designed to redress the balance. (126) He pointed out that such slogans as "south Kiangsu isn't feudal", "there are no big landlords in south Kiangsu" or "south Kiangsu doesn't have tenant households, only guest households" (<u>k'e-hu</u>) were still being disseminated in every <u>hsien</u> and were particularly prevalent in the cities. Others were arguing that landlords were primarily engaged in activities other than those connected with the ownership of land and that in any case their holdings did not extend to tens of thousands of mou as they did in the north of the province. All this, said Chou, was mistaken: sub-versive activities had taken place in every "district" (<u>ch'tt</u>) of south Kiangsu and the only difference between landlords in the north and south was that in south Kiangsu they were a good deal more cunning and adept in concealing their true nature.

But the most interesting speech of all was undoubtedly that made by

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Ou-yang Hui-lin. (127) He argued that the assertion that south Kiangsu was not feudal was being replaced by a different allegation which suggested that because of heavy population pressure upon a limited amount of land there was insufficient land for reallocation. The implication of this seems to have been that land reform could only result in the emergence of farms of uneconomic size. Ou-yang's reply to this argument is of great interest for it provided one of the very few discussions of the economic aspects of land reform. First, he pointed out that the arable area of 22,500,000 mou could give each member of the agricultural population a little over two mou of cultivable land. Presumably, he believed this was a viable economic unit. But such an average was misleading since in some densely-populated districts the average per capita amount of land available for reallocation was substantially less than one mou. Ou-yang recognized this but refused to see any economic disadvantage in it, arguing instead that "... as long as land reform is implemented thoroughly, even if peasants who have little or no land only get a small plot, they'll still be happy". Again, "... as long as the feudal exploitative system of the landlord class is eliminated and the peasants are made owners of their own land, the production enthusiasm of the peasants can still be raised even if they get only a small amount of land. Even on a tiny plot, they'll still be able to achieve a bumper harvest. "(128) Nevertheless, he did admit that land reform could not solve rural poverty on its own and that after land had been reallocated peasants would have to carry out farm improvements, adopting deeper and more intensive cultivation, applying more fertilizer, using better seeds and organizing mutual aid.

Ou-yang's speech was an indication that however dominant the purely

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political factors may have been in the land reform movement, economic considerations were not wholly forgotten. Its emphasis on the positive economic effects of land reform also suggests that not everybody was equally enthusiastic about the rural policies. In particular it seems clear that some were concerned lest the institutional changes should only have the most marginal effect on economic productivity because of south Kiangsu's high man-land ratio. To some extent this was a product of the belief that "south Kiangsu isn't feudal", for if one accepted that there were fewer landlords and no "big" landlords it followed that the amount of land available for redistribution was limited (unless the planners were prepared to encroach upon the rich peasants). How far Ou-yang Hui-lin was justified in his faith in the economic efficacy of land reform in Kiangnan will become clear when we consider the economic effects of the agrarian reforms in the final part of this chapter.

In accordance with the revised plans, the confiscation and reallocation of land got under way in south Kiangsu after the autumn harvest and by early November, 1950 it was already anticipated that the entire agricultural population would have completed land reform by the following spring.<sup>(129)</sup>

The decision to accelerate land reform in the north had preceded the publication of the formal regulations for land reform by about a week; in the south the discrepancy was much greater. The first Wusih conference in early September had already made the decision that land distribution should be completed by spring, 1951 and in its emphasis on class struggle had clearly moved away from the conciliation and pragmatism of the parent Agrarian Reform Law and other regional directives. Yet paradoxically,

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the land reform regulations for south Kiangsu which appeared almost <u>three months later</u>,  $(^{130})$  far from upholding the new line seemed to return to the spirit of the earlier phase of the campaign.  $(^{131})$ 

The south Kiangsu regulations distinguished between landlords who had reformed themselves and those who had not. Dispossession of the landlords remained the mainspring of the movement but it was not to be carried out blindly. Thus, land which the landlords themselves had brought under cultivation since 1949 was to remain untouched and members of landlord families should receive compensation for any agricultural work they had performed. They were also to receive land for their own use equal to the average per capita amount of land in the particular locality. <sup>(132)</sup>

The importance of protecting industry and trade has already been mentioned as having particular significance in south Kiangsu, where the industrial and commercial sectors were highly developed. The point comes across strongly in the following passage from the south Kiangsu land reform regulations:

"Other properties of landlords, including their industrial and commercial enterprises, are not to be confiscated. This is definitely for the protection of industry and trade. Because large numbers of landlords simultaneously engage in industry and commerce south of the Yangtze, it is difficult within a short time to distinguish the other properties of landlords from their industrial and commercial enterprises. If these other landlord properties are confiscated their industrial and commercial enterprises may also be affected. Naturally such other properties of the landlords which are actually not connected with industry and commerce may also be exempted from infringement due to this regulation. This is against the interests of the peasants. However, in order to avoid confusion it is better to allow the landlords to keep these properties and enable the landlords to invest them in production. This will be beneficial to the whole of society. " (133)

Notwithstanding its appeal to the good of society as a whole, this was a very clear statement of the determination to sustain industry and trade even if it meant forfeiting the aims of land reform. In any conflict between the interests of the peasants and those of the modern sector it was the latter that should receive priority. <sup>(134)</sup>

In an earlier section we showed that the policy of unconditional preservation of the rich peasant economy would require modification in regions like south Kiangsu, where the pressure of population on the land was especially great. Differences in the wording of ECMA regulations and those of the Central Government already pointed to this. If anything, the matter was made more explicit in the south Kiangsu regulations:

"With regard to large amounts of land rented out by rich peasants, even if the amount of such land does not exceed the area cultivated by themselves or with the help of hired labour, it may, if demands are so made by a majority of peasants and if the matter is sanctioned by this office (South Kiangsu Administration) be partly or wholly requisitioned ... " (135)

This was a clear departure from the Agrarian Reform Law which had implied that only land in excess of that cultivated by the rich peasants themselves or their hired labourers should be subject to requisition.<sup>(136)</sup>

A problem which had special relevance to south Kiangsu was the treatment of land which was divided into surface and sub-soil rights. <sup>(137)</sup> If such land was simply confiscated from the landlord (the owner of the subsoil right) the result would be to penalize the tenant (the peasant holding the surface right but still paying a rent to the sub-soil owner). Some way had to be found of expropriating the landlord without expropriating the tenant. The problem had already been recognized by the Agrarian Reform

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Law which stated that "if the tiller possesses the surface rights of the land he rents, a portion of land equivalent to the price of the surface rights in that locality shall be reserved for him if the land is drawn upon for distribution".<sup>(138)</sup> It was essentially this solution that the south Kiangsu authorities adopted. Thus, "in adjusting land, the surface right of which has been rented out to tillers, a portion of land equal to the value of the surface right should be reserved for the tiller".<sup>(139)</sup> In other words distribution was to take place in the usual way except that because of his peculiar status as owner and tenant on the same piece of land, the owner of the surface right. It was actually a move away from the normal principle governing distribution designed to achieve the twin aims of dispossession of landlord and protection of tenant (here represented by the surface owner).

November and December, 1950 were the "high-tide" of land reform in south Kiangsu. <sup>(140)</sup> The evidence suggests that during this period there was something of a breakthrough in the campaign. One report indicated that until November the failure of the People's Courts to take strong action against the landlords and insufficient mobilization of the peasants had left the landlords still very powerful. <sup>(141)</sup> Even where land had been reallocated landlords had tried to take it back; and in parts of Wu <u>hsien</u> peasants had not dared to cultivate the land which they had received. But by the end of November landlord opposition had passed its peak and confiscation and reallocation of land made rapid progress. <sup>(142)</sup> By the middle of the following month, 1, 157 <u>hsiang</u> were reported to have completed land reform: 546 in Sung-chiang Special District; 210 in Ch'ang-chou; 143 in Soochow;

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126 in Chinkiang and 132 in Wusih <u>hsien</u>.<sup>(143)</sup> This represented 43% of the 2,667 <u>hsiang</u> which were scheduled for land reform. Emphasis on class struggle continued and direct confrontations between landlords and peasants were engineered. In January, 1951 meetings of peasant representatives were called at <u>ch'tt</u> and <u>hsiang</u> levels everywhere in order to oppose those landlords who continued to oppose the movement and a formal "struggle movement" was launched.<sup>(144)</sup> Material collected during this period became the evidence that was used at subsequent trials held by the People's Courts.

By 15th February land reallocation was completed in 1,983 <u>hsiang</u> in 12 <u>hsien (114 ch'tt</u>). Another 701 <u>hsiang</u> were in the process of implementing it and only 23 had encountered some delay.<sup>(145)</sup> It was now anticipated that the work of redistributing the confiscated land would be generally completed by the middle of March and in fact, in the last week of that month the 'New China Daily' proclaimed in the title of one of its leading articles that ''land reform is basically completed in south Kiangsu''.<sup>(146)</sup>

In view of the speed with which land had been confiscated and redistributed in south Kiangsu it was perhaps inevitable that some problems should remain outstanding. Thus cadres continued to be criticized for their haste and carelessness. Landlords still managed to escape the confines of their villages in large numbers <sup>(147)</sup> and some succeeded in recovering their confiscated land. In some areas dispossession only affected landlords' land and draft animals, tools, surplus grain <sup>(148)</sup> and buildings were left untouched. In others, peasants complained that the landlords were still better-off after land reform because of the large amounts of good land

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they had been allowed to keep. Most serious of all, it was revealed that in some districts only a mock land reform had taken place so that the distribution of land and other factors remained unchanged in real terms.<sup>(149)</sup>

Such problems presumably occupied the attention of the cadres during the rest of 1951 when land reform entered its final phase. Checks were also made on the work that had already been carried out and title deeds were issued to the new landowners. By mid-August these tasks had been completed in 383 <u>hsiang</u> and work was progressing rapidly in the remaining villages. <sup>(150)</sup> By the beginning of 1952 the land reform campaign was wound up in south Kiangsu. <sup>(151)</sup>

### III The Economic Implications of Land Reform

The final part of this chapter is an examination of some of the economic effects of land reform in north and south Kiangsu. Consideration will be given to how much land was reallocated and to how many peasants; what was the average amount of land redistributed; and what this allocation meant in real terms of production. The distribution of other factors of production such as draft animals and farm implements will also be discussed.

The availability and quality of data are obviously crucial considerations in this section. Statistical information is more readily available for south Kiangsu than for the north and this is reflected in the space devoted to each. As for the reliability of the published data, there seems no reason to believe that any of the figures cited are deliberate falsifications. They are mostly taken from current local newspapers and probably reflect the best knowledge available to the planners at the time. Although this is no guarantee of their accuracy, in view of the constant efforts made by the CCP to keep statistical

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checks on the progress of the land reform movement in the province, it seems reasonable to assume that they are fairly close to the truth.

#### (1) Confiscation and reallocation of land:

The most comprehensive information on the reallocation of land in south Kiangsu was contained in a report on land reform published in January, 1952.<sup>(152)</sup> Although the figures are for only 24 <u>hsien</u> (out of 27 in south Kiangsu) it seems reasonable to assume that the per household and per capita quantities they reveal are representative of the whole region. Some later and therefore more up-to-date data are also available for September, 1952, but certain ambiguities make them more difficult to use.<sup>(153)</sup>

According to statistics collected from the 24 <u>hsien</u>, 7, 180, 537 mou of arable land had been reallocated to 1, 519, 472 peasant households. This was said to have represented 66.73% of all agricultural households in the 24 <u>hsien</u> so that the total number of households must have been 2, 277, 045. It is also possible to estimate the proportion of arable land which was confiscated: (154) the total arable area of south Kiangsu at this time was put at 25, 680, 000 mou, but this of course included the three <u>hsien</u> of K'un-shan, Wu-hsien and Tan-t'u. From data available from another source it seems likely that the arable area in these three <u>hsien</u> was about 3, 754, 207 mou.<sup>(155)</sup> Therefore, the total arable area of south Kiangsu (excluding K'un-shan, Wu-hsien and Tan-t'u) was:

# 25,680,000 - 3,754,207 = 21,925,793 mou

- and so the reallocated land was 32.74% of the total arable area. This is closely in line with estimates of landlord holdings given in the same source from which the data on confiscation and reallocation are taken. Thus, an investigation of 1,436 <u>hsiang</u> in 18 south Kiangsu <u>hsien</u> revealed that landlords (representing 2.48% of all agricultural households) owned 36.68% of all the land. (156)

In order to show allocation of land on a per capita basis an estimate must be made of the average size of agricultural household at this time. Fortunately, sufficient data are available to enable us to do this. We know that the 1,191,872 households belonging to mutual-aid teams during the summer of 1952 represented 47.76% of all agricultural households in south Kiangsu. <sup>(157)</sup> Thus, the total number of agricultural households was 2,495,544. Given that the agricultural population in south Kiangsu was 10,290,000<sup>(158)</sup> the average size of agricultural household must have been:

 $10,290,000 \div 2,495,544 = 4.12.$ 

This is the figure which will be used in this section.

To return now to the original data. Allocation of land in the 24 <u>hsien</u> of south Kiangsu was as follows:

Table II.2: Reallocation of land in south Kiangsu

Total amount of land reallocated (mou)	Number of peasant house- holds receiving land	Amount of land re- allocated per household	Amount of land re- allocated per capita
7,180,537	1,519,472*	4.73 mou	1.15 mou

\* = 6,260,225 peasants.

Source: SNJP, 1/1/52, op. cit., pp.2-3.

On average, each peasant received just over one mou of land (about one-fifth of an acre). In order to put this into perspective, this figure may be compared with the following preliminary information on land redistribution in other provinces published in July, 1951:

Table II.3:	The average per capita amount of arable land received by peasants as a result of reallocation in 4 provinces of China.				
Honan		2.0	- 3.0 mou		
Hunan and Hupeh		1.0	- 2.5		
South Shensi		1.5	- 2.0		
North Shensi		4.0			
Shensi (mountain	areas)	10.0			
Source	UHID	2/7/51	"The Success	of the Land	Refo

Source: <u>HHJP</u>, 2/7/51, "The Success of the Land Reform Movement during the Past Year."

The same source also provides a figure for the East China region:

Table II.4: Reallocation of land in East China.

Average amount of reallocated land received per capita

East China (Shantung, North Kiangsu, South Kiangsu, Chekiang, North Anhwei, South Anhwei)

2.00 mou

Source: HHJP, 2/7/51, op. cit.

It is interesting that this figure is almost twice as high as the south Kiangsu figure shown in Table II.2. But it must be remembered that the East China figure is an average for a large region containing areas (like north Kiangsu and Shantung) where the man-land ratio was more favourable than in densely-populated south Kiangsu. This point is brought out in another report which stated that while poor peasants and agricultural labourers in East China received on average 1.5 - 2.0 mou, in individual areas the figure was as high as 3.0 mou or as low as 0.7. <sup>(159)</sup> It is worth adding that if the proposition that certain parts of south Kiangsu were characterised by relatively low rates of tenancy is correct, the amount of land available

for reallocation would have been further limited.<sup>(160)</sup> In any case, there is no contradiction between the East China average and the lower south Kiangsu estimate.

The south Kiangsu figure of 1.15 mou (see Table II.2 above) conceals differences not only between areas but also between classes of peasants. Thus, the table below shows the differentials in the per capita allocation of land between poor peasants (and hired agricultural labourers) and middle peasants:

	1.5 Per capita alloc middle peasants	in south Kiangsu	or and
	Average amount of land reallocated per capita	Range of reallocation of land	Total amount of land owned after reallocation*
Poor peasants and agricultural abourers:	1.2 mou	0.6 - 2.0 mou	85%
Middle neasants	1 1	0.5 - 1.9	12.0%

\*Expressed as percentage of the average amount of land (per capita) in a locality.

Source: SNJP, 1/1/52, op. cit., pp. 2-3

(In addition some land was distributed to "tenant rich peasants", (161) although the amount involved cannot have been great.)

By applying these figures to a per capita arable area estimate for south Kiangsu it is possible to give a general idea of the impact of land reform upon farm size:

The total arable area of south Kiangsu at this time was estimated to be 25,680,000 mou.<sup>(162)</sup> Therefore the arable area per head of agricultural population was:

 $25,680,000 \div 10,290,000 = 2.495$  mou.

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In other words, if all the available land were shared equally among the agricultural population, each peasant in south Kiangsu would get about two and a half mou. However, reallocation was not equal and did not lead to equal landholdings. The total size of holding of a poor peasant or agricultural labourer after confiscated land had been redistributed was equal to 85% of the average per capita amount of land in the locality. So applying this figure to south Kiangsu as a whole, the average per capita holding of a poor peasant after land reform was;

 $85\% \ge 2.495 = 2.12$  mou.

By extension the average farm size of a poor peasant household was

 $2.12 \times 4.12 = 8.73 \text{ mou.}$ 

But each poor peasant also received an average of 1.2 mou through the reallocation of confiscated or requisitioned land. Therefore, by combining all the available information it is possible to estimate the average farm size of poor peasants in south Kiangsu before and after land reform:

Table II.6:	Amounts of land held by poor peasants
	before and after land reform.

	Per capita	Per household (i.e. size of farm)
Average amount of land owned after land reform:	2.12 mou	8.73 mou
- of which land received through redistribution:	1.20	4.94
Therefore, land originally owned:	0.92	3.79

Put another way, land reform had the effect of increasing the size

of a poor peasant's (agricultural labourer's) farm by more than 130%.

Similarly, for middle peasants:

and the second	beiore and after fand felorin.		
	Per capita	Per household (i.e. size of farm)	
Average amount of land owned after land reform:	2.99 mou*	12.32 mou	
- of which land received through redistribution:	1.10	4.53	
Therefore, land originall owned:	y 1.89	7.79	

Table II.7: Amounts of land held by middle peasants before and after land reform.

\* i.e. 120% x 2.495 mou.

In this case the increase in farm size was a little more than 58%.

In these broad terms land reform would appear to have held very considerable benefits for middle peasants and (above all) poor peasants and agricultural labourers by bringing about a substantial increase in the size of their farms. However, a number of qualifications must be made: first, the increase in farm size in absolute terms was very much smaller than a rise of 130% may suggest. Agriculture in south Kiangsu was still characterized by very small farms and whatever the proportional figures may indicate, one of the problems that emerged from land reform was that of the small, and declining, average size of holding. This is not to deny Ou-yang Hui-lin's statement that even the reallocation of a tiny plot would have beneficial incentive effects on a peasant who had previously owned little or no land. But it is to suggest that such advantages must be set against the disincentive effects that could arise from other factors.

The second point is a repetition of one made earlier: namely that an average figure may conceal wide variations in the allocation of land between different areas. This can be shown in two ways: first, by examining what

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happens to farm size when the maximum and minimum (as opposed to the average) amounts of land are reallocated to peasants; and then by considering the impact of land reform in smaller areas of south Kiangsu such as the Special Districts.

Table II.8 shows the effect on the per capita holdings of poor and middle peasants of allocating to them the minimum and maximum amounts of land:

Table II.8:	The impact of maximum and minimum allocation of land on poor and middle peasants. easants and agricultural labourers:		
(a) Poor pea			
	Minimum allocation (= 0.6 mou)	Maximum allocation (= 2.0 mou)	
Average size of holding after land reform:	2.12 mou	2.12 mou	
of which land received through redistribution:	0.60	2.0	
Therefore size of holding before land reform:	1.52	0.12	
(b) Middle p	easants:		
	Minimum allocation (= 0.5 mou)	Maximum allocation (= 1.9 mou)	
Average size of holding after land reform:	2.99 mou	2.99 mou	
- of which land received through redistribution:	0.50	1.90	
Therefore size of holding before land reform:	2.49	1.09	

Sources: Tables II. 5, II. 6 and II. 7.

The way in which regional variations affect this general picture can be illustrated by considering the effect of reallocation in Chinkiang, Soochow and Sung-chiang Special Districts. First, the following table shows estimates of average per capita arable land in each area:

> Table II. 9: Estimates of arable land per head in Chinkiang, Soochow and Sung-chiang Special Districts.

	Agricultural population	Total arable area	Per capita arable area
Chinkiang	3,191,300	8,390,000 mou	2.63 mou
Soochow	4,258,500	9,5 <mark>90,000</mark>	2.12
Sung-chiang	1,995,700	5,120,000	2.57

Sources:

areas:

Population: Derived from information in CKNYCCHWT, op. cit., p. 207.

Arable Ibid., p.207, Table 1.

Note: Arable area data for the Special Districts are not available for 1951 and the estimates shown refer to 1956. Although this is a potential source of error, it is reasonable to assume that the discrepancy between the two years is not large.

The average amount of land reallocated to poor and middle peasants

can now be applied to these estimates of per capita arable area:

Table II. 10: The average size of holding of poor and middle peasants in Chinkiang, Soochow and Sung-chiang Special Districts before and after land reform.

Chinkiang	Soochow	Sung-chiang
85% x 2.63	85% x 2.12	85% x 2.57
= 2.24 mou	= 1.80 mou	= 2.18 mou
1.20	1.20	1.20
g 1.04	0.60	0.98
	Chinkiang 85% x 2.63 = 2.24 mou 1.20 3 1.04	Chinkiang Soochow   85% x 85% x   2.63 2.12   = 2.24 mou = 1.80 mou   1.20 1.20   1.04 0.60

Table continued overleaf.
## Table II. 10 (continued):

1.0	Chinkiang	Soochow	Sung-chiang
(b) Middle pe	asants		
Average size of holding after land reform:	120% x 2.63	120% x 2.12	120% x 2.57
=	3.16 mou =	2.54 mou	= 3.08 mou
of which land received through redistribution:	1.10	1.10	1.10
Therefore size of holding before land reform:	2.06	1.44	1.98

Sources: Tables II. 5 and II. 9

The weakness of this table is of course that it assumes that the amount of land allocated to peasants was the same throughout south Kiangsu. However, because of differences in the rate of tenancy and man-land ratio this cannot have been the case. Accordingly the data presented above should be viewed only as a very approximate guide to the impact of land reform on size of holding in different parts of the region.

The point about amounts of land for reallocation differing between regions is demonstrated by a number of contemporary reports. In Sungchiang Special District each peasant with little or no land of his own was said to have received 2.0 - 3.0 mou (or even more), except in <u>hsien</u> such as Wusih and Yang-chung where land was scarce and per capita allocation was correspondingly reduced. <sup>(163)</sup> The situation in Wusih was well described in another report which showed that 127,631 mou had been distributed among 49,315 households. <sup>(164)</sup> This gave each <u>household</u> 2.59 mou and suggested a per capita figure of only 0.59 mou.

Conditions also varied in the urban areas. According to data published in May, 1952 peasants in the Nanking suburbs would appear to have received almost the maximum allocation of land (1.71 mou per head). <sup>(165)</sup> By contrast, in Shanghai 173,900 mou of arable land had to be shared by 255,041 peasants so providing each with an average of 0.68 mou. <sup>(166)</sup>

But whatever the regional variations, the most striking feature to emerge from the data is that although the poor peasants and agricultural labourers derived the greatest benefit from land reallocation, it was the middle peasants who ultimately stood to gain most from land reform. They received less land than the poor peasants but because they already had much larger farms than those of the poor peasants they continued to enjoy a very definite advantage in terms of farm size even after land reform had been completed.

In fact, one of the most interesting aspects of land reform in south Kiangsu that the data reveal is that despite the considerable initial difference in the size of farms belonging to each class, the middle peasants were allocated an amount of land that was only marginally less than that given to the poor peasants. In this respect the Chinese planners appear to have been pursuing a deliberately non-egalitarian policy in the reallocation of confiscated land. Other information showing that the per capita holdings of poor peasants and agricultural labourers relative to the overall average amount of land owned per head of the agricultural population after land reform was lower in south Kiangsu than in other provinces gives further support to this conclusion. <sup>(167)</sup> However, as we shall attempt to show in the following pages, this non-egalitarian policy may have been economically if not socially justified in the conditions prevailing in south Kiangsu. But what was the impact of the reallocation of land in real terms that is, in terms of the extra production it could provide the recipient farmer? In order to answer this important question we shall make the simplifying suggestion that all the land belonging to a peasant was planted in food grains. This will then enable us to examine the impact of land reform in terms of the food grain output it could provide. In addition, we may bring consumption into the picture by considering the calorific content of the grain production.

There remains one major difficulty: the choice of an average food grain yield for south Kiangsu at the time of land reform. No such figure appears to be available from any source and it has therefore been necessary to derive an estimate from a small number of observations of total output and sown area of grain. Although there is no way of checking its accuracy, it is hoped that the figure of 285 chin per mou resulting from these calculations is close to the real one.<sup>(168)</sup>

On the basis of these assumptions we can now derive the estimates in Table II. 11 on the following page.

What emerges from this table is the importance of reallocated land in south Kiangsu as a means of <u>supplementing</u> the output which was already being produced by the peasant. (169) Even if the maximum amount of land were allocated to a poor or middle peasant, it could not on its own provide sufficient output to meet his food grain requirements for a year. (170) The impact of reallocation upon poor and middle peasants Table II.11;

(a) Poor peasants and agricultural labourers

e peasan	Amount of land reallo- Total food lood land reallo- Total food grain out-   cated put put (chin)   1.2 mou 342.00 2   0.6 171.00 1   2.0 570.00 4   0.5 171.00 1   1.1 mou 313.50 2   0.5 142.50 1   1.9 541.50 4
e peas	Amount of land reallo- cated   Total food grain out- but     1.2 mou   342.00     0.6   171.00     2.0   570.00     1.1 mou   313.50     0.5   142.50     1.1 mou   313.50     1.9   541.50
	Amount of land reallo- Total food land reallo-   land reallo- grain out put put (chin)   1.2 mou 342.00   0.6 171.00   2.0 570.00   1.1 mou 313.50   0.5 142.50   1.9 541.50

- Estimated on the basis of an average yield of 285 chin per mou. See Appendix C. (I)
- (ii) Edible weight is assumed to be 80% of total grain output.;
- (iii) 1 chin = 0.5 kilogram.
- From the structure of food grain production in Kiangsu 1 kilogram of grain is assumed to equal 2,672 calories. (iv)
- (v) Column (iv) -:- 365.
- balanced diet. See O.L. Dawson, "Fertiliser Supply and Food Requirements" in J.L. Buck, 2054 calories was considered by the Chinese Medical Association (1939) to represent a well-(iv)

O.L. Dawson and Y.L. Wu, Food and Agriculture in Communist China, Praeger, 1966, p.123.

Because of recent suggestions that calorific requirements have been exaggerated in the past, the figure of 1900 calories has been included as another criterion for a well-balanced diet. (vii)

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The real importance of the reallocated land can be seen more clearly if the potential food grain output of a peasant's holding before and after land reform is compared. This will indicate more precisely the impact of land redistribution upon rural production and consumption (see Table II. 12 on following page).

So far we have assumed that the average grain yield of 285 chin per mou may be applied equally to all peasants in south Kiangsu. However, the evidence suggests that because of different resource and skill patterns the productivity of poor, middle and rich peasants was quite different. For example, Liao Lu-yen, the Minister of Agriculture, made the point in 1958 that;

"Prosperous middle peasants have more and better land, adequate water supplies, fertilizers and draft animals and all the tools they need. They can get the agricultural work done on time and their technical standard of cultivation is relatively high. In these circumstances their unit area yields are generally about 30% higher than those of poor peasants." (171)

Extrapolating from this for the single case of Kiangsu we can attempt to estimate the different yields of poor, middle and rich peasants in the province. Assuming that the yields of middle peasants

Average size of original per capita	Total food grain out- put (chin)	Edible weight (chin)	Edible weight (kilograms)	Calorific content per year	Calorific content per day	As percentage of 2054 calories	As per of 19 calo
Average size of final	262.20	209.76	104.88	280, <b>2</b> 39. 36	767.78	37.38	
2.12 mou	604.20 (b) Middl	483.36 e peasants:	241.68	645, 768. 96	1769.23	86.14	
Average size of original per capita holding 1.89 mou	538. 65	430.92	215.46	575, 709. 12	1577.29	76.79	
Average size of final per capita holding	857 15 15	681 72	340 B6	010 777 02	2405 28	86 [2]	-

The production potential (in terms of food grain) of peasants' holdings before and after land reform.

Table II. 12;

are represented by the provincial average (285 chin) and given that prosperous middle peasant yields are 30% above those of poor peasants, the following index can be constructed:

Average g categories	grain yields for different s of peasants in Kiangsu.
ields sant 00)	The absolute level of grain yields (chin per mou)
	237.50
	285.00
	308.75
	332.50
	Average g categories ields sant 00)

With this revised information the calculations of Table II. 12 can now be re-worked (see Table II. 14 on the following page).

A middle peasant's holding before land reform was almost as large as that of a poor peasant after confiscated land had been reallocated. Although land reform succeeded in narrowing the gap in farm size between poor and middle peasants, in 1951-52 middle peasant farms were still more than 40% larger than those of poor peasants. <sup>(172)</sup> The economic implications of this were very important. For the extra land which middle peasants received through redistribution enabled them to move from a situation in which their land was insufficient to provide for their needs to one in which not only were they able to meet their subsistence requirements but they also possessed a small cushion against adventitious events. In personal terms the benefits which the acquisition of extra land conferred are obvious enough. But more significant, in broader economic terms the extra land provided a surplus which for the

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	(a) Poorp	easants an	d agricultural	labourers.			1
	Total food grain out- put (chin)	Edible weight (chin)	Edible weight (kilograms)	Calorific content per year	Calorific content per day	As percentage of 2054 calories	As percentage of 1900 calories
Average size of original per capita holding 0.92 mou	218.50	174.80	87.40	233, 532.80	639.82	31.15	33.67
Average size of final per capita holding 2.12 mou	503, 50	402.80	201.40	538, 140, 80	1474.36	71.78	77.60
	(b) Middle	peasants;					
Average size of original per capita holding 1.89 mou	538. 65	430.92	215.46	575, 709.12	1577.29	76.79	83.02
Average size of final per capita holding							
2.99 mou	852.15	681.72	340.86	910, 777. 92	2495.28	121.48	131.33
	Sources:	Tables I	I. 12 and II. 13.				

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first time enabled middle peasants to undertake net agricultural investment (for example, land improvements or the purchase of more inputs). Although the Chinese could have followed a distribution policy which further narrowed the gap in farm size between poor and middle peasants, it seems clear that the policy actually adopted was more rational from an economic point of view. It is in this sense that our earlier remark about the economic validity of a non-egalitarian programme of land distribution should be understood.

By contrast, the reallocation of land to poor peasants and agricultural labourers had much less economic importance. In purely personal terms the fact that their potential grain output was more than doubled was not insignificant, but if their original holdings were totally inadequate to support them the data presented above indicate that even after land distribution their position remained insecure. Even on the most optimistic assumptions they could not be assured of that important surplus which would provide the vehicle for farm investment and agricultural expansion. If we assume that the gross food grain output of middle peasants (852.15 (173)chin) represents the smallest amount compatible with net farm investment, the poor peasants would have had to achieve an average yield of 401.96 chin per mou on their final per capita holdings in order to be in a position to expand or improve their farm operations. The impossibility of such a task is indicated by the fact that this was more than 40% above the average south Kiangsu yield at this time.

To sum up: the effects of the reallocation of land were different for poor and middle peasants. Article One of the Agrarian Reform Law had looked to the establishment of peasant ownership of land as the means of "... setting free the rural productive forces, developing agricultural production and so paving the way for New China's industrialization". <sup>(174)</sup> In south Kiangsu such hopes had a limited applicability. Because of the generally high man-land ratio only small amounts of land were available for reallocation to peasants. As a result the economic effect of land reform depended to a large extent on the size of their original holdings. For this reason only for the middle peasants did land reform offer any prospect of agricultural expansion and growth.

What was the effect of land reform on classes other than the poor and middle peasants? More exactly, what was its impact upon rich peasants (for the other remaining class, the landlords, had ceased to exist as a separate economic category by 1952)?<sup>(175)</sup> Since the publication of the Agrarian Reform Law in June, 1950 emphasis had been on the need to preserve the rich peasant economy. Such a policy was founded on sound economic reasoning for by virtue of their larger holdings and capital assets the rich peasants tended to be the most efficient and productive farmers. As such their role in agricultural recovery and growth during this period was a vital one and it was of the utmost economic importance that they should be permitted to continue unimpeded in their agricultural operations.

From the January report on land reform we know that following land distribution the average per capita holding of rich peasants was 200% larger than the per capita average in any particular locality. <sup>(176)</sup> In other words, with the per capita average for all south Kiangsu of 2.495

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mou as a base, the average holding of a rich peasant after land had been reallocated was 4.99 mou. By extension the average size of a rich peasant farm was 20.56 mou (4.12 x 4.99). This was more than twice as large as the average farm size of a poor peasant and one and three quarters times that of a middle peasant and in terms of food grains could provide the amounts of output and calories shown in Table II.15 on the following page.

The force of these figures is clear. In terms of production potential the rich peasants were far ahead of their nearest rivals, the middle peasants. Thanks to their advantages in both land and capital their gross food grain output was 94.7% higher than that of the middle peasants. Looked at in these terms the policy of "preservation of the rich peasant economy" would appear to have been not just a pragmatic concession to the exigencies of a temporary situation but rather the <u>sine qua non</u> of agricultural expansion.

But what the figures do not show is the extent to which the rich peasants' holdings were impinged upon during the land reform campaigns. From the earlier discussion of the respective provisions relating to the treatment of rich peasants in the central land reform regulations and those published by the regional authorities we should hardly be surprised if dispossession of rich peasants had occurred. However, information on this subject is unfortunately extremely limited. At a general level one report stated that "... in most parts of south Kiangsu land rented out by rich peasants has not been requisitioned. Likewise, land cultivated by the rich peasants themselves or through the use of hired labour, and other

		Table II. 15;	The product peasant hold	ion potential (i ling after land	n terms of fo reallocation.	od grain) of a rich	
	Total food grain out- put (chin)	Edible weight (chin)	Edible weight (kilograms)	Calorific content per year	Calorific content per day	As percentage of 2054 calories	As percentage of 1900 calories
Average size of final per capita holding							
4.99 mou	1659.18	1327.34	663.67	1, 773, 326	4858.43	236.54	255.71

As Table II.11 except food grain yields assumed at 332.5 chin per mou (see Table II.13). Notes:

property belonging to them, have been strictly protected" (pao-liu). (177) This would seem to indicate that some rich peasant land was taken for purposes of redistribution, although apparently strictly within the provisions of the local land reform regulations. More revealing perhaps is a single fragment of information from a different source to the effect that in nine hsien of Sung-chiang Special District "... during land reform 1,685,000 mou of land belonging to landlords was confiscated, together with public land of various kinds and other land rented out by rich peasants of the semi-landlord type and landlords with industrial or commercial interests - making in all a total of 2, 160,000 mou". (178) In other words 475,000 mou, or 21.99% of all confiscated land, came from sources other than the straightforward agricultural landlords. Bearing in mind that the planners were presumably treating the land owned by landlords who were engaged in industry and trade with caution and that "public land" was not especially important in south Kiangsu, it is possible that there was a significant contraction in the size of rich peasants' land-holdings. (179) But it is important here to distinguish between ownership holdings and operational holdings: Article Six of the south Kiangsu land reform regulations specifically allowed for the requisition of land rented out by rich peasants<sup>(180)</sup> and as the first quotation on this page indicates, it was probably this land that was mainly encroached upon.

In the absence of further information to the contrary we are forced to conclude that although substantial amounts of land owned by rich peasants may have been requisitioned and reallocated to poor and middle peasants, their operational holdings were largely unaffected. We pointed out at the beginning of the discussion that more up-todate information on the confiscation of land in south Kiangsu was published in September, 1952. It seems appropriate therefore to conclude this section on land reallocation by briefly examining these data.<sup>(181)</sup>

According to this later source 10, 418, 260 mou of land (40.57% of the total arable area) was confiscated or requisitioned in south Kiangsu and 66.67% of all agricultural households benefitted from the subsequent reallocation. Since the total number of agricultural households was 2, 495, 544 and the average size of household was 4.12 persons, <sup>(182)</sup> the number of agricultural households to whom land was redistributed must have been 1, 663, 779 (6, 854, 770 peasants).

On the assumption that all the confiscated land was reallocated, it is now possible to show the average per household and per capita amounts of land redistributed in south Kiangsu:

Total amount of land confis- cated/requi- sitioned.	Number of agricultural households receiving land	Amount of land reallocated per household	Amount of land reallocated per capita
(mou)		(mou)	(mou)
10,418,260	1,663,779	6.26	1.52

Table II.16: Reallocation of land in south Kiangsu (revised estimate)

Source:

SNJP, 30/9/52, op. cit., p.2.

These estimates are considerably higher (by 40%) than those used throughout the previous discussion. In part the difference reflects wider and better statistical coverage: the earlier figures were only for 24 hsien while these cover the whole of south Kiangsu (27 <u>hsien</u>). However, this cannot account for the entire difference<sup>(183)</sup> and it seems likely that the increase in confiscated land was also the result of the discovery of hitherto untouched land which had been concealed by the landlords. To the extent that the figures in II. 16 are closer to the truth the earlier calculations are of course underestimates.

But the difficulty in using the later figures lies in the assumption that all confiscated land was reallocated. The whole of the fourth section of the south Kiangsu land reform regulations was concerned with the treatment of "special land problems" and set down the principle that certain kinds of confiscated land (such as that used for construction projects or agricultural experimental work, orchards, forests, etc.) was not to be reallocated but should be retained and used under official supervision. In other words the amount of land reallocated was less than the amount confiscated. It follows that if the earlier estimates are underestimates, the later ones must be overestimates. For such reasons and in view of the fact that the earlier report provides information on the distribution of land by classes, it has seemed best to rely on the more precise data given in the January article of the 'South Kiangsu Daily'.

Nevertheless, in order to show that the argument presented earlier in this section is not undermined by the later data, let us for the moment assume that the amount of land reallocated (not confiscated) in south Kiangsu was the average of the January figure (plus our estimate for the three hsien not included) and the later September figure. That is:

> 10, 418, 260 + 8, 682, 220 = 19, 100, 480 mou $19, 100, 480 \div 2 = 9, 550, 240 mou$

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On this basis the amounts of land redistributed per household and per capita would be as follows:

Tabl	e II. 17: H <u>o</u>	lypoth f land	etical estimate of in south Kiangsu.	reallocation
Total amount of land confiscated/ requisitioned	Number agricultu: househol receiving land	of ral ds g	Amount of land reallocated per household	Amount of land reallocated per capita
(mou)			(mou)	(mou)
9,550,240	1,663,77	9	5.74	1.39

This does not take into account the difference in per capita allocation between poor and middle peasants. But in the earlier calculations it was shown that the redistribution of 1.10 mou to a middle peasant would just provide him with a sufficient surplus to undertake net investment. Therefore, if it is assumed that middle peasants continued to receive only 1.10 mou, (184) then given the average reallocation figure of 1.39 mou it is conceivable that poor peasants received 1.68 mou. (185) With their original plot of land this would have given them a final (post land-reform) per capita holding of:

1.68 + 0.92 = 2.60 mou.

Assuming that the average food grain yield of poor peasants was 237.50 chin per mou, (186) it is once again possible to work out the production potential of their land after reallocation:

	Tabl	le II. 18:	The productic poor peasant <sup>1</sup>	on potential (in t s holding after ]	erms of food land reallocat	grain) of a hypothe ion.	stical
	Total food grain output (chin)	Edible weight (chin)	Edible weight (kilograms)	Calorific content per year	Calorific content per day	As percentage of 2054 calories	As percentag of 1900 calories
Average size of final oer capita nolding							
2.60 mou	617.50	494.00	247.00	659, 984. 0	1808.18	88.03	95.17
	Notes:	As Table II.	11 except food	grain yields as	sumed at 237.	5 chin per mou	

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(see Table II.13).

In other words, even if the poor peasants received the maximum benefit from the reallocation of the increased amount of confiscated land their final holdings were still unable to provide them with the all-important surplus which might permit net farm investment to take place and agricultural growth to get under way. Indeed, with average yields of 237.5 chin per mou a poor peasant needed to own 3.59 mou of land before he could attain the same gross output as a middle peasant. Unless the potential economic benefits of land reform were to be sacrificed it seems clear that the high man-land ratio simply precluded the granting of per capita holdings of this magnitude to poor peasants in south Kiangsu.

<u>A priori</u> reasoning would suggest that per capita allocation of confiscated and requisitioned land was higher in the north of Kiangsu than in the south. This is borne out by the small amount of statistical information available for the north of the province.

The Vice-Chairman of the North Kiangsu Land Reform Committee stated in a report made in December, 1951 that about 40-60% of the total arable area of the region had been confiscated (requisitioned) to the benefit of 60-70% of the agricultural population. <sup>(187)</sup> From this information estimates of the total amount of land confiscated and the number of peasants to whom it was reallocated can be made:

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Table II. 19: Confiscation and reallocation of land in north Kiangsu.

Total	agricult	tural pop	ulation	: 18,7	76,	370. <sup>a</sup>
	60% of	f agricul	tural po	opulation	=	11,265,822
	70% "	11		11	=	13, 143, 459
Total	arable a	area:		50,0	00,	000 mou <sup>b</sup>
	40% of	f arable	area		=	20,000,000 mou
	60% "	11	11		11	30,000,000 mou
	S	ources:	a	SPJP, 30 in North	)/6/ Kia	51, p.4, "Land Relations ngsu Now and in the Past".
			Ъ	See Appe jih-pao ( CFJP, 2 Kiangsu millions.	ndi: Libe 3/7, agr: T	x B. Data in <u>Chieh-fang</u> eration Daily), hereafter /50 would suggest a north icultural population of 18 his lends support to the

If we further assume an average household size of 4.12 persons the range of per capita and per household allocation of land can also be shown;

Table II.20: Reallocation of land per household and per

head of agricultural population in north Kiangsu.

Total amount of land reallocated		Number of peasants receiving	Amount of land reallocated per household	Amount of land reallocated per capita	
(mou)			(mou)	(mou)	
20,000,000	(a) (b)	11,265,822 13,143,459	7.33 6.26	1.78 1.52	
30,000,000	(a) (b)	11,265,822 13,143,459	10.96 9.39	2.66 2.28	

Sources: <u>SPJP</u>, 30/6/51, <u>op. cit.</u>, p.4. <u>CFJP</u>, 23/7/50, <u>op. cit.</u>, Appendix B.

In all cases the average amount of land reallocated to each peasant is higher than in south Kiangsu.<sup>(188)</sup> This fact emerges from another contemporary report that each peasant benefitting from land reform in north Kiangsu on average received 1.0 - 2.0 mou. Regional variations were considerable: in areas where the agricultural population was small the figure was as high as 4.0 - 6.0 mou while elsewhere it was only 0.8 -1.00 mou.

But if the peasants of north Kiangsu appear to have benefitted more from land reform than those in the south, a glance at the implications in real terms (in terms of the extra output which the reallocated land could provide) will show that the advantage was illusory. This is illustrated in the table on the following page which attempts to estimate the production potential of reallocated land in north Kiangsu on the basis of an average grain yield of 150 chin per mou. <sup>(189)</sup>

Because of more favourable natural conditions in the south the production capacity of a given area of land was higher than in the north. Although the average amount of land reallocated per capita was only 1.15 mou in south Kiangsu, the corresponding figure for the north would have needed to be 1.72 mou in order to produce the same amount of food grain. The difficulty is that no overall per capita figure is available for north Kiangsu and so no comparison can strictly be made. But the fact that three of the four estimates of per capita reallocated land in north Kiangsu shown in Table II.20 are higher than 1.72 mou perhaps indicates that the higher fertility of the south was offset by the larger amounts of land redistributed in the north.

		11 OTOD T	land in	n north Kiangsu.	ATTE A 111 10-	01 1000 B1 4111 01 140	1100010
	Total food grain output (chin)	Edible weight (chin)	Edible weight (kilograms)	Calorific content per year	Calorific content per day	As percentage of 2054 calories	As percentage of 1900 calories
Average amol of land re- allocated per capita	Int						
1.0 mou	150.00	120.00	60.00	160,320.00	439.23	21.38	23.12
2.0	300.00	240.00	120,00	320, 640, 00	878.47	42.77	46.24
	Notes: As	з Table II. l	1, except ave	rage yield of foo	d grain is he	re assumed to be 15	0.0 chin per mou.

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What is clear is that only peasants who received well above the average amount of reallocated land could hope to produce a surplus that was large enough to permit net agricultural investment. The differential effects on grain production of reallocating the minimum and maximum amounts of land are demonstrated in the table on the following page.

The lack of quantitative data on confiscation and reallocation in north Kiangsu is partly compensated for by some interesting information on changes in the class composition of rural society following land reform. The three examples which follow are unlikely to be representative but rather show the impact of land reform in the most favourable light. They are still interesting as an indication of the kind of social changes that were taking place.

The first case was that of a village in Nan-t'ung hsien. <sup>(190)</sup> Prior to land reform it contained 16 households of agricultural labourers and 46 of poor peasants. But after the reallocation of land had been completed every one of these households was said to have risen to middle peasant status. What is more, the case was claimed to be representative of the entire hsien.

		Table II.22;	The produ amounts o	ction effect of the fand in north F	ne reallocation Siangsu.	1 of the minimum	and maximum
	Total foo grain output (chin)	od Edible weight (chin)	Edible weight (kilograms)	Calorific content per year	Calorific content per day	As percentage of 2054 calories	As percentage of 1900 calories
Average am of land reallocated per capita	ount						
0.8 mou	120.0	96.0	48.0	128, 256.0	351.39	17.11	18.49
4.0	600.0	480.0	240.0	641,280.0	1756.93	85.54	92.47
6.0	900.0	720.0	360.0	961,920.0	2635.40	128.31	138.71
	Notes:	As Table II.21.					

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Another example revealed a similar pattern. In a village of Pin-hai <u>hsien</u> (Yen-ch'eng Special District) the class composition of the 158 resident households before land reform was as follows:

Table II. 23:The class composition of a village in<br/>Pin-hai hsien before land reform.

			Number of households
Poo	r peasants		88
Mid	dle peasan	ts	29
Ric	h peasants		6
Lan	dlords		5
		Total	128
	Source:	SPJP, 30/6/52	2, <u>op. cit.</u> , p.2.

The discrepancy of 30 households is not explained: perhaps they represented the agricultural labourers in the village. In any case, after land reform the situation changed dramatically, the number of poor peasant households falling to 18 while that of middle peasants rose to 137. If the three households unaccounted for were rich peasants it is interesting that the number of households in this category had fallen by half.

Finally there was the case of an unnamed village in the "newlyliberated" region of north Kiangsu. Of the 80 poor peasant households that had existed before land reform, 36 (45%) subsequently rose to the status of "prosperous middle peasants".

On the evidence of these three examples land reform was very successful in raising a large number of poor peasants to the middle peasant category. However, as was mentioned earlier, there is reason to be sceptical of their general applicability in Kiangsu and they are probably best regarded as an indication of the potential rather than the actual gains from land reform - at least, if the move from poor to middle peasant status is believed to have more than semantic or mere propaganda significance.

## (2) Confiscation and reallocation of other factors:

Land reform was concerned with more than the redistribution of land and Article Two of the Agrarian Reform Law stated that "... draft animals, farm implements and surplus grain of the landlords, and their surplus houses in the countryside ... "<sup>(192)</sup> were also to be confiscated and reallocated among poor peasants. Indeed, in purely economic terms the reallocation of ploughs and oxen was almost as important as that of land itself since the efficient operation and future growth of the agricultural sector depended upon the availability of all three.

There is scant information on the redistribution of surplus grain belonging to the landlords in Kiangsu but it is likely that this was one of the earliest acts in the land reform movement. <sup>(193)</sup> The economic <u>raison</u> <u>d'etre</u> was that the distributed grain should be used by the peasants for productive purposes - that is, as seed. However, in view of the general food shortage occasioned by recent natural disasters it is more likely that the grain was used for consumption. <sup>(194)</sup>

Throughout south Kiangsu<sup>(195)</sup> over 133 million chin of surplus grain were confiscated and (presumably) redistributed to the peasants.<sup>(196)</sup> If this had been distributed among those peasants who subsequently received land it is clear that the effect would have been negligible since each peasant would have received a mere 19.5 chin. In fact a more restrictive policy was adopted whereby each recipient was given a maximum of 500 chin of grain.<sup>(197)</sup> This meant that the largest possible number of peasants who could benefit was 266, 198<sup>(198)</sup> or only 2.59% of south Kiangsu's agricultural population. Even taking into account the fact that every peasant would not have received the maximum there can be little doubt that the impact of grain distribution was only of peripheral importance.<sup>(199)</sup>

Much more serious was the situation regarding the supply of the two most important items of agricultural working capital, draft animals and tools. Throughout south Kiangsu only 33,700 draft animals were confiscated from landlords during the land reform campaigns<sup>(200)</sup> and yet these had to be distributed among 1,663,779 agricultural households.<sup>(201)</sup> This provided each household with a theoretical 0.02 animals and each person with 0.005! Stated more meaningfully, every draft animal that was confiscated had to serve 49.37 agricultural households or 203.4 peasants.

Seen in this light it is obviously no coincidence that the development of mutual-aid teams was already under way before land reform had properly been completed. <sup>(202)</sup> But even this provided only a partial solution to the problem for no matter how efficient the system of sharing the animals was, only an increase in draft animal numbers could ultimately remove the gap between animal requirements and availability. This can be shown fairly simply: if the average per capita amount of reallocated land in south Kiangsu was 1.15 mou each household would have received 4.738 mou. But we have just established that each confiscated draft animal had to serve 49.37 households. Therefore, the burden of (reallocated) arable land per head of (reallocated) draft animals was;

 $49.37 \times 4.738 = 233.915 \text{ mou}$ 

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The full implication of this enormous burden can be seen when it is set against the work capacity of draft animals. It has been estimated that the maximum burden of agricultural work<sup>(204)</sup> per animal is between 24 -34 mou during the spring season and 12 - 17 mou during the summer.<sup>(205)</sup> Even assuming that all the existing animals were strong and fit a sevenfold increase in animal numbers was required before the gap between availability and requirements was eliminated. We may assume that the example of the village in the T'ai Hu region where the shortage of draft animals was overcome by the simple expedient of organizing the peasants to pull the ploughs<sup>(206)</sup> was one that was repeated throughout Kiangsu.

Another factor which exacerbated the shortage was the slaughter of draft animals by landlords. Although no precise data are available to show the extent of these killings, they were frequently mentioned as one of the sabotage activities practised by landlords and the experience of later collectivization campaigns suggests that they could have reached serious proportions. Illegal sales of animals and disease caused by inadequate care further aggravated the situation. (207)

Two final qualifications need to be made. First, only reallocated land and draft animals have been considered. Therefore, to the extent that the animals also had to work on the existing holdings of peasants to whom confiscated land was redistributed the situation may actually have been worse than that shown above. On the other hand, to the extent that the peasants already had some draft animals the situation may have been more favourable. Since statistical data on the total number of draft animals in south Kiangsu are not available it is impossible to know the exact position. But given that China

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suffered from an endemic shortage of animals<sup>(208)</sup> there is little danger that the figures above greatly exaggerate the seriousness of the situation.<sup>(209)</sup>

The second point is that no account has been taken of possible regional variations. Unfortunately only fragmentary information is available for individual areas within the province and this is reproduced below. The situation which it reveals is much in line with the general picture we have suggested above.

	Table II.24:	The reallocation of draft animals in south Kiangsu.		
	Number of draft animals confiscated	Number of peasants to whom draft animals were reallocated	Availa- bility of draft animals per househ	Number of households per draft animal old
Nanking(1) suburbs	347	65,172	0.0206 (0.005)	46 (188)
Nanking(2) suburbs	374	65,172	0.0247 (0.006)	42 (174)
Nanking suburbs <sup>(3)</sup>	606	20, 463 <sup>b</sup>	0.0284 (0.007)	34 (139)
Shanghai suburbs <sup>(4)</sup>	135	255,041	0.00206 (0.0005)	459 (1889)
74 <u>hsiang</u> of Wusih <u>hsien</u> (5)	109	49,315 <sup>b</sup>	0.00206 (0.0005)	452 (1864)

Notes: Figures in brackets are for peasants. The average size of household is assumed to be 4.12 persons.

a Peasants benefitting from land redistribution are assumed also to have benefitted from the reallocation of draft animals.

b This figure is for households, not peasants.

Sources:

- (1) <u>HHJP</u>, 1/10/51, p. 4, "Reconstruction Work in the Suburbs During the Last Two Years".
- (2) <u>HHJP</u>, 5/10/51, p.2, "Consolidate the Success of Land Reform and Promote the Patriotic Spirit of the Masses".
- (3) <u>HHJP</u>, 12/5/52, p.3, "Thoroughly Eliminate Feudal Landownership".
- (4) <u>TKP</u>, 19/12/51, "Total Victory in Land Reform in the Suburbs of Shanghai".
- (5) <u>SNJP</u>, 2/12/50, p.2, "Land Reform Largely Completed in Wusih and Wu Hsien".

The reallocation of farm tools can be dealt with more briefly. Throughout south Kiangsu 1,768,368 farm implements were confiscated and redistributed to poor peasants. (210) Assuming that the number of recipient households was again 1,663,779, each household received a theoretical average of 1.06 tools, and each peasant 0.26. In other words, there was one tool for every 3.88 persons. It would be interesting to know what kinds of tool were available and in what quantities. A farm implement could mean anything from the crudest and simplest hoe or harrow to a quite complicated piece of equipment such as a water-wheel and obviously some were more valuable and in greater demand than others. But even in the absence of such information it is clear that the number of implements confiscated was inadequate for redistribution purposes and the consequent shortage must have placed one more constraint on agricultural production and growth. (211) This point is underlined by the figures below showing the reallocation of tools in various parts of south Kiangsu;

	Number of farm tools confiscated	Number of peasants to whom tools were <u>reallocated</u>	Availability of tools per household	Availability of tools per capita
Nanking suburbs	<mark>32,</mark> 651	65,172	2.06	0.50
Nanking suburbs	41,432	20,463 <sup>a</sup>	2.02	0.49
72 <u>hsiang</u> of Wusih <u>hsien</u>	12,144	49,315 <sup>a</sup>	0.25	0.06
Shanghai suburbs	15,100	255,041	0.25	0.06

## Table II.25: The reallocation of farm implements in south Kiangsu.

Note: a This figure is for households.

Sources: As Table II. 24, but excluding (3). (212)

## IV Summary and Conclusions

The chief economic benefits of land reform in south Kiangsu could be expected to be an improvement in incentives, brought about by the granting of "land to the tillers", and a more efficient allocation of land and other factors. Theoretically, it was also possible that land reform would have positive economy of scale effects; in fact the effect was negative since the reallocation of land caused the average size of farm to fall.

In terms of incentives the redistribution of land and other landlord property to poor peasants could not fail to have favourable results. However, an improvement in incentives was of limited value if the means to realize the improved incentives were lacking: while plots of land were given to large numbers of peasants, the per capita amounts available for redistribution were frequently too small to permit the farmer that surplus which was essential if subsequent agricultural expansion and growth were

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to take place. Even if the acquisition of a tiny plot of land was of great moment to a peasant who had previously owned little or none of his own, in broader economic terms the event was much less significant. As we have seen, only middle peasants who already possessed sufficiently large holdings of their own were in a position to take advantage of the economic potential offered by land redistribution and undertake net investment.

In the regional context of East China this kind of problem was foreseen long before land reform was completed. In a report made at the second plenary session of the ECMA Commission in July, 1950, Jao Shu-shih (Chairman of the ECMA) had pointed out that:

"The fundamental core of agrarian reform is the confiscation of the land of the landlord class and its redistribution to landless and land-hungry peasants. It follows that the land and other means of production confiscated during agrarian reform should be divided first among poor peasants. However, because of the policy of preserving the rich peasant economy and showing consideration to those who rent out small parcels of land, poor peasants will receive less land and means of production ... Poor peasants should be educated so that after agrarian reform they will strive to overcome their difficulties, promote production and improve their livelihood by carefully cultivating the land, applying greater amounts of fertilizer, improving soil conditions and practising mutual aid. On the other hand, the various local people's governments should also release loans and adopt other possible and necessary methods to help poor peasants overcome their difficulties following land distribution." (213)

In view of the fact that for economic purposes there was insufficient land for reallocation in Kiangsu it would be tempting to argue that one of the most serious failings of the land reform movement was that by attempting to make an egalitarian distribution of a scarce resource (land) it dissipated the economic benefits of the agrarian policy. However, such an argument is not supported by the facts. It is true that land reform in Kiangsu was egalitarian to the extent that similar amounts of land were allocated to poor and middle peasants. But if these peasants' original holdings are also taken into account the effect was not to bring about an egalitarian pattern of landholding at all. Rather the average middle peasant farm was still more than 40% larger than that of a poor peasant. It seems reasonable to conclude that for the sake of broader economic interests the planners found it necessary to sacrifice some of the social gains of land reform.

If there was a scarcity of land for redistribution the shortage of draft animals and farm implements was even more acute. Yet in the absence of mechanization agricultural production depended upon these factors being available in the correct quantities. No matter how efficient the methods of sharing existing supplies of animals and tools might be, their shortage was bound to be a serious constraint on agricultural production in Kiangsu, at least in the short run. <sup>(214)</sup>

That the Chinese were themselves aware of the economic limitations of land reform has already been indicated by the excerpt from Jao Shushih's speech. We shall conclude this chapter by examining very briefly some further reactions of the Chinese planners to the economic consequences of land reform in Kiangsu.

In February, 1951 a report made by Kuan Wen-wei at a special conference of <u>hsien</u> leaders in south Kiangsu<sup>(215)</sup> set out a number of problems which were to continue to beset the agricultural sector throughout 1951 and into 1952. Two of these were specifically related to the implementation of land reform: the first was the practice which some cadres had adopted of compelling rich and middle peasants to make loans against

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their will;<sup>(216)</sup> the second was the violation of the principles governing the hiring of labour. The failure to observe the provision guaranteeing the freedom to hire labour was causing a "... lack of unity between labour and capital", <sup>(217)</sup> Kuan stated, and together with the practice of enforced loans was having adverse effects upon the production enthusiasm of rich peasants.

The problems caused by the shortages of factors of production other than land were mentioned in the second part of Kuan Wen-wei's speech. Despite the redistribution of landlord property, the lack of seeds, fertilizers, draft animals, tools and rations for the spring-ploughing period remained a serious problem for many poor peasants. Other peasants such as the dependants of "revolutionary martyrs", orphans and widows lacked sufficient labour to farm their land and unless they received help there was a danger that their farms would become neglected and overgrown with weeds. Kuan's prescription for all these ills was the same: organization. Mass movements to collect fertilizers should be launched; efforts should be made to repair and increase the number of farm tools; above all, mutual aid would provide the means whereby the factor shortages could be overcome.

Concern over similar problems was echoed in north Kiangsu. In October, 1951 an article referred to the draft animal and tool shortages afflicting peasants after land reform and called for the development of new organizational forms to overcome the problems associated with these scarcities.<sup>(218)</sup>

But the clearest evidence of the economic problems that land reform

had given rise to was contained in a report published in a Shanghai newspaper in June, 1951.<sup>(219)</sup> This was based on an investigation of agricultural production conditions conducted by the South Kiangsu Land Reform Committee in 25 <u>hsiang</u> throughout south Kiangsu.<sup>(220)</sup> Its first finding centered around the problem of communication between the leaders (especially local cadres) and the peasant masses. Cadres were criticized for their tendency to take things easily once land reallocation was completed. They failed to explain the new production policies to the peasants, simply believing that "the poor peasants are overjoyed to be allocated land. In order to fill their stomachs they will naturally work hard".<sup>(221)</sup> But this was clearly a miscalculation, for the report continued:

"The peasants for their part still show an attitude of dependence on the government, believing that the People's Government will never let them starve. They demand loans of foodstuffs, seeds and fertilizer. The middle peasants are afraid of improving their situation; the rich peasants dare not hire help; and the poor peasants hesitate to make plans for fear of an increase in their burdens." (222)

Despite the avowed policy of "preserving the rich peasant economy" it is clear that the rich peasants themselves felt themselves to be in a particularly vulnerable position. In Ch'ang-shu <u>hsien</u>, for example, the reallocation of land was said to have left them with a number of anxieties. On an economic level they were worried that their freedom to engage hired labour would be violated, that they would be compelled to make loans to middle peasants and that they would suffer a heavier tax burden.<sup>(223)</sup> But in addition to this they also feared that old "exploitative accounts" would be settled and that a second land reform would take place in which they would be dispossessed and attacked.

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It has already been shown that their economic worries at least were not without some foundation (224) and in the circumstances it is not surprising that rich peasants ceased to hire labour. One example cited in the report revealed that of 63 rich peasants, 53 (86%) had engaged hired help before land reform but that since the dispossession of the landlords not one continued to do so.

A major finding of the investigation was that production difficulties continued to exist after the completion of land reform, in some cases exacerbated by the poor rice harvest of the previous year (1950). In one <u>hsiang</u> in Lieh-yang <u>hsien</u>, said to be representative of the hilly region of south Kiangsu, 15 households (all of them poor peasant) out of a total of 18 were experiencing acute problems of livelihood and only the three middle peasant households managed to avoid such difficulties. In another village over 60% of all households were in need of seeds. And in Lu-chao <u>hsiang</u> (Chiang-yin <u>hsien</u>) 18 households were without sufficient rice seeds, nine were short of farm tools and 11 "lacked even the basic necessities of life".<sup>(225)</sup>

The report admitted that shortages of draft animals and farm implements were common. In 16 villages investigated in K'un-shan <u>hsien</u> 70% of the agricultural labourer households were found to be short of draft animals, irrigation wheels<sup>(226)</sup> and other tools such as ploughs and harrows. Some 581 poor peasant families lacked a total of 61 draft animals, 46 boats, 57 irrigation wheels and 59 ploughs. In this kind of situation it was emphasized that urging the poor peasants to overcome their difficulties by economizing was not possible. In the short run it was

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essential to enforce a correct labour policy, to eliminate the fears of those peasants who were in a position to make loans and to restore credit channels based on the principles of free negotiation and mutual agreement.

But what about the long run? It was clear that land reform did not on its own provide the means of rapid or sustained agricultural growth. The scarcity of essential factors of production the small (and still fragmented) farms and other problems arising out of the different economic response of each social class to land reform - all threatened to undermine efforts to bring about an expansion of the agricultural sector. Essentially there were two choices before the planners. Either they could implement further institutional changes in the hope that a different organization of agricultural production would enable the outstanding problems to be overcome; or they could carry out an investment programme based on the increased supply of inputs to the agricultural sector (including perhaps some degree of mechanization). Even before land reform had ended it was clear which alternative had been chosen. By the end of the land reform movement the establishment of mutual-aid teams was well under way in both north and south Kiangsu.
## Notes to Chapter Two

- (1) In its original form the thesis was to have included an entire chapter on tenancy and related factors in Kiangsu. For reasons of length this has now been omitted and the brief survey that follows merely summarizes some of the findings that emerged from that research.
- (2) Chiang-su-sheng nung-ts'un tiao-ch'a, op. cit., pp. 94-99; pp. 121-134; pp. 170-185 and pp. 207-220. The four hsien were P'ei (Hst-chou Special District); Yen-ch'eng (Yen-ch'eng S.D.); Ch'i-tung (Nant'ung S.D.); and Ch'ang-shu (Soochow S.D.).
- (3) Ibid., pp.207-220
- (4) A peasant "pledged" (ti-ya) his land to a money lender in return for credit (usually less than where a "mortgage", tien-tang was arranged), retaining the right to farm his land but with the added obligation of paying a rental to the lender. The arrangement was effectively a simple loan with rent being paid instead of interest. What is interesting is the way in which the peasant became a de facto tenant, the relationship being transformed from one between a creditor and debtor into that of a landlord and tenant.
- (5) For example, in Nan-t'ung, Hai-men and Ch'i-tung <u>hsien</u> almost 60% of agricultural households were outright tenants (and there were others who both owned and rented land). See <u>HB</u>, <u>op.cit.</u>, pp.31-33. An interesting account of the evolution of tenancy in some of the coastal areas of north Kiangsu is given by Ch'en Hung-chin in "The System of Land Division Among the Shareholders of the Companies in the Kiangsu Salt and Reclamation Regions." See <u>Quarterly Review</u> of the Sun Yat-sen Institute for Advanced Culture and Education, vol. 4, no. 1, (1937).
- (6) In P'ei, Feng-hsien, P'ei-hsien and T'ang-shan <u>hsien</u> in the far north of Kiangsu, the proportion of farmers renting all their land ranged from 4% to 7% in the early 1930's. HB, op. cit., pp. 31-33.
- (7) See, for example, Map V.l in D.H. Perkins, <u>op. cit.</u>, p.88 which designates the entire area of south Kiangsu as one in which tenant families represented more than 50% of all farm families.
- (8) P'an Kuang-tan and Ch'tan Wei-t'ien, <u>Su-nan t'u-ti kai-ko fang-wen</u> <u>chi (Investigations into Land Reform in South Kiangsu</u>), Peking, 1952; p.2.
- (9) HB, op. cit., pp. 31-33.
- (10) The argument is as follows: in general, the rate of profit on renting out land (expressed as a percentage of capital invested) was low in China. According to a survey of more than 100 farms in Anhwei province (where rural conditions were probably similar to those of Kiangsu) made by Buck in 1923, the rate of return was as low as 2.5% (J.L. Buck, Economic and Social Survey of 102 Farms

<u>Near Wuhu, Anhwei, China, December, 1923, cited by Chang</u> Chung-li, <u>The Income of the Chinese Gentry</u>, University of Washington Press (Seattle), 1962). In Kiangsu an investigation made by Chang Hsin-i in 1930 ("Some Materials on the Tenancy Problem in China" in <u>T'ung-chi ytteh-pao</u>, vol.2, no.6, June, 1930; pp.31-32) indicated that cash rent as a proportion of land value in the province ranged from 8.1 - 10.4% for dry-crop land and from 8.1 - 8.7% for paddy land. When costs of rent collection, possible spoilage, the effects of poor harvests and tax payments are taken into account, it is clear that net profit must have been considerably less. By contrast, investment in commercial and industrial enterprises offered higher returns as well as a degree of security that did not attach to income from land. Thus, it is feasible that in south Kiangsu the relative attractions of landlordism were less than elsewhere.

One final piece of evidence supports this analysis: in another study Buck stated that along the Shanghai-Nanking Railway landlords were giving up land in preference to other investments, partly because of the difficulty of collecting rents which gave them a decent return on their capital and partly because of increasing investment opportunities in business and industry, (J. L. Buck, <u>Farm Ownership and Tenancy in China</u>, published by the Committee on Christianizing the Economic Order, Shanghai). What is particularly interesting is that it was precisely those <u>hsien</u> along the Shanghai -Nanking Railway which had (according to other sources) low rates of tenancy. Thus, the hypothesis that there was some relationship between the pattern of tenancy and the nature of economic development in south Kiangsu is upheld by empirical evidence.

- (11) Partial evidence suggests that tenancy in Japan (in terms of land cultivated by tenants) increased from 34.2% in 1883 to 40% in 1892. In 1903 the figure was 44.5%, rising to 46.2% in 1917. Yet over the same period agricultural production rose by well over 50%. See K. Ohkawa and H. Rosovsky, "The Role of Agriculture in Modern Japanese Economic Development" in Economic Development and Cultural Change, vol.9, Part 2, October, 1960; pp.43-68.
- (12) Landlords did sometimes provide seeds, fertilizer and other items of working capital, but this help was generally reflected in a higher rent.
- (13) A concomitant of the growth of absentee landlordism was the development of institutions knows as "landlord bursaries" (tsu-chan). These organizations for the exploitation and management of land were operated by agents working on behalf of landlords. See the interesting study by Yuji Muramatsu: "A Documentary Study of Chinese Landlordism in the Late Ch'ing and the Early Republican Kiangnan" in the Bulletin of the School of Oriental and African Studies, vol. XXIX, Part 3, 1966; pp. 566-599.
- (14) That is, fixed rents provided the tenant with some incentive to

increase his output since anything left over once the rent had been paid was retained by him. On the other hand, it gave him less security than a share-cropping system since in theory (and often in practice) rent had to be paid in full no matter how poor the harvest. From the landlord's point of view fixed rents permitted income to be estimated fairly accurately in advance as long as prices were reasonably stable.

- The correlation between the poor natural conditions of P'ei hsien (15)and the adoption of share-cropping is made explicit in Chiang-susheng nung-ts'un tiao-ch'a, op. cit., p. 56.
- The expected direct relationship between soil fertility (quality of (16) land) and rent level does not emerge from available data. Rather there was a tendency in Kiangsu for an inverse relationship to exist: in other words, the burden of rent was heaviest for those tenants least able to bear it. For specific evidence see CKNY, vol.3, op. cit., p. 247; and Chen Po-ta, Chin-tai Chung-kuo ti-tsu kai-k'uang (Land Rent in Modern China), Second edition, Peking, 1962; p. 36.

The most complete data on rent levels in Kiangsu is given in "The Kiangsu Rural Economy and Current Agricultural Problems" in Ts'un-chih (Rural Administration), vol.2, nos.11-12, 5/9/32; pp. 20-40.

- Wang T'ien-tzu, "The Rural Economy of Pei-hsia, Wusih" in NHYK, (17)vol.2, no.11, November, 1935; pp.15-31.
- This point is made in another analysis of tenants' income and expen-(18)diture in I-hsing hsien (Sung-chiang S.D.). When income from all sources is compared with total expenditure, there is a total surplus of 18 yttan. But if subsidiary earnings are deducted from total income, this surplus is transformed into a deficit of -2.0 ytlan. See Ts'un-chih, vol.2, nos.11-12, 5/9/32, pp.41-42, "The Rural Economy of I-hsing and the Communist Disturbances".
- Alternatively the total rent paid out by tenants may be taken as a (19)proxy for the surplus which could be tapped by a government for development purposes (though not necessarily agricultural development).
- Liu Hsiu-ch'ing, "The Problem of Tenancy in Ch'i-tung and the (20)Movement to Create Owner-Cultivators" in Ti-cheng ytteh-k'an (Land Administration Monthly), vol. 5, nos. 2 and 3, March, 1937; pp. 321-346.
- Every one of the owner-cultivator households spent something on (21)hired labour, house repairs and purchases of tools and fertilizers. The proportion carrying out expenditures on animal husbandry was slightly lower at 66.67%. Ibid.
- (22)Consideration of other factors such as the lack of security of tenure

in Kiangsu and landlords' use of exploitative devices other than rent (which we have been unable to consider here for reasons of space) would serve only to reinforce this conclusion.

- (23) Buck's data from his Land Utilization Survey showed that there was well under one draft animal unit per farm in his Kiangsu sample. See his Statistical Volume, p. 131, Table 5. The supply situation of farm tools was equally serious: most farms probably owned a traditional plough and one or two simple tools such as a hoe or harrow, but larger or more specialized equipment often had to be shared.
- (24) Although the institution of tenancy enabled many landless peasants to seek a living from the land, the most frequent size of operational holding remained very small. Moreover, most farms were also heavily fragmented.
- (25) What is more, these rich peasants were often the most efficient farmers by virtue of their possession of greater amounts of fixed and working capital.
- (26) <u>Ts'un-chih</u>, vol. 2, nos. 11-12, pp. 40-46, "The Rural Economy of I-hsing and the Communist Party Movement."
- (27) See Liu Hsiu-ch'ing in <u>Ti-cheng ytteh-k'an</u>, vol. 5, nos. 2-3, <u>op. cit.</u>, pp. 321-346.
- (28) See above, chapter 1.
- (29) After the outbreak of the Sino-Japanese War in 1937 the CCP modified its agrarian policies in the interests of ostensible national unity against Japan. The compromise policy which emerged and was implemented in the areas under Communist control was the "Double Reduction": the reduction of rents by 25% and of interest payments on loans (to 1.0% or 1.5% per month).
- (30) <u>Su-pei jih-pao (North Kiangsu Daily</u>), published in Yang-chou and hereafter <u>SPJP</u>, 30/6/51, p.4, "Land Relations in North Kiangsu Now and in the Past".
- (31) Ibid.
- (32) This example is from a fascinating study of land reform in north Kiangsu before 1949: see Lu Feng, Jen-min fan-shen chi (The <u>People Throw Off their Feudal Yoke</u>), Yangtze Publishing House, 1947; chapter 2.
- (33) Because of the difficulties of unified organization in wartime conditions north Kiangsu was divided into two large sub-units, central and north Kiangsu. The dividing line was the Hwai River.
- (34) A good account of some of the stratagems resorted to by landlords

is given by Lu Feng, <u>op. cit</u>. But note that landlords were not uniformly opposed to the reforms. In the Yen-ch'eng - Fou-ning area some "enlightened" landlords were reported to have shown their sympathy for the anti-Japanese policies of the CCP by participating in a "giving land as a gift" (<u>hsi-t'ien</u>) movement and voluntarily giving a piece of their land (from 10 to 100 mou) to the dependants of those fighting the Japanese without any demand for its future return. Mao is said to have heard of this in Yenan and ordered that it be stopped on the grounds that such action contravened the land and property rights of the landlord class which were at this time guaranteed by the Communist Party!

- (35) In Chinese, <u>Nung-min chiu-kuo hui</u> (abbreviated to <u>Nung-chiu hui</u>); and Ch'a-tsu t'uan.
- (36) Lu Feng, op. cit.
- (37) After the end of the Sino-Japanese War peasants began spontaneously to move beyond rent reduction to actual confiscation of landlords' land. In May, 1946, under the pressure of events, the Central Committee of the CCP gave its formal approval to these confiscatory actions against landlords, though adding a qualification that moderation should be shown to landlords with industrial and commercial interests and to the rich peasant class as a whole. But the last six months of 1946 and much of 1947 was a period when many peasants and cadres ignored the directives issued by the Party and when, as Liu Shao-ch'i later revealed "... most of the deviations in the implementation of agrarian reform were committed ... and the interests of part of the middle peasants were encroached upon, industry and commerce in the rural areas were partly impaired and indiscriminate beatings and killings occurred ... " (See Liu Shao-ch'i, "On the Agrarian Reform Law", a report made at the Second Session of the National Committee of the Chinese People's Political Consultative Conference in Peking, 14/6/50 and translated in full in The Agrarian Reform Law of the People's Republic of China and Other Relevant Documents, Foreign Languages Press, Peking; December, 1950.)
- (38) <u>Keng-che yu ch'i-t'ien</u>. The phrase was originally Sun Yat-sen's but was subsequently adopted by the CCP and incorporated into their agrarian policies. To some the adoption of this slogan in the late 1940's heralded the event of full communism - a belief which, as Lu Feng points out, was totally without foundation.
- (39) This included the landlord class except for those who had interests in industry and trade.
- (40) Lu Feng, op. cit.
- (41) One such indication is the strong language used by Lu Feng in his report. See, for example, the opening paragraphs of the first chapter.

- (42) <u>SPJP</u>, 30/6/51, <u>op. cit.</u>, p. 4. The Chinese phrase is: <u>i-shou na</u> <u>ch'iang,i-shou na suan-p'an</u>.
- (43) Ibid. See also <u>Hsin-hua jih pao (New China Daily</u>), published in Nanking and hereafter <u>HHJP</u>, 27/11/50, "Methods of Implementing Land Reform", which describes these areas as where "... land was distributed during the war of liberation but where all the land divided amongst the peasants has been snatched back by landlords and rich peasants."
- (44) The basic reference to the number of peasants involved in land reform was given by Kao Feng, Vice-Chairman of the Land Reform Committee of the People's Administration of North Kiangsu. See <u>SPJP</u>, 28/12/51, p. 1, "Report on Land Reform Work in North Kiangsu during the Past Year."
- (45) The Agrarian Reform Law of the People's Republic of China and Other Relevant Documents, hereafter ARL, Foreign Languages Press, Peking, December, 1950; pp. 1-16.
- (46) In practical terms the difference between these two terms appears to have been nil. Confiscation applied to land belonging to landlords and requisition to rich peasants' land.
- (47) Ibid., p.4
- (48) <u>Ibid.</u>, pp. 17-58.
- (49) The ECMA was set up on 27th January, 1950 in Shanghai. It exercised jurisdiction over the three provinces of Shantung, Chekiang and Fukien, the four administrative districts of north and south Anhwei, and north Kiangsu and south Kiangsu and two municipalities, Shanghai and Nanking.
- (50) The regulations were not published until the end of April. The text can be found in <u>Su-nan jih pao</u> (South Kiangsu Daily) published in Wusih and hereafter SNJP, 29/4/50, p.1.
- (51) See <u>Chung-hua jen-min kung-ho-kuo k'ai-kuo wen hsien</u> (<u>Documents</u> on the Establishment of the People's Republic of China), Hong Kong, New Democracy Publishing House, 1949; pp. 253-274.
- (52) <u>SNJP</u>, 24/9/50, <u>op. cit.</u>, p. 1.
- (53) A speech made on the same day that the East China Rent Regulations were passed (6/2/50) reinforced this point by emphasizing that questions involving rent deposits, unpaid hired labourers, the maintenance of tenant security were to be deliberately shelved until land reform was implemented. See <u>Hsin Soo-chou pao</u> (New Soochow <u>Daily</u>), 28/4/50, p. l, "Explanation of Rent Reduction Regulations in the Villages of the Newly-Liberated Areas of East China".

The moderate tone of these documents was echoed in a central directive issued on 18th February, 1950 'On Land Reform and Public Grain Acquisition in the Newly-Liberated Areas'.

- (54) "Directive by the East China Military Administrative Committee on Preparatory Work for Land Reform" in <u>Hua-tung ch'tt ts'ai</u> <u>cheng ching-chi fa-ling hui-pien (Economic and Financial Regulations</u> <u>for the East China Region)</u>, 2 volumes, East China People's <u>Publishing House, Shanghai, 1951; vol.2, pp.1972-1976.</u>
- (55) <u>SNJP</u>, 8/2/50, p.2, "The Peasant Movement in South Kiangsu Since Liberation".
- (56) <u>Hsin Soo-chou pao</u>, 23/4/50, p. 4, "The Situation in North Kiangsu and Relief Work". Also SPJP, 29/10/50, "Report of Government Work in North Kiangsu in the Past Year" states that the natural disasters which had occurred were the worst in many decades. Famine conditions were said to have lasted more than ten months, affecting 4,000,000 peasants.
- (57) At provincial, special district and hsien levels.
- (58) "On Agricultural Production Policies in the Land Reform Areas This Autumn and Winter", published on 18th September, 1950.
- (59) This was to be achieved in the areas where land reform was to be implemented through the following principles:
  - Cultivation of autumn and winter crops should continue on the principle of "he who reaps tills".
  - (2) The crops could be divided between the original cultivator and the new landowner by the agreement of both parties according to the norms laid down in rent reduction regulations.
  - (3) The new landowner could reimburse the original cultivator for the total cost of cultivation and fertilizer application carried out before the land was reallocated.
- (60) <u>Hua-tung ch'tt ts'ai-cheng ching-chi fa-ling hui-pien</u>, op. cit., vol. 2, pp. 1972-1976.
- (61) For example, Article 15 of the East China Rent Reduction Regulations stated: "Protect industry and trade, including those industrial and commercial enterprises engaged in by landlords and old-style rich peasants".
- (62) The classification of rural society at this time was the subject of a long document adopted by the Government Administration Council of the Central People's Government in August, 1950 and entitled "Decisions Concerning the Differentiation of Class Status in the Countryside" (see ARL, op. cit., pp. 17-58).

Briefly, the rural population was divided into five classes: landlords were those who owned land but did not work on it to any significant extent, relying instead on "exploitation" (rents, moneylending, the hiring of labour, etc.). Rich peasants generally owned and worked their land, but sometimes also carried out "exploitation" through the hiring of labour and renting out of land. They were also characterized by their ownership of "... better means of production and some floating capital". (Ibid., p.20). Middle peasants, although often owning some land and working capital, were novertheless frequently compelled to pay land rent and loan interest. Poor peasants lacked both land and farm implements and generally had to rely on rented land to make a living. They were also forced to hire themselves out as labourers for short periods. Finally, workers were those who had neither land nor implements and depended "... wholly or mainly upon the sale of their labout power for their living". (Ibid., p.23).

- (63) Hence, the term "rich peasants of a semi-landlord type".
- (64) Doubtless they were also aware that rich peasants' land had sometimes been confiscated during agrarian reforms carried out by the CCP before the Sino-Japanese War.
- (65) For an exposition of this policy see Liu Shao-ch'i's report "On the Agrarian Reform Law" in ARL, op. cit., pp. 71-75.
- (66) ARL, op. cit., p. 3.
- (67) Ibid., p.3.
- (68) "Regulations on the Methods of Implementing Land Reform in East China" in <u>Hua-tung ch't ts'ai-cheng ching-chi fa-ling hui-pien</u>, op. cit., vol. 2, pp. 1976-1986.
- (69) "Directive by the East China Branch of the Central Committee of the Chinese Communist Party on Completing Land Reform Ahead of Time" in ibid., vol.2, pp. 1986-1998.
- (70) North Anhwei had been particularly hard hit by floods.
- (71) "Land Reform in East China to be Accelerated" in <u>Shanghai News</u>, 16/12/50, translated in <u>Survey of the China Mainland Press</u>, (Hong Kong), hereafter SCMP, no. 35, 21/12/50; pp. 7-8.
- (72) China entered the Korean War in October, 1950.
- (73) Hua-tung ch't ts'ai-cheng ching-chi fa-ling hui-pien, op. cit., vol. 22, pp. 1986-1998.
- (74) Ibid.

- (75) In order to bring these "lawless landlords" under control, the ECMA had, in October, promulgated their "Provisional Regulations for Controlling Lawless Landlords in East China".
- (76) Ming-ling chu-i
- (77) An interesting phenomenon of this period was the large amount of space in newspapers and other materials devoted to refuting the proposition that "there is no feudalism in Kiangnan" (<u>Chiang-nan</u> <u>wu feng-chien</u>). Special treatment of the large number of landlords with industrial and commercial interests in the area had given rise to the belief that rural conditions in Kiangnan were somehow different from those elsewhere - that landlordism was in fact less feudal and more progressive. From the CCP's point of view, the implications of such a belief were dangerous: hence the campaign to root it out.
- (78) Some indication of the effect upon land reform of the 'new line' can be seen from a report which appeared in March, 1951. According to this, the original plan was that an area of East China containing an agricultural population of 47,000,000 should complete land reform during the winter and spring of 1950-51. Yet by March, 1951, land reform had been fully implemented in an area containing 66,000,000 peasants (40% more than the original target). If the 'old liberated areas'' were included the figure rose to 100,000,000. See Liu Jui-lung, ''Report on Land Reform Work in East China'' in <u>HHJP</u>, 21/3/51.
- (79) <u>SPJP</u>, 31/5/51, p. 1, "Land Reform Has Basically Been Completed in North Kiangsu".
- (80) The Peasant Associations were the most important of the peasant organizations and were responsible for administering land reform under the guidance of the cadres. In SPJP, 19/10/51, p. 1, "The Newly Liberated Areas of North Kiangsu are Vigorously Creating the Conditions for Land Reform" it was stated that by the end of August, 1950 512 <u>hsiang</u> (76% of all the <u>hsiang</u> in the area) had established Peasant Organizations (nung-huitsu-chih).
- (81) T'ai-chou Special District later became Yang-chou Special District.
- (82) SPJP, 31/5/51, op. cit., p. l.
- (83) <u>SPJP</u>, 10/12/50, p.2, "Land Reform Work is Mostly Completed in the Old Areas. In the New Areas the Land Reform Movement is Moving Ahead as a Matter of Urgency".
- (84) Ibid.
- (85) Accounts of the sabotage activities of the "lawless landlords" can be found in <u>SPJP</u> during early November. See, for example, <u>SPJP</u>, 1/11/50, "Lawless Landlords Are Sabotaging Land Reform".

- (86) Kuan-men chu-i.
- (87) SPJP, 10/12/50, op. cit., p.2.
- (88) <u>SPJP</u>, 18/12/50, p.1, "Specific Methods for Implementing Land Reform in the North Kiangsu Administrative Region".
- (89) See above, p.66.
- (90) By implication, it seems certain that the same thing must have happened to rich peasants, although this is not specifically mentioned.
- (91) Fan-ts'ai.
- (92) SPJP, 18/12/50, op. cit., p. l, Article 3 (i).
- (93) It is difficult to imagine a situation in which fewer draft animals would have been required!
- (94) "Transfer or dispersal after the liberation of the locality by sale, mortgage, gift or any other means, of any land which should be confiscated or requisitioned according to this Law shall be declared null and void. Such land should be included in the land to be redistributed. But if peasants who bought such land or took mortgages on such land will thereby suffer any considerable loss, measures should be worked out for proper compensation". <u>ARL</u>, op. cit., pp. 3-4.
- (95) <u>SPJP</u>, 28/12/51, p.1, "Report on Land Reform Work in North Kiangsu during the Past Year" by Kao Feng.
- (96) SPJP, 31/5/51, op. cit., p. 1.
- (97) Ibid.
- (98) <u>SPJP</u>, 16/8/51, p.1, "Counterattacks and Resurgence of Lawless Landlords".
- (99) <u>SPJP</u>, 14/5/51, p.2, "Push Ahead with the Work of Regulating the Land".
- (100) <u>SNJP</u>, 8/2/50, p.2, "The Situation Regarding the South Kiangsu Peasant Movement Since Liberation".
- (101) But not without difficulty: <u>SNJP</u>, 8/2/50, <u>op. cit.</u>, p.2, reported that during the autumn levy landlords transferred property and wealth and concealed and divided their land in an effort to escape their obligations.
- (102) Ibid.

(103) Ibid.

- (104) See, for example, <u>SNJP</u>, 6/2/50, p. 1, "Report on the Work Situation in the South Kiangsu Administrative Region", which emphasized the uniqueness of the south Kiangsu economy.
- (105) <u>SNJP</u>, 23/3/50, p.1, "Directive on the Preparatory Work for Land Reform".
- (106) <u>SNJP</u>, 11/4/50, p. 1, "The Current Situation and the Tasks of Production Relief in South Kiangsu".
- (107) Ibid.
- (108) SNJP, 28/7/50, p. l, "Administrative Work in South Kiangsu in the First Half of 1950".
- (109) Membership of the Peasant Associations in July was put at 2,920,000. Ibid.
- (110) See, for example, SNJP, 21/8/50, p.1, "Lawless Landlords Break the Land Reform Law"; SNJP, 22/9/50, p.1, "Lawless Landlords in Chinkiang Special District are Undermining Production and Sabotaging Land Reform". The landlord problem in south Kiangsu was more intractable than in the north because of the large numbers that were involved in industrial and commercial enterprises.
- (111) <u>SNJP</u>, 7/8/50, p. 1, "Implement Land Reform After the Autumn Harvest" (dated 4/9/50).
- (112) <u>SNJP</u>, 7/9/50, p. l, "Decision to Mobilize All the Peasants of South Kiangsu to Complete Land Reform This Winter and Next Spring".
- (113) Ch'en P'i-hsien was the Secretary of the Party Committee of the CCP (South Kiangsu Branch). Ou-yang Hui-lin was a member of the ECMA Land Reform Committee. The text of Ou-yang's report on the "Situation Regarding the South Kiangsu Peasant Movement and Future Tasks" can be found in SNJP, 3/9/50, p.1.
- (114) The supposed relationship between tenancy and rural poverty was not always understood by the peasants. There is evidence that they were taken in by landlords' protestations that they (the peasants) owed their very existence to the landlords' generosity in renting out land.
- (115) See especially SNJP, 5/9/50, p. 1, "Representatives from All Areas Accuse the Landlord Class of Exploitation and Unmask the Criminal Activities of Lawless Landlords Against Land Reform".
- (116) SNJP, 3/9/50, op. cit., p.1, "On Mobilizing the Peasant Masses

to Complete Land Reform in South Kiangsu This Winter and Next Spring". The resolution was in many ways simply an endorsement of Ou-yang Hui-lin's speech in which he had called for such an acceleration of land reform in south Kiangsu.

- (117) <u>SNJP</u>, 7/9/50, p. l, "The Four Decisions Taken by the South Kiangsu First Peasant Representative Conference".
- (118) See also the Second Resolution passed at the conference "On the Future Work of the Peasant Associations". Ibid.
- (119) <u>SNJP</u>, 7/9/50, p. l, "Thoroughly Inculcate the Spirit of the South Kiangsu Conference of Peasant Representatives into the Peasant Masses".
- (120) <u>Su-nan ke-chieh jen-min tai-piao hui-i shou-ch'u erh-tz'u ch'tan-</u> hui.
- (121) See, for example, the bitter attack by Chang Yün-hsi in <u>SNJP</u>, 14/9/50, p.2, "Speeches by Various Representatives at the Conference". Also the speech by Chiao K'ang-shen.
- (122) See above, note (77).
- (123) Even in September, 1950 the question of protecting trade and industry continued to concern some of the conference delegates. P'ing hsiao-chung, a representative of trade and industry, spoke of the important inter-relationship between agriculture and industry and trade. Agriculture, he said, provided both the raw materials and market for the industrial sector, but only through industrialization could the problem of rural poverty be solved. The Agrarian Reform Law's emphasis on the need to protect industry and trade reflected the importance of this relationship and was quite correct and in accordance with the objective situation. <u>SNJP</u>, 14/9/50, op. cit., p.2.
- (124) Ibid.
- (125) <u>SNJP</u>, 15/9/50, p.6, "Speeches by Various Representatives at the Conference".
- (126) SNJP, 14/9/50, op. cit., p.2.
- (127) <u>SNJP</u>, 15/9/50, <u>op. cit.</u>, p. 5. At this conference Ou-yang represented the south Kiangsu peasant associations.
- (128) SNJP, 15/9/50, op. cit., p. 5.
- (129) <u>SNJP</u>, 4/11/50, p. 1, "The Future Stages of Development of the Land Reform Movement in South Kiangsu".
- (130) SNJP, 28/11/50, p.1, "Methods of Implementing Land Reform

in South Kiangsu", promulgated by the Office of the People's Administration of South Kiangsu.

