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**DISPLACEMENT, RESETTLEMENT  
AND  
ADVERSE INCORPORATION  
IN ANDHRA PRADESH.  
THE CASE OF THE POLAVARAM DAM**

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Thesis submitted for the degree of PhD in Economics

2012

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## Abstract

This thesis investigates the reasons of the failure for resettlement programmes in preventing the impoverishment of people displaced by development projects. It is also concerned with the contribution that economics can make to the improvement of resettlement theory and practice, in particular through political economy and choice experiment methodologies. The investigation is carried out through a case study of the Polavaram dam in Andhra Pradesh, which will lead to the submersion of 177 villages and the displacement of 200,000 people. The research originates from the acknowledgement that the failure of resettlement programmes is determined at, and reflected through, the theoretical, methodological and practical levels.

The thesis is divided into three parts. The first part looks at the existing literature on displacement and resettlement and identifies where failures are located at theoretical and methodological levels. The unsatisfactory use of economics in dealing with the problem of resettlement is pinpointed as a major cause of theoretical and methodological deficiencies. In order to tackle these, alternative approaches from within the discipline are suggested. These include the use of choice experiments to consult the affected population directly about their resettlement. Also emphasised is the potential contribution of political economy to the theoretical understanding of resettlement, and a framework based on the notion of adverse incorporation is developed.

The second part clarifies the methodology employed to investigate displacement and resettlement in the case study, and describes the case study itself.

The third part describes the findings of the choice experiment and the adverse incorporation framework as applied to the case study and assesses their potential contribution to resettlement research. Evidence of the performance of resettlement in Polavaram *in practice* is also provided. It is found that the resettlement of the Polavaram affected people is likely to fail in preventing further impoverishment and to lead instead to their adverse incorporation into the local process of development.

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## **Acronyms and abbreviations**

ADB – Asian Development Bank

AI – Adverse Incorporation

AP – Andhra Pradesh

BC – Backward Castes

BPL – Below Poverty Line

CBA – Cost-Benefit Analysis

CE – Choice Experiment

CESS – Centre for Economic and Social Studies

CV – Contingent Valuation

CWC – Central Water Commission

CIL – Coal India Limited

GoAP – Government of Andhra Pradesh

GoI – Government of India

ITDA – Integrated Tribal Development Agency

NGO – Non Governmental Organization

NSSO – National Sample Survey Organization

OC – Other Castes

PESA – Panchayat (Extension to Scheduled Areas) Act

SC – Scheduled Caste

ST – Scheduled Tribe

WB – World Bank

WTA – Willingness to Accept

WTP – Willingness to Pay

1 LAKH= 100,000

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*To my parents,  
who taught me  
that everything  
is possible,  
and made it so.*

*"Either you capture the mystery of things or you reveal the mystery.  
Everything else is just information."*

*Raghu Rai, Indian photographer*

## Introduction

The day I arrived in India for my fieldwork in April 2009 the India International Centre of Delhi was hosting a retrospective on Werner Herzog's work, with a screening of the movie *Fitzcarraldo* (at least that's how it was advertised in that week's edition of Delhi's *Timeout*). The movie tells the story of Fitzcarraldo, a rubber baron who, in the early 20<sup>th</sup> Century, projects to transfer a steamboat from the Ucayali River in Peru to the Amazon river, having it hauled over an intervening mountain by the local indigenous people.

Herzog's movie had vividly struck my imagination when I first saw it, and I had just come to India to investigate a project that plans to alter nature in the name of progress, imposing the burden of the operation on the local indigenous people, namely the Polavaram dam project in Andhra Pradesh. So, despite the absurdity of Fitzcarraldo's mission, I considered an interesting and inspiring coincidence that the movie was being screened the day I set to start my research.

Of course the analogies between Fitzcarraldo's project and the Polavaram dam project end here, for a start because Fitzcarraldo acts in name of his own (hedonist) interest, that is earning enough money to build an opera house in the town of Iquitos, Peru. The Polavaram dam instead is claimed to be built in name of the common good, that is for the provision of irrigation and electricity for the population of Andhra Pradesh. The high – but apparently unavoidable – price to pay for this common good is the submersion of 177 villages and the displacement of 200,000 people.

The Polavaram dam is just one of the many displacement-inducing development projects being implemented in India (and across the world). The price paid so far has been high: it has been estimated that 60 million people have been displaced by development projects in India since Independence (Fernandes 2011). More displacement is foreseeable in the future, as the development strategy pursued currently by the government is intensive in natural resources, *in primis* in land and water. Land and water for instance are required to make way to the massive investment in infrastructure considered essential to remove the constraints to growth in India (Planning Commission 2006), and that at the moment encompasses, among others, the National Highways Development Programme, the National

River Linking Project (which aims to connect 37 major rivers of the country through artificial dams and canals and of which the Polavaram project is part), and 581 Special Economic Zones (SEZ) approved since 2005.

In India, not only the price for development has been high in terms of displacement, but it has been also primarily paid by the same displaced people, leading to landlessness, homelessness, marginalisation and overall impoverishment (Fernandes 2008, 2011). This means that measures to support the affected people in paying the costs of displacement (and implicitly to redistribute them among the population) have not been implemented or they have failed in achieving their aim.

These measures are of two types: i) the restitution in cash or in kind of what has been lost through displacement, and ii) the relocation of the displaced people in a new settlement, possibly with the provision of housing and other basic services.

The first type of measures is usually referred to as 'compensation' and it consists primarily of the payment of monetary compensation for the loss of house and land, according to the legislation on land expropriation in force in each country. Compensation for displacement raises two main issues: firstly, whether the restitution of money *in lieu* of land is appropriate and secondly, the identification of the exact losses to be compensated. The first issue concerns the impossibility or the unwillingness of the displacing-project authority (whether the state or a private entity) to provide land in compensation for the land expropriated. The second issue descends from the first, as the loss of land can imply the loss of livelihood, for instance if the displaced people are farmers or indigenous populations depending on forest produce. If the loss of livelihood is recognised as one of the main costs of displacement, then the problem becomes how to estimate this cost, and whether to compensate for it or not.

The second type of measures are referred to as 'Resettlement and Rehabilitation' (or just 'resettlement' for brevity) and encompasses the physical relocation of the displaced population in a new settlement. Relocation is usually combined with the provision of additional benefits, which can range from construction of basic infrastructure in the settlement, to the attribution of a job to each resettled family. There is no uniformity in the definition and implementation of this second type of measures, primarily because of the lack of a compulsory legislation establishing its objectives and modalities. This is also the

case in India, where at present no national policy or legislation exists which regulates the resettlement of people displaced by development projects.

An extensive literature exists testifying to the failed implementation of the two types of measures identified above over 60 years of displacement in India (see Dreze *et al* 2000, Parasuraman 1999, Jain and Bala 2006, Mehta 2009, Modi 2009, Somayaji and Talwar 2011). 'Failed implementation' refers to two main issues in this context: firstly, the fact that these measures have not been implemented at all or have only been implemented partially; secondly, the fact that they were put into practice and didn't have the expected results. In particular, in most instances resettlement programmes did not prevent the displaced people from experiencing a drop in their living standards and fall into poverty.

So far, the academic and policy debate has explained the failure of resettlement primarily in terms of management failures (see for instance Mathur 2006, 2011). Meanwhile, it has argued that cash compensation alone can at best restore the level of well-being previous to displacement, but not to improve it; it has also claimed that in this sense cash compensation is *unjust*, as it does not allow the displaced people to enjoy the benefits of the project. The solution proposed by the literature is to provide compensation *and* to approach resettlement as a development project, complementing the cash transfers with investments directed at improving the livelihoods of the affected people. These investment projects, in turn, should be financed with different mechanisms of benefit-sharing such as revenue and equity sharing (see Cernea and Mathur 2008 and in particular Cernea in the same volume).

This thesis contributes to the debate on the failure of resettlement (in particular on the second type of failure, i.e. resettlement being implemented but not having the expected results), researching how the latter is determined and reflected through, the theoretical, methodological and practical levels.

First, the thesis argues that the failure of resettlement is poorly understood at the theoretical level. Second, it claims that at the methodological level inappropriate fields of economics are being researched for possible solutions to the failure of resettlement. Third, the thesis shows that while the success of resettlement programmes is influenced by effective implementation and management, structural factors beyond pure management issues play an important role for the success or failure of these projects. Moreover, the

thesis argues that these structural factors will fundamentally depend on the characteristics of the affected population and of the relocation area. As such, this research is also concerned with the contribution that economics can make to the improvement of resettlement theory and practice, in particular through political economy and choice experiment methodology. This contribution is explored employing a political economy framework and a consultation exercise based on choice experiment to assess the resettlement of the Polavaram displaced people.

In sum, the three original contributions of this thesis then are: i) the description of an instance of development-induced displacement still neglected by the literature; ii) the development of a framework based on the notion of adverse incorporation to improve the theoretical understanding of resettlement; iii) the investigation of the potential contribute of choice experiments to the design of better resettlement packages.

The rest of this chapter clarifies these three original contributions and how they address the three levels (practical, theoretical and methodological) through which the failure of resettlement is reflected. First, however, a clarification of the terminology used in this thesis is needed. 'Resettlement and Rehabilitation' (abbreviated to R&R), 'resettlement programme' and 'resettlement package' are used interchangeably and, unless otherwise specified, they refer to both types of measures described above, that is to the payment of compensation *and* to the physical relocation with additional benefits and provision. By contrast, when the word 'resettlement' is used by itself, it is meant to indicate the whole process encompassing displacement, physical relocation and the effects of each given type of resettlement programme.

**i. Resettlement in practice: the Polavaram dam as an instance of development-induced displacement**

Resettlement is first and foremost a problem of policy and must be investigated *in practice*, i.e. in its concrete display. The Polavaram dam project in Andhra Pradesh offers a rare occasion to study an instance of displacement and resettlement from the very first stages of its implementation, having the dam's construction only started in 2004 and being the physical relocation of people far from being completed. Investigating the performance of resettlement in Polavaram, and the factors determining its success or failure, is

particularly important in order to provide an assessment of the Resettlement and Rehabilitation (R&R) policy issued by the government of Andhra Pradesh in 2005.

In addition to issues specific to the dam project itself, the Polavaram dam is also emblematic of the wider contradictions and dysfunctional outcomes characterising the growth strategy adopted by India. Indeed, the construction of the dam commenced in 2004 (an electoral year) as part of a massive irrigation development plan called “Jalayagnam”, aimed at reviving agricultural growth in the state, as well as generating hydroelectric power for industrial activities. Yet, the project is surrounded by a number of controversies which have raised doubts about the fairness of the distribution of costs and benefits among the affected population. In particular, it is feared that the displaced people will bear most of the costs of the project, without enjoying any benefit. The main cause of concern is, together with the number of people displaced, their peculiar socio-economic characteristics. Most of the people are poor and belong to Scheduled Castes and Scheduled Tribes (SCs and STs henceforth in the thesis). Their main sources of livelihood consist in marginal farming, agricultural wage labour and collection of forest produce. Displacement will imply the expropriation of land and relocation away from the forest. As a consequence, the livelihoods of the displaced people will be disrupted. Besides, the submersion area is classified as a Fifth Schedule Area. According to the Indian Constitution, in the Fifth Schedule Area, land transfer and use are subject to a special regulation, and STs enjoy special rights and provisions. The main consequence for the Polavaram-affected people is that only STs are entitled to land for land compensation, while the rest of the population is granted monetary compensation for the loss of land. It can thus be argued that the costs of the project will be borne primarily by the most vulnerable section of the population. In addition, this research shows that the likely effect of this differential treatment for SCs and STs is an increase in landlessness and fragmentation of landholdings for SCs after resettlement.

To investigate the practical consequences of resettlement policies, an in-depth case study of the Polavaram dam project has been conducted. The case study consists of both primary and secondary data generated and collected during fieldwork in the Polavaram affected area in April-July 2009. In particular, visits to the affected villages, to the project site and interviews with government officials were used to generate evidence on advance of the project and of the resettlement operations. Moreover, a survey was conducted with 167

households belonging to 15 affected villages, to collect information on the socio-economic characteristics of the affected people. A choice experiment was also implemented with each of these families. Finally, focus groups were run in eight of the villages visited.

## **ii. Resettlement in theory and resettlement theory**

To the extent that a poor theoretical understanding of a practical problem leads to the prescription of ineffective policies, the failure of resettlement in practice is originated in the weak theoretical understanding reproduced by the dominant discourse around development-induced displacement.<sup>1</sup>

This discourse, termed the “reformist-managerial” approach (Dwivedi 2002), is the one brought forward by the World Bank. Its two main pillars are the World Bank’s policy framework on involuntary resettlement, and resettlement models which provide theoretical support to the management and implementation aspects of the process. The “reformist-managerial” approach understands displacement as a pathology of development, which can be normalized through effective implementation and management of resettlement of the affected people. In this view, the failure of resettlement is primarily imputed to insufficient government commitment and inadequate or inappropriate institutional capacity. Vice-versa, resettlement can be turned into a successful development process provided it is well planned, managed, implemented and coordinated, and that the necessary inputs (in terms of financial resources, government commitment and legal framework) are made available.

While identifying important factors leading to the failure of resettlement at the practical level, at the theoretical level this approach offers a poor conceptualization of displacement and of what resettlement entails in terms of (re)incorporation of the affected population into the process of (capitalist) development. Moreover, as also pointed out by Scudder (2005), it is still to be demonstrated that an improvement in resettlement practice can indeed make a difference in terms of avoiding the impoverishment of the affected population, and induce the latter to welcome resettlement as an opportunity for development. For these reasons, a theoretical reconsideration of the causes of the failure of resettlement seems to be needed.

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<sup>1</sup> Even if resettlement practice so far had not been influenced by its understanding at the theoretical level, its poor theoretical understanding would still be responsible of reproducing the failure in the future, given the progressive standardisation of resettlement policies around the world to the prescription of the ‘reformist-managerial’ discourse, see below and section 1.4.

Based on the above, this thesis argues that a more significant contribution to the understanding of the structural reasons for the systematic failure of resettlement is required. This understanding, the thesis attempts to show, is provided by a political economy analysis. This political economy analysis entails the detailed investigation of the processes of development which require displacement in the first place and then determine the terms of (re)incorporation of the resettled population into these processes.

In order to investigate the potential contribution of political economy to resettlement research, this thesis develops a theoretical framework based on the notion of adverse incorporation and a relational view of poverty. Such a framework investigates processes of impoverishment emphasising, on the one side, how they link to the dynamic of capitalism and, on the other, how they are underpinned by power relations, where power is understood in voluntaristic and in structural terms. Poverty is then produced and reproduced by incorporating people into the process of development, where the terms of incorporation are adverse by virtue of the disadvantageous position occupied by the poor in the power relations which underpin it.

It is then claimed that resettlement of people displaced by development projects adversely incorporates them into capitalist development in economic, political, socio-cultural and spatial terms. All these dimensions contribute to the systematic failure of resettlement in preventing impoverishment. The analysis focuses particularly on the economic dimension of the incorporation, employing the notions of accumulation by dispossession and surplus labour. It is first claimed that displacement induced by development projects is a form of accumulation by dispossession, as it expropriates people of their means of production and reproduction. If the process of accumulation supported by the dispossessing project is not labour-intensive and does not create additional employment, the displaced population turns into surplus labour. To the extent that surplus labour engages in relations of production and reproduction which limit its capacity to rise above subsistence, displacement leads to impoverishment.

Then, resettlement is required to dispose of people expropriated of their means of production and reproduction and made redundant by accumulation by dispossession. It is this very fact which makes resettlement a process of adverse incorporation. Besides, resettlement fails in preventing impoverishment because neither cash nor land compensation enable people to escape surplus labour. Indeed, cash is not able to replace the

means of production and reproduction, i.e. to provide the basis for rebuilding a new livelihood; in a similar vein land for land compensation is entrenched within power relations and reinforces pre-existing inequalities or creates new ones. The failure of resettlement is, therefore, affected by shortcomings in its design and implementation, but it is also substantially affected by structural factors which depend on the characteristics of the local growth process, in particular by the conditions of the agrarian sector and the labour market.

This thesis then applies the adverse incorporation framework to the case study of the Polavaram dam. The focus of the analysis turns to the sources of livelihoods of the affected people, and how access to these sources is altered as a consequence of displacement and resettlement. This analysis allows to identify the dynamic consequences of resettlement, namely increase in landlessness, fragmentation of landholdings and casualisation of labour; it also highlights the fact that these dynamic consequences underpin the production and reproduction of surplus labour in Andhra Pradesh. Overall, through the adverse incorporation framework resettlement in Polavaram is assessed from two points of view: i) in terms of the ability of the Polavaram Resettlement and Rehabilitation package to (PRRP) enable the displaced people to reconstruct their disrupted livelihoods or generate new ones, and thus lead to a sustainable reduction in poverty and ii) on the grounds of the position that the displaced people will come to occupy after resettlement into the local process of capitalist development.

### **iii. Resettlement and methodological contributions from economics**

This thesis identifies the failure of resettlement at the methodological level in the inappropriate use of the economic discipline in providing principles and guidelines for the design of compensation and resettlement packages. The argument originates from the observation that Cernea's (1999a) claim that resettlement research and the design of resettlement programmes should be informed by economics, has been met by the existing literature by only focusing on compensation and resettlement as a problem of *public choice*. The problem is to be addressed with the tools offered by mainstream welfare economics, that is cost-benefit analysis and the compensation principle. This thesis claims that the compensation principle is unfit to drive policy making: if taken seriously it would

recommend the non-payment of any kind of compensation to the displaced people; while if not taken seriously, it does not have anything to say on the circumstances in which actual compensation should be paid. Cost-benefit analysis instead recommends the estimation of the costs of displacement through methodologies designed to elicit passive use values of non-market goods. In particular, the costs can be approximated by the willingness to accept money in exchange of displacement of the affected population. Willingness to accept, however, is a controversial concept, whose use rests on the acceptance of the assumptions postulated by a particular model of mainstream consumer theory. These assumptions also underline the methods traditionally employed for the estimation of willingness to accept, i.e. stated preferences methods like the contingent valuation method and choice experiments. This reliance on assumptions heavily restricts the applicability of these methods, and possibly the plausibility of the results, in many real-life circumstances, including displacement and resettlement.

If the contribution of economics to the problem of resettlement and compensation for displacement is restricted to the field of welfare economics, then we will be left with weak methodologies for the estimation of compensation and no principles to inform the design of resettlement. Further, it will have the undesirable consequence of restricting the analysis to the identification of the optimal amount of monetary compensation, under the presumption that the latter is sufficient by itself to guarantee the success of resettlement.

However, despite above criticism, this thesis argues that choice experiments can provide a valid blueprint for the systematic consultation of the population affected by displacement, if the focus is shifted from commensuration of the costs of displacement to investigation of resettlement preferences. In fact, choice experiments ask respondents to choose between different varieties of the same good, so revealing the preferences for the attributes of the good (rather than for the good itself). If used to consult the affected population about their resettlement, they can help identifying the favourite forms of compensation and modalities of relocation, thereby contributing to the design of more efficient resettlement programmes. This research implemented a consultation exercise based on choice experiment with the Polavaram affected population, not with the purpose of estimating willingness to accept displacement, but rather to explore the preferences of the project-affected families for different types of compensation and resettlement packages, and how these preferences vary when facing different combinations of “attributes”. Indeed, the exercise allowed identifying

what types of compensation and modalities of relocation are deemed acceptable by the displaced people and, more importantly, what are the main issues concerning resettlement from the point of view of the affected population.

### **Outline of the thesis**

The thesis is divided into three parts. The first part looks at the existing literature on displacement and resettlement and identifies where the failure is determined at the theoretical and methodological level. Chapter 1 reviews critically the existing theoretical discourses and institutional frameworks concerned with development-induced displacement. Chapter 2 shows that mainstream economics understands compensation and resettlement mainly as a problem of public choice, to be addressed with the tools offered by welfare economics: cost-benefit analysis and the compensation principle. The chapter describes how the application of these tools recommends the estimation of the costs of displacement, and therefore of the optimal amount of compensation, through methodologies designed to elicit passive use values of non-market goods. In chapter 3, the potential contribution of political economy to resettlement research is explored, and a theoretical framework based on the notions of adverse incorporation and a relational view of poverty is developed.

The second part of the thesis contains two chapters. Chapter 4 clarifies the methodology and the methods employed to investigate displacement and resettlement in the case-study, providing details on the implementation of the survey in detail. Chapter 5 describes the case-study of the Polavaram project and the affected population.

The third part provides an assessment of resettlement of the Polavaram displaced people from three points of view. Chapter 6 applies the adverse incorporation framework to the case-study, searching for structural factors which can turn resettlement of the Polavaram displaced people into a process of adverse incorporation. Chapter 7 assesses the PRRP package on the grounds of two criteria: i) the conformity to affected people's preferences concerning different types of compensation and resettlement, elicited through focus groups and a consultation exercise based on choice experiment methodology; ii) the ability of the resettlement package to support the reconstruction of the livelihoods disrupted by displacement. The main shortcomings of the PRRP are identified and it is highlighted how they interact with the structures and mechanisms underpinning surplus labour in Andhra Pradesh in turning resettlement into a process of adverse incorporation.

## Chapter 1

### ***Resettlement & Rehabilitation of people displaced by development: an unresolved challenge***

#### **1.1. Introduction**

Development in its different manifestations has always been associated with the physical movement – forced or voluntary - of people, and with the transfers of entitlements over resources with competing uses. Salient examples include the enclosure movement, which in Europe, and particularly in Britain, was at the heart of the shift from feudalism to capitalism, or the eviction of people from forests in Colonial India, or the acquisition of Native American land for the construction of the First Transcontinental Railroad in the United States.

Development-induced displacement of people is therefore not a new phenomenon, peculiar to the contemporary age.<sup>2</sup> Nonetheless there are novel elements to the way the in which this phenomenon manifests itself today. The first is the extent and the systematicity that it has assumed in the past century and even more in the last three decades. The second novel feature derives from the first, and concerns the attempt on one side to theorize the phenomenon, and on the other side to manage and control it at the international level. Both attempts can be interpreted as a reaction to the unavoidable ethical and moral issues that displacement in the name of development raises. These issues are present in the many contradictions of the current development paradigm and as such are increasingly invoked by the social movements opposing and resisting displacement all around the world. The attempts at theorization and management of development-induced displacement are reflected in a number of discourses around displacement and in an institutional framework at national and international levels.

This chapter explores the existing literature on development-induced displacement through the lenses of these two novel features of the phenomenon. The extent and

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<sup>2</sup> Nor is it exclusive to a capitalist system: as noted by Penz et al, growth requirements in socialist countries have also been met with mega-projects, dislocating people (Penz et al 2011:4). Forced displacement was also not unknown in pre-capitalist societies.

systematic nature of development-induced displacement is discussed in section 1.2.1, while section 1.2.2 introduces the theorization and management of the issue, identifying two main discourses around displacement which have an institutional framework attached.

The first discourse looks at displacement as a violation of human rights and is described in section 1.3. The second understands displacement as a pathology of development, which can be normalized through effective implementation and management of the resettlement process. This discourse is advanced primarily by the World Bank. The policy framework on involuntary resettlement of the World Bank and the other international borrowing agencies, along with the resettlement models which try to provide a theoretical support to the management and implementation aspects of the process, constitute the core elements of this discourse and are discussed in section 1.4. This section also shows that the 'reformist-managerial' approach understands the failure of resettlement as an issue of implementation and management, while maintaining that resettlement can be turned into a development opportunity, provided the right institutional framework is established.

## **1.2. Development-induced Displacement, past and present**

### ***1.2.1. The increase and systematicity of Development-Induced Displacement today***

The forced movement of people to make way for projects intended to trigger growth and development is not a new phenomenon in history. However, it has become more widespread and systematic in nature in recent times, and this can be attributed to the spatial and resource needs of the current development model. These needs are felt primarily today by emerging economies with growing populations such as China and India.

Detailed and up-to-date estimates of the phenomenon are not easy to produce and obtain. The commonly quoted estimate of 10 million people per year displaced by development projects since the 1980s was still the one released by the World Bank in 1996 (World Bank 1996:x). The study that reported that figure also contained a review of the Bank's projects involving displacement and resettlement. It was found that in 1993, 146 displacing projects were active, with nearly 2 million people being in various stages of resettlement. Dams for irrigation, hydropower and drinking water were the single largest cause of displacement (63 percent of displaced people), and transportation corridors the second largest cause (23

percent).