- (131) How far (if at all) this apparent reversal of the decisions of the Wusih conferences was a reflection of a difference of opinion about how land reform should develop it is impossible to say. Perhaps it was simply a reflection of the continuing dilemma of how to maintain the minimum economic disruption and yet achieve the maximum result from land reform. For some consideration of the "Liuist" and "Maoist" approaches to land reform in China see Ellen F. Ohja, "Fluctuations in Chinese Communist Agrarian Policy, 1946-50" in Papers on China, vol. 22B, East Asian Research Center, Harvard University, December, 1969; pp. 20-48. Also E. Vogel, "Land Reform in Kwangtung, 1951-53" in The China Quarterly, no. 38, April-June, 1969; pp. 27-62.
- (132) SNJP, 28/11/50, op. cit., p. 1.
- (133) Ibid., emphasis my own.
- (134) Specific provisions included the following: all landlord houses in cities and villages used directly for industrial and commercial activities (including those which had been rented out prior to the publication of the <u>ARL</u>) were to be untouched. Confiscation of surplus buildings belonging to landlords could only take place after discussion at the <u>ch'tt</u> level and after permission had been given by the hsien government ... etc. See ibid., Articles 3, 4 and 5.
- (135) Ibid.
- (136) <u>ARL</u>, Section 2, Article 6: "Small portions of land rented out by rich peasants shall remain untouched ... If the portions of land rented out by rich peasants of a semi-landlord type exceed in size the land tilled by themselves and by their hired labour, the land rented out should be requisitioned". ARL, op.cit., p.3.
- The peculiar device whereby land was symbolically divided between (137)the "surface right" (t'ien-mien ch'ttan) and the "bottom right" (t'ien-ti ch'ttan) was the origin of a particular form of tenancy in south Kiangsu mistakenly called "permanent tenancy". The owner of the bottom right was the title holder to the land and as such, it was his name that was registered with the government and he who paid the land taxes. Although he was not allowed to cultivate the land (that privilege belonged to the owner of the surface right alone) he was permitted to collect rent from the cultivator of the soil. In other words, the holder of the bottom right was the landlord and the holder of the surface right, the tenant. The landlord could sell his bottom right (his claim on rent) but this in no way affected the right of the tenant to continue cultivating the soil. For his part, the tenant could farm the land himself, employ hired labour to do so or sub-lease the land to a third party and so simultaneously be both landlord and tenant.

The importance of this device is indicated by the fact that it existed in an area of south Kiangsu containing ten million peasants (about 40% of the total agricultural population). However, distribution was not general and it was found in only 12 out of 25 <u>hsien</u>. It was most common in the east, occurred to a more limited extent in central south Kiangsu and was not found at all in the west.

For further consideration of the division between surface and bottom rights in south Kiangsu see P'an Kuang-tan and Ch'ttan Wei-t'ien, <u>op.cit.</u>, chapter 3. Also Fei Hsiao-t'ung, <u>Peasant</u> <u>Life in China (A Field Study of Country Life in the Yangtze Valley)</u>, London, 1939; chapter XI, pp.181-191 is of special interest.

- (138) ARL, op. cit., p. 5.
- (139) SNJP, 28/11/50, op. cit., p.1.
- (140) <u>SNJP</u>, 1/1/52, pp.2-3, "Report on Land Reform Work in South Kiangsu" made at the First Plenum of the Second Session of the South Kiangsu Conference of People's Representatives.
- (141) <u>HHJP</u>, 21/3/51, "Land Reform Basically Completed in South Kiangsu".
- (142) See SNJP, 12/12/50, p. 1, "The Land Reform Movement is Advancing on a Broad Front Throughout East China".
- (143) <u>SNJP</u>, 23/12/50, p.1, "Land Reform in South Kiangsu is Advancing on a Broad Front".
- (144) This was the <u>shuo-li tou-cheng</u>: literally, "speak out the truth struggle".
- (145) <u>SNJP</u>, 18/4/51, p.2, "The Situation Regarding Land Reform Work in South Kiangsu".
- (146) HHJP, 21/3/51, op. cit.
- (147) Statistics showed that 520 landlord households had escaped from villages in Wusih <u>hsien</u> and 391 in I-hsing <u>hsien</u>. See <u>SNJP</u>, 18/2/51, p.1, "Criticism of the Wastage of the Fruits of Land Reform".
- (148) Grain was distributed to the poor peasants for production purposes.
- (149) SNJP, 1/1/52, op. cit., pp. 2-3.
- (150) <u>SNJP</u>, 13/8/51, p. 1, "Three Hundred and Eighty Three Hsiang Have Completed the Work of Issuing Title Deeds."

- (151) In the preceding pages the land reform movement has been considered in the general contexts of north and south Kiangsu. A slight qualification to the accounts we have given is that land reform in the suburbs of the large cities in south Kiangsu followed a slightly different chronology from that shown above.
- (152) <u>SNJP</u>, 1/1/52, <u>op. cit.</u>, pp.2-3. The three <u>hsien</u> excluded were Wu-hsien, K'un-shan and Tan-t'u.
- (153) <u>SNJP</u>, 30/9/52, p.2, "The Great Achievements of Rural Work in South Kiangsu during the Past Three Years".
- (154) This was the figure given in the Shanghai news on 26/10/52. See <u>SCMP</u>, no.206, (31/10/52), pp.26-28, "Agrarian Reform Exhibition in Shanghai".
- (155) <u>HB</u>, <u>op. cit.</u>, pp.20-24. Two sets of figures are shown for arable area in every <u>hsien</u> of Kiangsu. The relevant data for the three <u>hsien</u> in question are as follows:

		HB data	Statistical Monthly data	
Wu-hsien K'un-shan		1,814,628 mou 1,069,675	1,839,000 mou 1,309,733	
Tan-t'u	Total	721,644	753,734	

The figure of 3,754,207 mou used in the text is simply the average of these two figures.

(Note that Tan-t'u hsien was Chinkiang hsien before 1949.)

- (156) SNJP, 1/1/52, op. cit., pp. 2-3. Note also that P'an Kuang-tan and Ch'ttan Wei-t'ien op. cit., p. 1, cite material from 41 <u>hsiang</u> of 23 <u>hsien</u> showing that landlords represented about 2% of the population but owned about 40% of all the land.
- (157) <u>SNJP</u>, 30/9/52, <u>op. cit.</u>, p.2.
- (158) SCMP, no. 206, op. cit., pp. 26-28.
- (159) <u>HHJP</u>, 1/12/51, "The Land Reform Movement in East China During the Last Year".
- (160) This is something we should like to have elaborated. However, most of the available information on tenancy relates to the 1930's. A crucial consideration is what happened to tenancy patterns between 1937 (the outbreak of the Sino-Japanese War) and 1949 and without knowing the nature of trends during these years it would be dangerous to interpolate from data in the earlier period.
- (161) T'ien-fu-nung.

- (162) SCMP, no. 206, op. cit., pp. 26-28.
- (163) <u>HHJP</u>, 21/3/51, p.2, "Land Reform Basically Completed in South Kiangsu".
- (164) <u>SNJP</u>, 2/12/50, p.2, "Land Reform Largely Completed in Wusih and Wu <u>hsien</u>".
- (165) <u>HHJP</u>, 12/5/52, p.3, "Thoroughly Eliminate Feudal Landownership". On Nanking's experience see also <u>HHJP</u>, 1/10/51, "Reconstruction Work in the Suburbs in the Last Two Years"; and <u>HHJP</u>, 5/10/51, "Consolidate the Success of Land Reform and Promote the Patriotic Spirit of the Peasants".
- (166) <u>Ta-kung pao (Impartial Daily</u>), hereafter <u>TKP</u>, 19/12/51, "Total Victory in Land Reform in the Suburbs of Shanghai".
- (167) <u>Ch'ang-chiang jih-pao (Yangtze River Daily)</u>, 16/12/52, p.2, gives the following data on per capita land holdings of poor peasants and agricultural labourers relative to the per capita average size after land reform:

Honan	92.8%
Hupeh	91.4%
Hunan	92.6%
Kiangsi	91.5%
Kwangtung	99.2%
Kwangsi	87.6%

- (168) For the derivation of the average food grain yield for south Kiangsu see Appendix C.
- (169) The reason for this emphasis will emerge more clearly in the following discussion.
- (170) It must be admitted that the assumptions which underlie the calculations made in Table II. 11 are highly simplified. It is true, for example, that members of a peasant family who were very old or very young would need a smaller calorie intake than able-bodied peasants between 16 and 60. To this extent the calorific requirements may be considered too high. Nor has any account been taken of the calorific content of food other than grain such as meat and vegetables.

But against this must be set the clearly unrealistic assumption that all land owned by a peasant was planted under food grains. The conversion ratio of 80% may also be over-optimistic in view of the fact that after processing, the output left in the hands of the peasant had to meet not only his own consumption but also seed requirements for future sowing and feed for domestic and draft animals. Finally, it is possible that the average yield of 285 chin per mou is also too high.

- (171) Liao Lu-yen, "On the Basis of Co-operativization Go All Out to Fulfil the Draft Plan for China's Agricultural Development", in <u>Hsteh-hsi</u> (Study), 1958, no.2, pp.2-8.
- (172) Remember that the figures in Table II. 14 show the size of per capita holdings, not farms. The difference in farm size before and after land reform (assuming 4.12 persons per household) is as follows:

	Before land reform		After land reform	
Poor peasants	3.79	(100.00)	8.73	(100.00)
Middle peasants	7.79	(205.54)	12.32	(141.12)

- (173) This will not seem such an unlikely assumption if we bear in mind that the dietary standards shown in earlier tables in no way represent maxima. In addition, agricultural taxes and the public levy of grain also had to be met out of the small surplus above consumption requirements.
- (174) ARL, op. cit., p. l.
- (175) Actually the landlords were permitted to own some land. Thus Article Ten of <u>ARL</u> (op.cit., p.4): "Landlords shall be given an equal share (of land) so that they can make their living by their own labour and thus reform themselves through labour". <u>SNJP</u>, 2/12/50, p.2, "Land Reform Largely Completed in Wusih and Wu <u>Hsien</u>" states that of 144, 384 mou of land confiscated, 9, 326 mou had been redistributed to landlords (i.e., 6.46% of the total confiscated area).
- (176) SNJP, 1/1/52, op. cit., pp. 2-3.
- (177) SNJP, 1/1/52, op. cit., pp. 2-3.
- (178) <u>HHJP</u>, 21/3/51, <u>op. cit.</u>, p.2.
- (179) <u>SNJP</u>, 2/12/50, <u>op. cit.</u>, p.2, also reports that of 144, 384 mou of land confiscated in 74 <u>hsiang</u> of Wusih <u>hsien</u>, 113, 112 mou had been owned by landlords. That is, 21.66% did not belong to landlords. This is another possible indication of encroachment upon rich peasants' land.
- (180) SNJP, 28/11/50, op. cit., p. 1.
- (181) SNJP, 30/9/52, op. cit., p.2.
- (182) See above, p. 101.
- (183) The total arable area of K'un-shan, Tan-t'u (Chinkiang) and Wu hsien was earlier estimated to be 3,754,207 mou. If we assume that 40% of this land were confiscated, then adding in the land confiscated in the other 24 hsien, the total amount of land available for redistribution

would be:

7,180,537 + 1,501,682.8

= 8,682,220 mou.

But there still remains a difference of 1,736,040 mou between this figure (based on <u>SNJP</u>, 1/1/52) and the later estimate shown in Table II. 16.

- (184) This is not a realistic assumption. Given that this amount only provided the minimum surplus (or thereabouts), it is likely that the middle peasants would also have gained from the extra land confiscated. However, the more restrictive assumption will make the point we are trying to show all the more clearly.
- (185) That is, 1.10 + 1.68 = 2.78  $2.78 \div 2 = 1.39$
- (186) See above, Table II. 13.
- (187) <u>SPJP</u>, 28/12/51, p.1, "Report on Land Reform Work in North Kiangsu During the Past Year".
- (188) The problem of equating land confiscation and land reallocation is also present in the data for north Kiangsu. However, because of the much less varied pattern of land use in the north we should expect that "special land" was much less important. It is interesting, for example, that the north Kiangsu land reform regulations contained no section on the treatment of special land problems.
- (189) This figure has been obtained by adjusting the average grain yield of north Kiangsu derived from contemporary sources (139.29 chin per mou) upwards by 7.5%. For the reasoning behind this see Appendix C.
- (190) <u>SPJP</u>, 30/6/52, p.2, "On the Victorious Foundation of Land Reform Lead the Peasants to Continue Their Advance".
- (191) Fu-yti chung-nung. Ibid.
- (192) ARL, op. cit., p. 1.
- (193) See, for example, C.K. Yang, <u>A Chinese Village in Early Communist</u> Transition, M.I.T. Press, 1959.
- (194) The shortage of grain in south Kiangsu is indicated by the fact that the government sent 93.2 million chin of rice as relief to the area. See <u>SNJP</u>, 11/4/50, op. cit., p.1.
- (195) Data for north Kiangsu are not available.
- (196) SNJP, 30/9/52, op. cit., p.2.

- (197) <u>SNJP</u>, 1/1/52, <u>op.cit.</u>, pp.2-3. Seed requirements were about 365 chin per capita per year.
- (198) 133,099,085  $\div$  500.
- (199) If 365 chin were distributed, the number of recipient peasants would have been 364,653 (3.55%).
- (200) SNJP, 30/9/52, op. cit., p.2.
- (201) Ibid: "... 66.67% of all agricultural households (in south Kiangsu) with little or no land of their own had land reallocated to them as well as other production materials" (emphasis my own). However, although most of the draft animals will have belonged to rich peasants there must also have been a small number in the hands of middle (even poor) peasants and to the extent that this was the case the calculations below exaggerate the true situation. Nonetheless it is inconceivable that such considerations could undermine our general argument.
- (202) This is not to suggest that this was the only factor determining the creation of mutual-aid teams. See chapter four.
- (203) That is,  $1.15 \times 4.12 \mod 10^{-10}$
- (204) Ploughing, harrowing and irrigation.
- (205) K. R. Walker, "Organization of Agricultural Production" in Eckstein, Galenson and Liu (ed.), <u>Economic Trends in Communist China</u>, Chicago, Aldine Publishing Company, 1968; p. 413.
- (206) <u>Hsin Soo-chou pao</u> (<u>New Soochow Daily</u>), 24/5/50, p.2, "Organizing Manpower to Pull Ploughs".
- (207) See SNJP, 13/6/51, p.2, "Draft Cattle Deaths and Animal Disease Reach Serious Proportions". Also <u>HHJP</u>, 20/3/51, "Prevent the Slaughter of Draft Cattle and Animal Disease" stated that in the Nanking suburbs the slaughter of cattle rose more than five-fold between March and September, 1950. The same source cites one village in the suburbs in which only four draft animals were available for 61 households and an arable area of 724 mou.
- (208) This is suggested by the findings of Buck. Remember too that the effects of the war years can only have been to further depress draft animal numbers: <u>HHJP</u>, 27/9/52, "Great Success In China's Agricultural Production in the Past Three Years" stated that in 1949 animal numbers in China (draft) had fallen by 16% over the pre-war years.
- (209) K. R. Walker in "Organization of Agricultural Production", <u>op. cit.</u>, p. 416, Table 5 (note e) cites a Chinese source to show that the arable

area per head of working draft animals in Kiangsu in 1957 was 67 mou. This was said to be the highest burden in China. See also chapter 5 below.

- (210) SNJP, 30/9/52, op. cit., p.2.
- (211) But this shortage was presumably not as serious as that of draft animals since quite a large number of peasants will have owned at least a few basic tools.
- (212) In order to complete the picture on redistribution of landlord property the figures below show data on the reallocation of buildings and furniture belonging to landlords:

(a) <u>Reall</u>	ocation of	buildings in so	outh Kiangsu:	
	No. of	No. of	No. of	No. of
	buildings	peasants	buildings	households
	confis-	to whom	per	for every
	cated	allocated	household	building
South Kiangsu <sup>(1)</sup>	711,052	1,663,779 <sup>(a)</sup>	0.43	2.34
Nanking suburbs	2,614	65,172	0.17	6.05
Wusih <u>hsien</u>	2,454	49,315 <sup>(a)</sup>	0.05	20.10
Shanghai suburbs	8,161	255,041	0.13	7.59

(a) Households, not peasants.

Sources: (1) <u>SNJP</u>, 30/9/52, <u>op. cit.</u>, p.2. Elsewhere as Table II.25.

(b) Rea	llocation of	furniture in so	uth Kiangsu:
	No. of	No. of	Pieces of
	pieces of	households	furniture
	furniture	to which	per house-
	confis-	furniture	hold
	cated	allocated	
South Kiangsu	1,920,071	1,663,779	1.15
Nanking suburbs	4,377	65,172 <sup>(a)</sup>	0.28
Nanking suburbs	7,872	20,463	0.38
Wusih <u>hsien</u>	7,535	49,315	0.15
Shanghai suburbs	55, 540	$255,041^{(a)}$	0.90

(a) Peasants, not households.

Sources: As II.25 and table (a) above.

(213) "Report by Jao Shu-shih at the Second Plenary Session of the ECMA Commission", Shanghai, 14 July, 1950, translated in <u>Current Back-</u> ground (Hong Kong, U.S. Consulate General), no.10, 28/9/50.

- (214) Although information on the confiscation of draft animals and farm implements is only available for south Kiangsu, the validity of our argument would certainly not be weakened if statistical data for the north could be found.
- (215) Kuan was Director of the South Kiangsu People's Administrative Office until November, 1952 and Chairman of this Conference. His report can be found in <u>SNJP</u>, 3/3/51, p.3, "Directive Summarizing Agricultural Production in 1950 and Relating to Agricultural Production Work in 1951."
- (216) <u>SCMP</u>, no. 141, (24/7/51), p. 25, noted similar tendencies in the context of East China: thus, rich peasants were reported to have commented (revealingly) that "the cadres arrange loans but do not arrange repayment".
- (217) <u>SNJP</u>, 3/3/51, <u>op. cit.</u>, p.3. The Chinese phrase is: <u>lao-tzu pu</u> <u>t'uan-chie</u>.

It is interesting that Jao Shu-shih in his July (1950) speech was quite prophetic in his remarks on the hiring of farm labour and the difficulties that might arise after land reform. Thus:

"Disputes between employers and farm labourers who continue such labour should be solved according to the measures adopted in solving labour-capital disputes in cities and on the principle of benefitting both labour and capital and developing production. We must constantly keep in mind the interests of the farm labourers, look after their livelihood and strive constantly to raise their political consciousness and their cultural standard. On the other hand, we must patiently educate the farm labourers to prevent 'leftist' sentiment and deviation. No demand must go beyond the scope permitted by the present economic situation. If they exceed the scope nobody will employ farm labourers. This will result in unemployment for farm labourers and ruining agriculture, to the disadvantage of both the farm labourers and production. "

(From Current Background, no. 10, op. cit., pp. 6-7).

- (218) SPJP, 10/10/51, p.3, "The Achievements of North Kiangsu in Agricultural Production During the Past Two Years". See also SPJP, 28/12/51, p.1, "Report on Land Reform Work in North Kiangsu During the Past Year".
- (219) CFJP, 1/6/51, p.7, "Many Problems are still Arising in Production".
- (220) The geographical scope of the investigations was as follows:

8 <u>hsiang</u> in the 3 <u>hsien</u> of Chiang-yin, Wu-chin and Lieh-yang (Ch'ang-chou Special District)

11 <u>hsiang</u> in the 2 <u>hsien</u> of K'un-shan and Ch'ang-shu (Soochow Special District)

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6 <u>hsiang</u> in the 3 <u>hsien</u> of Chü-jung, Tan-t'u and Kao-ch'un (Chinkiang Special District).

- (221) CFJP, 1/6/51, op. cit., p.7.
- (222) Ibid.
- (223) This fear was not confined to rich peasants. Poor peasants too were worried by the prospect of higher taxation.
- (224) In this context the report noted that "... fearing that they would be compelled to give loans to their poorer neighbours, some rich peasants who had large quantities of foodstuffs on hand preferred to convert them into fertilizers as a sign of interest in production, thus avoiding the possibility of being forced to make loans to poorer peasants. (From CFJP, 1/6/51, op.cit., p.7.)
- (22) <u>Ibid</u>. The phrase is <u>tuan-ch'ui</u>. <u>SCMP</u>, no.141 (24/7/51) translates this as "eleven (families) are on the verge of starvation ..." But this would seem excessive.

(226) Shui-ch'e.

### CHAPTER THREE

# The Mutual-Aid Team Movement and the Earliest Attempts to Introduce Agricultural Co-operativization.

Although the scope of this chapter is broader than that of the last, in its analysis of the events which it describes it is less detailed. It examines the earliest attempts by the CCP in Kiangsu to introduce socialist elements into the organization of that province's agriculture and it embraces the Mutual-Aid Team (MAT) Movement and the earlier stages of the co-operativization campaigns. The end-date chosen for the chapter is 31 July, 1955, the day on which Mao tse-tung made his celebrated speech "On the Question of Agricultural Co-operativization". <sup>(1)</sup> All chronological divisions are ultimately arbitrary, but it is at least arguable that this one is consistent within the context of agricultural developments in the 1950s. Until July, 1955 the movement towards the socialization of agriculture was characterized by a gradual and cautious approach: but following Mao's speech the character of the movement changed dramatically as the "high-tides" of semi-socialist co-operativization and fully-socialist collectivization followed rapidly upon one another.

Information for the period up to mid-1955 is fragmentary. In part this is a reflection of the incomplete holdings of the source materials used.<sup>(2)</sup> But it also derives from the shortage of the kind of detailed report that yielded such a clear picture of land reform in Kiangsu. The result is that close textual analysis has to be eschewed in favour of a more general consideration of the issues under review.

#### I Introduction.

Agricultural policy following land reform is well summed up in a phrase -166-

which constantly appeared in newspaper reports in the early 1950's: "get organized". <sup>(3)</sup> This was in fact the title of a speech made by Mao in November, 1943 in support of the mass production movements then being organized in the Shensi-Kansu-Ninghsia Border Region of China.<sup>(4)</sup> In it the organizational approach to problems of agricultural production emerged clearly and of particular interest was Mao's enunciation of certain principles underlying institutional change in agriculture which were to become explicit in the policies adopted in the early 1950's. For example, the move towards a fully-socialist agriculture was to take place gradually and by stages, with emphasis on the voluntary participation of peasants. Interest should not be focused exclusively on more advanced forms, such as co-operatives and collectives, and Mao was at pains to point out the advantages of the simplest kinds of co-operation involving little more than the exchange of labour at busy times of the agricultural year.<sup>(5)</sup> It is true that the war-time environment was very different from that of the 1950's and similar policies may have been motivated by different considerations. Nevertheless, in the light of developments within agriculture in the first half of the 1950's the "get organized" speech is clearly of seminal interest.

One of the earliest discussions of agricultural socialization after 1949 was contained in a resolution on mutual aid and co-operation published in 1953.<sup>(6)</sup> It throws interesting light on the conflicting views held by senior Party members and on the dilemma which faced those formulating agricultural policy at this time. Some emphasized the fact that many peasants, especially the better-off, were in favour of the system of individual farming based on private ownership, which still predominated in China after land reform.

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Others argued that there was a large number of (poorer) peasants who were encountering serious production difficulties that had their origin in this self-same system. For these the answer was not the perpetuation of private, individual farming, but its abolition and replacement by some form of agricultural co-operation.

Kang Chao has described the 1953 Resolution as a "reconciliation of divergent views within the Party".<sup>(7)</sup> Such a judgement is too sanguine. That it reflects divergent views is undeniable, but any attempt to reconcile them seems to have been minimal. The fact that it could contemplate the continued existence of the private ownership system for "quite a long time to come" while simultaneously looking towards the establishment of a collectivized agriculture<sup>(8)</sup> is an indication of the essential ambiguity of the document.

That divergent views should have existed is hardly surprising. It was easy enough to speak of showing the peasants the advantages of mutual aid and co-operation over individual farming, but such vague pronouncements left a lot of important questions unanswered. Different resource endowment patterns meant that the better-off peasants would view the private, individual farming system more favourably than their poorer counterparts. Moreover, to the extent that such crucial factors of production as draft animals and ploughs were concentrated in the hands of the better-off, from a purely economic point of view the benefits of "preserving the rich peasant economy" were considerable. However, other considerations made such a policy anathema and for all the immediate doubts that existed in the early 1950's the ultimate supremacy of a fully-socialist agriculture was not in question.

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The crux of the problem was that if co-operative farming was to be instituted both ends of the rural class spectrum had to be brought together; success required the working capital of the rich peasants as well as the labour of the poor. Mutual aid among the poor elements alone could not alleviate the shortages of draft animals and tools which lay at the root of their difficulties. But given their preference to continue working as private individuals, how could the rich peasants be induced to join the co-operative sector?

Looked at in this light it is difficult to see how the 1953 Resolution succeeded in reconciling divergent views. It is more realistic to see the document as an <u>ad hoc</u> response to a still-unresolved situation - a response, moreover, which offered no practical policy guidelines. After all the simultaneous development of spontaneous capitalism within the rich peasant sector and agricultural co-operation among the poorer peasants hardly offered a viable developmental strategy for Chinese agriculture.

The actual forms of agricultural co-operation envisaged by the Resolution can be briefly summarized: at the lowest level was the temporary MAT, a small-scale unit in which peasants pooled their resources for a limited period in order to achieve some mutual advantage. For example, peasants with surplus labour who lacked draft animals might exchange their labour for the animal power of other peasants, so ensuring the successful completion of harvesting or transplanting. The formal condition for the success of these teams was that the accounting system, or more generally the terms of exchange, <sup>(9)</sup> should satisfy all members.

The successor to this basic-level team was the year-round (permanent) MAT. This incorporated a number of elements appropriate to a more advanced form of co-operation such as some public-ownership of tools and draft animals and a small accumulation fund. In addition, planning was introduced; agricultural operations were co-ordinated with subsidiary work (animal husbandry, handicrafts, etc.); there was specialization based on the skills of the peasants; and technical improvements were undertaken by the team. In short, the establishment of permanent MATs was the transitional stage between co-operation based on traditional patterns of mutual aid and the more formal organization of co-operatives. It was anticipated that as the temporary MATs succeeded in helping peasants overcome production difficulties and as output and income in consequence rose, the number of permanent teams would rapidly increase.

The third stage was the formation of semi-socialist Agricultural Producers' Co-operatives (APC) or "land co-operatives".<sup>(10)</sup> Important features of the permanent MATs were retained but other new ones were introduced, the most notable being the voluntary transfer of members' land to the co-operative for unified management. However, the land remained under the ownership of the peasants who received a payment for its use from the co-op.

It is noticeable that the 1953 Resolution provided no time-table for the transition from one stage to the next beyond stating the need for a gradual advance in accordance with the circumstances of each locality. In the "newly-liberated" regions (which included much of Kiangsu) emphasis was on the establishment of temporary teams; only when these were sufficiently strongly based could permanent MATs be set up. Further, only those areas which had already enjoyed considerable experience of mutual aid and where leadership was strong were permitted to develop co-operatives. Throughout all three stages care must be taken to avoid "leftist" and "rightist" tendencies of excessive haste or excessive caution.

Such was the background to early agricultural socialization. In the long run the position of the CCP was clear: agriculture would gradually be collectivized as the peasants came increasingly to see the demonstrable superiority of the teams and co-ops. But in the short run the situation was more fluid and the Party remained divided over precisely how and when this process was to take place. It was in this ambivalent context that the mutual aid movement got under way in Kiangsu.

#### II The Mutual-Aid Team Movement

## (1) Mutual aid in Kiangsu: a chronological account.

The case for co-operation among the peasants of Kiangsu emerged clearly from the discussion in the previous chapter on the economic consequences of land reform in the province. Many of the most basic problems in agriculture had not been solved by land reform. The reallocation of landlords' land tended to depress the average size of farm and therefore, to the extent that holdings were already less than optimal, militated against farm efficiency. In addition, inefficiency caused by fragmentation remained a serious problem. In the traditional<sup>(11)</sup> agriculture a condition of growth was that essential factors of production should be available in the quantities determined by agronomic and environmental factors. Yet as was also shown, for many peasants there was a wide gap between what was available and what was needed. Even labour supplies could not always be assured and in the cotton areas of Kiangsu a 33% labour deficit was reported.<sup>(12)</sup>

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This situation had two consequences. First the shortage of draft animals and tools imposed an upper limit on the agricultural growth that was possible: even if some peasants emerged from land reform in a position not only to maintain but to expand their production, others (and as it happened the majority) were more constrained in the choices that lay before them. In this sense the benefits of land reform were limited. Second, given the legal right to make loans, buy and sell land and employ hired labour, the unequal distribution of scarce resources was bound to cause the gap between the better-off and poorer peasants to widen. Indeed, in Kiangsu the fact that land reallocation had effectively discriminated against poor peasants actually encouraged this trend.

In sum, for pragmatic and ideological reasons the socio-economic situation in Kiangsu after land reform was far from satisfactory and in the absence of state investment in agriculture it was clear that further institutional change would sooner or later have to take place.

One of the factors which aided the planners in their organization of the first MATs after 1949 were the traditional forms of co-operation which already existed. Far from instituting an entirely new form of agricultural co-operation, the immediate task of the CCP in the early 1950's was to institutionalize a role which the voluntary organization of peasants on a small scale had been fulfilling for many hundreds of years throughout China.

In East China traditional forms of mutual aid fell into three categories.<sup>(13)</sup> The first consisted of help among peasants based on human labour, though it also included the exchange of labour for the use of farm tools. Fourteen

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variations of this kind of co-operation were said to exist in East China. <sup>(14)</sup> Such organizations were formed voluntarily by peasants at peak periods (for example, sowing, transplanting, harvesting) as a means of ensuring the completion of the work on time. In some areas where equipment such as water-wheels needed to be operated by more than one or two persons<sup>(15)</sup> the owners would seek the help of nearby peasants to provide labour in exchange for the use of the wheels themselves.

Within this category were forms of mutual aids peculiar, though not unique, to Kiangsu. In Sungchiang Special District, for example, there was the practice of "joining in work with others on a large scale". (16) The proximity of this area to the Yangtze made it susceptible to flooding and it was in the interests of the peasants to protect themselves against such threats by building water-control works (thereby also utilizing the irrigation potential of the river). Such activities were beyond the capacity of individual households and the peasants could only undertake them on a co-operative basis. The most interesting aspects of this form of mutual aid were the purpose for which it was carried out and its scale of operation. Traditional mutual aid has usually been taken to mean small-scale operations designed to overcome factor scarcities which hindered the completion of the agricultural cycle. Yet here was not only an organization on a much larger scale but also one whose aim was investment in the agricultural sector. (17) In the context of the 1950's when one of the arguments in favour of co-operativization was its ability to mobilize peasants into similar activities, this was not without significance.

Another form of co-operation characteristic of certain areas in south

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Kiangsu before 1949 was known as "mucking in together". <sup>(18)</sup> This seems to have been more in line with what is normally understood by traditional patterns of co-operation. Land and tools remained the private property of the peasants but agricultural work was planned and carried out in concert by them. As a rule, the work performed by each peasant was not recorded, but when the autumn harvest had been completed accounts were settled and wages paid. This practice was found around T'ai Hu (in Wu-chiang, Soochow and Wusih <u>hsien</u>) where peasants' holdings tended to be a long way from their homesteads, making individual management difficult. Perhaps its most interesting aspect was that it involved planning and it was presumably for this reason that it was referred to as "collective production" (chi-t'i sheng-ch'an). <sup>(19)</sup>

The next general category comprised mutual aid based on the use of draft animals. There were a number of variants of this form. For example, where two oxen were needed to pull a plough, two families which each owned one animal might agree to combine their resources to plough their land. More common was the custom of "looking after an ox as a group":  $^{(20)}$  in some cases this involved a number of households joining together to buy a draft animal, each one subsequently feeding and caring for it.  $^{(21)}$  In others one family would purchase the animal and another provide fodder for it. There were instances too when a household with no ox or buffalo simply paid for the use of another's, although in this case the peasant 'hiring' the draft animal bore no responsibility for its care.

The exchange of labour for the use of a draft animal was common throughout East China. A peasant who had no animal of his own would offer

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his labour in return for the use of one. Alternatively, a peasant who did own a draft animal might himself do the ploughing for a second peasant, payment subsequently being made not only for the use of the animal but also for the labour time of the owner.

A final category which was not strictly <u>mutual</u> aid involved the organization of peasants into the "collective sale of labour". <sup>(22)</sup> This was a means whereby peasants with little or no land organized themselves on a relatively large scale and sold their labour power collectively during peak periods. By taking advantage of the different agricultural cycles of different areas<sup>(23)</sup> they were able to find work for much of the year. In parts of north Kiangsu draft animal power was also sold on a collective basis.

All these forms of co-operation were quite common in Kiangnan before 1949.<sup>(24)</sup> Estimates put the proportion of agricultural households participating in them at 50-60% in Soochow and Sung-chiang Special Districts and 70-80% in Chinkiang and Ch'ang-chou. It is interesting that this high figure was largely attributed by Shih and his co-editors to the special economic character of the region: they pointed out that because of its relatively developed state of trade and industrial development a significant withdrawal of labour from the countryside into the cities had taken place. As a result the labour force remaining in the villages had to resort to mutual aid in order to overcome production difficulties. In addition, the dense water network in Kiangnan meant that certain essential activities such as water control projects could only be carried out on the basis of co-operative efforts.

The characteristics of these proto-co-operative organizations were -175threefold.<sup>(25)</sup> First, membership was narrowly based, mainly comprising middle peasants (who possessed some working capital but could not afford to hire the additional labour they required) and poor peasants (who lacked working capital but had surplus labour). It was essentially a case of "the poor helping the poor", <sup>(26)</sup> even if it was the middle peasants with their access to tools and draft animals who formed the core of the groups. Rich peasants took part in co-operative activities only rarely since they not only possessed sufficient supplies of working capital but also the necessary financial capital to employ hired labour.

Second, mutual aid was usually practised on a relatively small scale. It generally involved between two and five households and cases in which more than eight or nine joined together were not common. Moreover, since the object was to overcome specific difficulties in production mutual aid tended to be of a temporary nature, usually lasting through a peak period. Once the 'teams' were disbanded there was no certainty that they would be re-organized in the following year.

Finally, for all their aim of improving farm efficiency traditional mutual aid practices were themselves the source of economic irrationalities. The failure to implement a policy of "exchange at equal value"<sup>(27)</sup> was said to discriminate against the poor peasants: for example, their work was often the last to be done - a delay that was of more than academic concern since even a small amount of time lost could reduce yields by 10-20%. There was also a tendency for work by draft animals to be more highly valued than human labour which again effectively discriminated against the poorer peasant.

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Waste also occurred: specialization according to peasant skills was ignored; the refusal to allow women to work<sup>(28)</sup> deprived agriculture of an important source of labour; and the need to provide food and drink for a peasant worker could lead to unnecessary extravagance.<sup>(29)</sup>

Traditional mutual aid has usually been viewed in terms of two or three households temporarily joining together, on the basis of friendship as much as for any purely economic interest, in order to overcome seasonal factor scarcities. This is useful as a first approximation. However, even the brief account just given has shown that some co-operative practices in Kiangsu went considerably beyond this. The most interesting example was the voluntary organization of quite large number of peasants into watercontrol work. In addition, planning and unified management were sometimes introduced into production, suggesting a rather formal economic arrange-(30)ment. Even the "collective sale of labour" is an interesting if anachronistic example of large-scale mobilization of peasants into agricultural work. It may be that further examination of the traditional pattern of co-operation before 1949 will reveal many more exceptions to what have hitherto been regarded as essentially small-scale ad hoc operations. Such a discovery would add a new perspective to the institutional reforms of the early 1950's. At any rate, it seems safe to suppose that in south Kiangsu these traditional forms of co-operation provided the planners with a useful foundation on which to build when they came to implement the MAT and Co-operativization Movements.

The first MATs to be set up by the CCP in Kiangsu were established in the north of the province in 1943.  $^{(31)}$  They were not a complete success and some of them gradually disbanded. However, during the 'interregnum' between the defeat of the Japanese and the establishment of the People's Republic of China teams were again organized throughout the area north of the Yangtze which remained under Communist control. But problems still arose and peasants continued to withdraw from them. Writing in 1946 Hu Shu-tu<sup>(32)</sup> referred to the breakdown in the previous year of teams in Ssu-shu, <sup>(33)</sup> attributing it primarily to the attitudes of their leaders. Their "subjectivism" and "formalism", said Hu, prevented them from understanding the difficulties and contradictions that were inherent in mutual aid based on a backward and individualistic agriculture. Indeed such attitudes had served only to deepen these contradictions and had thereby contributed to the failures of 1945.

The contradiction from which many of the difficulties stemmed was related to the attempt to superimpose a formal co-operative arrangement upon this individualistic agriculture. Some peasants were better workers than others so that labour enthusiasm varied considerably. The fact that skill levels also differed further complicated the situation. The uneven distribution of land and labour created tensions among team members: poor peasants with little land but surplus labour demanded an increase in wage rates while better-off peasants who had more land (relative to labour) wanted wages lowered. Moreover, poor peasants who had previously compensated for their shortage of land by working as temporary labourers could no longer do so under the new mutual aid arrangement.

The introduction of an accounting system gave rise to various problems. The simple fact that most peasants were illiterate made it easy for quarrels

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to break out over the drawing up and settling of accounts. Odd jobs such as drying fertilizer or pulling up weeds which might constitute half of all the work carried out by the peasants, required complicated accounting procedures and these in turn proved troublesome to the peasants and only increased their sense of disillusionment with the new institutions.

In spite of such difficulties Hu was anxious to point out the achievements of the MATs in Ssu-yang and Shu-yang during the preceding year. The sown area of cotton had been extended by  $30,000 \text{ mou}^{(34)}$  and the implementation of certain simple technical improvements (for example, more hoeing and the increased application of fertilizer) had contributed to the growth of food production. The development of subsidiaries in the MATs and their ability to carry out land reclamation and other work beyond the capacity of a single household further demonstrated the advantages of agricultural co-operation.

That part of Hu's article which dealt with the establishment of new teams emphasized the need for flexibility in accordance with local circumstances. A peasant's right to withdraw from a MAT was to be guaranteed (an interesting reflection of earlier "commandist" attitudes among cadres). Accounting procedures were not to be arbitrarily imposed if existing methods of exchange were working satisfactorily and in any case the system of accountancy was to be rationalized in order to iron out any remaining deficiencies. <sup>(35)</sup> Special attention was to be given to fostering subsidiaries within the teams. <sup>(36)</sup> Yet for all such concessions to peasant initiative Hu did not forget to call for the tightest possible control over the new institutional units. Clearly he was seeking to achieve the benefits of centralized control without sacrificing those of independent decision-making.

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The Hu Shu-tu article is interesting for its revelation of the kind of difficulty being encountered by the planners in Kiangsu in the 1940's and for the perspective which it gives to the events of the years immediately after 1949. Just as the traditional forms of mutual aid provided a foundation on which the CCP could build, so too the experience of the 1940s should have provided an insight into the problems of setting up MATs. However, the experience was obviously not wholly absorbed for many of the problems to emerge in the 1950's bore a striking resemblance to those we have just been considering.

It will be useful to begin our discussion of post-1949 developments by considering the growth of mutual-aid teams of all kinds<sup>(37)</sup> in Kiangsu. The relevant information for the years 1951-55 is contained in Table III. 1 on the following page.

Although traditional forms of mutual aid were practised in south Kiangsu before 1949 the CCP lacked experience in setting up MATs in this region. Nevertheless, the establishment of teams got under way almost immediately after 'Liberation' primarily in order to ease a critical situation brought about by natural disasters.<sup>(38)</sup> The disasters had been particularly serious in Sung-chiang and Ch'ang-chou and it was in these two Special Districts that labour MATs were set up on the widest scale.<sup>(39)</sup> Since the creation of the teams was a direct response to the damaged caused by typhoons, floods and pests, their activities centred round the construction of water-control projects and the development of subsidiaries. The most critical point seems to have been reached in spring, 1950, but once this was passed the immediate need for more MATs became less pressing and

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		Total number of MATs	Total number of agricultural house- holds in the MATs	Percentage increase in number of agri- cultural households over the previous year	Percentage of total agricultural house- holds in MATs
.951	Ki ang su Shanghai	82,284	590,736 -		96.9
952	Kiangsu	518, 526	3, 693, 985	+525.32	43.53
	Shanghai	5, 944	31, 200	-	37.05
	Ksu. + S'hai	524, 470	3, 725, 185	-	43.47
953	Kiangsu	412,974	3,106,153	- 15.91	36.60
	Shanghai	4,256	24,384	- 21.85	29.31
	Ksu. + S'hai	417,230	3,130,537	- 15.96	36.53
954	Kiangsu	488, 569	4, 405, 584	+ 41.83	51.14
	Shanghai	5, 377	36, 448	+ 49.48	44.42
	Ksu. + S'hai	493, 946	4, 442, 032	+ 41.89	51.08
955	Kiangsu	423,989	4, 319, 630	- 1.95	49.68
	Shanghai	4,330	31, 381	- 13.90	37.20
	Ksu. + S'hai	428,319	4, 351, 011	- 2.05	49.56

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The development of MATs in Kiangsu: 1951 - 1955

Table III. 1:

by <u>HHJP</u>, 4/6/55, which gives the number of MATs in Kiangsu as 434,000 - i.e., close to the figure for 1955 shown above.

Source: CKNYHTHYTSL, vol.2, op.cit., pp.1002-1005.

some of the existing ones were in fact disbanded. Others, however, underwent re-organization and continued to implement mutual aid during the summer harvest and summer sowing. Throughout this period the development of MATs was of course constrained by the fact that cadres were already fully occupied with implementing land reform, a policy which carried higher priority than mutual aid. As a result, many of the teams found themselves without adequate supervision and as was later admitted, <sup>(40)</sup> there was a tendency for them to develop "spontaneously". Nevertheless, all in all this first stage of the MAT movement in south Kiangsu provided useful experience of some of the benefits and drawbacks of institutional change to peasants and cadres alike.

By the spring of 1951 land reform in both north and south Kiangsu was near completion and as the new pattern of resource ownership in the agricultural sector began to emerge, so the case for the formation of more mutual-aid teams became increasingly apparent. As early as February 3, 1951 a report made by Kuan Wen-wei at a specially convened conference of <u>hsien</u> leaders in south Kiangsu<sup>(41)</sup> presented the case for further institutional change in agriculture. Quite apart from problems arising from the still unresolved military and political situations, Kuan pointed to the economic difficulties which poor peasants in particular had been experiencing since the reallocation of land. He also emphasized the importance of building and repairing irrigation works, collecting fertilizer and improving methods of cultivation. In order to achieve all this and ensure agricultural growth he urged that mutual aid be promoted on a wide scale throughout south Kiangsu. Though at the same time he was careful to reiterate the need to uphold the principles of free choice, fair exchange and democratic management.

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Regional conditions required that emphasis should initially be on the elevation of traditional forms of work exchange into small-scale seasonal MATs, organized as the need arose and disbanded when it had passed. The transformation of these into larger and more permanent units should take place only after considerable experience had been gained and a strong foundation been laid. Simultaneously, the teams were to receive top priority in the distribution of state loans and provision of working capital, such as seeds. <sup>(42)</sup> So confident was Kuan of the benefits of the MATs that he argued that the organization of the labour force into teams would not only bring about an increase in agricultural production but also improve efficiency to such an extent that a labour surplus developed. This could then be used either to raise productivity (yields per unit area) or promote subsidiaries.

In the north of the province, especially in the "old liberated" areas, a rapid expansion of mutual aid also took place. One source stated that in Hwaiyin Special District alone more than 7,000 "regular"<sup>(43)</sup> and about 18,000 temporary teams were organized during the spring-sowing period of 1951.<sup>(44)</sup> In the same period more than 3,000 teams were set up in Yen-ch'eng. And in the "new liberated" areas too, MATs began to be established.

During the second half of 1951 renewed development took place. The autumn harvest and sowing period saw the re-organization of labour MATs and the establishment of new teams throughout south Kiangsu. (45) By the end of the year there were 77,888 MATs in Kiangnan. (46) A similar pattern was observable in the north and at the end of December, 1951 a

report published by the People's Administration stated (on the basis of "incomplete statistics") that there were 41,657 MATs in the region -2,393 permanent and 39,264 temporary. <sup>(47)</sup> Thus, for the whole of the province the situation at the end of 1951 was as follows:

41,657 + 77,888 = 119,545 MATs.

If it is assumed that the average size of team was the same as that shown in III. 1 for mid-1951, the number of agricultural households belonging to the MATs can easily be shown:

average size of MAT at mid-year, 1951:

590,736 + 82,284 = 7.18 households

therefore the number of agricultural households in MATs at year end was:

 $119,545 \times 7.18 = 858,333$ 

If these calculations are approximately correct, they show that there was a rapid expansion in the number of MATs in Kiangsu in the second half of 1951. The number of agricultural households belonging to the teams at the end of the year was 45.3% higher than it had been at the end of June so that participation had risen from 6.96% to 10.11% of all households. But to keep these developments in perspective, we should remind ourselves that their impact upon agriculture remained peripheral: only a small proportion of those poorer peasants who theoretically had most to gain from joining in mutual aid had in fact done so. Moreover, emphasis was still on the formation of temporary (seasonal) teams and these comprised the majority of all the MATs.<sup>(48)</sup>

Since the north had been controlled by the CCP for longer than Kiangnan and mutual aid organizations set up much earlier, it was to be expected that

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new teams would be created more rapidly here than in the south. In fact on the evidence of the 1951 estimate just derived exactly the opposite was the case, the distribution of the 119,545 teams being as follows:

North Kiangsu:	41,657	(34.85%)
South Kiangsu:	77,888	(65.15%)

The difference is even more striking when the situation is viewed in terms of the agricultural population of each region:

Table III.2:	Participation in Ma south Kiangsu, 195	ATs in north and
	North Kiangsu	South Kiangsu
Total number of agricultural households	4,557,371 <sup>a</sup>	2,564,634 <sup>b</sup>
Number of agricultural households in MATs	299,097 <sup>c</sup>	559,236 <sup>d</sup>
Proportion of total agri- cultural households in MAT	s 6.569	% 21.81%
Sources:	Appendix B sho cultural popula 18,776,370. 1 hold is 4.12 per of agricultural 18,776,370 ÷	ows north Kiangsu agri ation (1951) to be If average size of house ersons then total numbe households must be 4.12.
1	<u>Ibid.</u> ; 10,556,	,293 ÷ 4.12.
	spjp, 28/12/5	51, <u>op.cit</u> ., p.1.

In other words, organization of the peasants into teams was more than three times as advanced in south Kiangsu than in the north. <sup>(49)</sup> It is difficult to say with any certainty why this differential should have arisen. Perhaps the argument, cited earlier, relating to the peculiar ecological characteristics of south Kiangsu and the labour shortage caused by the drift of peasants into the cities is not without some significance. It may be too that the scarcity of other factors was more serious in the south following land reform<sup>(50)</sup> and that this made the need for some form of

SNJP, 30/9/52, op. cit., p.2.

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agricultural co-operation more pressing.

Whatever the uncertainties of 1951, one fact that is not in doubt is that 1952 marked the "high-tide" of the MAT Movement in Kiangsu. As Table III. 1 shows, between mid-1951 and mid-1952 the proportion of total agricultural households belonging to teams rose from less than 7% to well over 40%. Indeed the total number of teams in the province reached its highest level in this year, although the high point in terms of agricultural household membership was not reached until two years later, in 1954.<sup>(51)</sup>

The following table gives a more detailed picture of mutual aid development in Kiangsu during 1952:

Table	e II. 3: The M	AAT Movement i	n Kiangsu in 1952.
	N. Kiangsu	S. Kiangsu	All Kiangsu
Spring, 1952			
Total no of MATs	56,388	75,506	131,894
No of participating h.hs	387,949	499,850	887,799
As % total agric. h. hs	7.98	20.0	12.07
Mid-1952 (1st est.):			
Total no of MATs	249,360	180,137	429,497
No of participating h.hs l	,715,137	1,191,872	2,907,009
As % total agric. h.hs	35.3	47.7	39.5
Mid-1952 (2nd est.):			
Total no of MATs			518,526
No of participating h.hs			3,693,985
As % total agric. h.hs			43.53

- Notes: (1) It has been assumed that the two mid-1952 estimates refer to approximately the same point in time. The difference between them is that the second includes data for those regions in N. Ksu. regained from Anhwei and Shantung at the end of the year.
  - (2) In order to calculate the proportion of h. hs in MATs, the following estimates of total agric.
    h. hs have been used: (a) for spring, 1952 and mid-1952 (1st est.) N. Ksu., 4,858,743 (SPJP, 23/8/52, op. cit., p.1). S. Ksu., 2,498,683 (SNJP, 25/7/52, op. cit., p.2). (b) for mid-1952 (2nd est.)
    8,486,067, from CKNYHTHYTSL, op. cit., vol.2, p.1002)

Sources:

- Spring, 1952: <u>SNJP</u>, 19/3/52, <u>op. cit.</u>, p.2.
   And <u>SPJP</u>, 19/4/52, <u>op. cit.</u>, p.2.
- Mid-1952 (1st est.): SPJP, 23/8/52, p.1.
  "Make General Checks on the Mutual Aid and Co-operative Movement". And SNJP, 25/7/52, p.2, "Some Problems in the Mutual Aid and Co-operative Movement that Must Be Solved".
- (3) Mid-1952 (2nd est.): As Table III.1.

As indicated in the notes to Table III. 3, the difference between the two mid-year estimates is essentially one of geographical coverage and in real terms it is the first two sets of data that most accurately reflect progress in the MAT Movement during 1952. Moreover, if we take the end-year estimate as base rather than the mid-1951 figure we shall be able to place the events of 1952 into proper perspective. Between the end of 1951 and the spring of 1952 a modest increase in the number of teams took place, membership rising from around 10% to 12% of total agricultural households. The really dramatic expansion occurred in the following three months as membership increased threefold to embrace 40% of the agricultural population. This was a most significant development. No longer could it be said that mutual aid had merely touched the periphery of the agricultural sector; in the rich agricultural region of south Kiangsu in particular, almost half of all peasants were now involved for at least part of the year in some kind of formal co-operative farming arrangement.

However, the most rapid advance occurred in the north of the province. Indeed in absolute terms the position of the two regions was reversed: in spring south Kiangsu had the larger number of teams (and more peasants in them), but within the space of a few months the north had overtaken it. Nevertheless, although this had the effect of narrowing the gap, Kiangnan

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remained considerably ahead of the north in terms of the proportion of total households belonging to the teams.

It is important to remember that the agricultural co-operation the peasants were participating in at this time was far removed from agricultural co-operativization (with all that this implied for ownership and unified management of production). Even if they were part of the mutual aid sector the peasants were still working for their own private ends, not those determined by a collective unit. They continued to make independent decisions about what crops to  $grow^{(52)}$  and retained control over much of their final output. It is true that the organization of MATs was an integral part of the process whereby the individual scattered farm economy was to be transformed into a collectivized agriculture.<sup>(53)</sup> But this was a distant goal and for the time being it was the simplest and most basic forms of co-operation that were the focus of the planners' attention.

One of the most striking features of Table III. 1 are the fluctuations in the development of MATs in the first half of the 1950's. Of these the most noticeable is the retreat of 1953 which followed the rapid expansion of the previous year.

Events in the country as a whole provide some clues as to why this apparent <u>volte-face</u> should have occurred. By the spring of 1953 the MAT Movement in China was encountering serious difficulties arising out of the widespread violation of the supposedly key principles of gradualism, voluntarism and mutual benefit.<sup>(54)</sup> Such violations were causing rifts to develop both within the rural sector between peasants and cadres, and within the teams themselves between the poor and middle peasants. In

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these circumstances a policy of retrenchment was called for and the campaign halted.<sup>(55)</sup>

In Kiangsu events followed a similar pattern. Even in 1952, before the rapid expansion of MATs had taken place, there were references to teams breaking up through disregard of the principles of free choice and mutual benefit and criticisms were voiced against the forced organization of peasants in parts of south Kiangsu.<sup>(56)</sup> But the provincial newspapers for late-1952 and early-1953 show that subsequent developments had led to a further deterioration in the situation and the emergence of a wide range of problems.

Accountancy was a familiar area of difficulty. There were delays in the settlement of accounts and some team leaders were even reported to have deliberately withheld the payment of wages to members. (57) This was contrary to the spirit of fair exchange and created disunity among team members and sometimes resulted in the breakdown of the MATs. A December, 1952 article (58) showed how the purpose of accounting could be completely misunderstood: thus some peasants were under the impression that "if the recording of work and drawing up of accounts are too thorough, unity will be affected"; and "if we've got to be so thorough, how can we talk about 'mutual aid'?" One team leader was even reported as saying "... sooner or later we shall have socialism anyway so now that we're 'getting organized', why bother about evaluation of points and recording of work?"<sup>(59)</sup> Peasant self-interest also manifested itself. For example, those who had more land than labour tried to depress wages while others who possessed draft animals and tools were for raising the

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value of work carried out with them.  $^{(60)}$  Inefficient team management led to the deaths of many draft oxen: at peak periods peasants competed with each other to use them, but none would take the responsibility of feeding and caring for them  $^{(61)}$  - a problem which was to become critical in later co-operativization campaigns.

A good harvest was no guarantee of further progress in a MAT. On the contrary it might lead members to slacken off in the belief that all their problems had been solved.  $^{(62)}$  When production difficulties emerged MATs were also adversely affected. In the winter of 1952, for example, ration shortages and a lack of capital for subsidiaries caused many peasants to lose faith in mutual aid and teams were disbanded as the better-off members resorted to private, individual farming.  $^{(63)}$  Some peasants failed to understand that mutual aid could be pursued in the off-peak months and left their villages in search of part-time work elsewhere, again contributing to the temporary standstill or collapse of the teams.  $^{(64)}$ 

In short, starting towards the end of 1952 there was clear evidence of increasing problems in the mutual aid sector of Kiangsu and by spring of the following year these seem to have reached serious proportions. The situation was well-illustrated in an article written in April of that year<sup>(65)</sup> which strongly attacked the "formalistic"<sup>(66)</sup> tendencies of the current MAT Movement. It cited the case of a <u>hsiang</u> in Wu-chin <u>hsien</u> (south Kiangsu) where investigations revealed that of 73 MATs reportedly set up, only 37 were really implementing mutual aid, 21 existed in name only and the other 15 had broken up completely. Similar situations could be found in other parts of the province.

The speed of institutional change in 1952, or more specifically "the excessive haste shown by the leadership towards the mutual aid and co-operative movement". (67) was blamed for this state of affairs. Cadres had ignored peasant opinion (and production requirements) and forcibly imposed the new institutional framework upon them. Instead of demonstrating the superiority of mutual aid through "patient education" and the example of "representative models" they had heaped criticism and sarcasm on the peasants and "called them names". (68) The difficulties were compounded by the fact that once the teams were set up, the cadres either sat back satisfied with their organizational success and failed to follow up by helping peasants over their difficulties or blindly pushed on towards higher-level organizational forms, "... merging small teams into large ones and inappropriately increasing public property and accumulation funds". (69) In the process the losses suffered by the peasants had caused their living standards to decline, and as their enthusiasm for production waned so the MATs had broken up.

The "formalistic" tendencies mentioned above also led to the circulation of misleading reports and false sets of statistics. In T'ai <u>hsien</u> cadres in one <u>hsiang</u> reported that there were four permanent and 15 temporary MATs: only later, when an official check was ordered, was it found that in fact not a single team existed in the <u>hsiang</u>!<sup>(70)</sup>

Another representative case was that of Ching-hu <u>hsiang</u> in Lien-shui <u>hsien</u>. During summer, 1952 cadres had used loans in order to attract peasants into organizing more than 30 MATs. Subsequently, the peasants discovered that they had been unwittingly absorbed into higher-level

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teams.<sup>(71)</sup> No attempt was made to redress the situation, but later as problems mounted up which the cadres were unable to solve the peasants began to revert to working on their own. By April, 1953 not a single official MAT remained.

To sum up: there can be little doubt that the same factors which halted the MAT Movement nationally in 1953 were also operative in Kiangsu. The violation of basic principles, tensions between cadres and peasants and between poorer and better-off peasants, conflicts of collective and self-interest, cadres' failings - all contributed to peasant dissatisfaction and created strains within the movement, leading to the collapse of a large number of teams. It is in this context that the data shown in Table III. 1 should be viewed.<sup>(72)</sup>

The progress of the MAT Movement in 1954 and 1955 can be briefly
(73)
summarized. The 'General Line for the Period of Transition to Socialism',
published in the autumn of 1953, marked the end of retrenchment and the
beginning of renewed emphasis on agricultural collectivization. In a resolution
adopted by the Central Committee of the CCP in December of that year a
central theme was the importance of setting up APCs<sup>(74)</sup> and in line with
this change of direction the formative role of the MATs was also stressed.<sup>(75)</sup>
The stage was set for the further development of MATs and in 1954 a second
upsurge took place in the province. The downward trend of 1953 was reversed
and by the end of the year more than half of all Kiangsu peasants were members of teams. Moreover, almost half the teams were of the permanent
type, compared with well under a third in 1952.<sup>(76)</sup>

The decline in the number of teams and participating households between mid-1954 and mid-1955 is on the face of it a little surprising. However,

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the explanation is simple: by mid-1955 the co-operativization movement was well under way and the MATs were being superseded by the APCs. Thus, the decline in 1955 shown in Table III.1 is no more than a reflection of this move towards a higher level of agricultural co-operation.

So far we have only examined mutual aid developments in Kiangsu in isolation and without distinguishing between the formation of temporary and permanent teams. We shall therefore conclude this section by attempting to place Kiangsu's experience into a regional and national context and by briefly considering the two kinds of MAT separately.

(We may also note that Kiangsu and Shanghai present an interesting case-study of different responses to shifts in policy during the MAT Movement. In each observable case Shanghai is a more sensitive barometer of change, the membership of teams increasing in 1954 and declining in 1953 and 1955, by a greater proportion than in the rest of the province.)

Table III. 4 on the following page shows the development of the MAT Movement in China and the East China Region, as well as in Kiangsu and Shanghai, between 1950 and 1955.

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		Table III. 4;	The development of MA and China: 1950-1955	Ts in Kiangsu, Shanghai, E	ast China
		Total number of MATs	Total number of agricultural house- holds in the MATs	Percentage increase in number of agri- cultural households over the previous year	Percentage of total agricultural house- holds in MATs
1950	Kiangsu Shanghai East China (a) East China (b)	- - 743, 065 12, 954	3, 282, 548 92, 464		- 10.45 1.68
1951	China Kiangsu Shanghai East China (a) East China (b) China	2, 001, 001 82, 284 1, 082, 287 249, 554 4, 236, 712	11, 510, 483 590, 736 5, 127, 989 1, 572, 320 19, 161, 253	- +56.21 +66.40	10.91 6.96 - 11.57 7.03 17.54
1952	Kiangsu Shanghai East China (a) East China (b) China	518, 526 5, 944 2, 548, 907 1, 413, 581 8, 026, 037	3, 693, 985 31, 200 15, 895, 659 10, 286, 441 45, 364, 384	+525.32 - +210.01 +554.22 +136.70	43.53 37.05 48.11 45.34 39.86
1953	Kiangsu Shanghai East China (a) East China (b) China	412,974 4,256 2,191,605 1,293,693 7,450,212	3,106,153 24,384 15,225,620 10,123,777 45,636,863	-15.91 -21.85 - 4.22 - 1.59 + 0.60	36.60 29.31 45.56 44.23 39.23
1954	Kiangsu Shanghai East China (a) East China (b) China	488, 569 5, 377 2, 476, 247 1, 472, 073 9, 931, 480	4, 405, 584 36, 448 19, 483, 432 12, 667, 220 68, 477, 999	+41.83 +49.48 +27.90 +25.10 +50.00	51.14 44.42 57.99 55.02 58.37
1955	Kiangsu Shanghai East China (a) East China (b) China	423, 989 4, 330 1, 869, 370 1, 156, 540 7, 147, 023	4, 319, 630 31, 381 16, 863, 255 11, 531, 695 60, 388, 790	- 1.95 -13.90 -13.45 - 8.97 -11.82	49. 68 37. 20 49. 29 49. 48 50. 66
		Notes: (1)	The figures are for mid	l-year.	

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East China (b): As (a) but excluding Shantung. (3)

East China (a): Shantung, Anhwei, Chekiang, Fukien, Kiangsu and Shanghai.

(2)

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The table requires little comment. The MAT Movement in Kiangsu and East China (b) started later than in the "old liberated" regions of the north such as Shantung. In 1951 the proportion of agricultural households belonging to teams in both these areas was less than half that of China and considerably less than in East China including Shantung. However, despite (or because of) this relatively slow beginning, expansion in 1952 was particularly rapid and by the end of that year the rate of participation was higher in East China (b)<sup>(77)</sup> than in the country as a whole.<sup>(78)</sup> Only Shanghai continued to lag behind.

A comparison of regional trends in 1953 is of particular interest. Although we have described this year as one of retrenchment, at a national level MAT membership actually increased very slightly (though since the total number of teams fell by 7.17%, it is clear that the rise in participation was due to the growth of permanent teams). But most interesting, in East China (b) too, membership fell by only 2%, compared with 15% in Kiangsu and Shanghai. Such a wide gap suggests that team membership increased in some provinces of East China even though overall participation fell slightly. This is in fact borne out by the following data:

> Table III. 5: The MAT Movement in East China (excluding Shantung): 1952-53

	Number of agri- cultural households in MATs: 1952	Number of agri- cultural households in MATS: 1953	Percentage change
Kiangsu	3,693,985	3,106,153	-15.91
Shanghai	31,200	24, 384	-21.85
Anhwei	3,343,146	3, 179, 981	- 4.88
Chekiang	1,917,245	2,391,786	+24.75
Fukien	1,300,805	1,421,473	+ 9.27
(Shantung)	(5,609,218)	(5,101,843)	- 9.05

Source: CKNYHTHYTSL, vol.2, op. cit., pp. 1002-1003.

Clearly the reaction to the rapid expansion of 1952 varied considerably from province to province. In Kiangsu 1953 saw a substantial cut-back in MATs, a pattern that was followed in Anhwei. But in Chekiang and Fukien events moved in the opposite direction and participation continued to rise. To investigate why these variations took place would take us beyond the scope of this chapter: they may reflect the differing success in setting up teams in each province or perhaps they stemmed from the ascendancy of different political convictions. In any case, we must be careful in extrapolating from the experience of a single province, no less than from that of the whole country.

The gap between Kiangsu and the rest of East China narrowed again in 1954,  $(^{79})$  although the province actually fell further behind the country taken as a whole. This was the year in which MAT membership reached its peak in Kiangsu and this was also the case in East China (including and excluding Shantung) and China. But during 1955 numbers began to decline in all areas as APCs were set up on an increasingly wide scale. What is significant from a comparative regional point of view is that the proportion of agricultural households belonging to teams was lower in Kiangsu than in both China and East China. This had an important consequence, for in effect it left Kiangsu with a comparative disadvantage as the co-operativization campaign got under way. <u>A priori</u> the smaller the number of peasants that had participated in mutual aid, the greater the difficulties that could be expected when the co-operatives were formed.  $(^{80})$ 

So far no distinction has been drawn between the development of temporary and permanent MATs and it seems appropriate to conclude this

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section by briefly considering this aspect of the movement. The relevant information for Kiangsu, East China and China is set out in Table III.6 on the following page.

After 1952 there was a continual decline in the number of temporary MATs in Kiangsu and East China (though curiously, China showed a 16.8% rise in 1954) and a corresponding increase in the importance of permanent teams. However, the pattern of development in Kiangsu offers some interesting contrasts with that of other regions. For example, in 1953 Kiangsu and Shanghai suffered declines in the rate of participation in permanent as well as temporary MATs. Elsewhere a similar fall in the membership of seasonal teams took place but this was to a greater or lesser degree offset by a continuing rise in that of permanent ones. It is interesting to speculate on the significance of this contrast. Could it be that the difficulties of implementing mutual aid in Kiangsu were greater than elsewhere? That the violation of basic principles of gradualism and voluntarism had been more serious, so creating a more critical situation and necessitating a sharper retreat? Whatever the answer, the phenomenon was only temporary and after 1953 permanent MATs assumed more importance in Kiangsu than in the other areas shown.

Throughout the period the average size of both kinds of MAT was on the increase. Teams in Kiangsu (though not in Shanghai) were larger than in China and East China, excluding Shantung, but in the more immediate regional context smaller than in Anhwei, Chekiang and Fukien. This is not surprising for the greater pressure of agricultural population on arable land in the south was bound to lead to a larger size of unit. In purely Table III.6

The development of temporary and permanent MATs: 1951-1955.

## (a) Temporary Teams:

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		Total number of temporary teams	Agricultural household membership	As percentage of all households	Average size of team (h.hs/MAT)
1951	Kiangsu	63,042	445,622	5.25	7.54
1952	Kiangsu	373,410	2,571,408	30.30	6.89
	Shanghai	4,158	20,652	24, 52	4.97
	Ksu + S'hai	377,568	2,592,060	30.20	6.87
	East China (a)	1,796,249	10,857,875	32.86	6.04
	East China (b)	1,049,943	7,359,940	32.44	7.01
	China	6,270,282	33,915,857	29.80	5.41
1953	Kiangsu	296,316	2,136,045	25.17	7,21
	Shanghai	3,050	16,474	19.80	5.40
	Ksu + S'hai	299,366	2,152,519	25.12	7.19
	East China (a)	1,529,355	10,183,225	30.47	6.66
	East China (b)	954,229	7,122,547	31.11	7.46
	China	5,633,744	32,308,398	27.77	5.73
1954	Kiangsu	249,058	2,035,204	23.62	8.17
	Shanghai	3,031	18,503	22.55	6.10
	Ksu + S'hai	252,089	2,053,707	23.62	8.15
	East China (a)	1,411,841	9,927,514	29.54	7.03
	East China (b)	883,983	6,839,358	29.70	7.74
	China	6,130,179	37,764,576	32.19	6.16
1955	Kiangsu	196,127	1,767,419	20.33	9.01
	Shanghai	2,266	15,157	17.97	6.69
	Ksu + S'hai	198, 393	1,782,576	20.30	8.99
	East China (a)	962,606	7, 594, 278	22.19	7.89
	East China (b)	600, 535	5,255,557	22.55	8.75
	China	3,975,058	27, 545, 955	23.10	6.93
	(b) Permanent	Teams			
	V -	Total number of permanent teams	Agricultural household membership	As percentage of all households	Average size of team (h.hs/MAT)
1951	Kiangsu	19,242	145,114	1.71	7.54
1952	Kiangsu	145,116	1,122,577	13.23	7.74
- /	Shanghai	1.786	10,548	12.53	5.91
	Ksu + S'hai	146,902	1,133,125	13.20	7.71
		752 (50	E 027 794	15 24	6 60

	Ksu + S'hai	146,902	1,133,145	13.20	(, (1
	East China (a)	752,658	5,037,784	15.24	6.69
	East China (b)	363,638	2,926,501	12.89	8.05
	China	1,755,755	11, 448, 527	10.05	6.52
1953	Kiangsu	116,658	970,108	11.43	8.32
	Shanghai	1,206	7,910	9.51	6.56
	Ksu + S'hai	117,864	978,018	11.41	8.30
	East China (a)	662,250	5,042,395	15.08	7.61
	East China (b)	339,464	3,001,230	13.11	8.84
	China	1,816,468	13, 328, 465	11.45	7.34
1954	Kiangsu	239, 511	2,370,380	27.52	9.90
	Shanghai	2,346	17,945	21,87	7.65
	Ksu + S'hai	241,857	2,388,325	27.46	9.87
	East China (a)	1,064,406	9,555,918	28.44	8.98
	East China (b)	588,090	5,827,862	25.31	9.91
	China	3,801,301	30,713,423	26.17	8.08
1955	Kiangsu	227,862	2,552,211	29.35	11.20
	Shanghai	2,064	16,224	19.23	7.86
	Ksu + S'hai	229,926	2,568,435	29.26	11.17
	East China (a)	906,764	9,268,977	27.09	10.22
	East China (b)	556,005	6,276,138	26.92	11.29
	China	3,171,965	32,842,835	27.55	10.35
		Notes and sourc	e: As Table III.4		

economic terms it is difficult, however, to concede more than marginal significance to the increase in size. The scale of mutual aid operations in 1955 may have represented a considerable advance over what had been possible in the past but it was still a long way from providing the conditions in which the benefits of mass mobilization combined with centralized management could be achieved. The inherent structure of the teams itself provided a case for moving to a higher form of agricultural co-operation.

## (2) Some economic aspects of mutual aid in Kiangsu.

The economic raison d'etre of mutual aid in Kiangsu has already been indicated: in a situation in which resources were not only limited but also unequally distributed, an institutional arrangement which gave more peasants greater access to the scarce factors was obviously desirable. The success of such an institutional arrangement could be judged by its demonstrated ability to improve production efficiency and so increase agricultural output and raise incomes.

In the years immediately after 1949 it was the MATs' ability to increase output that was most emphasized. Thus, in the winter of 1952:

"The purpose of organization is to develop agriculture and raise unit area yields. The aim of the winter production work of the MATs is therefore principally to lay the foundation for a bumper harvest next year. The development of subsidiaries is merely a means of serving the needs of agricultural production." (81)

In assessing the impact of MATs upon production in Kiangsu we must be careful in our interpretation of the available data. Quite apart from the likelihood that published statistics reflect better-than-average conditions, reports which referred to the success of teams in raising agricultural output by  $10-20\%^{(82)}$  are misleading to the extent that they make no allowance

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for the increases which might, and probably would, <sup>(83)</sup> have taken place even in the absence of mutual aid. A more accurate reflection of mutual aid success would be gained from a comparison of levels of production inside and outside the MATs. Fortunately, some comparative information of this kind is available and it is this that will form the basis of our quantitative assessment of the Mutual Aid Team Movement in Kiangsu.

Claims that teams were achieving higher yields than individual peasant households were made in a number of reports appearing in December, 1952.<sup>(84)</sup> Later the same month another report contained the following data on yields of maize which had been attained in 1949 by a newly-established MAT in Hsin-che <u>hsien</u> (north Kiangsu) and by peasants who were still working on their own:<sup>(85)</sup>

Individual peasants	70 - 80 chin per mou
Ma Cheng-shou MAT	120 " " "

In other words, team yields were between 50% and 70% higher than those of peasants who remained outside the mutual aid framework.

A more interesting example, because it is more detailed and covers a longer period, is that of a MAT with 148 mou set up by 13 households in Nan-hui <u>hsien</u> (near Shanghai) in April, 1951.<sup>(86)</sup> The following table reproduces data which show the yields of various crops achieved by the team before and after its formation, as well as those concurrently being attained by Yeh Ch'ttan-sheng, a prosperous individual peasant<sup>(87)</sup> who had been one of those with the highest output before 1949:

		Average yield of Yeh Chttan- sheng	Average yield of Sung Chia- ch'iao MAT
		(chin/mou)	(chin/mou)
Prior to	establishment of MAT:		
1950	Cotton	n. a.	40
	Unhulled rice	n. a.	280
	Wheat	n.a.	100
After es	stablishment of MAT:		
1951	Cotton	50	60
	Unhulled rice	350	320
	Wheat	100	120
1952	Cotton	65	85
	Unhulled rice	400	450
	Wheat	150	200
1953	Cotton	80	120
	Unhulled rice	380	440
	Wheat	200	255
Av.	Cotton	65	88
1951 -	Unhulled rice	377	403
1953	Wheat	150	192

Table III. 7:Yields of principal crops inside and outsidea MAT:Nan-hui hsien, Sung-chiang S. D.

Source

From <u>Ssu-nien-lai</u> nung-ts 'un-chung ti ta pien, op. cit., p. 11.

For purposes of analysis these figures can be expressed in the form of an index:

		<u>S.D.</u>		
		Index of average yield of Yeh Ch <sup>1</sup> tlan-sheng with previous year = 100	Index of average yield of Sung Chia-ch'iao MAT with pre- vious year = 100	Percentage rise or fall in MAT yield over indi- vidual peasant yield
1950		n. a.	n.a.	n.a.
1951	Cotton Unhulled rice Wheat	-	150.00 114.29 120.00	-
1952	Cotton Unhulled rice Wheat	130.00 114.29 150.00	141.67 140.63 166.67	+30.77 +12.50 +33.33
1953	Cotton Unhulled rice Wheat	123.08 95.00 133.33	141.18 97.78 127.50	+50.00 +15.79 +27.50
Av. 1952- 1953	Cotton Unhulled rice Wheat			+40.39 +14.15 +30.4 <b>2</b>

Table III. 8: Index of yields of principal crops inside and outside a MAT: Nan-hui hsien, Sungchiang

## Source: Table III.7.

The superiority of mutual aid over individual farming would seem to emerge clearly from these data. The yield differentials between the two categories are very significant for all the crops (but especially cotton and wheat) and certainly large enough to convince peasants of the advantages of joining the team. In terms of the average annual rates of growth achieved during 1951-53 the results also favour the MAT.<sup>(88)</sup>

A second example illustrates the experience of another peasant and MAT in a different <u>hsiang</u> of Nan-hui <u>hsien</u>.<sup>(89)</sup> Hst Chia-ch'tan was in charge of a family labour force of three, owned 17 mou of land and had both tools and draft animals. A one-time member of Chu Chung-hsin MAT, he subsequently withdrew from it in the belief that his experience

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and ownership of sufficient supplies of working capital would enable him to do better on his own. The yields of cotton and rice which he achieved in 1953 and those of the MAT he had left are shown below:

Table III.9 Yields of cotton and rice achieved by an individual middle peasant and a MAT in Nan-hui hsien in 1953.

	Average yield of Chu Chung- hsin MAT	Average yield of Hst Chia- ch'tan	Percentage increase of MAT over
	(chin/mou)	(chin/mou)	individual peasant
Cotton ( <u>hsiao-hua)</u>	100	70	42.86
Cotton ( <u>ta-hua</u> )	130	100	30.00
Unhulled rice	440	390	12.82

## Source: From <u>Ssu-nien-lai nung-ts'un-chung ti</u> chti-ta pien, op. cit., p. 12.

Because of his withdrawal from Chu Chung-hsin MAT then, Hst Chia-ch'tan had lost 30 chin of cotton and 50 chin of rice (unhulled) on every mou planted under each crop. Since his sown area comprised 12 mou of cotton and 5 mou of rice he had forfeited a total of 360 chin of cotton and 250 chin of rice.

From the descriptions of their resource endowments and the amounts of land they owned Yeh Ch'ttan-sheng and Hstt Chia-ch'ttan can clearly be considered "prosperous middle peasants" or, to use the later class terminology, "upper-middle peasants". <sup>(90)</sup> In the last chapter we cited the Minister of Agriculture, Liao Lu-yen, to the effect that the yields of prosperous middle peasants were "generally about 30% higher than those of poor peasants".<sup>(91)</sup> and on the basis of this remark we were able to construct an index of unit area yields by classes of peasants. We can now use this same index to show the relationship between the yields of the two MATs in Nan-hui hsien and those of individual peasants of different

classes. Thus:

	Table II	[.10: A 2] <u>po</u>	comparison MATs in Nam or and middl	of the average 1-hui <u>hsien</u> and 1e peasants.	yields of d those of	
		(A	(All figures in chin per mou)			
(a) T	he case of Yeb C	Average rield of MAT	Average yield of upper- middle <u>peasant</u>	Average yield of middle peasant	Average yield of poor peasant	
1951	Cotton	60	50	46 15	38 46	
	Dice (unbulled)	320	350	323 08	260 23	
	Wheat	120	100	92.30	76.92	
1952	Cotton	85	65	60.00	50.00	
	Rice (unhulled)	450	400	369.23	307.69	
	Wheat	200	150	138.46	115.38	
1953	Cotton	120	80	73.85	61.54	
	Rice (unhulled)	440	380	350.77	292.31	
	Wheat	255	200	184.62	153.85	
Av.	Cotton	88	65	60.00	50.00	
1951-	Rice (unhulled)	403	377	348.00	290.00	
1953	Wheat	192	150	138.46	115.38	
(b) <u>T</u>	he case of Hst C	hia-ch'tla	n and Chu Cl	hung-hsin MA	<u>r</u>	
1953	Cotton (hsiao-					
	hua)	100	70	64.62	53.85	
	(ta-hua)	130	100	92.30	76.92	
	Rice (unhulled)	440	390	360.00	300.00	
	<u>Note</u> :	The ba shown and Hs yields, be wor	The basis for these calculations is the index shown in Table II. 13. If the yields of Yeh and Hst are considered upper-middle peasant yields, those of middle and poor can easily be worked out.			
	Source:	Tables	II. 13, III. 7	and III. 9.		

(Table III. 10 needs a certain amount of qualification: it is constructed on simplifying assumptions and is best regarded as a first attempt at measuring the relationship between levels of production of MATs and peasants working on their own. We should beware of drawing general -204conclusions too readily from the data.)

On the evidence of the table the case for joining a MAT would appear to be irrefutable. The average 1951-53 figures suggest that a poor peasant could increase his output by at least half (and probably a good deal more) an increase which looks very significant when viewed against the calorific deficiencies of production shown in the last chapter. Middle peasants too (including the prosperous ones) stood to gain from participating in mutual aid. In short, from the point of view of both personal welfare and agricultural growth the experience of the two MATs in Nan-hui <u>hsien</u> offered firm justification of the mutual aid policy.

But these MATs are only two out of many thousands in Kiangsu and we are bound to ask how representative they can be considered. In fact, there are a number of reasons for supposing that their experience was not typical. To begin with a point made earlier, it is likely that individual cases were chosen for their ability to show off mutual aid in the best possible light and this presumably applies equally to the Nan-hui examples. In the second place, if the experience of Sung Chia-ch'iao and Chu Chunghsin really described what was happening throughout the province, it would surely have been reflected in a more comprehensive development of MATs than was actually taking place. Instead, as we shall see below (and as the 'retreat' of 1953 has already suggested), the problems being encountered by the teams were great enough to dissuade many peasants from joining them and indeed many MATs that had been set up were collapsing. Such facts are not consistent with the view that the two Nan-hui examples are representative ones.

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Finally, although only poor and middle peasant yields were shown in Table III. 10, it is possible to calculate those of rich peasants too. What is interesting about these is that they are also significantly lower than the yields of the two MATs.<sup>(92)</sup> But if this were generally the case the MAT Movement would doubtless have embraced many of the rich peasants as well as their poorer counterparts. If this had occurred its economic significance would certainly have guaranteed a wide coverage in the Kiangsu press. Yet evidence of such a trend is all but completely lacking. Again, this would seem to point to the unrepresentative nature of the Nan-hui data.

To sum kp, while there is no reason to doubt the accuracy of the data that we have presented for Nan-hui <u>hsien</u>, there is no reason either to consider them typical of the relative performance of MATs and individual peasants in Kiangsu in the early 1950's. Rather, they should be considered illustrative of the <u>optimal</u> potential of mutual aid under the most favourable conditions.

Probably more representative, at least inasmuch as they have a wider geographical base, are the following statistics circulated at a conference of the leaders of 25 MATs in Ch'ang-chou Special District (south Kiangsu) in early 1952:

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-	/5	
Percentage increase in rice output of MAT over individual house- hold	Number of MATs which achieved this increase	As percentage of all MATs
No change	1	4
10	9	36
10-20	5	20
20-30	2	8
30-40	2	8
50-60	2	8
Total	21	84

Table III.11: Changes in the rice output of 25 MATs in Ch'ang-chou S.D. (south Kiangsu):

Source: SNJP, 19/3/52, op. cit., p.2.

If it is assumed that the four MATs not included in the table suffered declines in output, the achievements of the 25 teams can be summarized as follows: 80% increased output over peasants who were farming on their own; 4% maintained the same level of output and 16% had a lower level. In contrast to the Nan-hui figures which suggested that increases of 50% or more above individual household yields were common, the Ch'ang-chou data indicate that such cases were rather rare. This gives further support to the argument that the MATs in Nan-hui were not a representative sample.

We shall now use the Ch'ang-chou data in an attempt to show the relationship between the yields of MATs and those of poor, middle and rich peasants. We shall follow the general procedure adopted earlier. However, if, as we believe, the Ch'ang-chou MATs are more representative, these revised estimates will give a more accurate impression of the likely effect of the mutual aid movement on peasants and thereby on their incentive -207to join the new teams.

In order to do the calculations a number of simple assumptions have to be made:

- (i) The increase in rice output achieved by the MATs will be taken as a proxy for the increase in the output of other crops.
- (ii) The individual household with which the MATs are compared in III. 11 is taken to be that of a poor peasant.
- (iii) It is assumed that the most likely differential between MAT and individual peasant yields is 15%. Table III. 11 shows the most frequent rise to have been 10% (or less), although quite a large number of teams achieved increases of 10 20%. By choosing a figure of 15% we hope to avoid understating the argument. (93)
- (iv) The calculations will be made in terms of food grains and the average yield, equivalent to that of a middle peasant, is taken to be 285 chin per mou. <sup>(94)</sup>

On this basis Table III. 12 shows the relative levels of MAT yields and that of poor, middle and rich peasants:

Table III. 12: Average food grain yields of MATs and individual peasants of various classes.

Poor peasant	237.50 chin per mou
Middle peasant	285.00
Upper-middle peasant	308.75
Rich peasant	332.50
MAT	273.13
Sources	Table III. 11. The relative levels

Table III. 11. The relative levels of poor, middle and rich peasants' yields are based on the index shown in Table II. 13.

On this evidence the poor peasants were the one class which stood to gain from participation in the MATs. Given the low level of output at which they were operating after land reform, (95) a potential rise of 15% must

have been a very real incentive to join a team.

By contrast, mutual aid had nothing to offer the prosperous peasants. Working on their own their average yields remained considerably higher than those of the teams (13.04% for upper-middle and 21.74% for rich peasants). Such gaps are an indication of the further progress necessary before the better-off peasants could be attracted into agricultural co-operation.

The middle peasants occupied a rather ambivalent position. According to the figures shown above they too did better by continuing to work on their own (individual yields being 4.35% above those of the MATs). However, because of the simple assumptions which underlie them, the possibility of a significant margin of error must be allowed for in the calculations. While this should not affect our conclusions with respect to the other classes of peasants, the 4.35% differential is too small for us to be at all certain in predicting the effect of mutual aid upon the middle peasants. Perhaps the best way out is to distinguish between the lower-middle and upper-middle categories; since the average yield of the former will have been less than that of the middle peasants taken as a whole, it may be assumed that the benefits to them of joining a MAT were positive. Such an inference is not of course unexpected. It was after all the poor and lower-middle peasants that were looked to for support of the policy of institutional change in agriculture, while the rich and upper-middle classes were seen as the most likely opponents of it. But at least the calculations provide some concrete evidence to support the thesis.

Turning to the broader economic context Table III. 12 again underlines the dilemma that confronted the planners in Kiangsu: simple forms of

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co-operation such as the MATs were likely to appeal mostly to the poorer peasants. For the same reason their economic usefulness was limited, for the factor scarcities which were among the most pressing problems with which they had to contend, could only be overcome if the prosperous peasants were brought into the teams. Thus, considerable though a 15% rise in yields was, the MATs required a further increase of 20% if the rich peasants were to be voluntarily drawn into them. In any case, the 15% increase was significant more in personal than in economic terms; in the last chapter it was estimated that to produce a surplus a poor peasant needed to attain a yield of 401.96 chin per mou on his post-land reform holding.<sup>(96)</sup> The data above indicate that by joining a team he could hope for an average yield of about 275 chin. This was still more than 30% below the level at which he would start to make a net contribution to agricultural growth. On these two grounds the inability of the MATs to provide sufficient incentive to the prosperous peasants or to carry the poor peasants over the threshold at which they would cease merely to be a drain on the agricultural economy - it was inevitable that the MAT Movement should be a transitional stage in Kiangsu's agricultural development.

So far we have indicated the capacity of MATs to raise the productivity and output of different groups of peasants in Kiangsu. Consideration must now be given to the sources of these increases.

The chief advantages of organizing agricultural operations on a mutual aid rather than an individual basis were the ability to make technical improvements and achieve greater efficiency in the use of scarce factors of production. As early as February, 1950 an article in a Shanghai newspaper referred to the ability of MATs to "... overcome the weaknesses of the small peasant economy, so permitting the rational utilization of labour, draft animals and tools and the raising of labour efficiency ... (and) ... to improve the technical standard of cultivation".<sup>(97)</sup> In view of the identification in much growth literature of technical progress with the adoption of the latest and most sophisticated (and thereby, often the most capital-intensive) techniques, it is as well to emphasize that the kinds of technological advance envisaged by the 1950 Shanghai article were simple changes carried out within the framework of the traditional technology (for example, improvements in ploughing and weeding or the greater application of organic fertilizers). Not that such changes should be underestimated because of their simplicity; on the contrary, they were capable of contributing significantly to increased agricultural productivity.

One of the clearest expositions of the benefits of mutual aid is contained within the article from which the Ch'ang-chou Special District data were taken. (98) Thus, it was claimed that by increasing the efficiency of the labour force, MATs saved on labour power. Evidence from all parts of south Kiangsu showing an average 30% rise in labour efficiency supported this point. In Tan-yang <u>hsien</u>, for example, the establishment of the Ch'en Ho-fa MAT resulted in the number of labour days (<u>kung</u>) spent in the fields being reduced from 1,500 to 1,050 (a saving of 30%). (99) The average amount of land weeded by each peasant per day also rose from 0.8 to 1.2 mou. Precisely how these improvements were brought about is not recorded, but presumably the introduction of a degree of planning, greater specialization in the use of labour (100) and the full-time employment of labour which had previously been partly or wholly inutilized were all contributory factors.

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In this connection a report on one of the "model" teams of south Kiangsu, Ch'en Yung-k'ang MAT in Sung-chiang <u>hsien</u>, is of special interest, for it cited the mobilization of women in farm operations as one of the advantages of mutual aid.<sup>(101)</sup> They were responsible for feeding the pigs and they also used their labour power to drive the water-wheels and irrigate the fields, so enabling draft animals which had previously been employed in this work to be transferred to ploughing.<sup>(102)</sup> Their children were left in the care of old peasants who were unable to take part in the work in the fields.

An area in which mutual aid could contribute to higher yields was in the collection and application of fertilizer. Chemical fertilizers were still little used in Kiangsu<sup>(103)</sup> and the principle sources of plant nutrients remained organic fertilizers - animal manure, nightsoil, oilseed cakes, pond mud<sup>(104)</sup> and green manure (especially from leguminous plants).<sup>(105)</sup> Although the potential increase in output from these sources was small compared with the application of similar gross amounts of chemical fertilizers, there was still considerable scope for increasing their use. Mass fertilizer collection and application campaigns were a notable feature of agricultural policy in the 1950's and the new institutional structure provided a useful framework for their implementation. Even the modest organizational advance afforded by mutual aid (especially in its permanent form) was sufficient to bring about increases in both the collection and application of natural fertilizers. The case of Ch'en Yung-k'ang MAT illustrates the point: in 1952 this team made plans to apply to each mou of paddy fields (106) an average of 1,000 chin of green manure, 1,500 chin of pigsty manure, 80 chin of pressed beancake and 10 chin of chemical fertilizer. (107) In line with this plan team members applied 5 chin of chemical fertilizer to each -212of the 39 mou of land sown under green manure crops. The extra output so achieved was able to supply the green manure requirements of six out of the ten mou of poor-quality paddy fields. And by mobilizing women and children into cutting more than 20,000 chin of grass the needs of the remaining four mou were also met.

The single most important source of organic fertilizer were pigs. This fact was recognized by a team in Huai-ning <u>hsien</u> (north Kiangsu) which built pens to house the pigs and organized a form of communal care, so obviating the waste of manure that previously resulted from the animals being allowed to roam freely round the village, eating up whatever scraps they could find. <sup>(108)</sup>

Finally, there were claims of considerable increases in the application of fertilizers by teams: for example, Chin Tan-ken MAT (Nan-hui <u>hsien</u>) reported a doubling over earlier years and cited this as the reason for a bumper harvest in 1951. <sup>(109)</sup> In MATs in P'ei and Sui <u>hsien</u> levels of application were said to be 30% higher than those of individual peasant farmers. <sup>(110)</sup>

Mutual aid also made it easier to implement changes in the methods of cultivation. Teams in the suburbs of Nanking were said to have increased unit area yields by carrying out "careful and intensive cultivation", <sup>(111)</sup> constructing irrigation works, improving techniques and using improved seed strains. <sup>(112)</sup> In Sung-chiang Special District one team's contribution to the adoption of more "scientific" techniques was the abandonment of the normal method of sowing cotton in favour of the transplanting of cotton seedlings, careful attention being given to spacing them between one

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and one and a half feet from each other. <sup>(113)</sup> This was tried experimentally on nine mou of land and met with considerable success. Elsewhere Ch'en Yung-k'ang MAT started the spring-ploughing 20 days earlier than usual in an attempt to prepare the soil and improve its fertility, members of the team ploughing their land to a depth of seven inches (two more than in the previous year). <sup>(114)</sup> It was anticipated that by transplanting time the whole sown area of paddy would have been ploughed four times and harrowed eight.

Another area of success was in combatting natural disasters. In Shanghai <u>hsien</u>, despite the onset of typhoons in 1951 the mobilization of 65,000 peasants into building irrigation works made it possible to achieve a bumper harvest. Similarly, in a village of Nan-hui <u>hsien</u> the concerted action of MAT members rescued 147.5 mou of cotton: assuming an average yield of 10 chin per mou and a value of 420 yttan per chin, this meant a total saving of 619,500 yttan.

Lastly, mention should be made of the encouragement of subsidiaries in MATs. To some extent this derived from a team's more rational and efficient employment of labour, since the more rapidly agricultural operations were completed the greater was the possibility of putting members to work in non-agricultural pursuits. At the same time the better control over resources of a MAT could also give rise to "surplus" labour<sup>(115)</sup> which could be used in the subsidiary sector. How valuable this could be is indicated by the report of the conference of 25 MAT leaders from Ch'ang-chou that subsidiary income accounted for about 25% of total peasant income.<sup>(116)</sup> Seen in this light, the development of subsidiaries was clearly an important means of stimulating the development of the whole village economy and raising peasant incomes.

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All that has just been said about the benefits of mutual aid in Kiangsu should not mislead us into thinking that there were no associated difficulties and it will be useful to conclude this section by considering some of the more important economic problems that emerged from the MAT Movement in the province.