Detailed figures on displacement due to dam construction were released by the World Commission on Dams (WCD hereafter) in 2001.<sup>3</sup> According to the WCD's estimation, “the overall global level of physical displacement” caused by the construction of large dams “could range from 40 to 80 million [people]” (WCD 2000:104). Statistics for China indicated that 10.2 million had been displaced in the country between 1950 and 1990 because of dams. For India between 16 and 38 million people have been displaced since Independence in 1947 (*ibidem*), due to dam projects, out of a total of around 60 million people displaced by development projects from Independence till 2004

For India Walter Fernandes (2011:303) has estimated that around 60 million people have been displaced by development projects from Independence till 2004.

Given the relevance that development-induced displacement has assumed in the contemporary world, it is not surprising that it has given rise to multiple theoretical discourses and institutional frameworks.

### ***1.2.2. A theoretical discourse and a policy and legal framework for development-induced displacement***

Multiple theoretical discourses have evolved around displacement, and these discourses are also expressed through models and institutional frameworks in the form of policies, laws, regulations and agencies, at national and international levels.

Two main discourses can be identified. The first one has tried to articulate displacement as a violation of human rights. However, a number of difficulties have arisen, which are evident in the persistency of a certain definitional and conceptual confusion and ultimately in the lack of a theoretical framework to consistently relate resettlement to displacement as a violation of human rights (Dwivedi 2002 and Perera 2011).

The second discourse, which, following Dwivedi (2002), we call “reformist-managerial”,

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3 The World Commission of Dams was a forum of stakeholders and interest groups from the public, private and civil society sectors, which in 1998 was tasked by the World Bank and the World Conservation Union (IUCN) to assess the worldwide performance of large dams, at the technical, economic, financial, environmental and social levels. The investigation produced a knowledge base made up of 8 case-studies of large dams, country reviews for China and India, a briefing paper for Russia, a Cross-Check survey of 125 existing dams, 17 Thematic Review papers, results from public consultations and more than 900 submissions. The main outcome was a Report published in 2000.

shifts the focus of the attention from displacement to resettlement. The act of resettlement is articulated so that, if properly implemented and managed, it can be turned into a development process. The discourse is therefore action and problem-solving oriented and is fully embraced by the World Bank and by most international institutions.

Both these discourses also have material manifestations, in the forms of policies, regulations and agencies which constitute an identifiable institutional framework. The first discourse is described in section 1.3 and the second- which is the dominant one- in section 1.4.

A number of authors note the existence of a third discourse on development-induced displacement (see Dwivedi 2002, Penz *et al* 2011, Oliver-Smith 2010), which is labelled “movementist”. This discourse has an action focus and is concerned with the causes of displacement, the dynamics of resistance among Internally Displaced Populations (IDPs), and the social costs of resettlement. It has developed through both academic research and resistance movements and is strongly related to a broader critique of development in general. For this reason it is more difficult to distinguish as a separate discourse and it does not have a clear institutional framework attached. This discourse is not discussed in the thesis, because the latter only marginally engages with the issue of resistance to development-induced displacement.

### **1.3. Displacement, forced migration and the human rights discourse**

As previously stated, it is not a new occurrence in history that people are being displaced in name of a common greater good called development. In a sense, it is not even new that this practice is being criticised and pointed out as a structural contradiction of the very same development. What is new, however, is the attempt to link the critique to the human rights discourse, presenting displacement as a violation of these rights.

An important contribution to the establishment of this discourse has come from the work of the WCD. According to Dwivedi (*ibidem*), the WCD Report indeed constitutes an attempt to bridge the gap between the 'reformist-managerial' discourse and the concerns of the movementist approach. Being concerned with the social effects of dams-induced displacement, it calls for an approach based on the “recognition of rights and assessment of

risks” (WCD 2001:206), which has to be pursued at the stage of the decision-making process, in order to achieve a more equitable negotiation of the distribution of rights and benefits.<sup>4</sup>

The concern for the articulation of displacement in terms of human rights violation is also demonstrated by one of the contributing papers to the final report, which addresses the relationship between human rights and development in the context of displacement induced by dam construction. In it Rajagopal (2000) identifies five human rights which are challenged by development-induced displacement. These are: i) the right to development and self-determination (concerning issues of autonomy, culture and land), with which any political and moral justification for displacement-inducing projects should be reconciled; ii) the right to participation, which should also occur at the stages of project design and planning as well as of considering the different alternatives, monitoring and maintenance; iii) the right to life, in the form of livelihood and environment, which is challenged by land expropriation, loss of home and sources to make a living; iv) the rights of vulnerable groups, particularly indigenous people and women, which are most challenged by the impoverishment process triggered by displacement; v) the right to remedy, that is, the existence of systems and procedures through which the affected people can appeal the decision and obtain a quick and efficacious remedy to halt on-going violations and prevent future ones.

While all of these rights are in one way or another safeguarded by the existing international legal and institutional regime (through Covenants, Declarations, dedicated Agencies, etc.), none of them is explicitly linked to issues of displacement or resettlement. In attempts to trace back and legitimate this link, the literature has followed two different paths.

The first path has viewed displacement as a category of forced migration, establishing an analogy between development-displaced people and internal refugees (Cernea 1990) or conflict-induced and development-induced internal displacement and resettlement (Muggah 2003). This approach is also supported by the UN *Guiding Principles on Internal Displacement*<sup>5</sup>, which define as internally displaced those people “who have been forced or

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4 The proposed approach is obviously inspired by Cernea's Impoverishment Risks and Reconstruction model, discussed below in section 1.4.3.

5 The *Principles* were formulated in 1998 by Francis Deng in quality of Representative to the UN Secretary-General on internally displaced persons, and the same year the Commission on Human Rights

obliged to flee or to leave their homes or habitual places of residence in particular as a result of, or in order to avoid, the effects of armed conflict, situations of generalised violence, violations of human rights or natural or human-made disasters, and who have not crossed an internationally recognised state border”. The scope of the *Guiding Principles* extends to development-induced displacement in view of Principle 6, which states that “Every human being shall have the right to be protected against being arbitrarily displaced from his or her home or place of habitual residence”. The principle includes in the prohibition of arbitrary displacement also displacement “in cases of large-scale development projects, which are not justified by compelling and overriding public interests”. In addition Principle 9 affirms that “States are under a particular obligation to protect against the displacement of indigenous people, minorities, peasants, pastoralists, and other groups with a special dependency on and attachment to the land.”

In 1997 the UN *Sub-Commission on Prevention of Discrimination and Protection of Minorities* appointed a panel to investigate human rights issues in the practice of forced eviction. The panel produced a report and a set of guidelines on the practice of forced eviction.<sup>6</sup> The guidelines note that “[f]orced evictions constitute *prima facie* violations of a wide range of internationally recognised human rights and can only be carried out under exceptional circumstances and in full accordance with the present Guidelines and relevant provisions of international human rights law.’ (Point 4). The guidelines also list the rights of the affected people in the eventuality of forced eviction, including the right to a fair hearing before a competent, impartial and independent court or tribunal, the right to legal counsel and to effective legal remedies, the right to compensation “for any losses of land or personal, real or other property goods” and the right to resettlement, which must include “the right to alternative land or housing which is safe, secure, accessible, affordable and habitable”.

Understanding development-induced displacement as one of many types of internal displacement presents some advantages but also raises a number of definitional and conceptual problems.

As concerns the advantages, Cernea (1990) observes that overcoming the dichotomy

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adopted a resolution taking note of the principles. For a detailed discussion and a description of the process which led to their creation, see Robinson (2003).

<sup>6</sup> “Comprehensive Human Rights Guidelines on Development-Based Displacement” (UN document E/CN.4/Sub.2/1997/7)

between internal refugees and development-displaced people can help in conceptualising- and using- aid directed to emergency relief assistance as a tool to achieve development goals; analogously it can contribute to strengthening the link between development and human rights protection. Muggah (2003), on the other hand, makes a strong case for a comparative analysis of internally displaced people from war and development. In his opinion, approaching the problem from a political economy perspective and searching for the connections between development and conflicts, can provide a more dynamic understanding of displacement.

His point is indeed substantiated by the empirical evidence, which shows innumerable cases in which the realisation of development projects (typically large-scale infrastructure projects or activities for the exploitation of natural resources) has interacted with pre-existing conflicts, transforming the eviction of the population in episodes of brutal violence. A case of this sort, for example, is reported in one of the Thematic Reviews prepared for the WCD (Bartolome *et al* 2000), which reports on the Chixoy dam in Guatemala. The Chixoy dam project was financed by the World Bank, the Inter-American Development Bank and the Italian government and involved an area inhabited by the indigenous Maya Achi'. When the population refused to move, a campaign of terror and violence was brought upon them by armed police and military forces. An independent investigation undertaken in 1996 established that between 1980 and 1982, 376 people from the village of Rio Negro- mainly women and children- had been massacred, in response to their opposition to the construction of the dam. The case of the Chixoy dam is an extreme example of how pre-existing conflict can lead to the unlawful use of violence by the State in episodes of development-induced displacement. For at that time Guatemala was in fact in the middle of a civil war, involving the genocide of local indigenous populations, perpetuated mostly by military and para-military forces. The abuse of power by the State and a generalised and extremely violent conflict were therefore elements already present even without displacement. Yet this example supports the argument that a full understanding of the processes underpinning displacement might need to account for the political economy of both development and conflicts, possibly drawing on the framework provided by forced migration and internal displacement.

It would seem therefore that there are good reasons to understand displacement within the framework of forced migration; upon closer inspection, however, there are some

practical obstacles and conceptual problems.

At the practical level, the UN *Guiding Principles on Internal Displacement* (UN 1998, see footnote no. 5), as they stand, are a rather weak instrument for the protection of the rights of development-displaced people (the same is even more true of the *Guidelines on Development-Based Displacement*, see footnote no. 6) They are neither legally binding, nor are they connected to a dedicated international agency with a global mandate to assist internally displaced people in general and development-displaced people in particular. Unlike refugees, internally displaced people are not attributed a special legal status recognised by international law. Issues concerning internally displaced people in fact are deemed to fall under the domestic jurisdiction or sovereignty of the States concerned (Muggah 2003). As a result, there is no binding legal mechanism which compels the international community to intervene in favour of the people affected (see Cohen and Deng 1998). Cohen and Deng however stress that the concept of State sovereignty cannot be dissociated from that of responsibility, as “a state should not be able to claim prerogatives of sovereignty unless it carries out its internationally recognised responsibilities to its citizens, which consist of providing them with protection and life-supporting assistance. Failure to do so would legitimize the involvement of the international community in such protection and assistance” (1998:7). Their point is that the international community should intervene if the national State fails to fulfil its responsibilities towards its citizens. Even so, the scope of the *Guiding Principles on Internal Displacement* concerns development-induced displacement only as long as this is undertaken “in cases of large-scale development projects, *which are not justified by compelling and overriding public interests*” [emphasis added]. It remains unspecified who is in charge of defining the boundaries of *public interests* and it is unlikely that international law will be put in the conditions to do so.

Besides this, analogy of development-induced displacement with forced migration is conceptually problematic. For a start, development-induced displacement is not necessarily forced or involuntary; to a certain extent it can instead be negotiated, and the element of coercion reduced if not eliminated (Penz *et al* 2011:3). Furthermore, development-induced displacement does not always entail migration, and indeed throughout history people's land has been more or less forcibly appropriated without the need for forced eviction (*ibidem*). Interestingly, both Marx and the World Bank would agree on this account of the phenomenon. Displacement in the form of forced land expropriation is nothing but the

primary form of primitive accumulation which precedes and leads to capital accumulation, and which Marx had theorised based on his observation of the enclosure of land in England.<sup>7</sup> Land expropriation corresponds here to the separation of the workers from their means of production- no physical movement of shelter is required<sup>8</sup>. Accordingly, the World Bank recommends the application of its policy on involuntary resettlement when the involuntary taking of land results in “relocation or loss of shelter, loss of assets or access to assets, or loss of income sources or means of livelihood, whether or not the affected person must move to another location” (O.P 4.12 pag 19).

Marx and the World Bank then seem to share the view that expropriation of, or loss of access to, the means of production (or sources of livelihood) corresponds to a form of displacement. In chapter 3 it will be discussed how this interpretation of the phenomenon better allows for political economy considerations in the investigation of both displacement and resettlement.

The second path followed to relate displacement to the human rights discourse has focused instead on the articulation of development as a human right itself. This approach is justified by the UN *Declaration on the Right to Development* (1986), which defines the right to development as “an inalienable human right by virtue of which every human person and all peoples are entitled to participate in, contribute to and enjoy economic, social, cultural and political development, in which all human rights and fundamental freedom can be fully realized” (Article 1.1.).

Rajagopal (*ibidem*) argues that, when so articulated, the right to development implies the right of people to self-determination. This extends to the use of natural resources, as the *Declaration* establishes people's “inalienable right to full sovereignty over all their natural wealth and resources” (Article 1.2). Also the right to development applies to individuals and communities, not to states. The implication is that development-induced displacement might constitute a violation of human rights for the simple fact that it usually arises from a decision-making process which does not account for the affected people's self-determination, especially when it comes to decisions concerning the use of natural resources or the distribution of costs and benefits from the project (Bartolome *et al*

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7 Displacement as primitive accumulation is thoroughly discussed in chapter 3.

8 “The so-called primitive accumulation, therefore, is nothing else than the historical process of divorcing the producer from the means of production” (Marx 1995:364).

9 Operational Policy 4.12 is described below in section 1.4.2.

2000:12).

Again, the main limitation of this path is its practical relevance. The boundaries of the scope of the *Declaration* are difficult to define and its recommendations hard to enforce. Its legal status is analogous to that of the *International Covenant on Economic, Social and Cultural Rights* (UN 1966), which, as Rajagopal points out (*ibidem*), establishes the legal status of “progressive realisation” for the rights that it promotes. This translates into a marginal position for these rights into national constitutions and within international human rights enforcement mechanisms.

Finally, it has been noted that the legal framework on development as a right neglects a key right for the safeguard of internally displaced people (see Kaelin 2006 and Perera 2011), namely the right to ownership of property. In fact, it can be derived from other rights recognised in the Universal Declaration of Human Rights (right to life, private life, property and access to justice), but it has never been codified in the *Covenant on Economic, Social and Cultural Rights* or in the *Covenant on Civil and Political Rights* (UN 1966). While this omission was strategic to the ideological conflict characterising the years of the ratification of the Covenants (the mid-1970s) (Kaelin 2006), today it is a further obstacle to the establishment of a clear right of the internally displaced people to fair compensation and restitution (*ibidem*).

#### **1.4. Resettlement as a problem of policy and management**

##### ***1.4.1. The preponderance of a 'reformist-managerial' approach to Development-induced Displacement***

The second - and indeed dominant - discourse around development-induced displacement articulates the problem in terms of policy and management. The essence of this discourse was best sketched by Dwivedi in an article which, together with a review of five of the most prominent amongst the recent publications on development-induced displacement,<sup>10</sup> suggested a classification of the literature on the topic into two groups: the

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10 Which were: *The Development Dilemma: Displacement in India* (Parasuraman 1999); *Economics of Involuntary Resettlement: Questions and Challenges* (Cernea 1999); *Risks and Reconstruction: Experiences of resettlers and refugees* (Cernea and McDowell eds 2000); *Dams and Development. A new framework for*

'reformist-managerial approach', with primarily applied concerns, and the 'movementist' approach, characterised by a research focus (not discussed in this chapter).

According to Dwivedi, the reformist-managerial approach understands displacement and its negative consequences as a pathology of the current development paradigm, and resettlement as the device intended to normalize the consequences of displacement and minimize its adverse outcomes. However, the occurrence of displacement does not undermine the legitimacy of the development project which triggered it (Penz *et al* 2011:17). In fact, this discourse does not challenge the underlying (or any other) notion of development, which is characterised by what Penz *et al* (*ibidem*:17) define as an “interventionist” conception of the process. That is, development is conceptualised as a set of intentional and planned actions taken by specific actors with the explicit aim of shaping and directing socio-economic change (in the direction of an increase in income per capita), and at the same time limiting or controlling the negative effects of this change. It is an understanding of development, as Perera (2011) notes, borne out of modernisation theories<sup>11</sup> and then, as Penz *et al* (*ibidem*) remark, appropriated by the neo-liberal agenda. It leads to an interpretation of resettlement as a systematic process of transformation, whose outcomes can be controlled and foreseen. In addition, it is consistent with the interventionist approach of first taking the decision concerning the development project, and then addressing its negative consequences through resettlement (Penz *et al* *ibidem*).

It is then the ontology of development underpinning the discourse that indicates the attitude towards resettlement (and motivates the name attributed to it by Dwivedi). The latter is discernible for a primarily problem-solving concern and an optimistic stance. Resettlement is conceived as a set of actions whose success depends on how well they are planned, managed, implemented and coordinated. Alternatively, the success of resettlement is made dependent upon a number of inputs- which, however, all reflect the same tactical and technical concern: national legal frameworks and policies, political will, funding, pre-resettlement surveys, planning, consultation, careful implementation and monitoring (De Wet 2006:181).

Faith in careful and efficient implementation and management is so strong that these

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decision-making. Report of the World Commission on Dams (WCD 2001); Involuntary Resettlement: Comparative Perspectives (Picciotto et al 2001).

<sup>11</sup> Modernisation theories, from Rostow (1960) onwards, predicate development as a uniform, linear historical process.

institutional qualities are claimed to be able to turn resettlement into a development opportunity. This is indeed the view championed by the World Bank, as is evident, for instance, in its “Involuntary Resettlement Sourcebook”, where this point is explicitly argued, and elaborated in the following terms: “The challenge is to not treat resettlement as an imposed externality but to see it as an integral component of the development process and to devote the same level of effort and resources to resettlement preparation and implementation as to the rest of the project. Treating resettlers as project beneficiaries can transform their lives in ways that are hard to conceive of if they are viewed as ‘project-affected people’ who somehow have to be assisted so that the main project can proceed” (World Bank 2004:xvii).

The scaffolding of the reformist-managerial discourse consists of two parts: firstly, the policy framework on involuntary resettlement produced by the World Bank and the other borrowing agencies (described in section 1.4.2), and secondly, the models which try to theorize resettlement and the consequences of displacement (the two main resettlement models are the Impoverishment Risks and Reconstruction model and the Four-Stage approach. Their main features are sketched in section 1.4.3).

A few words are necessary here to describe the circumstances that gave rise to this discourse, for which the World Bank has played a key role. When it first adopted a policy on involuntary resettlement in 1980, the Bank's development strategy was focusing on large-scale infrastructure projects, and dams and transport projects were being financed all around the world. Soon enough however this strategy proved to be ineffective in promoting growth in the receiving countries, while resistance against big infrastructure projects had been growing everywhere since the 1970s (Oliver-Smith 2002). An intervention was then needed to safeguard the legitimacy of the projects and ultimately of the operations of the Bank. This took the form of a self-reflection on its own practice and of progressive adjustments to the operational guidelines.

Between January 1993 and April 1994 the World Bank undertook a review of its portfolio of projects entailing resettlement that were active between 1986 and 1993. The number of projects involved was 192, with a total of 2.5 million people displaced. The objectives of the Review were: to assess the extent of involuntary resettlement within the portfolio and its regional and sectoral trends; to compare the performance of the on-going resettlement programs and measure them against the policy's prescriptions; and to identify

the recurrent problems affecting resettlement performance (World Bank 1996:ix-x). The review triggered an extensive process of re-working and re-defining of strategies and rethinking within the institution, which culminated in the adoption of the Operational Policy 4.12 in 2000 and the full incorporation within the Bank's approach to resettlement of the Impoverishment Risks and Resettlement model (*ibidem*). A similar exercise was repeated in 1998, involving selected case studies from six countries (China, India, Indonesia, Togo, Brazil and Thailand), again with the purpose of assessing the resettlement process in the Bank's portfolio and investigating the related impact on involuntarily displaced people. The findings of the 1994 and 1998 studies are discussed in detail below.

As suggested by Oliver-Smith, there is room to debate whether this concern was motivated by real world changes, pragmatic considerations or loss of faith in the theoretical paradigm based on the modernisation theory (2010:23). However, whatever the motivations, the self-reflection was co-opted by the discourse brought about by the post-Washington Consensus, which has been progressively applied within the World Bank to the *re-thinking* of each development-related issue (for an account of this process, see Fine 2006 and 2009). One of the tenets of the post-Washington Consensus<sup>12</sup>, with its *discovery* of the role of institutions in the process of economic growth, is the salvific power retained by the *good governance agenda*, which from the 1990s has been dominating any analysis of failure of past practice by the World Bank (see for instance the document *Governance. The World Bank Experience* 1994, the World Development Report 1997 or the more recent *Governance Matters VII: Aggregate and Individual Governance Indicators, 1996-2007*, Kaufman *et al* 2008). Supported by the new institutional economics paradigm, the good governance agenda recommends institutional reforms for developing countries as the best way to pursue economic development. Getting “institutions right” typically requires democratic government reforms, fighting against corruption and rent-seeking behaviour (especially within the bureaucracy and the judiciary system), definition and protection of property rights, and the development of corporate governance and of financial institutions. The main implication of the good governance agenda is that any type of failures of a development activity can be explained by the existence of an ineffective or dysfunctional institutional framework. Provided the right institutional devices exist, any type of

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12 For a concise account of the main features of the latter see Saad-Filho 2005.

development outcome can be achieved.<sup>13</sup>

This is the logic which underpins the World Bank's attitude towards involuntary resettlement (expressed through its policy framework) and indeed the whole “reformist-managerial” approach to development induced displacement. The aforementioned 1994 and 1998 Reviews of the World Bank's project portfolio entirely subscribe to this logic. It is claimed there, for instance, that “the key explanatory variable for success in restoring livelihoods on a productive basis is the presence of a national commitment to help resettlers, reflected in sectoral or national policy postures on the issue” (World Bank 1996:10). This logic explains the shift in concerns, from reflecting upon and justifying a development strategy which requires massive displacement of people to the management and implementation aspects of resettlement. It is also consistent with the problem-solving attitude and the optimistic stance, which urges people to think of resettlement as a potential “element of a nation's strategy to reduce poverty” (*ibidem*:2).

The development by the World Bank of a discourse around displacement with the characteristics just described has had two major consequences: it has deeply influenced the framing and the understanding of the problem in the literature and it has dictated the interpretation given of the failure of resettlement.

Generally, most of this literature takes the observed failure of resettlement in preventing the impoverishment of the affected population as a point of departure for theoretical speculation or empirical research on what is needed to improve resettlement. As also pointed out by Koenig (2002:11), this is often done retaining the same uncritical attitude towards development and the optimistic stance on resettlement which underpin the reformist-managerial approach.

Besides, it has not been highlighted enough that there is a common agreement that resettlement has indeed failed, because the World Bank said so. The message has been divulged mainly through the 1994 and 1998 reviews mentioned above. The latter have been fundamental in drawing the attention of scholars, practitioners and international institutions towards the problem, as well as in establishing a shared knowledge around it. The downside of the process has been that the failure of resettlement has also been co-opted by the good

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13 For a review of the role played by new institutional economics in development economics and the good governance agenda and its underlying understanding of institutions, see Harriss et al (1995) and Jomo and Fine (2006).

governance agenda. That is, the failure of resettlement has been explained in terms of institutional failure.