Simple though the organizational framework of a MAT was, membership of a team nevertheless introduced a peasant to new concepts and a way of working that was quite unfamiliar to him. It is not surprising therefore that many peasants who joined a team should feel uneasy about their economic prospects. This is exemplified by the case of Ch'en Yung-k'ang whose early experience in setting up the MAT which bore his name seems to have been fraught with misgivings: for example, that a flood or drought would cause rice output to fall; that co-operation with other peasants (especially those "... poor peasants who had only recently thrown off the yoke...") would prevent some members from increasing their yields; even that in the event of a bumper harvest the burden of taxation would be so heavy as to offset the gain. (117) Such worries must have been common and the need to allay them was essential to the future progress of the mutual aid movement. To what extent they were in fact allayed largely depended on the success of the teams in upholding the basic principles of free choice, mutual benefit, exchange at equal value, gradualism and democratic discussion and management that were supposed to underlie the establishment of every MAT.

The use of coercion in setting up a MAT was almost certain to be counterproductive since it either resulted in the eventual breakdown of the team or in its assumption of a merely "formalistic" status. Developments within a
team should take place gradually: thus, the transformation to a permanent form could not be arbitrarily imposed from outside but necessarily depended on individual, local circumstances. Yet as we have already seen, violations of these rules were widespread in Kiangsu and contributed to the collapse of a large number of MATs in 1953. The situation was perhaps most concisely and revealingly summed up in the statement that some teams "... have a front door but no back door".<sup>(118)</sup>

"Exchange at equal value" and "mutual benefit"<sup>(119)</sup> were simply two sides of the same coin. Together, they represented the <u>sine qua non</u> of a team's success; as one source put it "equal value and mutual benefit in the exchange of human labour, animal power and agricultural implements are the very essence of a MAT".<sup>(120)</sup> However, these two principles were the source of some of the most intractable problems associated with mutual aid. To take one example, work done by team members was often recorded in a purely mechanistic way without any due regard for its content. The disincentive effect of such a tendency is obvious, for both welfare optimization and economic efficiency required that a job be evaluated in terms of its difficulty and skill requirements, with peasants being paid for the quality as well as the quantity of their work. Another anachronism was the failure to pay men and women the same reward for the same work: women were commonly regarded as semi-labour units and at best received only 80% of the wage paid to a man.

In a team which contained peasants from different backgrounds it was important to ensure that no class felt exploited by another; in other words, that payment for the use of the tools and draft animals of the middle peasants

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and the wage paid for the labour of the poor should satisfy both groups. Such a balance was not easily achieved because of the attempts of each class to increase the price paid to itself at the expense of that paid to the other. One might have expected the majority class, the poor peasants, <sup>(121)</sup> to gain the upper hand in such a struggle. But such <u>a priori</u> arguments are too simplistic, for the middle peasants' control over the resources that were most scarce could also give them the dominant position. In addition they often derived considerable power from their position as team leaders.<sup>(122)</sup> In short, while the class composition of the MATs gave rise to antagonism between the peasant members there was no way of telling which class would emerge on top.

Empirical evidence relating to this aspect of the mutual aid movement is scanty. In the Nanking suburbs cases of poor peasants and hired labourers receiving a wage that was too low were said to be common in teams which had a middle peasant leader. <sup>(123)</sup> But it was also admitted that labour was sometimes over-valued, in effect discriminating against the middle peasants. Such was the case in one MAT where a middle peasant had to pay out more than 200,000 yttan for labour hired during the harvesting of wheat. <sup>(124)</sup> Elsewhere the price ratio between human labour and draft animal power was said to be 3:1 or even 4:1 and there were also instances of middle peasants not receiving adequate compensation for tools they had contributed to a team.

These were some of the problems that arose out of the establishment and operation of MATs in Kiangsu. Some of them were inherent in the structure and class composition of the teams and were difficult to resolve. Others were the product of exogenous factors, such as the way in which the

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institutional changes were implemented, and were therefore more susceptible to a satisfactory solution. But all of them demonstrated the care and patience that were essential to the success of the mutual aid policies.

## (3) Summary

The MAT Movement developed rapidly in Kiangsu. In 1951 the proportion of agricultural households in teams was negligible, yet only a year later well over 40% were incorporated into the mutual aid framework. Despite a temporary through sharp retreat in 1953, membership continued to increase, permanent teams in particular showing a steady advance. The overall peak was reached in 1954 although membership of permanent MATs continued to rise in 1955. During the whole period the average size of both kinds of team grew, reflecting the need for greater control over agricultural resources and more rationality in their use. Nevertheless, in comparison with the later co-operatives and collectives the unit remained small.

The little that has been written about the MAT Movement belies the important role it played in agricultural development after 1949. Mutual aid was an essential link between traditional forms of agricultural co-operation and the socialist organization that was the ultimate goal of the Chinese planners. The teams were sufficiently small for the peasants to be able to identify them with the traditional arrangements (on which they were often based). But at the same time they served to introduce the peasants to important new concepts such as planning, specialization in the employment of labour, methods of accounting and so on.

In more immediate terms the MATs were looked to as a means of raising agricultural productivity. In this context, however, it was perhaps

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their limitations that were most in evidence. The most likely beneficiaries of mutual aid were the poor peasants who could hope to increase their output by 15% or more. But these peasants were already operating at such a low level of productivity that even an increase of this magnitude was unlikely to provide them with the wherewithal to undertake net investment in agriculture. The same was true though to a lesser extent of the lower-middle peasants. By contrast, the upper-middle and rich peasants whose potential contribution to agriculture was greatest had little to gain from participation in a team. Thus, the benefits of mutual aid accrued to peasants as individuals and did not imply corresponding economic gains in terms of growth to the agricultural sector as a whole. It is for this reason that we would regard mutual aid as a limited form of co-operation that could only represent a transitional stage in agricultural development. Looked at in this light the case for more farreaching institutional change must have seemed increasingly persuasive in the mid-1950's.

The rest of this chapter is an account of the establishment of the first co-operatives<sup>(125)</sup> in Kiangsu. To a large extent we shall follow the approach used in the preceding section in attempting to show provincial developments in the context of both China and the more immediate East China region. However, detailed consideration of the economic impact and economic problems of the co-operatives is reserved for the next chapter and many of their economic aspects are here either ignored or touched on only briefly.

## II The Move Towards Agricultural Producers' Co-operatives.

It was envisaged that co-operatives would evolve naturally out of the MATs either through the fusion of a number of teams or through the development of a single one, as it gradually broadened the scope of its operations and attracted new members. Peasants would voluntarily place their land and other resources under the management of the APC, which would determine how they could be most efficiently used. However, the land would remain privately-owned by the peasants and could be withdrawn by them at any time. This private ownership was symbolized by a distribution system which not only rewarded work done by the peasants in the co-operative sector but also paid a dividend on the land which they had vested in it, the exact amount depending on its quality as well as quantity. In many ways the co-operative was part of a continuum of institutional structures and rather than marking a complete break with the MATs, it sought to embody more thoroughly many of the concepts (especially planning and the centralization of agricultural operations) which they had already introduced.

The chief theoretical advantages of co-ops were related to the control of resources and scale of operation which they made possible. Their greater size would, it was believed, lend itself to a more rational utilization of resources. The fragmentation of farms in Kiangsu had changed little in the immediate post-1949 years so that farm consolidation by the co-op could make a significant contribution to agricultural growth by increasing the arable area and permitting a more efficient use of working capital. <sup>(126)</sup> Specialization in the use of labour was a device for raising productivity that had been advocated in the MATs but in the APCs it could be further developed. The same applied to a co-op's ability to mobilize peasants into

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large-scale, labour-intensive projects such as building dams or constructing hillside terraces. Another important aspect of the new unit (and one which was an innovation) was the obligation of each member household to contribute to two centrally-managed funds: the first a welfare fund which would help peasants over difficulties occasioned by illness or old age; the second, an accumulation fund to be used for financing agricultural development in the co-op.

Perhaps the most interesting way of linking the discussions of MATs and APCs will be to consider the experiences of two teams (one in north, the other in south, Kiangsu) which in 1951-52 successfully transformed themselves into co-operatives. Although not necessarily representative they nevertheless demonstrate how further institutional change could develop and illustrate some of the issues at stake during this process.

(127)

First, Chao Fu-ya MAT in Shu-yang <u>hsien</u> (Hwai-yin Special District): set up in 1944, it was until 1950 a temporary team, formed each summer in order to complete the harvest on time. But in 1950, in response to severe natural disasters which occurred in spring, eight households joined in mutual aid earlier than usual in order to get on with the spring ploughing and sowing and gradually a permanent team developed, co-ordinating agricultural and subsidiary activities. Despite considerable success, problems persisted and the team leader (Chao Fu-ya) began to consider the advantages of forming a co-operative. A start in this direction was made after the 1951 summer harvest when five households in the old team agreed to destroy their boundaries and place their land and labour under a co-operative authority. During the autumn sowing the co-op demonstrated greater

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efficiency than the other households, both inside and outside MATs, and it subsequently achieved a higher output. In the following winter a further three households joined in and two more MATs broke down their land boundaries to form co-ops.

Greater efficiency in the use of labour and more rational land utilization were the sources of many of the gains accruing to Chao Fu-ya and his colleagues. Work could be completed more quickly and the standard of cultivation, as revealed by the frequency of weeding and ploughing or fertilizer application, was improved. With the disappearance of boundaries between individual holdings land could also be used more effectively. For example, crops could be grown according to topography - autumn crops on the high ground, wheat on the low.

One of the major respects in which MATs and APCs differed was income distribution. In the teams land was still privately managed and a member's income was therefore the output of his land less taxes and any other payments due to other peasants for the use of their resources. In a co-op land was centrally managed and income was determined by the total receipts in the hands of the co-operative authority. The official regulations governing the co-operatives published in November, 1955 stipulated that a member's income should be a function of both the work he carried out for the co-op and the land and other working capital invested by him in it, with emphasis on the former<sup>(128)</sup> However, no such regulations yet existed to guide the newly-established Chao Fu-ya APC and indeed the system of distribution initially envisaged seems to have run contrary to the spirit of the later document. Thus, the first suggestion was that 30% of income

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should be derived from the labour performed by peasants in the co-op, and the rest from their land (quality as well as quantity being taken into account). Chao Fu-ya even proposed that income should be derived <u>entirely</u> from land! A compromise solution was eventually reached based on the inputs of both factors: payment for land depended on its yield before the application of any fertilizer and before any other work had been done on it;<sup>(129)</sup> the payment to labour was determined by the work the peasants put into the land and the amount of fertilizer they contributed.

The south Kiangsu team-turned-co-operative was Li Yt MAT in the suburbs of Nanking. <sup>(130)</sup> It was formed on a temporary basis in May, 1951 but in the summer of that year advanced to the status of a permanent team. Although the new framework benefitted agricultural and subsidiary production in a variety of ways there were still obstacles to the most efficient resource utilization, chief among these being the contradiction between the collective mobilization of labour and the individual management of farm work. An attempt to remove such obstacles was made by the institution of a contract system stipulating a production and labour 'norm' for each mou of land. (131) However, the effect of this was counterproductive as the output norm left the peasants little inducement to invest extra effort in their land. In order to reduce his expenditure on hired labour one member of the team denied that there were any weeds in his paddy fields or that they needed fertilizer. Such problems indicated the need to distribute income on the basis of the land owned by each peasant and the work put into it by him. Accordingly, in April, 1952 after investigations and discussions had been held, the team was disbanded and the Li Yt APC formally established.

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The division between land and labour shares of income was again the most formidable difficulty. An initial suggestion was that yields on each mou of land should be determined by its quality and the number of peasants required to service it. This would serve as the basis for calculating the income due to co-op members. Its weakness was that it failed to meet the problem caused by members undervaluing the amount of work required by their land while over-valuing its quality in the hope of getting a bigger share of total revenue. As for the share of the two factors in income most argued that labour should be the more important criterion although it was recognized that undue emphasis in this direction could injure the interests of those peasants who were short of labour. (132) Eventually it was agreed that while labour should be given priority, peasants' land should also be converted to shares. (133) In addition, important tools were to be purchased from members by the co-op and paid for in cash and tools which were not publicly-owned were nevertheless to be used and repaired in common.

On the establishment of the co-operative the total labour force was 27. Within it different groups were responsible for different areas of production, each having its own leader or deputy-leader. Managers and accountants were also appointed.  $(^{134})$  Under the guiding principle of free-choice it was emphasized that no one should be forced into or deliberately excluded from the co-op except landlords and rich peasants who were not allowed to join. All members were to be fully compensated for their tools and other property and if they later withdrew, their land was to be returned to them in full (though in the event of it having been improved by the co-op they had to pay a cash sum in lieu of these improvements).

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The question of accounting and the problems it gave rise to have already been mentioned in the context of the MATs. In the APCs where income was distributed from a centrally-administered source and its chief criterion was the work done by the co-op members, the evaluation and recording of work were even more important and it was essential to devise an accounting system that satisfied the still-suspicious and conservative peasants and could be understood by them. At first, work in Li Yt APC was evaluated and recorded at meetings held during the evening after it had been completed. However, because they tended to drag on late these meetings were not a complete success. In any case, some of the members were loth to participate, taking the view that work evaluation was the sole responsibility of the co-op. (135) A new "work-contract system" (136) was therefore introduced which had the effect of both increasing involvement and saving time. Each job was assigned a number of work-points which were guaranteed to the group of peasants chosen to carry out the work; after it had been completed the work-points were divided among group members according to their individual efforts. Moreover, this allocation was made on the spot, in the fields rather than at meetings held in the evening.

The method of recording work was also new. "Work coupons"<sup>(137)</sup> were issued in two colours, yellow and white, and work tables printed. Each day the amount of work done by each member of the co-op was recorded on the table and an appropriate coupon (that is, one whose value corresponded to his day's earnings) given to him. Printing the coupons in two colours provided a kind of security check since each yellow coupon issued by the accountant to a peasant was complemented by a white one of

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the same denomination which the accountant retained.

In accordance with the agreed policy of according priority to labour the distribution of total output (after taxes) in Li Yt APC was initially as follows:

45% of agricultural output to labour

40% " " dividends on land

15% " " " a "common reserve fund"<sup>(138)</sup>

However, during summer harvesting and sowing in 1952 investment actually exceeded 15%. The result was that living standards were depressed. It was therefore decided that in future the residual investment fund be reduced to 5% and the shares of labour and land in total output were accordingly adjusted;

53% of agricultural output to labour 42% " " " land.

(Subsidiaries were also controlled by the co-operative. Most of this income (70%) was allocated to further expansion of subsidiary production and only 30% actually went as personal income to the peasants.)

The initial success of the APC can be briefly summarized. <sup>(139)</sup> First, greater rationalization in the employment of labour, draft animals and other forms of working capital led to their more effective utilization. In particular, higher levels of fertilizer application were claimed to have produced average wheat yields of 239 chin per mou in 1952 (15% higher than the 1951 level and 89% above general yields in the village). And of course, increases in output were reflected in higher incomes. <sup>(140)</sup>

Secondly, the income distribution system adopted by Li Yt APC was said to have raised labour incentives. In general, this was reflected in

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improved work efficiency and in particular, in a higher rate of participation by women. In the MAT the 11 women belonging to the co-op had taken little or no part in farm work. But in 1952 they had joined in the co-operative activities and accounted for 373.4 out of the 947.55 labour days recorded during the summer harvest and summer sowing (39.41% of the total). <sup>(141)</sup>

Finally, the introduction of collective management facilitated the adoption of scientific agricultural techniques. Rice seedlings were transplanted from seed-beds instead of being broadcast-sown and better seed selection and improved methods of fertilizer application were introduced.

Although in some ways Li Yt and Chao Fu-ya APCs were little more than tightly-organized versions of the MATs they had replaced, there were of course other respects in which they differed completely from their predecessors. Two are particularly worth emphasizing here. First, certain agricultural resources were brought under collective ownership and, for the first time, it became possible to manage land as a single unit (even though this particular factor remained privately owned). <sup>(142)</sup> This had important economic implications, for it meant not only that the most rational cropping pattern could be practised but also that new crops and new cultivation techniques could be tried out more readily.

The other important innovation was related to income distribution. Since agricultural households no longer themselves decided how to dispose of their output the arbiter of their income became the co-operative authority. After taxes had been paid and various obligations to co-operative funds met the residual was the basis on which income distribution was made and was divided among members as dividends on their land and wages for their labour.

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In short, although the new institutional framework of the APCs retained many features of the MATs, it also introduced important new ones. At one and the same time the co-operative was the natural successor to the team and yet marked a complete break with it.

Let us now move from the microcosm of Li Yt and Chao Fu-ya APCs to consider developments within the province as a whole. Table III.13 on the following page summarizes these developments in Kiangsu, East China and China between 1950-55.

The general pattern revealed by this table is in line with our earlier analysis of trends in the MAT Movement. Advance in 1952 was checked in the following year. In 1954 rapid development once more got under way and this was intensified in 1955 as MATs were increasingly transformed into co-operatives.

The most striking feature of the data is of course the astonishingly rapid rate of increase in APCs that took place in Kiangsu during these years. However, for once it is the absolute levels that are important, for as Table III. 13 shows, between 1952 and 1954 the proportion of agricultural households and total arable area in the co-ops remained very low.<sup>(143)</sup>

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East China and	
The development of APCs in Kiangsu,	China: 1950 - 1955.
Table III. 13;	

		Total number of APCs	Number of agri- cultural house- holds in APCs	As percentage of total agricul- tural households.	Arable area in APCs (mou)	As percentage of total arable area
1950	China	18	187	0.0002	3, 223	0.0002
1951	China	129	1, 538	0.0015	39,948	0.0026
1952	Kiangsu	60	1,984	0.023	20,747	0.0224
	East China (a)	022	13,933	0.042	176,036	0.0639
	East China (b)*	281	5, 658	0.02	53, 793	0.02
	China	3, 634	57,188	0.05	1,374,146	0.0849
1953	Kiangsu	266	4,632	0.055	63, 590	0.068
	Shanghai	S	38	0.046	245	0.046
	Ksu + S'hai	269	4,670	0.05	63,835	0.068
	East China (a)	2,662	43, 914	0.131	584, 736	0.155
	East China (b)	1,199	20, 163	0.09	231, 387	0.10
	China	15,053	272, 793	0.235	7, 337, 195	0.451
1954	Kiangsu	4,835	126,657	1.470	1,514,805	1.597
	Shanghai	395	8,370	10,115	52,208	9.426
	Ksu + S'hai	5,230	135, 027	1.55	1,567,013	1.64
	East China (a)	38, 114	739,119	2.20	8,889,223	2.334
	East China (b)	15,764	373,909	1.62	4,035,028	1.67
	China	114,165	2, 285, 246	1.948	45, 141, 568	2.752
1955	Kiangsu	34,867	974, 526	11.207	11, 819, 579	12.449
		978	23, 267	27.586	151,704	27.494
						C.1 C.1

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It is clear that the first breakthrough<sup>(144)</sup> in the establishment of agricultural co-operatives in Kiangsu occurred in 1954-55, when the proportion of agricultural households participating in APCs rose from a mere 1.5% to over 11%.<sup>(148)</sup> These developments reflected what was happening at the national level, for this was a year in which rapid progress was made throughout the country. This is well illustrated by the resolution on the development of co-operatives adopted by the Central Committee of the CCP and published in January, 1954:<sup>(146)</sup> the target number of APCs mentioned in this document was 35,800 and yet by March of the same year 96,000 were already in existence incorporating over two and a quarter million households.

Progress was in fact even more spectacular than the table suggests, for the figures shown in III. 13 conceal the rapid changes which sometimes took place within the space of only a few months. In China, for example, developments between March, 1954 and the middle of 1955 were as follows:

	Table III. 14:	The development of APCs in China: March, 1954 to the middle of 1955.		
	Total number of APCs	Number of agri- cultural house- holds in APCs	As percentage of total house- holds	
March, 1954 96,000		1,777,000	1.5	
June, 1954	114,000	2,297,000	2.0	
September, 1954	230,000	5,478,000	4.7	
December, 1954	497,000	12,783,000	10.9	
March, 1955	633,000	16,916,000	14.2	
June, 1955	634,000	16,921,000	14.2	
	Source: St	atistical Materials on Ag	ricultural	

Tables 5 and 6.

Although such detailed coverage from a single source is not available for Kiangsu the following data suggest that a similar pattern was observable in the province during the same period:

	Table III. l	5:	The development of APCs in Kiangsu (excluding Shanghai) from mid-1954 until mid-1955.		
	Total number of APCs		Number of agri- cultural house- holds in APCs	As percentage of total house- holds	
Mid-1954 <sup>a</sup>	4,835		126,657	1.34	
October, 1954 <sup>b</sup>	16,900		442,780	5.14	
December, 1954 <sup>C</sup>	25,000		655,000	7.60	
Mid-1955 <sup>d</sup>	34,867		974, 526	11.207	
	<u>Notes</u> :	Member households obtained by multiplying number of APCs by average number of households per APC in 1954 (derived from III. 13). See also III. 16 below. Percentage of all households in APCs based on a total household figure of 8,616,122.44 (derived from III. 13).			
	Sources:	а	Table III. 13.		
		b	<u>JMJP</u> , 11/11/54, p.2, Thous and APCs Newly Kiangsu".	"Over Twelve -Established in	
		С	JMJP, 20/11/54, p.1, and APCs Set Up in Ki Autumn".	"Twelve Thous- angsu During	
		d	Table III.13.		

As in China, the autumn of 1954 and spring of 1955 seem to have (148) witnessed the most rapid advance. If the above figures are to be accepted participation in co-ops tripled between the middle of 1954 and October of that year and, following a small increase in the next two months, again rose substantially in the first half of 1955. The speed with which the changes took place is well indicated by the article published by the 'People's Daily' in the second week of November:<sup>(149)</sup> it reported that as of the end of October 12,500 new APCs had been set up and it forecast the establishment of a further 8,000 by the end of the month. Little more than a week later a second report confirmed that the 8,000 new co-ops were being set up and claimed that this would bring the grand total to about 25,000.<sup>(150)</sup>

We have said nothing yet about the size of these early co-operatives as shown by the number of agricultural households and the arable area they contained. This information can be obtained from Table III.13 and it is set out below:

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Table III 16.

	Table III. 10. Inc average Size OFA			
		Average number of agricultural households per <u>APC</u>	Average arable area per APC (mou)	
1950	China	10.39	179.06	
1951	China	9.71	146.36	
1952	Kiangsu	33.07	345.78	
	East China (a)	18.09	228.62	
	East China (b)*	20.14	191.43	
	China	15.74	378.14	
1953	Kiangsu	17.41	239.06	
	Shanghai	12.67	81.67	
	Ksu + S'hai	17.36	237.30	
	East China (a)	16.50	219.66	
	East China (b)	16.82	192.98	
	China	18.12	487.42	
1954	Kiangsu	26.20	313.30	
	Shanghai	21.19	132.17	
	Ksu + S'hai	25.82	299.62	
	East China (a)	19.39	233.23	
	East China (b)	23.72	255.96	
	China	20.02	395.41	
1955	Kiangsu	27.95	338.99	
	Shanghai	23.79	155.12	
	Ksu + S'hai	27.84	333.97	
	East China (a)	23.86	277.73	
	East China (b)	24.46	258.66	
	China	26.66	464.68	

## Source: Table III. 13.

The question of farm size and its relationship with agricultural productivity is a controversial one. Part of the argument revolves around possible differences in economic efficiency between classes of peasants: is productivity higher on the small farms of poor peasants than on the large farms of rich peasants? Or if one looks on rich peasants as "capitalists"<sup>(151)</sup> is a family-based or capitalist system the more efficient form of agriculture? However, in the present context it is not this aspect which concerns us so much as the relative merits of small holdings farmed by individual peasant households (including rich and poor peasants) and the much greater operational unit implicit in the APCs.

Although difficult to formulate it seems likely that for any given set of conditions there exists an optimum size of agricultural operations. More specifically it may be argued that the average farm size in Kiangsu in the early 1950s as well as before  $1949^{(152)}$  was less than the optimum in the sense that it produced under-employment, perhaps even unemployment, of labour and under-utilization of other resources. The decision to implement co-operativization was an implicit recognition of this, for it was believed that the larger size of unit combined with unified planning and management was one of the ways in which the APCs would overcome such problems and improve efficiency.

The most interesting feature of Table III. 16 is the very large average size of the co-operatives in Kiangsu in the year in which they were first set up (1952). Compared with China they contained more than twice as many households and almost the same amount of arable land - despite the

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fact that the China figure included data for the dry-crop areas of the north where farms were larger than in the rice-growing, densely-populated south. <sup>(153)</sup> Even more remarkable was the gap between Kiangsu and the neighbouring provinces of Anhwei, Chekiang and Fukien, the co-ops in Kiangsu comprising more of both arable land and peasants. <sup>(154)</sup> These contrasts are all the more striking when the data for the remaining years are examined, for these reveal a much more consistent and predictable regional pattern.

The earlier analysis of events in the MAT Movement in Kiangsu in 1952 provides a key to these apparently conflicting trends. 1952 was a year in which commandist tendencies were widespread and large numbers of peasants were forced into teams against their will. Elsewhere, another writer has spoken of the criticism that was levelled against cadres for having "... blindly run after high-level forms"<sup>(155)</sup> in this year. What the table above suggests is that such deviations were particularly evident in Kiangsu and that cadres not only pushed peasants into MATs but also attempted to go beyond the mutual aid stage and set up agricultural co-operatives. Further, just as the decline in team numbers in 1953 reflected a temporary retreat from these excesses, so a similar reaction can be seen in the sharp fall in the average size of co-op.

For years other than 1952 the general trend is clear. Between 1953 and 1955 APCs in Kiangsu gradually became larger and the province exhibited the same tendencies that were apparent in China as a whole and in the East China region.

To summarize what has been said so far: the annual rate of growth of -234-

APCs in Kiangsu (with or without Shanghai) was spectacularly high between 1952 and 1955. In absolute terms however, the number of agricultural households involved remained small until 1955 when for the first time the co-ops began to assume something more than peripheral significance. Although a similar pattern was observable in China and East China the rate of participation in Kiangsu was lower: in this sense the province could be considered a late-starter, even though in the single year of 1952 events had actually outstripped those at the regional and national levels. In general there was a tendency for the size of co-op whether measured by member households or arable area to grow throughout the period.

But what of the economic impact of these early co-operatives? To begin with, a number of articles made the point that land was being used more fully and efficiently in the APCs. In Ssu-yang <u>hsien</u> (north Kiangsu) the evolution of a co-op from a team made it possible to destroy the boundaries between individual plots and to consolidate 150 tiny strips into 25 large units of land. <sup>(156)</sup> In addition, the arable area was increased by 55 mou, 10 mou being saved by the establishment of a communal threshing area in place of the many individual ones that had formerly existed and 45 being obtained through the elimination of dikes which were no longer required. This extra land was planted under food grains. In Red Star Co-op in Sungchiang <u>hsien</u> (south Kiangsu) consolidation and other related measures also had the effect of improving labour efficiency. <sup>(157)</sup> Finally, in Chang Naihua APC (Lien-shui <u>hsien</u>), land previously used for footpaths now had four or five rows of wheat growing on it. <sup>(158)</sup>

Red Star Co-op provided another illustration of the new institutional

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structure's ability to utilize resources more rationally. Prior to its formation the four middle peasant members each had over 20 mou of land. However, because of their lack of labour and fear of increasing their expenses by hiring other peasants they were unable to cultivate it all. By contrast, the 15 poor peasant members (or in some case<sup>5</sup>, agricultural labourers) were short of land but had surplus labour and their concern was the shortage of employment outlets. Not until the APC was set up were land and labour used in such a way as to remove this waste of resources.<sup>(159)</sup>

Simple kinds of technical progress were also carried out in these early Kiangsu APCs. In Red Star the area irrigated by water-wheels rose from 25 to 40 mou (an increase of 60%) and irrigation works were constructed which benefitted 150 mou.<sup>(160)</sup> Unified management ensured that each mou of land was ploughed three times and hoed and watered 10 times. Applications of fertilizer were increased and manure put on some fields for the first time in more than 10 years. Similar achievements were claimed for Chang Nai-hua APC.<sup>(161)</sup>

These successes would seem to add up to a strong case in favour of co-ops, for the improvements which were claimed on their behalf promised significant increases in yields and total output. To what extent quantitative evidence bears this out can be seen if we now consider the fragmentary data relating to land productivity inside and outside the APCs. As before the likely non-representative nature of the figures chosen by the Chinese to illustrate the benefits of agricultural co-operation needs to be borne in mind.

The first table shows average yields of paddy in four new co-ops in Kiangsu together with the levels of output achieved by peasants working

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outside the co-operative framework, either in MATs or on their own:

Table III. 17:

Average yields of paddy inside and outside four co-operatives in Kiangsu.

Average yield in APC	Average yield be- fore estab- lishment of APC	Average yield of MATs in the same area as the APC	Average yield of "most" peasants	Average yield before Liberation
(1953)	(1952)	(1953)	(1953)	(pre-1949)
620.00	539.13	563.64	-	
833.00	650.00	620.00	-	-
502.00	418.33	-		-
550.00	-	458.13	423.08	423.08

Note: The average yield of "most peasants" might be used as a proxy for the normal yield.

Sources:

A B C D

- A (Red Star APC, Sung-chiang <u>hsien</u>): <u>JMJP</u>, 1/3/54, <u>op.cit</u>.
- B (APC in Shanghai suburbs): <u>Ta-kung jih pao</u>, (Hong Kong), 15/3/54, "Unit Area Yields of Paddy exceed 800 Chin".
- C (Ts'ang-yttan APC, Ch'ing-p'u <u>hsien</u>): <u>CFJP</u>, 8/3/54, <u>op. cit</u>.
- D (Chin Tan-ken APC, Nan-hui hsien): <u>Ssu-nien</u> lai nung-ts'un-chung ti chtt-ta pien, op. cit., p. 13.

In order to show the relationships between the various yields more clearly, the data can be presented in index form with the average yield in the APCs (1953) as 100. Thus:

		Table III. 18:	Index of inside an in Kiangs yield of A	average yield d outside 4 c su, with aver APC = 100.	ls of paddy co-operatives age paddy
	Average yield in APC	Average yield be- fore estab- lishment of APC	Average yield of MATs in the same area as the APC	Average yield of "most" peasants	Average yield before Liberation
	(1953)	(1952)	(1953)	(1953)	(pre-1949)
A	100.00	86.96	90.81	-	
в	100.00	78.03	74.43	-	-
С	100.00	83.33	-	-	-
D	100.00	-	83.33	76.92	76.92

Notes and sources: As Table III. 17.

Predictably, the data all reveal the clear superiority of the APCs as agricultural units. Average yields were 10-25% higher than those of neighbouring MATs and in the one case where such comparative information is available, 25% above those of peasants still working on their own. However, four examples out of 266 can hardly be accepted as representative, especially when details of their precise economic and social characteristics are not known. For example, were these four APCs better or worse off than most in terms of the supplies of working capital available to them? Did they contain more middle peasants than usual? What was the economic status of the MATs and individual peasants with whom they were compared? Clearly, the answers to these questions would affect our judgement of the co-ops' performance. In view of such considerations and on the assumption that the examples shown above were chosen for their ability to show the co-operatives in a favourable light it seems best to treat Table III. 18 as an indication of the potential rather than the actual benefits of joining an APC.

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The economic impact of the early APCs in Kiangsu has been treated very briefly in this chapter and no mention at all has been made of the problems that arose during the transition from team to co-operative. This is deliberate, for in the next chapter we shall examine these issues in considerable detail. All that has been attempted here is to provide the necessary background to that discussion by giving a chronological account and analysis of APC developments up to mid-1955 and suggesting the kind of 'demonstration effect' they could have had for peasants continuing to work outside the co-operative framework.

Looked at in this way the economic case in favour of the further expansion of APCs looked quite strong. Qualitative evidence pointed to their ability to use resources more rationally and efficiently and fragmentary data on yields showed that this could lead to significant rises in output (and presumably, peasant income too). In short, there were both welfare and economic gains. Against this background the co-operativization movement in Kiangsu could be expected to proceed smoothly and gradually in the coming years. However, in the event progress was anything but smooth or gradual and within little more than a year virtually the whole of Kiangsu's agricultural sector had been not merely co-operativized but fully collectivized. It is to the events of this extraordinary period of the "high tide of socialism" that we must now turn.

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## Notes to Chapter Three

- Mao Tse-tung, "On the Question of Agricultural Co-operativization" in <u>Hsin-hua ytteh-pao</u> (<u>New China Monthly</u>), vol. LXXIII, 1955, no.11, pp.1-8.
- (2) It will be recalled that in November, 1952 Kiangsu was reunited as a single province. Following this the <u>Su-nan jih pao</u> and <u>Su-pei</u> jih pao ceased to exist and the provincial newspaper became the <u>Hsin-hua jih pao (New China Daily</u>). This is the chief source of information in this chapter.
- (3) Tsu-chih ch'i-lai.
- (4) Mao Tse-tung, "Get Organized" in <u>Selected Works of Mao Tse-tung</u>, vol. 3, Foreign Languages Press, Peking, 1965; pp.153-161.
- (5) "... So long as they are collective mutual-aid organizations which the people join voluntarily (compulsion must never be used), all of them are good, no matter how they are named, no matter whether they are each composed of a few, a few dozen or hundreds of people, or whether they are composed entirely or partly of people who can contribute full-time labour; no matter whether the members render each other mutual aid in terms of manpower, animal power or implements, or they live and eat together during the busy farming season; and no matter whether the organizations are temporary or permanent." Ibid., p. 156.
- (6) CCP Central Committee, "Resolution on Mutual-Aid and Co-operation in Agricultural Production" in <u>Hstleh-hsi</u> (Study), 1953, no. 5, pp. 3-6. It was first published in Kiangsu in <u>HHJP</u>, 27/3/53, p. 1. The resolution was first issued in December, 1951, when it was circulated internally to all Party committees. However, it remained unpublished until March, 1953, when it appeared in a revised form.
- Kang Chao, Agricultural Production in Communist China, 1949-1965, University of Wisconsin Press, 1970; p.17.
- (8) HHJP, 27/3/53, op. cit., p. 1.
- (9) The qualification is necessary because at this simplest level of mutual aid peasants might well ignore accounting procedures as such. See below.
- (10) <u>T'u-ti ho-tso-she</u>. In this chapter (and subsequent ones) we shall use the term "co-operative" to refer to the semi-socialist lower-level agricultural producers' co-operative (<u>ch'u-chi nung-yeh sheng-ch'an</u> <u>ho-tso-she</u>); and "collective" for the fully-socialist higher-level agricultural producers' co-operative (<u>kao-chi nung-yeh sheng-ch'an</u> ho-tse-she).

- (11) By "traditional" we mean the absence of modern inputs such as chemicals and power-driven machinery.
- (12) <u>SPJP</u>, 8/9/50, p.2, "Hopes for a Bumper Harvest in Most of the Cotton Fields of North Kiangsu".
- (13)The account of mutual aid in Kiangsu before 1949 is based on "The Various Forms of Labour Mutual Aid Among Peasants in the Villages of the Liberated Areas of East China" in Shih Ching-t'ang, Chang Lin, Chou Ch'ing-ho and Hua Chung-chie (editors), Chung-kuo nung-yeh ho-tso-hua ytin-tung shih-liao (Source Materials on the Agricultural Co-operativization Movement in China), hereafter CKNYHTHYTSL, Peking, 1957; vol. 1, pp. 48-50. The report is taken from Hsin-hua ytteh-pao (New China Monthly), April, 1952, "The Situation Regarding Labour Mutual Aid in Production" based on research conducted by the Agricultural Mutual-Aid Research Group of the Rural Work Committee of the East China Branch of the CCP Central Committee. For details of the nomenclature of various kinds of mutual aid throughout south Kiangsu see also SNJP, 19/3/52, p.2, "On the Existing Base Broaden and Develop the Labour Mutual Aid and Co-operative Movement in the Rural Sector of South Kiangsu".
- (14) CKNYHTHYTSL, vol. 1, op. cit., p. 48.
- (15) For example, water-wheels powered by the treadmill principle.
- (16) Ta-p'an-kung.
- (17) That is, the water-construction projects can be looked upon as a form of fixed capital.
- (18) This would seem to be the nearest equivalent of the Chinese phrase ta-hun-tso.
- (19) CKNYHTHYTSL, vol. 1, op. cit., p. 48.
- (20) <u>Huo-yang-niu</u>. In north Kiangsu (and north Anhwei) this was known as "helping the legs of an ox" (pang niu-t'ui).
- (21) The local phrase which described this kind of collective ownership of a draft animal in north Kiangsu was "one leg of the ox for each family" (i-chia i-t'iao niu-t'ui).
- (22) Chi-t'i mai-kung.
- (23) Agricultural cycles could differ because of variations in cropping patterns or differences in natural conditions which affected the time when crops ripened.
- (24) Although information is lacking, it can be assumed that the same, or similar, practices were found in the north of the province too.

- (25) This short discussion follows the account of mutual aid in <u>CKNYHTHYTSL</u>, vol. 1, <u>op. cit.</u>, p. 50.
- (26) <u>Ibid.</u>, p. 50. The Chinese phrase is <u>ch'iung-pang-chiung</u>. It might be added that membership also tended to be restricted to the young and able-bodied; and that kinship or friendship was sometimes an important basis of mutual aid arrangements.
- (27) <u>Teng-chia chiao-huan</u>. The importance of this principle will emerge more clearly when we come to discuss the economic implications of the MAT Movement in Kiangsu in the 1950's.
- (28) Apparently on the grounds that such female participation would "upset the winds and rain".
- (29) In parts of south Kiangsu custom required that the peasant should be given "three teas, four meals and five smokes" (<u>san-ch'a, szu-fan</u>, wu-pien-yen).
- (30) <u>CKNYHTHYTSL</u>, vol. 1, <u>op. cit</u>., p. 49 points out that after land reform the acquisition of land by poor peasants and agricultural labourers caused this practice to decline.
- (31) <u>SPJP</u>, 19/4/52, p.2, "More than Fifty Thousand MATs Organized in North Kiangsu".
- (32) <u>HHJP</u>, 18/5/46, cited in <u>CKNYHTHYTSL</u>, <u>op. cit.</u>, p. 1073, "The Majority of the Labour Force Organizes Mutual Aid in Wang-chi Ch't, Lien-shui".
- (33) Presumably, Ssu-yang and Shu-yang hsien.
- (34) CKNYHTHYTSL, vol. 1, op. cit., p. 1076.
- (35) For an account of the proposed changes see ibid., pp. 1078-79.
- (36) The different attitudes towards subsidiaries in the MATs before and after 1949 is of some interest. The point will emerge more clearly later in the chapter, but for the present we may simply note that after 1949 the problem was not to ensure the development of subsidiaries in the teams, but rather how to prevent them from taking up too much time at the expense of purely agricultural work.
- (37) That is, temporary and permanent teams.
- (38) See above, chapter 3.
- (39) See SNJP, 19/3/52, p.2.
- (40) Ibid.

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- (41) <u>SNJP</u>, 3/3/51, p.3. Kuan Wen-wei, Director of the South Kiangsu People's Administrative Office and a member of the East China Military and Administrative Committee, was Chairman of the Conference.
- (42) In this context note that a parallel and contemporary development was to be the extension of Rural Supply and Marketing Co-operatives (<u>nung-ts'un kung-hsiao ho-tso-she</u>) which would be responsible for the supply of tools, seeds and other materials to the MATs (and APCs) as well as for the sale of agricultural and subsidiary products. In this way the quantity of goods passing through private commercial transactions would be diminished and thereby another form of exploitation of the peasants (by the middlemen) would eventually be eliminated.
- (43) <u>Ching-ch'ang hsing</u>. There is some doubt over the meaning of this term. The most obvious interpretation is that it refers to permanent teams although a later source states that in the whole of north Kiangsu there were only 2, 393 permanent MATs in <u>December</u>, 1951, (see <u>SPJP</u>, 28/12/51, p.1, "Report on Land Reform Work in North Kiangsu During the Past Year", op. cit.).
- (44) SPJP, 30/6/51, p. 4, "Land Relations in North Kiangsu Now and in the Past", op.cit. These 25,000 teams would have represented 30.38% of all MATs in Kiangsu in mid-1951 (see Table III. 1).
- (45) It was at this time, for example, that most of the 2,700 teams in Wusih hsien were set up. See SNJP, 19/3/52, op. cit., p.2.
- (46) SNJP, 30/9/52, op. cit., p.2.
- (47) <u>SPJP</u>, 28/12/51, <u>op. cit.</u>, p.1. Permanent teams represented 5.74% of the total.
- (48) For consideration of temporary and permanent MATs as separate categories, see below.
- (49) It may be that the relative proportion of permanent teams was higher in north Kiangsu. This can be deduced from the fact that in Kiangsu as a whole permanent MATs represented 23.38% of all MATs (<u>CKNYHTHYTSL</u>, op. cit., vol.2, p. 1002), whereas in south Kiangsu the figure was only 6.28% (SNJP, 19/3/52, op. cit., p.2).
- (50) As we shall see in Chapter 5, the evidence does suggest that north Kiangsu was better endowed with draft animals than the south. On the other hand, the average size of farm was also larger in the north.
- (51) This apparent contradiction is easily explained. It simply reflects the development of larger, permanent MATs in later years. Thus, although the total number of teams in 1954 was less than in 1952,

because a larger proportion of them were permanent teams the number of participating households in all teams was actually higher.

- (52) Ironically, there may have been less planning in the new teams than there had been in traditional forms of mutual aid!
- (53) Thus, SPJP, 27/2/52, p.2, "Summary Plans for Agricultural Production in North Kiangsu in 1952" - "... the development of MATs is a vital step in leading the peasants towards collectivization."
- (54) For a fuller account of the events of this year and the change in direction of the MAT Movement in China see K. R. Walker, "Collectivization in Retrospect: The 'Socialist High Tide' of Autumn 1955 Spring 1956", in <u>The China Quarterly</u>, no.26, April-June, 1966; esp. pp.9-17.
- (55) In 1953 "... the themes of policy ... towards agricultural organizations were the provision of adequate financial incentives for the private economy and 'stable progress' in institutional reform, with strict observance of the stages". Ibid., p. 15.
- (56) See SNJP, 19/3/52, op. cit., p.2.
- (57) <u>HHJP</u>, 1/11/52, p.2, "After the Completion of the Autumn Harvest and Autumn Sowing, MATs must Settle Their Accounts in Good Time". See also <u>HHJP</u>, 16/11/52, p.2, "Make All Round Checks on the Mutual Aid and Co-operative Movement".
- (58) <u>HHJP</u>, 1/12/52, p.2, "Explain the Way in which Rural Development Should Take Place and Thoroughly Implement the Policies of Mutual Aid and Co-operation".
- (59) Ibid.
- (60) <u>HHJP</u>, 9/1/53, p.2, "Only By Overcoming 'Selfishness' Can the Teams Carry Out Mutual Aid".
- (61) <u>HHJP</u>, 30/12/52, p.2, "Large Numbers of Draft Oxen have Died in Many Areas".
- (62) <u>HHJP</u>, 11/12/52, p.2, "In Order to Consolidate and Improve the MATs We must Overcome Tendencies to sit Back and Take Things Easy".
- (63) <u>HHJP</u>, 3/2/53, p.2, "During Winter MATs must Support and Improve Agricultural and Subsidiary Production".
- (64) <u>Ibid</u>. It was emphasized that mutual aid activities in the winter months, both in agriculture and subsidiaries, were essential to increases in output and income.

- (65) <u>HHJP</u>, 16/4/53, p.2, "In All Parts of the Province There Are Many MATs Which Are Teams in Name Only".
- (66) Hsing-shih chu-i.
- (67) HHJP, 16/4/53, op. cit., p.2.
- (68) Ibid. The Chinese phrase is <u>k'ou-ta-mao-tzu</u>. There were also reports of cadres discriminating against peasants: in Nan-hui <u>hsien</u> poor peasants who had neither labour nor working capital were refused permission to join MATs. See <u>HHJP</u>, 8/4/53, p.2, "In the Mutual Aid and Co-operative Movement We Must Unite and Help Individual Peasant Households".
- (69) <u>HHJP</u>, 16/4/53, <u>op. cit.</u>, p.2.
- (70) For further evidence of "bureaucratism" (<u>kuan-liao chu-i</u>) among cadres see <u>HHJP</u>, 24/4/53, p. 1, "Conferences of <u>Ch'tt</u> and <u>Hsiang</u> Cadres Called in All Hsien".
- (71) Presumably, the temporary, seasonal form was by-passed.
- (72) See also Table III. 6 below.
- (73) JMJP, 1/10/53.
- (74) JMJP, 9/1/54, p. 1, "Resolution on the Development of Agricultural Producers' Co-operatives". Compare this with earlier pronouncements encouraging the development of the rich peasant economy and reiterating the importance of the individual peasant farming system.
- (75) The resolution stated that:

"The development of MATs lays the foundation for the development of APCs. Therefore, while we must strngthen leadership in developing APCs, we must also simultaneously strengthen the leadership of all forms and levels of MATs. The Party Committees in all areas should study and make use of existing forms and customs of mutual aid among the peasants and help them to get organized on an even greater scale in order to solve their production difficulties. As the MAT Movement goes forward the teams should gradually be transformed and improved ... We must understand that the organization of individual peasants into mutual aid activities and the work of improving the MATs is a means of facilitating the development of APCs and a preparation for the implementation of complete agricultural socialist transformation. It would be a serious mistake if we failed to see that MATs are a basic transitional form which leads the peasants towards socialist transformation, and in consequence ignored MAT work ...."

<u>Ibid.</u>, p.1.

- (76) See Table III.6.
- (77) The distinction between East China including, and excluding, Shantung helps to put the developments in the rest of East China into proper perspective. However, in the rest of this thesis, unless otherwise stated, East China will be taken to include Kiangsu, Anhwei, Chekiang and Fukien but not Shantung.
- (78) Anhwei, Chekiang and Fukien made slightly more rapid progress than Kiangsu.
- (79) The percentage increase in MATs in 1954 over 1953 was as follows:

	% rise: 1954 over 1953
Kiangsu	41.83
Shanghai	49.18
Anhwei	21.64
Chekiang	12.00
Fukien	18.04
Shantung)	(33.60)

(80) The proportion of agricultural households in MATs in the provinces of East China during 1952-4 is as follows:

	1952	1953	1954
Kiangsu	43.53	36.60	51.14
Shanghai	37.05	29.31	44.42
Anhwei	51.59	48.24	58.49
Chekiang	39.37	48.42	54.18
Fukien	47.02	51.00	60.71
(Shantung)	(54.16)	(48.45)	(64.44)

- (81) <u>HHJP</u>, 15/12/52, p.2, "MAT Members Must Understand the Correct Direction in which the Winter Production Movement Should Proceed". Compare the role of subsidiaries in this article with that of Hu Shu-tu, cited earlier.
- (82) This was the claim made on behalf of MATs in north Kiangsu in SPJP, 19/4/52, op. cit., p.2.
- (83) Given the depressed state of the agricultural economy in 1949, the re-establishment of a strong and purposeful government was likely to provide the conditions in which agricultural recovery would take place, even with institutional <u>ceteris paribus</u> assumptions. For a more detailed analysis of quantitative trends in Kiangsu agriculture after 1949, see below, chapter 5.
- (84) See, for example, <u>HHJP</u>, 4/12/52, p.2, "MAT Members! Be Patient and Show the Individual Peasants that Agricultural Progress Lies in the Direction of Collectivization".

- (85) <u>HHJP</u>, 29/12/52, p.2, "Ma Cheng-shou MAT Has Gradually Been Consolidated".
- (86) See Nan-hui Hsien CCP Committee, <u>Ssu-nien-lai nung-ts'un-chung</u> <u>ti chtt-ta pien</u> (<u>Great Changes in the Villages of Nanhui During the</u> <u>Past Four Years</u>), East China People's Publishing Company; February, 1954; 25 pp.
- (87) Yeh was described as an "owner-cultivator middle peasant" (tzukeng chung-nung) who owned 23 mou. He also possessed a "windmill" (feng-ch'e) and various kinds of agricultural tools.
- (88) The results are as follows:

	Av. p.a. rate of gro	owth, 1951-53
	Yeh Ch'uan-sheng	Sung Chia- chiao MAT
Cotton	30.00%	50.00%
Unhulled rice	4.29%	18.75%
Wheat	50.00%	56.25%

(If these levels of growth appear excessively high, they must be seen against the background of an agricultural economy rapidly recovering from the depressed state to which it had fallen in the years of war before 1949.)

- (89) Ssu-nien-lai nung-ts'un-chung ti chti-ta pien, op. cit., p. 12.
- (90) "Upper-middle" and "lower-middle" peasants (<u>shang-chung nung</u> and <u>hsia-chung nung</u>) emerged as separate categories in Mao's co-operativization speech of July, 1955. Together with the poor peasants, the lower-middle peasants were seen to constitute the mass base of support for the policies of institutional change in agriculture. The upper-middle peasants, on the other hand, were classified with the rich peasants.

Actually, some might argue that Yeh and Hst are best seen as rich peasants. To the extent that this is the case, the difference in yields of the MATs and individual peasants shown in Table III.10 is understated.

- (91) See above, p.112.
- (92) From Table II. 13 we find that if the yield of a poor peasant is taken as 100, that of a rich peasant is 140. Since poor peasants' average yield has already been calculated in III. 10, the production level of a rich peasant can easily be included. For purposes of comparison with Table III. 10, the results are shown below:

		Av. yield of poor peasant	Av. yield of rich peasant	Av. yield of MAT	Percentage increase or decrease of MAT over rich
		(chin/mou)	(chin/mou)	(chin/mou)	peasant yield
	(a) Yeh Ch'tta	an-sheng and	Sung Chia-c	h'iao MAT	
1951	Cotton	38.46	53.84	60	11.44
	Rice (unhulled)	269.23	376.92	320	-15.10
	Wheat	76.92	107.69	120	11.43
1952	Cotton	50.00	70.00	85	21.43
	Rice (unhulled)	307.69	430.77	450	4.46
	Wheat	115.38	161.53	200	23.82
1953	Cotton	61.54	86.16	120	39.28
	Rice (unhulled)	292.31	409.23	440	7.52
	Wheat	153.85	215.39	255	18.39
Av.	Cotton	50.00	70.00	88	25.71
1951-	Rice (unhulled)	290.00	406.00	403	- 0.74
1953	Wheat	115.38	161.53	192	18.86
	(b) Hst Chia-	-ch'tlan and C	hu Chung-hs	in MAT	
1953	Cotton				
	(hsiao-hua)	53.85	75.39	100	32.64
	(ta-hua)	76.92	107.69	130	20.72
	Rice	300.00	420.00	440	4.76
	Sources	: As Table I	п. 10		

- (93) It will also incidentally compensate in the event that the base for comparison should be slightly higher than that of a poor peasant household.
- (94) As it happens, the choice of this figure is not crucial since it is in relative, not absolute, yields that we are interested. The figure of 285 chin/mou is the one derived in the previous chapter.
- (95) See above, chapter 2.
- (96) See above, p.116.
- (97) <u>CFJP</u>, 11/2/50, "Mutual Aid Organ zations Already Total More Than a Million".
- (98) SNJP, 19/3/52, op. cit., p.2.
- (99) Ibid.
- (100) Improved specialization is implied in an article in <u>CFJP</u>, 8/3/53, "Get Production Organized and Tear Down the Heavens", which noted that during peak periods the teams operated more efficiently than the

individual farmer who had simultaneously to carry out harvesting, ploughing, watering and fertilizing.

- (101) JMJP, 26/5/52, "A Visit to Ch'en Yung-k'ang and His MAT".
- (102) This kind of factor substitution is also referred to in CFJP, 31/5/52.
- (103) Though interestingly enough, one of the two pre-1949 chemical fertilizer plants in China was situated in Nanking. This was the Yungli Plant.
- (104) This generic term refers to mud collected from ponds, ditches, streams, rivers, lakes, etc.
- (105) That is, <u>ltt-fei</u>. These crope were ploughed into the soil in order to increase its fertility.
- (106) The total sown area of paddy in the team was 56.08 mou.
- (107) JMJP, 26/5/52, "A Visit to the Bumper-Harvest Model Peasant Ch'en Yung-k'ang and his MAT", reproduced in Chinese Academy of Sciences Research Institute, <u>Kuo-min ching-chi hui-fu shih-ch'i nung-yeh</u> sheng-ch'an ho-tso tzu-liao hui pien (A Compendium of Materials on Agricultural Producers' Co-operatives During the Reconstruction Period of the National Economy), hereafter <u>KMCCHFSCNYCHHTTLHP</u>, Peking, 1957, vol.2, pp.829-834.
- (108) <u>HHJP</u>, 13/4/52, p.2, "Ts'ui Ytt-hsia MAT Draws Up Its Production Plans for This Winter and Next Spring".
- (109) <u>SNJP</u>, 14/10/51, "Labour MATs in Sung-chiang Special District", cited in KMCCHFSCNYSCHTTLHP, op. cit., pp. 823-828.
- (110) HHJP, 9/12/52, pl, "P'ei and Sui Hsien Review the MAT Movement".
- (111) Ching-kung hsi-tso.
- (112) <u>HHJP</u>, 19/9/52, "The Situation Regarding the Mutual Aid and Co-operative Movement in the Suburbs of Nanking During the Past Six Months" in KMCCHFSCNYSCHTTLHP, op. cit., vol.2, pp.830-846.
- (113) KMCCHFSCNYSCHTTLHP, op. cit., vol. 2, p. 827.
- (114) <u>Ibid.</u>, p. 830. Another innovation was the MAT's use of a "new-style walking-plough" (hsin-shih pu-li).
- (115) "Surplus" in the sense of being totally unemployed or under-employed (i.e. employed in the peak seasons only).
- (116) SNJP, 19/3/52, op. cit., p.2.
- (117) KMCCHFSCNYSCHTTLHP, op. cit., vol.2, pp. 829-834.

- (118) Ibid., p. 844.
- (119) Teng-chia chiao-huan; and hu-li (sometimes liang-li).
- (120) KMCCHFSCNYSCHTTLHP, op. cit., vol. 2, p. 843.
- (121) Our earlier calculations (Table III. 12) suggested that the poor peasants had most to gain from the MATs and a brief glance at the Kaingsu press in 1952 and early 1953 confirms that these represented the majority class in the teams. Thus:

MAT	No. of poor peasant households	No. of middle peasant households	Other	Total
(1)	3	2 <sup>a</sup>	ıb	6
(2)	6	1	-	7
(3)	8	1	-	9
(4)	2	2	-	4

- a Described as "poor-middle" peasant households.
- b Hired labourer.

Sources:

- (1) <u>HHJP</u>, 21/3/52, p.2, "The Continuing Progress of T'ien Hsien-fu MAT".
  - (2) <u>HHJP</u>, 29/12/52, p.2, "Ma Cheng-shou MAT Gradually Consolidated".
  - (3) <u>HHJP</u>, 23/1/53, p.2, "Visiting a Bumper-Harvest MAT".
  - (4) <u>HHJP</u>, 3/1/53, p.2, "The Higher Our MAT Progresses, the More Indestructible It Becomes".
- (122) Statistics from 11 ch't of Nanking suburbs revealed that over half of MAT leaders were middle peasants. See <u>KMCCHFSCNYSCHTTLHP</u>, op. cit., vol.2, p.844.
- (123) <u>Ibid.</u>, p. 844.
- (124) Ibid., p. 844.
- (125) That is, "lower-level agricultural producers' co-operatives". See above, note (10).
- (126) Arable area could be increased by breaking down the boundaries between plots of land; and working capital used more efficiently since draft animals and labour no longer needed to waste time travelling from one plot to another.
- (127) The account that follows is based on SPJP, 15/2/52, p.2, "The Advance Towards an APC by Chao Fu-ya MAT".

- (128) <u>Hsin-hua ytteh-pao, (New China Monthly</u>), 1955, no.12, "Model Regulations for Agricultural Producers' Co-operatives", which stated that "... the income of an APC derives from the labour, not the land ownership, of its members. The dividend paid on land must therefore be lower than the wage paid to agricultural labour, so that all members of the co-operative can be encouraged to take an active part in the work of it".
- (129) Land was classified into three categories according to its productivity, as follows:
  - (1) unit area yields of 120 chin per mou
  - (2) unit area yields of 100 chin per mou
  - (3) unit area yields of 80 chin per mou

(SPJP, 15/2/52, op. cit., p.2.)

- (130) <u>HHJP</u>, 17/8/52, "How the Li Yt MAT Became an APC". This article can also be found in <u>KMCCFHSCNYSCHTTLHP</u>, <u>op.cit.</u>, vol.2, pp. 847-854.
- (131) Pao-kung pao ch'an.
- (132) In this respect Li Yt APC was more in line with the later "model regulations" than Chao Fu-ya APC had been.
- (133) Land was to be standardly expressed in terms of "flat, dry land" (p'ing-han ti). The relationship between one share and land of different quality was as follows:

l share was equivalent to:

- 2.0 mou of flat, dry land
- 2.5 mou of irrigated paddy land
- 3.2 mou of poorer quality paddy land
- 5.0 mou of hilly land or bamboo plantation
- 19.0 mou of alluvial fields
- 27.0 mou of hillside with firewood.
- (134) Pao-kuan yttan and chi-kung yttan.
- (135) KMCCHFSCNYSCHTTLHP, op. cit., vol. 2, p. 851.
- (136) Pao-kung chih.
- (137) <u>Kung-piao</u>. They were printed in the following denominations: 5 li; <u>1 fen; 2 fen; 4 fen; 5 fen; 8 fen; 10 fen; 50 fen; 100 fen; 200 fen;</u> and 500 fen.
- (138) <u>Kung-chi-chin</u>. This was to be used as follows: 70% for expanding production through purchases of agricultural tools, fertilizers, seeds, etc.; 2% for bonuses to labour; 15% for a welfare fund to meet expenditures in education and health; and 13% for a labour-insurance fund.
- (139) "Initial" because at the time of writing the co-operative had only been set up for about three months.
- (140) The following table shows the income of two members of Li Yt APC in 1951 and 1952:

		Net receipt (1951)	Net receipt (1952)	% rise over 1951
(a)	Wang Chin-k'e	900 chin	1,426 chin	58.44
(Ъ)	Li Yt (wheat) (broad beans)	560 105	1,078 152	92.50 44.76
	Source:	HHJP, 17/8/	52, op.cit.	

## (141) Ibid.

(142) Actually, co-op members were permitted to retain small private plots which they could manage as they wished.

(143) The exception is Shanghai Municipality where the proportion of agricultural households participating in APCs rose from virtually zero to more than 10% in one year. It would be interesting to investigate why Shanghai's behaviour differed from that of the rest of the province but to do so would take us beyond the scope of the present chapter.

- (144) "First", because after mid-1955 there was an even more rapid expansion.
- (145) By this time more than a quarter of Shanghai's agricultural households had joined co-ops.
- (146) JMJP, 9/1/54, op. cit., p. l.
- (147) A March figure of 2, 297,000 member households is given in State Statistical Bureau, <u>Nung-yeh ho-tso-hua ho 1955-nien nung-yeh shengch'an ho-tso-she shou-i fen-p'ei ti t'ung-chi tzu-liao</u>. (Statistical <u>Materials on Agricultural Co-operativization and the Distribution of the Product in Co-operatives During 1955</u>), hereafter <u>Statistical</u> <u>Materials on Agricultural Co-operativization</u>, Peking, 1957; p.11, Table 5.
- (148) JMJP, 13/8/54, p.2, "Take Flood Precaution Measures and Protect the Seedlings and Then Get On With Consolidation and Improvement Work" states that the total number of APCs (August, 1954) was 4,400 i.e. 435 less than the mid-year figure shown. The difference can probably be easily accounted for: it most likely reflected incomplete statistics available to the 'People's Daily' compared with the later source. Certainly, there is no evidence to indicate a decline in APCs between mid-1954 and the summer of that year.

- (149) JMJP, 11/11/54, op. cit., p.2.
- (150) JMJP, 20/11/54, op. cit., p. 1.
- (151) They could be thought of as capitalists since their farming operations are based on the hire of labour.
- (152) Paradoxically, as we have seen, land reform served only to exacerbate this problem.
- (153) Because of the higher density of population in the south it was to be expected that APCs in Kiangsu would contain more members than in the country taken as a whole. But as the data for the other years indicates, this would not explain a gap of 100%.
- (154) This can be deduced by comparing Kiangsu and East China (b) in Table III. 16.
- (155) K.R. Walker in The China Quarterly, op. cit., p. 11.
- (156) <u>Ta-kung pao</u> (Hong Kong), 25/12/53, "Through the Use of Collectivized Labour and Resources Co-operative Production is Increasing Everywhere".
- (157) JMJP, 1/3/54, "The First Year of Red Star APC".
- (158) CFJP, 14/4/54, "Why is Production So High in This Co-op?"
- (159) JMJP, 1/3/54, op.cit. A similar balance was achieved in the use of draft animals and some large tools (e.g. water-wheels) which were mostly owned by middle peasants and which had formerly either not been available or only available at inappropriate times to the poor peasants.
- (160) Ibid.
- (161) <u>CFJP</u>, 14/4/54, <u>op. cit.</u>

## CHAPTER FOUR <u>The Two "High Tides": Semi-Socialist</u> <u>Agricultural Co-operativization and</u> <u>Fully Socialist Agricultural</u> <u>Collectivization.</u>

# I. The Chronology of the Two "High-Tides"<sup>(1)</sup>

Before the second half of 1955 a lack of unanimity among government leaders over the speed and even direction of institutional change in agriculture held back the co-operativization movement in China. Not until Mao's intervention of 31 July, 1955 were these differences resolved and the ground cleared for the rapid changes of 1955 and 1956. Until this date official policy towards the formation of co-ops remained generally conservative, emphasizing consolidation rather than expansion.<sup>(2)</sup>

There were of course deviations from the official policy and although discussion of these would take us beyond the scope of this chapter, one in particular should be noted because of its origin in Kiangsu. In May, 1955 a joint conference of Party Secretaries was held in the province. <sup>(3)</sup> Most of the proposals put before it were unexceptionable and merely upheld the guidelines of recent CCP directives. However, one was more unusual for on the basis of the success of existing co-operatives in the province it called for a doubling in their numbers in less than a year. <sup>(4)</sup>

With hindsight and viewed against Mao's speech of only two months later this decision looks very remarkable indeed. Not only did it directly contradict the prevailing policy of caution, but also in its demand for a doubling of co-operatives it anticipated Mao almost exactly. <sup>(5)</sup> It would be tempting to conclude that the conference resolution was in fact prompted by some knowledge of the July speech. But unfortunately the evidence to support

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such an argument is lacking and it seems best to conclude that the similarities were largely coincidental. Nevertheless it remains the case that in proposing such an expansion the Kiangsu delegates were effectively pursuing an independent line which was closer to the spirit of Mao's speech than that of recent national directives.

Mao's intervention broke once and for all the impasse created by the opposing views and determined the future course of co-operativization in China. His call for a doubling of APCs in China by autumn, 1956 was based on a "... new upsurge in the socialist mass movement ... throughout the countryside". <sup>(6)</sup> He attacked conservative elements for holding back peasants' demands for further socialization in agriculture and stressed the importance of co-operativization as a means of both controlling the expanding rich peasant economy and maintaining unity between workers and peasants. However, qualitative aspects were not ignored and the traditional principles of gradualism and voluntarism were upheld. For all its departure from previous policy and notwithstanding the extraordinary events which followed, the policy set out by Mao was well considered and even cautious.

The response to the speech was overwhelming. In the second half of 1955 there was a dramatic increase in the number of agricultural households taking part in co-operation above the MAT level in China. In December, 1955 59.3% of all households belonged to lower-level APCs compared with only 14.17% in June.<sup>(7)</sup> In 1956 the transformation to higher-level APCs got under way: between December, 1955 and January, 1956 membership of these collectives rose from 4.0% to 30.7%, and by March the figure was 54.9%.<sup>(8)</sup> By the end of the year 87.8% of households were in collectives

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and 8.5% in co-operatives. Not only agricultural co-operativization but indeed agricultural collectivization had been basically completed in China an achievement far beyond that envisaged by Mao.<sup>(9)</sup>

In Kiangsu lower-level co-operativization was achieved in two stages. The first was in September and October, 1955 when the proportion of agricultural households in APCs rose from less than 18% to about 50%. <sup>(10)</sup> During the next two months there was a lull and at the end of the year membership was about the same as it had been in October. However, at the beginning of 1956 there was renewed rapid progress and by the end of January 84% of agricultural households in the provinces were working within the framework of co-operatives. <sup>(11)</sup>

The decision to wind up semi-socialist co-operativization in Kiangsu during 1956 appears to have been taken at a conference held in November, 1955. <sup>(12)</sup> More specifically, a report in December anticipated that basic completion would be achieved by autumn, 1956. <sup>(13)</sup> But even these prognostications were overtaken by the speed of events and by February of the new year co-operativization had already been essentially carried out.

A theme of earlier chapters has been that because of different resource endowments the poorer peasants were likely to be the chief beneficiaries of agricultural co-operation in Kiangsu. Indeed our calculations of the likely gains from various forms of co-operation indicate that well-off and certainly rich peasants might actually lose out by participating in co-operative activities. The point was explicitly made in a Shanghai newspaper which stated that well-to-do peasants hesitated to join in co-operation because "... in the initial period after a co-op has been set up, its output and income increases

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temporarily cannot compare with their own and so they are unable to see the advantage of being a member of an APC". (14)

That the greatest support for co-operative developments in the "hightide" came from the poorer peasants is corroborated by various sources. In early October, 1955 it was reported that the majority of peasants joining the new APCs were from the poor and lower-middle categories.  $^{(15)}$  In the Shanghai suburbs 70% of poor and 85-90% of lower-middle peasants were demanding to set up new, or join old, co-operatives.  $^{(16)}$  57% of households belonging to co-ops in one ch'# of Su-ch'ien <u>hsien</u> were poor peasants and the other 43% middle peasants.  $^{(17)}$ 

A similar picture emerges from a more detailed class breakdown of the membership of 675 new APCs in two hsien in Hstt-chou Special District:

Table IV.1:	The class composition of 675 lower-level APCs in Hstt-chou Special District in 1955.			
	Number of parti- cipating house- holds	As percentage of total participating households		
Poor peasants	10,256	53.49		
Lower-middle peasants	5,388	28.10		
Upper-middle peasants	3,279	17.10		
Petty rentiers of land*	134	0.70		
Total	19,057	99.39		

\* Hsiao t'u-ti ch'u-tsu che.

Source:

HHJP, 28/10/55, "In All Areas Co-operativization Plans Are Gradually Going Ahead".

All the data on co-operative membership presented above would suggest a very simple dichotomy between poor and better-off peasants. However, despite its obvious appeal, any analysis which took such a division as a basic

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premise would be misleading. Evidence points to the fact that upper-middle peasants too were anxious to join in co-operative farming activities. In six APCs planned to be set up in Ssu-yang <u>hsien</u> in spring, 1956 upper-middle peasants were expected to comprise more than 35% of all members; in another four co-ops planned for autumn and spring (1955-56) the corresponding figure was 30%.<sup>(18)</sup>

The class composition of rural society was a prime determinant of the success of co-operativization. Where there was increasing polarization between poor and better-off peasants the different economic interests and social outlook of each group were likely to give rise to conflict. By contrast, where the overwhelming majority remained poor peasants institutional change might take place more smoothly.<sup>(19)</sup>

In Kiangsu such conflicts were the source of many of the most intractable problems in the newly-established APCs. The most serious manifestation was the tendency to partiality towards a particular group of peasants. A report made in September, 1955 stated that throughout Kiangsu poor peasants were being excluded from co-ops.<sup>(20)</sup> In Chie-nan <u>hsiang</u>, Hwai-yin <u>hsien</u> 26 out of 48 poor peasant households which had asked to join APCs were refused admission. In Chti-jung <u>hsien</u>, out of 45 households in one village five lacked the necessary experience to form a co-operative, but the remaining 40 (30 middle and ten poor) were eligible. However, when the 30 middle peasants subsequently set up an APC not one of the ten poor peasants was admitted to it. This was clearly a case of deliberate exclusion by the middle peasants for fear that the poor peasants' lack of resources would hold back rises in productivity and improvements in living standards. The only

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concession made by the head of the new unit was that the poor peasants would be allowed to join after two years.<sup>(21)</sup> Similar reports were forthcoming from Yen-ch'eng where poor peasants spoke resentfully about cadres "suspecting the poor and loving the rich"<sup>(22)</sup> and threatened to organize their own co-operatives.

Although there were also cases of prosperous peasants being forced into co-operatives there can be little doubt that the ostracism of poor peasants was the most serious aspect of "commandism" during the "first high-tide". <sup>(23)</sup> The situation was aggravated by the activities of subversive elements. Thus, in its October directive the Provincial Party Committee unambigiously stated that landlords, rich peasants and counter-revolutionary infiltration of co-ops had occurred in every area of Kiangsu. <sup>(24)</sup>

If the different economic status of the various classes of peasants posed the most serious difficulty during co-operativization it was not the only difficulty. Criticism of cadres for their "rightist-conservative" attitudes towards socialization or their "blind satisfaction" with what had so far been achieved re-appeared as a common theme. <sup>(25)</sup> Political pressures to set up more APCs became increasingly important while objective economic factors were ignored. Production priorities in many of the new co-ops were not drawn up and in many areas autumn sowing was delayed. In some cases agricultural plans did not exist at all; in others members were only concerned to harvest their own crops and neglected the autumn ploughing and sowing work of the APC. <sup>(26)</sup>

In sum, the speed with which the lower-level APCs were set up in Kiangsu caused many administrative problems. At the same time over-

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pre-occupation with the co-operativization movement was accompanied by neglect of farm operations. This threatened to create a vicious circle: the more APCs that were set up, the more agricultural work would be neglected; the more such work was neglected, the lower would output and income be - and so ultimately the greater the disenchantment with the new structure. It was in these circumstances that the Kiangsu Party Committee in October, 1955 called a halt to further co-operative expansion and instituted a period of retrenchment and consolidation. <sup>(27)</sup> It is in this context that the lull during November and December<sup>(28)</sup> should be understood.

The essential difference between lower-level and higher-level APCs (co-operatives and collectives) was that in the latter dividends on land and working capital were abolished and members' income was derived entirely from the work they did in the collective sector. On the basis of its importance and difficulty of execution each job was assigned a norm, expressed in terms of a number of work-points. Ten work-points constituted a labour day and a peasant's final income (in the collective sector) consisted of the number of labour days he had worked multiplied by the value of the labour day.

All land, except for small private plots,  $(^{29})$  graves and building sites was taken under collective ownership without compensation.  $(^{30})$  Draft animals and large farm tools were also collectivized at agreed prices as were other forms of fixed capital, such as irrigation works and fishponds. Pigs, poultry, small domestic utensils and some trees were however retained under private ownership. If they so wished members were to be allowed to leave the collective and in these circumstances they could withdraw their land (or the equivalent thereof) together with any money they had invested in the APC.  $(^{31})$ -260The only timetable proposed by Mao in his July, 1955 speech was that co-operativization should be completed by 1960 and that thereafter "... the semi-socialist co-operatives will be gradually developing into fully-socialist ones, group by group and stage by stage".  ${}^{(32)}$  But so rapidly did lower-level APCs expand during the second half of 1955 that at the end of December Mao was able to state that "... by 1959 or 1960 we can complete the transformation from semi-socialist to fully-socialist APCs".  ${}^{(33)}$  Barely a month later the Draft Twelve Year Plan was published in which the completion of collectivization was called for by 1958.  ${}^{(34)}$ 

In Kiangsu plans for the transition to a collectivized agriculture were outlined as early as November, 1955 in a decision of the Provincial Party Committee that higher-level APCs should be set up on an experimental basis in spring, 1956. Accordingly, at the end of December and into January the first plans for the establishment of collectives began to appear in different areas of the province. <sup>(35)</sup> Almost simultaneously fully-socialist APCs began to be set up on an increasingly wide scale throughout the province.

These developments presaged a new "high-tide" in Kiangsu agriculture. As had happened during the "first high-tide" plans were continually revised upwards but still failed to keep up with actual events. Despite hints of opposition<sup>(36)</sup> the most common theme was that the enthusiasm of the great majority of peasants justified the move towards full collectivization. Emphasis was still placed on the old virtues of mutual benefit, gradualism and voluntarism though in view of the speed with which the agricultural sector was being transformed it is clear that they were often ignored.

Although data are not readily available there can be no doubt that -261-

during the first months of 1956 collectivization took place very rapidly throughout Kiangsu. A report published towards the end of January suggested that 665 collectives had been or were about to be set up in the province<sup>(37)</sup> but that by March this figure would have risen to over 5,000 containing more than a million agricultural households (15% of the total).<sup>(38)</sup> A news broadcast of <u>3 February</u> revealed that the second stage of the APC Movement had already been completed in Hsti-chou Special District and that in some areas over 90% of agricultural households belonged to collectives.<sup>(39)</sup>

In any case by the middle of 1956 Kiangsu was well on the way to having a fully-collectivized agriculture. The following table summarizes the situation in Kiangsu, the other provinces of East China and China as a whole. For purposes of comparison data for mid-1955 are also included.

Table IV.2: The process of semi-socialist and fully-socialist co-operativization in Kiangsu and other areas of China: 1955-56.

## PERCENTAGE OF ALL AGRICULTURAL HOUSEHOLDS IN:

	Co-ops	Collec- tives	Co-ops and collectives	Forms other than APCs
Mid-1955:				
China	14.16	0.03	14.19	85.81
Anhwei	13.60	0.05	13.65	86.35
Chekiang	16.90	0.15	17.05	82.95
Fukien	15.14	0.05	15.19	84.81
Kiangsu	11.21	-	11.21	88.79
Shanghai	27.59	0.68	28.27	71.73
Mid-1956:				
China	29.10	62.60	91.70	8.30
Anhwei	15.20	80.70	95.90	4.10
Chekiang	36.00	60.00	96.00	4.00
Fukien	26.70	62.20	88.90	11.10
Kiangsu	17.50	78.90	96.40	3.60
Shanghai	3.60	90.90	94.50	5.50
	Source:	CKNYHTH and pp. 101	YTSL, op. cit., p 18-19.	op. 1011-12

The extraordinary magnitude of the events which occurred within the short space of a single year emerge clearly from this table. As of mid-1955 a mere 11.21% of Kiangsu's agricultural households were members of lower-level agricultural co-operatives and not one collective existed. Yet a year later 96.4% of peasant households were participating in some form of co-operative farming - the vast majority of them in fully-socialist collectives. The performance is even more impressive when set against that of other regions: in mid-1955 Kiangsu was lagging behind both China as a whole and all the other provinces of the East China region. In mid-1956 it was more highly co-operativized than any of these regions<sup>(40)</sup> and only Anhwei had a higher proportion of its households in higher-level APCs.

It seems clear that collectivization was implemented in Kiangsu even more rapidly than co-operativization had been. In January, 1956 84% of agricultural households were still in the lower-level units and only 665 collectives had been (or were being) set up. At this time it was anticipated that 15% of them would be incorporated into collectives by March. Even allowing for the probability that this was an under-estimate, the fact that by the end of June eight out of ten peasant families belonged to higher-level APCs is evidence of an astonishing rate of progress. Collectivization had basically been completed in about five months.

During the second half of the year most of the remaining peasants were absorbed into the collectives. By the end of December the situation was as follows:

	Table IV.3:	Collectivization in Kiangsu and China at the end of 1956.		
	Total number of collectives	Total number of member agricultural households	As percentage of total agri- cultural house- holds	
Chinaa	540,000	107,422,000	87.8	
Kiangsu <sup>b</sup> (excl. Sha	29,539 nghai)	8,163,650	90.3	
	Sources: a	Statistical Material Co-operativization,	s on Agricultural op. cit., p. 13.	
	b	HHJP, 1/1/57, p.1 Co-operativization	, "Fully-Socialist Implemented".	

In Kiangsu membership increased by a further 14.65% during the second half of 1956.<sup>(41)</sup> In the six Special Districts of Hstd-chou, Hwai-yin, Yen-ch'eng, Nan-t'ung, Chinkiang and Sung-chiang and in some cities

participation was around 95%.<sup>(42)</sup> Indeed in Sung-chiang 98.5% of agricultural households were reported to belong to collectives.<sup>(43)</sup>

The abandonment of gradualism which was an inevitable consequence of the "second high-tide"<sup>(44)</sup> meant not only that the consolidation of lowerlevel APCs ceased to be a condition of the establishment of collectives but that in many cases the co-operative stage was by-passed altogether. Peasants whose experience of co-operation extended no further than mutual aid moved directly into the fully-socialist units. Of the 1.4 million peasant households that joined APCs between the end of January and end of June, 1956<sup>(45)</sup> most must have been immediately incorporated into collectives. In any case, for those who did belong to co-ops but who had only joined since mid-1955 membership can have had little more than symbolic significance given the speed of the collective transformation.

One of the most striking differences between lower-level and higherlevel APCs was in their size (defined here in terms of the number of households per unit) and we conclude this introductory account of the "second high-tide" in Kiangsu by presenting some data relating to this aspect of the institutional changes. For comparative purposes figures for China and East China are again included:

Table IV. 4:	The average size of co-operatives
	and collectives in Kiangsu and other
	areas: 1955-56.

	Average number of households	Average number of households
	per co-operative	per collective
Mid-1955:		
CHINA	26.66	75.77
EAST CHINA		
Anhwei Chekiang	22.89 23.53	251.77 113.17
Fukien	23.09	116.64
Kiangsu Shanghai	27.95 23.79	35.81
Mid-1956:		
CHINA	51.24	245.34
EAST CHINA		
Anhwei	59.11	429.44
Chekiang	42.88	181.69
Fukien	34.62	243.74
Kiangsu	69.36	299.64
Shanghai	55.40	225.44

Source: Table IV.2.

Data presented in the last chapter show that between 1953 and 1955 the average size of co-operative in Kiangsu and Shanghai increased. It is clear from Table IV. 4 that this trend continued during the period of the two "high-tides". Indeed the average size of co-operative in the province was greater than in any other East China province (and than China as a whole) while that of fully-socialist collectives was exceeded only by the astonishingly high figure in Anhwei. Bearing in mind that collectives in Kiangsu were more than four times as large as co-operatives it is not difficult to imagine the administrative difficulties of running the new units for inexperienced cadres. For the peasants too the dislocation of moving

from a unit of perhaps six households  $^{(46)}$  to one containing more than 300 must have been considerable.  $^{(47)}$ 

An analysis of the reasons underlying the decision to implement full collectivization in Kiangsu is given in Appendix D. We therefore conclude this introduction by briefly summarizing the argument that appears there.

The rapid collectivization of agriculture during the first half of 1956 was less an optimistic response to the potential economic gains of the new institutional structure than a reflection of the failure of the lower-level APCs to achieve the looked-for breakthrough in agriculture. The class antagonism and inefficiency in resource use which stemmed from the partwage, part dividend system of income distribution in the co-ops were particularly serious. As a result the cadres turned increasingly towards the collectives with their wholly wage-based system of factor payment as a way out of these difficulties.

This is not to deny that other more purely economic considerations also played a part in the decision to collectivize. The consolidation of fragmented farms promised to improve the utilization of land and working capital and to save on labour time.<sup>(48)</sup> There is evidence too that collectivization was seen, rightly or wrongly, as a means towards the achievement of a more mechanized agriculture.<sup>(49)</sup> Finally, there is no doubt that the publication of the Twelve Year Agricultural Plan and Chou En-lai's call for a "great leap" in agricultural production<sup>(50)</sup> also influenced the timing of collectivization. However, we would argue that such factors were not the primary agents of the events of 1956: rather they served to re-inforce a trend whose true origins lay elsewhere.

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#### II The Economic Impact of the Two "High-Tides'In Kiangsu.

## (1) The lower-level co-operatives:

The theoretical advantages of lower-level APCs can be briefly summarized. Unified planning and management of farm operations would benefit production in a variety of ways. For example, improved land utilization would permit the most rational<sup>(51)</sup> cropping pattern to be adopted. The agricultural labour force could also be more effectively mobilized; specialization of labour promised greater efficiency and the ability to direct the co-op members into the most urgent tasks would help ensure the completion of agricultural operations on time. Control over the entire labour force enabled the planning authorities to undertake large-scale projects, such as land reclamation or water-control, which were otherwise beyond the capacity of individual peasant families. Moreover since the co-operative management was concerned to maximize the use of the labour force rather than the unit value of a work point, labour could still be employed up to the point at which its marginal product reached zero. (52) Again, within the larger organizational framework of a co-operative technical change, innovation and experimentation could take place more easily than where the risks of such activities were borne by a single peasant household.<sup>(53)</sup> Finally, with its unified control over financial resources a co-operative was better able to accumulate capital and carry out net investment.

Yield data presented in the last chapter suggested that the early co-ops in Kiangsu were successful in raising agricultural productivity above the levels attained by MATs and most individual peasants - although in the absence of more comprehensive statistics it was emphasized that such a conclusion must be considered tentative. We shall now consider how far

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this conclusion is upheld by data published after mid-1955. <sup>(54)</sup>

The assertion in September, 1955 that between 80% and 90% of all co-ops in Kiangsu had increased production<sup>(55)</sup> is not an adequate measure of their success. It is likely after all that even in the absence of co-operativization output would have risen. Nevertheless, it is worth recording the range of increases achieved in 187 APCs of Ch'ang-shu hsien:

Table IV. 5:	Increases in output of 187 APCs in Ch'ang-shu hsien: Soochow S.D.			
Level of increased output	Number of APCs	As percentage of total APCs		
less than 10%	8	4.28		
more than 10%	22	11.76		
more than 20%	64	34.22		
more than 50%	92	49.20		
fall in output	1	0.53		
Total	187	99.99		

Source: HHJP, 25/9/55, op. cit., p. l.

That all but one of the co-operatives increased production and that almost half did so by more than 50% would seem to be a strong case in favour of the new institutional framework of agriculture. But the data cannot be taken at face value. No information is given of the increases attained by MATs and peasants still working on their own although these would provide a more valid basis for assessing the performance of the APCs. Further, the large increase recorded in many of the co-ops must be seen against the background not only of co-operativization movement but also of the unusually favourable natural conditions of 1955. In any case it is difficult to believe that increases in output of 50% and more were

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common. If they had been the fact would surely have received full publicity in the local newspapers. In short, the Ch'ang-shu data must be regarded as illustrating a special case.

More representative, because of better geographical and statistical coverage, are the following data:

Table IV.6:	Direction of changes in output in 2,590 APCs in Ssu-yang, Ch'i-tung and Chen- tse <u>hsien</u> (Hwai-yin, Nan-t'ung and Soochow Special Districts).		
	Number of APCs	As percentage of total APCs	
Co-ops with increased output	2,253	87.0	
Co-ops maintaining existing level of output	238	9.2	
Co-ops with declining output	155	6.0	
Total	2,646	102.2 (sic)	
Source	HHJP, 25/9/55, op, c	it., p.l.	

For the reasons already given these figures are of limited value. However, they have been included here for their interesting disclosure that 15% of APCs in what was presumably a carefully selected sample actually failed to raise production.

More detailed information is available for Ssu-yang <u>hsien</u> from an investigation of the summer harvest in its 1,448 co-ops:

Tab	ole I	<b>V</b> .7	7:
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Direction of changes in output in 1,448 APCs in Ssu-yang <u>hsien</u> (Hwai-yin S.D.) 1955.

Change in output over 1953	Number of APCs	As percentage of total APCs	
30% rise in output	295	20.37	
10% rise in output	950	65.61	
Same level of output	120	8.29	
Decline in output	83	5.73	

Source: <u>HHJP</u>, 30/9/55, "The Situation Regarding the Current Co-operativization Movement in Ssu-yang".

Although the usual caveats apply, the experience of Ssu-yang is of considerable interest. All 1,448 APCs in the <u>hsien</u> had been set up before Mao's speech<sup>(56)</sup> But despite this firm foundation (and the very favourable natural conditions of 1955) 14% still failed to increase production. More-over, of those that did achieve higher levels of output more than three quarters were higher by only about 10% - a contrast to the Ch'ang-shu data in Table IV. 5. It is hazardous to generalize from a single <u>hsien's</u> experience. But if there is an inference to be drawn from IV. 7 it is surely that among the co-operatives created more in response to Mao's speech than to objective economic conditions, cases where output either failed to rise or did so only marginally will have been more common than in Ssu-yang.<sup>(57)</sup>

A slightly different example will conclude these introductory remarks. In Shanghai, where a high proportion of co-ops had reportedly succeeded in raising output, (58) the following average yields were claimed for the APCs in one of the municipal 'districts' (<u>ch'tt</u>):

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	v.o:	the co-operatives of Hsin-ching <u>ch't</u> , Shanghai.			
		Late paddy	Cotton		
1954:					
Average yield		630 chin/mou	120 chin/mou		
Index		100.00	100.00		
1955:					
Average yield		670 chin/mou	170 chin/mou		
Index		106.35	141.67		
Source:	CI	FJP, 25/10/55, op.ci	t.		

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The interest of these figures is that they give some idea of the impact of co-operative farming upon different crops. They suggest that the benefits of belonging to a co-operative were much greater for cotton farmers than for rice producers. That co-operativization should have had such a favourable effect upon cotton production is not in itself surprising: the characteristics of cotton cultivation were such that substantial increases in productivity could be gained from the increased labour inputs which, by virtue of its control over the labour force, a co-op could provide. But the same argument applied to rice-farming: more weeding, greater care in transplanting, bigger fertilizer applications would surely yield a higher output of paddy. Why then should cotton yields have risen by over 40% compared with only 6.35% for rice? Although no definite answer can be given the agricultural history of Kiangsu may provide an explanation. For many centuries this province (at least, Kiangnan) was one of the richest rice-producing regions of China. As a result of the accumulated marginal improvements in cultivation methods the technical standard of rice cultivation had reached a high level. By contrast, cotton had been less important

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at least until comparatively recent times. It followed that the scope for improving cotton production was greater than for rice. Hence the differential shown in the table.

If correct, this explanation had important implications for co-operativization in many other regions of Kiangsu where rice was the chief crop, especially the rich areas south of the Yangtze. There too the opportunities which the organizational framework of the APCs offered for raising yields by improvements in the <u>traditional</u><sup>(59)</sup> technology were likely to be limited. This would in turn affect peasants' enthusiasm for co-operative farming.

The pattern shown in Table IV.8 is borne out by information from other areas. For example, of 50 lower-level APCs in Chuan-ch'iao <u>ch'tt</u> the eleven growing dry crops increased production by 25-50% whereas the corresponding figure for the 39 'paddy co-ops' was 10-20%.<sup>(60)</sup> At the provincial level it was reported that co-operatives were increasing the output of paddy and wheat by between 10% and 20% compared with about 30% for cotton and miscellaneous grains.<sup>(61)</sup>

What were the sources of the increases in production (however large or small) achieved by the co-operatives? A glance at the Kiangsu newspapers during the autumn of 1955 reveals that the two most important were better use of land and labour and the implementation of technical reforms. In Chuanch'iao <u>ch't</u> higher output was attributed to three factors: the unified management of land and labour; better cultivation techniques; and the ability of the co-operative organization to combat natural disasters.<sup>(62)</sup> Soil improvement, deeper ploughing and sowing, and greater application of fertilizer were the three technical measures said to have contributed most significantly to

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increased output in 722 co-ops in the suburbs of Shanghai. (63)

Greater application of organic fertilizers was of particular importance as a source of higher productivity (yields per unit area) in the co-operatives. In Pao-ying and Ssu-yang <u>hsien</u> its contribution to increased output was emphasized<sup>(64)</sup> and in Fou-ning the collection and application of more fertilizer was said to have been the single most important factor responsible for the bumper wheat harvest.<sup>(65)</sup> The success of the APCs in mobilizing the peasants is reflected in the claim made in early 1956 that there was sufficient base fertilizer for 90% of Kiangsu's single-cropping land and "top dressing" for 60% of the wheat acreage.<sup>(66)</sup>

The advantage of the larger scale of farming permitted by the co-ops was most clearly demonstrated in their utilization of basic resources. For the first time land could be used according to its ecological conditions (the nature and fertility of the soil, availability of water, etc.). In T'ai <u>hsien</u> a co-operative conducted field studies which enabled it to divide the rice land into four categories corresponding to its different growing characteristics, <sup>(67)</sup> thereby moving closer to output maximization. Elsewhere it was claimed that unified land utilization made it possible to introduce the most rational cropping pattern and fully exploit the potential for raising land productivity. Instead of "... always planting whatever we eat" peasants were now "... planting whichever crops are most suitable for each particular piece of land". <sup>(68)</sup> Centralized control over land also facilitated irrigation construction and a number of articles reported the success of co-ops in repairing or building such works. <sup>(69)</sup>

There were of course parallel benefits from the unified control of labour. -274This emerged most clearly from a report on co-operativization in Wusih <u>hsien</u>.  $(^{70})$  Before co-operativization men had worked for 130-150 days a year; now the number of labour days had risen to 180-200 (a 35% increase). An investigation of 575 APCs in the <u>hsien</u> also indicated much greater female participation in agricultural work.  $(^{71})$  This was not merely a quantitative improvement for, whereas women had formerly done jobs of secondary importance, they were now engaged in collecting fertilizer, transplanting rice seedlings and harvesting the wheat. Indeed in 86% of the co-ops the emergence of labour surpluses combined with the lack of long-run planning was creating difficulties. In some cases peasants were "blindly" drifting away in search of work; in others female participation was being limited in order to cut back the labour force.  $(^{72})$ 

But how far did the benefits of improved resource utilization and unified control give the APCs a lead over the MATs and individual peasants? In other words, what were the levels of output and income inside and outside the co-operatives? To answer this question directly would require a great deal more statistical information than is available. However, notwithstanding the difficulties caused by lack of data and the qualifications noted earlier, the issue is of such crucial importance that some attempt must be made to assess co-operativization in these comparative terms. This attempt is the subject of the following pages. (73)

The data which must serve as the basis for our calculations are easily summarized. Output of early and mid-autumn crops in 2,827 APCs of Yench'eng Special District was between 10% and 30% higher than that of peasants operating outside the new institutional framework.<sup>(74)</sup> The same differential was noted for wheat in Wusih <u>hsien</u>.<sup>(75)</sup> In one co-operative in Pao-shan <u>hsien</u> (Sung-chiang Special District) the average yield of upland non-glutinous rice was 15% above non-co-op yields. Finally, in the summer of 1955 average wheat yields in the APCs of Soochow Special District were reported to be 20% higher than the average for the region as a whole.

Meagre though they are let us assume on the basis of these figures that output in APCs was on average between 15% and 20% higher than that of peasants outside the co-operative sector. In order to compare the performance of the two sectors some assumptions must be made about the increased production of co-ops between 1954 and 1955. Two hypotheses are proposed:

Case (a): Out of 100 APCs 85 achieve an average increase in production of 20% over 1954; 10 maintain existing levels; and 5 suffer an average decline of 5%.

Case (b): As (a) except that the average increase in output is 15%.

That 15% of co-operatives should fail to increase their output is in line with the findings of Tables IV.5, IV.6 and IV.7. The assumption of an average increase of 15-20% also approximates to the situation in the 1,448 APCs in Ssu-yang (Table IV.7). If there is any bias in the assumptions it is that they are too generous to the co-ops.

We begin our calculations by deriving two indices of average output in the 100 hypothetical APCs in 1955:

С	ASE (a)			CASE (b)	
(1)	(2)	(3) = (1)x(2)	(1)	(2)	(3) = (1)x(2)
Index of output (1955)	Number of APC's having this index	'Gross' index of output (1955)	Index of output (1955)	Number of APCs having this index	'Gross' index of output (1955)
120	85	10,200	115	85	9,775
100	10	1,00 <mark>0</mark>	100	10	1,000
<mark>95</mark>	5	475	95	5	475
		11,675			11,250

## Table IV.9: Index of output in 100 hypothetical APCs in 1955 (with 1954 output = 100)

Source: See assumptions above.

Therefore, the average 'gross' index of output in 1955 is:

Case	(a):	116.7	5
Case	(b):	112.50	C

In other words, depending on what assumptions are made, the average increase in output between 1954 and 1955 achieved by the APCs (taken as a whole) was 12.5% or 16.75%.

But by our initial assumptions output in the co-operative sector was 15-20% higher than in the non-co-operative sector. Thus:

Table IV. 1	0: An index of o in 1955 (with	output inside a 1954 output =	and outside APCs = 100).
	CASE (a)	CASE (b)	
Co-operative sector	116.75	112.50	
Non-co-operative sector	101.52 97.29	97.83 93.75	(15% differential) (20% differential)
Source	As Table IV.	9.	

In interpreting these results two factors must be kept in mind. First, 1955 was a year of exceptionally favourable natural conditions; second, we know that on average food grain output in Kiangsu in 1955 increased by 11.91% above 1954.<sup>(76)</sup>

Against this background the findings of Table IV. 10 begin to look suspect. In three out of four cases output outside the co-operatives is shown to have declined in 1955 and in the remaining case the increase is very marginal (1.52%). Yet given the bumper-harvest conditions of 1955 it is inconceivable that production should have fallen. On the contrary, even without the benefits of co-operativization (but thereby also without its attendant problems) it is likely that individual peasants would have raised their output by a more substantial margin than 1.5%. In short, we would argue that the data for the non-co-operative sector presented in IV.10 are incompatible with what is known about agricultural performance and conditions in 1955.

One way of resolving this problem would be to assume a higher increase in production in the APCs between 1954 and 1955.<sup>(77)</sup> However, there is no firm empirical evidence nor any <u>a priori</u> reason that would justify this. Indeed the investigation of 1,448 APCs in Ssu-yang would suggest that the most common rate of increase was 10% and the average no more than 15%. Therefore, any change in the assumptions should be in a downward direction. By a process of elimination we are left with a final possibility: that the differential between output inside and outside the co-operatives was a good deal less than the 15-20% so far assumed.

Let us assume that the results given under case (b) give a better indication of likely trends in the APCs between 1954 and 1955. Then the index of co-operative output for 1955 (with 1955 as 100) is 112.50. But the index of food grain production for all Kiangsu in this year is about 112. It

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follows that the index for the non-co-operative sector must be 111.50.<sup>(78)</sup> There is but a one per cent difference between levels of output in the two sectors! It is true of course that the Kiangsu index is for food grains only and we have already suggested that the APCs may have been more successful in raising yields of non-food crops such as cotton. But although allowing for this would widen the differential to some extent, it would not significantly alter our general conclusion.

To sum up: while there is no reason to doubt the accuracy of data relating to individual areas of Kiangsu, their representativeness is more questionable. Claims that levels of production in APCs were 15% or 20% above those of peasants outside the new framework are not supported for the province as a whole and the calculations presented in the preceding pages would suggest that the gap was less than 5%. In view of all the problems associated with the organization and running of co-operatives and the evidence of rapidly declining enthusiasm for co-operative farming by certain groups of peasants, such a conclusion is not surprising. From the point of view of cadres and planners the situation can hardly have been one that inspired future confidence and it is small wonder that the final months of 1955 saw a temporary halt called to further co-operative expansion.

Changes in output were accompanied by changes in income  $(^{79})$  and we conclude this section by considering the impact of co-operativization upon peasant income. At a general level 90% of the members of the old co-ops in Kiangsu were reported to have increased their net incomes.  $(^{80})$  In the Shanghai suburbs the value of a labour day had risen by 16.67% from 1.8 ytan (1954) to <sup>2</sup>.1 ytan (1955) and big rises in income were reported.  $(^{81})$ 

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A case study of one APC in Wu <u>hsien</u> (Soochow) revealed that since co-operativization increased production combined with falling costs had exerted a continuous upward pressure on incomes.<sup>(82)</sup> The achievements of this particular co-op are summarized in the following table:

> Table IV.11: Increases in income in an APC in Wu-sung hsiang, Wu-hsien: Soochow S.D.

	Level of income in 1955	Index with average in- come before co-operativi- zation as 100
Average household income		
before co-operativization	750 ytlan	100.00
Average household income after co-operativization	1,050	140.00
Highest level of household income after co-operativization	1,250	166.67
Lowest level of household income after co-operativization	791	105.73
Source: JMJP,	10/11/55, op. cit.	

These figures illustrate the potential rather than the actual impact of the APCs upon income. Not only was Soochow one of the richest regions of Kiangsu and likely to benefit from co-operativization more than most areas<sup>(83)</sup> but also the particular APC in question was not a typical example. Thus, average household income in Soochow was second only to that of Sung-chiang Special District; and within Soochow itself the average level of income after co-operativization shown above (1,050 yttan) was more than twice the average for the whole Special District.<sup>(84)</sup>

Data showing the extent to which peasant incomes in the APCs were rising or falling are almost totally lacking and the findings with regard to the two <u>hsien</u> for which some information is available can be briefly

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summarized. First, in Hsin-hai-lien Municipality (Hst-chou Special District) between 85.5% and 93.75% of the members of one APC received increases in income during the first three years of its existence. <sup>(85)</sup> Second, in the 187 co-ops of Ch'ang-shu <u>hsien</u> 93.41% of member households enjoyed higher incomes, though the rest suffered declines. <sup>(86)</sup>

Throughout this discussion our chief concern has been the impact of the co-operatives on output and income. But in addition to raising average levels of production and income the co-operativization movement was expected to reduce differentiation between classes by achieving a more equitable distribution. This is an aspect of institutional change to which we shall return when we examine the effect of the collectives upon the agricultural sector. Meanwhile, the following figures offer a preview to that discussion by showing how lower-level APCs could reduce income differentials between peasants.

> Table IV. 12: Poor and middle peasant income before and after co-operativization in Min-chu APC, Wang-tzu hsiang, Liu-ho hsien (Yang-chou S.D.)

Average income of poor peasant household	Average income of middle peasant household	Index of poor peasant income, if middle peasant income = 100
32 yttan	252 yttan	12.70
136	309	44.01
214	343	62.39
	Average income of poor peasant household 32 yttan 136 214	Average income of poor peasant householdAverage income of middle peasant household32 yttan252 yttan136309214343

Source: HHJP, 24/9/55, op. cit.

The usual qualifications about representativeness apply here (an average household income of 32 yttan was low even for the poorest regions of north Kiangsu, let alone Yang-chou).<sup>(87)</sup> But such problems apart, the case of

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Min-chu APC illustrates how the new system of factor payments in the co-ops could bring about a fairer distribution of income. It also serves to remind us that the co-operativization movement had other aims than simply raising productivity in the agricultural sector.

#### (2) The higher-level collectives:

Mo Jih-ta's analysis of the APC Movement in China leaves us in no (88) doubt of the benefits conferred by collectivization on the agricultural sector. The rate of land utilization had been increased, most obviously through the consolidation of fragmented holdings, but also by land reclamation and by raising the multiple cropping index (MCI). <sup>(89)</sup> Basic construction projects had been carried out and irrigation and drainage facilities improved. There had also been improvements in the rate of labour utilization and labour efficiency. <sup>(90)</sup> New and better techniques had been introduced. The rural economy had become more diversified, especially through the development of subsidiaries. <sup>(91)</sup> And of course, as the following table demonstrates, output had risen:

	Average outpup per mou (of arable area)	ut Average output per agricultural household	Average output per head of agricultural population
Co-operative	209.0	3,727	808
Collective	288.7	4,361	966
	Note:	All units are in shih chin	
	Source:	Mo Jih-ta, op. cit., p. 122	

Table IV. 13: Food grain output in lower-level and higherlevel APCs in China: 1955.

Average yields of grain in the collectives were 38.13% higher than those of the lower-level co-ops while output per capita and per household was -28219.55% and 17.01% higher respectively. In addition, the rises in production were accompanied by a reduction in costs. (92)

Investment rates and income levels had also risen in the collectives. Agricultural investment represented 28.5% of total agricultural income (40.4% in the case of subsidiaries) compared with 21.9% and 30.3% in co-ops.<sup>(93)</sup> Welfare and accumulation funds were higher too.<sup>(94)</sup> As for income Mo's data suggested a 50% differential between the higher and lowerlevel units;

Table	IV.14	: Income p	per househ	old in	lower-	level	and
		higher-le	evel APCs	in Ch	ina.		

	Income per household	Index
Co-operative	274.3 ytan	100.00
Collective	412.50	150.38

Source: Mo Jih-ta, op. cit., p. 124.

In short, Mo Jih-ta's findings indicated that the collectives had met with unqualified success in China. The question must now be asked: to what extent was this performance emulated by Kiangsu?

Our approach to this question will be as follows: first, we shall examine two examples of the <u>planned</u> changes in rural production in 1956 and 1957. This will give some idea of the anticipated impact of collectivization and it will usefully serve as a kind of backcloth (though not necessarily a representative one) for the discussion of the <u>actual</u> changes that follows. In order to simplify the analysis of the economic effects of the collectives we shall consider separately the relationship between the higher-level APCs and labour productivity; technical change; agricultural production (total output or yields per unit area); and income. Finally, we shall try to say something

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about changes in the class composition of rural society resulting from the events of 1956.

That substantial gains were expected to flow from collectivization is clear from the following data showing the planned yields of food grains for one of the poorest regions of Kiangsu in 1956 and 1957:

Special District: 1956 and	1 1957.
Average yield of food grains	Index with 1955 yield = 100.0
210 chin/mou	100.00
344	163.81
471	224.29
	Special District: 1956 and Average yield of food grains 210 chin/mou 344 471

Table IV. 15: Planned yields of food grains in Hstl-chou Special District: 1956 and 1957.

## Source: Broadcast report, 3/1/56 (Hsti-chou News).

The figures require little comment and we need only emphasize the very ambitious nature of the plans: within two years average grain yields were to be more than doubled, the simple average rate of growth implied by the 1957 target being 62.15% p. a. (95)

More interesting still, because of their greater detail were the plans for a single collective in Chiang-ning hsien in Table IV. 16 overleaf:

		Table IV. 16:	Agricultura Tung-shan ( hsien: 1956	l and subsidiary p Collective, Chian and 1957.	lans for g-ning	
	195	201	19	56	195	-
	Actual output	Index with 1955 as 100	Planned output	Index with 1955 as 100	Planned output	Index with 1955 as 100
Total output of food grains (million chin)	N. a.		2.499		2.954	
Average yield of food grains	481.81	100.00	808	167.70	955	198.21
Average yield of cotton	127.36	100.00	250	196.30	300	235.55
Average yield of oil crops	53.50	100.00	100	186.90	130	242.99
Gross subsidiary income (yttan)	6, 874.23	100.00	55, 000	800.09	78,750	1160.12
		Source:	From HHJ Golden Gr	rp, 6/3/56, "The ain; Oxen and She	Granaries Ar sep Are Every	e Full of where".

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The simple average rate of growth implied by these figures ranged from 49.11% per year for food grains to 71.5% for oil crops - the kinds of increase that were more in keeping with the atmosphere of the later "great leap forward" than of the First Plan. The planned grain yield for 1956 not only represented a 67.7% increase over the previous year but if attained, promised to give Tung-shan APC higher yields than those of the T'ai-hu region. (96) Most striking of all were the plans for subsidiaries which foresaw an eleven-fold increase within two years.<sup>(97)</sup> If these targets were attained subsidiary income would represent 20.29% of gross agricultural and subsidiary income in 1956 and 23.63% in 1957.

As the following table shows, these plans had very profound welfare implications for the members of Tung-shan APC:

	and subsidiary exp Collective: 1956-5	ansion in Tung-shan 57.
	1956	1957
Gross agricultural and subsidiary income	271,126 ytlan	333,266 yttan
Costs, administrative expenses, taxes, con- tributions to welfare and accumulation funds	67,110	82,656
Income available for distribution	204,016	250,610
Average income per head	<u>300</u> yttan	450 yttan
Total grain output	2,499,204 chin	2,954,037 chin
Deductions for taxes, seeds and CPCS	532,954	531,617
Grain available for distribution	1,966,250	2,422,420
Average grain per head	1,250 chin	1,540 chin
Note:	Total membership l,573	of Tung-shan Collective:
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Table IV. 17: Income effects of planned agricultural

#### Source: Table V.24.

It is impossible to say how representative these targets were although in the light of Chou's call for a "great leap" in agricultural production<sup>(98)</sup> and the optimism engendered by collectivization it may be that such large planned increases in output and income were not uncommon.

Let us now turn to the actual performance of the collectives. The argument that the fully-socialist units would improve labour efficiency is supported by a number of reports from various parts of Kiangsu. For example, an investigation of a collective in Chiang-ning hsien revealed that the number of labour days worked per unit of labour was 173 in 1955 (after the higher-level APC had been set up) compared with 75 in 1953, when no APC existed.<sup>(99)</sup> Over the same period wages had also risen from 1 yttan per labour day to 1.73 yttan. Admittedly, this collective was one of the few to have been established before the "high-tide" but reports from the "hightide" period itself made similar claims. In Li-min Collective, Sung-chiang hsien the rate of work attendance had risen from 20-30% to 80% during the winter of 1956. (100) In Sui-ning <u>hsien</u> (Hst - chou Special District) the establishment of a model collective had pushed up the rate of attendance to 84% (an increase of 45%). (101) And statistics from the northern and eastern suburbs of Shanghai showed that peasants' rate of work attendance in 1956 was between 20% and 40% higher than the 1955 level. (102)

Such improvements in work participation combined with greater control over factors of production permitted large-scale construction projects to be undertaken by the collectives. In the first five months of 1956 the amount of irrigation work completed under the auspices of the -287-
higher-level APCs was 1.7 times that of the previous <u>three years</u>.<sup>(103)</sup> Some 409 million cubic metres of earth were moved. The irrigated area was expanded by 8,860,000 mou and the drained area by 15,890,000 mou.<sup>(104)</sup> Conditions for agricultural production were thereby considerably improved.

The new institutional framework also enabled significant technical imrpovements to be made. The rationalization of cropping patterns was a case in point. In 1956 6,520,000 mou of land sown under glutinous rice was converted to non-glutinous varieties; a further 1,270,000 mou was changed from dry- to wet-cropped rice; and 630,000 mou of double-cropped rice was extended. <sup>(105)</sup> The conversion of 50,000 mou of low-output, mediummaturing paddy to higher-output varieties in the Shanghai suburbs<sup>(106)</sup> was likewise attributed to the improved organizational structure of the collectives.

The extension of the sown area had a special significance in Kiangsu. In many parts of the province, especially the rich areas south of the Yangtze, the high density of agricultural population and intensive cultivation practised for many centuries had left little scope for further extending the arable area.<sup>(107)</sup> It followed that rises in yields were bound to be the principal source of future agricultural growth. Hence the importance of extending the sown area (that is, raising the multiple cropping index).<sup>(108)</sup> The following two examples suggest the ability of the collectives to contribute towards this end:

	K'UN	-SHAN	SSU-YANG		
	MCI	Index	MCI	Index	
1955 (before co-operativ-					
ization)	175	100.00	150	100.00	
1957	192	109.71	200	133.33	
	Sources:	K'un-shan -	- <u>HHJP</u> , 5/12/57, "APCs Ar Superior to the Small Pease Economy".		
		Ssu-yang -	HHJP, 10/12/ 70% in Food C During the Tw Co-operativiz	57, "A Rise of Frain Production To Years of ation".	

Table IV.18: Expansion of multiple cropping in two hsien in Kiangsu: 1955-57

The data do not separate the effects of co-operativization and collectivization but in view of the speed with which the collectives superseded the co-ops it seems reasonable to assume that they mainly reflect the impact of the higher-level units. Moreover, it was in 1956, after the "second hightide" had already begun, that the greatest effort was made to extend double cropping.

In K'un-shan and Ssu-yang there had been a significant rise in the multiple-cropping index since 1955. <sup>(109)</sup> In both cases it is reasonable to suppose that the source of the improvement was principally the benefits stemming from the collective organization - unified management of the land, the ability to plant the most rational cropping pattern and the capacity to mobilize the labour force fully and efficiently (so ensuring that the most urgent jobs were done first and on time).

The increase in output resulting from a higher MCI could be substantial. For example, one source suggested that by changing from single-cropping to double-cropping of rice in Kiangsu average unit area yields could be raised by more than 68%.<sup>(110)</sup> If this level of increase had applied to the two <u>hsien</u> the result would have been to increase total output in K'un-shan by 6.8%, and in Ssu-yang by 22.44% Even allowing for a considerably smaller rise in yields, it is clear that the effect on total output was still likely to be significant.

Before examining the direct evidence relating to output in the collectives it will be useful to say a little about conditions for agricultural production in 1956. In contrast to the exceptionally favourable natural conditions of 1955, 1956 was a year of serious disasters (certainly the most serious since 1949 and perhaps the worst in a hundred years). From May to July, heavy rain affected the wheat crop as well as early and medium-maturing varieties of rice; throughout August and September, high winds, typhoons and violent storms exacerbated the situation, causing damage to cotton, late rice and other food crops. In all, 40 million mou (42.5% of Kiangsu's total arable area) were flooded during 1956.<sup>(111)</sup> In such circumstances it was unlikely that agricultural production would be increased and any assessment of the performance of the collectives should clearly take this into account.

Sung-chiang and Soochow Special Districts contained the richest agricultural land in Kiangsu and despite the adverse conditions, grain output here actually increased by 7.7% between 1955 and 1956.<sup>(112)</sup> Part of the reason was undoubtedly that the natural disasters had a lesser impact here than in other parts of the province. Nevertheless, writers were not slow to attribute the success primarily to the institutional changes that had occurred. In Sung-chiang it was claimed that collectivization had enabled the gross value output of agriculture and subsidiaries to be maintained at the 1955 level and

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grain output to be increased by almost 200 million chin. <sup>(113)</sup> Emphasis was particularly placed on the collectives' proven ability to increase yields of wheat:

	Table IV. 10	9: Averag Sung-c	ge wheat yi hiang S.D.	elds i	n _
			Ave	rage	yields
Lowe	er-level APCs:	1956		201	chin per mou
High	er-level APCs:	1956		185	
Indiv	dual peasants:	1956		100.	50
Sung	-chiang S.D.:	1955		179.9	98
	Source:	<u>HHJP</u> ,	18/12/56,	op.c	it., p.l, citing fig

<u>HHJP</u>, 18/12/56, <u>op. cit.</u>, p. 1, citing figures first published in <u>JMJP</u>, 15/9/56, "Enthusiastic Demands to Join Higher-Level APCs".

Thus, in 1956 average yields of wheat in the collectives of Sung-chiang were 8.65% higher than in co-operatives and almost twice as high as those achieved by the few peasants who continued to farm on their own. The very wide gap between the yields of individual and 'co-operative' peasants is of particular interest and would seem to be a vindication of the organizational strength of the collectives (and co-ops) <u>in unfavourable conditions</u>. In 1955 the ability of the co-ops to raise output above the level attained by peasants in MATs or still working as a family unit was not noticeably great. But 1955 was a year of exceptionally good natural conditions. In 1956, when conditions were exceptionally bad, it may be that the superiority of large-scale agricultural co-operation was more easily demonstrated. That is, the adverse effects of flooding could only be combatted and overcome through the concerted efforts of a large number of people: this the collectives were ideally suited to provide, while the individual peasant was helpless against the disasters. In this way the collective could achieve higher wheat yields in

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1956 even though those of the individual peasants fell dramatically by 44.16%.

It is true that just as earlier examples were considered unrepresentative, so too the data cited above may not be typical. But even if this were allowed for, we would argue that for the reasons just given the yields of individual peasants would still, in the poor conditions of 1956, be significantly lower than those of the co-ops and collectives.

In Chinkiang Special District too, increases in the yield of early and medium paddy was put down to collectivization:

Table	IV.20:	Average	yields	of early	and	medium
		paddy in	Chinki	ang S.D.		

		Average yields			
1950		250.00 chin per mou			
1953		344.83			
1956		400.00			
	Source:	<u>HHJP</u> , 16/9/56, p.2, "Bumper Harvests of Early and Medium Paddy in Chinkiang Special District".			

Although there is no reason to doubt the claim that the 400 chin yield of 1956 was made possible by irrigation construction and repair work carried out by the collective, the true quantitative impact of collectivization is not brought out by these figures. The absence of a figure for 1955 would suggest that yields fell between that year and 1956; and although we would not argue that yields in 1954 (also omitted) were also higher than in 1956, the difference between these two years may not have been very significant. In short, the success of collectivization in Chinkiang was probably less than is suggested by the data in IV.20.

Data for other parts of Kiangsu are unfortunately very limited. Despite claims that conversion of land from dry to wet crops had led to spectacular increases in grain production in Hstl-chou and Hwai-yin, there appears to be no quantitative information at all on yields or total output in these Special Districts during 1956. (114) Since this was traditionally the region most susceptible to disasters and with the most unstable output it is more likely that there was a substantial decline in production in 1956: indeed the lack of data may be an indication of this. Elsewhere, information is very fragmentary and adds little to our knowledge of the effects of collectives upon output. Take for example the following estimates of yields in a collective in Yang-chou Special District:

Table IV.21: Average yields and total output in Ta-wang Collective, Yang-chou S.D.

	Average yields	Total output
1954	224 chin per mou	410,000 chin
1956	303	710,000

Source: HHJP, 21/1/57, p.2.

As in an earlier example the omission of a figure for 1955 seems to indicate a fall in output between that year and 1956. Even so the comparison between 1954 and 1956 is of considerable interest. For 1954 was also a year of natural disasters, but on a less serious scale than in 1956. The fact that yields in the latter year were still 35.27% higher than in 1954 could therefore be an indication of the success of the collectives in overcoming the adverse conditions. Notice too that total output rose by 73.17%, showing that as a source of growth yield increases were marginally less important than the extension of the arable area. (115) However, in the absence of data for 1955 it is impossible to say how far this was the result of co-operativization or -293collectivization.

Interesting as this example is in its own right, ultimately we are bound to question its representativeness. In the case of Ta-wang Collective, the fact that the figures were cited in order to rebut those who were questioning the economic validity of the collectives following the decline in production which had occurred in some of them, makes them more suspect than usual. It would be wrong therefore to draw any general inferences from the data shown above.<sup>(116)</sup>

We may conclude this survey of output trends in the collectives by considering the case of Shanghai. Here more than anywhere else the decision to collectivize is vindicated by the quantitative information that is available for 1956. In the suburbs of the Municipality 1956 agricultural and subsidiary gross value output was 11.3% higher than in the previous bumper-harvest year. <sup>(117)</sup> Total output of vegetables (outstandingly important in the suburbs) rose by 23.9%; yields of food grains by 4.4% to 712 chin per mou; <sup>(118)</sup> and pig numbers were up by 20%. <sup>(119)</sup> Collectivization and the dissemination of the Twelve Year Plan were held out as the reasons for this success.

How should we summarize the impact of collectivization upon agricultural productivity and output in Kiangsu? The lack of data for 1956 reflects the disappointment over the performance of agriculture in that year: it was after all openly admitted that the 1956 grain targets had not been fulfilled.<sup>(120)</sup> By extension the likelihood of attaining the kind of targets that were cited at the beginning of this discussion<sup>(121)</sup> was even more remote. But because of the severity of the adverse conditions in 1956 such failure should not be equated with the failure of collectivization. On the contrary, we would argue

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that it was precisely the existence of these conditions that to some extent vindicated the new institutional structure. For it was their centralized management and unified control over resources which enabled them to carry out large-scale irrigation and drainage projects and thereby protect agriculture from the worst effects of the floods and other calamities. Such undertakings were beyond the capacity of individual peasants who were in consequence exposed to the full force of the disasters. There is some evidence too that the collectives successfully implemented technical reforms and improved efficiency in the use of resources, so benefitting agricultural production. The overall result was that in 1956, for the first time since Mao's speech "On Co-operativization", the superiority of agricultural co-operation over individual peasant farming was clearly demonstrated.

Yet paradoxically, this strong showing of the higher-level APCs did not lead to greater confidence in them. Instead of recognizing the success of the collectives in combatting the natural disasters the peasants merely noted the production declines: and it was these that they equated with collective performance. The result was not renewed optimism but growing disillusionment. Thus, the irony was that the events of 1956 which might have provided a firm foundation for the new institutional structure served mainly to undermine it and in 1957 the agricultural sector in Kiangsu was faced with a serious crisis.<sup>(122)</sup>

No quantitative indicators of the impact of collectivization on incomes in the agricultural sector have yet been given. In Liang-li Collective an investigation of 20 households showed that income was at least 50% and at best 280% higher than it had been in the original semi-socialist co-op.<sup>(123)</sup>

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But this referred to the period before the "second high-tide" and was designed more to show the potential of collectives than the reality of 1956. More useful are the few reports published later in 1956 and 1957. For example, in Sung-chiang Special District 90% of APC members had increased their incomes since 1955 - a significant figure, since it showed that one of the criteria for the establishment of collectives had been met. In Li-min Collective (also in Sung-chiang) 88% of members were said to have received higher incomes.<sup>(124)</sup>

But Sung-chiang was situated in the richest region of the province and its performance was unlikely to be a good guide to that of other areas. It is interesting therefore that another report, while claiming rises in income for 80-90% of collective members in the "good" areas of the province, cited a figure of 70-80% for the "normal" areas. <sup>(125)</sup> In view of the natural disasters of 1956, it seems reasonable to suppose that in other unmentioned areas where conditions were worse than "normal" a much smaller proportion of peasants enjoyed higher incomes. For Kiangsu as a whole it is therefore unlikely that the 90% income criterion was met in 1956.

Among peasants living in urban areas the small amount of available data point towards considerable improvements in living standards, as measured by incomes. In the suburbs of Soochow 1956 was said to have brought a higher level of income to 33,801 agricultural households or 90.3% of all the households in APCs (that is, collectives). <sup>(126)</sup> Average per capita income in 1956 was over 90 yttan, an increase of 20% over 1955. In the Shanghai suburbs the performance was less good, only 70% of peasants in collectives having raised their income between 1955 and 1956. <sup>(127)</sup> Nevertheless, taking a longer-run view, the changes which had taken place since 'Liberation'

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## remained quite impressive:

	Average per capita annual income	Average per household annual income
Before 'Liberation'	49 yttan	203 ytlan
After collectivization (that is, 1956)	99	437

Table IV. 22: Changes in peasant income in the suburbs of Shanghai since 'Liberation' (1949).

Source: CFJP, 30/8/57, op. cit.

In other words, average per capita income had risen by 102.04% (a simple average of 14.58% p.a.)(128) and per household income by 115.27% (16.47% p.a.).

Peasant income comprised not only receipts from agriculture but also those from subsidiary production. It was to be expected that by carrying out agricultural operations more efficiently the collectives would also give a boost to subsidiaries. (129) If this were the case, declining agricultural income resulting from the adverse conditions of 1956 might be partially offset by a rise in subsidiary income. Unfortunately, evidence on this is lacking for 1956 though it is of some interest that the big increase in pigrearing during the first half of that year was said to have been one of the major factors contributing to rises in rural income. (130)

But changes in the absolute level of income is not the only criterion for judging the success of the collectives. Changes in income distribution also need to be considered and of special interest is an account of the experience of one APC in Ssu-yang <u>hsien</u>, which illustrates this aspect of collectivization. The income received by different classes of peasants in this area prior to co-operativization is shown in the following table:

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	Average income (1953)
Poor peasants	18.94 yttan
Lower-middle peasants	27.35
Upper-middle peasants	41.00
Average	32.00
Source: HHJP, 30/	9/57, op. cit.

Table IV. 23: Income levels of poor and middle peasants before they were incorporated into Ts'angchi APC, Ssu-yang hsien.

This pattern represented a very inequitable distribution of income. The upper-middle peasants received almost 30% more than the overall average income while the lower-middle and poor peasants were both beneath that figure (the latter by more than 40%). The differential between poor and upper-middle peasants was 116.5%. However, as a result of collectivization, by 1957 (the 1956 figure is not available), the average income of all members had reached 70 yttan - more than twice the former average and 70% above the upper-middle peasant level. Moreover, it is clear that it was the less well-off peasants who had gained most, for it was claimed that 95.79% of the original poor peasants had by 1957 achieved the income level of middle peasants. <sup>(131)</sup> On a more general basis, such a claim was made for increasing numbers of collective members in late 1957. <sup>(132)</sup>

The experience of this APC would appear to be a strong argument for collectivization in Kiangsu. Overall, incomes had risen considerably and although the greatest benefits had doubtless accrued to the poorer peasants, the upper-middle members had increased the absolute level of their earnings even if they had failed to maintain their former relative position. <sup>(133)</sup> The usual caveats about representativeness obviously apply to this single case.

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However, even if it is a better-than average example, <u>a priori</u> reasoning would suggest that the general trend which it demonstrates had a wider applicability. The wholly wage-based distribution system of the fullysocialist collectives was bound to improve the incomes of poor peasants at the expense of those of the better-off.

A different avenue of approach to the question of the impact of collectivization upon living standards is to examine the changing distribution of food grains among peasants.<sup>(134)</sup> The predictable shortage of information makes it impossible to do this on even a <u>hsien</u>-wide (let alone a provincial) basis, but the following data derived from an investigation of a single collective in Fou-ning <u>hsien</u> are suggestive of the trends that were under way:

Table IV.2	Average annual grain rations among 369 households before and after co-operativizatio and collectivization: Hsin-chiao APC, Fou-ning hsien.		
	Pre-co-opera- tivization 1953	Post-collectivization 1956	
Poor peasants	386.0 ytlan	411.0 ytlan	
Lower-middle peasants	417.5	428.5	
Upper-middle peasants	433.5	432.5	
Rich peasants	417.0	413.0	
Landlords	415.0	410.0	
Average	413.8	419.0	
Source:	From data given in "Thoroughly Under Levels of Grain Ra	<u>HHJP</u> , 18/9/57, p.2, stand the Question of tions Among Peasants".	

These figures will be more easily understood if they are converted to index form:

	muck series.			
	1953	1956		
	Index with average (1953) as 100	Index with average (1956) as 100	Change in grain rations over 1953	
Poor peasants	93.28	98.09	+ 6.48%	
Lower-middle peasants	100.89	102.27	+ 2.63%	
Upper-middle peasants	104.76	103.22	- 0.23%	
Rich peasants	100.77	98.57	- 0.96%	
Landlords	100.29	97.85	- 1.20%	
Average	100.00	100.00	+ 1.26%	
Source	Table IV.24.			

Table IV.25: The same data presented as three index series.

The table bears out what was said earlier about changes in income levels and distribution. Between 1953 and 1956 it was the poor and lowermiddle peasants who apparently gained most from the institutional changes (<u>a priori</u>, especially from the collectives). Indeed whereas these two categories received higher grain rations in 1956, landlords, upper-middle and rich peasants actually suffered a decline. The more equitable distribution in 1956 is shown by the narrowing of the gap between the highest and lowest grain rations from 47.5 chin (1953) to 22.5 (1956): a fall of 52.63%. Notice however that in 1956 it was still the upper-middle peasants who were best off, followed closely by their lower-middle counterparts. Ration levels of the other groups were very similar. It would be of great interest to know how far this pattern was repeated elsewhere in the province, but until more data become available we present these figures as further support for our contention that collectivization did effect a more equitable distribution of income within the rural society of Kiangsu. This discussion leads us finally to consider the extent to which the institutional changes had altered the class structure in the countryside of Kiangsu. In contrast to the strict checks on landlord and rich peasant participation during semi-socialist co-operativization both groups seem to have been incorporated into the emergent collective agriculture on an increasingly wide scale. In the Shanghai suburbs it was claimed that collectivization was gradually eliminating exploitation by the rich peasants and thereby removing the barriers to their entry into the new agricultural framework. <sup>(135)</sup> In the western suburbs 43% of all landlords had been allowed to join the collectives and throughout the entire suburban area more than 85% of rich peasants had become members. <sup>(136)</sup>

The search for a more equitable distribution of rewards had obvious implications for the class composition of rural society. There were reports of increasing numbers of peasants having achieved the living standards of middle peasants. An article published late in 1957 reviewed the progress of the co-operativization campaigns and stated that improvements in agricultural and subsidiary production and income had reduced the number of peasants living in straitened circumstances and brought about an increase in those attaining middle peasant status.<sup>(137)</sup> At the same time, landlords and rich peasants had to support themselves through their own labour.<sup>(138)</sup> In this way the two ends of the class spectrum were brought closer together. Most interesting of all were representative investigations of conditions in the four Special Districts of Sung-chiang, Chinkiang, Yen-ch'eng and Hstfchou which revealed a remarkable transformation within rural society since the time of land reform;

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	Sung-chiang, Chinki Hst-chou Special Di land reform and afte	Sung-chiang, Chinkiang, Yen-ch'eng and Hst-chou Special Districts at the time of land reform and after collectivization.			
	LAND REFORM	POST- COLLECTIVIZATION			
	As percentage ofall peasants	As percentage of all peasants			
Poor peasants	63.50	25.01			
Middle peasants (Lower-middle) (Upper-middle)	30.35	69.98 (40.58) (29.40)			
Total	93.85	94.99			
('Others')	( 6.15)	( 5.01)			

HHJP, 30/9/57, op. cit.

Source:

Table IV. 26: The class structure of rural society in

The positions of poor and middle peasants had been completely reversed, although taking both groups together their relative importance had increased at the expense of a slight fall in the numbers of the "other" category (presumably including the rich peasants and landlords). The former poor peasant society was clearly being changed into a middle peasant one. For once the wide coverage of the investigations and the fact that they included poor as well as rich areas give the figures wide credibility. In any case, their findings are confirmed by other data from 15 APCs in five hsien;

Table IV. 27: Changes in the class composition of rural society: the findings of representative investigations of 15 APCs in five hsien of Kiangsu. LAND REFORM POST-COLLECTIVIZATION As percentage of As percentage of all peasants all peasants 60.0 27.0 Poor peasants 33.0 69.5 Middle peasants 93.0 96.5 Total ('Others') 7.0 3.5

## Source: HHJP, 30/9/57, op. cit.

The percentage changes for poor and middle peasants are very similar to those shown in Table IV.26. The most interesting difference is that the <u>hsien</u> findings show that the poor and middle peasants, taken together, had become even more important: this presumably reflected a more rapid deterioration in the relative position of the rich peasants and any landlord elements.

These changes in the class composition of rural society in Kiangsu were directly attributed to the establishment of APCs of both kinds, but especially to the fully-socialist collectives. As long as private ownership of the means of production remained, it was argued, polarization was bound to occur. Collective ownership removed this obstacle and by providing a more just distribution of agricultural and subsidiary production laid the foundation for a more integrated society. In view of the evidence of overall upward class mobility of peasants it is not surprising that claims were made for overwhelming majority support for the new institutional framework. Not only poor and lower-middle, but also most of the upper-middle peasants were said to have given their support to the new structure. <sup>(139)</sup> Only a small number of upper-middle peasants continued to display capitalist tendencies. As for the rich peasants and landlord elements, they were clearly no longer regarded as a serious problem.

On balance then the collectives had seemingly been a success in Kiangsu. In economic terms, it is true, their impact could be said to have been negatively beneficial: that is, their major contribution in 1956 had been to limit the effects of the natural disasters. But if only because of the severity \_303\_ of those disasters such a judgement would be less than fair. In any case, there is evidence of more positive achievements: some technical advances had been made; subsidiaries had been encouraged; for many peasants there had been rises in income. In social terms the success of the higher-level APCs was more obvious: they had brought about a more equitable distribution system and reduced class stratification.

When looked at in this way the performance of the collectives in 1956 might - notwithstanding the decline in output and failure to meet planned targets - have given grounds for an optimistic assessment of agricultural development in the province. The newspapers of that year certainly give little indication of anything but good having come out of the collectives. <sup>(140)</sup> However, such sanguine expectations were not borne out by subsequent events: the short-run achievements were not a good guide to the longer-run prospects. For as 1957 progressed it became increasingly apparent that conditions in the agricultural sector were far from satisfactory and that collectivization had left many problems unsolved and even introduced new ones. It is to this critical situation that we turn in the final section of this chapter.

## III Conclusion: The Emerging Crisis in Kiangsu Agriculture.

Up to this point we have tended to emphasize the positive features of collectivization in Kiangsu. This is partly because provincial newspaper reports written during the first year of collectivization give little indication of any difficulties having arisen within the new framework and partly because we have wished to underline the point that the collectives' ability to minimize the effects of the 1956 disasters did represent a considerable achievement.

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But this is not to deny that there was a less happy side to the institutional changes. The speed of those changes and the profound transformation of economic and social relationships which they implied could not fail to create problems of some kind.

Evidence of difficulties in the agricultural sector of Kiangsu appeared early in 1957. A speech by Yt K'e contained an admission that many mistakes had been made in 1956: plans had been too ambitious; technical demands too high; there had been impatience and a lack of resolution among cadres; and insufficient attention had been given to climatic factors and local economic conditions in carrying out agricultural policy. (141) These failures had caused unnecessary losses in production. A report from a conference of ch'd Party secretaries further stated that the undemocratic attitudes, commandism and coercion which had accompanied collectivization had caused disillusionment among some peasants. (142) Even if some of the problems were the legacy of the individual peasant economy, others were the direct consequence of the establishment of the collectives. Such examples were the contradictions between work teams and brigades (143) and between self-interest and collective interest  $\binom{144}{144}$  and the emphasis on quantity at the expense of quality which arose from the work-point system. The conflict between agricultural and subsidiary production was the source of more difficulties. In one collective in Chiang-tu hsien the high profitability of turnip cultivation (on their private plots?) led peasants to concentrate their efforts in this area at the expense of the economically more important work of collecting fertilizer. (145) The question of fertilizers came up in other contexts: in Yang-chou peasants were reluctant to collect and apply fertilizers because of the low wage paid for this work: (146)

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elsewhere peasants refused to sell domestic fertilizer to the collectives because of the low price they received. (147)

Some of the criticisms voiced by Y# K'e were taken up in other articles. A letter from a peasant published in the 'New China Daily' spoke of the failure of cadres to organize the peasants into anti-drought measures in 1956. Instead, they had forced through technical changes which were often inappropriate and not understood by the peasants. <sup>(148)</sup> The result was that ploughing was done badly and wheat was left in the fields to become mildewy because so much time was taken up in implementing the technical reforms. Similar complaints of excessive demands that took no account of local conditions were made elsewhere. <sup>(149)</sup> These mistakes were all symptomatic of the fact that in 1956 "... agricultural problems were created by attempts to bring about too much, not too little, change in traditional farming methods". <sup>(150)</sup> The excessive demands of 1956 were reflected in a more cautious attitude in 1957. Emphasis was placed on the need to make technical changes that were in accordance with a particular area's resource endowment pattern. <sup>(151)</sup>

Greater caution was also apparent in some of the plans drawn up for 1957. In Chti-jung <u>hsien</u> (Chinkiang) 1957 targets were set at the same level as in 1956.<sup>(152)</sup> The argument was that in view of the poor growing conditions, the lack of fertilizer and the susceptibility of the region to natural disasters, plans could only be fulfilled if output norms were lowered.<sup>(153)</sup> While this downward adjustment of plans may be interpreted as a pragmatic reaction to the failures of 1956 it seems clear that it was also a sign of the loss of confidence in the new institutional framework.<sup>(154)</sup>

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An editorial of 9 February was largely devoted to problems of planning. It stated that only 20% of planned irrigation and construction work had been completed because of difficulties that had arisen in the collectives - and this in spite of the fact that irrigation was one of the most important ways of raising agricultural productivity in Kiangsu. It was critical of those areas which had failed to draw up any plans and urged that each <u>ch'ti</u> do so in order that irrigation work could go ahead. But deficiencies persisted and towards the end of March another editorial placed renewed emphasis on the need for proper planning, (156) particularly deprecating recent tendencies to set targets too high or too low (157) and criticizing certain elements who had ignored state plans and set up quasi-independent management systems.

Paradoxically, such planning problems were not only confined to those areas which had failed to meet the 1956 targets. In one collective of Sungchiang <u>hsien</u> cadres were taking the view that the increases in output and income of 1956 had exhausted the potential of the collectives.<sup>(158)</sup> More generally, throughout Sung-chiang and Soochow Special Districts a common view was that "production has reached its peak".<sup>(159)</sup>

A manifestation of the lack of confidence in collectives was a tendency to rely increasingly on state aid. Some believed that <u>all</u> the agricultural problems should be solved through state loans.<sup>(160)</sup> But existing economic priorities ruled this out and the peasants were instead urged to show selfreliance. Production difficulties and shortages of working capital could all be overcome through collective effort. Even an editorial which admitted that shortages of food grains, fuel and fodder were daily becoming more

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serious and that future prospects were not good, argued that relief measures by the state were unnecessary. (161)

More generally, declining peasant morale was reflected in a growing carelessness and neglect of agricultural work. Throughout 1957 agricultural operations were behind schedule. As early as February there was concern at the slowness of spring ploughing in some areas.  $^{(162)}$  The poor prospects for the summer crop emerged clearly from a report that in I-cheng, Liu-ho, Chiang-tu, T'ai-hsing and Wusih <u>hsien</u> wheat sprouts were rotting at the root and dying.  $^{(163)}$  The failure rate for wheat was at least 10% and commonly 30%; for green fertilizers it was even higher. This serious situation was attributed to careless autumn-sowing in 1956 and the poor standard of winter work exacerbated in some instances by inadequate drainage. Slow progress was also reported from Yen-ch'eng Special District.  $^{(164)}$ 

The busy agricultural months of February and March were followed by a hiatus during which the neglect of farm operations ceased to be a major preoccupation. However, in June there was further evidence that such neglect was continuing. Inadequate precautions had been taken against the possibility of natural disasters, the peasants believing that nothing on the scale of 1956 could be repeated so quickly. <sup>(165)</sup> There were complaints that rice was being transplanted too slowly<sup>(166)</sup> and warnings lest the peasants became slack after the summer harvest. <sup>(167)</sup> Another hiatus followed until the early autumn when more reports indicated that the same problems were still holding up agricultural work. <sup>(168)</sup>

One of the clearest expressions of the wide range of problems caused \_ 308\_

by the recent institutional changes emerged from an article setting out the "contradictions" which stemmed from collectivization. <sup>(169)</sup> The most serious of these were those that existed between the collective and its members and between the members themselves. The former could arise in the process of distribution if the peasants suspected that the collective unit was benefitting more than they were. For this reason the principle of "retaining little and distributing much"<sup>(170)</sup> was advocated. More specifically, 60-70% of total collective income was to be distributed to members and every effort made to guarantee income rises for 90% of them in order to allay their suspicions.

Contradictions between a collective and its members were also the product of non-economic factors, such as the distribution of power among the various organizational levels within it. The May article stressed the need to balance the interests of the collective and the production team. This was clearly a reference to the bureaucratism and over-centralization which had earlier infected the APCs and created tension between cadres and peasants. <sup>(171)</sup> That such difficulties persisted is evident from accusations against cadres for being "one-sided" and refusing to follow the mass line or learn from the old peasants. <sup>(172)</sup> The situation was aggravated by the old problem of unclear and undemocratic accounting methods. <sup>(173)</sup>

As for contradictions between collective members, although the abolition of dividends to land and other working capital had removed the most serious source of class antagonism in the agricultural sector, the class issue was still not completely laid to rest. Payment was still made for those items (for example, draft animals, tools, trees, fish-ponds)

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contributed by the peasants to the collectives and just as the determination of dividend levels had caused friction between different classes, so the same thing tended to happen in the case of these lump-sum payments.

To some extent all these contradictions<sup>(174)</sup> were legacies of old attitudes and habits. However, it is clear that the peculiar nature of the collective system itself with its divisions of responsibility and authority and its dichotomy between private and collective sectors was an even more important source of the difficulties expressed by them.

Perhaps the single most serious consequence of collectivization in Kiangsu was its effect on the draft animal population. <sup>(175)</sup> During 1956 any suggestion of a 'draft animal problem' was totally lacking but in 1957 it became increasingly apparent that there had been a serious decline in their numbers. The first hint of difficulties came in a report which spoke of their neglect in Sung-chiang Special District. <sup>(176)</sup> A few days later it was revealed that spring production work in Hwai-yin was being delayed by the shortage of draft animals. Serious losses had occurred principally as a result of the poor care they received under collective ownership (though shortage of fodder was another contributory factor). <sup>(177)</sup> They were ill-fed, ill-housed - given cold water to drink and made to sleep on wet ground - and overworked.

The situation seems to have reached its most critical point in March during the crucial spring production period. A report from Hst-chou referred to the "unusually high" rates of sickness and death among animals.<sup>(178)</sup> Poor care and lack of feed were again cited as the main causal factors. Calls went out to improve collective treatment, set up strict responsibility systems and stop deaths from cold.<sup>(179)</sup> An editorial spoke of the need to

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rely on local products and initiative to overcome fodder scarcity. <sup>(180)</sup> In Hwai-yin even more desperate measures were advocated: the work burden of the existing stock of animals should be increased and where this failed to meet requirements man-power should be substituted for ox-power. <sup>(181)</sup> In an effort to stimulate the exchange of animals and alleviate shortages where they were most critical 250 draft animal markets were set up under state guidance in 26 <u>hsien</u> in the province and trading officials were sent to Anhwei to purchase an anticipated 5,000 draft oxen in the first six months of the year. <sup>(182)</sup>

The most careful analysis of the situation in Kiangsu was contained in a directive issued at the end of March. (183) It made the point that cultivation improvements, agricultural re-organization and the extension of double cropping were all difficult where draft animals were in short supply. Even in normal circumstances Kiangsu did not have large numbers of animals; but in 1956 the total number of working animals had been about 1,500,000, with an average burden of about 60 mou of arable land per head. Even if this showed a considerable improvement over the situation immediately following land reform the figure was still indicative of an endemic shortage of very serious proportiona. Given a maximum burden per animal of 24-34 mou in spring and only 12-17 mou in summer, (184) Kiangsu needed to double her supply of draft animals in order for agriculture to perform efficiently. Yet since 1956 the situation had actually further deteriorated. Cold weather during the winter and spring (1956-57), mis-management in the collectives and a shortage of feed had led to a high death rate. Incomplete statistics put the number of deaths at  $60,000^{(185)}$  and as of spring, 1957 weak and thin beasts represented some 40% of the total population. Even

more serious was the failure to conceive among many animals. (186)

After March emphasis was increasingly placed on the implementation of appropriate measures to overcome the difficulties. To a large extent these took the form of exhortations to provide adequate food and sleep and cut down disease and raise the birth rate, although there were some interesting concessions to non-collective forms of animal care. For example, a proposal was made to delegate old peasants and children to look after the animals and pay them a fixed income; it was even suggested that draft cattle should be returned to the care of individual peasants instead of being kept in collective pens.<sup>(187)</sup> It was admitted that collective care had not worked and that private management by individual peasants was better suited to the development of strong and healthy animals.<sup>(188)</sup> Those collectives which had already reverted to decentralized system had already succeeded in arresting the weakness, sickness and high death rates.

The evidence that has been presented suggests that the collectivization of draft animals in 1956 was one of the most signal failures of agricultural policy in Kiangsu. Their transference from individual to collective ownership was not accompanied by the establishment of any clear system of responsibility to ensure that they were properly looked after. Instead, peasants sought only to maximise their use by increasing their work loads. It is true of course that the decline in animal numbers was aggravated by the harsh conditions of 1956. But equally there can be no doubt that the crisis was precipitated by collectivization.<sup>(189)</sup>

During the second half of 1957 it seems likely that there was some improvement in the draft animal situation in Kiangsu. However, no sooner

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had this problem ceased to preoccupy the planners than another crisis began to emerge in the agricultural sector. This was the crisis over state grain acquisitions.

As early as March grain acquisitions were causing difficulties. 1,500 million chin of food grains purchased by the state in the province were said to have a high water content and contain many impurities and there were fears that future stocks would be similarly affected. (190) There was concern too that the opening of free markets would disrupt state purchases of important agricultural and subsidiary products.<sup>(191)</sup> But there was no sign of anything more than local difficulties until the summer when, in the face of earlier claims to the contrary, it became clear that CPCS targets were not being fulfilled.<sup>(192)</sup> The basic problem of grain production not keeping up with consumption was exacerbated by the attitudes of cadres and peasants: in surplus areas they were calling for greater distribution and higher consumption; in deficit areas the demand was for greater amounts of state supplies. The overall result was that in many areas state purchase quotas were not being met. These had already been reduced from 2,100 million to 1,670 million chin (a fall of over 20%) in order to compensate for the effects of the 1956 natural disasters but there could be no further reduction.

The seriousness of the situation was evidenced by a report that as of the end of June less than 10% of planned grain acquisitions had been handed over. <sup>(193)</sup> There was renewed criticism of peasants' extravagance and the cadres' preoccupation with peasant welfare at the expense of state needs this only a short time after they had been attacked for being too coercive! The refusal by villages to release their grain and their insistence that state

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purchases be lowered and sales increased were merely heightening the basic contradiction between production and consumption. In future peasants should eat less grain and give priority to the state, not the collective, in the distribution of the harvest.

Such appeals seem to have had little effect and only a few days later there were ominous reports of the emergence of black markets in grain and an increase in speculative activities.<sup>(194)</sup> The distribution of too much grain to collective members and their consequent ability to accumulate large amounts were blamed for these phenomena. Predictably, the worst offenders were said to be rich peasants and other "evil elements".<sup>(195)</sup>

Notwithstanding a claim that Hstf-chou Special District had fulfilled 60% of its planned state purchase quota, <sup>(196)</sup> more general statistics showed that throughout the province as a whole the figure was only 25%. <sup>(197)</sup> In the first half of August state purchase work proceeded even more slowly. The amount of grain entering the granaries each day was about ten million chin less than during the second half of July. <sup>(198)</sup> In all the granaries contained 220 million chin of food grains or 25% less than the planned target. Moreover, although the output of summer crops had increased in most areas of Kiangsu, 14.4% less grain had been acquired than in the same period of the previous year. Within the province progress was also very uneven;

	Percentage of state purchase quota fulfilled
Soochow S.D.	115.0
Nan-t'ung S.D.	108.0
Sung-chiang S.D.	93.0
Yen-ch'eng S.D.	53.0
Hwai-yin S.D.	44.6
Source:	HHJP, 14/8/57, op.cit., p.1.

Table IV. 28: State grain acquisitions: the situation as of 5th August, 1957.

Final data on state acquisitions of grain are unfortunately unavailable, but in view of the continuing speculative activities and the apparent lack of response by peasants to the kind of patriotic appeals just mentioned<sup>(199)</sup> it is likely that purchase quotas for summer, 1957 were not met.

Let us now turn to examine the reaction of the collective members to the various problems that had emerged in 1957. In a sense the grain acquisition crisis was itself a part of that reaction, for clearly it was a symptom of the peasants' declining confidence in the ability of the collectives to protect their interests. But it was only one expression (albeit a powerful one) of a much wider sense of disillusionment that was apparent throughout 1957. Even in January Liu Shun-yttan, Deputy-Secretary of the Kiangsu Party Committee, admitted that peasants were losing confidence in the higherlevel APCs. <sup>(200)</sup> Even if class analyses could be cited to show that the poor and middle peasants (except a few upper-middle ones) were still overwhelmingly in favour of collectivized agriculture and that even most rich peasants and landlord elements were well-disposed towards it, there were also indications of a more sceptical attitude by quite a large number of peasants.<sup>(201)</sup> Indeed in some cases peasants were actually calling for a retreat - either -315because they had suffered declines in output and income or because they felt that collective farming entailed too great a loss of freedom.<sup>(202)</sup>

To what extent peasants actually withdrew from the collectives in Kiangsu it is very difficult to say, though the seriousness of the crises confronting agriculture during 1957 might suggest that such cases were not uncommon. At any rate the evidence that there were withdrawals is clear enough: In Tan-yang <u>hsien</u>, for example, it was reported in May that peasants were pulling out of some of the collectives.<sup>(203)</sup> In the worst instance more than 20 had withdrawn in a single day. Their reasons were threefold: collective accounting was not carried out openly and democratically; cadres were behaving in their own private interests and bringing pressure to bear on the peasants; and collective management (especially of tools and draft animals) was inadequate. An even more dramatic case was that of an APC in T'ai <u>hsien</u> where 204 households withdrew their support, leaving only nine poor peasant families to pursue collective production.<sup>(204)</sup>

Another sign of widespread discontent was the "blind flow" of peasants out of the villages and into the cities which was reported during May.<sup>(205)</sup> It was revealed that the rural-urban migration was leading to illegal trading in food coupons in the cities of Nanking, Soochow, Yang-chou and Hstd-chou (and doubtless Shanghai as well). Even the cadres were joining in the illegal activities.<sup>(206)</sup>

Despite the launching of a "rectification" campaign<sup>(207)</sup> the erroneous tendencies were evident well into the second half of the year. As had happened at similar junctures in earlier institutional reforms the deteriorating situation was heightened by the growing vociferousness of subversive -316elements. In K'un-shan <u>hsien</u> old landlords and rich peasants were quoted as saying that "... the Communist Party has suffered a change of heart. At the time of Liberation they gave out relief rice; but now they won't even let you eat what you grow yourselves".<sup>(208)</sup> Others spread similar libels to the effect that "... there's no advantage in agricultural collectivization ... the peasants' lives are very hard ... the CPCS system is in a mess ... basic-level cadre unity has been disrupted ... the CCP doesn't care about the peasants".<sup>(209)</sup>

One of the most interesting aspects of the anti-rightist campaign in Kiangsu centred around the anthropologist, Fei Hsiao-t'ung. (210) This eminent scholar had made a return visit to the village in south Kiangsu where he had carried out extensive field investigations into social and economic conditions in the 1930's. His aim was to make an assessment of the impact of the new government upon the lives of the peasants. But his findings were less than complimentary. Peasants' incomes in 1956, he said, were only 5% higher than they had been in 1936. Gross income from raising silkworm cocoons (a major subsidiary and an important source of income in the area) was actually 40% less than in the 1930's. His general conclusion was that "... the majority of peasants feel that life isn't as good as it was before Liberation". (211) Such findings could hardly pass unchallenged and not surprisingly Fei came under very strong attack, his detractors insisting that he had gone to K'ai-hsien-kung with preconceived ideas and that he had deliberately falsified data and ignored many significant developments that had occurred since 1949.

Gradually such rightist criticism was silenced and the "rectification"

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campaign had its desired effect. However, at the end of 1957 there was little to give comfort to the planners in Kiangsu. The high hopes of collectivization had obviously not been fulfilled. Not only had economic growth failed to materialize but the agricultural sector was beset by as many problems as ever. Indeed the final year of the First Five Year Plan was characterized by a growing sense of crisis in agriculture.

But if collectivization had failed, what other source of agricultural growth was available? Large-scale state investment in the rural sector was ruled out because of existing and still sacrosanct economic priorities. It followed that further re-organization within the framework of the traditional technology was the only alternative. In the last months of 1957 the new policy began to emerge. A significant event was the publication in October of the revised Twelve Year Plan for Agriculture. <sup>(212)</sup> For almost immediately the targets set down in this plan were adopted as short-run objectives and the stage was set for the "great leap forward" of 1958.

## Notes to Chapter Four

- (1) Emphasis in this chapter is on the purely economic impact of co-operativization and collectivization in Kiangsu. Accordingly only a brief chronology of the movements is given here as an introduction to the main discussion. Events in the province during 1955 and 1956 generally followed the pattern observable in China as a whole and since this has already been analyzed in some detail elsewhere it seems unnecessary to burden the text with what would essentially be a repetition of such analyses. However, in order that this thesis should present as complete a picture as possible a detailed account of developments in Kiangsu during the period of the two "high-tides" and a discussion of some of the problems associated with the rapid changes are included in a separate appendix. See Appendix D.
- (2) Although there were some spectacular percentage increases in membership of APCs in China between mid-1953 and mid-1955, in absolute terms the number of agricultural households belonging to co-ops remained very small.
- (3) HHJP, 4/6/53, p.1, "Develop MATs and APCs on a Large Scale."
- (4) Ibid. The success of APCs in Kiangsu was claimed to be shown in a representative study of over 2,000 APCs in Soochow, Chinkiang, Yang-chou and Yen-ch'eng Special Districts, 90% of which had achieved a higher output than MATs and individual peasants. In order to meet the demand for 67,591 APCs in Kiangsu by spring-ploughing 1956, large numbers of cadres were to be transferred to the co-operatives. In addition, 136,000 "backbone cadres" were to be trained before the autumn harvest (1955) in preparation for the expansion.
- (5) "... Probably the existing figure of 650,000 (APCs) ought to be roughly doubled, that is, increased to something like 1,300,000 ... "
  Mao in Hsin-hua yteh-pao, 1955, no.11, op.cit.
- (6) Ibid.
- (7) <u>Statistical Materials on Agricultural Co-operativization</u>, op. cit., pp. 7-9.
- (8) <u>Ibid.</u>, p. 13.
- (9) The following table shows the speed with which co-operativization and collectivization were achieved in China:

The establishment of semi-socialist co-ops and fully-socialist collectives in China: mid-1955 - end-1956.

	1	PERCENTAGE OF ALL AGRICULTURAL HOUSEHOLDS IN:				
		Co-ops	Collec- tives	Co-ops & collectives	Forms other than APCs	
1955	June	14.17	0.03	14.2	85.8	
	December	59.3	4.0	63.3	36.7	
1956	January	49.6	30.7	80.3	19.7	
	March	34.0	54.9	88.9	11.1	
	May	29.3	61.9	91.2	8.8	
	July	29.0	63.4	92.4	7.6	
	September	21.8	72.7	94.5	5.5	
	December	8.5	87.8	96.3	3.7	

Source: <u>Statistical Materials on Agricultural</u> <u>Co-operativization</u>, <u>op. cit.</u>, pp. 7-9, p. 11 and p. 13.

- See Appendix D, Table D. l. Also <u>HHJP</u>, 29/5/55, p. l, "improve <u>Hsiang</u> Planning Work for the Agricultural Co-operativization Movement and Welcome a New High-Tide in the Socialist Mass Movement"; and <u>TKP</u> (Tientsin), 10/10/55, "The Peasants Are Demanding to Set Up Co-ops: The Co-operativization Movement is Entering a High-Tide".
- (11) <u>Ch'ang-chou kung-jen pao (Ch'ang-chou Workers' Daily)</u>, 2/2/56, "Kiangsu Has Basically Completed Agricultural Co-operativization".
- (12) <u>HHJP</u>, 26/11/55, "Conference of Kiangsu CCP Committee Decides that Semi-Socialist Agricultural Co-operativization will be Basically Carried Out Next Year".
- (13) Chiang-su nung-min pao (Kiangsu Peasants' Daily), 27/12/55,
  "Fully-Socialist Collectivization Will Be Completed in Kiangsu in 1958". The article defined "basic completion" as meaning that 85% of agricultural households would belong to co-operatives.
- (14) <u>CFJP</u>, 17/12/55, "Agricultural Co-operativization is the Only Way in Which to Proceed for the Benefit of the Peasant Masses".
- (15) Ch'ang-chiang jih-pao, 11/10/55, op. cit.
- (16) <u>Hsin-wen jih-pao</u> (<u>Daily News</u>), hereafter <u>HWJP</u>, 30/10/55, "Peasants in the Shanghai Suburbs Vigorously Demand to Set Up and Join Co-operatives".

- (17) <u>HHJP</u>, 16/9/55, p. 1, "The Newly-Established Co-operatives in Su-ch'ien <u>Hsien</u> are Enthusiastically Going Ahead with Autumn Ploughing and Sowing".
- (18) <u>HHJP</u>, 30/9/55, "An Investigation of the Situation Regarding the Large-Scale Development of Co-ops in Ssu-yang <u>Hsien</u>".
- (19) This was one of the points to emerge from an important article written by T'ao Chu: "The Large-Scale Development of Agricultural Co-operativization in New Areas and the Problem of Guaranteeing Quality" in <u>Hsteh-hsi</u> (Study), 1955, no.12; pp.5-9. Although written specifically about Kwangtung many of the points brought out by T'ao Chu were directly relevant to the situation in Kiangsu.
- (20) <u>HHJP</u>, 25/9/55, p.1, "Make Good Preparations for Co-operativization in <u>Hsiang</u> and Welcome a New High-Tide in the Co-operativization Mass Movement".
- (21) <u>Ibid</u>.
- (22) <u>Ibid.</u> For other accounts see <u>HHJP</u>, 14/10/55 and <u>CFJP</u>, 24/11/55, "I finally Joined an APC".
- (23) The "first high-tide" refers to the move into lower-level co-operatives.
- (24) HHJP, 26/10/55, "Directive of the Kiangsu CCP Concerning the Consolidation of the New Co-ops, the Improvement of the Old Ones and the Work of Completing Autumn-Sowing on Time". The mention of rich peasants is of particular interest: during the second half of 1955 the few references to their activities would suggest that their role in this phase of the co-operativization movement was minimal. Official policy was that for the time being they should be excluded from the co-operatives. But they obviously cannot have remained indifferent to the institutional changes taking place and it may be assumed that on balance they were hostile to the moves towards greater socialization in the agricultural sector. How this hostility manifested itself it is more difficult to say but there were certainly cases when it went beyond mere vocal opposition. In one hsiang, for example, there is a reference to three rich peasants having ingratiated themselves with other peasants in order to set up a lower-level organization. See HHJP, 14/10/55, p.3, "Thoroughly Carry Out the Large-Scale Development of Agricultural Co-operativization".

For a specific instance of co-operative activities being disrupted by subversive elements (in this case "bad elements from outside") see HHJP, 15/9/55, "We've Decided to Set Up a Co-op".

- See, for example, <u>HHJP</u>, 25/9/55, <u>op.cit.</u>, p. l. Also <u>HHJP</u>, 18/9/55,
  "In Fou-ning <u>Hsien</u> Ho-p'ing APC Organizes a Fertilizer-Collection Movement for the Autumn Ploughing".
- (26) HHJP, 26/10/55, op. cit., p. 1.

- (27)The October directive issued by the Kiangsu branch of the CCP reflected the serious situation which had developed in the agricultural sector. Thus "the most pressing task at present in Kiangsu is to use all our resources to consolidate the new co-ops and improve the old ones ... Party Committees at all levels should turn their attention away from the development of new co-operatives to the consolidation and adjustment of existing ones". (HHJP, 26/10/55, op.cit., p.1.) It was significant that this document emphasized the central role of agricultural production in consolidating the new institutional structure: "... a good autumn harvest is a means of consolidating the bumper harvest achieved earlier this year. Even more a good autumn sowing is a means of laying the foundation of a bumper harvest next summer. This not only provides the key to the fulfilment of next year's state plans; it is also the first link in a chain which will determine whether or not the new co-operatives can increase production and raise members' incomes. " (Ibid.)
- (28) See above, p.256.
- (29) Each member of the collective was permitted to retain for his own use rent-free a portion of land not exceeding 5% of the average per capita arable area in the collective. Despite their small size these plots were a most important source of peasant income. See K.R. Walker, <u>Planning in Chinese Agriculture: Socialization and the</u> <u>Private Sector, 1956-1962</u>, London, Frank Cass and Co. Ltd., 1965; <u>passim</u>.
- (30) The absence of compensation was justified on the grounds that the owners would get their full reward through sharing in the benefits of collectivization.
- (31) For the complete regulations governing the collectives see <u>Hsin-hua</u> <u>pan-ytteh k'an</u> (New China Semi-monthly), 1956, no.88. An Englishlanguage translation is also available: see <u>Model Regulations for</u> <u>Advanced Agricultural Producers' Co-operatives</u>, Foreign Languages Press, Peking, 1956.
- (32) Hsin-hua ytteh-pao, 1955, no. 11, op. cit.
- (33) General Office of the CCP Central Committee, <u>Chung-kuo nung-ts'un</u> ti she-hui chu-i kao-ch'ao (<u>The Socialist High-Tide in China's</u> <u>Villages</u>), hereafter <u>CKNTTSHCIKC</u>, 3 volumes, Peking, 1956; see vol.1, Preface, p.2.
- (34) JMJP, 26/1/56, "Draft Outline of the Plan for the Development of Chinese Agriculture, 1956-1967". This foresaw the establishment of higher-level APCs in areas where conditions were favourable, in 1957; and throughout the whole country during the next year. Even this was superseded by the revised edition of the Plan (promulgated on 25 October, 1957 and published in <u>Hsin-hua pan-vtteh k'an</u>, 1957, no. 22) which called for a fully-socialist collective agriculture by the end of 1957. But as we shall see, by autumn, 1957 events had overtaken both plans.

- (35) For more detailed consideration of these plans see Appendix D.
- (36) See <u>HHJP</u>, 22/1/56, "Quickly Stand at the Front of the Mass Movement" which voiced criticism against those who were refusing to participate in the new collectives and instead advocated a more gradual transition.
- (37) <u>TKP</u> (Hong Kong), 22/1/56, "This Spring Should See the Number of Higher-Level APCs in Kiangsu Rise to Over Five Thousand".
- (38) Ibid.
- (39) Broadcast report, 3/2/56 (Nanking News).
- (40) "Co-operativized" is taken to embrace both lower- and higher-level APCs.
- (41) The larger percentage increase in China as a whole simply reflected the country's lower proportion of households in collectives at mid-year.
- (42) HHJP, 1/1/57, op. cit., p. 1.
- (43) <u>HHJP</u>, 10/11/56, p. 1, "Sung-chiang Special District Has Implemented Higher-Stage Collectivization".

See also <u>HHJP</u>, 9/2/57, "Make Proper Preparations in Order to Deal with Any Problems That Should Arise After Collectivization Has Been Carried Out in the Mountainous and Forest Areas" which confirms that over 90% of agricultural households in Chinkiang were in higher-level APCs. And <u>CFJP</u>, 13/12/56, "Conditions Favour Collective Management" which reported a 92% membership in the Shanghai suburbs.

- (44) The "second high tide" refers to the process of fully-socialist collectivization.
- (45) That is, the difference between the 84% of households in co-ops at the end of January, 1956 (see above) and the 96.4% in co-ops and collectives at the end of June (see Table IV.3).
- (46) That is, if their experience extended no further than MATs.
- (47) However, there is an interesting postscript. Table IV.3 reveals that by the end of 1956 the average size of collective in Kiangsu had fallen to just over 276 households. Moreover, by autumn, 1957 there had been a further decline to about 240 households. (HHJP, 28/10/57, "In Kiangsu About Half the APCs Have Been Basically Consolidated" gives a figure of 35,564 collectives in the province. On the assumption that they contained about 95% of all agricultural households, total membership would have been around 8.6 million households and the average size of APC, 241.82 households.)
In other words, in terms of size mid-1956 seems to have represented a kind of peak, not subsequently re-attained. Data for the rest of East China are not readily available, but if the example of China (where an even greater decline occurred between the middle and end of 1956) is anything to go by, it is likely that the Kiangsu pattern was repeated.

- (48) A considerable amount of time was previously wasted by farmers travelling from one plot to another.
- (49) See, for example, <u>CFJP</u>, 14/1/56, "Over Fifty Per Cent of Agricultural Households are Already Demanding to Set Up Collectives"; <u>CFJP</u>, 18/1/56, "The Peasants in the Shanghai Suburbs Fly Towards Socialism"; and <u>CFJP</u>, 15/3/56, "Without Tractors How Can Higher-Level APCs Be Set Up?" Also Appendix D.
- (50) See Hsin-hua pan-ytieh k'an, 1956, no. 5; pp. 1-10.
- (51) "Rational" in terms of local natural conditions and the requirements of the state plan.
- (52) According to the normal profit-maximization hypothesis labour should be used up to the point where its marginal product equals the unit value of work points. In departing from this rule the co-operative could behave in the same way as an individual peasant household. See also Chao Kang, op. cit., p. 47.
- (53) But it has been pointed out that peasants' inborn "risk aversion" acts as a deterrent against haphazard technical innovation which is lacking in a co-operative. Ibid., p. 50.
- (54) A note on the quality of these data is in order here. First, statistical information for the "first high-tide" period is neither as plentiful nor as comprehensive as we should have wished. Second, it is not always possible to know whether the APCs for which data are available were actually set up during this period. If not, they may not have encountered (at least to the same extent) the problems associated with the rapid process of co-operativization and so may not be representative of general conditions in late-1955. There is a further difficulty which is that even in those co-ops that were the product of the "high-tide" crops harvested may have been sown and ripened before their establishment. All these considerations are qualifications to the following discussion.
- (55) HHJP, 25/9/55, op. cit., p. l.
- (56) HHJP, 30/9/55, op. cit.
- (57) Why 1953 and not 1954 was chosen as a basis for comparison in Ssu-yang is not explained. In Chinese economic statistics the choice of a base-year is often dictated by the desire to show economic

performance in as favourable a light as possible. However, 1954 may have been considered unrepresentative because of the incidence of natural disasters.

- (58) <u>CFJP</u>, 25/10/55, "Co-ops in the Shanghai Suburbs Have Generally Increased Production" revealed that of 722 APCs in 85 <u>hsiang</u> 93.63% had increased their output and less than 1% had suffered declines. The most common range of increase was 10-15%, although another source (<u>Lao-tung pao [Labour Daily</u>], 25/10/55, "Ninety Per Cent of the Co-operatives Have Achieved a Bumper Harvest This Year") stated that 13 of the 722 co-operatives had increased production by between 50% and 200%!
- (59) To the extent that the co-operatives introduced <u>modern</u> inputs (powerdriven machinery, electrification, chemical fertilizers, insecticides, etc.), this argument would of course have less force.
- (60) <u>HHJP</u>, 13/9/55, "Every One of the Fifty Co-operatives in Chuanch'iao Ch'<u>t</u> Has Increased Production".
- (61) <u>HHJP</u>, 14/9/55, "Almost Twenty Thousand New Co-operatives Have Already Been Set Up in Kiangsu".
- (62) HHJP, 13/9/55, op. cit.
- (63) CFJP, 25/10/55, op. cit.
- (64) HHJP, 15/9/55, op. cit.; and HHJP, 16/9/55, op. cit.
- (65) <u>HHJP</u>, 18/9/55, "In Fou-ning <u>hsien</u>, Ho-p'ing APC Organizes a Fertilizer Collection Movement for the Autumn Ploughing". Other technical reforms mentioned in this article were seed selection, pest control and close-planting.
- (66) <u>Ch'ang-chou kung-jen pao</u>, 2/2/56, <u>op.cit</u>. "Top dressing" is chui-fei.
- (67) <u>HHJP</u>, 13/9/55, "Implementing Different Measures for Raising Production According to the Different Growing Conditions for Paddy".
- (68) <u>HHJP</u>, 24/9/55, "Unified Cultivation is the Principal Reason for Our Increased Output".
- (69) See for example <u>HHJP</u>, 23/9/55, "Talking about the Changes Since We Joined the Co-op". Also <u>HHJP</u>, 28/10/55, "Measures for Increasing Production and Production Management in Ch'ien-chin APC, Ch'ao-yang Hsien".
- (70) <u>HHJP</u>, 8/1/56, "On the Basis of Increases in Production Strength Make Plans for Production".
- (71) Ibid. The female work force was reported to have increased from

10,805 to 16,695; and the average number of labour days per capita per year from 40 to 60.

- (72) Ibid.
- (73) In view of the difficulties mentioned it needs hardly to be added that many of the calculations that follow (and the conclusions based on them) can only be considered approximate and tentative.
- (74) <u>HHJP</u>, 18/9/55, "In Yen-ch'eng and Nan-t'ung Special Districts Over Thirty Thousand MATs are Demanding to Set Up Co-operatives".
- (75) HHJP, 18/9/55, op. cit.
- (76) See below, chapter five.
- (77) This would yield a higher APC output index for 1955 and so also raise that of the non-co-operative sector.
- (78) That is, 112.5 + 111.5 = 224. 224 ÷ 2 = 112. For the sake of convenience this assumes a 50-50 distribution of peasants between the co-operative and non-co-operative sectors which is approximately the situation in autumn 1955.
- (79) The relationship is not an exactly proportional one. Before co-operative income was distributed deductions were made for taxes and contributions to welfare and accumulation funds. In any case, we have so far been concerned with agricultural output only, whereas peasants' income comprised the receipts from subsidiaries as well as agriculture.
- (80) <u>HHJP</u>, 30/9/55, "The Implementation of Overall Planning is the Key to the Healthy Development of the Present Co-operativization Movement".
- (81) <u>CFJP</u>, 22/10/55, "A High-Tide of Co-operativization Has Arrived in Hsin-ching <u>Ch'tt</u>".
- (82) <u>JMJP</u>, 10/11/55, "A Poor Co-operative Transformed Into a Rich One".
- (83) <u>HHJP</u>, 16/10/55, "We Must Set Up More and Better Co-operatives" cited the high rate of land utilization, shortage of working capital at peak periods, heavy fragmentation and the complicated dike system as factors favouring the adoption of co-operatives in Soochow. See also Appendix D.
- (84) Hwang Niu-chung, <u>Wo-kuo kuo-min shou-ju ti chi-lei ho hsiao-fei</u> (<u>National Income Accumulation and Consumption in China</u>), Peking, 1957, provides the following income statistics:

Average per capita peasant income (1955)

Sung-chiang S.D.	110-120 ytlan
Soochow S.D.	100-110
Chinkiang S.D.	90-100
North of Yangtze	30-80

On the assumption of an average size of household of 4.4 persons (see Appendix B), the average household income of peasants would be about 462 yttan (4.4 x 105 yttan). This is 44% of the average post-co-operativization income shown in Table IV. 11.

(85) <u>HHJP</u>, 28/10/55, "Measures for Increasing Production and Production Management in Ch'ien-chin Co-operative in Ch'ao-yang <u>Hsiang</u>". The complete set of data are as follows:

#### Changes in income in an APC in Hsin-hai-lien-shih

PERCENTAGE OF CO-OP MEMBERS WITH

	Increase in income	Same income	Fall in income
Year 1	93.75	6.25	0
2	85.50	8.40	6.10
3	90.60	4.10	5.30

These figures must be set against the rapidly expanding size of the APC (16 members in the first year; 131 in the second; and 578 in the third).

- (86) HHJP, 25/9/55, op. cit., p. l.
- (87) For some consideration of levels of income in different parts of Kiangsu see below, chapter five.
- (88) Mo Jih-ta, <u>Wo-kuo nung-yeh ho-tso-hua ti fa-chan</u> (<u>The Development</u> of Co-operativization in China), Statistical Publishing House, Peking; June, 1957.
- (89) Ibid., p.138. The consolidation of peasants' fragmented holdings increased land utilization by breaking down the boundaries between the tiny plots.
- (90) Mo cited data issued by the State Statistical Bureau to show that the rate of labour utilization and work attendance in collectives were 34.7% higher than in co-operatives. He claimed that there had also been a significant increase in work participation by women. Ibid., p. 121.
- (91) The development of subsidiaries is indicated by the following figures:

Subsidiary income as percentage of agricultural plus subsidiary income		Average subsidiary income per house- hold	
Collective	11.2	87 ytlan	
Co-operative	2.7	32	

Ibid., p. 123. But see also Fei Hsiao-t'ung's controversial report of 1957 on subsidiary developments in K'ai-hsien-kung (south Kiangsu) in <u>HHJP</u>, 5/9/57, "The True Nature of Fei Hsiao t'ung's Rural Studies"; and <u>HHJP</u>, 6/9/57, p. 3, "What was F i Hsiao-t'ung's Rural Study All About?"

- (92) Mo Jih-ta, <u>op. cit</u>., p. 123. Because of the larger size and better control over resources of the collectives management expenses declined from 0.8% of gross expenditure (lower-level APC) to 0.6% (higher-level APC).
- (93) Ibid., p. 123.
- (94) Ibid., p. 123. Thus:

	Welfare fund as	Accumulation fund
	percentage of annual income	as percentage of annual income
Collective	1.6	8.7
Co-operative	1.4	5.2

- (95) Actually, the fact that such a high rate of growth was looked for in one of the poorest regions of Kiangsu is of considerable interest, for it suggests that it may have been here - not in the rich areas of T'ai Hu south of the Yangtze - that the most significant advances were being planned. But such questions are more properly the subject of the next chapter.
- (96) In 1957, average food grain yields in T'ai-hu were:

Soochow S.D.	600.19 chin per mou
Sung-chiang S.D.	592.00 " " "

- (97) In Tung-shan Collective, emphasis in the development of subsidiaries was placed on aquatic products, domestic poultry, horticulture, vegetable cultivation, the rearing of silkworms, etc.
- (98) Chou En-lai in Hsin-hua pan-ytteh k'an, 1956, no. 5, op. cit., pp. 1-10.
- (99) HHJP, 26/1/56, "After Reward According to Labour".
- (100) <u>HHJP</u>, 14/1/57, p. 1, "Winter Production Work Is Bubbling Over in Li-min Collective".

- (101) <u>HHJP</u>, 28/1/57, p.1, "Co-operative Reorganization in Hst-chou Special District Pushes Up Production".
- (102) <u>Hsin-wen jih-pao</u>, (Shanghai), 17/1/57, "The Co-operatives in the Suburbs Show Their Strong Points".
- (103) <u>HHJP</u>, 1/1/57, <u>op. cit</u>.
- (104) Ibid.
- (105) <u>HHJP</u>, 22/1/57, p.2, "The Situation Regarding Government Work in Kiangsu During the Past Half-Year, and Future Tasks". The total area of rice affected by these changes was 8,420,000 mou or about 23% of the rice sown area. See also chapter five.
- (106) Hsin-wen jih-pao, 17/1/57, op. cit.
- (107) Note that in Table IV. 16 the increase in total grain output between 1956 and 1957 is exactly the same as that for grain yields: in other words, arable area expansion was to play no part in the planned increases.
- (108) The sown area is the arable area multiplied by the MCI: in other words, it is greater than the arable area by the amount of land on which more than one crop is grown. <u>Ceteris paribus</u> the growing of a second crop will raise yields per unit of arable area.
- (109) Ssu-yang was situated in the poorest part of Kiangsu. As a result the scope for improving techniques and raising yields may well have been greater than in an area such as K'un-shan, where agriculture was relatively advanced. The greater increase in Ssu-yang's MCI may simply be a reflection of these differing economic conditions.
- (110) CKNYCCHWT, op. cit., p. 126.
- (111) HHJP, 22/1/57, op. cit., p.2.
- (112) HHJP, 1/1/57, op. cit.
- (113) <u>HHJP</u>, 18/12/56, p. 1, "Sung-chiang Special District Increases Food Grain Production by Two Hundred Million Chin".
- (114) The claims on behalf of Hst-Hwai were made in <u>HHJP</u>, 15/2/57, "The Evaluation of the Bumper Harvest in Agriculture Throughout the Province Winds Up".
- (115) That is, 73.17% less 35.27% is 37.90% This figure can be taken as the increase in total output resulting from the extension of the arable area.
- (116) Precisely the same point can be made about data for a collective in Yen-ch'eng <u>hsien</u> cited in <u>HHJP</u>, 15/2/57, "Stand Upright and Set Up the Collectives Well". The big rises in yields shown were

primarily designed to counter the worries which some peasants felt about declining production in other APCs.

- (117) <u>CFJP</u>, 30/8/57, "The Collectives in the Suburbs Should Be Completely Consolidated".
- (118) <u>Ibid.</u> But slightly different figures for vegetable output and grain yields are given in Hsin-wen jih-pao, 17/1/57, op. cit.
- (119) Ibid. Pigs were the chief source of meat for the urban inhabitants.
- (120) HHJP, 22/1/57, op. cit., p.2.
- (121) See above, pp. 284-5.
- (122) On the crisis see the conclusion to this chapter.
- (123) HHJP, 26/1/56, op. cit.
- (124) <u>HHJP</u>, 11/1/57, <u>op. cit.</u>, "In Accordance with Local Conditions Limin Collective Raises its Production Targets".
- (125) <u>HHJP</u>, 1/1/57, op. cit.
- (126) <u>Su-chou pao</u> (Soochow Daily), 25/1/57, "Food Grain Increases; Subsidiaries Develop: Income Rises".
- (127) Hsin-wen jih pao, 17/1/57, op. cit.
- (128) Actually, such a simple average has little meaning because of fluctuations and high differential growth rates between the early post-1949 years and those of the mid-1950's.
- (129) For an extreme example see the planned subsidiary expansion for Tung-shan Collective given earlier (Table IV. 16, p. 285).
- (130) <u>HHJP</u>, 3/8/57, p. 3, "The Increase in Pig-Rearing Has Led to an Increase in the Amount of Pork on the Market".
- (131) HHJP, 30/9/57, op. cit.
- (132) See for example JMJP, 25/11/57, "Production Levels in the Collectives Can Certainly Surpass Those of Well-to-do Middle Peasants". And CFJP, 26/11/57, "Surpass the Production Levels of Well-to-do Middle Peasants".
- (133) For a detailed examination of the effect of the co-ops and collectives on incomes of upper-middle peasants see the case-study of ten such peasants in Hung-hsing-erh Collective (K'un-shan hsien) in <u>HHJP</u>, 5/12/57, p.2, "Socialism and the Upper-Middle Peasants". The following data taken from that article show clearly that despite the

institutional changes taking place upper-middle peasant incomes could still rise:

Pre-co-opera-			
tivization	Lower-le	evel APC	Higher-level AP
1953	1954	1955	1956
755	1367	1135	1428
729	901	905	1146
1275	1798	1661	2881
695	762	616	986
1031	1291	1314	1140
781	834	628	854
635	720	630	934
1361	1547	1115	1524
911	866	948	1302
2173	1946	1588	2132

All figures in yttan

(134) Actually, this is also a rather devious approach, since availability of grain for distribution is also a measure of the success of the CPCS system. Nevertheless, as long as we bear in mind that the relationship is not uni-causal the exercise remains a valid one.

- (135) Hsin-wen jih pao, 17/1/57, op. cit.
- (136) <u>Ibid</u>.

- (137) HHJP, 30/9/57, op. cit.
- (138) Ibid.
- (139) Ibid. An investigation of over 34,000 peasants in 95 collectives showed that 70% of members supported the APCs unreservedly;
  24% upheld the general system but reserved judgement on a few specific points; and 6% were threatening or demanding to withdraw from the collectives.
- (140) For hints of emerging problems see <u>HHJP</u>, 31/10/56, "The Late Paddy Regions Should Guarantee that Autumn Harvesting and Sowing Do Not Fall Behind Time", which suggested that in one collective in Hsing-hua <u>hsien</u> (Yang-chou S. D.) there was insufficient labour to complete agricultural operations on time. And <u>HHJP</u>, 1/11/56, "We Must Consolidate Collective and Individual Interests Within the Collective" pointed to difficulties arising out of the conflicting demands of work in the private and collective sectors.
- (141) HHJP, 9/1/57, p.1, "Strive for All-round Increases in Production in the Second Year of Collectivization".

- (142) <u>HHJP</u>, 13/1/57, "Clearly Recognize the Main Current and the Lesser Current".
- (143) Collectives were sub-divided into brigades comprising 30-40 households; and production teams which were the basic work units.
- (144) Such a contradiction could arise because the retention of small, privately-owned plots meant that there was still some work which remained completely under a peasant's own control and where the income he received was directly related to the work performed and could be seen to be so.
- (145) <u>HHJP</u>, 11/1/57, p.2, "Ensure That There is No Falling Behind in the Work of Improving Subsidiaries, Building Up River Dikes, Collecting and Applying Fertilizer". Interestingly enough the report on government work in the second half of 1956 (<u>HHJP</u>, 22/1/57, <u>op</u>. <u>cit.</u>, p.2) made exactly the opposite point when it warned against concentrating too heavily on agriculture at the expense of subsidiaries. Perhaps the two reports are best seen as a reflection of how finelybalanced the conflicting interests within a collective were. This point emerges clearly in an article about Chiang-ning <u>hsien</u>, reporting difficulties caused by differences in rewards made by production teams which had raised output and those which had suffered declines. See <u>HHJP</u>, 30/1/57, p.2, "Give Attention to Solving the Outstanding Problems in the Collectives".
- (146) <u>HHJP</u>, 26/1/57, p. l, "Han-chiang <u>Hsien</u> Has Achieved Top-Dressing on Every Mou of Wheat".
- (147) Ibid. The chief source of organic fertilizers was pig manure and pigs remained under private ownership after collectivization.
- (148) <u>HHJP</u>, 5/1/57.
- (149) <u>HHJP</u>, 25/1/57, p.2, "How to Strengthen Technical Guidance in Agricultural Production". And <u>HHJP</u>, 17/2/57, p.2, "Strive for Even Greater Victories in Extending Double-Cropping of Paddy".
- (150) K. R. Walker in "Organization of Agricultural Production", <u>op. cit.</u>, p. 418.
- (151) See for example the interesting analysis in <u>HHJP</u>, 17/2/57, <u>op.cit.</u>, p. 2 which warned against extending the planting of two crops of paddy rice over too wide an area. The experience of Sung-chiang and T'ai <u>hsien</u> had shown that the double-cropped area of rice should generally be only 10-15% of the arable area of paddy because of the demands on labour. Thus, in paddy areas one unit of labour could service only one mou - even less where subsidiaries were particularly important. See also below, chapter five.

- (152) In some cases they were set even lower. <u>HHJP</u>, 4/2/57, p. l, "Chttjung <u>Hsien</u> Sets This Year's Agricultural Production Plans". See also <u>HHJP</u>, 14/2/57, "Li-shu APC Has Fixed Its Plans for Increased Production".
- (153) An example of excessive 1956 demands was that paddy yields had been set at 30% above 1955 levels, even though 1955 had been a bumperharvest year.
- (154) Thus, a counter-argument pointed out that the high targets of 1956 were a reflection of peasants' enthusiasm and urged that 1957 targets were not set too low.
- (155) <u>HHJP</u>, 9/2/57, p. 1, "Construct and Repair Irrigation Facilities in the Fields With All Effort: Ensure Quality and Speed Up the Work".
- (156) <u>HHJP</u>, 23/3/57, p. l, "Thoroughly Investigate the Preparatory Work for Spring Ploughing".
- (157) Significantly, it was the tendency to set plans too high that received greater attention.
- (158) <u>HHJP</u>, 8/2/57, p. 1, "Hsin-hua Collective has Knocked the Attitude that 'Production Has Reached its Peak' on the Head".
- (159) <u>HHJP</u>, 24/2/57, p. 1, "The Great Spring Production Movement Unfolds". The Chinese phrase is sheng-ch'an tao-ting.
- (160) <u>HHJP</u>, 11/3/57, p. 1, "Rely on Collective Members to Overcome the Difficulties Associated with Preparatory Ploughing and Other Work".
- (161) <u>HHJP</u>, 13/3/57, p. 1, "Show Self-Reliance in Production and Overcome the Poor Spring Harvest Prospects". It was also argued that state loans obstructed income rises for collective members whereas self-help was a spur to increases in both output and income (see <u>HHJP</u>, 15/3/57, p. 1, "In Chiang-yin <u>Hsien</u> the Masses Develop the 'Three Self-sufficiencies'").
- (162) <u>HHJP</u>, 21/2/57, p.2, "Swiftly Organize an All-out Spring Production Movement".
- (163) <u>HHJP</u>, 2/3/57, p. 2, "An Urgent Notice from the Kiangsu Agricultural Department on Taking Urgent Measures to Guarantee the Full Growth of the Summer Crop".
- (164) <u>HHJP</u>, 3/3/57, p. 1, "Slow Progress in the Spring Production Movement in Yen-ch'eng Special District".
- (165) <u>HHJP</u>, 22/6/57, p.2, "Take Precautionary Measures Against Possible Natural Disasters and Strive to Guarantee the Autumn Harvest".
- (166) <u>HHJP</u>, 26/6/57, p.2, "The Time for Transplanting Will Soon Have Ended".