The main finding of the 1994 Review was claimed to be that “good resettlement can prevent impoverishment and even reduce poverty by rebuilding sustainable livelihoods” (WB 1996:6). This statement however was just the logical conclusion of the reversal of the empirical findings of the Review- which indicated that some of the World Bank's financed projects had failed in preventing impoverishment. It was acknowledged in the document that “[i]nadequate resettlement design or implementation in a number of completed projects has left many resettlers worse off. While systematic documentation is not available for all projects completed during 1986-1993, existing evidence points to unsatisfactory income restoration more frequently than to satisfactory outcomes, particularly in projects completed in the earlier years of the period analysed. Declining income among affected populations is significant, reaching in some cases as much as 40 percent among populations that were poor even before displacement” (*ibidem*:109). The unsatisfactory performance of the resettlement operations was attributed to the following factors: problems in the compensation procedures; inadequate financial resources allocated; the insufficient participation of the affected population; and the lack of an adequate legal framework and of institutions with a clear mandate and skills to administer the process, which was characterised instead by weak commitment and poor performance. Political commitment by the borrower, expressed by the adoption of a legal and policy framework which follows the Bank's prescription, is indeed indicated as the key variable to explain the performance of resettlement operations. Getting institutions right, then, is what is needed to turn resettlement from a cause of impoverishment to a successful development operation. A similar message is conveyed in the 1998 Review, where, for instance, it is stated that “improved assessment of borrower "ownership" and capacity to deliver on the objectives of the resettlement policy emerge as a key prerequisite of satisfactory resettlement outcomes” (WB 1998:4). The 1998 Review becomes slightly obscure when it comes to the assessment of the Bank's performance. It stresses the Bank's “*commitment* to the principles of resettlement” (WB 1998:3), but it laments the “*appropriateness* of its intervention” and the effectiveness of its “*follow-through*” (*ibidem*). The rhetorical emphasis is used to cushion the statement that immediately follows, which reveals that the Bank “was not able (in this sample) to establish a record of effective interventions to support income recovery”

(*ibidem*). That resettlement activities were ineffective in allowing people to recover the lost income seems a rather strong finding, suggesting that creation of employment opportunities matters a lot for the prevention of impoverishment. This point, however, is not further developed in the report (and indeed is absent altogether from the reformist-managerial approach), which, consistent with the good governance agenda, instead insists on the message that the failure of resettlement is to a large extent to impute to the local government and the dysfunctional role played by “political processes”.

This thesis argues that the almost exclusive focus of the reformist-managerial discourse on implementation and management issues results in an incomplete understanding of resettlement, because it misses the fact that there are structural factors which also significantly contribute to the systematic failure of resettlement. This argument is further developed in chapter 3, where it is suggested that political economy is better suited to investigate the mechanisms that prevent resettlement from significantly and positively impacting on the lives of the displaced people.

Some final considerations are needed on the peculiarity with which the approach to resettlement has evolved within the World Bank. Despite bending to the influence of the post-Washington Consensus, it has so far resisted the economic imperialism which has been taking over most development issues (Fine 2009). Research on resettlement is still mostly undertaken by sociologists and anthropologists, and it does not configure as a well-defined and separate field into development economics. The monopoly of the topic by the two disciplines, even within the World Bank, is to a large extent attributable to the strong legacy left by Michael Cernea, the first in-house sociologist to be hired by the Bank in the 1970s and a key figure in the debate on the topic. He headed the task force, which in 1994 reviewed the Bank's project portfolio, and is the author of one of the most influential resettlement models (the Impoverishment Risks and Resettlement model, see section 1.4.3). His influence has protected the field from the cost-benefit-analysis type of approach which was spreading into poverty assessment. Lately however a reversal in this tendency seems to be occurring, and Development Economics – especially through its behavioural and experimental branches - has been devoting increasing attention to resettlement. How this is happening, and on which theoretical grounds, is the object of chapter 2.

### ***1.4.2. International Financial Institutions and their policy frameworks: the World Bank and others***

It has been said in section 1.3 that the existing international legal and institutional framework does not allow room for binding mechanisms to safeguard people displaced by development projects, at least to the extent that the safeguard is invoked in the name of human rights. Much more binding seems the policy framework constituted by the Guidelines and the Operational Policies adopted over the years by the major donor agencies and regional development banks, and this framework is also one of the main constitutional parts of the reformist-managerial discourse. The authority of this policy framework comes from the fact that a great number of projects involving displacement are financed by Regional Banks and International Financial Institutions, with the World Bank and the International Financial Corporation occupying the first positions.<sup>14</sup>

The process of setting up the framework has indeed been led by World Bank, which in 1980 was the first international lending institution to adopt a policy on resettlement. Since then all the other major institutions (i.e. the Asian Development Bank, the Organization for Economic Cooperation and Development, the African Development Bank and the Inter-American Development Bank) have followed, and the original World Bank policy has been reviewed a number of times.

#### **The World Bank**

In 1980 the World Bank adopted an Operational Manual Statement on involuntary resettlement, with a primary focus on resettlement associated with large dam construction. In 1990 the policy was reviewed for the first time (and it became Operational Directive 4.30); the last major review was conducted in December 2001, when the Operational Directive was converted into an Operational Policy on involuntary resettlement (OP 4.12). The policy is part of the set of ten Bank policies dedicated to Social and Environmental Safeguard.

The stated objectives of the Operational Policy 4.12 are (OP 4.12, para 1, World Bank

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<sup>14</sup> In 1994 the World Bank estimated that 8% of its ongoing projects 15% of its total lending involved displacement and resettlement operations. Bank-funded projects were estimated to account for 3% of the resettlement caused by dam construction worldwide and for about 1% of the displacement caused by urban and transportation projects in the developing world (World Bank 1996: xii).

2001):

i) to avoid involuntary resettlement where feasible, or minimize it, exploring all viable alternative project designs;

ii) if resettlement cannot be avoided, to conceive and execute resettlement activities as sustainable development programs, providing sufficient investment resources to enable the persons displaced by the project to share in project benefits. Displaced persons should be meaningfully consulted and should have opportunities to participate in planning and implementing resettlement programs;

iii) to assist displaced persons in their efforts to improve their livelihoods and standards of living, or at least to restore them, in real terms, to pre-displacement levels or to levels prevailing prior to the beginning of project implementation, whichever is higher.

As concerns the scope of the policy, two important points need to be noted. In the first place, the policy is concerned only with the *direct* economic and social impacts resulting from WB financed projects which lead to involuntary resettlement, and the responsibility of dealing with the indirect effects is left to the borrower.

Secondly, the policy is concerned with the effects arising from i) the involuntary taking of land resulting in relocation or loss of shelter, loss of assets *or access to assets*, or loss of income sources or means of livelihood, *whether or not the affected person must move to another location* [emphasis added]; or ii) the *involuntary restriction of access* [emphasis added] to legally designated parks and protected areas resulting in adverse impacts on the livelihoods of the displaced persons (OP 4.12 page 1). Thus, the policy introduces a substantial revision of the concept of displacement, for which the element of the geographical relocation of their habitations is not a necessary condition anymore. In fact, people are also considered as displaced in the eventuality of a restriction of access to the sources of their livelihood, which translates into an economic and occupational dislocation (as is frequently the case in nature conservation projects). Cernea (2011) has recently stressed the importance of this definitional revision (which surprisingly seems to have been otherwise neglected in the literature). The change in definition on the one hand acknowledges and emphasizes the inherent inequity of development-induced displacement, and on the other, has important practical and operational implications, not least because it

expands the applicability of the policy.

A number of requirements are included in the policy, which the borrowers must meet in order to achieve the stated objectives. These include a resettlement plan or a resettlement policy framework, which need to specify which measures will be undertaken in order to inform and consult the affected people, and adequately compensate and support them during and after the relocation phase.

The policy was then complemented by a Sourcebook (*Involuntary Resettlement Sourcebook. Planning and Implementation in Development Projects* 2004) which aims to “provide resettlement practitioners [...] with guidance on the implementation of policy principles, the procedural requirements for projects, the technical aspects of resettlement planning, and the actual implementation of resettlement. This guidance is intended to increase the likelihood that Bank-financed projects will achieve the objectives of OP 4.12” (WB 2004:xxiii). The Sourcebook, with its problem-solving focus, represents the quintessence of the reformist-managerial approach to displacement.

The Sourcebook argues that OP 4.12 introduces some novel features in its approach to resettlement and that these were motivated by the acknowledgment that impoverishment as a consequence of resettlement happened also in projects in which compensation was duly paid. In particular OP 4.12 is claimed to differ from previous and traditional approaches in three ways. First, it aims at restoring (when improving is not possible) the pre-project incomes and living standard, moving beyond the mere compensation of the expropriated goods, and thus widening the scope of the policy, which then becomes a policy about development, rather than compensation. Second, with the emphasis on income and living standards rather than expropriated goods, the category of people recognised as adversely affected is expanded (to include those for whom access to resources and assets is restricted). Finally, resettlement planning is recognised as being qualitatively different from compensation, and as such, in need of particular care when it comes to its implementation and management (*ibidem*: xxiv).<sup>15</sup>

Despite the supposedly more progressive nature of the OP 4.12, the policy has been criticised by a number of NGOs and academic scholars. As noted by Robinson (2003), and

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<sup>15</sup> Compensation refers to the restitution of the material losses, in kind or more often in cash. Resettlement can include a wide range of activities, from providing access to basic services at the relocation centre to implementing self-employment programmes to the resettled people. These activities are meant to restore and possibly improve the disrupted livelihoods.

also emphasized by Perera (2011), the main criticism has concerned the articulation of the objective of the policy in terms of improvement *or at least restoration* of the livelihoods and standards of living of the displaced persons. Using *income restoration* as a minimum benchmark, the policy diverges from its second objective (which is to “conceive and execute resettlement activities as sustainable development programs”) and implicitly justifies itself in case the latter is not achieved.

Another important critique revolves around the actual ability of the Bank to enforce its policy, given its silence over controversial displacement and resettlement practices undertaken by some of the borrowing countries (Bartolome *et al* 2000 and McCully 1996). This concern indeed had been raised by the same Bank in its 1998 review of experience with involuntary resettlement. It was argued there that: “[t]he scorecard is not as good as OED had anticipated. Projects appraised in the mid-1980s still suffered from underdeveloped resettlement components. The Bank played a less prominent role than expected, both in strengthening components during appraisal and in monitoring them in the first few years of implementation” (WB 1998:3). On this matter it is interesting to note that both the Bank’s 1998 review and one of the Reports for the WCD (Bartolome *et al* 2000:11) are careful in drawing a strong link between the Bank's enforcement capacity and the features of the regime in power, thus attributing most of the responsibility to the borrower's government. This attitude is consistent with the understanding of the causes of the failure of displacement promoted within the World Bank, the prescriptions of the good governance agenda and the post Washington Consensus, so that resettlement failure is configured primarily as a government failure.

With the aim of enhancing its own and the borrowers' transparency and accountability before the affected people, the Board of Directors of the World Bank also prompted the creation of an Inspection Panel, whose task it is to accept requests for and implement inspections of cases in which the Bank is claimed to have failed to follow its own operational policies and procedures.<sup>16</sup>

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16 In India for instance the Panel has recommended an investigation into the displacement and resettlement activities operated by the National Thermal Power Corporation in the Singrauli region, to which the Bank loaned more than \$4bn for a project which has led to the displacement of over 300,000 people in 40 years.

## **The Asian Development Bank**

The Asian Development (ADB) is the international financial institution which, after the World Bank, has dedicated most attention to the issue of resettlement. It adopted its own policy on Involuntary Resettlement in November 1995, following the blueprint provided by the World Bank's Operational Directive 4.30. The policy covers issues related to compensation for loss of assets, resettlement of the affected people, government budgetary planning for resettlement and compensation, institutional framework for involuntary resettlement, and interactions with civil society concerning resettlement (ADB 2007). In 1998 the ADB also released a Handbook on involuntary resettlement, which describes the resettlement process and the operational requirements within the Bank's project cycle.

The objectives and principles of the ADB's policy echo those of the World Bank. It is stated that involuntary resettlement should be avoided whenever possible, and if unavoidable, population displacement should be minimized. Compensation and assistance for affected people after relocation should guarantee a better economic and social future than the one that would have been expected in the absence of the project. Information and consultation of the affected people is required and the project authorities should seek to involve and interact with the existing social and cultural institutions of resettlers and their hosts. It is also stated that the absence of a formal legal title to land should not be a bar to compensation; special attention is given to households headed by women and other vulnerable groups, such as indigenous peoples and ethnic minorities. Finally, involuntary resettlement is requested to be conceived and executed as a part of the project, its full cost to be included in the presentation of project costs and benefits, and to be considered for inclusion in Bank loan financing for the project (ADB 1998:2).

Generally, the ADB policy devotes additional attention to issues related to the estimation of compensation. It incorporates requirements which were already present in the WB's policy, but emphasizes them more in light of the criticism of past compensation practice.