- (167) <u>HHJP</u>, 29/6/57, p.2, "Hst-chou Special District Takes Measures to Guarantee a Bumper Autumn Harvest".
- (168) See for example <u>HHJP</u>, 13/9/57, p.2, "The Agricultural Department Demands that Management be Strengthened in the Cotton Fields".
   Also <u>HHJP</u>, 16/10/57, p.1, "Yang-chou Special District Launches a Movement to Prevent Drought and Get On with Sowing".
- (169) <u>HHJP</u>, 7/5/57, p. l, "On Contradictions Within the Collectives and the Democratic Running of the Collectives".
- (170) Shao-k'ou tuo-fen. Ibid.
- (171) See <u>HHJP</u>, 17/1/57, p. 1, "The Irrigation Department of Kiangsu Assumes the Tasks for Raising Production and Practising Economy". And <u>HHJP</u>, 26/1/57, "In a Rational Manner Delegate Power Down to the Production Teams".
- (172) HHJP, 7/5/57, op. cit., p. 1.
- (173) <u>HHJP</u>, 11/5/67, p.2, "Quickly Carry Out Financial Accounting in the Collectives in an Open Manner".
- (174) We cannot claim of course to have exhausted all the contradictions in these few paragraphs. A very important one arose out of the conflicting claims of the private and collective sectors. The earliest example of peasants refusing to sell the fertilizer from their private plots to the collective (which incidentally was of quite general significance in the early months of 1957) was one such instance. Contradictions between the collective and state authorities also emerged in the drawing-up of agricultural plans, the implementation of the CPCS System and the establishment of agricultural prices.
- (175) The aim here is to provide a factual account of how the draft animal crisis developed in Kiangsu. Its economic implications are considered at greater length in the next chapter.
- (176) <u>HHJP</u>, 18/2/57, p.2, "Sung-chiang Special District Strengthens the Work of Looking After the Draft Animals for Spring".
- (177) <u>HHJP</u>, 24/2/57, p. l, "Hwai-yin Special District Investigates the Spring Work of Protecting Draft Animals".
- (178) <u>HHJP</u>, 8/3/57, p.2, "Hst-chou Special District Strengthens Guidance in the Work of Looking After Draft Animals".
- (179) <u>Ibid. And HHJP</u>, 13/3/57, p. 1, "Quickly Improve the Work of Caring for the Young Shoots and Take Preventive Action against the Cold".
- (180) <u>HHJP</u>, 13/3/57, p. 1, "Show Self-Reliance in Production and Overcome the Poor Spring Harvest Prospects". But see also <u>HHJP</u>, 15/3/57, op. cit., p. 1 which mentioned the possibility of limited

government aid in the supply of animal feed to some areas.

- (181) <u>HHJP</u>, 18/3/57, <u>op. cit</u>., p.2. The use of human labour to pull ploughs was also advocated in an editorial in <u>HHJP</u>, 23/3/57, <u>op. cit</u>., p.1.
- (182) <u>HHJP</u>, 9/3/57, p.2, "In All Areas the Draft Animal Markets Are Doing a Lively Business".
- (183) <u>HHJP</u>, 27/3/57, p. l, "Urgent Directive on the Mass Movement to Increase the Numbers of Draft Animals".
- (184) These figures are taken from K. R. Walker in "Organization of Agricultural Production", <u>op. cit.</u>, p. 413. But see also chapter five below.
- (185) HHJP, 27/3/57, op. cit., p. l.
- (186) Ibid.
- (187) HHJP, 7/5/57, op. cit., p. l.
- (188) <u>HHJP</u>, 3/6/57, p. 1, "There Are Many Advantages in Decentralizing the Feeding of Draft Cattle".
- (189) Interestingly enough the poor treatment of draft animals was paralleled by a deterioration in the standard of tool repairs occasioned by the lack of any responsibility in the care of these important items of working capital. In one case, there had been an increase of 35.29% in the number of small tools needing repair. (See <u>HHJP</u>, 19/3/57, p.1, "Emphasize the Work of Repairing Old Agricultural Tools".)
- (190) <u>HHJP</u>, 13/3/57, p.2, "General Investigations Being Made by the Food Grain Department of Grain Acquisitions in All Areas".
- (191) <u>HHJP</u>, 15/3/57, p.1, "Strengthen Leadership Over the Free Markets in the Villages".
- (192) <u>HHJP</u>, 10/7/57, p. 1, "A Call for Economy in the Consumption of Food Grains and the Fulfilment of the State Purchase Quota".
- (193) <u>HHJP</u>, 12/7/57, p. 1, "Economize in the Consumption of Grain, Make Rational Distributions and Fulfil the Summer State Purchase Quota of Food Grains".
- (194) <u>HHJP</u>, 16/7/57, p.2, "Take a Firm Hold of the Work of Managing the Free Markets". And <u>HHJP</u>, 21/7/57, p.2, "Take All Necessary Measures to Clamp Down on Black Markets and Black-Market Prices".
- (195) HHJP, 26/7/57, p.2, "As a Matter of Urgency We Must Get On with the Planned Purchases and Supply Work for the Summer Harvest".

- (196) <u>HHJP</u>, 24/7/57, p. l, "The Peasants Are Enthusiastically Handing Over Their Public Grain and Surplus Grain".
- (197) <u>HHJP</u>, 26/7/57, <u>op. cit.</u>, p.2.
- (198) <u>HHJP</u>, 14/8/57, p.1, "Progress in the State Purchase of Food Grains Has Recently Been Very Uneven".
- (199) Similar appeals were still being made in October, 1957.
- (200) <u>HHJP</u>, 6/1/57, p. 1, Editorial. And <u>HHJP</u>, 16/1/57, p. 1, "The First All-Province Conference of <u>Ch'tt</u> Party Committee Secretaries Closes".
- (201) HHJP, 7/1/57, p.1, "More About the First Year of Collectivization".
- (202) <u>HHJP</u>, 7/1/57, p. 3, "Spread Abroad the Superiority of Agricultural Collectivization Throughout the Villages and Cities".
- (203) <u>HHJP</u>, 13/5/57, p.1, "Drive Out Dissatisfaction: Get Clear What is Right and What is Wrong; and Persevere with the Collectives".
- (204) <u>HHJP</u>, 13/9/57, p.2, "The Peasants Who Withdrew from Tung-shih Collective Have Subsequently Re-joined". After their withdrawal old habits were said to have re-emerged, such as high-interest loans, mortgaging of land as a collateral for loans, etc.
- (205) HHJP, 22/5/57, p.2, "Stop the Trade in Grain Coupons".
- (206) Ibid.
- (207) See for example <u>HHJP</u>, 17/5/57, p. 1, "Expose the Erroneousness of the 'Three-Isms'". (These were bureaucratism, sectarianism and subjectivism.)
- (208) <u>HHJP</u>, 27/8/57, p. l, "It is Quite Fair for High-Output Regions to Sell More Surplus Grain".
- (209) These quotations are taken from CFJP, 29/8/57, "The Peasants in the Suburbs Refute the Rightists"; and CFJP, 30/8/57, "The Collectives in the Suburbs Should Be Completely Consolidated".
- (210) The account that follows is based on <u>HHJP</u>, 5/9/57, <u>op.cit.</u>; and HHJP, 6/9/57, op.cit., p.3.
- (211) HHJP, 5/9/57, op. cit.
- (212) <u>HHJP</u>, 26/10/57, pp.1-2, "The Draft Outline for The Development of China's Agriculture, 1956-67 (Revised Draft)."

#### PART II

#### Agricultural Production in Kiangsu: a Quantitative Analysis

# CHAPTER FIVE

## Some Quantitative Indicators of Agricultural Development in Kiangsu During the 1950's

#### I Estimates of the Total Arable and Sown Areas and the Sown Area under Food Grains in Kiangsu: 1949-1957.

In a useful discussion of the difficulties of interpreting official Chinese data Chao Kang has argued that until 1956-57 estimates of arable area throughout the country contained a downward bias because of underreporting. Only in the final year of the First Five Year Plan (FFYP) did officially-published figures become "relatively free of distortion". <sup>(1)</sup> A simple example will show that this contention applies to Kiangsu;

Table V.1:	Son in ]	ne estimates of arable area Kiangsu.
		Total arable area
1949 <sup>a</sup>		51,000,000 mou
1953 <sup>b</sup>		77,280,000
1957 <sup>C</sup>		93,000,000
Sources:	a	<u>TKP</u> (Hong Kong), 24/3/50, cited in <u>Provincial Agricultural Statistics for</u> <u>Communist China</u> , Washington, D.C., 1969, p.110.
	ь	<u>JMJP</u> , 28/9/54, cited in <u>ibid</u> ., p.110.
	С	TKP. 21/1/58. cited in ibid., p. 110

Acceptance of these estimates would have startling implications, for we should have to explain a 52% rise in the arable area between 1949 and 1953 and a further increase of more than 20% in the subsequent four years. It is true that the 1949 figure is not comparable with the later ones because of differences in geographical coverage: when north and south Kiangsu were re-united as a single province at the end of 1952, territory approximating

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to Hsti-chou Special District was recovered from Shantung and Anhwei. For the sake of consistency this needs to be added to the 1949 arable area shown in Table V.1. On the assumption that it included 15,000,000 mou of arable land<sup>(2)</sup> the total figure would become 66,000,000 mou. However, this still leaves an increase of 17% between 1949 and 1953 to be explained.

Fortunately, sufficient data are available to enable us to show not only that the 1949 and 1953 figures in V.1 are gross under-estimates, but also to compile a revised series of arable area estimates for the 1950's. To begin with, if very large changes in the arable area were taking place it is inconceivable that the fact would not have been recognized by extensive coverage in the provincial press. Yet the subject occurs only rarely in the newspapers. Moreover, where data are available they certainly do not indicate changes of the magnitude suggested by the table. For example, one report stated that during the FFYP period (1953-57 inclusive) the arable area of the province was extended by 2,700,000 mou.<sup>(3)</sup> If the 1957 figure of 93,000,000 mou were accepted, this would suggest an area of 90,300,000 mou in 1952, with an overall increase of 2.99% during the five intervening years. Elsewhere it was reported that during 1953-56 760,000 mou were reclaimed, which would also indicate relatively small changes.<sup>(4)</sup> In sum, improved statistical reporting must account for a very large part of the increases in arable area shown in the above table.

Chao Kang's work again provides a useful starting-point for the compilation of a revised series of arable area estimates. By accepting data published in 1957 as reliable and extrapolating backwards, subtracting any cultivated land used in construction (for example, of roads, buildings,

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irrigation works) and adding in reclaimed land,  $^{(5)}$  he has performed the remarkable feat of deriving estimates of the arable area in every province of China between 1949-57.  $^{(6)}$  His figures for Kiangsu are reproduced below and we have added two columns showing the percentage change in each year and an index with 1949 as 100.0;

	Total arable area	Percentage change over previous year	Index with 1949 = 100.0
1949	91,990,000 mou		100.0
1950	91,980,000	- 0.01	99.99
1951	91,980,000	0	99.99
1952	91,870,000	- 0.12	99.87
1953	91,880,000	+ 0.01	99.88
1954	91,830,000	- 0.05	99.83
1955	92,810,000	+ 1.07	100.89
1956	93,030,000	+ 0.24	101.13
1957	93,000,000	- 0.03	101.10

Table V.2: Arable area in Kiangsu, 1949-57

For purposes of comparability Kiangsu data for 1949-52 include Hst-chou Special District. This applies throughout the chapter.

Source: Chao Kang, <u>op. cit.</u>, pp. 294-295, Appendix Table 9.

Chao's finding that there was only a small increase in arable area during the 1950's is more readily acceptable. In the fertile agricultural regions of south Kiangsu population pressure over the centuries must have resulted in a high cultivation index and it can be assumed that the area under cultivation was approaching its upper limit. In the poorer regions of the north the scope for reclamation may have been greater, although high costs, lack of working capital and the fact that land already being cultivated was displaced by large-scale water-control works<sup>(7)</sup> made substantial additions

Note:

to the arable area unlikely.

However, acceptance of the general trend in Table V.2 is not the same as acceptance of its individual components and we must now consider how reliable these are. Chao shows that over the whole period, the area reclaimed by state farms<sup>(8)</sup> in Kiangsu was 763,000 mou;<sup>(9)</sup> of this the FFYP contribution was 617,000 mou. He also cited two references from the journal <u>China's Agricultural Reclamation</u> to the effect that the total area of land reclaimed during 1950-57 was 760,000 mou,<sup>(10)</sup> so that his estimates would appear to be well-based. However, Wang Wei-p'ing cites the figure of 760,000 mou as the area reclaimed between 1953 and 1956 only.<sup>(11)</sup> Since Wang's book was itself published in 1956, it is clear that the addition to cultivated land resulting from reclamation in the eight years following 'Liberation' must have been considerably in excess of the figure used by Chao.

In order to estimate the arable area displaced by irrigation construction Chao's approach is to assume that for every 100 mou of newly-irrigated land, 3.6 mou was taken out of cultivation.<sup>(12)</sup> This ratio is then applied to the annual increments in the irrigated area of each province.

We would quarrel with this approach on two grounds. The first concerns the distinction between additions to the irrigated area and improvements in the existing irrigated land. Chao's emphasis is wholly on the former and to the extent that this was likely to be the major source of arable land displacement, understandably so. However, improvements in the irrigated area were very significant in Kiangsu. For example, during the FFYP the net expansion in irrigated land was 7,330,000 mou, whereas the

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area over which improvements in existing facilities were made was double this figure (14,730,000 mou). <sup>(13)</sup> It seems most unlikely that this was not accompanied by some decline in the arable area and if this is so Chao's estimate of land withdrawn from cultivation should be adjusted accordingly.

It is a little unfair to criticize Chao's use of the 3.6:100.0 ratio without suggesting an alternative. But it is worth bearing in mind that extension of irrigated land could be carried out on the basis of small-scale labourintensive projects or large-scale, relatively capital-intensive ones. Obviously the extent to which arable land was displaced was a function of the scale and technical nature of the project and so the average ratio might be totally inappropriate to a particular province.<sup>(14)</sup> In the early 1950's, for example, north Kiangsu was directly affected by the Hwai River Control Project and in 1951-2 the North Kiangsu Main Irrigation Channel resulted in the "automatic irrigation" of 5,700,000 mou of agricultural land. (15) In view of the vast undertaking that this work represented it may well be that the average ratio is too low for Kiangsu. The one piece of quantitative information available support this conclusion, for it was reported in 1957 that recent basic construction and irrigation projects had taken away about 3,000,000 mou of cultivated land. <sup>(16)</sup> The corresponding figure used by Chao is only 862, 500 mou - less than 30% of the 1957 estimate.

All in all then, even if the general trend indicated by Chao Kang's series is acceptable, there are less grounds for confidence in his individual estimates. Fortunately, this does not leave us with an insoluble problem thanks to an authoritative Chinese source of 1957 which gives arable area data for 1950-55 in Kiangsu. These will serve as the skeleton of our final revised series: -341-

	Total arable area	Percentage change over previous year
1950	89,460,336 mou	
1951	91,053,777	+ 1.8
1952	92,672,100	+ 1.7
1953	93,943,584	+ 1.3
1954	94,866,069	+ 0.9
1955	94,947,065	+ 0.09
Source:	CKNYHTHYTSL, op.	.cit., pp. 992-998

Table V.3:	The arable area of Ki	angsu
	(excluding Shanghai),	1950-55)

Chao's estimates, it will be recalled, suggested that there was virtually no change in the arable area between 1949 and 1954. But the data shown above indicate a small but continuous increase throughout the period. The Chinese version is the more acceptable: in the immediate post-1949 years it is likely that the re-establishment of peace brought about a recovery of arable land from the depressed wartime level. In this respect, it is interesting that C. C. Chang's estimate of Kiangsu's arable area in the early 1930's was 91,669,000 mou<sup>(17)</sup> - a figure that was re-attained between 1951 and 1952. After 1952 the smaller increases may have reflected genuine net additions to cultivated land brought about by the kind of reclamation work which we earlier argued was taking place in some parts of the north.

All that we now require are estimates for 1956 and 1957. From another authoritative source we know that the arable area in 1956 was 93,940,000 mou.  $^{(18)}$  This of course implies a decline of just over 1% compared with 1955, but this is easily explained in terms of the particularly high level of construction activity (inside and outside agriculture) in 1956,  $^{(19)}$  which must have displaced a large amount of arable land. As for 1957, our

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earlier analysis of agricultural conditions would suggest that there was little change in the arable area during this year. Thus, the figure of 94,000,000 mou derived from a newspaper report of August, 1957 would seem to be quite reliable.<sup>(20)</sup>

Our complete arable area series is therefore as follows:

Table V.4:	The arable area of Kiangsu (excl. Shanghai), 1950-57.
	The fact and the same
	Total arable area
1950	89,460,336 mou
1951	91,053,777
1952	92,672,100
1953	93,943,584
1954	94,866,069
1955	94,947,065
1956	93,940,000

94,000,000

1957

We must now introduce the important distinction between arable and sown area. The first simply shows how much of the total surface area is used for cultivation. Sown area takes into account the fact that there is some land which can support more than one crop in a year and it is linked with arable area by the multiple cropping index (MCI), which is a measure of the percentage of arable land on which more than one crop is grown. <sup>(21)</sup> Thus, a MCI of 150 would indicate that two crops a year were grown on 50% of the arable area, while one of 200 would mean that the whole of the cultivated area was double-cropped. <sup>(22)</sup>

Because of lack of data sown area estimates are not available for every year. However, sufficient information is available to give an indication of the extent to which double-cropping was practised in Kiangsu and how far -343the total sown area was extended during the FFYP. The relevant information is set out below:

> Table V.5: Estimates of total sown area in Kiangsu at the beginning and end of the First Five Year Plan.

	Arable area	MCI	Sown area ( = a.a. x MCI $\div$ 100)
1952 <sup>a</sup>	92,672,100 mou	160	148,275,360 mou
1953 <sup>b</sup>	93,943,584	165	155,006,914
1957 <sup>a</sup>	94,000,000	172	161,680,000

Sources:

A.a.: all from Table V.4.

MCI: a Sun Ching-chih, op. cit., p. 56.

 b Upper-Middle School Texts, <u>Chung-kuo ching-chi ti-li (An</u> <u>Economic Geography of China)</u>, 2 vols., Peking, July, 1956; vol.2, p.45.

To what extent the 3.13% increase in the MCI between 1952 and 1953 reflects a genuine net rise in double cropping, continuing recovery from wartime conditions or simply differing statistical coverage in the two sources it is impossible to say. But if we take the average 1952-53 estimates of the arable area and MCI as a basis for comparison with the 1957 figures<sup>(23)</sup> it is possible to show how multiple cropping can lead to increases in total output in situations where the cultivated area is rising slowly (or even declining). Thus, while Kiangsu's arable area increased by only 0.74% during this period, the extension of double cropping was the source of a 6.63% rise in the total sown area. It will be apparent that this extension of the sown area represented an improvement in land productivity since, <u>ceteris paribus</u>, <sup>(24)</sup> it resulted in an increase in average yields per unit of arable area. <sup>(25)</sup> In short, despite the limitations on the expansion of arable land the peasants were able to achieve significant rises in total output by farming existing land more intensively.

Because of different climatic and other conditions the practice of double cropping varied considerably throughout the province:

Table V.6: The MCI in different areas of Kiangsu.

	Year	MCI
Sung-chiang S.D. <sup>a</sup>	1956	197.7
Soochow S. D. b	1955	180.9
Nan-t'ung S.D. <sup>b</sup>	1955	196.4
Yang-chou S.D. <sup>b</sup>	1955	168.6
Chinkiang S.D. <sup>C</sup>		150.0 - 160.0
Yen-ch'eng S.D. <sup>d</sup>	1957	145.0

Sources	a	Estimated from data in <u>CKNYCCHWT</u> , <u>op.cit</u> ., p.233, Table 22 and p.234, Table 23.
	ь	CKNYCCHWT, op. cit., p. 237.
	с	Approximate estimate from information given above: see ch.1, p.43.
	d	HHJP, 21/12/57, p.2, "Full of Victory and Confidence We Advance".

The pattern which the table reveals is a predictable one. Double cropping was most extensively practised in the fertile areas south of the Yangtze, where a high population density, expanding urban sector and abundant supplies of labour and other vital inputs (including water and natural fertilizers) provided favourable demand and supply conditions. In the T'ai Hu basin almost the entire arable area was double-cropped, the MCI in 1957 being 194. <sup>(26)</sup>

The same factors must also explain the high index in Nan-t'ung, <sup>(27)</sup> for here too natural and demographic conditions favoured such intensive farming. But in contrast to Kiangnan's characteristic cropping pattern of

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rice followed by wheat, economic crops (above all cotton) were most important in Nan-t'ung, being grown in combinations with rice or wheat.

Elsewhere the growing of a second crop was less common. As the table shows, a familiar north-south dichotomy existed, with double cropping being practised less extensively in the north.<sup>(28)</sup> This was of course not only a reflection of differing climatic conditions but also of different technical standards of cultivation and resource endowment patterns. This simple dichotomy had important implications for future plans to further extend multiple cropping in the province. Increases in total output resulting from the planting of a second crop were limited not because of a declining 'marginal product of double cropping' curve (analogous to that of labour), but because physical factor constraints eventually prevented more expansion. In addition to the inputs already mentioned, the successful switch from single to double cropping required adequate supplies of labour and draft animals to ensure that agricultural operations should be completed on time during the more concentrated peak periods created by the more intensive cropping system. If these conditions were not met the rhythm of agricultural work was threatened and the effort to raise arable area yields might become counter-productive. What this meant in practical terms was that given existing factor supplies, the MCI was already approaching its upper limit in south Kiangsu and Nan-t'ung. It followed that the burden of expansion rested on those areas in the north of the province where there was still scope for such development.

This interpretation is substantiated by the targets contained in the Second and Third Five Year Plans. In Sung-chiang, Soochow and Nan-t'ung

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Special Districts emphasis was not so much on more double cropping as on the need to improve the existing cropping pattern. In Soochow, for example, the practice of planting paddy and wheat should give way to raising two crops of rice. <sup>(29)</sup> But in north Kiangsu the irrigation works of the previous years had created conditions in which it was for the first time possible to contemplate the wide-spread adoption of multiple cropping. Thus, during the SFYP period (1958-62) Hsti-chou and Hwai-yin were to be transformed into a new double cropping rice and wheat region. In Yench'eng it was planned that the MCI would rise from the current 145 to 182 (by 1962) and 186 (1967). <sup>(30)</sup>

Although economic crops were widely planted in Kiangsu, agricultural activity was centred around the production of food grains. Accordingly, it will be useful to conclude this introduction by attempting to estimate what proportion of total sown area these crops represented. Because of insufficient statistical information we shall only show the situation on the eve and at the end of the First Plan.

First, 1957: the following table gives a breakdown of the sown area planted under food grains (including soya)<sup>(31)</sup> in the province:

Rice	35,770,000 mou
Wheat	31,230,000
Tubers	5,320,000
Coarse grain	us 45,490,000
Soya	13,060,000
Total	130, 870, 000 mou
Sources:	Rice, wheat and soya from <u>TLCS</u> , 1959 no.6, <u>op.cit.</u> , p.245.
	Tubers and coarse grains from Sun Ching-chih, op.cit., p.57.

Table V.7: Sown area of food grains in Kiangsu (including Shanghai): 1957.

Unfortunately, this is the only year in which such a detailed breakdown is available. However, on the basis of some simple assumptions an approximate estimate of total grain sown area can be made for 1951, as follows:

From the sources used in V.7 we know that the output of tubers and coarse grains in 1957 was:

tubers	1,034,000,000 chin	(=14.79%)
coarse grains	5,956,000,000	(=85.21%)
Total	6,990,000,000 chin	(=100.0%)

And since the sown area of each category is known, their average yields can easily be estimated:

	Average yield (1957)
tubers	1,034,000,000÷5,320,000
	= 194.36 chin per mou
coarse grains	5,956,000,000 ÷ 45,490,000
	= 130.93 chin per mou

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Now, it is possible also to derive the output of tubers and coarse grains in 1951 from data showing the output of other food grains in that year:

Table V.8:	Output of food grains in Kiangsu in 1951.
Total output of food grai	ins 20,455,000,000 chin
of which:	
rice	9,983,000,000 chin
wheat	2,844,000,000
soya	1,325,000,000
Sub-total	14,152,000,000 chin
Therefore, output of tub	oers
+ coarse grains	20,455,000,000 minus 14,152,000,000
	= 6,303,000,000 chin
Source;	Total output derived from information in <u>TLCS</u> , 1959, no.6, <u>op.cit</u> ., p.244.
	Rice, wheat and soya output: ibid., p.245

Let us assume that the proportion of total combined output represented by tubers and coarse grains individually in 1951 was the same as in 1957. Then:

	Potal output (1951)		
tubers	6,303,000,000 x 14.79%		
	= 932,000,000 chin		
coarse grains	6,303,000,000 x 85.21%		
	= 5,371,000,000 chin		

+ (10E1)

If it is further assumed that average yields of tubers and coarse grains remained at the 1957 level<sup>(32)</sup> their sown areas can easily be computed:

	Sown area (1951)
tubers	932,000,000 - 194.36
	= 4,795,225 mou
coarse grains	5, 371, 000, 000 ÷ 130.93
	= 41,021,920 mou
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Since the sown areas of rice, wheat and soya for 1951 are already known, simple addition of all the components will yield an estimate of total grain sown area in this year:

Table V.9:	An estimate of total food grain sown area in Kiangsu in 1951.		
Rice	30.900,000 mou		
Wheat	28,790,000		
Tubers	4,795,225		
Coarse grai	ns 41,021,920		
Soya	14,050,000		
Total	119,557,145 mou		
Source:	Rice, wheat and soya output from <u>TLCS</u> , 1951, no.6, op. cit., p. 245.		

The two estimates of the sown area under food grains can now be presented in a single table. For purposes of comparison the total arable and sown area data are also included:

> Table V.10: Total arable area, total sown area and food grain sown area on the eve and at the end of the FFYP.

	1951-52	1957
Total arable area	91,053,777 mou	94,000,000 mou
Total sown area	148,275,360	161,680,000
Grain sown area	119,557,145	130,870,000
Food grain MCI	131.30	139.22

Total sown area figure is for 1952. Arable area and sown area under food grains are for 1951.

The use of different base years makes it impossible to use these figures for precise comparison. Nevertheless, the table illustrates well the nature of priorities within the agricultural sector during the First Plan period. Ignoring the problem of different base years, the total

Note:

sown area increased by 13,404,640 mou while the extension of the sown area under food grains was 11,312,855 mou. In other words 84.39% of the area newly planted under crops was allocated to food grains. Clearly, the priority given to growing more food was a reflection of the growing consumption requirements of an expanding population (particularly in the cities). But the figures also suggest the serious problem which confronted the agricultural sector in Kiangsu: for it was not only more food that was needed, but also increased supplies of raw materials for the factories in the south of the province. Yet despite a net addition of 13 million mou to the sown area of the province, less than two million were available for growing economic crops.<sup>(33)</sup> Unless the sown area could be expanded much more rapidly or substantial rises in yields achieved by some other means, it is obvious that the objectives of attaining grain self-sufficiency and maintaining adequate raw material supplies to industry could not be met.

## II Quantitative Trends in the Production of Important Crops in Kiangsu: 1949-1957.

(1) Food grains:

It will be useful to begin at an aggregate level by considering the output of all food grains (including soya) in Kiangsu between 1949 and the end of the First Plan. The relevant information is set out in Table V.11:

	Total output (million chin)	Index with 1949 = 100	Index with 1952 = 100
1949	13,250	100.00	61.06
1950	16,800	126.79	77.42
1951	20,455	154.38	94.26
1952	21,700	163.77	100.00
1953	23,400	176.60	107.83
1954	23,000	173.58	105.99
1955	25,740	194.26	118.62
1956	24,000	181.13	110.60
1957	25,160	189.89	115.94

#### Table V.11: Output of food grains (including soya) in Kiangsu and Shanghai.

Sources:

1949: <u>Chung-kuo hsin-wen</u> (<u>China News</u>), 26/9/55 states that output in 1953 was 76.6% above the 1949 level. The figure shown above is 76.6% above 13,250.

- 1950: <u>TKP</u>, 13/1/51, cited in <u>Provincial</u> <u>Agricultural Statistics for Communist</u> <u>China</u>, <u>op. cit</u>., pp. 114-115.
- 1951: <u>TLCS</u>, <u>op. cit.</u>, 1959, no.6, p.244 states that grain production in 1957 was 23% higher than in 1951. Given the 1957 estimate shown the 1951 figure is easily derived.
- 1952: This figure has been chosen from three derived estimates: information given by Wang Wei-p'ing, op.cit., p. 58 yields a figure of 21,775 million chin, which is very close to the figure of 21,756 million chin, which can be derived from Chung-kuo hsin-wen, op.cit; HHJP, 10/1/58, op.cit., states that food grain production in 1957 was 17.2% above 1952, which on the basis of a 1957 estimate of 25,160 again gives a 1952 figure of about 21,500 million chin.
- 1953: <u>HHJP</u>, 17/9/57, p.2, "Correctly Understand the Question of the Peasants' Level of Grain Consumption". The figure is corroborated by the figure of

Sources (continued):

23,540 given in <u>Ch'ang-chou kung-jen</u> pao, 13/12/55, "Gross Output of Food Grains and Cotton is Higher than the 1957 Target".

- 1954: <u>HHJP</u>, 17/9/57, op. cit., p.2; and <u>Ch'ang-chou kung-jen pao</u>, 13/12/55, op. cit.
- 1955: <u>HHJP</u>, 17/9/57, <u>op.cit.</u>, p.2; and <u>Ch'ang-chou kung-jen pao</u>, 13/12/55,<u>op.cit.</u> and Wang Wei-p'ing, op.cit., p.53.
- 1956: <u>HHJP</u>, 9/1/57, p.1, "Strive for Overall Production Increases in the Second Year of Co-operativization"; and <u>HHJP</u>, 17/9/57, op.cit., p.2.
- 1957: <u>HHJP</u>, 10/1/58, <u>op. cit.</u>; see also Kuang-ming jih pao, 16/12/57.

In 1949 the immediate task was to restore production from the depressed wartime level and between 1949-52 rapid progress was made in this direction, the simple average rate of growth of grain output during these years being 21.26% p. a. <sup>(34)</sup> In some parts of the province recovery was even more rapid; in north Kiangsu, for example, many areas benefitted from a bumper autumn harvest in 1950 and at the beginning of the following year there were claims of pre-war levels of output having been re-attained. <sup>(35)</sup>

Planning during these early years was necessarily limited. Quite apart from pressing political considerations which turned attention away from economic matters, the statistical base which was essential to an efficient planning system simply did not exist. Nevertheless, targets were drawn up in north and south Kiangsu and they reveal some interesting discrepancies between planned and actual rates of growth during the 'recovery period' (1949-52):

Table V.12:	Planned increases in grain output in north and south Kiangsu: 1950-1952. Planned percentage increase in total grain production over previous year:		
	NOR' (excl	TH KIANGSU . Hst-chou)	SOUTH KIANGSU
1950		N.a.	10.00 <sup>a</sup>
1951		12.00 <sup>b</sup>	6.66 <sup>c</sup>
1952		20.00 <sup>d</sup>	8.00 <sup>e</sup>
Sources:	a	SNJP, 1/6/50, the Production in South Kiangs	p.l, "Plans for Raising of Cotton and Food Grain u in 1950".
	Ъ	Derived from information given in <u>SPJP</u> 20/2/51, <u>op.cit.</u> , p.2.	
	с	From SNJP, 3/	/3/51, op. cit., p. 3.
	d	From SPJP, 20	0/2/51, <u>op.cit.</u> , p.2.
	е	Derived from i	nformation given in SNJP,

9/2/52, op. cit., p.2.

The estimates shown in V.11 would suggest that the performance of agriculture in 1950 and 1951 considerably exceeded the expectations of the planners in Kiangsu. (Actual output during these years rose by 26.79% and 21.76% respectively.) It may be that such high growth rates contain an element of statistical illusion and that the very large increases were the result of improving coverage and data collection. The estimates of Chao Kang, for example, show only a 8.1% rise in grain production in 1949-50 - although even his series concedes an increase of 17.24% in the following year.  $\binom{36}{12}$  But as V.11 indicates, our estimates for 1950 and 1951 are authoritatively based and it is unlikely that the discrepancies can be entirely explained in these terms.

Although in south Kiangsu the rate of increase planned for 1952 was in line with the earlier targets, this was not the case in the north. The

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planned 20% increase in grain production was well in excess of the previous year's target, especially when set against the claims (cited above) that pre-war levels of output had already been re-attained in some parts of the region. Could it be that this proposed expansion reflected what was taken to be a conservative bias in earlier plans, as shown by the very high rates of increase actually achieved? If so it is clear that it was a miscalculation, for in Kiangsu as a whole grain output rose by little more than 6% in 1951-52 - rate of increase which strongly suggests that the north Kiangsu plans remained unfulfilled.

Because of the unusual conditions which favoured rapid agricultural recovery between 1949-52, a more accurate measure of the growth of food grain production in the 1950's is given by the index taking 1952 as the base-year.<sup>(37)</sup> The simple average rate of growth of grain output over the entire period (1949-57) is 11.24% p.a., a figure which would indicate a remarkable performance by any standards; but between 1952-57 it falls to a less impressive 3.19% p.a. Even this simple average is misleading, for it gives the impression of a consistent trend-line throughout the period, whereas a graph would reveal levels of output fluctuating considerably year by year. To a large extent the direction of such annual changes can be explained in terms of climatic conditions, although it is much more difficult to say how far the size of the changes was due on the one hand to natural factors and on the other to man-made policy decisions. The correlation between production and natural conditions, though obvious enough, is in fact worth emphasizing. After all, the annual fluctuations in grain output were certainly not marginal<sup>(38)</sup> and as such they serve to remind that for all the attempts to raise productivity by institutional or

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or other means, agriculture in Kiangsu was still subject to forces beyond the control of the planners. Favourable natural conditions in 1953 and (especially) 1955 were a guarantee that harvests would be good. By contrast, 1954 and 1956 were years of sevemenatural disasters. In 1954 31,500,000 mou of agricultural land (33.2% of Kiangsu's arable area) were affected and in 1956, more than 47,000,000 mou (over 50%). <sup>(39)</sup> These facts alone were sufficient to keep production at low levels during these years. Not that the effects of these disasters were the same throughout the province. In 1954 the rice crop was most seriously hit and a dry-crop region like Hst<sup>1</sup>-chou Special District was able to increase its grain output by 400 million chin. <sup>(40)</sup> In 1956 it was the northern wheat areas that were worst affected and the predominantly rice-producing districts of Soochow and Sungchiang actually raised grain production 7.7% above the 1955 bumper-harvest level. <sup>(41)</sup>

The impact of the natural disasters of 1956 on planning is well illustrated by the experience of a number of individual Special Districts. A news broadcast of 30/12/55 stated that in 1956 Hstf-chou Special District planned to increase grain output by 17.4% above the 1955 level. In Yench'eng the corresponding figure was 50.5% (sic). <sup>(42)</sup> In the event, far from grain production rising in north Kiangsu it was necessary to transfer grain from other areas to help the peasants affected by the disasters. Almost 2,000 million chin of grain were transported to the disaster-hit regions of Hstf-chou, Hwai-yin and Yen-ch'eng<sup>(43)</sup> and in all over 2,500 million chin were sent from 15 provinces to the disaster areas of Kiangsu during 1956. <sup>(44)</sup> Even in Soochow the good 1956 performance could not compare with the 19% increase that had been anticipated in the first month

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But of course man-made factors also impinged upon the performance of the agricultural sector in Kiangsu. In the earlier part of this thesis it was argued that the economic impact of the earliest institutional changes was probably slight. Nor during the "first high-tide" is there any real evidence that the widespread establishment of lower-level co-operatives brought about any breakthrough in the agricultural sector: indeed in many ways the new units seem to have created as many problems as they had solved old ones. But as we attempted to show in the last chapter there is some evidence that during 1956 the greater organizational advantages of the fully-socialist collectives did succeed in averting the worst effects of that year's disasters. This is borne out by the data shown in Table V.11, for despite the greater seriousness of the 1956 disasters compared with those of 1954, total grain production was nevertheless 4.35% higher in the latter year. However, the success was short-lived and in 1957 problems associated with the institutional framework of the collectives appear to have hindered agricultural development. (46)

In any case, the situation (vis-a-vis food grains) at the end of 1957 was one which offered little encouragement to the planners in Kiangsu. To be sure, during the FFYP period total output had grown at the creditable average rate of 3.19% p. a. But taking 1953 as the base year, growth was a mere 1.88% p. a. (1953-57), suggesting a performance that was far from gratifying. <sup>(47)</sup> Most significant of all, grain output in 1957 was actually below the FFYP target (even though it had been surpassed in the bumper year of 1955). At the end of 1955 the 1957 grain target was stated to be

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25,520 million chin. (48) Early in 1957 this figure was again cited, but it was now coupled with a higher estimate: thus total planned output was given as 25, 500-28, 000 million chin. (49) It may be that the planners, encouraged by the bumper harvest of 1955 and anxious to achieve a high rate of growth in the last year of the First Plan, were hopeful that the earlier target of 25, 500 million chin could be surpassed. Indeed, a short time later the target was specifically given in another article as 27, 500-28,000 million chin. <sup>(51)</sup> But as the problems of 1957 began to emerge more clearly, a downward revision was apparently made, for in September of that year a figure of 25,500 million chin was once more cited. (52) On this basis actual output in 1957 was 1.33% below the FFYP target, although when set against the figure of 28,000 million chin the shortfall is 10.14%. Whichever figure is chosen there is no doubt that the rate of growth of total grain output during the FFYP was a serious disappointment. Perhaps the clearest indication of the gravity of the situation came in an article in the 'People's Daily' which starkly pointed out that if grain output continued to rise by only 3% a year it would take 23 years before the Twelve Year Plan target was attained in Kiangsu!<sup>(53)</sup>

So far we have looked at the production of food grains without reference to population growth. If our estimates are converted to a per capita basis the gravity of the situation at the end of the FFYP emerges even more clearly. Thus, the following table shows grain output per head of total population in Kiangsu during 1949-57:

	Per capita output (including Shanghai)	Per capita output (excluding Shanghai)
1949	303.9 chin	343.3 chin
1950	376.8	427.0
1951	448.6	510.2
1953	465.4	531.0
1954	490.8	561.8
1955	516.3	594.9
1956	470.7	544.3
1957	482.6	559.8

Table V.13: Output of food grains (inc. soya) per head of total population in Kiangsu: 1949-57.

Source:

Derived by dividing total output in Table V.11 by the population data given in Appendix B.

These figures can now be converted to two index series, one taking 1949 as the base year and the other, 1952:

	output in Kiangsu: 1949-1957.				
	PER CAPITA OUTPUT (including Shanghai)		PER CAPITA OUTPUT (excluding Shanghai)		
	Index with 1949 =100	Index with $1952 = 100$	Index with 1949 = 100	Index with 1952 = 100	
1949	100.00	65.30	100.00	64.65	
1950	123.99	80.96	124.38	80.41	
1951	147.61	96.39	148.62	96.08	
1952	153.14	100.00	154.68	100.00	
1953	161.50	105.46	163.65	105.80	
1954	155.22	101.35	157.82	102.03	
1955	169.89	110.94	173.29	112.03	
1956	154.89	101.14	158.55	102.50	
1957	158.80	103.70	163.06	105.42	

Table V.14: Two index series of per capita food grain output in Kiangsu: 1949-1957.

Source: Table V.13.

Data for Kiangsu (including Shanghai) have been presented in the interests of consistency since the estimates given in V.11 also include production in the
Municipality. However, the point has already been made that Shanghai, though geographically part of Kiangsu, was in many ways a separate economic entity and for the purpose of analyzing trends in the per capita output of food grains it will be most useful to exclude it.

From Table V. 14 the simple average rate of growth of per capita food grain output can easily be calculated and the following results are obtained for Kiangsu (excluding Shanghai):

1949-57	7.88% p.a.
1952-57	1.08% p.a.

Very rapid growth during the 'recovery years'<sup>(54)</sup> is again responsible for the much higher rate of growth recorded over the period as a whole. But for reasons already given it is the growth achieved during the shorter period that more accurately reflects the performance of the agricultural sector. On this showing it is clear that agriculture in Kiangsu was failing to meet the demands placed on it, the output of food grains barely keeping pace with the growth of population. Indeed, if 1953 (a fairly average year in terms of natural conditions) is taken as a base, per capita growth becomes negative: the simple average is - 0.09% for 1953-57.

To summarize the argument so far: in 1957 the output of food grains (including soya) was below the end-year target of the FFYP. In per capita terms the situation was particularly serious for during the last four years of the First Plan grain production had risen by less than total population. Moreover, the evidence suggests that between 1952 and 1957 planned growth (in any meaningful sense) had not materialized at all. Instead of steady annual increases, output had fluctuated widely year by year. The transformation of the institutional framework of agriculture had not been accompanied by a -360corresponding breakthrough in production.

How did this performance compare with that of other regions in China? Unfortunately, such a question is not easy to answer because of the difficulty of obtaining satisfactory estimates of grain production elsewhere in the country. However, the following tables will give some indication of the place of Kiangsu vis-a-vis the other provinces of East China and China as a whole.

The first table shows the growth of total grain output in China and East China during 1949-57:

	Table V.15:	Simple ave total food g comparativ	rage annu rain prod e indicato	al rates of growth of uction: some ors.
	1949-1957	1952-	-1957	1953-1957
China (l)	+ 8.52%	+ 4.	08%	+ 4.49%
China (2)	n. a.	+ 1.	14%	+ 2.86%
Anhwei	+ 19.09%	+ 7.	54%	+ 14.66%
Chekiang	+ 10.71%	+ 2.	16%	+ 2.27%
Kiangsu	+ 11.24%	+ 3.	19%	+ 1.88%
	Sources:	<b>China</b> (1):	Estimate pp. 302-3	ed from Chao Kang, <u>op.cit</u> ., 303, Appendix Table 13.
		China (2):	Estimate Commun Developr Praeger	ed by O.L. Dawson: see his ist China's Agriculture: its ment and Future Potential, , 1970; p.187, Table 12.
		Anhwei:	From Ch	nao Kang, <u>op.cit.</u> , pp.302-03
		Chekiang:	Ibid.	
		Kiangsu	See aboy	e. Table V. ll.

Over the entire period since 1949 Kiangsu emerges very well, its growth being exceeded only by that of Anhwei. However, during the years of the First Plan the situation is less favourable, particularly when 1953 is taken as the base year. Not only was the growth of grain production less than that of the neighbouring East China provinces but it also appears to have been -361below the national average. Bearing in mind that south Kiangsu contained one of the richest grain producing areas in the country, this is perhaps the most telling indication of the province's poor performance during the FFYP period.

Comparative per capita data are harder still to come by but the following table may serve to indicate the underlying trends:

	Table V.16:	Per capita output of food grains: some comparative figures.			
		1953	1957		
China (2)		564.60 chin	580.80 chin		
Anhwei		478.55	684.52		
Chekiang		624.45	616.60		
Kiangsu		561.80	559.80		
	Sources:	China (2):	From O.L. Dawson, <u>op.cit</u> . p.187, Table 12.		
		Anhwei:	Derived by dividing total output as given by Chao Kang (op. cit. pp. 302-303) by the population estimate of Perkins (op. cit., p. 212, Table A. 5).		
		Chekiang	Ibid.		
		Kiangsu:	See above Table V.13.		

If these data are now presented in percentage terms the relative

standing of the different regions can easily be shown:

Table V	V.17: Per capita outpu expressed as a output in Anhwe	it of food grains in Kiangsu percentage of per capita i, Chekiang and China.
(Per capita output in Kiangsu as percentage of per capita output in:)	<u>1953</u>	<u>1957</u>
China (2)	99.50	96.38
Anhwei	117.40	81.78
Chekiang	89.97	90.79
Source	: Table V.16.	
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At the end of the FFYP per capita levels of grain output were lower in Kiangsu than in all the other areas shown. But it is the comparison with the national data which is once more most revealing: that per capita output in Kiangsu was below that of China at the end of the first year of the Plan was evidence enough of a below-average performance; but by 1957 the situation had deteriorated still further, for while production per head had risen over the country as a whole, it had declined in Kiangsu, with the result that the gap between the provincial and national figures had increased from 0.5% to 3.6%.

The obvious conclusion that emerges from this brief discussion of comparative trends is that Kiangsu in the 1950's could not be considered a rich grain province. However, this statement must be placed in its proper context. The figures shown above are province-wide averages and (as will be shown later) they conceal very considerable differences in production between areas. It is these intra-provincial differentials, more generally summarized as the 'economic dichotomy' between north and south Kiangsu, which explain the apparent contradiction between the province's traditional reputation as a rich grain-producing area and its apparently poor showing during the First Plan period. If Kiangnan alone were considered, for example, per capita levels of grain output would compare favourably not only with China but also with the other East China provinces. In other words it was the relatively backward agriculture of north Kiangsu which was depressing average levels of production in the province.

Per capita output of food grains must not be confused with per capita consumption. The use of grain for purposes other than human consumption

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(for example, seed and animal feed requirements) has to be taken into account and allowances made for any state levies. Therefore, in order to arrive at an approximation of grain consumption during the FFYP period we must now attempt to estimate first, the net extraction from agriculture and second, the edible weight of the gross per capita figure that is left.

Table V.18 presents the basic data relating to state acquisitions (via central purchases and taxation) and state supplies of food grain in Kiangsu during the Plan period. Information for 1953-56 is reasonably complete but absence of data makes it necessary to make some estimates of our own for 1957.

Notice that alternative figures could be obtained for 1956-57: an article published in September, 1957 (55) stated that because of the 1956 disasters government grain purchases had been reduced by more than 1,310 million chin while central supplies had risen by 968 million. This would suggest that central purchases and taxes in 1956-57 totalled 7,390 million chin, <sup>(56)</sup> leaving 21,110 million chin available for the rural areas. However, it seems likely that the data cited in this article referred to the severely-hit disaster regions of Hst1-chou, Hwai-yin, Yen-ch'eng and Yangchou and ignored the fact that state acquisitions may well have increased in Sung-chiang and Soochow, where there were bumper harvests in 1956. For this reason the figures given in the table on the following page seem more acceptable.

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	Table V. 18.	State acquisition in Kiangsu: 19	ons and state )53-1957	s supplies of g	rain
	1953-54	1954-55	1955-56	1956-57	1957-58
Total grain output (incl. soy	a) 23,400	23,000	25,740	24,000	25,160
Central purchases + taxes	8,700	8,900	8,700	7,700	7,600 plan (7,000) actual
<b>Fotal central supplies</b>	n. a.	n.a.	7,550	8,830	(1,890)
Gap between state acquisition and state supplies	ns n.a.	n. a.	+ 1,150	- 1,130	(- 890)
Central supplies to rural areas	3,300	3, 600	3,600	4, 500	(3,750)
Central supplies to urban areas	n.a.	n. a.	3, 950	4,330	(4,140)
Total grain available n rural areas	18,000	17,700	20,640	20,800	(21,910)
Notes:	All figures are	in million chin.	Bracketed	figures denot	e own estimates.
Sources:	Total output: se Central purchas "Correctly Unde	ee Table V. 11. es + taxes: (a) erstand the Que	1953/54-19 stion of the ?	56/57 - from Standard of P	<u>HHJ</u> P, 17/9/57, p.2, easants' Grain Rations".

gives P/S = -14, 400 million chin, so that total central supplies can again be obtained. Further evidence in support of this figure can be found in HHJP, 24/8/57. Total central supplies; (a) 1955-56 - <u>HHJP</u>, 12/1/58 gives P/S = 11, 500 million chin: thus, total central supplies are obtained. (b) 1956-57 - HHJP, 12/1/58

(b) 1957-58 (plan) - from HHJP, 6/12/59.

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Urban central supplies: obtained by subtracting rural central supplies from total Rural central supplies: from HHJP, 17/9/57, op. cit., p.2. central supplies. The bracketed estimates for 1957 are rough approximations: we argued in the last chapter that grain purchase quotas were not met in 1957 and therefore a state acquisition figure lower than the 7,600 million chin is preferable. In view of the evidence relating to the 1957 grain acquisition crisis already given a figure of 7,000 million chin (8% below target) seems not unreasonable. The 1957 rural and urban central supply data are simply the averages of the previous years and total central supply is of course their sum.

The last line of Table V. 18 shows the total amount of grain available for all purposes in the rural sector of Kiangsu. If appropriate deductions are now made for seed and feed requirements it will be possible to estimate levels of grain consumption among the peasants: see Table V. 19 on the following page.

The edible weight estimates suggest the considerable success of the CPCS system. One of the striking characteristics of grain production during the FFYP period in Kiangsu was its susceptibility to quite severe annual fluctuations. But V.19 indicates that control over grain supplies permitted the government to cushion the peasants against shortfalls in total production. In this respect there can be little doubt that the experience of the post-1949 years contrasted sharply with the situation before 1949. There is no lack of general evidence that disasters in the earlier decades of the century were often accompanied by famine. Yet in the 1950's despite the two severe natural disaster years there is nothing to suggest deaths resulting from starvation. The achievement that this represents is particularly apparent in the last three years of the First Plan: notwithstanding

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		Table V.18.	ilability from	otal grain ava	Sources: T
1636.07	1576.99	1589.00	1374.93	1429.41	Daily calorific intake available from edible grain
446.98	430.83	434.12	368.25	390.51	Edible weight (chin) (assuming edible weight is 80% of total grain availability)
558.72	538. 54	542.65	460.31	488.14	Total amount of food grain available for all purposes per head of rural population (chin)
39, 214, 983	38, 622, 809	38, 035, 319	37, 452, 525	36, 874, 428	Rural population
21,910	20,800	20, 640	17,900	18,000	Total amount of food grain available for rural population (million chin)
1957-58	1956-57	1955-56	1954-55	1953-54	
of food grains	e availability on in Kiangsu	of the averag rural populati	An estimate per head of	able V.19:	H

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Rural population from Appendix B.

Estimates of edible weight and calorific content are based on assumptions used in Table II.11.

a 6.76% drop in total grain production between 1955 and 1956, average per capita availability of food grains in the rural areas of the province fell by a mere 0.76%. Indeed total grain availability in 1956 was actually 0.78% higher than it had been in the previous bumper-harvest year! Moreover, despite the disappointing performance of agriculture in 1957, grain availability was at its highest level in this year.

However, this success was not unconditional. After all, state grain acquisitions were not simply designed to ensure supplies of food to the peasants; rather, they were to provide the basis of the agricultural contribution to economic development.<sup>(57)</sup> In Kiangsu the cost of maintaining (even slightly increasing) grain supplies in the rural areas was instability in the stocks held by the government.<sup>(58)</sup> Clearly, such instability was not compatible with the more fundamental economic demands placed upon agriculture. In short, against the welfare success of the CPCS scheme in Kiangsu must be set its failure to fulfil its economically more important developmental role.

If we accept the edible weight estimates shown in V.19 as proxies for actual average grain consumption in rural Kiangsu we can now compare their calorific content with the two estimates of daily calorie requirements which were used in an earlier chapter.<sup>(59)</sup> Thus:

	Daily calorie content of grain consumption	As % 2054 calories	As % 1900 calories
1953-54	1429.41	69.59	75.23
1954-55	1347.93	65.62	70.94
1955-56	1589.00	77.36	83.63
1956-57	1576.99	76.78	83.00
1957-58	1636.07	79.65	86.11

Table V.20: A comparison of calorie availability from per capita grain consumption and calorie requirements.

Sources: Tables V. 19 and II. 11.

The question of how many calories are required per day in order to meet adequate health requirements is an extremely complicated one and to answer it would take us beyond the confines of the present chapter. Suffice it to say that recent studies have suggested that earlier estimates may have been set too high. Therefore it is the 1900 calories that provide the more acceptable standard in the table above. <sup>(60)</sup> If this is so, it would appear that during the last half of the FFYP period cereals, tubers and soya provided the peasants in Kiangsu with almost 85% of their daily calorie requirement, the figure showing virtually no change between 1955 and 1956 though increasing in the final year of the plan.

But grains were only one part (albeit the most important) of the Chinese diet. They were supplemented by a small but significant<sup>(61)</sup> quantity of meat or fish and (especially) vegetables and these must be added in if we are to obtain a reasonably accurate estimate of consumption levels. Unfortunately, specific information on this aspect of peasants' diets in Kiangsu is not available and it is necessary to extrapolate from the little data obtainable for other areas. T.H. Shen has argued that in China

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"... about 80% of the calories are derived from cereals ... " $^{(62)}$  However, such a figure conflicts with studies conducted by the Chinese after 1949 which indicated that the proportion of calories coming from grain was much lower. The point is brought out in the following table:

Table V.21: Consumption per head of grain and vegetables in 3 provinces of China.

	Kwangsi, 1956	Hupeh, 1956	Chekiang, 1955
Grain consumption *	436.5 chin	530.1 chin	450.9 chin
Vegetable consumption	172.0	192.5	182.0
Vegetable as % of grain consumption	39.40	36.31	40.36

\* The original data are for unprocessed grain; these have been reduced by 10% to bring them in line with the figures for processed grain shown in earlier tables.

## Sources:

Kwangsi:	From <u>Kuang-hsi jih-pao</u> , 10/11/57, p.2, "The Difference between the Lives of Workers and Peasants is Really Not Great".
Hupeh:	Hu-pei jih-pao, 11/8/57, "On the Basis of an Expansion of Production the Living Standards of the People in Our Province Have Improved Magnificently".
Chekiang:	<u>Che-chiang jih-pao</u> , 6/4/57, "A Survey of the Standard of Living of Peasants in Chekiang Province".

On the reasonable assumption that the calorific content of vegetables and grains is about the same<sup>(63)</sup> these figures would suggest that vegetables contributed rather more to the Chinese diet than Shen indicates. But two points need to be made: first, it was in the interests of the authorities to show a high consumption of vegetables in order to demonstrate the existence of as varied a diet as possible. Accordingly, the figures shown in V.21 may represent maxima. Second, per capita output of grain in Kiangsu was less than that of all three provinces shown<sup>(64)</sup> and it could be that there was a similar gap in vegetable intakes. In view of these considerations we shall assume that in Kiangsu as a whole food grains accounted for 70% of the total calorie intake. On this basis estimates of the consumption of grains and other foods can now be made:

	Table V.22: Per capit and other	ta calorie intako foods in rural	e from grains areas of Kiangsu
	Daily calorie intake	As % 2054 calories	As % 1900 calories
1953-54	2042.01	99.42	107.47
1954-55	1925.61	93.75	101.35
1955-56	2270.00	110.52	119.47
1956-57	2252.84	109.68	118.57
1957-58	2337.24	113.79	123.01

Source: Calorie data from Table V.20.

The inclusion of foods from sources other than cereals and tubers transforms the situation portrayed in V.20, in which calorie supplies were consistently below requirements, into one in which there was generally a surplus.  $^{(65)}$  In particular, during the last three years of the FFYP food supplies were considerably higher than the standard requirement demanded (no matter whether 1900 or 2054 calories is taken as this standard). Only in 1954-55 does the situation appear to have become rather tight - a reflection of that year's grain acquisition crisis<sup>(66)</sup> and an indication of the subsequent improvement in government control over grain.

However, some qualifications have yet to be added. First, notice that the figures shown in V.20 and V.22 are broad averages: they not only conceal intra-regional differences within Kiangsu (to be considered below) but also differences in food requirements within the rural population. The calorie needs of children and the old are less than those of the adult population. Therefore, in interpreting the low (even inadequate) levels of consumption in 1953-54 and 1954-55, it should be remembered that a higher-than-average figure would have been available to members of the rural labour force.

The second point concerns the distinction between the private and collective sector in agriculture. Despite their small size the private plots were an important source of food production: for example, it has been estimated that on average the "modal private plot" supplied 284 calories per head per day in 1956. <sup>(67)</sup> On the assumption that the average private plot in Kiangsu was smaller by **20**-25% than the modal figure, <sup>(68)</sup> its contribution to peasants' total calorie intake can be shown. Take, for example, 1956:

## Table V.23: The calorific contribution of the private and collective sectors in Kiangsu: 1956.

Calories	from	private plots:	77.5% x 284 =	220
Calories	from	collective sector:		2252.84
		Total		2472.84

Clearly, the private plot was of some significance. In 1956 its potential contribution was almost 10% of the total supply of calories available to peasants in Kiangsu. In areas where food supplied by the collective sector was already more than adequate, the importance of the supplementary production on the private plots may have been primarily as a source of income. But where consumption was low the role of the private sector was more immediate since it could help to ensure that the calorie intake of peasants was maintained at an adequate level.

Finally, consideration must be given to regional differences in consumption within Kiangsu. Far from the CPCS system having brought about

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equality in consumption throughout the province, surprisingly wide differentials continued to exist until the end of the FFYP. The amount of grain retained by any given area in Kiangsu was determined by three criteria. the level of grain production; the effects of natural disasters; and traditional standards of living and levels of consumption. (69) Soochow. Sung-chiang and Chinkiang Special Districts, where agriculture was relatively advanced and standards of living high, should be permitted to retain an appropriately high proportion of their output. In the backward regions of Hstl-chou and Hwai-yin yields were lower and therefore consumption was correspondingly reduced. Nan-t'ung and Yen-ch'eng occupied a special place: much of the arable area here was planted under economic crops (especially cotton) and in order to ensure adequate incentives to grow these crops grain supplies were guaranteed by the state. The policy of deliberately maintaining differences in consumption had of course a strong economic raison-d'etre, for an extractive policy which placed too great a burden on high-output areas in the interests of egalitarian distribution was likely to have disincentive effects and ultimately be counter-productive.

Fortunately, estimates of average per capita grain consumption are available for all eight Special Districts in Kiangsu in 1955 and 1956.  $(^{70})$ However, it seems likely that they are expressed in terms of raw grain $(^{71})$ and for this reason we shall adjust them downwards by 10% in order to bring them in line with the data presented in earlier tables. The revised estimates are shown below in Table V.24:

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	1955-56		1956-5	57
	Per capita grain consumption	Daily calorie <u>content</u>	Per capita grain <u>consumption</u>	Daily calorie <u>content</u>
Hstl-chou	356.40 chin	1304.52	398.70 chin	1459.35
Hwai-yin	372.06	1361.84	374.13	1369.42
Yen-ch'eng	391.95	1434.64	418.68	1532.48
Yang-chou	399.96*	1463.96	418.95	1533.47
Nan-t'ung	398.88	1460.01	399.42	1461.99
Chinkiang	457.83	1675.78	501.84	1836.87
Soochow	532.35	1948.55	520.47	1905.06
Sung-chiang	508.23	1860.26	536.48	1963.66

Table V.24: Estimates of per capita grain consumption and its calorific content in the eight Special Districts of Kiangsu.

- \* The figure for per capita grain consumption for Yang-chou given in <u>HHJP</u>, 17/9/57, <u>op. cit</u>., p.2 is 544.4 chin (1955-1956). Given the level of yields in Yang-chou, which were actually less than in Nan-t'ung, this must surely be a misprint for 444.4 chin (a fact which is further supported by the Yang-chou figure for 1956-57) and it has been so taken in calculating the estimates shown above.
  - Source: <u>HHJP</u>, 17/9/57, <u>op. cit.</u>, p.2. But all the original estimates have been revised downwards by 10%.

The way in which average data can conceal significant differences emerges strikingly from the table. In 1955-56 peasants in Soochow had 175.95 chin more grain than their counterparts in Hstl-chou. This represented a difference of 644 calories (almost 50%). It is true that the gap narrowed to 43.39% in the following year, although information over a longer period would be required before we could speak of there being a definite trend in this direction. Nonetheless, it is interesting that despite Soochow and Sung-chiang having achieved bumper harvests in 1956 and Hstl-Hwai having been most severely hit by the disasters, grain consumption in the latter area rose by 6.09% over 1955, compared with only 1.57% in -375T'ai Hu (Soochow and Sung-chiang).

A more accurate comparative analysis of consumption levels in Kiangsu requires the inclusion of foods other than grain. At an intra-provincial level this is particularly important since it alters not only the absolute consumption levels of all areas but also their relative levels. This is because the proportion of total food intake represented by grains was undoubtedly higher in the poor agricultural regiona (Hst-Hwai) than in the rich ones (T'ai Hu). Specific information on this is not available but in order to derive estimates of overall consumption we shall make the simplifying assumptions that the ratio of calories from grains to total calorie intake was 75% in Hst-Hwai; 70% in Nan-t'ung, Yen-ch'eng and Yang-chou; and 65% in the remaining Special Districts. The results follow in Table V.25 on the following page: Table V. 25;Daily average calorie intake from all foodsper head of rural population in Kiangsu.

		1955 - 1956			1956 - 1957	
	Total calorie intake	As % of 2054 calories	As % of 1900 calories	Total calorie intake	As % of 2054 calories	As % of 1900 calories
Hstl-chou	1739.36	84.68	91.55	1945.80	94.73	102.41
Hwai-yin	1815.79	88.40	95.57	1825.89	88.89	96.10
Yen-ch'eng	2049.49	99.78	107.87	2189.26	106.59	115.22
Yang-chou	2091.37	101.82	110.07	2190.67	106.65	115.30
Nan-t'ung	2085.73	101.54	109.78	2088.56	101.68	109.92
Chinki ang	2578.12	125.52	135.69	2825.95	137.58	148.73
Soochow	2997.77	145.95	157.78	2930.86	142.69	154.26
Sung-chiang	2861.94	139.33	150.63	3021.02	147.08	159.00
		Source	Table V.24.			

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The extent of the familiar economic dichotomy between north and south Kiangsu is demonstrated very vividly by these figures. In 1955, for example, the difference between the calorie intake of peasants in Hstl-chou and in Soochow was an astonishing 1258.41 (a gap of 72.35%). Although this was reduced, in 1956 peasants in Sung-chiang still consumed<sup>(72)</sup> 1195 more calories than those in Hwai-yin. Such figures surely provide convincing evidence of the relevance of the distinction we have often drawn between the agricultural economies of the north and south. This point is perhaps made even more forcefully if the data in V.25 are re-arranged into a smaller number of regional categories;

Table V.26: Daily average calorie intake per head of rural population: more comparative indicators.

	Total calorie intake	Index with Hstl-Hwai = 100.0	Total calorie <u>intake</u>	Index with Hstf-Hwai = 100.0
Hstf-Hwai	1777.58	100.00	1885.85	100.00
Yen-ch'eng - Nan- t'ung - Yang-chou	2075.53	116.76	2156.16	114.33
Chinkiang - Soochow - Sung-chiang	2812.61	158.23	2925.94	155.15
T'ai Hu*	2929.86	164.82	2975.94	157.80

\* I.e., Soochow and Sung-chiang.

Source: Table V.25.

To sum up: a comparative analysis indicates that in a very real sense there were two economies in Kiangsu, the geographical dividing-line being the Yangtze. At the extremes the contrast was particularly great. In the chronic grain-deficit areas of Hst-Hwai the peasants were living at little more than subsistence level - and this in the mid-1950's.<sup>(73)</sup> Indeed if the criterion of 2054 calories is accepted there would actually

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appear to have been insufficient grain and other food supplies to meet even minimum requirements.<sup>(74)</sup> But in T'ai Hu food supplies were apparently so abundant as to provide the peasants with a substantial surplus above their needs. Chinkiang enjoyed slightly lower consumption standards than Soochow and Sung-chiang, and Yang-chou, Yen-ch'eng and Nan-t'ung slightly higher than those of Hst -Hwai; but in no case was the difference large enough to alter the essentially dichotomous nature of Kiangsu's agricultural sector. In this respect it is of some interest that per capita consumption in the important economic crop areas of Yen-ch'eng and Nant'ung was so close to that of the poorest areas in the north. The point was made earlier that grain for these regions had to be guaranteed by the state in order to ensure adequate incentives to continue growing non-food crops. But Table V.25 suggests that such state supplies were barely sufficient to meet this need. The fact that the most important cotton producting district, Nan-t'ung, decided in 1957 to contract the sown area of cotton in favour of expanding the area planted under food grains gives strong support to this hypothesis. (75)

There is one differential which should finally be considered and that is the gap between consumption in the cities and in the countryside. Official information on rural and urban grain consumption is shown on the following page:

	Grain consumption per head of rural population	Grain consumption per head of urban population
1955-56	484.9 chin	413.6 chin
1956-57	482.3 chin	456.0 chin

## Table V.27: Annual per capita grain consumption in rural and urban Kiangsu.

Source: HHJP, 17/9/57, op. cit., p.2.

(Strictly speaking, consistency requires that these data be revised downwards by 10% in order to bring them into line with earlier tables. However, since concern here is with relative levels of grain consumption such calculations are not necessary.)

As in other poor countries, differences (real or supposed) in urban and rural living standards have been the source of tension and so an object of economic policy in China. In Kiangsu, for example, some maintained that peasants had less to eat than cadres, workers and urban residents generally. <sup>(76)</sup> Indeed the data shown in V.27 were published expressly to prove that rural consumption standards were even higher than those in the cities. The same point was made in respect to the findings of a sample survey carried out in Chiang-tu <u>hsien</u>, which revealed the following scale of grain rations:

Table V.28:	Average annual per	capita grain rati	ons
	in Chiang-tu hsien	(Yang-chou S.D.)	.*

Peasants	500 chin
Workers	408
Cadres	356
Urban residents	336

\* The figures have been averaged out for adults and children.

Source: HHJP, 17/9/57, op. cit., p.2.

On the surface the 22.6% gap between workers and peasants and that of almost 50% between urban residents and peasants argued strongly that rural living standards were every bit as high as those in the cities. But such a conclusion is not warranted because of the incomplete nature of the data. For although statistical information is not available for Kiangsu, studies made in other parts of China during the 1950's show clearly that the difference in levels of consumption is eliminated and in fact reversed when sources of foods other than grains are taken into account. (77) In other words, urban inhabitants consumed sufficiently more meat, fish, eggs and vegetables to offset the advantage which the peasants enjoyed in terms of grain rations alone. There is no reason to doubt that this was also the case in Kiangsu. The overwhelmingly large proportion of arable land sown under vegetables in the suburbs of Shanghai and the much greater emphasis placed on the rearing of dairy and meat cattle indicate as much. We would conclude therefore that while the peasants in Kiangsu consumed more grain than those living in the cities the overall quality of the urban diet was nevertheless superior to that of the rural areas.

Much of this section has been concerned with patterns of consumption in Kiangsu but let us conclude it by returning to the questions of productivity levels and growth of food grain output during the 1950's.<sup>(78)</sup>

The short description of rural conditions in Kiangsu given in the first chapter<sup>(79)</sup> showed agriculture becoming poorer the further north one moved. The per capita consumption data just presented implied a similar pattern. The following estimates of food grain yields give a more quantitative indication of the regional differences in productivity that existed at the end of the First Plan: -381-

	Average yield
Hst-chou <sup>a</sup>	181.00 chin per mou
Hwai-yin <sup>b</sup>	193.00
Yen-ch'eng <sup>C</sup>	230.00
Soochow	600.19
Sung-chiang <sup>e</sup>	592.00

Table V.29:	Relative levels of productivity in Kiangsu
	as shown by average yields of grain in
	5 Special Districts: 1957.

Sources: a <u>HHJP</u>, 19/12/57, "A Simple Introduction to the Construction Plans for the Hstl-Hwai Region.

- b HHJP, 14/1/58.
- c <u>HHJP</u>, 21/12/57, "Full of Confidence and Trusting in Victory Let Us Advance". (The figure shown is an average of the 220-240 chin/mou given in this article.)
- d <u>HHJP</u>, 21/12/57, "The High-Output Areas Have the Conditions for a Great Leap Forward".
- e TKP (Peking), 13/11/57.

Whatever the pattern of agricultural growth since 'Liberation', it had not succeeded in eliminating the wide gap between north and south. Food grain yields in T'ai Hu were still three times as high as those in Hstf-Hwai. Nevertheless the evidence suggests that some progress towards narrowing the gap was made in the FFYP years: although the two estimates are not exactly comparable the claim that average grain yields in Hstf-Hwai had risen by 50% between  $1953-57^{(80)}$  would certainly indicate a more rapid rate of growth than in T'ai Hu, where grain output increased by 3.49% p. a. over the same period. <sup>(81)</sup> The fact that grain yields in Yen-ch'eng (1957) were only 20% higher than those of Hwai-yin (see V.29) also points to rapid development in the far north of the province: agricultural plans of 1951 anticipated a gap of 144.83% between yields of food grain in the two regions;<sup>(82)</sup> if these planned yields are taken as a base against which to assess the levels actually attained in 1957, Hwai-yin's simple average growth rate of grain is 38.79%, compared with only 10.33% in Yen-ch'eng.<sup>(83)</sup> Finally, it is worth recording that between 1949-57 the growth of total grain production in Hwai-yin was more than three times as fast as in Sung-chiang - 29.17% p.a. compared with 8.07% p.a.<sup>(84)</sup> In short, we may tentatively conclude that rapid growth in the northernmost areas of Kiangsu had gone some way to narrowing the productivity gap.

Encouraging as such trends were, their impact on the traditional regional pattern of agriculture was minimal and at the end of the FFYP average yields of food grains in Soochow were still 231.6% higher than in Hst-chou! Put in another way yields in Hst-Hwai were only 51.8% of the provincial average figure while in T'ai Hu they were 64% <u>above</u> this level.<sup>(85)</sup> In the intervening region along the coast and in Li-hsia-ho yields exceeded the provincial figure by 13.7%.<sup>(86)</sup> Thus, the high yields of T'ai Hu ensured that although this area comprised only 15% of Kiangsu's total arable area, it contributed 31.6% of its total grain output.<sup>(87)</sup> By contrast, Hst-Hwai had 43% of the total arable area but produced only 21.2% of grain output.<sup>(88)</sup> The remaining 47.3% of output came from Li-hsia-ho and the coastal regions (with 42% of total arable area).

Given the high levels of productivity attained in the south it is not surprising that at the end of the First Plan it was to the under-developed areas on Kiangsu's northern borders that the planners turned as a source of future growth. If only their rapid growth of yields could be maintained and land utilization increased, the contribution to overall agricultural development promised to be very significant. Changes in the composition of output were also important. Hitherto Hst-Hwai had been a dry-crop area with coarse grains assuming special importance. In Hwai-yin 53% of the sown area under food crops supported "miscellaneous grains"<sup>(89)</sup> such as sweet potatoes, maize, kaoliang.<sup>(90)</sup> Hst-chou accounted for a mere 1% of Kiangsu's rice output.<sup>(91)</sup> Small wonder that agricultural plans drawn up in late 1957 and early 1958 foresaw the emergence of a new paddy region in this area.

In many ways the picture that has emerged in this section is a pessimistic one. Overall, it is true, Kiangsu had maintained a positive rate of growth of grain production during the FFYP period, indicating that the still overwhelmingly 'traditional' agriculture had not yet completely run out of growth potential. Nor was it mere expansion of the arable area that had yielded this growth: between 1951-57 total grain output had increased by 23% while the area planted under food grains had expanded by only 9.46%. <sup>(92)</sup> Clearly, rises in yields had made the major contribution to the growth in grain production.

However, the per capita data suggest a different interpretation. In particular, the negative average growth of the last four years of the First Plan seemed to imply that the growth capacity of the agricultural sector was reaching its limit. Many problems remained unsolved. Most obviously, the wide fluctuations in output showed how difficult it was to conduct long-term planning and the considerable regional differences in production and in food consumption provided further evidence of instability. Admittedly the CPCS system had successfully cushioned the peasants against the serious shortfalls in output of 1956, but this success was less important in economic terms than the failure to use state acquisitions as the basis for agricultural development. Our final judgement therefore must be that the performance of agriculture in

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Kiangsu during the FFYP period as revealed by trends in the production of food grains was very disappointing indeed.

## (2) <u>Rice</u>:

Rice may be considered the single most important food crop in Kiangsu. Not only is it a fine grain and so much to be preferred as human staple food but it also has the highest energy yield per unit area of all grains.<sup>(93)</sup> In the early 1930's only eight of the then 61 <u>hsien</u> did not have some arable land under this crop<sup>(94)</sup> and although rice cultivation was particularly associated with Kiangnan natural conditions permitted it to be grown throughout the province. As elsewhere in China, the individual varieties of rice were legion, each differing from the next in its adaptability to local ecological conditions and its date of ripening. But at the most general level they could be grouped in two categories: the glutinous varieties,<sup>(95)</sup> used mainly for making ricewine and special pastries; and the much more important non-glutinous varieties<sup>(96)</sup> which formed the staple diet of so many of the peasants.

We begin our quantitative analysis by presenting data relating to the area planted under rice, its total production and average yield during the 1950's:

		of paddy	rice in Kiangsu: 1951	- 1957.	1
	Arable area	Sown area	Total output	Average yields (arable area)	Average yields (sown area)
	(nom)	(nom)	(million chin)	(chin/mou)	(chin/mou)
1951	30,900,000	30, 900, 000	9,983	323.00	323.00
1952	30, 900, 000	30,900,000	10, 591	342.75	342.75
1953	31,050,000	31,050,000	11,650	375.20	375.20
1954	31,050,000	31,050,000	11,202	360.77	360.77
1955	32, 380, 000	32, 380, 000	12, 578	388.45	388.45
1956	35, 510, 000	36,100,000	12,078	340.13	334.57
1957	35, 180, 000	35,770,000	13,178	374.59	368.41
	Sources:	1951: All data are	from TLCS, 1959, no	o. 6, p. 245.	
		1955; Arable and s total output	sown area taken from figure is derived from	Wang Wei-p'ing, op. 1 information given i	cit., p. 59. The a JMJP, 1/12/57.
		1956: Total output	from JMJP, 1/12/57	, op. cit.	
		1957: Sown area a CKNYCCHW 590,000 mou arable area	nd total output from $\overline{T}$ $\overline{T}$ , <u>op. cit.</u> , p. 127 sta 1 in 1957; thus the so under rice.	<u>LCS</u> , 1959, no.6, <u>of</u> tes that double-crop wn area minus this fi	o. cit. p. 245. ping rice covered igure gives the
	Note:	All other estimates by which they have	are interpolated. Th been obtained are disc	le assumptions on wh cussed below.	ich and methods

Table V.30: Sown and arable area, total output and average yields of paddy rice in Kiangsu: 1951 - 1957.

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The arable area under rice must be distinguished from the sown area (hence also the two yield figures), the distinction simply reflecting the fact that some arable land supported two crops of rice in a year. This distinction was not significant in Kiangsu until the second half of the First Plan and the table shows the rice arable and sown areas differing only in 1956 and 1957. It is in fact certain that double cropping of rice was being practised experimentally in 1955 but in the absence of any information on the area affected and in the knowledge that it can only have been marginal, the arable and sown area estimates have been allowed to remain the same in this year.

The sources to Table V. 30 indicate that many of the estimates are interpolated and we had better begin by explaining how these were arrived at. As far as the arable area under rice is concerned, a glance at the local newspapers shows a fairly clear pattern: between 1951-54 little change took place; in 1955 there was moderate expansion, which was intensified in the following year, though stabilizing around this level in 1957. Simultaneously, there was a modest extension of double-cropping of paddy in the latter part of the plan (especially 1956).

With this general pattern in mind it can be assumed that the area under rice remained unchanged in 1952. However, since 1951-52 was within the 'recovery period' it is likely that land productivity (output per unit area) was still rising. Unfortunately, the available evidence is insufficient to allow a direct estimate of 1952 yields to be made and therefore we have simply assumed that total output in 1952 rose by the same proportion as total grain output. From this the yield of 342.75 chin per mou is obtained.

Information for 1953 is notably lacking. Very cold weather occurred in -387December, 1952 and there were frosts as late as April, 1953. But these adverse conditions appear to have had their most serious effect upon the wheat harvest, for example, in Hwai-yin Special District. (97) The rice crop was relatively unaffected so that in May, 1953 the 'People's Daily' was able to speak of the completion of rice sowing and the healthy condition of the rice shoots in Kiangsu. (98) Moreover, the opening of the North Kiangsu Irrigation Channel (in June, 1952) was expected to raise grain production by 1,810 million chin annually and this must have had a beneficial effect on rice yields in the northern half of the province. In short, rice probably did relatively well in 1953. But how well? An earlier table showed total grain output rising by 7.83% in 1953. If we are right in arguing that the adverse natural conditions mostly affected crops other than rice, rice output presumably increased by more than this amount. Thus, in V.30 we have assumed that total rice production rose by 10% to 11,650 million chin, average yields therefore being 375.20 chin per mou.

Although considered one of the two 'disaster years' of the FFYP, the natural calamities of 1954 were mostly confined to the summer and autumn months. This would suggest that of the food grains, rice was the most seriously threatened. Suppose we begin with the simplifying assumption that the fall in grain production during this year was carried wholly by rice: since rice represented almost 60% of total grain output<sup>(99)</sup> and the latter declined by 1.71% in 1954, it can be shown that rice production must have fallen by about 4%. This is the proportionate change that is followed in the table. Rice arable and sown areas are assumed to have remained at the 1953 level<sup>(100)</sup> and of course from the output and area data a yield estimate can be found.

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With 1955-57 we are on much firmer ground. The area estimates of 32,380,000 mou cited by Wang Wei-p'ing are substantiated by a very similar figure given in a national newspaper.<sup>(101)</sup> As already mentioned, it is true that the experimental double-cropping of rice during 1955 makes the equality between arable and sown areas not strictly accurate. But in view of the limited nature of these trials the omission is justifiable. The 1955 total output figure also comes from an authoritative source. Similarly, with the data for 1956 and 1957. In the latter year, it might be added that Sun Chingchih cites a total output figure which is extremely close to that of the geographical journal: in fact, the difference is probably one of coverage, Sun including production in Shanghai.<sup>(102)</sup>

For purposes of analysis the following table shows the percentage change in the area, output and yield of rice in each year between 1951-57:

	Arable area	Sown area	Total output	Average yields (arable area)	Average yields (sown area)
				·	
1952	0	0	+ 6.09	+ 6.11	+ 6.11
1953	+ 0.49	+ 0.49	+ 10.00	+ 9.47	+ 9.47
1954	0	0	- 3.85	- 3.85	- 3.85
1955	+ 4.28	+ 4.28	+ 12.28	+ 7.67	+ 7.67
1956	+ 9.67	+ 11.49	- 3.98	- 12.44	- 13.87
1957	- 0.93	- 0.91	+ 9.11	+ 10.13	+ 10.11

Table V.31: Annual percentage change in area, output and yield of rice in Kiangsu: 1951-57.

Source: Table V.30.

Annual changes in total output reveal a similar pattern to that for all food grains. No consistent trend exists over the whole period but rather there is a susceptibility to significant annual fluctuations. Nevertheless, there are some interesting differences between the two series. For example, both show a decline in 1954 and 1956, but whereas the fall in total grain production is much greater in the latter year, in the case of rice it is about the same in both years. We have already argued that natural conditions in 1954 were particularly unfavourable to rice and this must explain the poor showing of this crop vis-a-vis grains as a whole. In 1956 the much greater fall in the production of all food grains might suggest that rice was unaffected by the disasters. However, an examination of trends in the area planted and yields will reveal that this was not the case: that yields of rice in fact fell very dramatically in 1956 and only because of an expansion in the arable and sown areas was a commensurate decline in total output avoided.

In order to assess the performance of agriculture during the First Plan period 1952 should be taken as the base year. But it is 1951 that is chosen in the <u>Ti-li chih shih</u> article as the basis for judging the end-of-Plan output figure. This is of course significant, for the choice in itself is undoubtedly a reflection of the poor performance of the FFYP. With 1951 as the base the simple average growth of rice production is 5.33% p.a.; if the FFYP period 'proper' is considered, the figure drops to 4.89%. Moreover, a further shortening of the period to 1953-57 shows an annual rate of growth of only 3.28% - not much more than half that for the 1951-57 period as a whole.

In per capita terms the picture is even worse:

	Per capita output	Index with 1951 = 100	Index with 1952 = 100
	(chin)		
1951	279.36	100.00	95.75
1952	291.75	104.44	100.00
1953	315.94	113.09	108.29
1954	299.10	107.07	102.52
1955	330.69	118.37	113.35
1956	312.72	111.94	107.19
1957	336.05	120.29	115.18

Table V.32:	Output of rice per head of rural population
	in Kiangsu (excl. Shanghai) during 1951-1957.

Sources: Table V.30 and Appendix B.

Thus, the simple average per capita growth rate is 3.38% (1951-57) or 3.04% during the FFYP period, considerably less than that of total output.

But it would be wrong to consider the performance of the rice sector a failure simply because of the unimpressive total and per capita growth rates that were attained. Compared with the growth of total grain output the rates of increase in rice output actually look quite high. Given the importance (both in quantitative and qualitative terms) of rice in the Kiangsu agricultural economy, this at least was a measure of success.

Consideration must now be given to the sources of the growth in rice output during the 1950's. Table V.31 shows that between 1951-54 no significant change occurred in the arable area planted under rice<sup>(103)</sup> and that changes in total output therefore reflected changes in average yields.<sup>(104)</sup> But in 1955 it is necessary for the first time to distinguish between changes in the arable area and average yields.<sup>(105)</sup> The importance of the two sources of growth is clearly seen in V.34: on its own the increase in land productivity would have raised total rice output to a little over 12,000 million chin; but because of the simultaneous expansion in the cultivated area production rose by a further 500 million chin, making the 1954-55 increase the largest during the whole FFYP period.

In 1955 yield and area changes worked in the same direction. But the significance of acreage expansion is even more apparent in 1956, when land productivity actually declined.<sup>(106)</sup> The effect of land reclamation and consolidation and the rationalization of cropping patterns was to raise the arable area under rice by nearly 10%. However, the importance of this was even greater than the increase itself indicates, for in contrast to the pattern of the previous year average yields of rice were falling in 1956. It was only because of the offsetting effect of the area expansion therefore that total production in 1956 did not decline much more precipitously. If the expansion of arable area had not taken place total output would have fallen to 11,186 million chin, the lowest level since 1952.

In 1957 arable area played a more or less neutral role and output of rice largely followed the change in yields. Admittedly, the evidence on this is not completely water-tight, for there are reports of planned and actual extensions in the area under rice. <sup>(107)</sup> But statistical evidence in favour of a figure significantly higher than that used in Table V.30 does not appear to be available. In any case, even if the arable area under rice was increasing in some areas during 1957, elsewhere it is likely that the displacement of land by rural construction and the disenchantment among peasants following the poor performance of 1956 were working in the opposite direction.

Over the period 1951-57 the effects on total rice production of the increase in arable area, on the one hand and unit area yields on the other can -392-

now be shown. With 1951 as the base year the honours are shared about equally, yields having risen by an average 2.66% p.a. compared with 2.31% p.a. for arable area. But what is most interesting, as subsequent years are taken as the base, changes in arable area are found to play a progressively more important role vis-a-vis total output changes. For example, during the FFYP years (1952-57) the annual growth of rice arable is 2.77% but only 1.86% for rice yields. Most striking of all, when 1953 is taken as the base year yields are actually shown to have declined (by 0.04% p.a.): only because of the 3.33% average annual rise in the arable area was total output able to maintain its positive growth of 3.28% p.a. In short, we would conclude that most of the growth in total rice production during the FFYP (all of it if the last four years alone are considered) came from arable area expansion, with productivity increases playing a minor role.

In such bald terms this is an important finding, since it would presumably be argued that such a pattern augured badly for the future, arable area expansion being a more limited source of output growth than increases in land productivity (given the high index of cultivation in Kiangsu). But against this it might be argued that the identification of productivity with changes in yields is unduly restrictive to the extent that rationalization of the cropping pattern (for example, by substituting rice for lower-yielding crops) is itself a kind of productivity change. If accepted, this would throw different light upon the data in Tables V. 30 and V. 31, for instead of interpreting them in terms of <u>either</u> area expansion <u>or</u> productivity rises as mutually exclusive categories, the choice is between two different kinds of productivity change. Does it then matter that area expansion rather than increases in yields was the engine of growth during the First Plan? The answer is that it does. To begin with, -393growth based on an extension of the arable area resulting from a change in the cropping pattern is still likely to be of limited application. In a geographical sense this is obvious enough: if the climatic factors are not appropriate, rice cannot be substituted for, say, millet, no matter how desirable such a change may be. But more than this, the gain from changing over to rice cultivation is not the same as the increase in rice production that results. What happens is in the nature of a trade-off and the increase in rice output has to be balanced against the loss in production of whatever crop it has replaced. By contrast, improvements in productivity arising from increases in yields are not constrained in the same way. As long as the appropriate inputs are available in the correct quantities and combinations yields may be increased without reference to natural conditions.

To sum up: the distinction between changes in arable area and productivity remains a valid one. It follows that the performance of rice in the 1950's was less encouraging than its growth rate might suggest. It is true that for the whole period, 1951-57, arable area expansion and yield increases contributed about equally to the growth of total output, but instead of the latter factor becoming more important over time it in fact became less so. The result was that increases in total output came to rely more and more on extending the cultivated area of rice.

There remains to be considered one further source of increased productivity - the double-cropping of rice. In many parts of southern China this was already a common practice (for example, Fukien, Kwang-tung, Kwangsi) but in Kiangsu its introduction during the mid-1950's marked something of an innovation. The hope was of course that by growing two crops of rice on the same piece of land annual production would be significantly increased, but

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without affecting the output of other crops.

Shigeru Ishikawa has pointed to three kinds of difficulties associated with the double cropping of rice: technical, economic and organizational.<sup>(108)</sup> Technical constraints are given by natural conditions, especially the climatic demand that there be 220 frost-free days available for cultivation.<sup>(109)</sup> The economic constraints are associated with the need for increased supplies of inputs such as water, fertilizers, draft animals and labour. Finally, the organizational problem relates to the increased labour requirement during the peak periods. Because of these strict demands double-cropping of rice was not possible throughout a large part of Kiangsu. The notable exception was T'ai Hu and it was here that the expansion of rice double cropping was planned to take place in the latter part of the First Plan. In Sung-chiang, for example, the available growing period extended from about 20 April until 3 October and there were 253 frost-free days.<sup>(110)</sup> Rainfall was plentiful, the soil fertile, irrigation facilities were good and there was an abundant supply of labour. Similar conditions also existed in neighbouring Soochow.

By 1955 experiments to grow two crops of rice a year were under way in the T'ai Hu region. So successful were these that early in the following year it was claimed that "... the extension of double cropping of rice can bring about a great leap forward in rice production".<sup>(111)</sup>

But what did these experiments show? By how much could total output of rice in Kiangsu be increased as a result of double-cropping? The following table showing the yields of double-cropped rice in trial areas of four <u>hsien</u> in Sung-chiang Special District go some way to answering these questions:

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		AVERAC	GE YIELDS	realed by ex IN 1955	periments in Sung-ch	iang S. D. 1955
			(nour/union)			
Hsien	Sown area over which trial double cropping carried out	First crop	Second crop	Total	Average yield of single-cropped rice	Double-cropping yield as percentage of single-cropping yield
	(mom)				(chin/mou)	
Chin-shan (1)	1.9	592	474	1,066	666	60.06
(2)	14.0	561	257	818	576	42.01
(3)	1.0	i	·	750		
Sung-chiang (1)	2.0	550	450	1,000	602	66.11
(2)	6.0	518	301	819	600	36.50
(3)	0.35	430	669	1,129	550	105.27
(4)	14.5	397	433	830	591	40.44
(2)	0.6	354	446	800	595	34.45
(9)	10.5	350	400	750	600	25.00
Feng-hsien	0.3	400	300	200		
Nan-hui	1.2	300	340	640	1	,
Total	60.75	ï		815.5	516	58.04
	Source:	STSCCSTI	XTL, op. cit.	., "An Initi	ial Summary of Trial	Double Cropping of

Rice in Sung-chiang Special District in 1955", p. 323.

It would be tempting but wrong to conclude from these figures that the extension of double-cropped rice held the key to the increased production of grain needed so much in Kiangsu. Certainly there is no denying that the gains made in the trials were very impressive. But we should not infer too much from them. For one thing the area over which the experiments were conducted was tiny and clearly there can have been no danger of shortages of critical inputs causing the kind of bottlenecks that might well occur if double cropping were practised over a wider area. Further, it is likely that the trials were carried out in those districts where conditions were particularly favourable. In this respect it is interesting that the average single cropping yields for Sung-chiang hsien are considerably higher than the 1956 average rice yield for Sung-chiang Special District as a whole. (112) In short, the table above shows the potential of double cropping of rice under the optimal 'technical' conditions and its validity needs to be tested against the broader conditions (especially where they relate to labour and draft animal supplies) of the T'ai Hu region. This we shall do presently.

First though it is worth summarizing some of the main lessons which the experiments in Sung-chiang were felt to have taught, for they bring out very clearly the nature of the demands made by the cultivation of two crops of rice a year. To some extent they were the same as those which applied to the cultivation of one crop of rice - for example, the need to choose earlymaturing and high-yielding varieties of seed, to plough deeply and generally prepare the land as meticulously as possible. Fertilizer application was particularly emphasized and it was pointed out that the failure to apply base fertilizer had been responsible for the low yield of the first rice crop in Nan-hui (this despite an increase in top-dressing). <sup>(113)</sup>

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But other problems were uniquely associated with double cropping. Most obvious perhaps was the much more critical timing of agricultural operations. When the first rice crop had ripened not only did it have to be harvested as quickly as possible but it was also essential to simultaneously carry out ploughing and transplanting in order to ensure a bumper second crop. <sup>(114)</sup> As the Sung-chiang article concluded, "... because of the seasonal nature of the double cropping of rice ... plans must be made in respect to the organization of labour and the use of draft animals and tools in order to ensure that ploughing and sowing are completed on time. Particular attention must be given to making preparations for the 'turn-around' period of the two crops of rice, <sup>(115)</sup> otherwise the other phases of work will overlap and become mixed-up; time will than be lost and this may have an adverse effect on the attempt to increase production. "<sup>(116)</sup>

Such considerations are the starting point of an analysis made by K.R. Walker of the demand and supply conditions of labour and draft animals for the double cropping of rice in a number of central and southern provinces of China. <sup>(117)</sup> In it are presented data for Kiangsu which appear to show a serious shortage of both these factors, threatening the feasibility of widespread double cropping of rice in the province. However, the data relate to the whole of Kiangsu whereas (as has been argued above) it was principally in the two Special Districts of Soochow and Sung-chiang that attempts to extend double cropping actually took place in 1956-57. Below therefore, estimates of labour and draft animals supply conditions for these specific areas are introduced into the basic framework used by K.R. Walker in order to test the validity of his hypothesis in the T'ai Hu region.

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The following table shows the relationship between required and available supplies of labour during the peak summer season in the double cropping rice areas of Soochow and Sung-chiang:

	Table V.34: Demand and supply conditions of labour in the peak summer season in Soochow and Sung-chiang Special Districts: 1956.			bour in w and 6.	
	(1)	(2)	(3)	(4)	(5)
	Area serviced per standard labour unit per	Number of days available for fulfil- ment of work	Maximum possible burden of land per labour unit	Average area of land per unweighted unit of agricultural labour force (i.e. total a.a. $\div$ agric. labour force)	Given current agricul- tural labour supply, number of days re- quired to complete work of harvesting first rice and planting second crop
	(mou)		(mou)	(mou)	
Soochow Sung-chiang	0.1274	15	1.91	3.90 4.61	30.61 36.19
	Sources:	The bas Walker, duction	ic framewor "Organizati ', <u>op.cit.</u> , p	k is that used b on of Agricult .411, Table 3.	oy K.R. 1ral Pro-
		(1) Tak	en from <u>ibid</u>	., p.410, Tab	le 2.
		(2) Ibic	l., p.411, T	able 3.	

- (3) That is,  $(1) \times (2)$ .
- (4) Cited in <u>CKNYCCHWT</u>, <u>op.cit.</u>, p.207, Table 1.
- (5) That is,  $(4) \div (1)$ .

The second and fifth columns are the most important and they point to the existence of a wide gap between the demand for and supply of labour. The peak summer season work had to be completed within 15 days but the availability of labour was such that it could only be completed within 30-36 days in the two Special Districts. In fact the gap may have been even wider, since the supply of labour shown does not take account either of the structure of the labour force (not all members would be equally strong) or of the fact that not all members would be able to participate in rice cultivation work.

The demand and supply conditions for the other critical factor of production, draft animals, are shown below:

	Table V.	in the Sooche	peak summer ow S.D.'s.: 1	season in Sung 956.	raft animals g-chiang and
	(1)	(2)	(3)	(4)	(5)
	Area serviced per draft animal per day	Number of days available for fulfil- ment of work	Maximum possible burden of land per draft animal	Average area of land per unweighted draft animal unit (i. e. total a. a. $\div$ number of draft animals)	Given current draft animal supply, number of days required to complete work at peak summer season
	(mou)		(mou)	(mou)	
Soochow Sung-chiang	1.686	15	25.29	64 37	37.96 21.95
	Sources:	(1) TI sc "( op	his is the estin outh China mad Organization o o.cit., p.413.	mate for the ride by K.R. Wa	ice areas of alker in Production'',
		(2) T	able V.34.		
		(3) TI	hat is, $(1) \ge (2)$	2).	

- (4) CKNYCCHWT, op. cit., p. 220, Table 14.
- (5) That is,  $(4) \div (1)$

In contrast to the labour supply situation this table shows that draft animals supply conditions differed significantly between the two regions. In Soochow there was a serious 'draft animal gap' but in Sung-chiang the supply of animals seems to have been adequate to meet the requirements of double cropping rice. In other words, we may suppose that the draft animal situation posed a more serious constraint upon double cropping plans in Soochow than in Sung-chiang. In this context it is interesting that the doublecropped rice area in Sung-chiang was around 9% of the rice arable area compared with only 3-4% in Soochow.<sup>(118)</sup>

However, we should be careful not to make too much of this. For one thing, Sung-chiang was confronted by a more serious labour shortage than Soochow. Second, the extremely important distinction between total available animals and working animals is ignored in Table V.35. Yet as was shown in the previous chapter, a very large proportion of animals was affected by illhealth in 1956-57. <sup>(119)</sup> If the calculations of V.35 were re-worked in terms of working animals only, it is clear that in Sung-chiang as well as Soochow a shortage of draft animals would emerge. Finally, it is worth noting that the average data shown conceal large local differences: in Sung-chiang Special District the burden of arable land per beast ranged from 161 mou in Wusih <u>hsien</u> and 172 mou in Pao-shan to little more than 30 mou in Sung-chiang and T'ai <u>hsien</u>. In Chin-shan it was a mere 18 mou - the lowest figure in the province. <sup>(120)</sup>

The information so far presented reveals a substantial gap between the availability and needs of the two most important factors of production in T'ai Hu. But it is important not to confuse these gaps with the traditional factor shortages which had always occurred during the peak periods of cultivating one crop of rice. In the latter case the relevant relationship was that between total arable area and total available supplies of labour and draft animals;

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with double cropping this relationship did not apply unless two crops were grown over the whole single-cropped area. In other words, the gaps shown in V.34 and V.35 represent the extreme situation in which a second crop of rice is planted over the entire arable area of rice. In practice this rarely happened. The extent to which the gaps were operational therefore depended on the proportion of the rice arable area supporting a second crop. The smaller this was, the more likely it was that factor shortages could be overcome.

These points are worth making because of the circumstantial evidence which suggests that they may have had a significant effect upon the plans for the extension of rice double cropping in Kiangsu. For despite the considerable pressure to extend the double-cropped area in 1956-57, only a modest expansion in fact took place. As Table V.30 indicates, only 1.66% of the rice arable area was under two crops in 1956 and no further expansion took place in the following year. We have already stated that in 1956 the MCI for rice in Sung-chiang was about 109 and 103-104 in Soochow. Even the plan to increase this to 110 in Soochow by 1957<sup>(121)</sup> was by no means ambitious when compared with what was being attempted in other provinces. We would suggest that this modest though pragmatic policy was a deliberate attempt to avoid the factor supply bottlenecks which threatened to undermine double cropping on a large scale. Indeed the point was made explicitly in an article which warned against introducing double cropping of rice over too wide an area in order to ensure adequate supplies of labour, fertilizers and seeds. (122) More specifically, it was argued that since a labour unit could only service about one mou in the paddy areas, double cropping of rice should be limited to 10-15% of the arable area. (123) A later article gave 10% as the upper limit. (124) -402It is of particular interest that the MCI for rice was so low in Kiangsu, for if we are right in postulating a direct relationship between the severity of factor shortages and the geographical extent of double cropping we may expect the gains (in terms of unit area yields) to have been greater in Kiangsu than in other provinces where the double-cropped rice area was more extensive. <sup>(125)</sup> Fortunately, data are available which permit a tentative test of this hypothesis and these are reproduced in the table below:

> Table V.36: The area under double-cropped rice and the yields attained in six provinces of China: 1956.

	Double cropping rice area as % of rice arable area	Yields of single - cropped rice	Yields of double- cropped rice	Double cropping yields as % of single- cropped yields
		(chin/mou)	(chin/mou)	
Kiangsu	1.66	410	690	168.29
Chekiang	25.31	513	690	134.50
Kwangsi	60.90	450	550	122.22
Hunan	23.86	363	452	124.52
Kiangsi	16.90	350	473	135.14
Anhwei	32.83	371	487	131.27
	Note:	Yields are a	ctually "anticip	ated".
	Source:	CKNYCCHW	T, op. cit., pp.	126-127.

Although the usual caveat about not inferring too much from the figures applies here (strictly speaking, we should consider factors such as natural conditions and availability of all relevant inputs in each province), they nevertheless give some support to the hypothesis suggested above. The province with the smallest sown area of rice (Kiangsu) achieved the greatest increase in yields while Kwangsi, with the largest sown area, raised yields least. To sum up: the technical and other requirements of double-cropped rice meant that its extension could only be considered in the south of Kiangsu and the area chosen was almost wholly confined to T'ai Hu. Early experiments suggested that the output potential of a second crop of rice was considerable as long as supplies of all inputs could be ensured. However, our own estimates suggest that large-scale expansion was ruled out because of potentially severe shortages of labour and draft animals. The Kiangsu planners themselves seem to have taken account of such factors, for in 1956 and 1957 only a limited expansion in the double cropping of rice took place. As a result it seems that the bottlenecks which occurred in areas where double cropping was carried out over a wider area were avoided in Kiangsu.

We conclude this section by briefly considering relative levels of land and labour productivity in the production of rice in different parts of the province. Unfortunately, data are not available in sufficient quantity to be able to do this in any detail, but the partial picture outlined here will be suggestive of the overall situation. First, two measures of land and labour productivity are shown for four Special Districts in 1956. Average estimates for all Kiangsu are also given as a base against which the other figures can be set:

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	Output per head of agricultural labour force	Index with Kiangsu average = 100	Output per mou of arable land	Index with Kiangsu average = 100
	(chin)		(chin)	
Kiangsu (av)	671.00	100.00	340.13	100.00
Soochow S.D.	1,567.32	233.58	476	139.95
Sung-chiang S.D.	1,461.08	217.75	477	140.24
Nan-t'ung S.D.	214.95	32.03	317	93.20
Yang-chou S.D.	872.09	129.97	289	84.97

### Table V.37: Output of rice per head of agricultural labour force and per mou of land in 4 S.D.'s of Kiangsu: 1956.

#### Sources:

Kiangsu:	Total labour force in agriculture assumed to be 18,000,000, derived from data in <u>HHJP</u> , 20/12/57, "Progress in the Winter Production Movement Throughout Kiangsu". Other data from Table V.30.
Soochow;	Sung-chiang; Nan-t'ung; Yang-chou: From <u>CKNYCCHWT</u> , <u>op.cit.</u> , p.234, Table 23, for output and yield data. Agricultural labour

force from ibid., p.207, Table 1.

For purposes of comparison the yield estimates are the most reliable. The pattern which they reveal is fairly predictable: In T'ai Hu output per unit area was much higher than elsewhere and almost half as much again as the provincial figure. By contrast, Nan-t'ung and - somewhat surprisingly -Yang-chou came out rather below average. Doubtless if information were available for other areas of north Kiangsu, they would show even lower levels of productivity. Although the pre-eminence of Soochow and Sung-chiang emerges even more clearly from the labour productivity measures interpretation of these figures is more difficult. They are based on the <u>total</u> agricultural labour force in each district and therefore their comparability depends upon the proportion of this force engaged in rice cultivation being the same throughout. But there is no way of knowing how far this was actually the case so that the differences in output per head must be considered an approximate reflection of the real situation. This is particularly so in Nan-t'ung where the extremely low level of labour productivity was probably largely a reflection of the greater amount of time spent in growing economic crops (principally cotton).

A corollary of T'ai Hu's higher level of productivity was that it produced an amount of rice that was disproportionate to the arable area planted under this crop. This point is well brought out by the following data:

	Arable area under rice	As % of Kiangsu rice arable area	Average yield per unit area of arable land	As % of Kiangsu yield	Total output of rice	As % of total output in Kiangsu
	(mou)		(chin/mou	)	(mill. chin)	
Soochow	8,100,000	22.81	476	139.95	3855.60	31.92
Sung-chiang	3,400,000	9.57	477	140.24	1621.80	13.43
Nan-t'ung	1,980,000	5.58	317	<mark>93.20</mark>	627.66	5.20
Yang-chou	8,570,000	24.13	289	84.97	2476.73	20.51
Chinkiang	6,680,000	18.81	289	84.97	1930.52	15.98
	Sources	Soochov chou: f	w, Sung-ch from CKNY	iang, Nan- CCHWT, d	t'ung and	Yang- 234,

Table V.38: Rice production in 1956: a regional breakdown.

Table 23.

#### Sources: (continued)

Chinkiang: a broadcast of 6/10/55 gave the rice arable area in Chinkiang as 6.68 mill. mou and this is the figure used above. Wang Wei-p'ing, <u>op.cit.</u>, suggests that in 1955 average rice yields were the same as in Yangchou - hence the choice of 289 chin in the table. Total output is then area times yield.

In other words, with little more than 30% of the total arable area of rice in the province Soochow and Sung-chiang were producing almost half of its total rice output. Indeed the figures understate the contribution of these two Special Districts since the additional production arising from the double cropping of rice in T'ai Hu is not included. It is a pity that similar information is not available for the beginning of the FFYP so that we could examine how far this contribution had declined or increased over the period. However, extrapolating from our earlier conclusions relating to total grain production and bearing in mind the emphasis on double-cropping in T'ai Hu, there can be little doubt that the latter was the case.

#### (3) Wheat:

Although produced in much smaller quantity than rice, wheat was easily the second most important food crop in Kiangsu. Indeed in a large part of the province, especially north of the Yangtze where conditions were less favourable to rice cultivation it was the most important. Nevertheless it would be wrong to suggest a rice-wheat dichotomy in Kiangsu: the north growing wheat and the south rice. Although wheat accounted for more than 30% of the total grain area in Hst-Hwai and this region contributed about half of total wheat production, (126) Sun Ching-chih was at pains to point out the wide distribution of the crop throughout the province. In Kiangnan, for example, (especially near Soochow, Wusih, Ch'ang-chou and Chinkiang) the -407proportion of the arable area under wheat was about the same as in the far north.<sup>(127)</sup>

Wheat was the chief winter crop in Kiangsu. In the north it was commonly rotated with soyabeans and other "miscellaneous" grains; further south in Li-hsia-ho and Kiang-nan the most usual rotation system was with rice.

The basic data relating to the sown area, average yields and total output of wheat in Kiangsu during the 1950's are presented in Table V.39:

	Sown area	Total output	Average yields
	(mou)	(mill. chin)	(chin per mou)
1951	28,790,000	2,844.00	98.78
1952	31,858,000	3,304.35	103.70
1953	32,500,000	2,920.00	89.84
1954	33,000,000	3,650.00	110.61
1955	34,000,000	3,912.48	115.00
1956	34,000,000	3,600.00	105.80
1957	31,230,000	3,091.00	98.97

Table V.39: Sown area, total output and average yields of wheat in Kiangsu: 1951-57.

#### Sources:

- 1951 and
   TLCS, 1951, no.6, op.cit.,

   1957:
   p.245.
- 1952: Total output derived from information in JMJP, 12/7/54, p.2, "Wheat Output in Kiangsu Is 15% Higher Than in the Year Before Last".
- 1953: Sown area from JMJP, 23/9/54, "Kiangsu Peasants Are About To Start Autumn Sowing". Total output derived from information in JMJP, 9/6/54, p. 1, "Bumper Wheat Harvest on the Fifty Million Mou of Wheat in Shensi and Kiangsu".
- 1954: Sown area from JMJP, 9/6/54, op. cit., p. 1.

1955: Wang Wei-p'ing, op. cit., p. 61.

- 1956: Sown area from JMJP, 8/6/56, p. l, "Kwangtung and Kiangsi Generally Get Bumper Spring Harvest." Total output from JMJP, 5/7/56, "Increased Production in Kiangsi's Summer Harvest".
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Estimates of wheat acreage and output are more readily available than for rice and fewer interpolations are necessary. 1952 is the only year in which no yield or area data are available at all, though in 1954 a choice has to be made between different published estimates.<sup>(128)</sup>

In 1954 then two different sources give the wheat sown area in Kiangsu as 30,000,000 mou<sup>(129)</sup> and 33,000,000 mou.<sup>(130)</sup> The reason for using the latter figure is twofold: first, it tallies with an estimate which can be derived from a third source;<sup>(131)</sup> second, given the 1953 and 1955 sown areas shown above, a figure as low as 30 million mou in 1954 would make no sense at all. The choice of a total output figure in 1954 (for which two estimates are also available) is more difficult. The possibilities are 3,500 million chin<sup>(132)</sup> and 3,800 million chin. (133) Acceptance of the latter would mean that the average yield in 1954 was actually marginally above that of 1955; in view of the particularly favourable natural conditions in 1955 this is surely unacceptable. On the other hand, there is some evidence that the disasters of 1954 left the wheat crop relatively unaffected and that output may have risen above the 1953 level. In this case the lower figure of 3,500 million chin also becomes unacceptable. In these circumstances a compromise solution is necessary: hence the average of the two estimates which is used in Table V.39.

We are left with the need to derive the sown area and/or yield of wheat for 1952. If yields were assumed to be the same as in 1951 the wheat sown area would be about 33.5 million mou. But since the sown area in the following year was a million mou <u>less</u> than this it is clear that yields must have been higher than in 1951. This is in fact borne out by references to 1952 having been the best year for wheat before 1954.<sup>(134)</sup> Another source suggests that

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average wheat yields in north Kiangsu were 15% higher than in the previous year, <sup>(135)</sup> but if this increase were applicable throughout the province 1952 yields would be 113.6 chin per mou and the sown area only just 29 million mou - which is obviously too low in relation to our sown area figure for 1953. Clearly, the truth lies between these two extremes and we have therefore assumed that in 1952 average yields of wheat were about 5% higher than in 1951. From this are obtained the estimates shown in the table.

Following the approach of the previous section the annual percentage changes in acreage and output can now be shown;

	Sown area	Total output	Average yields
1951	-	-	-
1952	+ 10.66	+ 16.19	+ 4.98
1953	+ 2.02	- 11.63	- 13.37
1954	+ 1.54	+ 25.00	+ 23.12
1955	+ 3.03	+ 7.19	+ 3.97
1956	0	- 7.99	- 8.00
1957	- 8.15	- 14.14	- 6.46

Table V.40: Annual percentage change in area, output and yield of wheat in Kiangsu: 1951-57.

Source: Table V.39.

Like rice, wheat exhibited no steady trend in any one direction though it is interesting that the pattern of fluctuations differed from those of rice and total grain output. The serious decline in wheat production in 1953 was wholly a reflection of falling yields resulting from adverse natural conditions earlier in that year. In June, 1953 it was reported that persistent cold weather had affected about half the area under wheat in the province and caused severe losses. <sup>(136)</sup> Indeed Hwai-yin was declared a disaster area and food was dispatched in an attempt to stabilize grain prices in the region.

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Even though 40% of the affected area was replanted, it was admitted that in the northern half of the province the wheat harvest was likely to be only 40-50% of what had originally been anticipated. (137)

1954 stands in total contrast to the poor performance of the preceding year and the very substantial rise in wheat output seems all the more surprising in view of the fact that this was officially termed a 'disaster year'. But the point has already been made that wheat remained relatively unaffected by these calamities. Thus, in spring, 1954 it was reported that the growing conditions for wheat were very good, 90% of Kiangsu's sown area having already been weeded (in some cases twice) and fertilized. <sup>(138)</sup> Of course the 25% rise in output (23% increase in yields) shown in V. 40 exaggerates the real situation because of the abnormally low base of 1953. A more meaningful comparison is with 1952 and on this basis wheat yields show a much less dramatic rise of 6.66% (10.46% in the case of total output). Nonetheless, the contrast between the performance of rice and wheat in 1953 and 1954 is a striking one and serves to demonstrate how misleading aggregate grain production data can be.

The estimates for 1955 and 1956 require little comment. Output, sown area and yields of wheat all moved in the same direction as those of rice, although the quantitative changes in both years were less strong. In 1955 output and yields of wheat increased by a smaller proportion, while in 1956 yields declined by only 8% compared with 12% for rice. In the latter case the explanation seems to have been that wheat was less affected by the adverse natural conditions. Thus, although declining wheat output was anticipated in Chinkiang Special District, <sup>(139)</sup> another report looked forward to production

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in Sung-chiang, Soochow, Nan-t'ung and Hstl-chou fulfilling and even exceeding planned targets. <sup>(140)</sup> In Soochow, it was even claimed that wheat yields were 25% higher than in 1955. <sup>(141)</sup>

The most interesting data are undoubtedly those for 1957 when wheat output showed the most spectacular decline during the whole period. Hitherto changes in production had largely reflected changes in yields, but in 1957 not only did yields fall quite sharply but there was also a serious decline in the sown area under wheat.  $^{(142)}$  In contrast to the experience of earlier years, on this occasion it appears to have been man-made as much as natural factors which were responsible for the disappointing performance. As early as January reports indicated that the wheat crop was suffering as a result of poor progress in the winter production movement.  $^{(143)}$  The effects of heavy rain were compounded by the apparent indolence of peasants who showed little inclination to clear the wheat fields of water.  $^{(144)}$  As a result the crop began to show signs of root-rot and a March report spoke of a 30% failure rate for wheat in some parts of the province.  $^{(145)}$ 

It is possible that a similar lack of enthusiasm on the part of the peasants (hardly surprising in view of the rigours of 1956) was responsible for the very large decline in the wheat sown area in 1957. <sup>(146)</sup> At any rate there is a good deal of evidence to support the downward trend shown in the table above. In Chinkiang the wheat acreage was said to have fallen by more than 200,000 mou; <sup>(147)</sup> in Hwai-yin the corresponding figure may have been a million mou. <sup>(148)</sup> A declining sown area was admitted for Hstd-chou. <sup>(149)</sup> And most staggering of all, circumstantial evidence suggests that in Yang-chou the area planted under wheat was 75% down on 1956. <sup>(150)</sup> In late 1957 the

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seriousness of the situation emerged clearly from reports which spoke of wheat sowing being 30% behind plans in north Kiangsu and even more in the south. (151)

Because of the poor performance of wheat in 1957 (the end-year of the period we have been considering) average growth over the entire period looks very unimpressive. The following table illustrates the point:

> Table V.41: The performance of wheat in Kiangsu during the 1950's as shown by the simple average annual rate of growth.

	1951-57	1952-57
Simple average growth of:		
Sown area	1.41% p.a.	- 0.33% p.a.
Yields	0.03% p.a.	- 0.91% p.a.
Total output	1.45% p.a.	- 1.29% p.a.
Source:	Table V.39.	

As before the situation in per capita terms looks even more serious:

Table V. 42:	Output of w	heat per h	nead of ru	ral population
	in Kiangsu	(excl. Sha	nghai):	1951-1957.

	Per capita output
	(chin)
1951	79.59
1952	91.02
1953	79.19
1954	97.46
1955	102.86
1956	93.21
1957	78.82

Sources: Table V.39 and Appendix B.

If the low 1953 figure is ignored the per capita estimates fall neatly into two periods: up to 1955 output per head shows a consistently strong upward trend; but thereafter it falls off rapidly and in 1957 actually reaches its lowest level for the whole period. Between 1951-55 the average rate of growth of per capita wheat output is + 7.31% p.a., compared with - 11.69% in 1955-57. For the FFYP period (1952-57) the figure is - 2.68% p.a.

The preceding pages have shown that the performance of wheat during the FFYP period in Kiangsu was very poor indeed. Natural factors were to some extent responsible for annual fluctuations, but in later years particularly, neglect of farm operations association with wheat production also contributed to the failure to generate growth. For most of the years low yields were offset by an expanding sown area. However, in 1957 this expansion was abruptly reversed. The result was that at the end of the First Plan not only was total wheat production falling but per capita output was also lower than it had been at the beginning of the period.

We began this section by making the point that though most readily identified with the dry-crop regions of north Kiangsu, wheat was in fact grown throughout the province. For example the three Special Districts of Sungchiang, Soochow and Yang-chou (primarily regarded as rice-producing areas) accounted for about 30% of the total sown area of wheat in Kiangsu. <sup>(152)</sup> And even if Hsti-Hwai did contribute about half of all wheat produced, <sup>(153)</sup> its levels of productivity could still not compare with those of other regions where wheat was less important;

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Average wheat yield	Index with Kiangsu average = 100.00
(chin per mou)	
115.0	100.00
102.0	88.70
125.0	108.70
u 157.0	136.52
98.9	86.00
123.4	107.30
	(chin per mou) 115.0 102.0 125.0 u 157.0 98.9 123.4

# Table V. 43: Average yields of wheat in different parts of Kiangsu in 1955.

Source: Wang Wei-p'ing, op. cit., p. 61.

Thus, average yields in Hst-Hwai were more than 10% below the provincial average. More generally, the four Special Districts which accounted for perhaps 25,000,000 out of the total 34,000,000 mou of wheat (1956)<sup>(154)</sup> were precisely those in which land productivity was lowest. Clearly the full potential of the most important wheat regions in Kiangsu was yet to be realized.

## (4) Soyabeans:

Because of its status as a 'rich crop' it is worth considering trends in soya production if only to see how far they bear out any conclusions reached in earlier parts of this chapter. That is, any evidence of soya expansion may be taken to be indicative of generally healthy agricultural conditions. Conversely, soya contraction may reflect deteriorating trends in the rural sector.

Soya is both a food and economic crop. It has a high nutritional content, is a rich source of oil and, as a legume, helps maintain an adequate level

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of nitrogen in the soil. <sup>(155)</sup> Cultivation in Kiangsu was mainly in the north, especially Hst-Hwai (which according to one source accounted for about 70% of total output)<sup>(156)</sup> but also along the north bank of the Yangtze. It was commonly planted in rotation with wheat or "miscellaneous" grains and sometimes in conjunction with maize. Although detailed information on soya sown area is lacking, the following fragmentary data for four Special Districts are suggestive of the pattern of distribution just described:

> Table V. 44: Sown area of soya in 4 Special Districts in Kiangsu: 1956.

> > -----

	Sown area
Soochow	250,000 mou
Sung-chiang	60,000
Nan-t'ung	650,000
Yang-chou	1,010,000
Source:	CKNYCCHWT, op. cit., p. 234, Table 23.

Bearing in mind that the total sown area may have been between 11-14 million mou, <sup>(157)</sup> the very high degree of concentration of soya in Hsti-chou, Hwai-yin and other areas is evident.

The following table shows the total output of soya in Kiangsu between 1952-57. Direct estimates are not available, but from two series of total grain output (one including, the other excluding, soya production) the relevant figures can be derived.

	Table V	.45: Total output	of soya in Kiangsu:	1952-57.
	(1)	(2)	(3)	(4)
	Total output of food grains (incl. soya)	Index of total food grain output (excl. soya) with previous year = 100.00*	Total output of food grains (excl. soya)	Total output of soya (i.e. (1) minus (3)).
	(mill. chin)		(mill. chin)	(mill. chin)
1952	21,700	(100.0)	19,570	2,130
1953	23,400	108.3	<mark>21,19</mark> 0	2,210
1954	23,000	98.4	20,850	2,150
1955	25,740	112.2	23,400	2,340
1956	24,000	93.4	21,850	2,150
1957	25,160	120.4	23,560	1,600

\* Except 1957 which takes 1952 = 100.

Sources and notes:

- (1) Table V.11.
- (2) <u>Nung-ts'un kung-tso t'ung-hstin (Statistical Work Bulletin)</u>, 1958, no.2, p.21, "A Comparison of the State of Grain Production Increase Among China's Provinces During the FFYP Period".
- (3) Sun Ching-chih, <u>op.cit.</u>, p. 57, gives food grain output in Kiangsu in 1957 as 23, 560 million chin (excluding <u>soya</u>). From this can be derived the output for other years by using the index in (2).

If 1957 is excluded the figures demonstrate a remarkable stability, with production slightly below average in 1954 and 1956 and slightly above average in 1955. During these years soya seems to have played a neutral role, showing no sign of growth or decline. However, if converted to a per capita basis the estimates would show a downward trend. Of course when 1957 is included the picture worsens markedly, total output at the end of the First Plan having fallen by about 25% over the previous years.

In the absence of more detailed information on the sown area and yields

of soya it would obviously be hazardous to draw any firm conclusions from the data presented in this short section. However, the lack of any growth in total output, the decline in per capita output and the sharp fall in soya production in the last year of the FFYP could all be interpreted as corroborative evidence of the failure of Kiangsu agriculture to fulfil its planned targets. Certainly there is nothing in the soya output figures to contradict the picture of a disappointing agricultural performance which has emerged so clearly in earlier parts of this chapter.

## (5) A note on the changing composition of grain output in the 1950's;

To what extent was there a significant shift in the structure of food grain production in Kiangsu during the FFYP period? A useful starting-point is provided by data presented at the beginning of this chapter:

		Kiangsu: 19	51 and 1957.	
	Sown area 1951	As % of total gra sown ar (excl. soya)	Sown area ain 1957 ea	As % of total grain sown area (excl. soya)
	(mou)		(mou)	
Rice	30,900,000	29.29	35,770,000	30.36
Wheat	28,790,000	27.29	31,230,000	26.51
Tubers	4,795,000	4.54	5, 320, 000	4.52
Coarse grains	41,021,920	38.88	45,490,000	38.61
Total	105, 507, 145	100.00	117,810,000	100.00
	Sourcos	Tables V 7	and V O	

Table V. 46: The sown areas of various food grains in Kiangsu: 1951 and 1957.

ources: Tables V.7 and V.9.

Although in absolute terms the sown area of every category showed a substantial increase during these six years, in relative terms (and it is this that we are interested in here) the changes that took place were very

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slight. Indeed if we distinguish only between fine grains (rice and wheat) and coarse grains (including tubers) the situation is virtually the same in both the base- and end-years:

Table V. 47: The sown areas of fine grains and coarse grains in 1951 and 1957.

AS A PERCENTAGE OF TOTAL SOWN AREA OF GRAIN (EXCLUDING SOYA)

	1951	1957
Fine grains	56.58	56.87
Coarse grains	43.42	43.13

Source: Table V.46.

The only significant change that took place was within the fine grains category as the relative position of rice improved at the expense of a decline in the sown area of wheat.

It is a pity that annual sown area data are not available from which a detailed breakdown of the structural composition of grain production could be made for the entire period. However, estimates of rice, wheat and total food output (excluding soya) are of course available and from these it is possible to derive an output of coarse grains and tubers. <sup>(158)</sup> Though not as accurate a reflection of structural changes as the sown data would be, these will serve as a useful check on the broad findings of Table V.46 - particularly as the figures shown there do not exactly coincide with the FFYP period:

		1			
	Output of all food grains (excl. soya)	Output of rice	Output of wheat	Output of rice plus wheat	Output of coarse grains plus tubers
1952	19,570	10,591	3,304.35	13,895.35	5,674.65
1953	<mark>21,190</mark>	11,650	2,920	14,570	6,620
1954	20,850	11,202	3,650	14,852	5,998
1955	23,400	12,578	<mark>3,912.48</mark>	10,490.48	6,909.52
1956	21,850	12,078	3,600	15,678	6,172
19 <mark>57</mark>	23,560	13,178	3,091	16,269	7,291

Table V. 48: Output of rice, wheat and coarse grains (incl. tubers) in Kiangsu during the FFYP

All figures are in million chin.

Sources: Tables V.30, V.39 and V.45.

From this it is possible to show the output of the various categories as a proportion of total grain output:

Note:

	Table V.49:	Output of fine grai as a proportion of production (exclud	ns and coarse g total food grain ing soya).	grains n
	Rice	Wheat	Rice + wheat (fine grains)	Coarse grains (incl. tubers)
1952	54.12	16.88	71.00	29.00
1953	54.98	13.78	68.76	31.24
19 <mark>54</mark>	53.73	17.51	71.24	28.76
1955	53.75	16.72	70.47	29.53
1956	55.28	16.48	71.76	28.24
1957	55.93	13.12	69.05	30.9 <mark>5</mark>

Source: Table V.48.

Broadly speaking these figures support our earlier contention that there was no significant shift in the relative importance of coarse and fine grains in Kiangsu. The most interesting change took place within the fine grain category as rice expanded at the expense of wheat. This at least represented

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a rationalization of the cropping pattern: not only was rice preferred as a staple food but it also had the highest energy yields of all grains (while those of wheat were the lowest). <sup>(159)</sup> In these terms the switch from wheat to rice promised to bring both personal and economic benefits.

# (6) Cotton:

Attention has so far been focussed exclusively on trends in the production of food crops in Kiangsu. But the province was also an important producer of economic crops and indeed in the context of the FFYP the increasing demand for food supplies by the rapidly growing population together with the pressure to supply increasing amounts of raw materials to the industrial sector made the distribution of land between grain and economic crops a crucial issue.

In this section we examine the performance of the economic crop sector in Kiangsu by analyzing trends in the production of cotton. The choice of cotton is an obvious one: it was easily the most important cash crop, accounting for 66.7% of the total economic crop area in 1957;<sup>(160)</sup> in addition Kiangsu was traditionally one of the major producers of raw cotton and finished textile goods in China - a position which it maintained during the 1950's.

Fortunately sufficient data are available to allow us to draw up a series of cotton estimates for the entire 1949-57 period. These are shown in Table V. 50:

	Sown area	Total output	Average yields
	(mou)	(mill. chin)	(chin per mou)
1949	7,000,000	92.40	13.20
1950	6,550,000	119.055	18.18
1951	8,220,000	189.00	22.99
1952	9,105,590	260.42	28.60
1953	9,570,000	360.68	37.69
1954	10,000,000	218.93	21.89
1955	11,084,580	474.42	42.80
1956	10,053,175	253.34	25.20
1957	10,007,000	381.00	38.07
Sou	rces		

Table V. 50: Sown area, total output and average yields of cotton in Kiangsu: 1949-57.

Total output: 1951 from TLCS, 1959, no.6, op. cit., p. 245.

> 1952-57: Nung-ts 'un kung-tso t'ung-hstin, 1958, no.4, p.8, "A Comparison of the State of Cotton Production Among the Provinces of China" gives an index of cotton output with the previous year as 100. Since we know the output of cotton in 1957 from TLCS, 1959, no.6, op. cit., p. 245, figures can be estimated for the other years.

1949 from JPRS, 1962, no.11438, cited in Sown area: Provincial Agricultural Statistics, p.113.

1950: see text below.

1951 and 1957: TLCS, 1959, no.6, op. cit. p.245.

1953: Kuang-ming jih -pao, 19/4/54, op. cit. Also JMJP, 18/4/54, "As A Matter of Urgency Increase the Output of Food Grains and Cotton and Supplementary Food Products" yields this figure.

1954: Hsin-wen pao, 20/5/54, cited in Provincial Agricultural Statistics, op. cit., p.113.

1949, 1952, 1955 and 1956: from TLCS, Average 1957, no.10, "Cotton Production in China", yields: p. 467.

Note:

Estimates for years in which no sources are given are either derived from existing data or interpolated, as discussed below.

Most of the figures can command a considerable measure of confidence although in some cases it has been necessary to choose between conflicting estimates and in others, where no data at all are available, to make our own. In 1950 for example provincial estimates have to be made on the basis of the following information;

> Table V.51: Estimates of sown area and total output of cotton in north and south Kiangsu: 1950.

North Kiangsu

<u>Sown area</u> 3,540,000 mou<sup>a</sup> 3,555,437<sup>b</sup>

av. 3, 547, 718.5

over 3,000,000 mou<sup>d</sup>

South Kiangsu

59,820,000 chin<sup>e</sup> 58,290,000f

60,000,000 chin<sup>C</sup>

Total output

av. 59,055,000

Sources: a <u>SPJP</u>, 8/9/50, p.2, "Hopes for a Bumper Harvest in Most of the Cotton Fields of North Kiangsu".

- b SPJP, 4/10/50, p.2, "The Cotton Production Situation in North Kiangsu".
- c <u>SPJP</u>, 20/2/51, p. 1, "Directive by the North Kiangsu Administration on the Implementation of the Plans for Increased Production in 1951".

d SNJP, 30/9/51, op. cit., p.2.

- e SNJP, 3/3/51, op. cit., p.3.
- f SNJP, 30/9/51, op. cit., p.2.

By adding up the figures for north and south Kiangsu (using an average where more than one is available) the estimates shown in V. 50 are obtained. They have one particularly interesting implication which is that sown area in 1950 is lower than that of the previous year. Is this feasible in view of what has been earlier said about the rapid growth of the 'recovery period'? The answer is that it is and an analysis of why such a contraction should have taken place throws interesting light on the difficulties confronting the planners in the distribution of land between food and economic crops in these early years.<sup>(161)</sup>

By 1949 the effects of war had reduced the cotton acreage to only a fraction of its pre-war level. Wartime conditions were in fact more damaging to cotton than to other crops as peasants inevitably abandoned the production of cash crops in favour of planting more grain. Thus, in north Kiangsu the cotton sown area fell from over 6,000,000 mou to only 2,000,000 mou between 1937 and 1938 while yields also declined from 24 chin to 10 chin per mou. <sup>(162)</sup> Although the restoration of 'normal' conditions in 1949 effected some improvement sown area and yields both remained depressed. For one thing cotton farmers hesitated to expand production, falling victim to rumours that "you won't be able to sell any extra cotton you produce" <sup>(163)</sup> and in some areas output even continued to decline. The situation was exacerbated, at least in the north, by floods which caused cotton losses in Hwai-yin and Yen-ch'eng Special Districts and led to shortages of inputs for 1950. <sup>(164)</sup> That factors such as these caused a decline in the sown area seems beyond doubt. <sup>(165)</sup>

But a more serious problem was emerging from a different quarter, for throughout 1950 and into 1951 there is clear evidence that cotton plans were disrupted by the failure to establish a rational price ratio between cotton and food grains. In May, 1950 it was reported that peasants in south Kiangsu were disobeying orders to grow cotton and planting other crops instead. <sup>(166)</sup> Although it was admitted that peasants lacked capital to purchase fertilizers,

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that cotton seed quality was poor and that cadres were failing to encourage cotton production, the principal factor was said to be the low price of cotton<sup>(167)</sup> which had convinced the peasants that cotton cultivation was unprofitable.

The critical nature of the situation emerged most clearly in a fascinating "letter to the cotton farmers", issued by the East China Department of Agriculture in an attempt to explain the importance of the increased production targets for cotton. <sup>(168)</sup> It conceded that cotton prices had been set too low in the past and that cotton farmers had suffered losses. Food shortages caused by the natural disasters led to fears among some peasants that if they expanded their cotton acreage they would be unable to obtain enough grain for their consumption needs. Furthermore, the food shortages resulted in disproportionate rises in grain prices which aggravated peasants ' fears. On top of this there were delays in cotton purchases because of the tardy establishment of the Cotton Procurement Agency, while enemy bombing of the textile mills in Shanghai brought work there to a halt, limiting the sales outlets for cotton and depressing prices. <sup>(169)</sup> Not surprisingly was there a marked lack of enthusiasm for planting cotton in 1950!

But, the open letter argued, such problems were rapidly being overcome. According to the official price policy, each chin of (ginned) cotton should exchange for at least 6.5 chin of unprocessed rice. Given a minimum yield of 25 chin per mou for improved cotton, farmers could therefore expect to receive 162.5 chin of rice for each mou planted under cotton. Since much of the land in question was unsuitable for paddy cultivation and would only support dry crops it was clear that cotton was by far the most

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profitable crop. In addition, the general economic environment had improved: prices had stabilized; government loans to buy good-quality seeds, fertilizers and pesticides were available; and the textile factories were restoring production levels and so exerting an upward pressure on raw cotton prices.<sup>(170)</sup>

Despite such reassurances, the difficulties were not immediately overcome and peasant disinclination to plant cotton continued into 1951. In an attempt to produce more rice peasants in some parts of Sung-chiang Special District planted only 30% of the total arable area under cotton, compared with 70% before the war. (171) There were continuing reports of lack of inputs and peasant concern that they would be unable to sell all their output. It is likely that the main factor inhibiting cotton expansion was a still irrational price ratio between grain and cotton. At any rate, the anticipated increase in the cotton sown area only appears to have finally got under way when the cotton-grain ratio was revised upwards by more than 30% in the spring of 1951. (172) It is true that as late as September and October there were references to the stabilization of cotton prices being prevented by speculative activities (173) and criticism of the "high price mentality" of cotton farmers and their reluctance to sell. (174) But such remaining difficulties were brought under control by the publication of laws designed to regulate the sale of cotton in Kiangsu. (175)

To sum up then, there is no lack of evidence to support our contention that the sown area of cotton declined between 1949 and 1950. However, we should add that although they were still at a low level, yields did increase and by an amount sufficient to offset the sown area decline. The overall result was that total cotton output increased in 1950.

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The only other major problem concerns the sown area in 1956. The estimate in V. 50 indicates a fall of 10% over 1955. But two other sources actually suggest an increase of about the same proportion, to 12,000,000 mou. (176) Even if they are not conclusive there are various reasons for preferring the lower figure. To begin with, the sources from which it is derived are both authoritative and date from 1957-58 - a time when, as was earlier argued, data should have been most reliable. By contrast, Wang's estimate must have been based on preliminary information (since his book was published in December, 1956) and the article in the 'People's Daily' was published only mid-way through 1956, when the sown area of cotton may still have been only approximately known. There is other evidence to support our choice; in 1956 the natural disasters made conditions particularly difficult in Hstt-chou, Hwai-yin and Yen-ch'eng, the last two of which were important cotton producing areas. In Yen-ch'eng for example the entire arable area was flooded during the autumn. <sup>(177)</sup> In these circumstances it seems most likely that emphasis was placed on the need to restore food production and that cotton production was relatively neglected. Certainly it seems inconceivable that the sown area of cotton should have increased significantly in such conditions. (178)

Having discussed the more problematic of the estimates in Table V. 50 we can now attempt to analyze the trends and fluctuations which they reveal. To this end two tables are now presented. The first gives the annual percentage changes in area, output and yields for the entire 1949-57 period; the second relates to the FFYP period only and is in the form of an index with 1952 as the base year:

	Sown area	Total output	Average yields
1949	-	-	-
1950	- 6.43	+ 28.85	+ 37.73
1951	+ 25.50	+ 58.75	+ 26.46
1952	+ 10.77	+ 37.79	+ 24.40
1953	+ 5.10	+ 38.50	+ 31.78
1954	+ 4.49	- 39.30	- 41.92
1955	+ 10.85	+116.70	+ 95.52
1956	- 9.30	- 46.60	- 41.12
1957	- 0.46	+ 50.39	+ 51.07

Table V. 52: Annual percentage changes in sown area, total output and average yields of cotton: 1949-1957.

Source: Table V. 50.

Table V. 53: An index of sown area, total output and average yields of cotton in Kiangsu during the FFYP

	Sown area	Total output	Average yields
1952	100.00	100.00	100.00
1953	105.10	138.50	131.78
1954	109.82	84.07	76.54
1955	121.73	186.17	149.65
1956	110.41	97.28	88.11
1957	109.90	146.30	133.11

Source: Table V. 50.

The absence of a uniform trend and the existence of annual fluctuations have already been noted in the context of food grains. But nowhere were the fluctuations as severe or as chronic as in the case of cotton output and yields. Large increases were to be expected during the 'recovery years' but it is startling to find that the average annual fluctuation (in either direction) in total cotton output in Kiangsu was 58.30% for 1952-57, compared with only 41.80% during 1949-52. For average yields the figures were 52.28% and 29.55% respectively. Bearing in mind that Kiangsu's cotton production ranked fourth in China<sup>(179)</sup> such wide variations obviously had serious implications for the fulfilment of national cotton plans.

The national significance of Kiangsu's performance is well suggested by the figures showing the proportion of total domestic cotton output contributed by Kiangsu between 1952 and 1957. Far from there being a steadily rising or even constant trend, supplies of raw materials from the province fluctuated widely year by year:

Table V.54:	Kiangsu's contribution to total domestic cotton output: 1952-57.
	Percentage of total cotton production in China contributed by Kiangsu:
1952	9.99
1953	15.35
1954	10.28
1955	15.62
1956	8.77
1957	11.62
Sources:	Based on total cotton output data given in Wei-ta ti shih-nien, op. cit., p. 105 and Table V. 50

When the fact that average yields of raw cotton in Kiangsu exceeded those of China as a whole in only two years during the entire 1949-57 period is added to the instability demonstrated by the above figures, the difficulties of meeting national textile production targets emerges clearly. <sup>(180)</sup>

A comparison of Tables V.11 and V.50 will reveal that the direction of annual changes in the total output of food grains and cotton was the same. To some extent the same factors were responsible: the decline in cotton production in 1954 and 1956 can be explained by the natural disasters of -429those years and the large increase in 1955 clearly reflects that year's unprecedentedly favourable growing conditions. In view of the extent of the annual fluctuations it is worth emphasizing that natural conditions may have played an even more central role in the production of cotton - partly because in the event of flooding or drought the recovery of food crops tended to receive the highest priority and partly because such a large proportion of the cotton area was situated in regions susceptible to natural disasters. The fact that average yields of cotton in Hwai-yin Special District were a mere six chin per mou in 1956 underlines both these points. <sup>(181)</sup> However, technical factors could also be important. In the reclaimed coastal area of north Kiangsu where about a third of all the province's cotton was grown, methods of cultivation were reported to be careless and this can only have reinforced the effect of natural disasters in holding back rises in productivity. <sup>(182)</sup>

The effect of institutional changes upon cotton performance in Kiangsu is difficult to assess on the basis of any objective evidence. The low levels of yields in 1954 and 1956 and the high level of 1955 accord so closely with what we know of natural conditions in these years that it is tempting to regard the role of other factors as a purely residual element. Perhaps what has emerged most clearly from the earlier discussion as the most important man-made influence upon cotton production was the price policy adopted by the planners: the grain:cotton ratio was likely to be a more significant determinant of output than changes in the actual structure of farming.

The way in which policy uncertainty could affect cotton production has been demonstrated in the context of 1950-51, when the failure to set a

sufficiently high price caused peasants to plant food or other crops in preference to cotton. This was a particular instance of the conflict between cotton and grain for the use of limited arable land - a conflict which against the background of the slow growth rates achieved by agriculture during the FFYP must have become increasingly acute. In Kiangsu this problem demanded urgent attention in the last years of the Plan. Until 1955 the cotton sown area displayed a consistently upward trend, increasing by more than 20% over the base-year (1952). But in 1956 a substantial contraction took place which continued into 1957.<sup>(183)</sup> There is some evidence to suggest that this decline reflected a deliberate decision by the planners. Writing in 1956 Wang Wei-p'ing referred to the need to contract the cotton acreage in favour of more food grains in coastal north Kiangsu and along the Yangtze<sup>(184)</sup> and the following year it was officially admitted that adjustments in the allocation of land between cotton and food crops had become necessary. The area affected was Nan-t'ung Special District, the centre of cotton production in the province. Here, in spite of the fact that grain self-sufficiency had never been achieved, the sown area under cotton had been extended from 1,692,000 mou (1949) to 4,038,000 mou (1956)<sup>(185)</sup> so that this one district grew more than 40% of all cotton in Kiangsu. Such rapid expansion had exacerbated an already chronic grain deficit and affected not only human consumption but also supplies of fodder to draft animals and other domestic livestock. The burden on the state to maintain consumption levels must have been considerable. (186) But in 1956 per capita grain consumption remained virtually static while in most other areas it increased significantly. (187) It is reasonable to infer that the food shortages caused peasant dissatisfaction on a wide scale in Nan-t'ung and

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necessitated in 1957 a 5% contraction in the cotton sown area. The 200,000 mou so gained was to be used principally for the cultivation of food crops and it was hoped that thereby grain output in the Special District would be raised by 11%. <sup>(188)</sup>

In other parts of the province too cotton contraction was taking place, the area mainly affected being T'ai Hu.<sup>(189)</sup> The planned sown area of cotton in Soochow in 1950 for example was 800,000 mou<sup>(190)</sup> but the figure actually attained was only 620,000 mou.<sup>(191)</sup> Although the irrational graincotton price ratio must have been largely responsible for this 25% shortfall it is interesting that in the following year the target was reduced to 740,000 mou.<sup>(192)</sup> Contraction, not expansion, apparently continued to be emphasized and in 1956 the reported sown area was still the same as in 1950 (620,000 mou).<sup>(193)</sup> Similarly, in Sung-chiang the cotton acreage seems to have been reduced by 340,000 mou between 1950 and 1956.<sup>(194)</sup>

Elsewhere however a reverse process was under way. By the end of the First Plan period the coastal areas of north Kiangsu (for example Pinhai, She-yang, Ta-feng and Tung-t'ai <u>hsien</u>) contained about 25% of the total cotton acreage in Kiangsu: 2,500,000 mou compared with only 700,000 mou in 1949. <sup>(195)</sup> Although input and factor scarcities still kept yields low it was clear that the rationalization of cropping patterns and further land reclamation would ensure the continuing importance of this region as a cotton producer. There was also a very substantial extension of cotton in Hst-Hwai where very little of this crop had been grown in the past. In Hwai-yin plans for 1957 anticipated an increase of 250,000 mou over the previous year, a rise of more than 40%. <sup>(196)</sup> An interesting indication of the changing geographical distribution of cotton production in Kiangsu is given by the following figures which show the proportion of the total sown area and total output of cotton accounted for by T'ai Hu and Nan-t'ung in 1931 and 1956. Although such long-run comparisons are really the subject of the next chapter it will do no harm to anticipate that discussion and conclude this section by presenting these regional data:

> Table V. 55: Some indicators of the changing geographical distribution of cotton production in Kiangsu.

	Cotton sow percentage sown area	on area as a e of the total in Kiangsu:	Cotton out percentag output in t	tput as a e of the total Kiangsu:
	1931	1956	<u>1931</u>	<u>1956</u>
Soochow Special District	10.01	7.36	8.60	10.22
Sung-chiang Special District	<b>23.</b> 95	15.5 <b>2</b>	24.04	19.70
Nan-t'ung Special District	37.89	39.19	37.17	40.44
Sou	rces: 193	31 data based on i 189-199; and pp.	nformation 203-205.	in <u>HB</u> , <u>op.cit</u> .

1956 data based on <u>CKNYCCHWT</u>, op. cit., p. 234.

What emerges most clearly from this table is the sharp contraction of the cotton area in Soochow and Sung-chiang (T'ai Hu). In 1956 Soochow had re-attained only two-third of its pre-war sown area and in Sung-chiang the same figure was less than 60%. It is interesting however that because of improved land productivity their relative positions in terms of total output were much less affected. Indeed Soochow was actually contributing more to total output in 1956 than it had been 25 years earlier in spite of a 25% decline in its cotton acreage. <sup>(197)</sup> Nan-t'ung's position was about the same in both periods which is what the rapid expansion between 1949 and 1956 would suggest.

The decline of what may be called the 'Yangtze cotton belt' was of course simply a reflection of the growing importance of the 'new' cotton areas of the north. The extension of cotton in Hwai-yin has already been remarked upon and if data were available there is little doubt that a similar pattern would be observable in Hstd-chou in the 1950's. A measure of the changes taking place is that the proportion of Kiangsu's total sown area represented by Chinkiang, Yen-ch'eng, Hwai-yin and Hstd-chou increased from barely 20% in 1931 to more than 33% in 1956. <sup>(198)</sup> But because of the relatively low-yielding nature of much of this new land the contribution to total output by these regions rose by much less from 22.10% (1931) to 26.55% (1956).

# III An Examination of Three Important Factors of Production in Agriculture in Kiangsu: Labour, Draft Animals and Pigs.

(1) Labour:

In the introductory chapter reference was made to the high population density in much of Kiangsu. This might have suggested not merely an adequate supply of labour, but indeed the existence of "surplus" labour. If proved this would have extremely important implications since in theory it could be mobilized for development in both the agricultural and industrial sectors.<sup>(199)</sup>

"Surplus" labour is often said to exist if the marginal product of labour can be shown to be zero or negative. But such an approach is too restrictive, most obviously because it fails to recognize the seasonal nature of agricultural operatio s. At peak periods the entire labour force is likely to be fully employed, but at other times unemployment may exist on a large scale. This was certainly the case in China where many peasants were traditionally without work during the winter months.<sup>(200)</sup>

Formidable as the theoretical objections to the concept of "surplus" labour may be, the difficulties of establishing its existence empirically are even greater. The analysis of double cropping of rice in T'ai Hu made earlier certainly indicated that labour supplies were inadequate to meet the demands which its widespread adoption would create. However, that analysis was limited both in terms of the geographical area and the cropping pattern which it considered. In order to give weight to those conclusions an attempt must now be made to examine the relationship between labour supply and demand throughout the province.

The average amount of arable land per head of agricultural population in Kiangsu was 2.38 mou in 1957<sup>(201)</sup> although of course there were significant regional variations.<sup>(202)</sup> But such figures fail to show the adequacy or otherwise of labour supplies since the required relationship is that between arable land and the agricultural <u>labour force</u>. Fortunately data are available which permit the arable area per head of labour force to be estimated for each Special District in Kiangsu at the end of the FFYP period and the findings are presented in the following table;

		1950/1957.*		
	Arable area	Agricultural labour force	Arable area per head of agricultural labour force	
	(mou)		(mou)	
Soochow	9,590,000	2, <mark>460,000</mark>	3.90	
Sung-chiang	5,120,000	1, <mark>110,000</mark>	4.61	
Chinkiang	8,390,000	1,490,000	5.63	
Yang-chou	13,480,000	2,840,000	4.75	
Nan-t'ung	9,210,000	2,920,000	3.15	
Yen-ch'eng	10,990,000	1,800,000	6.11	
Hwai-yin	18,000,000	2,400,000	7.50	
Hstl-chou	15,770,000	2,100,000	7.51	
	* Data for Soo and Nan-t'ur	chow, Sung-chiang, Chinkia g are for 1956. The rest r	ing, Yang-chou efer to 1957.	
	Sources:	Soochow, Sung-chiang, Ch and Nan-t'ung: all data fro op.cit., p.207, Table 1.	inkiang, Yang-chou om <u>CKNYCCHWT</u> ,	
		Yen-ch'eng: arable area from <u>HHJP</u> , 8/1/57, <u>op.cit</u> ., p.2.		
		Hwai-yin: arable area fro	m recorded broadcast.	
		Hst-chou: arable area fro op.cit.	m <u>HHJP</u> , 19/12/57,	
		Yen-ch'eng, Hwai-yin, Hs labour force estimates der 20/12/57 and ibid., 24/12/ in the Winter Production M Kiangsu".)	<b>t</b> -chou: agricultural rived from <u>HHJP</u> , /57 (Table: "Progress fovement Throughout	

Table V. 56: The relationship between arable land and the agricultural labour force in Kiangsu; 1056/1057 \*

Regional differences were very considerable, especially between north and south: thus the per capita burden of arable land in Hsti-Hwai was about twice that of T'ai Hu. The most favourable man-land ratio was in Nan-t'ung but this area's comparative advantage was offset by the widespread cultivation of a crop (cotton) which had particularly high labour requirements.

If our terms of reference are those of V. 34 it is clear that a serious 'labour gap' existed in every part of the province. However, the figure of 1.91 mou used in that table as a criterion for measuring the adequacy of labour applied specifically to the peak summer period of the double cropping of rice. This pattern of cultivation was confined to a relatively small part of Kiangsu and even if it was similar in terms of its demands on labour to other double cropping patterns (for example rice and wheat), we may suppose that it had much less relevance in areas where only one crop was grown in a year. Not that this necessarily indicates the absence of a labour supply problem in, say Hst-Hwai: on the contrary, the benefits of cultivating only a single crop may have been balanced by the much greater burden of arable land per head of agricultural labour so that the overall situation remained the same as in areas further south.

That labour deficiencies occurred where a double cropping pattern of summer paddy followed by winter wheat was practised is evidenced by the case of Hsin-min-erh APC in Wu <u>hsien</u> (Soochow Special District). In June the wheat harvest and transplanting of the rice seedlings needed to be carried out simultaneously. Completion of these tasks required 18,340 labour days but only 11,600 were available in the APC. (203) The result was a deficit of 6,740 labour days (58% of the total available). Put in a different way, during this peak period the maximum arable land that could be serviced by a labour unit was 2.5 mou a day; the actual burden was more than twice this, 5.42 mou.

A second peak period occurred at the end of October and beginning of November when little more than two weeks were available for harvesting the paddy and sowing the wheat. Demand for labour during this period was 14,100 labour days but actual supply in Hsin-min-erh Collective was only 8,140. Moreover, if the threshing of the harvested rice were included in the demand calculations requirements were raised to 20,280 days, resulting in an overall deficit of 12,140 labour days.<sup>(204)</sup>

In other regions cropping patterns were more complicated. Take for example the rotation of rice, wheat and cotton practised in a collective in Nan-t'ung <u>hsien</u>: during the peak summer period labour requirements were as follows:

harvesting wheat	4,090 labour days
working in cotton fields	3,640
transplanting the paddy	3,680
Total	11,410

The time available for this work was severely limited. The harvesting of wheat, transplanting of rice and preparation of the soil for the cotton all had to be completed within 15-18 days. (205) On the optimistic assumption of a 95% rate of work attendance and given the labour force of 457, only 6,620 labour days were available for the operations. (206) Once again this left a sizeable deficit of 4,790 labour days.

Doubtless examples such as these could be multiplied many times over. If so, we may safely conclude not only that the concept of "surplus" labour had little applicability to agricultural conditions in Kiangsu but that attempts to introduce or extend double cropping were bound to be constrained by a serious shortage of labour. This shortage threatened to be all the more critical in view of the fact that the profitable reclamation of new arable land was limited, leaving the burden of increased production to be carried by

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higher yields.

Factors other than a slow rate of natural increase could contribute to a labour deficiency in agriculture. Migration from the countryside had a long history in China and data cited by C.B. Howe have shown that the size of the rural outflow could reach very serious proportions. (207) Traditionally, the reasons for this exodus were landlessness, harsh conditions following a poor harvest and of course the material attraction of higher living standards in the cities. In the 1950's the dislocation which often accompanied the rapid institutional changes in agriculture provided the peasants with a further incentive to leave their villages. The account of the co-operativization and collectivization campaigns given in previous chapters has provided sufficient evidence of the seriousness of such dislocation to show that such forces must have been at work in Kiangsu. Indeed the proximity of a highly developed urban sector such as existed in the south of the province can only have intensified any migratory trends out of the rural sector. The fact that net migration was responsible for 33.6% of Shanghai's total population growth during 1949-57<sup>(208)</sup> is one indication of the strength of those trends, bearing in mind that the largest number of immigrants will have come from rural Kiangsu. When other cities such as Nanking, Wusih, Soochow, etc. are taken into account it is clear that the total number of peasants involved will have been very considerable. In short, we would argue that migration was a significant contributory factor to the labour shortage which we have observed in Kiangsu agriculture.

The contradiction between the private and collective sectors within the new institutional framework has already been referred to. A further manifestation of the same contradiction was the preference of peasants to work

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on their own plots rather than in the collective fields. Although information on this aspect of the APCs is notably lacking it seems reasonable to suppose that it existed to a sufficient extent to exacerbate the agricultural 'labour gap'.

There were of course ways of circumventing this 'labour gap'. In a paddy-wheat-cotton area such as Nan-t'ung the factor constraint might be eased by changing the cropping pattern: for example by planting an early-ripening variety of rice and substituting barley for wheat. The rice could then be harvested earlier, the barley be sown immediately afterwards and more time be left for the preparation of the cotton fields. (209) A similar solution was proposed in a collective in Hsing-hua <u>hsien</u> where labour supply conditions required 36 days for the completion of work which had to be carried out within 15 days. Here it was suggested that the time available for agricultural operations might be lengthened by the construction of better irrigation facilities. (210) But there was a negative side to these schemes. The reorganization of cropping patterns might extend the growing period but yields of late paddy were higher than those of the early varieties and wheat enjoyed a higher economic value than barley. (211)

A different approach was to increase the work load by raising the rate of attendance or extending the amount of work done in a day. However, such possibilities were limited. Even if the number of days worked per unit of labour per year was relatively small, <sup>(212)</sup> the greatest efforts were made during the peak periods to mobilize all available peasants, including women and those whose age precluded them from work at other times. In other words, the scope for increasing agricultural participation came in the non-

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peak months of the year when its potential contribution to easing labour shortages was the smallest. As for extending the working day, the fact that it already lasted 14 hours during the peak summer period suggests that this too was unlikely to yield substantial benefits.<sup>(213)</sup>

In view of these obstacles it was inevitable that delays should occur and in some cases that agricultural operations should be ignored altogether. It was admitted that during the peak summer period, when the wheat harvest was immediately followed by the transplanting of rice, preparation of the cotton fields was often delayed until the transplanting had been completed despite the fact that this was precisely the time when weeds tended to flourish and weaken the growing crops. <sup>(214)</sup> In 1956 wheat deliveries to the granaries were delayed becuase of the long time spent by peasants in transplanting rice: the result was that the grain in store was infected by damp and mildew. <sup>(215)</sup> In addition, the inability to complete transplanting on time meant that rice yields too were likely to be adversely affected.

We may conclude this discussion of labour conditions in Kiangsu by attempting to quantify the extent to which the shortage of this factor may have constrained agricultural operations in single cropping regions. Data cited by K. R. Walker show that the harvesting of rice at the peak summer period required 3.03 labour days per mou<sup>(216)</sup> and this can be used as a proxy for the maximum pressure upon labour under a single cropping system. Converted to more familiar terms the area serviceable by a unit of labour was 0.33 mou per day<sup>(217)</sup> and on the assumption that 15 days were available for the completion of the work, the maximum burden of arable land per unit of labour was 4.95 mou.<sup>(218)</sup> When this figure is compared with the data showing the actual burden of land per head of the agricultural labour force (see Table V. 56) it will be seen that in only three Special Districts - Yench'eng, Hwai-yin and Hstd-chou - were labour supplies insufficient to meet this demand. However, the full irony of the situation is that it was in these very areas (especially Hstd-Hwai) that single cropping was most commonly practised in Kiangsu. Elsewhere some form of double cropping was likely to be found which made the 4.95 mou criterion inapplicable. Our conclusion is that even in single cropping areas labour deficits were likely to be a serious problem.

## (2) Draft animals:

In the absence of mechanization draft animals were the chief source of tractive power in the agricultural sector. During the 1950's virtually all the arable land continued to be ploughed and harrowed with implements pulled by animals (mostly oxen or water-buffaloes). They were also required for other purposes, such as turning the water-wheels used for irrigation or for rural transport, and together with pigs they represented the most important source of fertilizer.

The shortage of draft animals in Kiangsu has been noted at various points in this thesis. The most dramatic evidence of the serious situation was the sharp decline in animal numbers in 1956 and 1957. However, this merely underlined a problem whose origins went back to the years before 1949. <sup>(219)</sup> Data have also been presented to show that the scarcity of draft power was a critical constraint in the attempt to extend double cropping of rice (and by extension other forms of multiple cropping). By the end of 1957 it was clear that there was an urgent need to improve draft animal

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care and increase their numbers if agricultural growth was not to be further undermined.

The first table in this section presents the available information relating to the draft animal population of Kiangsu in the 1950's. Estimates are also given of the per capita burden of arable land:

	Table V.57:	Draft animal numbers and the burden of arable land upon them: 1952, 1956 and 1957.		
	Total number of draft animals	Arable area per animal	Total number of working draft animals	Arable area per working animal
		(mou)		(mou)
1952	1,790,000	51.77	n.a.	n.a.
1956	2,080,000	45.16	1,500,000	62.63
1957	1,880,000	50.00	1,402,985	67.00
	Sources:			
	Total draft animals:	1951 - <u>TLCS</u> , 1956 - Derive of 200 p.311 <u>op.cit</u> anima 1957 - <u>HTNY</u>	1959, no.6, op. ed by subtracting ,000 in 1957 (see ), as given in <u>HH.</u> ., p.1, from the 1s in 1957. <u>KHTP</u> , 1958, no.	cit., p.247. the net deficit above, ch.4, <u>JP</u> , 27/3/57, total no. of draft 2, <u>op.cit.</u>
	Working draft animals:	1956 - HHJP, HTNY 1957 - Nung- no.8, arable 67 mo popula	27/3/57, op. cit KHTP, op. cit. ts'ung kung-tso t pp.22-23, gives a land per head of u. This yields the ation shown above	, p. l. Also ung hstin, 1957, the burden of draft animal as he working animal

The 5% increase in animal numbers between 1952 and 1957 was negligible when set against the arable area which they were required to service. The burden of arable land per head of working animals was in fact the heaviest in the whole country.<sup>(220)</sup> Given that the maximum burden was about 30 mou, <sup>(221)</sup> the minimum draft animal requirement was in excess of 3,100,000. In other words, Kiangsu's animal population at the end of the FFYP was more than 30% below what was needed - less than half if working animals only were considered.

Predictably, the supply situation varied considerably throughout the province. Availability was greatest (in terms of absolute numbers) in the north and about half of all animals were found in the two Special Districts of Hwai-yin and Hstl-chou. (222) The most common draft animal in Kiangsu was the "common oxen", (223) although water-buffaloes (224) tended to predominate in the south because of their peculiar adaptability to the wet and sticky conditions of the paddy fields. A much smaller number of donkeys, mules and horses were also used, particularly in the far north. Although a detailed breakdown of animals into these categories cannot be made, the 1952 plans of north and south Kiangsu provide an interesting reflection of the different needs of each broad region: in the north of the province the planned increase consisted of 55,000 common oxen, 5,000 mules and only 5,000 water-buffaloes (7.69% of the total). (225) Out of a planned increase of 20,000 animals south of the Yangtze, 7,000 were to be water-buffaloes (35%) and the rest common oxen. (226)

The significance of regional variations manifested itself in the relationship between draft animal supplies and arable land which they implied. <u>A priori</u> the concentration of animals in the north suggested a correspondingly heavier burden for those in the rest of the province - a pattern which is borne out by the following table:

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	Average arable area per working draft animal	Total arable area	Therefore, total number of working draft animals
Soochow	64 mou	9, 590, 000 mou	149,844
Sung-chiang	37	5,120,000	138,378
Nan-t'ung	79	9,210,000	116,582
Yang-chou	64	13,480,000	210,625
Chinkiang	62	8,390,000	135,323

Table V. 58: The relationship between draft animals and arable land in 5 Special Districts of Kiangsu: 1956.

Source: CKNYCCHWT, op. cit., p. 220 and p. 207.

With the single exception of Sung-chiang<sup>(227)</sup> the figures reveal a gap between draft animal requirements and availability of very serious proportions. On average, each working animal in Soochow, Chinkiang, Yang-chou and Nan-t'ung was responsible for the ploughing and harrowing of 67.25 mou of land, a burden that was hopelessly beyond their capacity. This figure contrasts with one of 34 mou in Hst-Hwai at about the same time.<sup>(228)</sup>

That the lop-sided distribution of draft animals implied an uneven animal-land ratio throughout Kiangsu is obvious enough. What is less immediately apparent is that it also posed an obstacle to the implementation of the kind of measures being proposed towards the end of the FFYP period. In Hst Hwai the most usual pattern of cultivation was either the planting of one crop a year or three crops every two years. Moreover as this tended to be a dry crop region the cultivation requirements were less rigorous than where paddy was grown. Both sets of factors tended to reduce the marginal utility of draft animals. Yet this was the very area where they were most numerous. By contrast, further south not only was paddy the single most

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important crop but double-cropping was also extensively practised (and plans foresaw its further expansion). The result was heavy demands upon draft animals and a correspondingly higher marginal utility of this factor. In short, the particular distribution of animals in Kiangsu had a high opportunity cost in the sense that a more rational allocation could have lessened the contradiction which existed in many areas between the availability of this factor of production and the demands placed upon it.

Deficiencies of labour and draft animals provided one strand of the argument in favour of mechanization and it will be appropriate to conclude this discussion by considering the role of mechanized agriculture in Kiangsu during the 1950's.<sup>(229)</sup>

The conclusions suggested by investigations into the role of mechanization in various parts of Kiangsu hardly suggested an overwhelming case in favour of it: "... Our impression is that except in a few individual cases mechanized cultivation does not lead to a decline in peasant incomes. But it is difficult to say how far it raises them ...  $(^{230})$  However, the cautionary tone of this remark was more a reflection of the difficulties which arose in the implementation of mechanization than of its intrinsic value. The source of many of these difficulties was the fact that mechanization involved the introduction of a modern input into a predominantly traditional agricultural sector. The inexperience of peasants in handling modern machinery resulted in inferior cultivation: for example, they were unable to control the depth of ploughing<sup>(231)</sup> or to break up the soil as finely as was required. In such circumstances any benefits resulting from the use of tractors could easily be offset by the extra work that was necessary

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afterwards in order to remove the deficiencies.

There is also evidence that where mechanized cultivation was experimentally introduced active opposition followed from peasants who feared that its adoption would rob them of work points and so reduce their income. The investigations carried out in the province agreed that mechanization would not be welcomed in areas where there was a large labour force and few subsidiary outlets, <sup>(232)</sup> but in general it was argued that it would release labour for more remunerative work. In any case, the possible loss in work points had to be balanced against the possible increase in production.

Moreover, on more strictly economic grounds there was a strong case in favour of the use of machines as the following data indicate:

> Table V. 59: The relative costs of mechanized cultivation and ploughing with draft animals, as shown by data from Wu-hsien, Soochow S. D.: 1956.

	Average cost per mou using draft animals	Average cost per mou using machinery
LABOUR (feeding and looking after animals and ploughing the field	s) 2.8 yttan	
ANIMAL FEED	1.6	
DEPRECIATION + OTHER EXPENSES	0.3	
Total	4.7 ytlan	3.9 yttan

Source: CKNYCCHWT, op. cit., p. 206.

In other words, if the above example were representative mechanization promised to cut costs by about 20%. Even bearing in mind the high initial outlay this was obviously a significant differential. A further important consideration was that when they were not being used machines required a minimum of maintenance, whereas draft animals which were employed for perhaps less than 100 days in a year needed continual care and attention.<sup>(233)</sup>

The suggestion that mechanization should begin by embracing stationary agricultural operations or rural subsidiary work only, <sup>(234)</sup> while meeting the objections of peasants who accused tractors of robbing them of work points, actually made little economic sense, since it could do little to ease the difficulties caused by factor shortages. After all, it was the field operations that were the source of the most acute problems and it was here that mechanization's potential contribution was greatest. Nevertheless, it was for such a static operation (albeit an extremely important one, irrigation) that machines were most used in Kiangsu during the FFYP period. By the end of 1956 over 7,000 water-pumps were irrigating almost 5,000,000 in the province. <sup>(235)</sup> Although this represented little more than 5% of the total arable area the average figure belied the importance of machine-driven irrigation in individual areas: the most outstanding example was Soochow where 30% of the arable area was irrigated by these modern methods. <sup>(236)</sup>

Modest as these achievements appear, they were quite substantial when set against the development of mechanized ploughing. During the First Plan period 19 tractor-stations were set up with 440 tractors servicing 920,000 mou; a further 882,000 mou came under the aegis of 12 state mechanized farms. <sup>(237)</sup> As of 1957 then 1,802,000 mou were cultivated by mechanical means. This was less than 2% of Kiangsu's total arable

area.

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The difficulties which had arisen at an experimental level showed that mechanization provided neither an easy nor a rapid solution to the shortages of labour and draft animals which existed in the agricultural sector. Its potential contribution to raising efficiency and productivity may have been considerable but it was clear that there were many problems to be overcome before it could be introduced on a wide scale. <sup>(238)</sup> In the meantime, factor shortages were likely to remain a serious constraint upon agricultural growth based on the extension of the sown area.

# (3) Pigs

Consideration of trends in pig production is important for two reasons: first because during the 1950's pigs were one of the most important sources of peasant income;<sup>(239)</sup> second, because they were a unique source of food and natural fertilizer. Not surprisingly did exhortations to raise more pigs become increasingly common in the FFYP period.

Although complete data are not available, the following figures give some indication of the changes taking place during the 1950's:

	Table V.60	1949 and 1957.		
		Total number of pigs	Index with 1952 = 100	
1949		5,000,000	83.33	
1952		6,00 <mark>0</mark> ,000	100.00	
195 <mark>4</mark>		5,370,000	89.50	
1955		5,100,000	85.00	
1956		6,870,000	114.50	
1957		9,890,000	164.83	

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Sources:

1949	Sun Ching-chih, <u>op.cit</u> , p.68 states that a pig population of more that 10 million in 1957 (but incl. Shanghai) was over 100% higher than in 1949.
1952	<u>TLCS</u> , 1959, no.6, <u>op.cit.</u> , p.247. Also <u>HHJP</u> , 10/1/58, <u>op.cit.</u>
1954	<u>HHJP</u> , $17/1/57$ , <u>op.cit</u> ., p.3 states that the number of pigs in 1956 was 1,500,000 more than in 1954.
1955	HHJP, 25/2/57, p.1, "Directive on the Development of Pig Rearing" states that the pig population in 1956 was 35% above that of the previous year
1054	
1956	HHJP, 7/5/57, op.cit., p.1. Also HHJP, 25/2/57, op.cit., p.1.
1957	TLCS, 1959, no. 6, op. cit., p. 247.

The absence of information for 1953 may not be accidental if data for T'ai-hsing hsien (Yang-chou Special District) are anything to go by. This was an important pig-breeding region and the data showed that pig numbers, having climbed steadily between 1949 and 1952, showed a sharp decline of nearly 29% in 1953. (240) The poor showing was attributed to the implementation of the CPCS scheme which was said to have destroyed the traditional complementarity between agriculture and subsidiaries. (241) Thus, in the past peasants had processed their crops themselves and been able to use left-over products (for example, wheat husks, vegetable skins, etc.) as feed for the pigs. As a result the animals had multiplied, earning cash for the peasants<sup>(242)</sup> and providing rich fertilizer for their fields. But state processing of raw grain and oil seeds which accompanied the new acquisition policy destroyed this cycle, causing a shortage of feed and a contraction in pig-rearing. Some fodder was supplied by the state but it was only available in small quantities and at high prices. In any case, because of the lack of human food the barley that was meant for the pigs

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was sometimes consumed by the peasants themselves.

The sharp decline in pig numbers had serious implications for peasant living standards: in 1955 per capita income was 23 yttan less than in the 1930's and 9.1 yttan below the 1951 level. <sup>(243)</sup> A corollary of this was a shortage of investment funds. 40% of rural households in T'ai-hsing lacked sufficient capital for raising pigs and were compelled to sell off their animals before they had been properly fattened. Bank loans did little to help the peasants: studies indicated that a household rearing two animals required 43 yttan, but only 10 yttan was available for each pig. <sup>(244)</sup> Policy changes were urgently needed to halt the downward trend. State feed supplies should be increased, the use of substitute feed encouraged and the purchase price of pigs and fertilizer raised to a more rational level.

It seems likely that the relevance of the T'ai-hsing experience went far beyond the confines of this one <u>hsien</u> and the fact that total pig numbers declined between 1952-55 suggests that similar forces were at work throughout the province. However, in 1956 an increase in purchase prices and feed supplies brought about a noticeable improvement. So rapidly did pig numbers increase during this year that at the beginning of 1957 planners were able to contemplate a target of 8,600,000 - 10,000,000 animals by the end of that year. <sup>(245)</sup> Despite reports of continuing problems of feed scarcity the upward trend was maintained. A further 10% rise in the purchase price of pigs and a reduction in taxes (measures which were expected to raise income by more than 30,000,000 yttan)<sup>(246)</sup> doubtless contributed to the very rapid expansion in pig-breeding which was said to have taken place in the first half of 1957. <sup>(247)</sup> So rapid was the recovery of the last

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two years of the FFYP that in spite of the shortfalls in earlier years the simple average rate of growth in pig numbers during the Plan was still 12.97% p.a. (248)

Within the agricultural sector the most important economic role of the pig was as a supplier of fertilizer.<sup>(249)</sup> and some illustrations of this will usefully conclude our discussion. The first is taken from T'ai-hsing hsien:

Table V.61:	The effect of increased supplies of pig manure, as shown by the experience of 2 APCs in T'ai-hsing hsien: 1956.		
	Liu Ch'iao APC	Ta Kung APC	
Area fertilized per pig	1.6 mou	3.06 mou	
Average yields:			
wheat	253 chin/mou	136 chin/mou	
barley	263	142	
naked barley	251	181	
Source	IMIP 22/10/56 op	cit	

In this case there was a direct correlation between the rate of fertilizer application (and so the number of pigs) and the level of yields attained.

The experience of a collective in Ch'ing-p'u <u>hsien</u> provided a convincing demonstration of the impact of an expansion in pig-breeding upon agricultural production via increased supplies of organic fertilizer. <sup>(250)</sup> The APC originally contained 30 mou of infertile land, yielding only 80 chin of raw wheat and 300 chin of unhusked rice per mou. However, between 1954-56 the application of more fertilizer permitted by a rapid increase in pig numbers had transformed the situation:

			and agricultural professional of Chin-lien APC, 1954-56.	roduction: the Ch'ing-p'u <u>he</u>	e case sien:
	Total number of pigs bred	Amount of manure produced	Rate of fertilizer application	Average yields of rice	Average yields of wheat
		(chin)	(chin/mou)	(chin/mou)	(chin/mou)
1954	1,980	1,400,000	500	500	100
1955	3,964	2, <mark>900</mark> ,000	1,050	540	110
1956	6,856	<mark>5,600</mark> ,000	2,050	540	190

Table V.62: The relationship between pig-breeding

Source: <u>HHJP</u>, 13/1/57, <u>op. cit.</u>, p.2.

In other words, the more than threefold rise in pig numbers had enabled average yields of rice to increase by 8% and wheat by 37.5% within two years. In addition, the scale of pig-breeding permitted the collective to sell 452 animals to the state thereby raising members' income (as well as contributing to greater meat supplies in the urban sector).

Chin-lien APC expressly used 100 mou of its arable land for growing feed crops for the pigs and this inevitably raised the question: could this land not have been more profitably employed in the production of grain for human consumption? The answer provided further proof of the economic benefits of pig-rearing. The 100 mou would produce 50,000 chin of rice and wheat. However, it could also produce enough feed to rear 800 pigs and in turn the manure from these pigs would yield <u>an extra</u> 67,000 chin of food grains.<sup>(251)</sup> Thus, the decision to divert 100 mou of land to pig-breeding purposes actually resulted in a net gain of 17,000 chin of grain for consumption by the peasants.

#### IV Some Concluding Remarks:

In this chapter some of the more important quantitative indicators of agricultural development in Kiangsu have been presented and analyzed. The picture that emerges is not a happy one. Between 1949 and 1952 rapid increases in output did take place; but they did not represent net growth so much as recovery from the depressed levels of economic activity caused by more than ten years of war. A more realistic assessment should consider the performance of the FFYP period and in these terms there can be no doubt that the achievements of the agricultural sector in Kiangsu were less than impressive.

The role of agriculture in economic development was crucial, for it had to supply food and raw materials to the cities as well as maintain (and increase) levels of consumption and productivity within its own sector. Yet during the First Plan period the output of food grains did little more than keep pace with population growth and in some individual instances the rate of growth was actually negative. <sup>(252)</sup> At the end of the Plan production targets for both grain and cotton remained unfulfilled. In addition, the production of all crops was susceptible to wide annual fluctuations during the 1950's. The most striking example was that of cotton. Man-made factors were only partially responsible but the fact that the instability also reflected natural conditions was little comfort since it demonstrated the precariousness of planning where such forces could still not be controlled.

The quantitative indicators also underlined the validity of the economic dichotomy between north and south Kiangsu which has been proposed at various points in this thesis. Yields in the south were consistently shown to be higher than those in the north and the differential was reflected by the

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standard of living in each region. Nor were the gaps significantly reduced during the FFYP period.

The technological framework of agriculture in Kiangsu remained more or less unchanged during the 1950's. The nature of economic priorities precluded agricultural mechanization on a large scale and limited the availability of modern inputs to the agricultural sector. As a result agricultural development was dependent on institutional change and the improvement of traditional techniques of production.

There is some evidence that institutional reform did benefit agricultural production and in 1956 in particular the organizational capacity of the collectives contributed significantly to averting the worst effects of the natural disasters. However, there is also ample evidence of the disruptive effects of the co-operatives and collectives and on balance it was probably these effects which had the greater impact. The situation was aggravated by periodic crises associated with state acquisition and pricing policies.

But even if the two "high-tides" had not taken place, would the performance of the agricultural sector have been significantly different? The answer is that it probably would not. A number of writers have argued that during the 1950's the scope for raising agricultural productivity on the basis of the traditional technology was reaching its limit in China. <sup>(253)</sup> That positive rates of growth could be achieved in Kiangsu shows that this was not so in any absolute sense. Re-organization of cropping patterns, the substitution of high- for low-yielding crops, higher fertilizer applications, more careful and intensive cultivation - all these factors could

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still yield increases in productivity. However, the question was not simply whether the traditional technology could generate <u>some</u> growth, but whether it could support <u>sustained</u> growth at a level commensurate with the demands of overall economic development. And in these terms there was some doubt about the viability of a developmental policy based on traditional methods and indigenous investment by the agricultural sector.

A corollary of agriculture's poor performance in Kiangsu was the slow improvement in living standards. In an analysis of changes in consumption standards we were able to show that between 1953-55 there was an increase in per capita food consumption (rural population) of something in excess of 10%, but that thereafter levels of consumption remained the same or even declined slightly. Even more serious than the stagnation which this implied was the enormous gap which existed between the rich and poor areas of the province (especially T'ai Hu and Hst Hwai). Just as at the time of land reform considerations of economic efficiency had prevented an egalitarian distribution of re-allocated land so similar considerations ensured a continuing disparity between standards of living, at least in terms of food consumption, within Kiangsu. Unless rapid growth was forthcoming in areas such as Hst chou and Hwai-yin this further manifestation of the dichotomy between the north and the south would merely be perpetuated.

An aspect of agricultural development which throws more light on changes in living standards are the trends in peasant incomes observable in the 1950's. Unfortunately, only fragmentary information is available but this will be sufficient to indicate levels of rural income and regional differentials in the final years of the FFYP. First, Table V.63 shows

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average per capita income in the whole province during 1955-57:

Table V.63: Levels of rural income in Kiangsu during 1955-57.

	Average income per head, rural population.
1955	68.50 ytlan
1956	49.80
1957	67.00

#### Sources:

1955:	<u>Nung-ts'un kung-tso t'ung-hstin</u> , 1957, no.4, "An Analysis of Peasant Incomes and Advances in Living Standards in China", p.4 states that average rural income in 56,000 households of Kiangsu was 454 ytian per h.h. From data in the Population Appendix, we know that the average size of h.h. (rural) in Kiangsu in 1955 was 4.376 persons and average per capita incomes must therefore have been 103.75 ytian. However, from <u>Nung-ts'un kung-tso t'ung-hstin</u> , <u>op. cit.</u> , we also know that this figure is repre- sentative of Kiangnan only and therefore, on the basis of income differentials in Soochow, Chinkiang and Sung-chiang S.D.s and the whole of Kiangsu (see below) we have derived the
105(	of Kiangsu (see below) we have derived the figure shown in the table.
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1956:	Nung-ts'un kung-tso t'ung-hstin, 1957, no.4,
	op. cit., p.4.
1957:	HTNYKHTP, 1958, no.2, op. cit.

These figures need little comment, for the pattern which they reveal is very much what our earlier analysis of food consumption standards would suggest. In the wake of the natural disasters and ill-effects of collectivization rural income fell by more than 27% between 1955 and 1956, though there was an almost complete recovery in the following year. Although data for the earlier years are not available it seems safe to assume that the income levels of 1955 and 1957 were the highest attained during the FFYP period.

A fascinating source of information on changes in incomes was a report of the investigation carried out by Fei Hsiao-t'ung into rural conditions

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in the Kiangnan village of K'ai-hsien-kung.<sup>(254)</sup> This was the very village which had been the subject of a study by Fei in the 1930's<sup>(255)</sup> and the object of his return visit in 1956 was to assess the changes that had taken place in the intervening years - particularly of course since 1949. But his findings were not calculated to please the authorities in Kiangsu, for they suggested that peasant incomes in 1956 were only 5% higher than they had been in 1936 and led Fei to conclude that "... no great advances have been made in Chinese peasant incomes".<sup>(256)</sup>

Against this background it is hardly surprising that Fei was vehemently attacked for his supposedly "rightist" tendencies and accused of having deliberately falsified his material. It was pointed out that 1936 was the year in which incomes had been highest before 1949 whereas 1956 was a particularly poor year. Moreover, his data were incorrect and it was claimed that revised calculations would show that average rural incomes in Kiangsu were 22% above the 1936 level. In any case, Fei had made no attempt to show changes in the distribution of income between classes. Had he done so, he would have discovered that the "labouring peasants" had made substantial gains in the 1950's and vastly improved their relative position. <sup>(257)</sup>

Although Fei's long standing as a socio-economic analyst and knowledge of conditions in south Kiangsu obviously gave his investigation an unusual degree of authority, we should be careful in extrapolating from his conclusions. By his own argument the principal reason why incomes had not rapidly increased was the decline in the silk industry, which had played a particularly important role in K'ai-hsien-kung's village economy. As such,

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the situation Fei was examining may well have been untypical. Moreover, his critics' argument that a class analysis of income distribution would reveal significant improvements for the poor peasants was probably a valid one. All in all, while Fei's findings provided a salutary antidote to all the claims being made on behalf of the collectives, their importance lay very much in the context of the area they were concerned with.

There were also of course regional variations in incomes:

"Because of differences in natural conditions, the sort of crops grown and differing standards of management and leadership, peasant incomes vary between regions. Indeed because of the availability and strength of labour they may differ even within a single collective. Where conditions are good per capita annual rural income may be as high as 100-200 yttan. But where they are poor, incomes may be as low as 20 yttan and in times of severe natural disasters they may disappear altogether." (258)

Although this statement was made in the context of China as a whole, it applied perfectly well in Kiangsu. The relatively highly-developed rural economy of the Yangtze Delta region made it a high-income region while the relative backwardness of the north tended to depress income levels. In 1955 for example average per capita income north of the Yangtze ranged from a low of 30 yttan per year to a high of 80 yttan. Yet in the south the corresponding figures were 95 yttan in Chinkiang Special District, 105 in Soochow and 115 yttan in Sung-chiang. <sup>(259)</sup> In 1956, although there was a general decline, the geographical spread remained very apparent:

	Per capita net rural income	Index with Kiangsu average income = 100
Kiangsu	49.80 yttan	100.00
Sung-chiang	78.30	157.23
Soochow	77.62	155.86
Chinkiang	70.30	141.16
Yang-chou	44.30	88.96
Nan-t'ung	42.20	84.74
Yen-ch'eng	39.62	79.56
Hstl-chou	35.42	71.12
Hwai-yin	28.22	56.67
City suburbs	70.42	141.41

## Table V.64: Regional income differentials in Kiangsu in 1956.

Source: <u>Nung-ts'ung kung-tso t'ung hstin</u>, 1957, no.4, op.cit., p.4.

The true significance of the economic dichotomy between north and south Kiangsu emerges very forcibly from these figures. Between Sungchiang (the richest Special District) and Hwai-yin (the poorest) there was an income gap of 177.46%, more than twice as large as that observed earlier for food consumption. <sup>(260)</sup> Even when the comparison is broadened, there is still a huge difference of 136.99% between incomes in Hstf-Hwai and the three Special Districts of Kiangnan. Moreover, because of the high levels attained in these three areas income in every one of the remaining five Districts was below the provincial average. It could be argued that the incidence of the 1956 natural disasters had the effect of exaggerating the north-south dichotomy, but this does not appear to be the case, for in 1957 average rural income in Sung-chiang was still 179.25% higher than in Hwai-yin. <sup>(261)</sup>

### Notes to Chapter Five

- (1) Chao Kang, op. cit., pp. 202-03.
- (2) <u>HHJP</u>, 19/12/57, gives the arable area of Hsti-chou S.D. (1957) as 15,770,000 mou.
- (3) <u>HHJP</u>, 10/1/58, "A Review of Agricultural Production in Kiangsu and Future Prospects".
- (4) Wang Wei-p'ing, <u>Shui-hsiang Chiang-su</u> (<u>Watery Kiangsu</u>), Shanghai, New Knowledge Publishing House, 1956: p.68.
- (5) "Reclaimed" land here includes that recovered through the destruction of boundaries, graves, etc. (especially during the two "high tides").
- (6) Chao Kang, op. cit., esp. pp. 280-295 (Appendix, Tables 1-9).
- (7) Notably, the project for controlling the Hwai River which directly affected the rural sector in the northern half of Kiangsu.
- (8) Reclamation carried out by bodies other than state farms is reckoned to have been insignificant (with the important exception of Heilungchiang). See Chao Kang, op. cit., pp. 204-05.
- (9) Ibid., p. 282, Appendix Table 2. His figures are as follows:

Area of reclaimed land

1949	0 mou
1950	11,000
1951	29,000
1952	106,000
1953	50,000
1954	51,000
1955	111,000
1956	212,000
1957	193,000

- (10) <u>Ibid.</u>, p.283.
- (11) Wang Wei-p'ing, op. cit., p. 68
- (12) Chao Kang, <u>op.cit.</u>, p.206. The 3.6:100.0 ratio is the average given in Ching-chi yen chiu (Economic Research), 1965, no.3.
- (13) <u>TLCS</u>, 1959, no.6, "The Role of Kiangsu Agriculture in the Development of the Great Leap", p.245.
- (14) In fairness to Chao, since his concern is with agriculture at the national level the average ratio is acceptable as long as any provincial biases cancel each other out.

- (15) Sun Ching-chih, <u>op. cit.</u>, pp. 53a-54. Sun provides a good summary of the construction work carried out in Kiangsu in the early 1950's.
- (16) HHJP, 10/7/57, op. cit., p. 1.
- (17) C. C. Chang, <u>An Estimate of China's Farms and Crops</u>, Nanking, 1932. Perkins, <u>op. cit.</u>, p. 236, follows Liu and Yeh and adopts a round figure of 92,000,000 mou.
- (18) <u>CKNYCCHWT</u>, op. cit., p. 126. Note also that a very similar figure (94, 347, 830 mou) can be derived from information given in <u>HHJP</u>, 31/8/57, p. 1, "Directive on Improving Autumn-Sowing Work".
- (19) For an indication of the scale of construction activity in Kiangsu in 1956, see above chapter four.
- (20) <u>HHJP</u>, 31/8/57, <u>op. cit.</u>, p.1. The exact figure is 93,972,600 mou. It is true that <u>HHJP</u>, 1/1/58, <u>op. cit.</u>, claimed that the arable area in Kiangsu had been extended by 2,700,000 mou in the First Plan period and on the basis of the data shown in Table V.3 this would give a 1957 estimate of 95,372,000 mou. However, there are two reasons for rejecting this: first, if an increase of 1.5% in arable area had been achieved in 1956-57 it would have implied that substantial reclamation had taken place during 1957 - but there is no evidence to suggest that this did in fact occur. Second, there is no way of knowing what 1952 base figure was being used in the <u>HHJP</u>, 1/1/58 report: it is quite possible that it was different from that shown in V.3.
- (21) In other words,  $MCI = s.a. \times 100/a.a.$
- (22) A MCI in excess of 200 would show that treble cropping existed.
- (23) The 1952-53 average data are as follows:

arable area	93,307,842 mou
MCI	162.5
sown area	151,625,243 mou

Note too that the comparison of 1952/53 and 1957 gives an indication of the FFYP performance, since the 1952/53 average MCI probably represents the pre-war extent of double cropping in the province. This is borne out by C.C. Chang's data which suggest a provincial MCI of 163.64 in the early 1930's.

- (24) Actually <u>ceteris paribus</u> assumptions are not strictly necessary: the result is the same as long as the increase in output resulting from the growing of the second crop is not offset by a decline in the yield of the first.
- (25) Notice the distinction between arable area and sown area yields: given an arable area of 100 mou, a MCI of 140 and average yields of 300 chin per mou (first crop) and 150 chin (second crop), the average yield

per unit of arable area is 360 chin, but the average <u>sown</u> area yield is only 257.14 chin. The distinction is clearly crucially important in any assessment of agricultural performance, although Chinese sources do not always make it clear which concept is being used.