These requirements were recalled in a report released by the ADB in 2007, investigating the issue of Compensation and Valuation in resettlement, following the observed failure of three of the Bank's borrowing countries (Cambodia, China and India) to comply with the

ADB's requirement for compensation of lost assets to be paid at “replacement cost.”<sup>17</sup> The document explicitly identified the lack of appropriate valuation and compensation as one of the major factors leading to the impoverishment of the affected population. The ADB policy also stressed the following points: that compensation for lost assets be paid in such a way that the affected people see an improvement in their economic and social perspectives; that the absence of formal legal title to land should not constitute an impediment to adequate compensation; and that the affected people are to be fully consulted about the compensation and should have basic access to mechanisms for enforcing their entitlement to just compensation.

### **The Inter-American Development Bank (IADB) and the African Development Bank**

The Inter-American Development Bank first adopted a set of operational guidelines in 1991 and it has periodically updated them since then. The most recent update (Operational Policy 710), made in 1998, closely follows the main principles found in the WB and ADB policies. However, two new elements appear under the heading “Special Considerations” for the preparation of the resettlement components. First, an Impoverishment Risks Analysis is recommended if the affected population belongs to marginal or low-income groups. If this is the case, cash compensation can only be offered as an option, provided the socio-economic characteristics of the population make it a viable alternative. Second, displacement of indigenous communities can only be supported by the Bank if certain conditions are met (resettlement must provide direct incremental benefits to the displaced population, customary rights must be recognised and compensated, land-based compensation must be offered as an option, and the affected people must have given their consent to resettlement and compensation activities).

The African Development Bank adopted a policy on involuntary resettlement for the first time in 1995 and revised it in 2002.

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<sup>17</sup> Replacement cost, according to the policy, should be estimated, including market value, premium, transaction costs, interests, and direct damages (ADB 2007:v).

## **The Organization for Economic Cooperation and Development (OECD)**

In 1991 Michael Cernea was asked to help the OECD draft a policy on involuntary resettlement. The process resulted in the adoption in 1992 of the *Guidelines for Aid Agencies on Involuntary Displacement and Resettlement in Development Projects*, which appeared as part of a wider set of “good practices” on Aid and Environment promoted by the Development Assistance Committee. The OECD Guidelines are inspired by the World Bank policy, in reason of Cernea's influence. They distinguish themselves by mentioning the need for special resettlement provisions for women, whose specific needs and preferences should be considered. The Guidelines also attribute the primary responsibility for resettlement to the government, while donors have the duty to mitigate the size and the impact of displacement.

### ***1.4.3. Resettlement models: the Four-Stage Model and the Impoverishment Risks and Reconstruction Model***

#### **The Four-Stage model**

The Four-Stage model was originally proposed by Scudder and Colson in 1982. It consists of a diachronic framework built upon the concept of 'stage'. The description which follows draws on a later re-elaboration made by Scudder in the volume “The future of large dams” (2005).

The model describes the way in which resettled communities can be expected to behave during a successful resettlement process. It is thus a predictive and behavioural model, which uses stages to remark the existence of patterns in the way communities respond to resettlement. The focus is on the actors: the resettled people, and to a certain extent, the project authorities. For instance, the first stage, “Planning and Recruitment”, deals with who is to be resettled and the planning for their removal, rehabilitation and development. The involvement of the affected population at this stage is deemed essential, and it is expected to intensify as the time of displacement approaches. The second stage is called “Adjustment and Coping” and it concerns the physical process of resettlement and the years immediately following. The behaviour of the resettled population during this period is expected to be risk-averse and a drop in their living standard is predicted due to multidimensional stress, the difficulties in adjusting to the new place and life-style, and a

possible increase in expenses at the new location. Risk-aversion can be interpreted as a coping strategy, and continuity is favoured over change, in the attempt to recreate the previous cultural patterns. Interestingly, Scudder also observed that during this stage resettlers behave as if their sociocultural structures were a closed system, as they 'cling to the familiar' and avoid engaging with the external world. During the third stage "Community Formation and Economic Development" are observed. People are willing to engage in riskier economic activities (i.e. start cultivating cash crops) and the living standard improves for the majority of the population. There is also an increase in inequality and stratification, together with diversification of economic activities and investment. However these changes are possible only if two sets of conditions exist: radical changes in the resettlers' behaviour and the emergence of development opportunities. Scudder suggests that post-removal behaviour is likely to be less culturally constrained and this can prompt the adoption of innovative activities.

The fourth and final stage is characterised by the handing over (of the first generation to the second generation and of the project authorities to the resettlers and local institutions) and the incorporation of the community in the wider economic system.

### **The Impoverishment Risks and Reconstruction Model.**

This model was formulated and developed during the 1990s by Michael Cernea in the context of his work within the World Bank (Cernea 1997, see also Cernea's interview with H.M. Mathur in Mathur 2011b) and it has played a fundamental role in determining the approach taken by the Bank to the problem of resettlement. Indeed the model was applied on a wide scale in the 1994 World Bank review on involuntary resettlement. Cernea has also deeply influenced and inspired all subsequent research on resettlement.

The model describes the mechanisms through which displacement can lead to the impoverishment of the affected population. These mechanisms are understood as 'impending social hazards' (Cernea 1997:1572) which can turn into actual risks as a result of the displacement process, or of bad resettlement practice. These risks are: landlessness, joblessness, homelessness, marginalisation, food insecurity, loss of access to common property resources, increased morbidity and mortality, and social disarticulation.

If reversed, these mechanisms also indicate what actions need to be undertaken in order

to prevent or mitigate the risk, so providing a blueprint for an effective resettlement plan. Although in different proportions, intensity and modalities, all good resettlement plans should include measures to guarantee land-based resettlement, re-employment, house reconstruction, social inclusion, improved health care, adequate nutrition, restoration of community assets and services, networks, and community rebuilding.

The internal logic of the model is, in its author's view, one of its major strengths, as it enables its use as a diagnostic, a predictive, a problem-resolution and a research guidance tool. The model in fact reveals what aspects of the affected people's life have to be tackled and how, as well as what is likely to happen if this is not properly addressed. Besides all this, at the research level, the model has the potential to contribute to define the contours of an 'economy of reconstruction' (*ibidem*:1580).

This faith in the multiple functions of the model reflects the problem-solving attitude characterising the reformist-managerial discourse. The model in fact understands resettlement as the management of risk and sets out to identify the most effective strategies to achieve this, and then proceed to the reconstruction of the lost livelihood. At the same time however, it also specifies that the activation of the preventive potential of the model requires the following steps: i) a risk assessment in the field; ii) adequate response of the decision makers and planners to predict risks; iii) the proactive response of the population directly at risk, and transparent information and communication between decision makers/planners and populations at risk. The IRR model has played a significant role in the development of the research on involuntary resettlement, both at the theoretical and the empirical level. Many of the major contributions to the topic have in one way or another arisen as an empirical application of the model or as a criticism to it. Moreover, it has also contributed to focussing attention on the negative effects of displacement, explicitly establishing a link with the impoverishment of the affected population. The breaking down of impoverishment into different types of risks does indeed constitute a fundamental departure point for further investigation of the process. In addition, risk analysis is a well-defined exercise which government agencies and project authorities can be required to perform and which, if properly executed, can provide precious information on the affected population and their major vulnerabilities. Yet, the model also has some significant shortcomings, which are discussed in chapter 3. This thesis takes these shortcomings as a point of departure to call for an approach to resettlement which more explicitly links the

outcomes of the latter to the process of development which triggers displacement in the first place. This alternative approach is then applied to the case-study in chapter 6.

### **1.5. Overview and Concluding Remarks**

This chapter has identified two new features of development-induced displacement: the emergence of theoretical discourses and institutional frameworks. Both of these have evolved as attempts to explain and control the phenomenon and its negative consequences.

A dominant discourse around displacement can be traced to the World Bank, which shifts the focus to the implementation and management aspects of resettlement, with the optimistic premise that if the right institutional devices are implemented, resettlement can be turned into a development opportunity. An essential element of this discourse is the Impoverishment Risks and Reconstruction model, which links displacement to impoverishment through the concept of *risk*: displacement triggers mechanisms which create or enhance the risk of impoverishment in its multiple dimensions.

This discourse also offers an interpretation of, and a solution to, the empirically observed failure of resettlement programs in preventing the impoverishment of the affected population. Consistent with the logic of the post-Washington Consensus, failure of resettlement is mainly attributed to insufficient government commitment and inadequate institutional setting. Improving resettlement practice means performing resettlement as the management of risk, following the guidelines indicated by the World Bank, which should be turned into a national policy by each country. Altogether, the reformist-managerial discourse, with its policy-oriented attitude, has the merit of offering a practical solution and of explicitly attributing the responsibility of its implementation to the entities inducing people's displacement. It also assumes that resettlement is a true cost of a displacing project and that as such it must be internalised; this requires adequate financial resources and careful management.

However, this approach offers an insufficient explanation of the failure of resettlement. This is also true of the Impoverishment Risks and Reconstruction model, despite its attention to the dynamics of impoverishment and the emphasis on risk prevention. In both cases resettlement fails to be understood as part of that same development process which led to displacement in the first place. Consequently, resettlement is not fully recognised as

leading to a problematic incorporation into development of the affected population, with an appreciation of the importance of the dynamics of social and spatial mobility, the underlying power and labour relations, and the challenge of creating new income opportunities. That is, it is missed the fact that structural factors exist which significantly contribute to the failure of resettlement.

## Chapter 2

### *The Contribution of Economics to Resettlement & Rehabilitation*

#### 2.1. Introduction

The increasing uneasiness with the failure of Resettlement and Rehabilitation (R&R) programmes, as well as governments' willingness to provide clear-cut and rigorous guidelines to prompt and guide the adoption of laws and regulations on R&R, has led experts and scholars to turn to economics. Cernea (1999b, 2003, 2008) has been the most eloquent in pointing out that the determination of fair compensation and the design of effective R&R programmes need to be driven by economic principles. Inspired by these considerations, some recent literature has embarked on a quest for economic principles which might indicate what constitutes an effective compensation (see Pearce and Swanson 2008; Kanbur 2003; Garikipati 2001). This literature seems to have assumed without questioning that compensation for displacement is merely a problem of *public policy*, and consequently that the contribution of economics has to be in the estimation of the costs of displacement and compensation. In other words, this literature has neglected to ask the key question of why compensation for displacement and resettlement of displaced people are economic problems in the first place.

It is argued in this thesis that compensation and resettlement indeed are economic problems, which however need to be investigated in a political economy framework to be fully understood as such. In order to show why seeing compensation and resettlement exclusively as a problem of *public policy* is too simplistic and short-sighted, it is worth taking seriously this interpretation and bringing to its extreme conclusions an application of welfare economics to compensation for displacement. This is in fact what the following discussion aims to do. It will look at what neoclassical economics has to say on compensation for displacement, firstly checking whether its prescriptions, represented by the compensation principle, have been applied in the practice of policy making, and secondly if they are appropriate to drive the design of fair compensation and effective R&R programmes. This investigation will also discuss some methodological considerations and make suggestions for the improvement of the design of R&R packages. From a critique of

cost-benefit analysis (henceforth CBA) to displacement-inducing project, it will be found that methodologies developed within CBA for the estimation of non-market values, have the potential to be employed for the improvement of R&R programmes. Finally, it will be suggested that more fruitful contribution to the improvement of resettlement can come from political economy.

## **2.2. The economics of compensation and resettlement**

Displacement and resettlement, and their impacts on the affected populations, have primarily been of interest for anthropologists and sociologists, but for a long time have failed to attract the attention of economists- even of development economists. It is then ironic that this neglect has been emphasised and *lamented* not by an economist, but by a sociologist, Michael Cernea, the first in-house sociologist hired by the World Bank (in 1974) and substantially responsible for the adoption of social analysis in World Bank projects. Cernea also led the Task Force which in 1994 reviewed the experience of the World Bank with projects involving involuntary resettlement operations financed in the period 1986-1993. In 1991 he also contributed to the elaboration of the Guidelines for Aid Agencies on involuntary displacement and resettlement adopted by the OECD.

In 1999 Cernea published an article unambiguously titled “Why economic analysis is essential to resettlement” (Cernea 1999b), and similar statements appeared in later chapters and articles (Cernea 2002, 2003, 2008). In the introduction to his latest edited volume he calls for the need to reform resettlement and argues that “such reform must start with economic and financial foundations of planning displacement and resettlement” (Cernea 2008:1).