- (26) Sun Ching-chih, op. cit., p. 91. See also above, ch. 1, note (68).
- (27) Actually the MCI of 196.4 may overstate the amount of double cropping in Nan-t'ung. For example, from other data in <u>CKNYCCHWT</u>, op. cit., pp. 233-4, a figure of 187.08 can be derived for 1956. And <u>TLHP</u>, vol. 24, no.1, Feb., 1956, cites a figure of approximately 190.
- (28) Although data are not available, there can be no doubt that double cropping was least common in Hwai-yin and Hsti-chou Special Districts.
- (29) <u>HHJP</u>, 21/12/57, "Conditions in the High-Output Areas Favour a Great Leap Forward".
- (30) HHJP, 21/12/57, op. cit., p.2.
- (31) Until 1956 food grains were defined to include rice, wheat, tubers, coarse grains and soyabeans. A new definition adopted in that year excluded soyabeans from the classification. Throughout this chapter, unless otherwise stated grains will be taken to include soya.
- (32) Some would object that it is unlikely for average yields to have remained constant over this period. However, without accurate quantitative indicators it is impossible to know how far (if at all) yields changed. Moreover, as we shall see later, average wheat yields were at their 1951 level in 1957. In any case, any increase in yields of tubers and coarse grains would have been relatively small and certainly not of sufficient magnitude to alter the following argument.
- (33) 13,404,640 mou minus the 11,312,855 allocated to grains leaves 2,091,785 mou. But this does not represent the area available to economic crops since some land would have been used for growing vegetables, green fertilizers and other non-economic crops.
- (34) To what extent food grain production in 1952 was back at pre-war levels it is difficult to say because of problems associated with pre-1949 data. However, this aspect is considered at greater length in the final chapter.
- (35) See SPJP, 20/2/51, op. cit., p.2. The exceptions were Hwai-yin and parts of Yen-ch'eng Special Districts, where flooding led to production declines. (Remember that at this time north Kiangsu did not include Hstt-chou.)
- (36) Chao Kang, op. cit., p. 304, Appendix Table 14.
- (37) 1952 is also the base-year for measuring the performance of agriculture during the FFYP (1953-57).

(38) Annual changes in total grain output during 1952-57 were as follows:

	Absolute change over	Percentage change
	previous year	over previous year
1953	+ 1,700 mill. chin	+ 7.83
1954	- 400	- 1.71
1955	+ 2,740	+ 11.91
1956	- 1,740	- 6.76
1957	+ 1,160	- 4.83
1953 1954 1955 1956 1957	+ 1,700 mill. chin - 400 + 2,740 - 1,740 + 1,160	+ 7.83 - 1.71 + 11.91 - 6.76 - 4.83

(Source: Table V.11)

- (39) <u>HHJP</u>, 9/6/57, p. l, "More Than Nine Million Affected Peasants in Kiangsu Overcome Natural Disasters".
- (40) Broadcast recording, 30/12/55.
- (41) HHJP, 1/1/57, op. cit.
- (42) <u>HHJP</u>, 22/1/56, "Criticize Rightist-Conservative Thought and Raise the Increased-Output Targets".
- (43) <u>HHJP</u>, 9/6/57, op. cit.
- (44) <u>HHJP</u>, 12/9/57, p.2, "The Policy of Central Purchase and Central Supply of Food Grains is Very Fine!"
- (45) HHJP, 21/1/56, "Soochow Special District Will Become Even Richer".
- (46) I have to admit that the generalizations in this paragraph are far from satisfactory, but until a great deal more information becomes available which might permit a separation of the effects of natural and manmade factors on the performance of agriculture there seems little point in trying to extend what has already been said in earlier chapters about the relationship between institutional change and agricultural productivity.
- (47) It is interesting that <u>TLCS</u>, 1959, no.6, <u>op. cit.</u>, pp.244-247, takes 1951 as its base year and so achieves a higher rate of growth (almost 4% p.a. during 1951-57).
- (48) Ch'ang-chou kung-jen pao, 13/12/55, "Gross Output of Food Grains and Cotton Are Higher than the 1957 Target". The article cited a grain production of 25,740 million chin for 1955 and pointed out that this was 220 million chin higher than the 1957 planned output.
- (49) HHJP, 9/1/57, op. cit., p. 1.
- (50) It might be thought too that at this stage the planners were unaware of the extent of the falls in production in 1956. However, <u>HHJP</u>, 22/1/57, <u>op. cit.</u>, p.2, specifically states that the 1956 grain targets were not met. The same article makes clear the urgency of the current situation and the anxiety of the planners to achieve a good harvest in 1957.

- (51) JMJP, 29/1/57, "This Year Kiangsu's Agricultural and Subsidiary Gross Value Output Must Increase by Nineteen Per Cent Over Last Year".
- (52) <u>HHJP</u>, 30/9/57, "The Situation Regarding the Anticipated Fulfilment of This Year's Plan and the Pre-Fulfilment of the Five Year Plan in All Sectors of the National Economy and Education in Kiangsu".
- (53) JMJP, 10/12/57, "Do We Want to Make a Leap? Are We Able to Make a Leap? Do We Dare to Make a Leap?"
- (54) Between 1949-52 the average growth of per capita grain production was 18.23% p.a.
- (55) HHJP, 12/9/57, op. cit., p.2.
- (56) That is 8,700 minus 1,310 million chin.
- (57) Ideally the acquisition of the agricultural surplus should meet the food demands of the rural and urban sectors; provide raw materials for emergent industries; and furnish exports.
- (58) The instability between state purchases and state supplies was emphasized in HHJP, 12/1/58, op.cit.
- (59) See above, chapter two, Table II. 11.
- (60) This would certainly not be a unanimous choice: for example, in his recent book O.L. Dawson continues to use a figure of 2,100 calories as a daily minimum requirement. (Dawson, op. cit., p. 187, Table 12.)
- (61) "Significant" because of their fat and protein content which helped to balance what otherwise would have been a seriously deficient diet.
- (62) T.H. Shen, <u>Agricultural Resources of China</u>, Ithaca, New York: Cornell University Press, 1951, p.166.
- (63) Shen, <u>op. cit.</u>, pp. 378-379, Appendix Table 4, shows the number of calories per kilogram to be much the same for both cereals and vegetables.
- (64) If per capita grain output in Kiangsu (1957) is 100 the index for the other provinces is:

Chekiang	139.82
Hupeh	157.52
Kwangsi	123.01

See Perkins, op. cit., p. 302, Table F.2.

(65) Remember that we are only dealing with the calorie content of the Kiangsu rural diet, not its <u>nutritional</u> content. The distinction is important for as Shen (op. cit., p. 165) points out, "the purposes of

food production is to meet the nutritional needs of the population. To satisfy hunger is not enough ... "

- (66) See K. R. Walker in The China Quarterly, op. cit., pp. 26-28.
- (67) The same author in Planning in Chinese Agriculture, op. cit., p. 32.
- (68) The average arable area per head in Kiangsu was around 2.4 2.5 mou. Therefore, if the maximum 5% criterion for private plots were being enforced in the province the average size of plot would have been about 0.12 mou. This is in fact very close to the modal figure of 84.5 metres per household. But K. R. Walker has shown that the actual criterion operating in the final years of the First Plan was less than 5% and so it is reasonable to suppose that the average size of plot in Kiangsu was less than the modal figure. Indeed it may be that the assumption made in the text over-estimates the importance of the private plots' contribution to food consumption in the province.
- (69) HHJP, 17/9/57, op. cit., p.2.
- (70) Ibid.
- (71) The reasons for thinking this are: first, the data do not tally with the state acquisition figures given earlier; second, the authorities would naturally wish to show consumption levels to be as high as possible and expressing data in terms of raw grain would be one way of doing this.
- (72) Or had at their disposal for consumption.
- (73) An indication of the situation in earlier years is given by <u>Ti-li hstteh</u> pao, vol.25, no.2, April, 1959 which states that in 1949 average per capita availability of food grains in Hwai-yin Special District was about 180 chin!
- (74) The qualification relating to the different calorific requirements within the rural population should of course be borne in mind.
- (75) <u>HHJP</u>, 20/4/57, p.2, "Nan-t'ung Special District Adjusts the Sown Areas of Cotton and Food Grains". See also below.
- (76) HHJP, 17/9/57, op. cit., p.2.
- (77) See, for example, the following data from <u>Che-chiang jih-pao</u>,
  6/4/57, <u>op.cit.</u>:

	Per capita	Per capita	(2) as a	
	consumption	consumption	percentage	
	of industrial	of peasants	of (1)	
	workers			
	(1)	(2)		
Grain	486 chin	501 chin	103.1	
Meat	11.5 chin	5.4 chin	46.9	
Fish	22.4 chin	15.3 chin	68.3	
Eggs	37.8 eggs	15.3 eggs	40.5	
Vegetable oil	6.3 chin	3.2 chin	49.2	
Vegetables	160.3 chin	182.0 chin	113.5	
Soya	3.3 chin	2.0 chin	60.6	
<u>Kuang-hsi jih-pao</u> , 10/11/57, op.cit., p.2 shows industrial staff and workers receiving about 5% more vegetables than peasants.				
Since some of the issues impinging on these questions are more easily considered in the context of individual crops, their discussion will be postponed until later in the chapter. The aim here will simply be to give a brief overview of the situation.				
See above, chapter one, pp. 40-47.				
Sun Ching-chih, op. cit., p. 115.				
JMJP, 4/2/58. And HHJP, 21/12/57, op. cit.				
SPJP, 20/ 2/51, op. cit., p.2 gives the following planned yields of				

(82) grains:

Hwai-yin:	58 chin/mou
Yen-ch'eng	142 chin/mou.

(83) That is:

(78)

(79)

(80)

(81)

	1951 planned yield	1957 actual yield
Hwai-yin	58  chin = 100	193  chin = 332.76
Yen-ch'eng	142 = 100	230 = 161.97

- -

(84) The data are as follows:

		Total output, 1949	Total output, 1957
Hwai-yin <sup>a</sup> Sung-chiang <sup>b</sup>	1	900 million chin ,240	3,000 million chin 2,040
Sources:	a	Ti-li-hstleh-pao, vol 1959, op. cit.	25, no.2, April,
	b	HHJP, 1/12/57, p.1 creases in Sung-chia Reached their Ceilin output had risen by 8	, "Food Grain In- ing S.D. Have Not g" states that food grain 00 mill.chin since
1949. And <u>TKP</u> (Peking), 13/11/57, <u>op. cit.</u>, gives 1957 output as 2,040 mill. chin. Therefore, 1949 output is 2,040 less 800 mill. chin.

- (85) <u>Hua-tung nung-yeh k'o-hstleh t'ung-pao</u>, (East China Agricultural <u>Scientific Bulletin</u>), hereafter <u>HTNYKHTP</u>, 1958, no.2 (February), "Mobilize the Kiangsu Party and Struggle to Fulfil the 12 Year Plan for Agricultural Development Ahead of Time".
- (86) <u>Chi-hua ching-chi (Planned Economy</u>), 1957, no. 4, April. The article broke down Kiangsu into three broad agricultural regions: Hst-Hwai (though also including two <u>hsien</u> from Yen-ch'eng S.D.); T'ai Hu (Soochow and Sung-chiang); and Li-hsia-ho and the coastal regions, embracing the other areas of the province.
- (87) Ibid.
- (88) Ibid. But as mentioned in note (86) Hstt-Hwai here includes Fou-ning and Pin-hai hsien from Yen-ch'eng S.D. <u>HTNYKHTP</u>, 1958, no.2, <u>op. cit.</u>, gives the arable area in Hstt-Hwai to be 37% of Kiangsu's total arable area.
- (89) In Chinese, tsa-liang.
- (90) Ti-li hstleh-pao, vol. 25, no. 2, op. cit.
- (91) TLCS, 1959, no.6, op. cit.
- (92) See above Table V.10.
- (93) For example, during 1952-55 the energy yields of rice, wheat and sweet potatoes for China were as follows:

Calories per hectare

Rice	6.278 million
Sweet potatoes	4.715
Wheat	2.354

- (94) See the data in HB, op. cit., pp. 142-143.
- (95) In Chinese, ntt.
- (96) Hsien or keng.
- (97) See, for example, JMJP, 2/6/53.
- (98) <u>JMJP</u>, 27/5/53. The same source also noted that the food grain sown area expansion of around 200,000 mou had mostly been under paddy hence the increase of 150,000 mou in the rice sown and arable areas shown in Table V.30.

- (99) <u>Chi-hua ching-chi</u>, <u>op. cit.</u>, and Sun Ching-chih, <u>op. cit.</u>, p. 57, both give a figure of 59%.
- (100) Actually, <u>JMJP</u>, 19/11/54, "This Year Kiangsu's Grain Production Will Increase By a Thousand Million Chin" gives the area under rice as 30,000,000 mou. But this contradicts the evidence for the earlier years and it has therefore been rejected. In any case, it may simply be a very rough, rounded approximation.
- (101) TKP, 7/8/55.
- (102) Sun 's rice output figure is 13,422 million chin (op. cit., p. 57). The difference between this estimate and that of <u>TLCS</u> would indicate that Shanghai's rice output was a mere 244 million chin.
- (103) Changes in the sown area under rice that is, the question of doublecropping of paddy - are considered later in this section.
- (104) The small discrepancy in the percentage change of total output and average yields in 1952 is simply the result of rounding up the total figure.
- (105) Why such an expansion in the arable area of rice should have taken place in 1955 can only be guessed at: perhaps it largely arose from the more rapid pace of co-operativization, one aspect of which was land consolidation. In any case there is a little circumstantial evidence to support the 4% rise in rice arable area shown in Table V. 30: for example, <u>HHJP</u>, 11/3/56, "Raise the Rate of Land Utilization and Strive for Widespread Bumper Harvests" refers to 150,000 mou of land having been converted from dry to wet crops. And Wang Wei-p'ing, op. cit., also speaks of 260,000 mou of dry land having been converted to paddy cultivation in 1955.
- (106) Evidence in support of the large increase in the rice arable area in 1956 is considerable. For example, Wang Wei-p'ing, op.cit., p.69, cites the following planned changes in cropping patterns in Kiangsu during this year:

T'ai Hu paddy region:	2,000,000 mou to be converted from single to double-cropping paddy.
Li-hsia-ho paddy-	7,300,000 mou to be converted from the
wheat area:	hsien variety to the keng variety of non-
	glutinous rice. (The importance of such
	a change is well indicated in JMJP, 2/2/56,
	"Kiangsu's Agricultural Production Has

Unlimited Potential" which stated that in T'ai Hu in 1955 half the rice grown was low-output, early- and medium-maturing upland non-glutinous (i.e. <u>hsien</u>) rice. If the late-maturing <u>keng</u> variety were sown in its place damage by the rice stem

borer could be avoided and per mou yields
increased by over 100 chin. This would
result in a rise of 120 million chin in
grain output.)

Hsti-Hwai miscellaneous grain region: 2,300,000 mou to be converted from growing dry crops to the cultivation of wet crops.

Note too, <u>HHJP</u>, 17/3/56, "Big Success in Spring Ploughing Preparations Throughout the Province", which stated that planned changes in cropping patterns would affect 25,000,000 mou in Kiangsu.

- (107) See, for example, <u>HHJP</u>, 17/1/57, p.2, "A New Rice-Cultivating <u>Hsien</u> Emerges in North Kiangsu". Also <u>HHJP</u>, 2/4/57, p.2, "Rapidly Resolve the Water-Wheel Problem". On actual achievements see <u>HHJP</u>, 23/9/57, p.2, "A Bumper Harvest on the Hwai-yin Plain"; and <u>HHJP</u>, 17/10/57, p.2, "What Has Been the Source of This Year's Bumper Harvest?"
- (108) S. Ishikawa, "Changes in the Structure of Agricultural Production in Mainland China" in W.A. Douglas Jackson (ed.), <u>Agrarian Policies</u> and Problems in Communist and non-Communist Countries, University of Washington Press, Seattle and London, 1971; pp.346-377.
- (109) Ibid., p. 357. But a figure of 195 days is cited in Ministry of Agriculture, Department of Food Grain Production, Shui-tao shengch'an chi-shu ts'an-k'ao tzu-liao (Materials Relating to the Investigation of Techniques of Paddy Rice Production), hereafter STSCCSTKTL, Peking, 1956; pp. 321-330, "An Initial Summary of Trial Double Cropping of Rice in Sung-chiang Special District in 1955".
- (110) <u>Ibid.</u>, Climatic records showed that only once, in 1922, had frost occurred as late as 20 April.
- (111) JMJP, 2/2/56, op. cit.
- (112) <u>CKNYCCHWT</u>, <u>op. cit.</u>, p. 234 cites a figure of 477 chin per mou (1956).
- (113) <u>STSCCSTKTL</u>, op. cit., pp. 325-326. The application of base fertilizer (chi-fei) and top-dressing (chui-fei) was extremely important throughout the growing period, but especially at certain crucial periods such as after sowing and before the earing stage. Ideally 10 chin of nitrogenous equivalent (nutrient value) of base fertilizer were required for the first rice crop plus 10 chin of ammonium sulphate equivalent, 10 chin of 'earing' fertilizer and 4 chin of 'pellet' fertilizer as top dressing. For the second crop 15 tan of pig manure needed to be applied per mou.
- (114) Two cases demonstrate well the importance of the correct timing of these operations: in one APC in Chin-shan <u>hsien</u> the sowing of the second rice crop was carried out on the second day after the first had been

harvested and yields of 474 chin per mou were achieved. But in Nan-hui <u>hsien</u>, where sowing only got under way on the fifth day after harvesting, ripening was delayed and yields were only 340 chin. Ibid., p. 328.

- (115) That is, the harvesting of the first and transplanting of the second.
- (116) STSCCSTKTL, op. cit., p. 330.
- (117) K. R. Walker, "Organization of Agricultural Production", op. cit., especially pp. 405-417.
- (118) <u>HHJP</u>, 17/2/57, p.2, "Strive For Even Greater Plans to Extend the Double Cropping of Rice" gives a figure of more than 300,000 mou under two crops of paddy in Sung-chiang S. D., which is slightly less than 9% of the rice arable area. Since we know from <u>CKNYCCHWT</u> <u>op. cit.</u>, p.233, that the area of rice double cropping in T'ai Hu was 620,000 mou (1956), it can be assumed that Soochow accounted for some 320,000 mou - i.e. between 3% and 4% of its rice arable area.
- (119) See above, chapter four.
- (120) CKNYCCHWT, op. cit., p. 220, Table 14.
- (121) HHJP, 21/1/56, "Soochow Special District Will Become Even Richer".
- (122) <u>HHJP</u>, 17/2/57, <u>op. cit.</u>, p.2.
- (123) Ibid. See also HHJP, 9/1/57, which mentions a 15% criterion.
- (124) <u>HHJP</u>, 7/8/57, p.2, "A Bumper Harvest For the Whole of the First Crop of Double-Cropped Rice in Sung-chiang Special District". See also <u>HHJP</u>, 1/12/57, p.1, "The Increase in Food Grain Production in Sung-chiang Special District Has Not Reached Its Ceiling".
  (But note that the 10-15% upper-limit was not always followed: in Feng-hsien <u>hsien</u> for example the rice MCI was reported to have reached 116.2 in 1957. See <u>HHJP</u>, 10/11/57, p.2, "A Bumper Harvest for the Double-Cropped Rice in Feng-hsien Hsien.")
- (125) This hypothesis assumes ceteris paribus conditions.
- (126) Sun Ching-chih, op. cit., p. 59.
- (127) Ibid.
- (128) It is true that Sun Ching-chih cites output and sown area figures that are very slightly higher than those in <u>TLCS</u>, but it is clear that the differences merely reflect the fact that the former source includes Shanghai while the latter does not.
- (129) JMJP, 12/7/54, op. cit., p.2.

- (130) JMJP, 9/6/54, op. cit., p. 1.
- (131) <u>HHJP</u>, 17/9/55, "In Order to Fulfil and Over-fulfil Planned Targets, Strive to Complete the Autumn Sowing" speaks of an anticipated increase in the sown area of wheat of 2.1% over 1954. Given the 1955 sown area in V.39, this would yield a 1954 sown area of 33, 300, 000 mou, which is very close to the one we have used.
- (132) JMJP, 9/6/54, op. cit., p. 1.
- (133) JMJP, 12/7/54, op. cit., p.2.
- (134) For example see <u>JMJP</u>, 9/6/54, <u>op.cit.</u>, p. 1; and <u>JMJP</u>, 12/7/54, op.cit., p. 2.
- (135) See SPJP, 3/10/52, op. cit.
- (136) JMJP, 2/6/53, op. cit. In some areas frosts continued until as late as April.
- (137) Ibid. Even this was regarded as a measure of the success with which the disasters had been combatted!
- (138) <u>Kuang-ming jih-pao</u> (Peking), 19/4/54, "Kiangsu Peasants Enthusiastically Increase the Production of Food and Cotton".
- (139) <u>HHJP</u>, 29/6/56, "Offset the Losses in Wheat and Guarantee Increased Output for the Whole Year".
- (140) JMJP, 5/7/56, "Increased Production in Kiangsu's Summer Harvest".
- (141) Ibid. But Soochow was one of the two Special Districts which achieved bumper harvests in 1956.
- (142) Such a decline would have been less serious had it been compensated for by a corresponding rise in the sown area of another (preferably higher-yielding) crop. But there is no evidence of such a substitution.
- (143) See for example <u>HHJP</u>, 9/1/57, p.1, "Strive for All-Round Increases in the Second Year of Co-operativization" which stated that 30% of the wheat crop had failed to sprout or done so only partially.
- (144) HHJP, 10/2/57, p.1, "Make Efforts to Overcome the Spring Flooding of the Wheat Fields".
- (145) <u>HHJP</u>, 2/3/57, p.2, "An Urgent Announcement by the Department of Agriculture in Kiangsu on the Need to Make Rapid Efforts to Take Measures to Ensure the Full Growth of the Summer Crop".

- (146) Actually lack of enthusiasm for wheat cultivation was a perennial problem and Sun Ching-chih (op. cit., p. 60) made the point that peasants in both north and south Kiangsu tended to cultivate this crop carelessly. In Hst-Hwai the fault was attributed to that region's susceptibility to natural disasters. In Li-hsia-ho and south of the Yangtze the reason lay in the rice-wheat double cropping pattern that is, since wheat took second place to rice it consequently received less attention.
- (147) <u>HHJP</u>, 24/10/57, p.2, "Make Plans for the Completion of the Sowing of the 'Three Wheats'".
- (148) <u>HHJP</u>, 6/6/57, gives Hwai-yin's sown area of wheat as something over 7,000,000 mou which is about a million mou less than the 8,150,000 mou reported in mid-1956 (see HHJP, 23/7/56).
- (149) <u>HHJP</u>, 29/6/57, p.2, "Hst-chou Special District Settles On Measures in an Attempt to Achieve a Bumper Autumn Harvest".
- (150) Yang-chou's sown area of wheat in 1956 was 4,370,000 mou (see <u>CKNYCCHWT</u>, op. cit., p. 234). Yet mid-way through 1957 a figure of only 1,070,000 mou was cited (in HHJP, 21/6/57).
- (151) HHJP, 24/10/57, op. cit., p.2.
- (152) See CKNYCCHWT, op. cit., p. 234, Table 23.
- (153) Sun Ching-chih, op. cit., p. 59.
- (154) That is, Hst-Hwai and Chinkiang Yang-chou: the wheat sown areas for these Special Districts were as follows:

Hstl-chou	8,960,000 mou
Hwai-yin	8,150,000
Chinkiang	3,450,000
Yang-chou	4,370,000
Total	24,930,000 mou

- (155) See T.H. Shen, op. cit., pp. 247-250.
- (156) TLCS, 1959, no.6, op. cit., p.246.
- (157) <u>Ibid.</u>, p. 245 suggests 13,060,000 mou for 1957. <u>Ta-kung jih-pao</u> (Hong Kong), 17/8/54 mentions a figure of 13,600,000 mou. And <u>HHJP</u>, 8/7/57, "Summer Sowing in Kiangsu is Basically Completed" cites 11,500,000 mou.
- (158) Coarse grains and tubers are simply the residual: that is total grain output (excl. soya) less rice and wheat.
- (159) See above note (93).
- (160) Sun Ching-chih, op. cit., p. 62.

- For a good account of such problems at the national level see
   D.H. Perkins, "Market Control and Planning in Communist China", Harvard University Press, 1966; especially pp. 33-38.
- (162) <u>SPJP</u>, 4/10/50, p.2, "The Cotton Production Situation in North Kiangsu."
- (163) <u>CFJP</u>, 16/4/49, "Continue the Work of 'Resist the U.S.; Support Korea' with the Development of a Spring-Ploughing Production Movement".
- (164) See SPJP, 2/3/50; and SPJP, 4/10/50, op. cit., p.2.
- (165) Evidence of declining cotton sown area in south Kiangsu can be found in the following 1950 estimates for Soochow S.D.:

planned s.a.	- 800,000 mou	(SNJP,	1/6/50)
actual s.a.	- 620,000	(SNJP,	16/4/51).

- (166) <u>Hsin-Soo-chou pao</u>, 15/5/50, p. 1, "Contraction of the Sown Area of Cotton Has Occurred in Quite a Few Places". The current cottongrain ratio was 1 chin of ginned cotton per 6.5 chin of unprocessed rice (ta-mi).
- (167) The purchase price of cotton in 1950 was lower than it had been in 1949.
- (168) Hsin-Soo-chou pao, 20/5/50, p.2, "A Letter to the Cotton Farmers".
- (169) Ibid.
- (170) Although Hsin Soo-chou pao was a south Kiangsu newspaper, similar problems were occurring in the north of the province: see, for example, SPJP, 4/10/50, op. cit., p.2.
- (171) <u>SNJP</u>, 6/4/51, p.1, "Cotton Farmers in Sung-chiang Special District Extend their Cotton Planting".
- (172) <u>HHJP</u>, 9/3/51, "Directive on Guaranteeing the Price Ratio Between Cotton and Food Grains". The new ratio stipulated that 1 chin of cotton should exchange for 8.5 chin of unprocessed rice.
- (173) <u>Hsin Soo-chou pao</u>, 18/10/52, p.2, "Cotton Speculation Is Raising Prices".
- (174) SNJP, 26/9/51, p. l, "A Bumper Cotton Harvest for South Kiangsu This Year: All Areas Are Urgently Pressing Ahead with State Purchase Work".
- (175) Hsin Soo-chou pao, 5/10/51, p.2, "Provisional Regulations Governing the Methods of Exchanging Cotton in South Kiangsu". And ibid.,

18/10/51, p.2, "Provisional Methods for Saving Cotton Fibre Supplies in North Kiangsu".

- (176) Wang Wei-p'ing, <u>op. cit.</u>, p. 63; and <u>JMJP</u>, 7/6/56, p. l, "The Young Shoots Are Flourishing on the Six Million <u>Ch'ing</u> of Cotton Throughout the Country".
- (177) <u>HHJP</u>, 8/1/57, p. 2, "Thoroughly Sum Up the Lessons and Experience Gained from the Improvements in Agricultural Production During the Past Year".
- (178) We might add finally that from a variety of sources it is possible to arrive at an estimate of cotton sown area of about 7,340,000 mou (1956) for the five Special Districts of Soochow, Sung-chiang, Nant'ung, Yang-chou and Hwai-yin. It is surely inconceivable that the three remaining Special Districts could have added the remaining 4,500,000 mou necessary to make up the total to 12,000,000 mou especially as one of them, Chinkiang, was not an important cotton producing region.
- (179) TLCS, 1959, no.6, op. cit., p. 246.
- (180) Average yields of cotton in China were as follows:

1949	22 chin per mou
1950	24
1951	25
1952	31
1953	30
1954	26
1955	35
1956	31
1957	38

(Wei-ta ti shih-nien, op. cit., p. 107)

- (181) <u>HHJP</u>, 17/10/57, p.2, "Purchases of New Cotton Are Increasing Daily in Kiangsu".
- (182) See TLCS, 1959, no.6, op. cit., p. 246.
- (183) However, as a proportion of total sown area in Kiangsu cotton maintained its relative position: in 1957 the figure was 6.19% compared with 6.14% in 1952.
- (184) Wang Wei-p'ing, op. cit., p. 63.
- (185) HHJP, 20/4/57, p.2, "Nan-t'ung Special District Adjusts the Sown Areas of Cotton and Food Grains".
- (186) Although specific information is not available for Nan-t'ung, <u>HHJP</u>, 12/9/57, <u>op.cit.</u>, p.2 has a reference to the CPCS system being able to guarantee food supplies to peasants in the cotton areas. Between

1955 and 1957 grain was dispatched to 3,680,000 cotton farmers in Nan-t'ung, Yen-ch'eng and Sung-chiang Special Districts.

- (187) See above Table V.25.
- (188) HHJP, 20/4/57, op. cit., p.2.
- (189) In Soochow and Sung-chiang, <u>hsien</u> such as Chiang-yin, T'ai-ts'ang, Pao-shan, Ch'uan-sha, Nan-hui and Feng-hsien were very important centres of cotton production. This was of course not unconnected with their proximity to the textile manufacturing cities of Shanghai and Wusih.
- (190) SNJP, 1/6/50, op. cit., p. l.
- (191) <u>SNJP</u>, 16/4/51, p.2, "Peasants of Soochow Special District Extend Their Cotton Sown Area".
- (192) SNJP, 3/3/51, op. cit., p.3.
- (193) CKNYCCHWT, op. cit., p. 234, Table 23.
- (194) This is the difference between the planned sown area figure for 1950 (1,900,000 mou) given in SNJP, 1/6/50, op.cit., p.1, and the 1956 figure of 1,560,000 mou from <u>CKNYCCHWT</u>, op.cit., p.234, Table 23.
- (195) Sun Ching-chih, op. cit., p. 63.
- (196) <u>HHJP</u>, 23/3/57, p.2, "Peasants in the New Cotton Area Enthusiastically Prepare the Land, Collect Fertilizers and Make Ready for Sowing". See also <u>Wen-hui pao</u>, 28/10/57, "Ssu-yang <u>Hsien</u> Has Become a Paddy-Wheat-Cotton Region".
- (197) Average yields in Soochow rose from 24.15 chin per mou (1931) to 35 chin (1956).
- (198) From information in HB, op.cit., pp.189-199 and pp.203-205; and <u>CKNYCCHWT</u>, op.cit., p.234 (in the latter case deducting the cotton sown areas of Yang-chou, Soochow, Sung-chiang and Nan-t'ung S. D. s from the provincial total given in V. 50).
- (199) This of course is the basic point behind the Lewis and Ranis-Fei models of economic development. See W.A. Lewis, "Economic Development with Unlimited Supplies of Labour" in <u>The Manchester</u> <u>School</u>, May, 1954. And G. Ranis and J.L.H. Fei, "A Theory of Economic Development" in <u>American Economic Review</u>, 1961.
- (200) See Buck, <u>op.cit.</u>, p. 295. But even this statement needs qualification: even if they were unemployed in the sense of performing no agricultural tasks peasants might use their time pursuing subsidiaries or

carrying out important work such as repairing their tools or houses.

- (201) See above chapter one.
- (202) Availability of arable land per head of agricultural population in the five most densely-populated Special Districts of Kiangsu in 1956 was as follows:

	Arable area	Agricultural population	Per capita arable area
Soochow	9,590,000	5,160,000	1.86 mou
Sung-chiang	5,120,000	2,300,000	2.23
Chinkiang	8,390,000	3,710,000	2.26
Yang-chou	13,480,000	6,580,000	2.05
Nan-t'ung	9,210,000	5,420,000	1.70
Sour	ce: CKNYCCH	WT, op. cit., p	.207, Table 1.

- (203) CKNYCCHWT, op. cit., pp. 213-214.
- (204) Ibid., pp.214-215.
- (205) Ibid., p.215.
- (206) That is, 457 x 15 x 0.95. Ibid., p.217.
- (207) C.B. Howe, Employment and Economic Growth in Urban China 1949-1957, Cambridge University Press, 1971; especially pp.63-69.
- (208) Ibid., p.65.
- (209) CKNYCCHWT, op. cit., p. 217.
- (210) HHJP, 31/10/56, "The Late-Paddy Regions Should Guarantee That the Autumn Harvest and Sowing Do Not Get Delayed".
- (211) In any case, in Nan-t'ung <u>hsien</u>, where such re-organization did take place, there was still a labour deficit at certain peak periods. See CKNYCCHWT, op. cit., p. 217.
- (212) <u>CKNYCCHWT</u>, op. cit., p.207, Table 2 reveals that the average number of labour days worked per year by each unit of labour in five collectives in four <u>hsien</u> ranged from 130 to 208. The average was little more than 160.
- (213) But note that the suggestion was made in Liu-lu APC that each unit of labour should carry out 20% more work per day. See HHJP, 31/10/56, op. cit.,
- (214) CKNYCCHWT, op. cit., p. 219.
- (215) Ibid.

- (216) K.R. Walker in "Organization of Agricultural Production", op. cit., p. 410, Table 2.
- (217) That is, 1 3.03 = 0.33 mou.
- (218)  $0.33 \times 15 = 4.95 \text{ mou}.$
- Buck's data show that on average there was well under one draft animal per farm in Kiangsu. See <u>Statistics</u>, <u>op.cit.</u>, p.131, Table 5. See also below chapter six.
- (220) Nung-ts'un kung-tso t'ung-hstin, 1957, no.8, op. cit., pp. 22-23.
- (221) This is the figure cited in the authoritative <u>HTNYKHTP</u>, 1958, no.2, op. cit.
- (222) Sun Ching-chih, op. cit., p. 68.
- (223) Huang-niu.
- (224) Shui-niu.
- (225) SPJP, 27/2/52, op. cit., p.2.
- (226) SNJP, 9/2/52, op. cit., p.2.
- (227) The more favourable draft animal-land ratio in Sung-chiang was noted in the discussion of the extension of double-cropped rice in T'ai Hu. See above, pp. 400-401.
- (228) It is worth noting that even the Special District data concealed very wide local variations. For some idea of the range that was possible between hsien see CKNYCCHWT, pp.220-221.
- (229) Not that factor shortages were on their own sufficient justification for mechanization. Other criteria such as its ability to raise output and income also needed to be taken into account. Of course, all these factors were not mutually exclusive: ceteris paribus the removal of labour and draft animal scarcities via the introduction of power-driven machinery should lead to higher output (and so too, income).
- (230) CKNYCCHWT, op. cit., p. 205.
- (231) The depth of the furrows had an important bearing on the final yields.
- (232) CKNYCCHWT, op. cit., p. 207.
- (233) A reduction in draft animals would also mean that land used for grazing and housing them could now be used for growing grains. This was not insignificant, for it was estimated that the amount of

land needed to support one draft animal could produce enough grain to feed five people a year!

- (234) <u>CKNYCCHWT</u>, op. cit., p. 227. This was the pattern that had been followed in Japan.
- (235) <u>Ibid.</u>, p.228, Table 19. The distribution by Special Districts was as follows

Soochow	2,888,000 mou
Sung-chiang	263,000
Chinkiang	1,236,000
Yang-chou	456,000
Nan-t'ung	18,000
Yen-ch'eng	76,000
Hwai-yin	28,000
Hstl-chou	13,000

- (236) It is interesting that machine-powered irrigation was much less important in Sung-chiang, the other part of T'ai Hu, in view of our earlier finding that the supply of draft animals posed much less of a problem here.
- (237) HHJP, 10/1/58, op. cit.
- (238) In any case, unless economic priorities were changed, there was little chance of industry being able to supply large quantities of machinery and other modern agricultural inputs.
- (239) For example, in one APC in Ch'ing-p'u hsien (Sung-chiang S.D.) income from pig-breeding represented 35.3% of total agricultural and subsidiary income in 1956. See <u>HHJP</u>, 13/1/57, p.2, "In Chin-lien APC Each Member on Average Raises More Than One Pig".
- (240) JMJP, 22/10/56, "The Tradition of Closely Co-ordinating Agricultural and Subsidiary Production Must Be Preserved". The complete series of figures in T'ai-hsing are as follows:

Total number of pigs

Pre-war	900,000
1949	300,000
1950	450,000
1951	500,000
1952	520,000
1953	370,000
1954	450,000
1955	330,000

(241) Pig-rearing was, of course, regarded as a subsidiary.

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- (242) Pigs accounted for 33-44% of farm income in T'ai hsing and in some cases as much as 50%. See JMJP, 22/10/56, op. cit.
- (243) Ibid.
- (244) Ibid.
- (245) HHJP, 9/1/57, op. cit., p.1.
- (246) <u>HHJP</u>, 1/3/57, p. l, "From Today Kiangsu Raises the Purchase Price of Pigs". For an individual peasant this rise in price meant an increase of 6.6 yttan from the sale of a 140-chin pig.
- (247) <u>HHJP</u>, 3/8/57, p.3, "More Pork Coming On To the Market As Pig Production Rises".
- (248) The very definite upward trend in pig numbers after 1955 contrasts sharply with the definite downward trend in the draft animal population. There is no doubt that one of the main reasons for this different behaviour was the implication of collectivization for each category of animals. Many of the problems associated with draft animals stemmed from the fact that they were poorly cared for under collective ownership. However, pigs remained in private hands and were therefore not susceptible to the same mismanagement (and slaughter) that afflicted the oxen and water buffaloes. Hence, pig numbers were able to rise while those of draft animals were sharply falling.
- (249) Each pig was capable of producing more than 30 kilograms of ammonium sulphate equivalent a year.
- (250) HHJP, 13/1/57, op. cit., p.2.
- (251) Ibid.
- (252) For example, wheat and soya.
- (253) See for example, D. H. Perkins, <u>op. cit.</u>, pp. 189-191. And especially S. Ishikawa, "Changes in the Structure of Agricultural Production in Mainland China", in W. A. Douglas Jackson (ed.), <u>Agrarian Policies and Problems in Communist and non-Communist</u> <u>Countries</u>, University of Washington Press, Seattle and London, 1971; pp. 346-377.
- (254) HHJP, 5/9/57, op. cit.
- (255) Fei Hsiao-t'ung, <u>Peasant Life in China</u>, New York, Oxford University Press, 1946.
- (256) HHJP, 5/9/57, op. cit.

- (257) <u>Ibid</u>.
- (258) Nung-ts'un kung-tso t'ung hstin, 1957, no. 4, op. cit., p. 3.
- (259) Ibid., p.4.
- (260) See above, Table V.25.
- (261) The figures are:

Sung-chiang	111.7 ytlan	(TKP, 13/11/57)
Hwai-yin	40.0	(HHJP, 14/1/58).

#### CHAPTER SIX

### Long-Run Changes in the Agricultural Sector of Kiangsu and Prospects for the Future

Up to this point emphasis has been on an analysis of the nature and performance of the agricultural sector in Kiangsu during the 1950's. In this concluding chapter an attempt will be made to broaden the discussion by considering changes in agriculture over a longer period. Specifically, we shall try to compare levels of agricultural production and productivity in the 1950's with those of the 1930's.

Some of the difficulties of interpretation of pre-1949 sources are considered below, but it is worth emphasizing at the outset that in general these are so formidable that an examination of agricultural trends during the 1930's is more the subject of another thesis than of a short chapter such as this. Of necessity therefore much detail will have to be ignored and any conclusions regarding quantitative trends should be regarded as extremely tentative. Indeed the value of the exercise is more in the questions it raises than in any answers which it proposes.

The arrangement of the chapter is simple. We begin by considering the quality of available statistics for Kiangsu in the 1930's. There follows the main section in which estimates of sown area, total output and average yields of the principal crops are presented together with other indicators of the efficiency of agricultural production. These form the basis of the assessment of long-run changes in the agricultural sector of the province. The chapter ends with a very brief summary of the prospects for future agricultural development on the eve of the Great Leap Forward in Kiangsu.

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### I Some Desultory Comments on the Availability and Quality of Agricultural Statistics for Kiangsu in the 1930's.

Statistical information published in the 1930's poses much greater problems of interpretation than that of the post-1949 period. In the 1950's there is no evidence of deliberate falsification by the government authorities and in fact there is good reason to believe that the large volume of statistics published up to and including 1957 gives an increasingly accurate picture of economic trends. Unfortunately the quality - though not the quantity - of data for the years before 1949 is less reliable as the uncertain political situation, the absence of a national statistical system<sup>(1)</sup> and the non-uniformity of measures<sup>(2)</sup> all bedevilled the collection of accurate quantitative information.

The best-known source of information for the 1930's is undoubtedly J. L. Buck's <u>Land Utilization in China</u>, published in three volumes in 1937. It was certainly the most comprehensive and professional of all the investigations into agricultural conditions that were conducted in the 1930's<sup>(3)</sup> and in view of the enormous amount of data it contains it is not surprising that it has come to be looked upon as the standard source of information on the Chinese economy under the Nationalist (Kuomintang) Government.

The data that are the basis of Buck's study were taken from 16,786 farms in 168 localities scattered throughout 154 <u>hsien</u> in 22 provinces. An important feature was the use of specially trained graduates of the College of Agriculture and Forestry in Nanking University as regional investigators, each one being responsible for the selection and training of local men who would conduct field surveys as a micro level.

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Kiangsu fell into two of the eight agricultural regions into which Buck divided China for the purpose of his analysis:<sup>(4)</sup> viz., the winter-wheat/ kaoliang and Yangtze rice/wheat regions. The fact that these areas contained 45% of all the farms surveyed suggests that the coverage of Kiangsu may be superior to that of other provinces. But to put this into perspective it also needs to be borne in mind that they contained 47% of China's total arable area and agricultural population.<sup>(5)</sup> In any case, a more important consideration was the proportion of Kiangsu farms investigated by Buck and on this basis the situation was less satisfactory:

Table VI. 1:	The proportion of farm families in Kiangsu investigated by Buck.		
	No. of villages studied	No. of farm families studied	No. of farm families studied as % of total farm families in the hsien
WINTER-WHEAT/ KAOLIANG REGION:			
Kuan-ytin	3	99	0.13
YANGTZE RICE/ WHEAT REGION:			
Ch'ang-shu	3	101	0.066
Fou-ning	1	75	0.042
Hwai-yin	12	102	0.142
I-hsing	22	100	0.156
Chiang-ning	21	72	0.088
Chiang-tu (1)	7	107	0.068
(2)	3	93	0.059
K'un-shan	8	83	0.191
T'ai	28	99	0.061
Tung-t'ai	4	46	0.037
Wusih (1)	4	61	0.040
(2)	5	112	0.073
Wu-chin (1)	9	111	0.073
(2)	7	100	0.066
(3)	20	100	0.066
Yen-ch'eng (1)	14	100	0.057
(2)	13	78	0.045
(3)	8	97	0.056
(4)	1	144	0.083

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Sources: Columns 1 and 2 from Buck, <u>Statistical Volume</u>, op.cit., p.466 and pp.468-469. Columns 3 from <u>hsien</u> agricultural household data from Chang Hsin-i (C.C. Chang) in <u>T'ung-chi ytteh-pao</u> (<u>Statistical Monthly</u>), vol.2, no.7, pp.23-51.

Thus, even if the Kiangsu sample is larger than that of other areas the difference is clearly of minimal significance when coverage is viewed in relation to the geographical area and agricultural population of the province. As Table VI. 1 shows, Buck's investigations embraced less than a quarter of all <u>hsien</u> (13 out of 61)<sup>(6)</sup> and on average included about eight out of every 10,000 farm households!

It follows of course that the validity of Buck's findings depended critically on his choice of sample. Although care was taken to investigate areas representative of the various patterns of farming in China, there were many practical difficulties and Buck was himself forced to admit that "... there may be some bias in the data, probably resulting in the selection of samples better than average". <sup>(7)</sup> A similar conclusion was reached by other writers who argued that the problems of obtaining information from such a vast population distributed over so wide an area may have directed the enquiries towards "... more accessible and probably comparatively better-off localities with a higher ratio of cultivated land to total area". <sup>(8)</sup> Further, on the assumption that many of the Nanking graduates would have come from Kiangsu, we may also suppose that their contacts were with the better-off farmers. In short, there is strong evidence of Buck having used a 'rich peasant' sample.

There is one other consideration which underlines the need for caution in the use of Buck's data. This is connected with the fact that more than one -485sample is shown for four of the Kiangsu <u>hsien</u> and that within the samples for each <u>hsien</u> category there are alarmingly wide variations in the estimates of sown area, yields and total output. The point can easily be illustrated:

Table VI.2:	The difficulties of interpreting Buck's data:
	variations in hsien estimates based on his
	different samples.

		Sown area	Total output	Average yields
		(mou)	(chin)	(chin/mou)
WHEAT:				
Yen-ch'eng	(1) (2) (3) (4)	12,354 372,679 16,472 131,776		
Wu-chin	(1) (2) (3)	775,720 1,054,360 946,000	107,049,360 150,425,540 143,669,020	138.00 142.66 151.87
Wusih	(1) (2)	1,055,300 751,825	115,375,940 91,925,640	109.32 122.27
RICE:				
Yen-ch'eng	(1) (2) (3) (4)	0 (sic) 1,795,448 988,320 1,875,749	544,613,241 456,080,030 55 <mark>4</mark> ,227,550	303.32 461.47 295.46
BARLEY:				
Yen-ch'eng	(1) (2) (3) (4)	32,944 238,844 32,944 267,670	51,177,100 77,803,640	214.27 290.67

Source:

Buck, Statistical Volume, op. cit.

Note:

Total arable area for each <u>hsien</u> is available from Buck, ch.2, Table 1; so is the proportion of arable area planted under each crop, from which the crop sown area given above is derived. The yield is taken from the "most frequent yield" estimates (Table 11, ch.6), converted from quintals per hectare to chin per mou by dividing by 15 and multiplying by 200. Total output is then simply yield times sown area. These examples are not exhaustive: similar discrepancies could be shown for other crops. But they are sufficient to show how careful we must be in extrapolating from Buck's data. The most extreme case is that of the rice sown area in Yen-ch'eng <u>hsien</u>: on the basis of the first sample we would conclude that no rice was grown in the <u>hsien</u>; yet the fourth sample yields a sown area of almost two million mou. In the face of such conflicting data it is obviously impossible to know which is the most representative estimate (at least, without reference to other sources). And even if it is argued that an average will give a more reliable figure, that will hardly afford much confidence in any estimates made for those <u>hsien</u> where only one sample is available. <sup>(9)</sup>

All these considerations strongly suggest that the data collected by Buck should be used very judiciously indeed. It is a pity that in the past the accessibility of his work and the fact that it is in  $\text{English}^{(10)}$  has led to a neglect of other important sources (especially in Chinese). The result may well have been a too uncritical acceptance of his findings and a distorted impression of agricultural conditions in China during the 1930's.

The second major source of information on trends in agriculture before 1949 are the crop reports issued by the National Agricultural Research Bureau (N. A. R. B.).<sup>(11)</sup> Their origin was a national survey organized by C. C. Chang between 1929 and 1931 and designed to collect information on arable area, population, crop area and crop yields in "normal" years.<sup>(12)</sup> Coverage in the N. A. R. B. reports was much more extensive than that of Buck since they embraced over 90% of all <u>hsien</u> in 22 provinces.<sup>(13)</sup> By 1937 there were some 6,300 crop reporters responsible for sending in

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information from every part of the country.

Despite their wider coverage and greater time-span the N. A. R. B. data cannot be accepted without qualification. For example it has been suggested<sup>(14)</sup> that the arable area figures used by the Bureau are under-estimates, since they are ultimately based on land tax records. At a general level there is certainly no lack of evidence to show that landowners did often attempt to minimize their tax burden by under-reporting the amount of land they owned. Buck recognized the problem when he attempted to adjust the arable area data of the N. A. R. B. in order to compensate for the downward bias.<sup>(15)</sup> Nevertheless, although he noted that following the registration and surveying of land in four <u>hsien</u> near Shanghai "... the cultivated land surveyed is between 12.6 and 35 per cent greater than the amount formerly reported for taxation and averaged over 22 per cent greater ...  $m^{(16)}$  it is interesting that the arable area estimates of the Bureau in respect to Kiangsu were used unchanged by Buck. In this case at least, a modicum of confidence in the available information may be justifiable.

Other criticisms of the N. A. R. B. approach can be summarized briefly. First, the concept of the "normal year" was very imprecise and there was no way of ensuring that all crop reporters would interpret its meaning in the same way. Next, in spite of their wide geographical coverage only a few reports came from each <u>hsien</u>; nor could their representativeness be known. Finally, there was a general point that "... the accuracy of the reports was very much left to the mercy of the unpaid field reporters, who could and may have filled out the survey schedules without painstaking field investigations".<sup>(17)</sup>

Chang Hsin-i's arable area and yield estimates have already been

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mentioned. The same author was responsible for a unique study of agricultural conditions in Kiangsu. <sup>(18)</sup> Not only did this contain estimates of total surface area, arable area and population, as well as the sown area and yields of all important crops for the province as a whole, but it also gives a breakdown of this information by individual <u>hsien</u>. As such it is the most detailed source of quantitative information for Kiangsu in the 1930's. The estimates of total, irrigated and arable area, and of population, cited by Chang may be taken to represent the actual situation at the beginning of the 1930's. But the sown area, yield and total output figures refer to "average" or "normal" conditions and so have to be used with some caution. His data were collected by correspondence, the head or 'postmaster' of every <u>hsien</u> being required to fill in "rough estimates of the agricultural situation" within their area. <sup>(19)</sup>

An occasionally useful if uncertain source material for various aspects of agriculture in Kiangsu during the late 1920's and early 1930's is the Ministry of Industry's <u>Handbook</u>, cited earlier in this thesis. The uncertainty stems from its eclectic approach and cavalier attitude towards the data which it presents. Some of these come from the Ministry's own investigations but other estimates are simply reproduced, usually without comment, from a variety of sources. There is often no indication of the year to which the figures apply and the units are not always standardized, production sometimes being expressed in terms of capacity, sometimes in terms of weight. Where more than a single estimate is given there is generally no attempt to explain any discrepancies. But in spite of all difficulties, the <u>Handbook</u> remains a useful independent source.

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# II The Structure and Level of Agricultural Production in Kiangsu During the 1930's.

In order to place the analysis of agricultural production into perspective the table below presents some estimates of arable and sown area in Kiangsu during the early 1930's. Estimates for 1951-52 and 1957 are also included.

Table MI 2 Total anable and total comm

1 ab	ie vi. J:	food grad 1930's ad	in sown area in 1 nd the 1950's.	Kiangsu in the	_
	Early	1930's	1951-1952	1957	
Total arable area	91,68	1,580	92,672,100	94,000,	000
Total sown area	150,01	0,000	148,275,360	161,680,	000
Multiple cropping index		163.62	160	. 00	172.00
Grain sown area	115,78	0,000	105,507,145	117,810,	000
Food grain multiple cropping index		126.28	113	. 85	125.83
Not	e:	All area	figures are in n	nou.	
Sources:		1930's:	Basic data from Estimate of Chi op.cit.; and sa chi-ytteh-pao, w	n Chang Hsin- na's Farms a me author in vol.2, no.7, c	i, <u>An</u> nd Crops <u>T'ung</u> - p. cit.
		1950's:	From Table V. estimates exclu other crops not	10. But since de soya, rape used extensiv	Chang's and rely for adjust-

When set against those of the 1950's the estimates of arable and sown area in the early 1930's look very plausible. Since 1952 marked the end of the 'recovery period', we should expect basic indicators of agricultural development to have reached levels commensurate with those of the pre-war period and this is what Table VI.3 indicate. The figures do, it is true, suggest that land utilization on the eve of the FFYP was not quite as high as in the 1930's, although the difference is small enough to be within the margin of statistical error. The same cannot be said for the gap between the grain

ments have been made to the 1950's data.

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sown area figures, but before it is concluded that food grain production recovered relatively slowly from pre-war levels, it should be remembered that the post-1949 estimate refers to 1951<sup>(20)</sup> and may therefore not fully reflect the impact of the recovery years. Indeed an indication of the speed of post-war recovery may be gained from another source which stated that the total arable area at the end of 1946 was only 85,305,000 mou.<sup>(21)</sup> If this is correct, the achievements of the immediate post-1949 years may be even greater than is suggested by the table above.

Consideration of the 1957 estimates indicates that during the FFYP period the rate of land utilization in the province reached a level not previously attained. Not only was there an increase in the total arable area - a considerable achievement in view of the competition for land between farming and building (including irrigation) - but there was also an expansion of multiple cropping which added more than 11,000,000 mou to the sown area of the early 1930's. Further, although the food grain MCI in 1957 was slightly below that of the 1930's, in absolute terms the area planted under food grains was higher. Finally, these changes were also the source of shifts in the structure of agricultural production:

 Table VI. 4:
 The changing structure of agricultural production in Kiangsu.

		<u>1930's</u>	1957
Total sown area		150,010,000 mou	161,680,000 mou
(of which):			
Food grains		11 <mark>5,7</mark> 80, <mark>0</mark> 00	117,810,000
Soya		19,332,000	13,060,000
Other		14,898,000	30,810,000
So	urces:	Total and grain sown areas	from Table VI.3.

Total and grain sown areas from Table VI.3. Soya sown area from Chang Hsin-i, <u>op.cit.</u>; and Table V.7. In other words, more intensive land utilization after 1949, especially through the extension of multiple cropping, had important implications for the growing of all kinds of crops. The sown area under grains was extended in order to meet the increasing demand for food while a contraction of the soya area and a rise in the overall MCI permitted more land to be devoted to the cultivation of non-grain crops such as green fertilizer and industrial crops.

We can now proceed to the central task of this section which is to derive estimates of the sown area, yields and total output of the more important crops in Kiangsu. The first to be considered is rice and the following table presents data relating to this crop taken from a variety of pre-war sources:

	Dero		
	Sown area	Average yields	Total outpu
	(mou)	(chin/ mou)	(mill. chin)
SINLING UNIVERS	SITY:		
"Normal" year			10,651.00
Average p.a. from	m		
1926/27 - 1931/32	2		7,195,00
1931			5,927,00
1932			8,673.00
ARB			
1021	10 055 000	307 00	5 101 70
1931	18,055,000	287.00	5,181,79
1932	18,778,000	420.00	7,886.76
1933	28,330,000	375.63	10,641.59
1934	26,113,000	280.43	7,322.96
1935	29,189,000	379.10	11,065.54
1936	30, 504, 000	405.16	12,358.96
1937	29,351,000	393.01	11,535.10
Av. 1933-37	28,697,400	366.64	10,521.58
1946	34,040,000	371.93	12,660.36
1947	28,279,000	429.87	12,156.21
HANG HSIN-I:			
"Average" year	31,641,000	274.60	8,688.50
.L. BUCK:			
1929-33	45, 556, 577	432.82	19,717.58
I.K. T'ANG:			
1931			5,927.00
1932			8.673.00
1933			9,966.00
1934			10,231.00
Sou	rces:		
Те	inling Univ	Chung-nung vieh-klan	hereafter Ch
15	uniting Unity .:	issue unknown IIA Ct	idy of Crops in
		From Provincell	autokon oftor
		November 1022 be 41	o Dort of A
		tural Economics in Ta	sinling Univers
N.	A. R. B. :	CNYK, vol.8, no.5, 1	May, 1947, pp
		for non-glutinous rice	data.

Table VI. 5: Estimates of arable area, average yields and total output of rice in Kiangsu before 1949. Sources: (continued)

(N. A. R. B. )	Nung-pao (Agricultural Journal) vol.2, no.30, 30/10/35; and ibid., vol.2, no.34, 10/12/35, for yield and sown area estimates of glutinous rice in 1933 and 1934. <u>CNYK</u> , vol.7, no.1; vol.9, no.3; and vol. 9, no.8 for various data relating to 1946 and 1947.
Chang Hsin-i:	An Estimate of China's Farms and Crops, op.cit.
J.L. Buck:	Statistical Volume, op. cit.
W.K. T'ang	She-hui ching-chi ytteh-pao, vol. 1, no. 1, January, 1934, W.K. T'ang, "Review of the Rice Market in 1933". The 1931 and 1932 figures are obviously taken from the Tsinling University study cited above.

#### Notes:

Some of the discrepancies between different sources arise because glutinous rice is sometimes included, sometimes excluded. For example, W.K. T'ang confirms that the 1931 Tsinling University estimate excludes glutinous rice and though he denies that this is the case in 1932, comparison with other sources suggests that he may be mistaken. In any case, because of the uncertainty over the inclusion of glutinous rice, the data presented by T'ang and Tsinling University must be treated very cautiously.

With Buck, Chang and the N.A.R.B., sufficient data are fortunately available for an estimate to be made of non-glutinous + glutinous rice - which we must do in order to provide a comparability with the 1950's. In the case of the N.A.R.B., sown area and yield figures are available for every year shown for non-glutinous rice and so total output can easily be derived. As for glutinous rice, except for 1936, at least two out of the three measures (area, yield and output) are available for the third to be calculated. In 1936 a yield figure has been estimated by assuming that the percentage change over 1935 was the same as for non-glutinous rice. Once glutinous and non-glutinous data have been found total rice data are easily obtained by simple addition. (The same procedure has been followed in the case of Chang's data which likewise includes estimates for glutinous and nonglutinous varieties of rice.)

Buck also provides data for both kinds. However, because his study includes a small proportion of the <u>hsien</u> in Kiangsu the yield figure shown is the average of his "most frequent yields", weighted by the rice acreage in each locality. Sown area data being available, total output is of course simply the sown area multiplied by the weighted average yield. Because of the failure of the other sources to include glutinous rice in their calculations only the data from Buck, Chang and the N. A. R. B. can be used to estimate the sown area and output of rice. But even among these there are wide discrepancies. For example, Buck's yield is almost 60% higher than that of Chang and his sown area is also bigger (by 44%). In the latter case the close measure of agreement between Chang and the N. A. R. B. has been taken as a reason for rejecting the Buck figure and we have derived a final sown area by simply averaging the remaining data. Thus:

28,697,400 + 31,641,000 - 2 = 30,169,200 mou.

Not only does this estimate look reasonable in the light of our analysis of rice production in the 1950's but as an average, it also compensates for the possible downward bias in the N.A.R.B. sown area figure.

The choice of an average yield of rice poses a more intractable problem. The crux of the matter has been put succinctly by Chao Kang who points out that "... there must be sampling errors in Buck's and the N. A. R. B. yield data for individual provinces, yet the exact nature of the possible biases in the two sets cannot be determined".<sup>(22)</sup> Doubtless the same could also be said of Chang's data. That Buck's estimate is too high is very probable for reasons given earlier. Not only is it at variance with those of other contemporary writers but it is some 11% above the highest level attained in the 1950's (in the bumper-harvest year of 1955). Moreover, it is worth pointing out that Buck's figure is not the highest that he cites: that is given by his "best yield" whereas the one shown in VI. 5 is the "most frequent yield" and so presumably a measure of what could be expected in normal conditions.

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Some authors have attempted to overcome such difficulties by averaging the available data. Liu and Yeh use the average of Buck and N. A. R. B. in order to estimate rice yields in the 1930's.<sup>(23)</sup> The downward adjustment to Buck's figure that results is of course acceptable, but there appears to be no evidence to show why the N. A. R. B. yield should be revised upwards. Why not downwards? Nor are their arguments always convincing: they cite the fact that their results show Kiangsu to have a "substantial" rice surplus to be "quite consistent with common knowledge of rice supply" in the province.<sup>(24)</sup> Yet another source shows that 28 out of 61 <u>hsien</u> had insufficient supplies of rice and only nine a clear surplus.<sup>(25)</sup> Indeed because insufficient rice was produced for local consumption the province was a net importer of this particular grain.

But for all the drawbacks of this approach, without any convincing reason for accepting one particular estimate it seems likely that taking an average figure is the most acceptable compromise. At least the increase in sample size may reduce the margin of error. Our average yield of rice for Kiangsu is then derived as follows:

 Buck
 432.82 chin per mou

 N. A. R. B.
 366.64

 Chang
 274.60

 Average
 358.02 chin per mou.

Thus, our estimates of the sown area and output of rice can now be summarized:

	······································
	total output of rice in Kiangsu during the 1930's.
Table VI.6:	Estimates of sown area, average yield and

Sown area	30,169,200	mou
Average yield	358	chin per mou
Total output	10,800.5	million chin.

Next, wheat: the basic available data are presented in Table VI. 7:

Table VI.7: Estimates of sown area, average yields and total output of wheat in Kiangsu before 1949.

	Sown area	Average yields	Total output
	(mou)	(chin/mou)	(mill. chin)
TSINLING UNIVERS	SITY (1):		
"Normal" year Average p.a. from			7,910.0
1926/27 - 1931/32			5,551.0
1931			6,061.0
1932			5,837.0
TSINLING UNIVERS	SITY (2):		
"Normal" year	42,117,000	131.7	5,510.0
1931	41,661,000	143.8	5,992.0
1932	42,456,000	137.2	5,828.0
1933	38,771,000	136.6	5,298.0
N. A. R. B. :			
1931	33,712,000	192.9	6,506.4
1932	34,657,000	185.9	6,446.2
1933	31,507,000	177.9	5,608.2
1934	32,634,000	188.0	6,135.2
1935	34,150,000	168.1	5,743.4
1936	32,138,000	170.4	5,475.2
1937	32,243,000	166.2	5,360.5
Av. 1931-37	33,004,430	178.6	5,896.44
1946	26,188,000	162.9	4,268.6
1947	32,721,000	193.8	6,336.7
CHANG HSIN-I:			
"Average" year	<b>42,127,000</b>	132.0	5,514.0
J.L. BUCK:			
1929-33	39,753,133	146.7	5,831.78

Sources:

Tsinling Univ.(1):	<u>CNYK</u> , <u>op.cit</u> ., citing the investigation conducted by Tsinling University after November 1932.
Tsinling Univ.(2):	Chung-hang ytteh-k'an, (CHYK), vol.7, no.1, July, 1933. The figures are said to have been drawn from over 100,000 reports collected and used by the Department of Agricultural Statistics at Tsinling.
N. A. R. B. :	1931-37 and 1946 estimates of sown area and total output from <u>CNYK</u> , vol.8, no.5, May, 1947, <u>op.cit.</u> , pp.87-90. 1947 sown area and output from <u>CNYK</u> , vol.9, no.8.
Chang Hsin-i:	An Estimate of China's Farms and Crops, op.cit.
J.L. Buck:	Statistical Volume, op.cit. (The estimates shown are weighted by Buck's localities.)

### Notes:

F.K. Hst, "Review of the Wheat Market in 1933" in <u>She-hui</u> <u>ching-chi ytteh-pao</u>, vol.1, no.1, Jan.1934, <u>op.cit.</u>, also cites the 1931 and 1932 total output estimates of Tsinling University (1) and adds a 1933 estimate of 5,054 million chin. However, he mysteriously states that all three estimates are from Chang Hsin-i.

Wu T'eh-feng, Fei-ch'ang shih-ch'i chih nung-min (The Peasants in Normal Times), Shanghai, 1936, p.72 also cites Chang's sown area and total output estimates and claims that they are representative of "normal" years.

If the high "normal" figure of Tsinling University (1) and the low N.A.R.B. figure for 1946<sup>(26)</sup> are ignored, there is a broad measure of agreement on the level of wheat output being attained in Kiangsu in the 1930's. Moreover, except for the N.A.R.B. all the sources show approximately the same levels of yields and sown area.

Without detailed information of the ways in which the various estimates shown in VI.7 were collected the direction and size of possible biases cannot be known. One writer has argued that the selection criteria used by Buck has resulted in a seriously biassed wheat sample in those areas where wheat was not the major  $crop^{(27)}$  and that in consequence his yields overstate the true position.  ${}^{(28)}$  Unfortunately, this does little to help us obtain a reliable estimate for Kiangsu. For even if we were to accept that there was such a bias, how big should we assume it to be? It would obviously be tempting to make a downward adjustment of 10% and so bring Buck's figure in line with those of Tsinling University (2) and Chang Hsin-i. But such an approach would lack scientific foundation. In any case, how could we allow for possible biases in those other sources?

There remains the question of how to treat the N. A. R. B. data. If, as was suggested earlier, the Bureau's area estimates are too low, it is clear that the yields shown in Table VI.7 (which are derived simply by dividing total output by sown area) must be too high. Allowing for this goes some way towards narrowing the gap between the N. A. R. B. figures and those of other sources. But to eliminate the yield differential altogether means raising the N. A. R. B. sown area by 25%. In view of the fact that the Bureau's under-reporting implied by our calculations of the rice acreage was closer to 5% we are bound to question such a large adjustment.

Since there is insufficient information from other sources to provide answers to these questions there seems to be no choice except to steer a middle course on the basis of some simple assumptions. Our procedure will therefore be as follows: in order to compensate for the probable underreporting the N. A. R. B. sown area estimate<sup>(29)</sup> will be adjusted upwards by 15% (that is, roughly midway between the 5% upward revision implied by the rice calculations and the 25% required to bring the Bureau figure into line

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with those of Buck, Chang, etc.). This revised figure combined with total output then gives a revised N. A. R. B. yield. The rest is simple and consists of averaging the total output and sown area data of Buck, Chang, Tsinling (2) and the N. A. R. B. to derive final estimates of all the desired quantities (including average yields).

Calculation of revised N.A. R. B.	sown area and yield:
Sown area, 1931-37:	$33,004,430 \ge 115\%$
	= 37,955,094.5 mou
Total output:	5,896.44 million chin (see VI.7)
Average yield:	5,896,440,000 ÷ 37,955,094.5
	= 155.35 chin per mou.

Calculation of Kiangsu sown area and total output:

	Sown area	Total output
N. A. R. B. (1931-37)	37,955,094.5 mou	5,896.44 mill.chin
Chang Hsin-i	42,127,000	5,514.00
Buck	39,753,133	5,831.78
Tsinling (2)		
(av. 1931-33)	40,962,670	5,706.00
Average	40, 199, 474. 38 mou	5,737.06 mill.chin

Expressed in round numbers, final estimates of wheat area and production in Kiangsu in the 1930's can be summarized:

Table VI. 8:	Estimates of sown area, average yield and			
	total wheat output in Kiar	ngsu during the 1930's.		
Sown area	40,199,500	mou		
Total output	5,737	million chin		
Average yiel	d 142.71	chin per mou		

The final food crop considered is soya. All available data relating to its acreage and production are shown below:

	Sown area	Average yields	Total output				
	(mou)	(chin/mou)	(mill. chin)				
TSINLING UNIVERSITY:							
"Normal" year Average p.a. fro	om		3,391.00				
1926/27 - 1931 :	32		2,296.00				
1931			2,141.00				
1932			2,684.00				
N. A. R. B. :							
1931	12,341,000	168.80	2,083.60				
1932	12,782,000	213.00	2,722.60				
1933	14,652,000	191.00	2,806.20				
1934	13,991,000	93.70	1,311.00				
1935	13,350,000	131.00	1,749.00				
1936	12,146,000	193.40	2,349.00				
1937	12,347,000	194.10	2,396.80				
Av. 1931-37	13,092,710	168.23	2,202.61				
1946	5,322,000	186.00	989.00				
CHANG HSIN-I:							
"Average" year	19,121,000	120.04	2,295.23				
J. L. BUCK:							
1929-33	17,336,987	113.20	1,962.55				
Sources:							
	Tsinling Univ: <u>CNYK</u> , November, 1932, <u>op.</u>		1932, <u>op. cit</u> .				
	N. A. R. B. :	<u>CNYK</u> , vol.8, no.5, May, 1947, <u>op.cit</u> . pp.87-90. (All yield estimates are derived from sown area and total output.)					
Chang Hsin-i:		An Estimate of China's Farms and Crops, op. cit. (But the original data contains some minor inconsistencies and the figures shown above are corrected by summing his <u>hsien</u> data in <u>T'ung-chi ytteh</u> pao, vol. 2, no. 7, <u>op. cit.</u> , pp. 35-38.)					
	J.L. Buck:	Statistics Volume, op.cit. (The estimates are weighted by Buck's localities.)					

Table VI.9: Estimates of sown area, average yields and total output of soya in Kiangsu before 1949.

The procedure for obtaining soya estimates can be set out very briefly. The problems are sssentially the same as in the case of wheat: all sources show similar estimates of total output but the low sown area and high yield of the N. A. R. B. contrasts with the high sown area and low yield used by Buck and Chang. It can be assumed that under-reporting of area by the N. A. R. B. is again the major source of the discrepancies, but the familiar problem of quantifying it makes adjustment extremely difficult. Our attempt to reconcile the various sources consists therefore in taking an average of the sown area and total output of the Bureau, Buck and Chang. The following results are then obtained:

> Table VI. 10: Estimates of sown area, average yield and total output of soya in Kiangsu during the 1930's.

Sown area	16,583,900	mou
Total output	2,153.50	million chin
Average yield	129.85	chin per mou

So many estimates of the sown area and/or production of cotton in Kiangsu before 1949 are available that to include them all would mean burdening the text with a table of unwieldy length. For this reason only a summary is presented here, the detailed information being reproduced in an appendix.

	Sown area	Average yields	Total output
STATISTICAL OFFI OF THE CHINESE COTTON INDUSTRY	CE :		
Av. 1926-32	8,332,729.43		
COTTON MILL OWN ASSOCIATION:	NERS'		
Av. 1929-32			141.42
J.L. BUCK:			
1929-33	11,258,498	33. <mark>5</mark> 9	378.14
CHANG HSIN-I:			
"Average" year			
(uncorrected) (corrected)	12,010,000 11,091,000	28.00 28.20	336.28 311.62
N. A. R. B. :			
Av. 1931-37	11,614,860	30.56	355.04
WANG TZU-CHIA:			
Av. 1931-37	10,348,000	19.08	197.42

## Table VI. 11: Summary of available cotton estimates for the 1930's.

Source: Appendix E.

The first two estimates are so far removed from any of the others that it seems reasonable to reject them. In addition, since the origin of Wang Tzu-chia's data is not known and his yield and output figures look unacceptably low, his estimates will not be included in our calculations. As for the inconsistencies between the two Chang sources, insofar as it is based on his detailed <u>hsien</u> information the "corrected" figure is the more acceptable. Fortunately, the data which remain show a considerable similarity and the final estimates of the pre-war sown area and output of cotton may be obtained by averaging the Buck, Chang ("corrected") and N.A.R.B. information:
Table VI. 12:	Estimates of sown area, average yield
	and total output of cotton in Kiangsu
	in the 1930's.
Sown area	11,321,453 mou

bown arou	,0=-,100	
Total output	348.27	million chin
Average yield	30.76	chin per mou

This concludes our attempt to derive estimates of the sown area and output (including yields) of some of the more important food and economic crops in the pre-war period. What has emerged most clearly from it are the immense difficulties of interpreting contemporary quantitative sources. In particular, lack of methodological information and the consequent inability to determine the size or even direction of possible bias are formidable obstacles to achieving reliable estimates. As a result the procedure generally adopted here has been simply to take an average of the more convincing available data. In view of the obvious weaknesses inherent in this crude approach the quantitative indicators that have been presented should be regarded as being very approximate. However, there is no need for undue pessimism, for the close measure of agreement between many of the available estimates and the expectation that by taking an average a wider effective sample is obtained give some hope that the results do adequately reflect levels of production in Kiangsu in the 1930's.

There remains one last exercise which is to give an indication of the supply of one of the most important agricultural factors of production, draft animals. This is a more straightforward task, as relevant data are available from only one source, the N.A.R.B. These we shall simply accept as a basis for comparison with the 1950's and accordingly they are reproduced below without comment:

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	Table VI.13	: The supply of di before 1949.	before 1949.		
	1934	1935	1946	1947	
Water buffaloes	830,000	798,000	719,000	522,000	
Common draft oxen	1,396,000	1,235,000	1,088,000	1,047,000	
Horses	128,000	190,000	69,000	64,000	
Mules	125,000	265,000	38,000	81,000	
Donkeys	750,000	887,000	486,000	666,000	
Total draft animals	3,229,000	3,375,000	2,400,000	2,380,000	
	Sources:	1934: <u>Nung-pa</u>	o, vol.3, no.12.		
		1935: Ibid., vo	ol.3, no.26.		
		1946: <u>CNYK</u> , v	vol.7, no.1.		
		1947: Ibid., vo	ol.9, no.5.		

# III A Brief Digression: The Impact of the Sino-Japanese War upon the Agricultural Sector in Kiangsu.

This is an aspect of Kiangsu's agricultural history that has not so far been considered.<sup>(30)</sup> However, since the next section is concerned exclusively with a comparison of the rural economy between two discrete periods (the 1930's and the 1950's) it will be useful to preface that discussion with some consideration of agricultural conditions in the province immediately after the conclusion of the Sino-Japanese War.

The following table, based on data from the N.A.R.B.,  $^{(31)}$  shows the changes in sown area and output of rice, wheat, soya and cotton that took place between the 1930's and 1946:

		Rice		Wheat	Soya	Cotton
SOWN AREA						
1931-37 1946		28,697 34,040	,000 ,000	33,004,430 26,188,000	13,092,710 5,322,000	11,614,860 8,653,000
% change		+ 18.6	2	- 20.65	- 59.35	- 25.50
TOTAL OUT	PUT:					
1931-37 1946		10,521 12,660	. 58	5,896.44 4,268.60	2,202.61 989.00	355.04 302.8 <mark>6</mark>
% change		+ 20.3	3	- 27.61	- 55.10	- 14.70
AVERAGE Y	IELD:					
1931-37 1946		366.64 371.93		178.6 162.9	168.23 186.00	30.5 <mark>6</mark> 35.00
% change		+ 1.44		+ 8.79	+ 10.56	+ 14.53
	Notes	: (1)	Area u chin ar	nits are in m nd yields in c	.ou; total outp hin per mou.	out in million
		(2)	1930's	rice data are	e for 1933-37.	
	Sourc	es:	From	N.A.R.B. as VI.9 and VI.1	given in Tab	les VI.5,

## Table VI. 14: The impact of war on the agricultural economy: sown area and output of four important crops in the 1930's and 1946.

The most striking effect of the war was on crop acreage, the total sown area of the four crops falling by about 15%. This trend was predictable: as transport was disrupted and commodity exchange became difficult it was inevitable that cultivation should be curtailed. Cash crops were likely to be worst affected and as the table shows, in Kiangsu the most serious declines were indeed experienced by soya and cotton. In fact, the true impact may be under-stated by the figures shown in VI.14. For example, the cultivation of cotton was at its lowest level some years before 1946. Wang Tzu-chia's estimates show that the sown area of cotton fell by 25% in the first year after war was declared (1937-38) and continued to decline until 1943 when it was a mere 45.87% of the 1932-37 figure.<sup>(32)</sup>

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The sizeable contraction in the wheat acreage is at first more surprising. However, much of the wheat produced in Kiangsu in the 1930's was marketed and the loss may therefore be attributable to trade disruption.

The single exception to the generally deteriorating trend was the substantial expansion in the cultivation of rice which appears to have taken place. This we may assume to have been a reflection of the overwhelming emphasis on the production of high energy-yielding food crops for human consumption. The gain was of course largely at the expense of other crops: as less cotton and soya were grown so more land became available for rice.<sup>(33)</sup>

A decline in the number of draft animals was another consequence of war. Table VI. 13 suggests that the supply of draft animals of all kinds in Kiangsu in 1946 was only 72% of the pre-war level. Donkeys, mules and horses were most directly affected since they were so easily conscripted into military use: thus, numbers of donkeys fell by almost a half; of horses by more than a half; and of mules by a staggering 85%. By contrast, availability of common draft oxen and water-buffaloes after the war was still 90% of the pre-war level, although many of those that did survive must have been weakened by disease, malnutrition and general lack of care.

That a decline in the size of the agricultural labour force (temporary or permanent) also took place seems unquestionable. It follows that between 1937 and 1945 the supply of the two most important factors of production in the agricultural sector - whose numbers were already insufficient to carry out farm work even in normal conditions - was further eroded. The result can only have been that agricultural operations were dislocated as it became

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increasingly difficult to maintain standards of cultivation and complete sowing and harvesting on time. Against this background the increase in yields shown in VI. 14 invites considerable scepticism. The small rise in rice yields may admittedly have reflected a concentration of effort into the cultivation of this rich food crop. But why soya and cotton yields in 1946 should have been 10.5% and 14.5% higher than before the war is much less easy to understand. Perhaps the figures conceal a decline which took place in the late 1930's or early 1940's or perhaps they are simply errors. In any case, they do not alter the overall picture, for even with these improvements in yields total output of both crops (as well as of wheat) still shows a markedly downward trend.

### IV The Agricultural Sector in the 1930's and 1950's: Some Indicators of Long-Run Change in Kiangsu.

In order to provide a variety of bases for comparison, in addition to the average sown area and output of rice, wheat, soya and cotton in the 1930's the following table includes four estimates of the same in the 1950's: an average for 1952-57; and individual estimates for the beginning and end of the FFYP (1952 and 1957) and for the best year within the period. <sup>(34)</sup>

	Sown area	Average yield	Total output
	(mou)	(chin/mou)	(mill. chin)
RICE:			
Av. 1933-37	30,169,200	358.00	10,800.50
Av. 1952-57	32,733,333	362.92	<mark>11,879.50</mark>
1952	30.900,000	342.75	10,591.00
1957	35,510,000	371.11	13,178.00
WHEAT:			
Av. 1933-37	40,199,500	142.71	5,737.00
Av. 1952-57	32,764,670	104.17	3,412.97
1952	31,858,000	103.70	3,304.35
1957	31,230,000	98.97	3,091.00
1955	34,000,000	115.00	3,912.48
SOYA:			
Av. 1931-37	16,5 <mark>8</mark> 3,900	129.85	<mark>2,153.50</mark>
Av. 1952-57	N. a.	N.a.	N.a.
1952	14,050,000	94.31	1,325.00
1957	13,060,000	98.93	1,292.00
COTTON:			
Av. 1931-37	11,321,453	30.76	348.27
Av. 1952-57	9,970,057.	32.58	324.80
1952	9,105,590	28.60	260.42
1957	10,007,000	38.07	381.00
1955	11,084,580	42.80	474.42
	Sources: 1930's:	Tables VI.6, VI.8,	VI.10 and VI.12
	19 <mark>5</mark> 0's:	Rice, wheat and cott and V.50. Soya from op. cit., p.245.	con from V.30, V n <u>TLCS</u> , 1959, 1

## Table VI.15: Sown area, total output and average yields of rice, wheat, soya and cotton: 1930's and 1950's.

The implications of these data are more readily understood if they are converted to an index, taking the average pre-war figure as the base:

## Table VI. 16: An index of the changes in the sown area, average yield and total output of rice, wheat, soya and cotton between the 1930's and 1950's, with 1930's average figure = 100.00

	Sown area	Average yields	Total output
RICE:			
1933-37	100.00	100.00	100.00
1952-57 1952 1957	108.50 102.42 117.70	101.37 95.74 103.66	109.99 98.06 122.01
WHEAT:			
1931-37	100.00	100.00	100.00
1952-57 1952 1957 1955	81.51 79.25 77.69 84.58	72.99 72.66 69.35 80.58	59.49 57.60 53.88 68.20
SOYA:			
1931-37	100.00	100.00	100.00
1952 1957	84.72 78.75	72.69 76.19	61.59 60.00
COTTON:			
1931-37	100.00	100.00	100.00
1952-57 1952 1957 1955	88.06 80.49 88.39 97.91	105.92 92.98 123.76 139.14	93.26 74.78 109.40 136.22

Source: Table VI.15.

Consideration of the rice estimates suggests an optimistic assessment of post-1949 developments in Kiangsu. Both the arable area and average yields of rice increased during the FFYP period. On average rice production was 10% above the pre-war level in these years and in the last year of the Plan the differential was approaching 25%. However, it was significant that area expansion, not rises in yields contributed most to the increase in total output. To the extent that this reflected the inability of the traditional technology to generate rises in productivity it indicated that

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the prospects for future growth were limited. Moreover, the extension of the arable area under rice did not necessarily represent a net extension since the expansion of one crop might be offset by the contraction of another. Not that such substitution could cancel out the positive effects of the increase in rice cultivation: there was still a net gain because of the high energy content of rice, which ensured that one mou of paddy yielded more grain (in calorific terms) than one mou of any other food crop.

Another way in which rice production in the 1950's had improved on that of the 1930's related to the composition of its output. N. A. R. B. data reveal that before the war glutinous rice comprised about 13.5% of total output. This was mainly used for making wine and special pastries (for example, cakes for festivals); it was not the staple food for human consumption. In the 1950's part of the rationalization of the structure of agricultural production took the form of conversion of land under glutinous rice to the cultivation of non-glutinous rice. During the FFYP for example 7,120,000 mou were reported to have been affected in this way.<sup>(35)</sup> If it is assumed that the average yield of non-glutinous rice on this land was 350 chin per mou the change in cropping pattern would have increased food supplies by 2,492 million chin. To this extent the increase in the total output of rice between the 1930's and 1950's is in real terms understated by the data presented in Table VI. 15.

The wheat estimates reveal a more depressing picture. During 1952-57 the 20% fall in sown area (compared with the pre-war figure) combined with the 25% fall in yields resulted in a decline in total output of about 40% over the pre-war level. Nor was there any sign of recovery within the

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period; on the contrary, both sown area and yields were lower at the end of the FFYP than they had been at the beginning. Even in the best year, 1955, production was over 30% down on the average figure of the 1930's.

In view of the very wide gaps between the two periods it would seem reasonable to conclude that the performance of wheat after 1949 was one of the signal failures of agricultural policy in Kiangsu. However, although the data certainly support that conclusion some qualifications need to be made.

For example, Chao Kang has proposed that available information exaggerates the gap between wheat production before and after 1949. Although part of his argument relates to the question of reliability of prewar data, <sup>(36)</sup> his most interesting contention is that the statistics of the two periods lack a common base becuase of the use of different yield concepts. Thus, the yields estimated by Buck and Chang and the N.A.R.B. are "harvest rates", defined as output per unit of the harvested area while those supplied by official data after 1949 are crop yields, or output per unit of sown area. <sup>(37)</sup> This means that any land which failed to yield a harvest - say, because of natural disasters - is excluded from the pre-war calculations but included in those of the 1950's. The result is of course to inflate pre-war yield estimates.

A second point which should be considered is that part of the long-run decline in wheat production may have been due to deliberate government policy of contracting wheat in favour of higher yielding food crops. This is a question which will be examined later in this chapter, but for the present it is sufficient to say that there is evidence of such a trend in the 1950's.

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Its most obvious effect was seen in the falling sown area of wheat; but yields were also likely to be affected. For it can be assumed that the land transferred from wheat to other crops was of relatively high quality and that the average yields on the land that remained under wheat were, <u>ceteris</u> paribus, depressed.

Nevertheless, we would suggest that our original conclusion that wheat's performance marked a failure of agricultural policy in the 1950's still holds true. Even accepting that the decline in production reflected government policy and the use of different conceptual frameworks in the two periods, it is unlikely that these factors could have accounted for a fall of almost 30% in yields and certainly there is no reason to suppose that they could explain the even larger decline in total output.

The broad conclusions which emerge from the soya data are consistent with the findings of the previous chapter. Given that soya was a 'rich' crop, there was likely to be a direct correlation between changes in its sown area and the general state of the agricultural economy. On the evidence of chapter five agricultural conditions in Kiangsu in the 1950's were far from healthy and in such circumstances a contraction of soya production was to be expected. This was precisely what seems to have happened and as a result the pre-war level of production of this crop was not re-attained in the province.

In many ways the cotton estimates are the most interesting of all those shown. They exemplify well the constraints upon planners during the First Plan period and the way in which such pressures could frustrate attempts to regain and surpass pre-war levels of production. On average, provincial -513yields of cotton were higher during 1952-57 than they were in the 1930's (by some 6%). However, because of the competition for arable land between food grains and economic crops<sup>(38)</sup> the potential for extending the sown area under cotton was limited. In fact, at the end of the FFYP there was a contraction of the existing sown area. Although yields were higher than in the pre-war period the increase was not sufficient to offset the decline in area and the net result was that total output remained below that of the 1930's. But against this failure has to be set the very large rises in yields of 1955 and 1957 which showed that even with a declining sown area cotton production could still surpass the pre-war level.

So far the comparisons we have made have been in terms of <u>total</u> output and some attempt must now be made to examine per capita levels. Per capita output during the 1930's can be estimated by using the rural population figure of 32,640,000 which was derived in chapter one.<sup>(39)</sup> The results are presented in the following table side by side with figures showing production per head of rural population during the 1950's;

	1930's and 1950's.	0
	Per capita	Index with 1930's average = 100.
	(chin)	
RICE:		
1933-37	330.90	100.00
1952-57 1952 1957	314.38 291.75 336.05	95.01 88.17 101.56
WHEAT:		
1931-37	175.77	100.00
1952-57 1952 1957 1955	90.43 91.02 78.82 102.86	51.45 51.78 44.84 58.52
SOYA:		
1931-37	65.96	100.00
1952 1957	36.50 32.95	55.34 49.95
COTTON:		
1931-37	10.67	100.00
1952-57 1952 1957 1955	8.59 7.17 9.72 12.47	80.51 67.20 91.10 116.87

Table VI. l	7: Output	per head of rural population of rice,
	wheat,	soya and cotton in Kiangsu in the
	1	1 10 50 1

Source:

As Table VI.15 and Appendix B.

The table serves mainly to add another dimension to the conclusions drawn from the comparative indicators of total output. Thus, even when account has been taken of differing statistical concepts and deliberate changes in the structure of production, the enormous gaps between the per capita production of the 1930's and 1950's highlight the extremely poor performance of wheat and soya. By contrast, the rice estimates admit of a more favourable interpretation. Although average per capita

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output during the 1950's appears to have remained below the pre-war level, in view of the uncertainty of the production and population data for the 1930's the differential of 8.5% must be considered small enough to lie within the margin of statistical error. The comparison between the 1957 figure and the 1933-37 average lends further support to our earlier optimistic assessment of the performance of rice during the post-1949 years. On this basis and bearing in mind the necessary upward adjustment of rice yields in the 1950's to compensate for the discrepancy between harvest and crop yields and the large-scale conversion of land from glutinous to non-glutinous rice production, we would argue that by the end of the FFYP per capita availability of rice for human consumption had reached a new peak.

It is difficult to know whether the performance of cotton should be classified as poor, alongside that of wheat and soya, or placed more favourably with that of rice. The per capita data suggest strongly that pre-war levels of output were not re-attained during the post-war period (except briefly in 1955). But to put this into perspective it needs to be reiterated that the sown area was considerably less in the 1950's while unit area yields were higher. Further, it is arguable that the susceptibility of cotton production to fluctuations in the face of natural disasters resulted in a significant difference between crop and harvest yields. In sum, the gap between per capita output levels shown in VI.17 may well overstate the true position.

Finally, notice that a lower per capita output must not be equated with lower per capita consumption. Although information is insufficient to

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make an empirical investigation, <u>a priori</u> we would suggest that consumption levels for the majority were probably higher during the FFYP period. The institutional framework of agriculture before 1949, with its high rates of tenancy, heavy fragmentation, deteriorating infra-structure and high indebtedness for many peasants, can only have resulted in an uneven distribution of production. But after 1949, although regional differences were still considerable, the introduction of the CPCS system seems to have worked quite well in ensuring that all peasants received adequate supplies of food. If this is so the economic losses implied by declining long -run trends in production were partially offset by the welfare gains of improved distribution.

Changes in the structure of agricultural production have so far been viewed only in the limited context of the four crops we have been examining. We shall now broaden that framework by considering changes in a much larger variety of crops. The relevant information is set out in the table on the following page:

	Table	VI.18: The c	changing stru	ucture of agric	cultural producti	on in Kiangsu.
	SOWN	AREA	AVERA	GE YIELD	TOTAL	OUTPUT
	(mo	n)	(chin	per mou)	(mill	. chin)
	1957	1930's	1957	1930's	1957	1930's
Rice	32,690,000	28, 251, 625	410.58	301.32	13,421.86	8, 512.98
Wheat	31,640,000	36, 528, 750	99.49	158.16	3,147.86	5, 777.39
Barley	11,020,000	18,754,250	121.69	157.86	1,341.02	2,960.55
Oats	11,790,000	2,058,000	123.75	149.50	1,459.01	307.67
Maize	9,380,000	4,884,625	186.67	171.68	1,750.96	838.59
Kaoliang	3, 290, 000	6,013,375	106.38	153.34	349.99	922.09
Sweet potatoes	5, 320, 000	3,100,962	777.44 (194.36)	1267.73 (316.93)	4,135.98 (1,034.00)	3,931.18 (982.79)
Soya	13, 060, 000	16, 286, 250	98.93	145.15	1,292.03	2,363.95
Total	118, 190, 000	115,877,837	201.34	195.51	23, 796. 73	22, 665. 81
Cotton	10,840,000	11,496,875	38.07	29.18	412.68	335.48
Peanuts	2,510,000	2, 218, 756	,	,		1
Rapeseed	2,100,000	2,500,000				•

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Data on sown area and total output (Kiangsu, incl. Shanghai) from Sun Ching-chih, op. cit., p. 57, except soya data which are from TLCS, 1959, no.6, op. cit., p.245. All yields are derived. 1957: Sources:

1930's. Data obtained by averaging the estimates of Chang Hsin-i in T'ung-34. But Chang gives no information on oats and the figure shown chi ytteh-pao, op. cit., and the average N. A. R. B. data for 1931above is the average from N. A. R. B. for 1933-34 (and similarly for peanuts). See also note below on rapeseed sown area.

Chang Hsin-i's estimate of soya sown area is 635,090 mou; that of N.A.R.B. is 3,747,500 mou. In view of the discrepancy the in-between figure given in Buck (weighted by his localities) has been used.

Notes:

The unbracketed figures for average yields and total output of sweet potatoes are for raw weight. The figures in brackets are the same converted to grain at the ratio 4:1 (following the practice of the State Statistical Bureau in the 1950's) and it is these figures that are used in the calculation of the total figures. Because of the use of different sources some of the estimates in VI. 18 differ from those shown in earlier tables. Sun Ching-chih alone gives a complete breakdown of the sown areas and total output of the most important crops in 1957 and they are reproduced without comment. (40) In the 1930's Chang Hsin-i and the N. A. R. B. both provided detailed information on area and output of all the main crops and except as noted above we have taken the average of the estimates in these two sources.

The sown areas of cotton, peanuts and rapeseed are included for their own interest. However, in the absence of information for other economic crops it is obviously difficult to draw any general conclusions from them. That the cotton acreage declined in the 1950's in response to the demand for more land to grow food grains has already been established. But it would be interesting to know if the decline was also offset by an increase in the cultivation of other economic crops.

The data for food grains reveal a much clearer pattern: although the total sown area was only 2% higher in 1957 than in the pre-war years, some very significant changes occurred within individual categories of food crops. Specifically, the sown area and output of wheat, barley, kaoliang (sorghum) and soya all declined, while the cultivation of rice, maize, sweet potatoes and oats was extended. The question which must now be asked is: given that these changes represented deliberate government decisions, what was their economic rationale? Did the shifts in the composition of output offer any contribution to solving the agricultural problems that were emerging in Kiangsu during the 1950's?