The trigger for his reflections is the observed persistent failure of R&R programmes, which, in his view, is partially attributable to the *poverty* with which economics has been applied to the issues of displacement and resettlement. His critique is articulated at theoretical, methodological and policy levels (see Cernea 1999b, 2003, 2008).

At the theoretical level, his analysis highlights that the only concern of the *economics of compensation* has been loss restitution, with no analysis of the economic dimensions of resettlement and of the other social costs of displacement. There has been no theoretical

elaboration of the categories involved. To a large extent this has been the consequence of the conventional understanding of displacement as a dysfunctional by-product of infrastructure projects, typically of dam construction. Thus, displacement either does not appear in the economic evaluation of the projects (so that all the costs are externalised and borne by the affected people) or it is relevant only to the extent that some of its material costs are internalised within the project budget. The other reason for the focus on loss restitution, is that the only theoretical underpinning of the economics of compensation is the compensation principle, which is concerned merely with the identification of the costs and benefits of a project. This has skewed the attention away from what is one of Cernea's main conclusions: that compensation alone is unable to achieve restoration of the disrupted livelihood (see Cernea 2008).

Moreover, Cernea argues, even when internalisation of the costs is attempted, it is grounded on an unsatisfactory methodological practice. The routine CBA at best includes the material costs of displacement (with typically an inadequate and arbitrary valuation of expropriated assets), with no account of the distributional consequences, no use of risk analysis, and inadequate analysis of income loss and resettlers' income curve over time. This approach is unable to assess the peculiar types of deprivation that displacement entails and the economics needs of resettlement and livelihood regeneration (Cernea 1999b, 2003, 2008).

At the level of policy, Cernea stresses the lack of commitment by the governments and the project authorities in taking resettlement seriously. This is reflected in the absence in most developing countries of formal policies and laws on involuntary resettlement, as well as in the inadequate budget allocation for resettlement.

One of the main findings of Cernea's work on displacement and resettlement is that compensation alone cannot prevent the impoverishment of the affected population and that compensation therefore needs to be supplemented with development-oriented investment and some forms of benefit-sharing (see especially Cernea 2008). To provide a theoretical justification for this finding he advocates a shift from the "economics of compensation" to an "economics of resettlement with development". The latter, he argues, should be articulated around three main issues: i) the analysis of the risks triggered by displacement, which can then be addressed in resettlement design; ii) a methodology for project evaluation which accounts for the peculiar processes and costs generated by displacement,

with consideration for the distributional impact; and iii) an investigation into the sources of recovery, which can turn resettlement into a growth-enhancing process. He also recognises in welfare economics, environmental economics and political economy the three branches of the discipline which can contribute to this shift (Cernea 1999b).

Cernea's plea for attention has not gone unheard, but it seems that the existing literature has focused merely on the second point and only looked at what welfare and environmental economics might have to say on the issue, with little attention paid to political economy. As a matter of fact, the debate which has arisen as a result of Cernea's analysis has been primarily concerned with the examination and re-examination of the compensation principle (Kanbur 2003, Cernea 2008, Garikipati 2011) and the use of methodologies drawn from welfare and environmental economics for the estimation of the costs of displacement and resettlement (Pearce and Swanson 2008, Garikipati 2011).

Kanbur (2003) was the first contribution to take Cernea's challenge seriously and directly respond to it. He acknowledges that a contradiction emerges when one tries to apply the compensation principle consistently with the prescription of new welfare economics. As the latter shuns interpersonal comparisons of welfare, it recommends the use of egalitarian weights in CBA, and that means using the compensation principle with no actual payment of compensation. Were compensation actually paid, that would correspond to weighting the costs (borne by the losers from the project) more than the gains of the winners. Accepting the contradiction and the uselessness of the principle for policy making, Kanbur recommends the use of *ad hoc* compensation mechanisms and automatic safety nets to prevent negative distributional consequences. Despite the fact that Kanbur's analysis ultimately suggests that there is nothing in (welfare) economics to answer Cernea's request (claiming that the use of *ad hoc* mechanisms equates to an admission that no rule exists), he assumes a defensive stance towards economics, challenging other disciplines to find a solution to the dilemma.

The challenge has instead been taken up by other economists, giving it a methodological twist. Cost-benefit analysis, as justified by the compensation principle, presupposes that a project can be undertaken (with no violation of the Pareto principle) as long as benefits are greater than costs and part of the former can be utilised to pay back compensation to those who bear the costs. This logic is easily applicable to displacement-inducing projects. The challenge has then been perceived as finding a way to estimate the costs and benefits

generated and the compensation required to re-establish economic efficiency. It is indeed the very fact that the compensation principle offers a methodology for its implementation that leads Garikipati to say that it is possible to “restore some of the theoretical confidence in the compensation criterion” (Garikipati 2011:185). The principle allows one to measure costs of displacement by the Willingness to Pay (WTP) to avoid displacement of the affected population (i.e. how much money the displaced people would be willing to pay to avoid displacement) or, as suggested by the displacement literature (see especially Pearce and Swanson 2008 and section 2.3 for a detailed description of WTP and WTA) Willingness to Accept (WTA) money in exchange for displacement. The measures can also indicate the optimum compensation required to make up for the losses supported by the affected population. The logic is evident: if the displaced people are in fact paid the amount of money estimated through WTA, then it can be claimed that their previous level of well-being is restored, the project does not make anyone unhappy, and Pareto efficiency is re-established. Pearce and Swanson (2008) therefore identify in the estimation of WTA money in exchange for displacement (and the underlying theoretical apparatus) the appropriate methodology for the economic evaluation of projects involving forced displacement.

The elicitation of preferences and the estimation of welfare measures based on the concept of WTA requires the adoption of stated preferences methodologies, and particularly of the contingent valuation approach (see section 2.4 for a detailed description). The latter is an experiment-based methodology which is used for the estimation of the values of non-market goods, and asks the respondent to state their WTP to obtain that non-market good or their WTA in exchange for its loss. The use of stated preferences methodology is widely debated and criticised in the economic literature, as it relies on people's answers to hypothetical questions, rather than on their actual behaviour. Apart from the cognitive difficulties involved in such a practice, it raises issues in terms of the “incentive compatibility” of WTP/WTA questions aimed at estimating compensation.

These problems contribute to explain the scarcity of empirical studies applying WTP and WTA for the estimation of compensation for displacement. The specialised literature however seems rather open to, and in fact encouraging of further applications of the method. For instance, in a 2007 report on Compensation and Valuation in Resettlement, based on the experiences of Cambodia, China, and India, the Asian Development Bank includes among its recommendations the inclusion of WTP and WTA questions in the Initial Social

Assessment (ISA - or the phase of the project cycle that, according to the ADB's involuntary resettlement policy, should lead to the determination of the scope and resources needed for resettlement planning). While the report acknowledges the controversial nature of the contingent valuation method and that further experimentation of the estimation of compensation through WTP/WTA is required, it argues that its inclusion can provide a check for other valuation methods (particularly for the determination of compensation for the loss of common property resources), and inform the process of setting a compensation offer determined through direct consultation (ADB 2007).

Garikipati's study (2002, 2005, 2011) on the Sardar Sarovar Project in the Narmada valley is the one which most closely resembles these methodological recommendations, i.e. the use of the contingent valuation method to elicit WTA and explore what kind of compensation makes displacement *voluntary*.<sup>18</sup> On the basis of a village survey conducted with the population affected by the dam project in 1998 and in 2003, Garikipati explores the possibility of consulting the displaced population regarding their compensation and resettlement.

The survey involved interviews with 847 households belonging to three different types of villages: three villages which had not yet been displaced (in Madhya Pradesh), four resettlement sites villages (one in Maharashtra and three in Gujarat), and two partially submerged villages (in Gujarat). The primary purpose of the survey was to elicit the preferences of the displaced population regarding resettlement, adopting an incentive-compatible methodology and specifically estimating the affected people's WTA cash in exchange for displacement.

Garikipati uses the close-ended variant of the contingent valuation approach, in which the respondent is asked to perform a discrete choice, in an "accept or reject" format: each respondent is offered four different hypothetical compensation packages, containing different typologies of resettlement and varying amounts of cash in exchange for the loss of one of the important aspects of their pre-displacement life: commons, community and

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18 The Sardar Sarovar Project (SSP) is part of the Narmada Valley Development Project, which encompasses the construction of 30 large, 135 medium and 3,000 small dams across the states of Gujarat, Madhya Pradesh, and Maharashtra. The SSP is the largest of these dams, as well as one of the largest dams in India and one of the most controversial dam projects in the world. The dispute surrounding the SSP has played an important role in the adoption of the new World Bank guidelines on resettlement (see for instance Cullet 2007).

irrigable land.<sup>19</sup> Accepting or rejecting the package, the respondent would provide an indication of the monetary value that he or she places on that specific aspect of life and that they would therefore be willing to accept as compensation for its loss. For instance Garikipati finds that the marginal rate of substitution of commons for cash is much lower than that of community for cash, that there is evidence that people do appreciate cash compensation and that they do not deem commons to be irreplaceable.

She then concludes that a contingent valuation experiment is useful in eliciting the resettlement preferences of the affected population without incurring the problem of incentives compatibility. She also suggests replacing resettlement schemes with tailor-made schemes which respond to the different preferences. Her research also shows that elicited resettlement preferences are influenced by socio-economic circumstances of the respondents (a finding which also justifies the use of contingent valuation method based on the random utility model, see below).

To conclude this section, it is worth recalling Cernea's initial concern: a search for principles within the economics discipline which might drive a reform of compensation practice, as well as the institution of an "economics of resettlement with development". Responses in the literature to this challenge seem to take a rather narrow interpretation of what the role of economics should be. This interpretation is consistent with the identification of economics with welfare economics, whose main concerns are the conditions for economic efficiency. As a result, it emerges that the contribution of economics to the improvement of Resettlement & Rehabilitation is to indicate the most effective way to estimate the costs of displacement. The underlying assumption is that displacement can be made fair if these costs are evaluated in the correct way and the right amount of compensation is paid. There is no further elaboration of the question of why compensation is an economic problem, apart from the restoration of efficiency through the right policy choice.

It is the author's opinion that little improvement to R&R can come from economics if its contribution is limited in this way. To understand why, it is necessary to take a closer look

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19 No-Commons package offered housing and land for land compensation, plus cash compensation for the loss of commons; No-other-caste offered the same as the No-Commons package with relocation with own tribe only (vis a vis the entire community); No-Community offered the same as No-Commons but cash was given as relocation without the community; Only-Cash offered only money as compensation for displacement (see Garikipati 2005 and 2011 for a detailed description).

at the theoretical and methodological apparatus discussed so far. To that end, the next sections will illustrate what an application of welfare economics to compensation for displacement entails, from a theoretical and a methodological point of view. Section 2.3 discusses the implications and the limitations of using CBA to assess a displacement-inducing project. Section 2.4 looks at the roots of CBA, describing the compensation principle and what it means to rest on its methodological recommendations to estimate compensation for displacement. Finally, section 2.5 describes the techniques available to elicit WTP and WTA, namely the contingent valuation method and choice experiments. Considerations are drawn on their potential contributions to the design of better R&R programmes.

### **2.3. Cost-Benefit Analysis for Displacement-Inducing Projects**

The most simplistic way of looking at displacement and compensation for displacement is through the lenses of welfare economics and public choice theory.

A displacement-inducing development project is approached as any other project or policy, generating winners and losers, and the most straightforward criteria to address the relevant decision-making process is **CBA**. The project is implemented if the benefits for the winners are higher than the costs for the losers. Considering the range of material and immaterial, direct and indirect costs and benefits that a displacement-inducing project is likely to generate, the main preoccupation becomes *how* to estimate them.

The estimation of costs and benefits is performed in the first place by identifying the expected effects of the policy or project on the state of the economy, and classifying these effects into those which generate gains and those which generate losses. Gains and losses then need to be quantified and aggregated. The state of the economy *with* the project or policy is then compared with that *without* it (Dreze and Stern 1987). If what is gained is greater than what is lost, in line with the compensation principle (see below), it is efficient to implement the project.