The point has already been made that the estimates of output presented

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in earlier tables tell us nothing about distribution. Even if they did they would only provide one measure of consumption, that of <u>weight</u>. A more useful measure is that of energy as given by the <u>calorie</u> content of production. Thus, Chang Hsin-i, commenting on some of his Kiangsu data: "... one mou of paddy can produce 278 chin, whereas the same mou can only yield 132 chin of wheat. For every hundred chin of rice it is possible to mill 70 chin of hulled rice; for wheat the corresponding amount is only 75 chin of flour. Thus, a mou of land can produce about 200 chin of hulled rice compared with less than 100 chin of flour in the case of wheat (one chin of hulled rice and one chin of wheat-flour having approximately the same nutritional value). "<sup>(41)</sup> In these circumstances, where land was scarce and there was a high man-land ratio rice was naturally to be preferred to wheat.

What Chang was referring to was the calorie yield of different crops. In the following table we illustrate his point by showing the calorie yields of the four most important food crops grown in Kiangsu during the 1950's:

	Average yield per mou	Extraction rate	Edible weight per mou	Calories per chin	Calories per mou	At 2054 calories per capita daily requirements, area needed to feed one person per year	At 1900 calories per capita daily requirements, area needed to feed one person per year
					(1000 <sup>f</sup> s)		
Rice	410.58 chin	72%	295.62 chin	1740	514.38	1.46 mou	1.35 mou
Wheat	64.66	85%	84.57	1760	148.84	5.04	4.66
Maize	186.67	100%	186.67	1825	340.67	2.20	2.04
Sweet potatoes	777.44	100%	777.44	559	434.59	1.73	1.60

Source: Yields from Table VI.18.

Table VI.19: Calorie yields per mou of rice, wheat, maize and sweet potatoes: Kiangsu, 1957.

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The greatest number of calories per hectare is supplied by rice, followed by maize and sweet potatoes. Wheat, generally considered the second most important crop in China, gives the lowest calorie yield - only 28.77% of that of rice. The implications of these differentials are extremely important, for they suggest that a rational policy would shift the cropping pattern towards the cultivation of more rice, maize and sweet potatoes and away from that of wheat and other grains.

In these terms the real economic significance of the trends shown in Table VI.18 becomes clear. In the context of a rapidly expanding population (and with output growing only slowly) the use of a large amount of land to grow low-energy crops such as wheat and barley made little economic sense. Of course, the economic implications of the data in VI.19 should not be allowed to conceal the fact that switching from the cultivation of one crop to another was not an effortless operation. Natural conditions, factor supplies and even cultural factors (the question of taste) could all obstruct the attempt to rationalize cropping patterns. But even with such limitations the magnitude of the changes in the composition of output which had taken place since the 1930's was impressive, as the figures below suggest:

	Table VI.20:	The trend towards h crops in Kiangsu.	nigh energy-yielding
		Sown area: 1930's	Sown area: 1957
Rice, maize and sweet potatoes		36,237,212 mou	47,390,000 mou
Wheat, kaoliang	•	61,296,375	45 <mark>,950,000</mark>

#### Source: Table VI. 18.

Clearly, planning had brought about a more economically-rational cropping pattern. By 1957 not only had the imbalance between high and

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low energy-yielding crops had been largely removed, but crops such as rice and maize also occupied a larger proportion of the arable area. The economic rationality of the policy is clearly seen in the following data showing the changes which took place in the sown areas of four individual crops:

> Table VI.21: Changes in the sown area of rice, wheat, maize and sweet potatoes between the 1930's and 1957.

SOWN AREA OF THE INDIVIDUAL CROPS AS A PERCEN-TAGE OF THE TOTAL FOOD GRAIN SOWN AREA:\*

	Rice	Wheat	Maize	Sweet potatoes
1930's	24.38	31.52	4.22	2.68
1957	27.66	26.77	7.94	4.50

\* Sown area as shown in VI. 18.

Source: Table VI. 18.

In other words, the prediction that rice, maize and sweet potatoes should be extended by the greatest amount (and in that order ) is apparently entirely borne out by what happened in Kiangsu after 1949.

A crop whose fortunes experienced a dramatic change between the 1930's and the 1950's was oats. Even when the necessary upward adjustment of the sown area has been made<sup>(42)</sup> it seems clear that in percentage terms the expansion of this crop was greater than for any other. The explanation is clear enough: one of the most serious constraints on agricultural growth during the FFYP was the critical shortage of draft animals. In turn, there is evidence that one of the principal factors limiting an increase in their numbers was a shortage of fodder. It is this, we would suggest, that was responsible for the enormous extension of the oats sown area between the two periods.

This leads naturally to a brief examination of draft animal supplies in the 1930's and 1950's. Table VI.22 contains the relevant data:

		during the 1930's,	1940's and 1950's.
	Total number of draft animals	Index with 1934-35 popu- lation = 100.00	Average burden of arable land per draft animal
1934-35	3,302,000	100.0	27.77 mou
1946-47	2,390,000	72.38	-
1952	1,790,000	54.21	51.97
1957	1,880,000	56.94	50.00

Table VI.22: The supply of draft animals in Kiangsu during the 1930's, 1940's and 1950's.

Sources: Total numbers from Tables V. 57 and VI. 13.

Arable area estimates based on total arable area data in Tables V.4 and VI.3.

The figures graphically describe the critical situation. At the end of the First Plan draft animal numbers were little more than half that of the mid-1930's. Moreover, the decline was a secular one: far from recovery having taken place after 1949, the downward trend which had begun during the war continued into the 1950's.

The economic implications of this are seen in the final column. If the maximum amount of land that could be serviced by an animal was 30 mou, <sup>(43)</sup> the estimates indicate that the situation was transformed from one in which supplies of draft animals were about adequate to one in which there existed a grave deficiency. In fact, because of the failure to distinguish between total and working beasts or to consider regional differentials talk of "adequate" supplies of draft animals in the 1930's is over-optimistic. However, in view of the high rate of sickness in 1956 and 1957 it is likely that taking these factors into account would merely heighten the long-run deterioration shown in the table. There remains a final question: what was the impact of the changing cropping pattern upon per capita levels of grain output and per capita calorie availability? The following table provides a tentative answer:

> Table 22a: Grain output and calorific availability: the situation in the 1930's and 1950's.

	19 <del>3</del> 0's	1951	1957	Index of physical and calorific output in 1950's with 1930's = 100	
Total output of all food grains (million chin)	26 894	24 414	28 244	1951	1957
Output of all food grains per head of total population	20,094	24,414	20,244	<i>y</i> <b>u</b> ., u	105.02
(chin) Output of all food grains per head of	771	609	629	78.99	81.58
(chin)	824	683	720	82.89	87.38
Total potential availability of calories from all food grains per day (based on composi- tion of output) (mill. calories)	96,732	86,441	98,656	89.36	101.99
Potential availa- bility of calories per head of total population (calories)	2,772	2,156	2,195	77 <b>.</b> 78	79.18
Potential availa- bility of calories per head of rural population (calories)	2,964	2,419	2,516	81.61	84.89
Calories per chin of all food grains	1,559	1,557	1,550	99.87	99.42

It is a pity that data are not available which would permit us to show the situation in 1952, the eve of the FFYP. However, as long as it is

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remembered that the 1951 figures do not fully reflect the recovery from the depressed wartime levels of production, they may still serve as a useful benchmark.

The figures suggest that although aggregate food grain output rose by some 5% between the 1930s and 1957, the change in the <u>composition</u> of grain output only succeeded in bringing about a marginal rise in the total "output" of calories. The most outstanding success was in the case of rice, total calorie availability from this crop having increased by 57.6%. But this very significant gain was offset by the decline in the number of calories from wheat and barley, so that overall the improvement wrought by the changes in the composition of output was minimal. Indeed, as the final line of Table VI.22a shows, the number of calories per chin of all food grains was virtually unchanged over the entire period.

In any case, the most striking feature of the table is that any gain in aggregate terms was nullified by the growth in population, particularly between 1951 and 1957. Although total calorific availability in 1957 was more than 14% higher than in 1951, improvements in per capita terms were barely noticeable. Between the 1930s and 1957 physical grain output per head of total and rural population in Kiangsu (excluding Shanghai) actually fell by 18.4% and 12.6% respectively and despite the very slight rise in total calorie availability, the lower calorie content per chin combined with the rise in population caused an even sharper fall in the number of calories available per head (by 20.8% and 15.1% for total and rural population). Although it is true that the production and population data underlying the calculations allow for a wide range of error, the gaps are so large as to leave our conclusion in no doubt: between the 1930's and the end of the FFYP agriculture had so far failed to meet the demands placed upon it that per capita output of food grains (whether

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measured in physical or energy terms) had declined.

There is one further qualification: that the data shown are province-wide averages which conceal possible regional variations. Ideally, we should have liked to derive per capita estimates of grain output for each Special District in the 1930s and 1950s, but unfortunately data are not yet available to permit such an exercise. However, in the case of four of the Districts (Soochow, Sung-chiang, Yang-chou and Nan-t'ung) partial evidence is available on the basis of which some tentative calculations can be made. Their results are very suggestive, for they indicate that in Soochow and Sung-chiang (the two richest areas in the province), per capita availability of calories from selected food grains (wheat, rice, soya and sweet potatoes, information for other crops being absent) had risen very significantly between the 1930s and 1957, by 19.3% and 46.7% respectively. By contrast, in the two 'medium-output' regions the situation had apparently deteriorated dramatically: in Yang-chou per capita availability had declined by 31.6% and in Nan-t'ung, by 45.5% (a figure which lends added perspective to Nan-t'ung's decision to expand its grain area in 1956-57). Whatever the weaknesses of the data which underlie these results and they are many - they are still of the greatest interest. For not only do they support the existence of the familiar economic dichotomy between north and south Kiangsu, but they also suggest that it was becoming more, not less, pronounced over time.

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# V <u>Conclusion</u>: The Agricultural Sector in Kiangsu on the Eve of the "Great Leap Forward".

Much of this thesis has been devoted to describing the course of the various campaigns designed to bring about a greater degree of formal co-operation among peasants in the agricultural sector of Kiangsu. The land reform, the MAT movement, the co-operativization and collectivization campaigns were all means towards this end. We have also analyzed in some detail the economic (and other) effects of these changes upon the performance of the agricultural sector. The determination and purposefulness with which the institutional objectives were pursued undoubtedly reflect the widespread confidence that agricultural socialization provided an answer to agricultural stagnation and a key to future growth.

Yet in contrast to such feelings of optimism, what has emerged most strongly from the analysis of quantitative trends in Kiangsu agriculture in the last two chapters has been a sense of stagnation and even decline. From the standpoint of 1957, the final years of the FFYP, the performance of agriculture in the province was disappointing. In terms of the demands of economic development the achievements of the previous five years were not impressive. Although there was some sign of improvement, the longrun trends could be interpreted hardly more favourably. It is true that the distribution of available production had become more equal and there had been important changes in the composition of agricultural output (especially food grains) which resulted in a more efficient utilization of land. But such gains were more than offset by the failure to generate sustained growth. Notwithstanding the claims that pre-war levels of production were re-attained in 1952, the evidence presented in this chapter

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indicates that in the case of some important crops output per head of rural population and per unit of arable area were below the level of the 1930's even at the end of the First Plan.

Against this background what can we say about the role of institutional change in Kiangsu after 1949? In the early years of land reform and the MATs we have argued that the inherent structure of individual farms and the teams was an insufficient basis for any significant breakthrough in agricultural production. To repeat the argument of earlier chapters, important though the consequence of land reform and the MATs may have been for peasants as individuals, their economic contribution to agricultural development was limited. In particular, their failure to reach those peasants whose economic status made them the most efficient farmers placed a severe constraint upon their ability to generate growth. To this extent, the teams could represent no more than a transitional stage on the road to greater and more formal agricultural co-operation.

It is idle to speculate what the economic impact of the APCs (both lower-and higher-level) would have been if their development had adhered to the principles of voluntarism and gradualism emphasized by Mao in his speech of 31 July, 1955. Certainly there is reason to believe that the scale of the difficulties which in fact emerged during 1955 and 1956 would have been diminished - and therefore the economic gains would have been greater. On the other hand, perhaps the dangers of class polarization and growing capitalist tendencies would have manifested themselves more clearly thereby creating even more intractable problems in the agricultural sector.

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The coincidence of a period of extraordinary institutional change with one of extreme natural conditions (both favourable and unfavourable) makes the interpretation of events between 1954 and 1957 particularly difficult. It is of course the dynamic inter-relationship of these two sets of factors which determined the performance of the agricultural sector of Kiangsu during the last half of the First Plan. There can be no doubt that the incorporation of the vast majority of peasants into a fully-socialist framework within a matter of months (between the summer of 1955 and the spring of 1956) was the source of serious dislocation of farm operations. This was bound to have an adverse effect on agricultural productivity. It was unfortunate too that 1955 happened to be a year of unusually favourable climatic conditions, for it was too easy to interpret the bumper harvest solely as a vindication of the agricultural co-operatives and so to feel increasing justification for setting up the fully-socialist collectives. By the same token, notwithstanding the evidence that the collectives may have succeeded in averting the worst effects of the 1956 natural disasters, it was just as easy to attribute sharply falling production and declining living standards in that year to precisely the same factors. In both cases preoccupation with the co-operativization and collectivization campaigns diverted attention from other relevant factors and prevented a proper analysis of the situation. The result was that existing problems were merely compounded.

Therefore, while hesitating to call the original decision to accelerate co-operativization misconceived we would argue that the way in which it was implemented negated the positive role which it could have played. That greater co-operation had a contribution to make is in no doubt; the traditional forms of sharing and mutual help which the CCP itself drew upon in the early -5271950's were evidence of that. What is more doubtful is whether an elaboration and formalization of these forms could on their own lead to sustained growth. The bias against agriculture in the investment plans left institutional change as a kind of <u>deus ex machina</u> whose appearance would somehow remove all the obstacles to agricultural growth. Yet many of those problems were simply not susceptible to an institutional solution. Rather they arose from agronomic, demographic and purely economic factors and their solution required not mere re-organization of existing patterns of farming but the introduction of new ones.

In short, there seems good reason to attribute the deterioration of agriculture in Kiangsu during the 1950's to the failure of the planners to provide large-scale investment funds to that sector. The inability of institutional change on its own to generate growth, the critical shortages of labour and draft animals and indeed the efficiency with which the traditional technology was already being exploited all reflected the need for modern inputs and some degree of agricultural mechanization.

However, the plans published early in 1958 show that involution, not revolution, was to remain the engine of future agricultural development in the province. In the light of the experience of the previous five years the targets look absurdly high: food grain production to rise by 14% in 1958 alone and by 44% by 1962 (the end-year of the putative Second Five Year Plan). Cotton output was to increase by 25% in 1958; oil-bearing crops by 13%: and draft animal numbers by 6.2%.<sup>(44)</sup> Even with the diversion of investment resources from the industrial to the agricultural sector such plans would have appeared ambitious. But no such change in economic priorities

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was contemplated. Instead, emphasis continued to be placed on the mass mobilization of labour into irrigation construction projects, the collection and application of greater amounts of organic fertilizers and the further rationalization of cropping patterns. Against the background of agriculture's performance during the First Plan period it seems safe to say that even before the "great leap forward" was under way, the evidence pointed to its eventual demise in Kiangsu.

#### Notes to Chapter Six

- It is true that after 1931 (but excluding the war-years 1938-45) data relating to agricultural production throughout China were collected and published annually by the National Agricultural Research Bureau. But they were not compiled on a scientific basis and were far from satisfactory. See below.
- (2) For example <u>HB</u>, <u>op. cit.</u>, p. 22 gives a total arable area for Kiangsu of 80,009,725 mou, but goes on to cite another estimate of 91,399,680 mou. The difference of 11,389,955 mou (almost 15%) is said to be "... mainly due to lack of a standard system of measures".
- (3) Actually it also contains some data from the late 1920's. In the case of Kiangsu for example estimates relating to I-hsing, Kiang-tu (2) and Tung-t'ai hsien refer to 1925-26. See Buck, <u>Statistical Volume</u>, op. cit., p. 468.
- (4) Ibid., vol. l, chapter 2.
- (5) Ibid., vol. l, p. ix, Table 1.
- (6) The number of <u>hsien</u> differed between the 1930's and 1950's but the difference can be ignored for the purposes of this chapter.
- (7) Buck, vol. 1, op. cit., p. ix.
- (8) T.C. Liu, C. Twanmo and K.C. Yeh, <u>Production of Food Crops on</u> <u>the Chinese Mainland</u>: Prewar and Postwar, The Rand Corporation, 1964, pp. 53-54.
- (9) And such hsien are in the majority.
- (10) Not that Buck's translation from the Chinese is uniformly reliable: in his <u>Statistical Volume</u>, p. 208, a table purports to show "a comparison of average, normal and most frequent yields ..." However, the Chinese title to this same table shows that the term translated as "normal yield" (feng-nien ch'an-liang) is actually "production in a bumper-harvest year" - a mistranslation which is clear from the figures given in the table.
- (11) Actually the original data from which the N. A. R. B. estimates were derived were collected under the auspices of the Bureau of Statistics of the Legislative Ytian; and before the establishment of the N. A. R. B. in 1932 the work of crop reporting was organized by the Department of Agricultural Economics in the University of Nanking. The N. A. R. B. data were published in a series of <u>Crop Reports (Nung-ch'ing pao-kao)</u>, although they also appeared in a variety of other sources.

(The account of the N.A.R.B. reports that follows is largely based on Liu, Twanmo and Yeh, <u>op.cit.</u>, especially Appendix B, "National Agricultural Research Bureau's Estimates of Prewar Production of Food Crops".)

- (12) Since Chang's survey provided estimates of total arable area and unit area yields in "normal" years, these figures served as the basis on which the N. A. R. B. reports were drawn up. That is, each year information was sent in from all over China giving details of the proportion of arable area under various crops, and yields expressed as a percentage of the "normal" yield. By applying these to Chang's original data estimates for every province could be obtained and of course total output was easily derived as well.
- (13) Chang's original survey had included 25 provinces. However, after 1931 the northeastern provinces of Manchuria were occupied by the Japanese forces.
- (14) Liu, Twanmo and Yeh, op. cit., p. 38.
- (15) Buck, Statistical Volume, op. cit., pp. 21-29.
- (16) Ibid., vol. 1, p. 16.
- (17) Liu, Twanmo and Yeh, op. cit., p. 38.
- (18) The total provincial data are given in C.C. Chang, <u>An Estimate of China's Farms and Crops</u>, Nanking, 1932. The detailed <u>hsien data</u> can be found in his "Ke-sheng nung-yeh kai-k'uang ku-chi pao-kao" ("A Statistical Report of the Agricultural Situation in Every Province") in <u>T'ung-chi ytteh-pao</u> (Statistical Monthly), vol.2, no.7, pp.23-51. There are some minor inconsistencies between these two sources but it is clear that they are unintended.
- (19) Chang Hsin-i in T'ung-chi ytteh-pao, op. cit., p. 23.
- (20) Total arable and sown area are for 1952. See Table V.10.
- (21) This figure, compiled by the Statistical Office of the Ministry of Agriculture and Forestry from data published in June, 1948 by the Directorate of Statistics in the National Government and from data reported by the Department of Rural Economics of the Ministry, is cited by T.H. Shen, <u>op. cit</u>., p. 142, Table 7.
- (22) Chao Kang, op. cit., p. 217.
- (23) Liu and Yeh, <u>op. cit.</u>, pp.284-289. But note that the figure they derive (400 chin per mou in the case of Kiangsu) is for non-glutinous rice only.
- (24) Ibid., pp. 297-298.
- (25) HB, (Chinese-language edition), p.217.
- (26) This low figure is presumably a reflection of the impact of the Sino-Japanese War. Wu T'ieh-feng suggests that 5,110,200 mou of wheat was used for military purposes in Kiangsu, reducing the sown area

under this crop from 34,068,000 to 28,957,800 mou. See his Fei-ch'ang shih-ch'i chih nung-min, op.cit., p.87

- (27) This would of course have included a large part of Kiangsu.
- (28) Chao Kang, op. cit., pp. 218-219.
- (29) That is, the average for 1931-37.
- (30) But for some background information on political war-time conditions in the province see above, chapter one.
- (31) Although relevant quantitative information is available from only one source (N. A. R. B.) the problem of reliability is not serious as long as the bias in the figures is the same for the 1930's and 1940's.
- (32) Wang Tzu-chia, Chan-shih Shang-hai ching-chi, op. cit.
- (33) Of course rice may not have been the only crop to enjoy expansion. The sown area of other food crops not shown may also have increased. In this context it is interesting that the gain in rice was only 5,343,000 mou, while the decline in the cultivation of soya, wheat and cotton amounted to 17,549,000 mou. Thus, there was plenty of land (over 12,000,000 mou) on which other food grains could have been grown.
- (34) "Best" is simply equated with the year in which total output is highest. Note that in the case of rice, 1957 is the best year in these terms and so only three estimates are shown. And because of lack of information only two estimates are available for soya in the 1950's.
- (35) HHJP, 10/1/58, op. cit.
- (36) Specifically, that Buck's wheat yield estimates are over-stated for the reasons given in the last section of this chapter.
- (37) Chao Kang, op. cit., p. 215.
- (38) This competition was of course all the more intensive because of the poor performance of the food grain sector.
- (39) See above chapter one, Table I.11.
- (40) Where his data differ from those used in earlier tables the differences are only marginal.
- (41) Chang Hsin-i in T'ung-chi ytteh-pao, op. cit., p. 49.
- (42) That is, because it is taken directly from the N.A.R.B. data.
- (43) See above, chapter five, p. 443.
- (44) HTNYKHTP, 1958, no.2, op. cit.

#### APPENDIX A

Some Tables for General Reference.

Table A.1: Kiangsu: a breakdown by Special Districts and hsien

NAME OF SPECIAL DISTRICT HSIEN BELONGING TO THAT SPECIAL DISTRICT

Sung-chiang

Sung-chiang Shang-hai Ch'uan-sha Nan-hui Feng-hsien Chin-shan Ch'ing-p'u Chia-ting Pao-shan

Soochow

Chinkiang

Yang-chou

Ch'ang-shu Wu T'ai-ts'ang K'un-shan Wu-chiang Wu-chin Wusih Chiang-yin Chen-tse

Tan-t'u Tan-yang Chin-t'an Li-yang Kao-ch'un Li-shui Cht'-jung Chiang-ning I-hsing Yang-chung

Chiang-tu Han-chiang Kao-yu Pao-ying Hsing-hua T'ai T'ai-hsing Ching-chiang Liu-ho I-cheng Chiang-p'u

Table A. I: (cont	cinuea)
NAME OF SPECIAL	HSIEN BELONGING TO
DISTRICT	THAT SPECIAL DISTRICT
Nan-t'ung	Nan-t'ung
	Ju-kao
	Hai-an
	Ju-tung
	Hai-men
	Ch'i-tung
	Tsung-ming
Yen-ch'eng	Yen-ch'eng
	Chien-hu
	Fou-ning
	Pin-hai
	Hsieh-yang
	Ta-feng
	Tung-t'ai
Hwai-yin	Hwai-yin
	Ssu-yang
	Su-ch'ien
	Shu-yang
	Kuan-ytin
	Lien-shui
	Huai-an
	Ssu-hung
	Hsti-i
	Hung-tse
Hsti-chou	T'ung-shan
	P'ei
	Kan-yt
	Tung-hai
	Feng
	P'i
	Hsin-che
	Sui-ning
Source: Wa	ng Wei-p'ing, op.cit., p.4.

# Table A.2: The economic regions of Kiangsu

ECONOMIC REGION	GEOGRAPHICAL SCOPE OF ECONOMIC REGION	LOCAL CHARACTERISTICS	CROPPING PATTERN
T'ai Hu	Wu, Ch'ang-shu, K'un- shan, Wu-chiang, Wu- chin, Wusih, Chiang- yin and Chen-tse <u>hsien</u>	Fertile soil. Dense water network.	Double cropping paddy-wheat.
	(Soochow Special District). Sung-chiang, Ch'ing-p'u, Chin-shan, Shang-hai and	Lake T'ai Hu as vast irrigation reservoir.	The high- output paddy region of Kiangsu.
	I-hsing <u>hsien</u> (Sung-chiang Special District).		An important production area for
	Chin-t'an <u>hsien</u> (Chinkiang Special District).		rapeseed
	Soochow, Wusih, Ch'ang- chou and Ch'ang-shu <u>shih</u> (municipalities).		
Nanking - Chinkiang	Tan-t'u, Chti-jung, Tan- yang, Li-shui, Chiang- ning, Li-yang and Kao-	An area of hills and diked fields.	Suitable for double cropping paddy-wheat (except for hills which favour
	ch'un <u>hsien</u> (Chinkiang Special District).	Susceptible to frequent drought and flooding.	
	I-cheng, Liu-ho and Chiang-p'u <u>hsien</u> (Yang-chou Special District).		forestry)

Hsti-i hsien

Nanking and Chinkiang shih.

District).

(Hwai-yin Special
Table A.2: (continued)

GEOGRAPHICAL SCOPE OF ECONOMIC REGION	LOCAL CHARACTERISTICS	CROPPING PATTERN	
Nan-t'ung, Ju-kao, Hai- an, Ju-tung, Hai-men, Ch'i-tung and Tsung-ming <u>hsien</u> (Nan-t'ung Special District). Feng-hsien, Ch'uan-sha, Pao-shan and Chia-ting <u>hsien</u> (Sung-chiang Special District). Yang-chung <u>hsien</u> (Chinkiang Special District). Ching-chiang, T'ai- hsing and Chiang-tu hsien	Climate similar to that of T'ai Hu. Mostly high- lying agricultural land.	Mixed crop region of grain and cotton. A high- output area of other economic crops and wheat.	
(Yang-chou Special District). Nan-t'ung, Yang-chou and T'ai-chou shih.			
Yen-ch'eng, Chien-hu, Fou-ning, Pin-hai, Hsieh- yang, Ta-feng and Tung t'ai <u>hsien</u> (Yen-ch'eng Special District). Kao-yu, Pao-ying and Hsing-hua <u>hsien</u> (Yang-chou Special District).	Flat and low-lying ground. High sub-surface water level.	Mostly double cropping paddy-wheat. Reclaimed coastal land suitable for cotton.	
	GEOGRAPHICAL SCOPE OF ECONOMIC REGION Nan-t'ung, Ju-kao, Hai- an, Ju-tung, Hai-men, Ch'i-tung and Tsung-ming <u>hsien</u> (Nan-t'ung Special District). Feng-hsien, Ch'uan-sha, Pao-shan and Chia-ting <u>hsien</u> (Sung-chiang Special District). Yang-chung <u>hsien</u> (Chinkiang Special District). Ching-chiang, T'ai- hsing and Chiang-tu <u>hsien</u> (Yang-chou Special District). Nan-t'ung, Yang-chou and T'ai-chou <u>shih</u> . Yen-ch'eng, Chien-hu, Fou-ning, Pin-hai, Hsieh- yang, Ta-feng and Tung t'ai <u>hsien</u> (Yen-ch'eng Special District). Kao-yu, Pao-ying and Hsing-hua <u>hsien</u> (Yang-chou Special District).	GEOGRAPHICAL SCOPE OF ECONOMIC REGIONLOCAL CHARACTERISTICSNan-t'ung, Ju-kao, Hai- an, Ju-tung, Hai-men, Ch'i-tung and Tsung-ming hsien (Nan-t'ung Special District).Climate similar to that of T'ai Hu. Mostly high- lying agricultural land.Feng-hsien, Ch'uan-sha, Pao-shan and Chia-ting hsien (Sung-chiang Special District).Climate similar to that of T'ai Hu. Mostly high- lying agricultural land.Yang-chung hsien (Chinkiang Special District).Ching-chiang Special District).Ching-chiang, T'ai- hsing and Chiang-tu hsien (Yang-chou Special District).Flat and low-lying ground. High sub-surface water level.Yen-ch'eng Special District).Flat and low-lying ground. High sub-surface water level.Kao-yu, Pao-ying and Hsing-hua hsien (Yang-chou Special District).Flat and low-lying ground. High sub-surface water level.	

Hwai-an <u>hsien</u> Hwai-yin Special District).

- 5<mark>36 -</mark>

Table A.2: (continued)

GEOGRAPHICAL SCOPE CROPPING ECONOMIC LOCAL REGION OF ECONOMIC REGION CHARACTERISTICS PATTERN Heavy damage by Miscella-Hst -Hwai T'ung-shan, P'i, Kan-yt, drought and flooding eous grains, Tung-hai, Feng, P'ei, Hsin-che and Sui-ning in the past. soya and peanuts the hsien Unstable autumn (Hstl-chou Special chief crops. crop production. District). An impor-Ssu-yang, Su-ch'ien, Shutant wheat yang, Kuan-ytin, Lienregion. shui and Ssu-hung hsien Land also (Hwai-yin Special suitable District).

and Ch'ing-chiang shih.

Hsti-chou, Hsin-hai-lien

for cotton.

CKNYCCHWT, op. cit., p. 231, Table 20. Source:

\* Some reference maps will be found at the end of the thesis.

### APPENDIX B

# An Estimate of the Total, Urban, Rural and Agricultural Population of Kiangsu, 1949-1957.

The average rate of growth of total population in Kiangsu between 1950 and 1956 was 2.26% p.a.<sup>(1)</sup> On the assumption that this is a compound figure and that it applies also to 1949-50 and 1956-57 an index of population growth in the province can easily be derived:

Table B.1:	An index of population growth in Kiangsu
	(including Shanghai) between 1949 and 1957.
1949	100.00
1950	102.260
1951	104.571
1952	106.934
1953	109.351
1954	111.822
1955	114.349
1956	116.933
1957	119.576

Source: Wen-hui pao, 21/3/57, op. cit., p.2.

But we also know from another source<sup>(2)</sup> that Kiangsu's total population (including Shanghai) in 1957 was 52,130,000. Therefore, extrapolating from the 1957 index given in Table B. 1, population in 1949 must have been:

> $\frac{100.000}{119.576} \times 52,130,000$ = 43,595,700.

From this the full series of total population estimates can be found:

Table B.2:	The total pop Shanghai), l	oulation of Kiangsu (including 949-57.
1949		43, 595, 700
1950		44,580,963
1951		45, 588, 459
1952		46,618,626
1953		47,672,334
1954		48,749,584
1955		49,851,247
1956		50,977,760
1957		52,130,000
Source:	Table B.1.	

In 1956 the urban population of Kiangsu (excluding Shanghai) was 5,600,000.<sup>(3)</sup> If we subtract Shanghai's population from the total figure for that year shown in Table B.2, we can show what proportion of total population was represented by urban population:

Table B.3: Urban population as a proportion of total population in Kiangsu (excluding Shanghai) in 1956.

50,977,760 <sup>a</sup>
6,750,000 <sup>b</sup>
44,227,760
5,600,000 <sup>c</sup>
12.66

Sources: a Table B.2. b C.B. Howe, Employment and Economic Growth in Urban China, 1949-1957, op. cit., p. 34.

c Wen-hui pao, 21/3/57, op. cit., p.2.

Similarly, by summing the Shanghai and non-Shanghai components of urban population it is also possible to show urban population as a proportion of total population, including Shanghai:

> Table B.4: Urban population as a proportion of total population in Kiangsu (including Shanghai) in 1956.

Urban population of Kiangsu (excluding Shanghai), 1956:	5,600,000
Population of Shanghai, 1956:	6,750,000
Therefore total urban population of Kiangsu (including Shanghai), 1956:	1 <mark>2,</mark> 350,000
Total population of Kiangsu (including Shanghai), 1956:	50,977,760
Therefore urban population as percentage of total population (including Shanghai) in 1956:	24.23

Source: Table B.3.

Between 1949 and 1957 the compound rate of growth of population in Shanghai was 4.66% p.a.<sup>(4)</sup> If we use this as a proxy for the rate of growth of total urban population, the following index series can be constructed:

Table B.5:	An index of urban population growth in
	Kiangsu (incl. Shanghai), 1949-57.
1949	100.00
1950	104.66
1951	109.54
1952	114.64
1953	119.98
1954	125.57
1955	131.43
1956	137.55
1957	143.96

But given that the total urban population of Kiangsu (including Shanghai) in 1956 was 12,350,000 it is clear that the corresponding figure for 1949 must be 8,978,553. Then from the index in B.5 total urban population during 1949-57 must be as follows:

Table B.6:	Total urban population in Kiangsu (including Shanghai), 1949-57.	
1949	8,978,553	
1950	9,396,954	
1951	9,835,107	
1952	10,293,013	
1953	10,772,468	
1954	11,274,369	
1955	11,800,512	
195 <mark>6</mark>	12,350,000	
1957	12,925,525	

Source: Table B.5.

Moreover, rural population is simply the difference between the total and urban figures:

	Table B.7:	Total rural pop (including Shar	pulation in Kiangsu nghai), 1949-57.
	Total population	Urban population	Therefore rural population
1949	43, 595, 700	<mark>8,978,</mark> 553	34,617,147
1950	44,580,963	9,396,954	35,184,009
1951	45, 588, 459	9,835,107	35,753,352
1952	46,618,626	10,293,013	36,325,613
1953	47,672,334	10,772,468	36, <mark>899, 866</mark>
1954	48,749,584	11,274,369	37,475,21 <mark>5</mark>
1955	49,851,247	11,800,512	38,050,735
1956	50,977,76 <mark>0</mark>	12,350,000	38,627, <mark>760</mark>
1957	52,130,000	12,925,525	39,204,475
	_		1 - /

Sources: Tables B.2 and B.6

Converting the rural population figures to an index gives the following series:

Table B.8:	An index of rural population growth in Kiangsu (excl. Shanghai), 1949-57.
1949	100.00
1950	101.64
1951	103.28
1952	104.94
1953	106.60
1954	108.26
1955	109.92
1956	111.59
1957	113.25

Source: Table B.7.

In other words, the simple average rate of growth of rural population between 1949 and 1957 was 1.66%.

If we now express the data in Table B.7 in the form of an index with total population in each year as 100, we can give some indication of the changing demographic structure during the 1950's;

	Table B.9:	The changing demog in Kiangsu.	graphic structure
	Total population	Urban population	Rural population
1949	100.00	20.59	79.41
1950	100.00	21.07	78.92
1951	100.00	21.57	78.42
1952	100.00	22.07	77.92
1953	100.00	22.59	77.41
1954	100.00	23.12	76.88
1955	100.00	23.67	76.33
1956	100.00	24.23	75.77
1957	100.00	24.79	75.21
	Source:	Table B.7.	

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We may now consider the various components of Kiangsu's population excluding Shanghai. Some initial data are presented below:

Table B.10: Estimates of total population in Kiangsu excluding Shanghai in 1949 and 1957.

	1949	1957
Total population of Kiangsu including Shanghai	4 <mark>3,595,700</mark>	<mark>52,130,000</mark>
Population of Shanghai	5,000,000	7,200,000
Therefore total population excluding Shanghai	38, <mark>5</mark> 95, 700	44,930,000
Sources:	C.B. Howe, op. cit.,	p.34 and Table B.2.

Thus, the compound rate of growth of total population (excluding Shanghai) between 1949 and 1957 was 1.92% p.a. This provides the basis for the following index:

Table B.11: An index of population growth in Kiangsu (excluding Shanghai) between 1949 and 1957.

1949	100.000
1950	101.920
1951	103.877
1952	105.871
1953	107.904
1954	109.976
1955	112.088
1956	114.240
1957	116.433

Source:

See Table B.10.

Given that total population in 1949 was 38,585,700 a complete series is easily derived:

Table B.12:	The total population of Kiangsu (excluding Shanghai), 1949-57.
1949	38, 595, 700
1950	39, 336, 737
1951	40,092,055
1952	40,861,654
1953	41,646,304
1954	42,446,007
1955	43,261,148
1956	44,091,728
1957	44,938,131

Source: Table B.11.

Further, if it is assumed that the rate of growth of Shanghai's population can be taken as a proxy for that of the urban sector excluding the municipality, then the index given in Table B.5 yields the following estimates:

Cable	B.13:	The urban population of Kiangsu (excluding Shanghai), 1949-57.	
		2	
	1949	3,978,553	
	1950	4,163,556	
	1951	4,357,311	
	1952	4,559,820	
	1953	4,771,876	
	1954	4,993,482	
	1955	5,225,829	
	1956	5,468,919	
	1957	5,723,148	

Source: a This figure is the difference between total urban population given in Table B.6 and that of Shanghai in Table B.10. The other estimates are then derived on the basis of the index in Table B.5.

Once again, rural population is the difference between the total and

urban data:

	Total population	Urban population	Therefore rural population
1949	<mark>38</mark> , 595, 700	<mark>3,978,553</mark>	34,617,147
1950	<mark>39,336,737</mark>	4,163,556	35,173,181
1951	40,092,055	4,357,311	35,734,74 <mark>4</mark>
1952	40,8 <mark>61,654</mark>	<mark>4,559,82</mark> 0	36,301,834
1953	<mark>41,646,304</mark>	4,771,876	36,874,428
1954	<mark>42,</mark> 446,007	4,993,482	37,452,5 <mark>2</mark> 5
1955	43,261,148	5,225,829	38, 035, 319
1956	<mark>44</mark> ,091,728	5,468,919	38,622,809
1957	<mark>44,938,1</mark> 31	5,723,148	39,214,983

Table B.14: Total rural population in Kiangsu (excluding Shanghai), 1949-57.

Sources:

Tables B.12 and B.13.

The relative importance of the rural and urban sectors in the total population of the province (excluding Shanghai) can now be shown:

	Total population	Urban population	Rural population
1949	100.00	10.31	89.69
1950	100.00	10.58	89.4 <mark>2</mark>
1951	100.00	10.87	89.13
1952	100.00	11.16	88.84
1953	100.00	11.46	88.54
1954	100.00	11.76	88.24
1955	100.00	12.08	87.92
1956	100.00	12.40	87.60
195 <b>7</b>	100.00	12.74	87.26
	Source:	Table B.14.	

Table B.15: The changing demographic structure in Kiangsu (excluding Shanghai).

We must now attempt to make an estimate of agricultural population in Kiangsu. We shall consider the situation excluding Shanghai. The following preliminary estimates are derived from Table B.14 on the

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assumption that agricultural population represented 90% of the rural

population:

Table B.16:	A preliminary estimate of agricultural population in Kiangsu (excluding Shanghai) between 1949 and 1957.
1949	31,155,432
1950	31,655,863
1951	32,161,270
1952	32,671,651
1953	33,186,985
1954	33,707,273
1955	34,231,787
1956	34,760,528
1957	35,293,485

Source: Table B.14.

However, these figures exclude peasants living in municipalities. Fortunately, it is possible to allow for this by adjusting the data in B. 16 upwards by 3.22% - the figure which a 1958 source indicates was the proportion of agricultural population living in cities in the province.<sup>(5)</sup> The revised series is given in Table B. 17:

Table B.17:	Revised estimates of agricultural population in Kiangsu (excluding Shanghai) between 1949 and 1957.
1949	32,158,637
1950	32,675,182
1951	33, 196, 863
1952	33,723,678
1953	34,255,606
1954	34,792,647
1955	35,334,051
1956	35,879,817
1957	36,429,935

Source:

Basic data taken from Table B.16 but revised upwards by 3.22% in order to allow for that proportion of agricultural population living in cities.

So far we have not taken into account the fact that until the end of 1952 Kiangsu did not include Hsti-chou Special District within its boundaries. Strictly speaking therefore the data for 1949-52 shown in the earlier tables are over-estimates. In order to compensate for this discrepancy we must make some estimates of Hsti-chou's population and deduct them from the total figures for the province derived above.

Information on labour participation in the agricultural sector of Kiangsu suggests that in 1957 the agricultural population of Hstd-chou was 4,379,700.<sup>(6)</sup> However, the population estimates given in the source from which this figure is taken are consistently higher than our own by 3.43% and it is therefore necessary to bring it into line with the data already presented in this Appendix. Thus, the agricultural population of the Special District in 1957 is given by:

 $4,379,700 \times 96.57\% = 4,229,500.$ 

Further, if the relationship between agricultural and rural population is assumed to have been the same as in the province as a whole, Hsti-chou's rural population must be:

By applying the index implicit in the final column of Table B.14 to this figure it is possible to make an estimate of the rural population of Hstchou between 1949 and 1952:<sup>(8)</sup>

	Index of populatio	rural Therefore rural population
1949	100.00	4,019,400
1950	101.61	4,084,100
1951	103.23	4,149,200
195 <b>2</b>	104.87	4,215,200
1957	113.28	4,553,200
	Source:	The index is derived from the data in Cable B.14. Since Hstf-chou's rural opulation for 1957 has already been stimated, the figures for the earlier rears are then easily found.

Table B.18: An estimate of rural population in Hstt-chou Special District between 1949 and 1952.

Similarly, on the assumption that the relationship between the various components of Hst-chou's population was the same as that of all Kiangsu, urban and total population in the Special District can also be estimated:

> Table B. 19: Estimates of urban and total population in Hsti-chou Special District, 1949-52.

Rural population	Urban population	Therefore total population
4,019,400	462,000	4,481,400
<mark>4</mark> ,084,100	483,700	4,567,800
4,149,200	506,000	4,655,200
4,215,200	529,500	4,744,700
	Rural population 4,019,400 4,084,100 4,149,200 4,215,200	RuralUrbanpopulationpopulation4,019,400462,0004,084,100483,7004,149,200506,0004,215,200529,500

Sources: Rural population from Table B.18. Relationship between rural and urban population is assumed to be the same as that shown in Table B.14. Then the total figure is obtained by summing.

Finally, we can present the final revised series of population estimates for Kiangsu (excluding both Shanghai and Hstl-chou) for 1949-52:

	Table D.20	in Kiangsu (excluding Shanghai and Hstl-chao). 1949-52.		
	Total population	Urban population	Rural population	
1949	34,114,300	3, 516, 553	30, 597, 747	
1950	34, 768, 937	3,679,856	31,089,081	
1951	35,436,855	3,851,311	31, 585, 544	
1952	36,116,954	4,030,320	32,086,634	
end-				
1952	40,861,654	4,559,820	36,301,834	
	Sources:	Tables B.14 and B.19.		

But between 1949 and 1952 Kiangsu was administered as two separate regions and it will therefore be useful to make some tentative estimates of agricultural population in the north and south of the province during these years. (9)

Evidence suggests that if Hst-chou Special District is excluded, <sup>(10)</sup> north Kiangsu accounted for 63.99% of total agricultural population and south Kiangsu, 36.01%. <sup>(11)</sup> The agricultural population figures in Table B.17 include estimates for Hst-chou which must therefore be subtracted before we can apply these proportions. Thus, on the simplifying assumption that the relationship between agricultural and rural population in Hst-chou can be reasonably represented by that for the province as a whole, the following data show agricultural population in the Special District between 1949 and 1950:

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Table B.21:	An estimate of agricultural population in Hst-chou Special District between 1949 and 1952.	
1949	3,733,600	
1950	3,793,700	
1951	3,854,200	
1952	3,915,500	
Source:	Derived from the data in Table B. 18 on the assumption that agricultural as a proportion of rural population was the same as in Kiangsu as a whole.	

If these figures are now deducted from the total provincial estimates, the results are as follows:

Table B.22:	The agricultural population of Kiangsu (excluding Hstl-chou) between 1949 and 1952).	
1949	28, 425, 037	
1950	28,881,482	
1951	29,342,663	
1952	29,808,178	
Sources	Tables B. 17 and B. 21.	

The ratio between agricultural population in north and south Kiangsu can now be applied to these figures in order to obtain estimates of agricultural population in each area:

Table B.23: The agricultural population of north and southKiangsu between 1949 and 1952.

	North Kiangsu	South Kiangsu
1949	18,189,181	10,235,856
1950	18,481,260	10,400,222
1951	18,776,370	10,566,293
1952	19,074,253	10,733,925

Source: Derived from Table B.22 on the assumption that north Kiangsu comprised 63.99% and south Kiangsu 36.01% of the total agricultural population.

Nothing has yet been said about the size of rural households in Kiangsu. The basic information relating to the total number of such households in the province (including and excluding Shanghai) is shown in the following table:

		Kiangsu, 1950-56.	
	Kiangsu	Shanghai	Kiangsu + Shanghai
1950	8,485,882	77,599	8,563,481
1951	8,485,882	75,8 <mark>2</mark> 3	8,561,705
1952	<mark>8,485,882</mark>	84,200	8,570,082
1953	8,485,882	83,200	8,569,082
1954	8,615,007	82,058	8,697,065
1955	8,695,577	84,345	8,779,922
1956	9,027,392	91,279	9,118,671
	Source:	CKNYHTHYTSL, pp.993-999.	op.cit., vol.2,

Table B.24: The total number of rural households in

Since we already know the total rural population in the province (including and excluding Shanghai) during these years, the average size of rural household can be obtained by simple division:

> Table B.25 The average size of rural household in Kiangsu, 1950-56.

	Nu ru din	mber of persons per al household (exclu- g Shanghai)	Number of persons per rural household (inclu- ding Shanghai)
195 <mark>0</mark>			4.109
1951			4.176
1952			4.239
1953		4.345	<mark>4.306</mark>
19 <mark>54</mark>		4.347	<b>4.30</b> 9
1955		<mark>4.</mark> 374	4.334
1956		4.278	4.236
	Sources:	Tables B.7, B.14 ar -551-	nd B.21.

### Notes:

- (1) <u>Wen-hui pao</u> (Shanghai), 21/3/57, p.2, "Looking at the Population Problem from the Standpoint of the Population Density of Kiangsu".
- (2) Wei-ta ti shih-nien, op. cit., p.
- (3) Wen-hui pao, 21/3/57, op. cit., p.2.
- (4) This is the rate of growth implied by the Shanghai population data cited by C.B. Howe, op. cit., p. 34.
- (5) HHJP, 5/1/58, p.1.
- (6) Ibid.
- (7) The assumption on which this figure is based is admittedly very simplistic. But in the absence of more detailed information it is difficult to find a more acceptable formula.
- (8) The point made in the preceding note may also apply here.
- (9) Estimates of rural and urban population in north and south Kiangsu could also be made but in the absence of information of the precise demographic structure in each region it seems best to confine our analysis to agricultural population.
- (10) Which of course it must be between 1949 and the end of 1952.
- (11) HHJP, 15/1/58, p.2.

#### APPENDIX C

## An Estimate of the Average Yield of Food Grains in South Kiangsu in 1951-52.

The most useful observations of sown area and total output of grain in south Kiangsu from contemporary reports (1950-52) are shown below:

Table C. l:Estimates of sown area and total output of<br/>food grains in south Kiangsu in the early<br/>1950's taken from contemporary sources.

	Total output	Sown area
1950 plan		30,711,176 mou <sup>a</sup>
1950 actual	7,613 mill. chin <sup>b</sup>	
1951 plan	8,010 mill. chin <sup>C</sup>	
1951 actual	8,161 mill. chin <sup>d</sup>	
	Sources: a SNJP, $23/1/50$ ,	p.l, "Establish Plans for

- Increased Agricultural Production This Year". b <u>SNJP</u>, 3/3/51, p.3, "Directive Summarizing
  - Agricultural Production in 1950 and Concerning Agricultural Production in 1951".
  - c <u>SNJP</u>, 3/3/51, p. 1, "Summary Plans for Agricultural Production in South Kiangsu in 1951".
  - d <u>SNJP</u>, 9/2/52, p.2, "Summary of Plans for Agricultural Production in 1952".

If the planned sown area estimate is accepted as a reasonable indicator of south Kiangsu's area under food grains, then by applying it to the two figures for actual grain output it will be possible to obtain two estimates of average yield:

Table C.2:	Estimates of average grain yield in south Kiangsu: 1950 and 1951.
1950:	7,613 mill. chin ÷ 30,711,176 mou
	= 247.89 chin per mou
1951 <mark>:</mark>	8,161 mill. chin ÷ 30,711,176 mou
	= 265.73 chin per mou
Source:	Table C.l.
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It will be useful to carry out similar calculations for north Kiangsu. Thus, if we take the total output and sown area data published in the 1951 agricultural plans as an indication of the true situation in the north, we can derive the following estimate of average grain yield:

Table C.3:	An estimate of the average yiel	d of
	food grains in north Kiangsu, l	951.

Total output (planned	1)	9,290 mill. chin <sup>a</sup>
Total sown area (pla	nned)	66,694,000 mou b
Therefore average y	ield	139.29 chin per mou
Sources:	a <u>SPJP</u> , 20/2/51, for Agricultural in 1951".	p.2, "Summary Plans Production in North Kiangsu

b Ibid.

And of course by combining the data in Tables C.2 and C.3 it is possible to obtain an average yield of food grains for the whole of the province:

Table C.4:	An estimate of the average yield of food grains in all Kiangsu, 1951.
Total output	8,161 + 9,290 mill. chin
	= 17,451 mill. chin
Total sown area	30,711,176 + 66,694,000 mou
	= 97,405,176 mou
Therefore average vield	179.16 chin per mou.

Sources: Tables C.2 and C.3.

The reason for making an estimate of the average yield in Kiangsu as a whole is that it can be compared with a figure derived from information published in the late 1950's. If, as seems likely, this later figure is more reliable (because of improvements in the statistical system), it will provide a useful check on the validity of the estimate based on contemporary reports.

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The relevant information is presented below:

Table C.5: Another estimate of the average yield of grains in Kiangsu: 1951.

Total grain output (incl. soya)	20,455 million chin
Total grain output (excl. soya)	19,130 million chin
Total grain sown area (incl. soya)	119,557,145 mou
Total grain sown area (excl. soya)	105, 507, 145 mou
Average yield (incl. soya)	171.09 chin per mou
Average yield (excl. soya)	181.31 chin per mou

Sources: See chapter five, Tables V.8, V.9 and V.11.

Since there can be little doubt that the average grain yield derived from 1950-52 reports excludes soya, it is the final figure in Table C.5 in which we are interested. However, there is one further complication: the data based on the earlier sources exclude grain produced in Hstt-chou Special District (since Hstt-chou was not returned to Kiangsu until late 1952), while those shown in C.5 do include estimates of grain production in this area. The figures in C.5 must therefore be adjusted accordingly.

Unfortunately, specific information relating to Hstichou's grain output and sown area in the early 1950's appear to be totally lacking and we must make our own estimates. This we shall do by making the following simplifying assumptions:

- 80% of the total arable area of Hstt-chou Special District was sown under food grains.
- (2) The yield of food grains in Hst-Hwai (Hst-chou and Hwai-yin Special Districts) as a proportion of the average yield for all Kiangsu in 1957 can be used as a proxy to obtain a yield for Hstchou Special District in 1951.

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Then if Hsti-chou's arable area is taken as 15,770,000 mou, <sup>(1)</sup> the grain sown area must be:

80% of 15,770,000 = 12,616,000 mou.

Moreover, if the average grain yield in Hstf-chou is assumed to be 51.8% of the figure for the whole province,  $\binom{2}{1}$  the estimate must be:

51.8% of 181.31 chin = 92.8 chin per mou.

It follows that the total output of grain in Hst-chou Special District in 1951 was 1,170.8 million chin, which we round off to 1,171 million chin.

The Hst-chou estimates can now be deducted from the data in Table C.5 in order to obtain estimates for Kiangsu, excluding Hst-chou:

> Table C.6: An estimate of the average yield of food grains in Kiangsu (excluding Hstl-chou S.D.), 1951.

Fotal grain output (excl. soya)	17,959 million chin
Total grain sown area (excl. soya)	92,891,145 mou
Therefore average yield (excl. soya)	193.33 chin per mou

Source: See text above.

If this yield is compared with the estimate derived from the planned figures published in north and south Kiangsu during the early 1950's (see Table C.4), it will be seen to exceed that estimate by 7.9%.

In fact, there is good reason to believe that the data published by the Chinese during the early 1950's were under-estimates. The methods of data collection were crude and there were also various pressures upon peasants to under-report their sown area and output of grain.<sup>(3)</sup> It therefore seems reasonable to accept the higher estimate as a truer reflection of grain production in Kiangsu in 1951.

Accordingly we shall assume that the average grain yield of 265.73 chin per mou derived earlier for south Kiangsu under-states the true figure by 7.5%. As a result, our final revised estimate becomes 285.66 chin per mou (rounded off to 285 chin) and this is the grain yield used in the calculations of chapter two.

It must be admitted that the way in which this figure has been obtained is far from satisfactory. However, so far as I have been able to discover, no information in any source can help us to reach a more acceptable estimate. If anything, my feeling is that the figure may be on the high side: but if this is so, the conclusions drawn in chapter two are merely underlined more strongly. To those who would argue that our estimate is too low it is as well to point out that even an average yield of 300 chin per mou would not invalidate those conclusions.

### Notes:

- (1) <u>HHJP</u>, 19/12/57, "Strive Hard for the Next Ten Years and Make Dreams a Reality".
- (2) <u>HHJP</u>, 19/12/57, "A Simple Introduction to the Construction Plans for the Hst-Hwai Region" cites this figure of 51.8%
- (3) Poorer peasants would under-state production in the hope of receiving more land through re-allocation; the better-off peasants for fear that their land would be confiscated. Moreover cadres might deliberately depress agricultural production in order to exaggerate the difficulties of recovery.

### APPENDIX D

### The Chronology and Implementation of the Two "High-Tides" of Co-operativization and Collectivization in Kiangsu.

No single source provides a comprehensive picture of the expansion of lower-level co-operatives in Kiangsu. But throughout the period of the "high-tide" provincial newspapers carried reports of the co-operativization movement and from these it is possible to gain a reasonably clear and consistent impression of developments in the province.

The first table shows the development of semi-socialist co-ops in Kiangsu (excluding Shanghai) between mid-1955 and the beginning of 1956:

	Number of APC s	Number of agricultural households belonging to the APCs	As percentage of total agricultural households
Mid-1955 <sup>(i)</sup>	34,867 <sup>b</sup>	974, 526	11.21
20 September, 1955 (ii)	59,112 <sup>c</sup>	1,558,891	17.93
20 September, 1955	92,900 <sup>d</sup>	2,464,497	28.34
24 September, 1955 <sup>(iii)</sup>	101,859	2,907,000	33.43
4 October, 1955 (iv)	121,494	3,467,841 <sup>e</sup>	39.88
26 October, 1955 <sup>(v)</sup>	145,000 <sup>f</sup>	4,286,975 <sup>g</sup>	49.30
27 December, 1955 <sup>(vi)</sup>	n.a.	4,521,759 <sup>h</sup>	52,00
21 January, 1956 <sup>(vii)</sup>	n.a.	5,217,414 <sup>i</sup>	60.00
29 January, 1956 <sup>(viii)</sup>	n.a.	7, <mark>301,530</mark>	83.97

Table D. 1: The development of lower-level APCs in Kiangsu (excluding Shanghai).

### Sources:

- (i) CKNYHTHYTSL, vol. 2, op. cit., p. 1011.
- (ii) <u>HHJP</u>, 25/9/55, p. l, "Improve Hsiang Planning Work for the Agricultural Co-operativization Movement and Welcome a New High-Tide in the Socialist Mass Movement".
- (iii) <u>HHJP</u>, 1/10/55, p. l, "The Rich Development of the Co-operativization Movement in Kiangsu".
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Sources: (continued)

- (iv) <u>TKP</u> (Tientsin), 10/10/55, "The Peasants Are Demanding to Set Up Co-ops; the Cooperativization Movement is Entering a High-Tide".
- (v) <u>HHJP</u>, 29/10/55, p. l, "Peasants Enthusiastically Join in the Co-operativization Movement".
- (vi) <u>Chiang-su nung-min pao</u>, 27/12/55, "Fully-Socialist Collectivization Will be Completed in Kiangsu in 1958".
- (vii) <u>HHJP</u>, 21/1/56, "We Must Certainly Set Up Higher-Stage APCs".
- (viii) Ch'ang-chou kung-jen pao (Ch'ang-chou Workers' Daily), 2/2/56, "Kiangsu Has Basically Completed Agricultural Co-operativization".
- Notes:

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- For the purposes of the calculations in this column the total number of agricultural house-holds in Kiangsu (excluding Shanghai) is assumed to be 8,695,690. See <u>CKNYHTHYTSL</u>, vol.2, op. cit., p.1011.
  - <u>TKP</u> (Tientsin), 10/10/55, <u>op. cit.</u>, p. 1 gives the number of lower-level APCs in Kiangsu in July, 1955 as 35,773, but we have preferred to use the figure in <u>CKNYHTHYTSL</u>. In any case, the difference between the two estimates is negligible and does not alter the general pattern shown in the table.
- c <u>HHJP</u>, 25/9/55, <u>op. cit.</u>, p. 1 states that as of 20 /9/55 24,245 <u>new</u> co-operatives had been established. If the 34,867 co-ops existing before this are added in, the total is 59,112.
- d The larger figure includes the 33,788 co-ops just in the process of being set up.
- e <u>TKP</u> (Tientsin), 10/10/55, <u>op. cit.</u>, p. 1 states that the 121,494 co-ops in existence on 4/10/55 contained 39.88% of all agricultural households. 39.88% of 8,695,690 is 3,467,841.
  - <u>HHJP</u>, 29/10/55, <u>op. cit.</u>, p. 1 states that as of 26/10/55 there were 121,300 new and 35,000 old co-ops in Kiangsu. But the total figure given is 146,000 (yet 121,300 + 35,000 = 156,000). We know from other sources that the

Notes: (continued)

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(f) figure of 35,000 old co-ops is about right; therefore either the number of new co-ops or the total figure must be wrong. The problem is resolved by <u>HHJP</u>, 26/11/55, "Conference of the Kiangsu CCP Committee Decides that Semi-Socialist Agricultural Co-operativization Will Be Basically Carried Out Next Year" which states that over 110,000 new APCs had been set up in Kiangsu during the autumn: adding in the 34,867 old ones gives a total of about 145,000 and this is the figure shown in Table D.1. It is also close to the total in <u>HHJP</u>, 29/10/55 and <u>TKP</u>, 31/10/55.

- h That is, 52% of 8,695,690 = 4,521,759.
  - That is, 60% of 8, 695, 690 = 5, 217, 414.

Although as the notes indicate, we could argue about the precise accuracy of some of the figures, there is no doubt that the overall trends that they show are correct. Events in Kiangsu soon out-stripped all earlier plans for co-operative expansion. It will be recalled from chapter four that at the May Conference of Party Secretaries it had been decided to double the number of lower-level APCs in the province and incorporate 25% of all agricultural households into them before spring, 1956. At the time of its adoption this decision looked extremely ambitious: but by the end of September, 1955 this target had already been fulfilled and surpassed. Indeed so rapidly were co-ops being set up that plans tended to become redundant almost as soon as they were published. Thus, on 24 August the 'Fukien Daily' forecast on the basis of statistics furnished by Party Committees throughout Kiangsu that by spring-ploughing, 1956 the number of co-ops in the province would have risen from 35,000 to 100,000 embracing about 32% of agricultural households.<sup>(1)</sup> But according to a report in

Derived from data in <u>HHJP</u>, 29/10/55, <u>op.cit</u>,pl, which stated that 49.3% of all households were in APCs.

Kiangsu's own newspaper, this plan was fulfilled within less than a month.<sup>(2)</sup> In October Chiang Wei-ch'ing, Secretary of the Kiangsu Party Committee, was quoted as saying that 22,000 more co-operatives were to be established in Kiangsu during the winter and spring of 1955-56, so bringing the total to over 140,000.<sup>(3)</sup> Only four days later it was announced in another source that there were already more than 146,000 lower-level APCs in the province!<sup>(4)</sup>

Within the province the most rapid expansion took place in Hwai-yin and Yang-chou Special Districts.<sup>(5)</sup> Hwai-yin had the greatest number of co-ops and by early October their membership comprised over 54% of all peasant households, a figure that was considerably in advance of the provincial average.<sup>(6)</sup> By contrast, Soochow Special District was said to have established only 4,500 lower-level APCs, containing a mere 10% of agricultural households.<sup>(7)</sup> However, this evidence is not entirely conclusive, for two <u>earlier</u> sources indicated that more than 42% of Soochow households were members of 13,705 co-ops.<sup>(8)</sup>

If the higher Soochow estimates had appeared in the later sources it would have been easy to put down the discrepancies to differences in the availability of quantitative information between the various dates. But this is not the case and some other explanation must be sought. The tentative suggestion put forward here is that the differences in the published estimates reflect some difficulty in the implementation of co-operativization in Soochow. Specifically, it seems possible that as inhabitants of the richest agricultural region in Kiangsu, peasants in Soochow were fearful that the high levels of output to which they were accustomed would fall if they joined

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the new co-ops. The title of the second article cited in note (7) would give support to such an argument and it is interesting too that in the other source which cited the lower estimates, a lot of space was devoted to showing why conditions in Soochow favoured agricultural co-operativization - the sort of approach that signalled the existence of dissenting voices.<sup>(9)</sup>

Unfortunately, more detailed information is not available and it is impossible to do more than speculate in this way. In any case, whatever the truth of the matter, doubtless the delay in Soochow was only temporary. For the overwhelming general response to Mao's July speech and the pressure to set up more and more co-operatives generated its own momentum which ultimately can only have erased such regional differences. Certainly, by January, 1956 attention in all the Special Districts was turning to a new task; the creation of fully-socialist collectives.

Before leaving this chronological account of the first "high-tide" in Kiangsu something should be said about its progress in Shanghai. Between the middle and end of 1954 the number of co-operatives in the Municipality had risen from 395 to 909, <sup>(10)</sup> but during the next six months there was little further expansion and as of mid-1955 the number of lower-level APCs stood at 978, with a membership of 27.95% of peasant households. <sup>(11)</sup> However, the halt was temporary and at the end of September it was announced that 538 new co-ops had been set up, bringing the proportion of agricultural households in them to 58.5%. <sup>(12)</sup> Clearly, the pattern observed elsewhere in the province was being repeated, for only a few days earlier a news report broadcast in Tung-t'ai <u>hsien</u> (north Kiangsu) had stated that Shanghai was planning to achieve a 60-70% rate of participation by autumn harvest, 1956. <sup>(13)</sup> Moreover, the lull which characterized the -563co-operativization movement in the rest of Kiangsu between the end of October and end of December was apparently not repeated in Shanghai and before the end of the year it was being claimed that semi-socialist co-operativization had been basically completed in the Shanghai suburbs. (14) (15) The 1,808 co-operatives embraced more than 80% of agricultural households.

Consideration was given in chapter four to the different class attitudes towards the institutional changes of 1955 and early 1956. One of the most interesting illustrations of this aspect of the co-operativization movement was contained in a report of an investigation of lower-level APCs in Shuyang <u>hsien</u> (Hwai-yin Special District). The findings are summarized in the following table:

			Table D.2:	Class attitudes to of Yi-t'ao <u>hsiang</u> , District.	wards co-ope Shu-yang <u>hsi</u>	rativization: the <u>en</u> in Hwai-yin S	pecial
		Total number of households in Yi-tao hsiang	Number which have joined or applied to join APCs	As percentage of all house- holds	Number of households in APC s	Those house- holds which are enthusi- astic *	As percentage of member households
	Poor peasants	387	366	94.57	271	214	78.97
	Lower-middle (old and new)	181	170	93. 92	113	72	63.72
-565-	Upper-middle (old and new)	196	180	91.84	119	37	31.09
			* Literally "tho and determine	se households which do nake the APC	ch are enthusi a success".	astic in producti	uo

CKNTTSHCIKC, vol.2, op. cit., pp. 605-606.

Source

The high degree of enthusiasm for lower-level APCs displayed by poor and lower-middle peasants requires little comment. These were the peasants who were encountering the most serious production difficulties, suffered the most acute shortages of draft animals and tools and had the lowest living standards. Accordingly, they stood to gain most from co-operativization. What is more surprising is that their upper-middle counterparts showed only slightly less enthusiasm. As the Shu-yang article itself pointed out, their favourable economic circumstances made these peasants more likely to adopt a negative or even hostile attitude towards co-operative farming because of the possibility that their income and living standard would decline after joining an APC.<sup>(16)</sup>

How much weight should be accorded these data is difficult to say: there is no way of knowing how representative Yi-t'ao <u>hsiang</u> was in its experience and no other comparable data appear to be available. However, the rest of the table may provide a clue to the explanation, for it shows that whereas well over half of poor and lower-middle peasants continued to show their enthusiasm after becoming members of a co-op, barely 30% of the upper-middle peasants shared these feelings.

Although the article does not attempt to explain why this transformation should have occurred it is not difficult to suggest an answer. The ability of co-operatives to raise output above that of not only individual peasants but also MATs may have encouraged the upper-middle peasants in the belief that they too could benefit from participating in co-operative farming. If this were the case, the high rate of enrolment shown in Table D.2 is easily understood. But once in the APC their expectations might be swiftly

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dampened. If the looked-for increase in output did not materialize they might find themselves worse off than when they were working on their own. And even if output were increased, the gains might be more than offset by disincentive effects arising out of the way in which the co-ops were managed. Bearing in mind the problems occasioned by the very rapid increase in APCs after the middle of 1955 that were mentioned in chapter four, it is clear that there is no lack of evidence to support this thesis.

In Kiangsu then there is a good deal of evidence to suggest that class conflict was the source of many problems in the newly-established APCs. It is interesting that in October, 1955 it should have been considered necessary to reprint in the 'New China Daily' an editorial from the previous day's 'People's Daily' calling for the strict implementation of the classline during co-operativization.<sup>(17)</sup> In Fukien, Shantung and Hopeh the failure to do this had alienated large numbers of peasants: in some areas partiality towards poor peasants made the middle peasants reluctant to participate in the co-ops; elsewhere "one-sidedness"<sup>(18)</sup> merely exacerbated class antagonisms with the result that upper-middle peasants refused to join in work with the poor peasants.

Even if these difficulties were overcome, other factors contained the seed of class conflict once the APC was in operation. One such was the accounting system. Past experience had shown that where rentals on land or working capital<sup>(19)</sup> were set too high or too low, it was difficult to maintain unity between the poor and middle peasants. But despite exhortations to make rational payments for the use of assets belonging to co-op members it is clear that this principle was not wholly adhered to.

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It was admitted that peasants' working capital was taken into collective ownership with precipitate haste<sup>(20)</sup> and that some (mostly "middle") peasants held back from joining APCs because of uncertainty about future dividends.<sup>(21)</sup> They were also concerned that once in the hands of the co-operative authority, their tools and draft animals would be mismanaged.

A specific case which illustrates well the difficulties of finding a distribution system to satisfy all members is that of San-sheng APC, Li-yang <u>hsien</u> (Chinkiang Special District).<sup>(22)</sup> The class composition of this co-operative was as follows:

Table D.3: The class composition of San-sheng APC, Li-yang hsien.

	Number of households
Poor peasants	17
Middle peasants	6
Prosperous middle peasants	1

Source: CKNTTSHCIKC, vol.2, op. cit., p.635.

When San-sheng APC was first established in spring, 1954 45% of net income came from dividends on land and 55% from wages paid to labour. In the eyes of some of the middle peasants and the upper-middle<sup>(23)</sup> member who had more land than labour, this ratio was unfair and in his capacity as a committee member of the co-operative the upper-middle peasant petitioned that the relative shares of land and labour be adjusted. Although not discussed publicly this was agreed to and a 50:50 land-labour ratio was adopted.

This decision met with less than unanimous approval and as relations between the poor and middle peasants began to become strained, it was decided to undertake an investigation to review the situation. Its conclusion -568was that what was justified was a rise in <u>wages</u> (not dividends on land). The reasoning was as follows: during 1953 work to combat drought had been carried out worth an average of 17 work-points. But on the basis of the 50:50 distribution system each work-point was worth only ten or so chin of rice, a wage which some of the co-op members were quick to point out was "... less than we can get for part-time work".<sup>(24)</sup> The outcome was that 18 members of the APC (including all 17 poor peasants) called for a further adjustment of the land-labour ratio.

Despite the cool reception of this counter-proposal by the remaining six peasants, who foresaw that it would depress their own incomes, <sup>(25)</sup> Detailed calculations were made in an effort to arrive at the most beneficial and equitable distribution system. <sup>(26)</sup> The following three possible formulae were presented for consideration:

Table D.4:

		I	ш	III	
LAND SHARES	Dividend per share	180 chin	192 chin	200 chin	
	Percentage of income coming from land	38	40	42	
LABOUR DAYS	Wage per labour day	30.8	29	28	
	Percentage of income coming from labour	62	60	58	
COMPARISON WITH 1952	Number of households with a rise in income	23	20	19	
	Number of households with a fall in income	1	4	5	

Proposed formulae for income distribution

in San-sheng APC, Li-yang hsien, 1954.

Source: <u>CKNTTSHCIKC</u>, vol.2, <u>op.cit.</u>, p.637. The comparative data show clearly that the first formula was the most acceptable insofar as it guaranteed an increase in income for 23

of the 24 co-op members and this was in fact the formula chosen by -569-

San-sheng APC.

But however equitable the new formula may have been it can hardly have been enthusiastically received by the middle peasants, for as the following table suggests, the return to a system of distribution which favoured the labour input had serious implications for levels of income:

> Table D.5: Returns to land and labour under the 'old' and 'new' distribution systems in Sansheng APC, Li-yang hsien.

			'Old' system	'New' system
	Dividend p	er share	237 chin	180 chin
LAND SHARES	Percentage coming fr	e of income om land	50	38
LABOUR DAYS	Wage per l	abour day	25 chin	30.8 chin
	Percentage of income coming from labour		50	62
	Sources:	CKNTTSHCI	KC, vol.2, o	p.cit., p.639

and Table D.4.

The effect of introducing the new land-labour ratio was to depress dividends on land by almost a quarter, while the value of a labour day rose by over 23%. Even if the new formula was unanimously accepted (as was reportedly the case in San-sheng APC) it is not hard to imagine other instances in which the fall in dividends led to further class conflict and even the collapse of the co-operative. Certainly the declining middle peasant enthusiasm such as was observed in Table D.2 would be understandable in these circumstances.

The case of this single co-operative is a very instructive one. It shows very clearly how difficult the search for a distribution system which would satisfy all parties could be and how the failure to find this ideal could lead to class conflict. Less obviously, the experience of San-sheng APC also illustrates the know-how and immense care that was required -570to reach a satisfactory solution. Detailed calculations of every member household's income and expenditure (including non-farm income, dividends and expenses on all items used in agricultural and subsidiary operations) had to be made before the various alternatives could be assessed. In Sansheng APC the ability to do this was evidently not lacking. But in view of the high rate of illiteracy in the countryside and the unfamiliarity with methods of accounting it is reasonable to suppose that in many more cases the difficulties of implementing a distribution system based on ownership of assets as well as on physical labour were insurmountable. In such cases the outcome may not have been as happy as in San-sheng Co-operative.

Lack of quantitative information makes it impossible to analyze the collectivization campaign in Kiangsu in such great detail and there is little that we can add to the brief chronology given in chapter four. However, it may be of interest to extend that discussion by setting down some of the initial plans for the establishment of higher-level APCs that were drawn up at the end of 1955:
		level APCs in 7 Special Districts.			
		Target number of collectives	Planned date of completion		
Sung-chiang <sup>a</sup>		120	Winter-spring, 1955-56		
Yen-ch'eng b		147	Winter-spring, 1955-56		
		1,300	Autumn, 1956		
Yang-chou <sup>C</sup>		100	Winter-spring, 1955-56		
Hsti-chou <sup>d</sup>		288	Spring, 1956		
Hwai-yin <sup>e</sup>		162	Spring, 1956		
Nan-t'ung f		76	Spring, 1956		
Soochow g		300	March, 1956.		
Source	es:				
a	a	Broadcast report, News).	11/12/55, (Sung-chiang		
ł	C	Broadcast report, News).	26/12/55, (Yen-ch'eng		
- (	c	Broadcast report, News).	29/12/55, (Yang-chou		
c	1	HHJP, 8/1/56, "Hstl-chou and Hwai-yin Enthusiastically Set up Trial Higher-Level APCs".			
e	е	Ibid.			
ł	£	<u>HHJP</u> , 23/1/56, "Yen-ch'eng Special District Decides to Basically Complete Fully-Socialis Collectivization This Year"			

# Table D.6: The planned development of higher-

Broadcast report, 10/1/56, (Soochow News). g

The fact that these plans were being drawn up in December and January is of some interest, for it indicates that collectivization was being discussed before the completion of co-operativization. Nevertheless, in this initial stage the targets remained quite modest, the intention being to set up a small number of key units on an experimental basis. Even the Provincial Committee's call to establish collectives in every hsien and -572<u>ch'tt</u> during the first half of 1956 and in every <u>hsiang</u> during the second (27) half and its demand that collectivization should be completed by 1958 were in line with the programme of institutional change outlined in the Twelve Year Plan (Draft version).

However, at a lower level plans were more ambitious. Early in January, 1956 Chiang-p'u, Liu-ho and Ssu-yang <u>hsien</u> announced their intention to complete collectivization in 1957.<sup>(28)</sup> Earlier still it was reported that the co-operatives in Heng-t'ang <u>hsiang</u>, Tan-yang <u>hsien</u> (Chinkiang Special District) were already merging into larger units and that the transition to fully-socialist APCs would be carried out in spring, 1956.<sup>(29)</sup>

Developments appear to have been more rapid in urban areas: for example, although the rate of participation in lower-level APCs in T'aichou Municipality at the beginning of January was no higher than the provincial average, it was planned that by the summer of 1956, 60% of agricultural households would be in <u>collectives</u>.<sup>(30)</sup> In Nan-t'ung Municipality 80% of peasant households were expected to be incorporated into higher-level APCs by the end of the same year.<sup>(31)</sup>

Most outstanding of all was the case of Shanghai. At the end of December 434 co-ops were demanding to "merge or expand and leap forward to become higher-level APCs".<sup>(32)</sup> Less than two weeks later 52% of all agricultural households in the suburbs had registered their names to join collectives<sup>(33)</sup> and on 18 January it was announced that "... the high-tide of fully-socialist co-operativization" had arrived in the suburbs.<sup>(34)</sup> It was anticipated that within a few days 809 co-operatives

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would be merged into 28 collectives, most of them comprising over a thousand households and many up to three thousands. Finally, still in the third week of January, a conference of APC representatives revealed that collectivization had been completed in the suburbs!<sup>(35)</sup>

We may conclude by considering further some of the issues underlying the decision to implement full collectivization in 1956. There is little doubt that one important factor was the belief that the small average size of the co-operative unit was preventing the full potential of co-operation from being realized. Mao himself argued:

"Most of our present semi-socialist co-operatives contain only 20 or 30 households because units of this size are easy to run and give administrative personnel and members alike an opportunity to gain experience quickly. But small cooperatives have fewer members, less land and not much money. They cannot operate on a large scale or use machinery and the development of their forces of production is hampered. They should not stay in this position too long, but should go on to combine with other co-ops." (36)

Mao was in fact calling for the establishment of "large co-ops" though clearly, similar arguments could be made in favour of the collectives. Advocates of these larger units could point out that they alone provided a suitable framework for consolidating the small, fragmented plots, planting the most rational cropping patterns, extending doublecropping and implementing other technical reforms. Moreover, there was the important consideration that in collectives private ownership need no longer hold back agricultural production (as it did even in the "large co-ops"). Thus, Mo Jih-ta, writing in the general context of China, made the point:

> "... Because in the lower-level co-operatives members retained ownership rights to their land there was a definite limit to the rational utilization of land. The implementation of certain basic -574

construction plans on the land might always be prevented through the inability of landowners within the co-op to reach agreement. This contradiction became particularly apparent when the co-ops became larger ... Because contradictions of unified management, collective labour and private ownership of production materials still existed in the lower-level APCs, the continued development of productive forces was hindered." (37)

To condemn the private ownership system was to condemn the method of distribution in the co-operatives and another argument put forward in favour of collectivization was its elimination of dividends to land and working capital. Mo Jih-ta again:

"Because upper-middle peasants contributed a lot of production materials to the co-operatives, even though they did less work than the poor and lower-middle peasants, the value of the dividends they received was still greater than the wages paid to the latter. This affected the upper-middle peasants' rate of work attendance and the labour enthusiasm of the poor and lower-middle elements. It also affected the unity between the different classes." (38)

The very fact that collectivization was advocated as a means of realizing potential labour productivity was an acknowledgement of the inadequacies of the existing distribution system. Indeed although there seems to have been a certain reluctance to concede the adverse effects of that system while the co-ops remained the most important institutional form in agriculture, once collectivization had been carried out, the extent to which class antagonisms had been increased by the dichotomy between dividends and wages was more readily admitted. One report spoke of the inability of the co-operatives to prevent polarization of the peasantry, <sup>(39)</sup> while others praised the collectives for having strengthened the alliance between poor and middle peasants<sup>(40)</sup> and put an end to class stratification. <sup>(41)</sup> Such is the evidence behind our argument that the difficulties of satisfactorily implementing a part-wage, part-dividend system of distribution and the class antagonism which it engendered were the principal factors behind

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the decision to collectivize in Kiangsu.

#### Notes:

- (1) <u>Fu-chien jih-pao</u> (Fukien Daily), 24/8/55, "The Co-operativization Movement in the Villages of Kiangsu is About to Enter a High-Tide in its Great Development".
- (2) See Table D.1 and HHJP, 1/10/55, op. cit., p.1.
- (3) <u>JMJP</u>, 25/10/55, p. l, "Thoroughly Implement the Decisions of the Sixth Plenum of the Seventh Congress". Also see <u>HHJP</u>, 26/10/55, op. cit.
- (4) <u>HHJP</u>, 29/10/55, "Peasants Enthusiastically Join the Co-operativization Movement".
- (5) See <u>HHJP</u>, 1/10/55, <u>op.cit.</u>, p. 1. A reflection of the speed of co-operativization in these areas is to be found in data for one or two of their <u>hsien</u>. For example, a news broadcast on 9/9/55 revealed that 42% of all agricultural households in Chiang-tu <u>hsien</u> (Yang-chou S. D.) were in APCs and another broadcast on the same day cited a figure of 48.7% for Su-ch'ien <u>hsien</u> (Hwaiyin S. D.). <u>HHJP</u>, 30/9/55, <u>op.cit.</u>, gave an even more impressive figure of 66.17% for Ssu-yang <u>hsien</u> (also in Hwai-yin S. D.) as of 17/9/55.
- (6) <u>TKP</u>, 10/10/55, <u>op. cit.</u>, p. 1 stated that there were 23,271 co-ops in Hwai-yin.
- (7) <u>HHJP</u>, 16/10/55, "We Must Set Up More and Better Co-operatives". The same figure was given in <u>TKP</u> (Tientsin), 28/11/55, "It is Entirely Possible for the High-Output Areas to Go Ahead with Co-operativization".
- (8) <u>TKP</u>, 10/10/55, op. cit. And <u>Ch'ang-chiang jih-pao</u> (Yangtze <u>River Daily</u>), 11/10/55, "The Agricultural Co-operativization Movement in Kiangsu Has Revealed a High-Tide".
- (9) See HHJP, 16/10/55, op. cit.
- (10) <u>Hsin-wen jih-pao</u> (Shanghai), 1/11/55, "Preparations are Enthusiastically Going Ahead in the Suburbs".
- (11) CKNYHTHYTSL, vol. 2, op. cit., p. 1011.
- (12) <u>CFJP</u>, 3/11/55, "Begin Overall Planning for Agricultural Co-operativization".
- (13) The same plan is set out in Hsin-wen jih-pao, 1/11/55, op. cit.
- (14) <u>CFJP</u>, 28/12/55, "The Villages in the Shanghai Suburbs Have Basically Completed Agricultural Co-operativization". This compares with a planned completion date of winter, 1957, given

in <u>Hsin-wen jih-pao</u>, 1/11/55, <u>op. cit.</u> (Although we have not looked in any detail at the situation in other urban areas of the province, one piece of information indicates that the speed with which co-operativization was completed in Shanghai was not unique: a news broadcast as early as 1/12/55 stated that co-operativization had already been implemented in the suburbs of Nanking, with 82% of agricultural households in APCs.)

- (15) <u>Ibid.</u> The same figures are given in <u>JMJP</u>, 30/12/55. It is worth noting that events in Shanghai are quite consistent with the suggestion made in chapter three that the behaviour of the Municipality was a more sensitive barometer of policy changes than that of the rest of Kiangsu.
- (16) Thus one upper-middle peasant, "I have a good life working on my own. When others' land fails, mine still produces a yield. I don't want to join with them [i.e. the poorer peasants]. Let me wait two or three years and then see how things look ..." CKNTTSHCIKC, op. cit.
- (17) <u>HHJP</u> (editorial), "In the Development of APCs We Must Give Attention to Quality".
- (18) P'ien-mien-hsing.
- (19) Or, where such assets were bought outright by the co-op, the absolute price.
- (20) HHJP, 18/9/55, "Mobilize the Old Co-ops to Lead the New".
- (21) See "This Hsiang Was Co-operativized in Two Years" in CKNTTSHCIKC, op. cit., p. 593.
- (22) "Implement a Distribution System Based on Fixed Norms" in <u>CKNTTSHCIKC</u>, op. cit., pp. 635-639. This article was first published in late-1954, but its inclusion in this authoritative collection indicates that its significance transcended both time and place.
- (23) Presumably the "prosperous middle peasant" was upper-middle and the six "middle" peasants, lower-middle.
- (24) Ibid.
- (25) The upper-middle peasant member claimed that the proposed changes would cause him to lose 2,700 chin of rice. Ibid., p.636.
- (26) These calculations took into account the amount of land and number of land 'shares' belonging to every household, together with their output, production expenditures and the income received for work on water-conservation projects and from subsidiaries. Allowances

were also made for contributions to the accumulation and welfare funds and for management costs. Ibid., p.637.

- (27) Chiang-su nung-min pao, 27/12/55, op. cit.
- (28) <u>HHJP</u>, 7/1/56, "Completion of Fully-Socialist Collectivization Next Year".
- (29) Chiang-su nung-min pao, 27/12/55, op. cit.
- (30) <u>HHJP</u>, 6/1/56, "T'ai-chou Municipality Should Implement Fully-Socialist Collectivization This Year". Membership of co-ops in January, 1956 was 53.26% (cf. 52% for Kiangsu at the end of January).
- (31) <u>HHJP</u>, 9/1/56, "Nan-t'ung Municipality Suburbs Will Basically Implement Fully-Socialist Collectivization This Year".
- (32) CFJP, 28/12/55, op. cit.
- (33) <u>CFJP</u>, 14/1/56, "Over Fifty Per Cent of Agricultural Households Are Already Demanding to Set Up Collectives". In Hsin-ching ch't the proportion of agricultural households wishing to establish collectives was as follows:

13/12/55	35%
24/12/55	67%
2/ 1/56	83%

- (34) <u>CFJP</u>, 18/1/56, "The Peasants in the Shanghai Suburbs Fly Towards Socialism".
- (35) <u>CFJP</u>, 19/1/56, "The Villages in the Suburbs Have Implemented Socialist Co-operativization".
- (36) See the Preface to "The Superiority of Large Co-ops" in CKNTTSHCIKC, vol.2, op. cit., pp. 611-622.
- (37) Mo Jih-ta, op. cit., p. 118.
- (38) Ibid., p.119.
- (39) <u>HHJP</u>, 30/9/57, "Co-operativization in Kiangsu Is Beginning To Be Wound Up".
- (40) <u>HHJP</u>, 6/1/57, p. 1, "Higher-Level APCs: the Firm Bastion Against Natural Disasters".
- (41) HHJP, 7/1/57, p. 3, "Tell the Inhabitants of Towns and Villages Alike of the Superiority of Collectivization".

### APPENDIX E

Estimates of Sown Area, Average Yields and Total Output of Cotton (Ginned) in Kiangsu Before 1949.					
	Sown area (mou)	Average yield (chin/mou)	Total output (million chin)		
STATISTICAL OFFICE OF THE CHINESE COTTON INDUSTRY:					
1926	8,129,000				
1927	7,328,000				
1928	8,824,000				
1929	9,511,179				
1930	8,625,235				
1931	7,656,244				
1932	8,254,829				
Av. 1926-32	8,322,729.43				
COTTON MILL OWNERS' ASSOCIATION:					
1929			227.66		
1930			108.48		
1931			62.65		
1932			166.87		
TSINLING UNIVERSITY: "Normal" year			542.00		
Average p. a. from 1926/27 to 1932/33			335.00		
1021			274 00		
1932			345.00		
N. A. R. B. :					
1031	11 353 000	26 00	306 50		
1931	11,353,000	20.99	206.20		
1932	12,044,000	22.99	110 20		
1933	12,000,000	27 00	410.20		
1035	11 008 000	31 09	373 10		
1933	11,998,000	32 62	364 40		
1937	10, 429, 000	29.50	307.70		
Av. 1931-37	11.614.860	30, 56	355.04		
	0 ( 50 000	25.00	202.01		
1946	8,653,000	35.00	302.86		
1947	8,740,000	29.00	253.40		

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	Sown area (mou)	Average yield (chin/mou)	Total output (million chin)
J.L. BUCK:			
19 <b>2</b> 9-33	11 <b>,2</b> 58, <mark>4</mark> 98	33.59	378.14
CHANG HSIN-I:			
"Average" year			
(uncorrected)	12,010,000	28.00	336.28
(corrected)	11,091,000	28.10	311.62
WANG TZU-CHIA:			
1932	8,515,000	20.88	177.80
1933	9,877,000	20.70	204.50
1934	10,207,000	16.31	166.50
1935	10,258,000	19.28	197.80
1936	10,401,000	<b>23.32</b>	242.60
1937	12,830,000	15.22	195.30
1938	9,568,000	17.35	166.00
1939	9,327,000	15.01	140.00
1940	9,149,000	12.02	110.00
1941	7,355,000	11.75	86.40
1942	6,920,000	18.28	126.50
1943	5,601,000	18.26	102.30
Av. 1932-37	10,348,000	19.08	197.42

#### Sources:

Statistical Office of the Chinese Cotton Industry, (Chunghua mien-yeh t'ung-chi-hui): from HB (Chinese language version), op.cit. The data are for 25 hsien plus Shanghai.

Cotton Mill Owners' Association: from HB, op. cit., p. 203.

Tsinling University: CNYK, op. cit., November, 1932.

N.A.R.B.: 1931-37 total output and sown area from <u>CNYK</u>, vol.8, no.5, May, 1947, <u>op.cit</u>., pp.87-90. All yields are derived for these years.

1946 - 47 sown area and yields from <u>CNYK</u>, vol.7, no.1, and vol.9, no.3. Total output is derived.

J.L. Buck: Statistical Volume, op. cit. The data shown are weighted by his localities. Note too that his figures for the Yangtze rice-wheat region show a 2.93:1.00 ratio between unginned and ginned cotton and this has been used to derive the yield and output of ginned cotton given in the table.

<u>Chang Hsin-i:</u> the "uncorrected" figure is from <u>An Esti-</u> mate of <u>China's Farms and Crops</u>, <u>op.cit.</u> The "corrected" estimate is obtained by summing the sown area and total output in T'ung-chi ytteh-pao, vol.7, no.2, <u>op.cit.</u> Sources: (continued)

Wang Tzu-chia: from his <u>Chan-shih Shang-hai ching-chi</u> (<u>Shanghai's Wartime Economy</u>), 1945. Yields are derived from total output and sown area.

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ch'a-tsu t'uan 1 A cheng-shui IL AL chi-kung yttan LI chi-t'i mai-kung 集 体 卖 工 chi-t'i sheng-ch'an 集体生产 Chiang-nan wu feng-chien 江南無封建 ching-ch'ang-hsing 絵 常 化生 ching-keng hsi-tso 精 扬 任 作 ch'iung-pang-ch'iung 🕱 🖁 🕺 ch'u-chi nung-yeh sheng-ch'an ho-tso-she 初版改业生产合作社 chui fei 追 肥 feng-ch'e / 1 feng-nien ch'an-liang 丰年声量 fu-shui Mt th fu-yti chung-nung 富裕 中仪 hsi-t'ien At B hsia-chung-nung F 中 投 hsiao t'u-ti ch'u-tsu che小土地出租去 hsien the hsin-shih pu-li 新式步辇 hsing-shih chu-i 形式主义 hu-li 互利 huang-niu # 4 huang-ti 荒 地 huo-yang-niu 伙养牛

i-chia-i-t'iao niu-t'ui 一家一条牛服

kao-chi nung-yeh sheng-ch'an ho-tso-she 高級农业生产会作社 keng <del>我</del> keng-che yu ch'i-t'ien 耕者有其田 k'ou-ta mao-tzu 扣大帽字 kuan-liao chu-i 官僚主义 kuan-men chu-i 关門主义 kung-chi-chin 公祝金 kung-p'iao 工票 kung-tso-tui 工作队 lao-tzu pu t'uan-chie 劳資不回結

liang-li 兩 和 lu-fei 結 和

ming-ling chu-i 命 含主义

## nti 米潟

nung-hui tsu-chih 及会组 紙 nung-min chiu-kuo hui 夜氏 救国会 nung-ts'un kung-hsiao ho-tso-she 农村供销合作社 nung-ts'un kung-tso-t'uan 农村工作团

pang-niu-t'ui 常 书 熊 pao-kuan yttan 保 宮貞 pao-kung-chih 包 工 制 pao-kung pao-ch'an 包 工 包声 p'ing-han-ti 平 旱 地

san-ch'a, szu-fan, wu-p'ien-yen 三茶. 四 飯. 五片 咽. shang-chung-nung 上 半校 shao-k'ou tuo-fen 少 招 多分 sheng-ch'an tao-ting 生 声到 頂 shui-ch'e 本章 shui-niu 本书 shuo-li tou-cheng 説」 正子 算 Su-pei lin-shih hsing-cheng wei-yttan-hui 杰士 臨 时本員会 ta-hun-tso 打 混作 ta-p'an-kung 大 伴 I teng-chia chiao-huan 等价交换 ti-ya 振 护 tien-tang 典 當 t'ien-fu fu-chia 且 鼓 附 加 t'ien-fu fu-chia 且 鼓 附 加 t'ien-fu-nung 個 富 农 t'ien-mien ch'ttan 且 面 叔 t'ien-ti ch'ttan 田 康 叔 tsa-liang 杂 秩 tsu-chan 稅 核 tsu-chan 稅 核 tsu-chih ch'i-lai 組 給 起本 t'u-ti ho-tso-she 土 地合作社 tuan-ch'ui 选 吹 tzu-keng chung-nung 自 科 中 仪





Map C. Kiangsu: The Eight Spesial Districts.