Being in the domain of welfare economics, costs and benefits are reflected in changes in the welfare level of the individuals (i.e. changes in their utility). Monetary measures of welfare change that have a WTP or WTA interpretation can be estimated through the

specification of a utility function, where the independent variables are either inputs or outputs of the project.<sup>20</sup>

Generally, WTP reflects the amount of money that an individual would be willing to give up in order to purchase some good or service or, in a more extensive interpretation, to avoid a loss, the forgoing of a gain or some harm. Analogously, WTA indicates how much one would accept in exchange for selling or forgoing some good, or to bear a loss or some harm (Zerbe and Bellas 2006:18).

The extensive interpretation of WTP and WTA allows employment in CBA as a measure of costs and benefits. Benefits from a project can in fact be interpreted as either gains for which someone is willing to pay, or losses restored, for which someone would be willing to accept a *negative* amount of money. Costs will then correspond to losses, which can be measured by the amount of money that the person would be willing to accept to bear them, or forego gains for which someone would be willing to pay a negative amount of money. As WTP and WTA are measures of gains and losses from the status quo, these measures are subjective to the extent that they depend on the initial distribution of property rights. While WTA assumes ownership of the good or the gain which is lost, WTP does not (for an extensive discussion see Carson 1999 and Zerbe and Bellas 2006:19). For this reason, Pearce and Swanson claim that a right-based approach to CBA and compensation, should rely on WTA for the estimation of the costs of displacement from the point of view of the affected people.

Employing one or the other has not only conceptual and moral implications (as it recognises that what is expropriated belongs to the affected people), but also a substantive consequence. In fact, while the theory predicts that if income effects and transaction costs are low, the divergence between WTA and WTP is small, the empirical literature has found that they do differ.<sup>21</sup> A number of explanations for this difference have been suggested (for a detailed review see Pearce 2003), some trying to reconcile it with the assumptions of the neoclassical model (Hanemann 1991) and others instead claiming that it is not consistent with the model (Horowitz and McConnell 2002). It is useful to mention here those

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20 The use of inputs is a cost of the project as it corresponds to a reduction in its private use or increase in its production; the production of outputs from the project is a benefit as it corresponds to a decrease in private production of the good or an increase in its private consumption.

21 Horowitz and McConnell (2002) review 45 studies on WTP/WTA disparities and find that the disparities are real, that they are bigger the less the good is like an “ordinary market “ good and that they do not depend on differences in survey designs.

explanations which are relevant for our discussion on CBA and compensation for displacement.

Hanemann (1991) argues that the gap can be explained by the existence of an income and substitution effect, where the latter depends on the elasticity of substitution between the commodity to be valued (in case it is a public good) and private substitutes. The lower the degree of substitutability, the greater the difference. This can be translated by saying that if the status quo is deemed to be not substitutable, WTA will be significantly higher than WTP. If people displaced by a dam project value the land on which they live more than its market value (because of some kinds of spiritual, cultural, or moral attachment), it can be expected that their WTA for displacement will be higher than their WTP. However, a higher WTA for displacement could also be explained by the existence of *reference-dependent* preferences (or loss aversion effect)- the idea that consumers value goods more once they own them -, so that losses are valued more than gains (Tversky and Kahnemann 1991).<sup>22</sup> WTP and WTA then differ according to whether ownership could be claimed for it or not. Given that the displaced population own the expropriated land, WTA will be higher.

These speculations are relevant here to the extent that, whatever the reason for their disparity, the inclusion of WTP or WTA makes a difference in terms of CBA. Using WTA will lead to a higher evaluation of the losses, and to a higher compensation required. As claimed by Zerbe (2007) and Garikipati (2011), using WTA is then a way to partially correct CBA introducing some ethical and distributional considerations (see below for more on this).

As WTP/WTA are measures of welfare change which do not require the attribution of a cardinal value to welfare, they are particularly appropriate when CBA enters the field of non-market welfare measurement. This has increasingly been the case because of the progressive application of CBA to policies and projects which produce goods and services not transacted in the market, and the push to account for immaterial effects and externalities in CBA practice. The most obvious example is the application of CBA to environmental projects, such as the expansion of a Natural Park, the restoration of a habitat, or of a Co2 emissions reduction plan.

Generally, as long as the analogy with the market transaction which is implicit in the use

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<sup>22</sup> The implication is that utility is endogenous, in the sense that it depends on the endowment of the consumer.

of WTP/WTA is accepted, and the costs and benefits are translated into welfare changes, any kind of project can potentially be evaluated through CBA. Obviously this is also true for a project causing displacement. Indeed, a fair CBA should include costs and benefits arising not only from the project itself, but also from the process of displacement. The latter however generates a wide range of indirect and immaterial effects, which need to be accounted for.

In order to attribute a value to an environmental good (be it the expansion of the area of a National Park or a reduction in the level of pollution in the air), so that it can be used to compute a CBA, environmental economics relies on the notion of passive use or existence value. In Adamowicz *et al*'s words, "passive use value is the economic value arising from a change in environmental quality (or any other situational change) that is not reflected in any observable behaviour" (Adamowicz *et al*, 1998b:1). Thus individuals derive utility from knowing that a certain environmental good exists, without necessarily consuming or experiencing it directly (FAO 2000). WTP and WTA capture the total economic value of a good, which includes both its direct (market) value, if there is any, and passive use value. This implies that the estimation that they provide is independent of the agent's motives; it does not allow one to incorporate or discern these motives from the monetary value elicited (Carsson 1999). The use of CBA for an assessment of the (material and immaterial) costs and benefits of displacement is also likely to require the notion of passive use values. This is the case, for instance, if the purpose is to attribute a price to the loss of the forest by tribal people, who value it for its economic functions (as it provides products for subsistence and trade) but also for cultural and emotional reasons.

Eliciting the WTP to avoid the project of the displaced people, or their willingness to accept money in exchange for displacement allows one to catch both the direct use and passive use value attribute to the losses. These measures would in fact be representative of the costs of displacement from the point of view of the affected people. The underlying assumption is that when stating their WTP and WTA, people are correctly able to foresee, identify and quantify all the possible (material and immaterial) costs that they will incur during the process of displacement and resettlement.

For discussion of the techniques developed to elicit WTP and WTA and their applicability to the estimation of the costs of displacement, see section 2.5. The analysis here proceeds with some more considerations on the use of CBA to estimate the costs of

displacement and from there, compensation.

In the first place it has to be stressed that using the notion of WTP/WTA to measure the costs of displacement in order to incorporate them into a CBA exercise implies recognizing that displacement is indeed a social cost and offers a way to internalise it. In a way, as stressed by Penz, Drydyk and Bose, CBA “turns out to be illuminating even with respect to distributive justice, because of its focus on compensation” (Penz *et al* 2011:59).<sup>23</sup>

However, as a strategy of choice based on commensuration of costs and benefits, CBA is far from being neutral, objective and completely transparent. This depends on the fact that any form of commensuration can be claimed to be a “symbolic, inherently interpretive, deeply political” (Espeland and Stevens 1998:315) process, as well as on the specific theoretical and methodological apparatus which commensuration in CBA requires.

Espeland (1998, 2001) defines commensuration as the quantification of qualitative features, where the qualitative differences between things end up being expressed as a magnitude in terms of a common metric. It is the transformation of the qualitative into the quantitative to make the process symbolic, political and interpretive, because it is based on the assumption that entities (including values) of a very different nature can be expressed in standardized forms, and that doing so does not fundamentally changes their meaning (Espeland 1998:24-26). In other words, Espeland points out, commensuration can create relationships between intrinsically distant things making them comparable (as also discussed below, CBA makes it acceptable to weight moral values and physical possessions against each other), possibly altering the relations of authority between these things, or create new social entities altogether.<sup>24</sup>

Commensuration is an essential part of CBA, because it is the reduction of costs and benefits to a common metric which makes it possible to apply a strategy of choice based on the pick of the alternative represented by the highest number. In other words, it is commensuration that makes CBA a “rational” strategy for decision-making. Yet, it is also what makes it a symbolic, interpretive and political act. These latter features of CBA emerge most clearly in the patterns of inclusion and exclusion that the commensuration of

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<sup>23</sup> The same authors however also claim that CBA is inadequate in accounting for the ethical issues raised by displacement by development, for it does not account for distributive justice (2011:82).

<sup>24</sup> Espeland uses the example of the census to exemplify these processes: a census is much more than a procedure for counting people, rather it’s a “mechanism for constructing and evaluating relations among citizens of a state and region” (Espeland and Stevens 1998:317) according to a specific rule of inclusion based on a specific definition of citizenship. That is, a census is a deeply social and political act.

costs and benefits creates. On one side, only what is technically commensurable finds its way in CBA; on the other side, the inclusion into CBA of non-market goods, as can be required for the estimation of the costs of displacement, can threaten identities built around those non-market and incommensurable goods.

Espeland (1998, 2001) provides two practical examples of how these patterns can operate, using the Orme Dam in Arizona as a case-study (disputes around the project took place in the 1970s and culminated in the decision in 1981 of not constructing the dam). The first example concerns the attempt of including among the costs of the dam construction the loss of a free popular recreational activity in the area, that is the floating down the river on inner tubes. Espeland reports that whilst the economists in charge of the Environmental Impact Assessment were committed to account for this loss into the overall CBA, and experimented a number of strategies for estimating a demand curve for “tubing” along the river (including trying to elicit people’s WTP for tubing), the attempt failed. As the results of these strategies were not robust enough, eventually the value of “tubing” was excluded from the economic analysis. This example clearly shows that commensurability is a technical as much as an intrinsic feature of the object and that technical circumstances can lead to the exclusion of important information from CBA.

The second example concerns a less mundane negative impact that the Orme Dam would have had, that is the submersion of a Native American reservation, home to the Yavapai people. The same economists that wanted to estimate the value of “tubing” along the river, were also determined to include into CBA the social and cultural costs for the Yavapai people of losing their ancestral land (for a full account see Espeland 1998 and 2001). However, the Yavapai resisted this initiative. Land was for them a “constitutive incommensurable” (Espeland 2001:1844), that is their identity was built on the basis of their relationship to land and on deeming land as non-reducible and non-comparable to anything else, least money. The attempt to estimate and include into CBA their social and cultural costs from displacement was perceived as a repudiation of their values and a threat to their identities.

This example is particularly relevant for our discussion because it demonstrates how the use of CBA for the estimation of the costs of displacement is far from being a neutral and technical act. Rather, it can have a strong symbolic value and provoke resistance with a political meaning. This is all the more the case the more CBA ventures into the estimation

of entities which are deemed as incommensurables by the affected people (as was land for the Yavapai or the forest for the people affected by the Polavaram dam, see chapter 7)

Critical to Espeland's study of the Orme Dam is the notion of "rationality" intended as a practical, organizational and political accomplishment, acting as a powerful framework for interpreting the world. She provides an account of how a certain type of rationality was practiced, resisted and institutionalised in the course of the disputes surrounding the Orme Dam by three interest groups represented by the Yavapai people, the "Old Guard" and the "New Guard" of the Central Arizona Water Control Study (the agency in charge of the Environmental Impact Assessment of the project). The three groups differed for their attitude towards commensuration (in the form of CBA) imposed by the application of a rational choice framework to decision-making. While Espeland's analysis focuses on the interconnection between a certain type of rationality and the forms of politics that develop around it, the connection between commensuration and the paradigm of rationality on which CBA is based that she exposes, brings us back to the theoretical and methodological apparatus underpinning CBA.

CBA is based on a paradigm of rationality which comes from rational choice theory. A rational choice is one which is made to maximise one's goal, namely individual utility. Hence, in this paradigm rationality is instrumental, that is it's assessed not for its own sake, but in terms of its consistency with the desired outcome. Everybody's goal is the same, i.e. maximise utility, yet individual choices can and do vary. This is because individual preferences differ, and preferences are reflected in the choices taken. In rational choice theory, preferences are rational too, where rationality does not come from reasonableness of taste, but from their conformity to a set of assumptions. In particular, a preference ordering must have the following properties: completeness, transitivity, convexity and more is always preferred to less (Frank 2010). Besides, preferences are stable, exogenous, precedent to choice and independent on the outcome.

Rational choice theory, and CBA with it, is also consistent with utility theory of value. The latter states that utility is the ultimate source of value and that this value is reflected in the price at which goods are exchanged on the market (an object is purchased only if its price is no more, in fact equal to, than the marginal utility derived from the consumption of that good). As mentioned already, the value of non-market goods can be estimated mimicking a market transaction and eliciting individual WTP/WTA for that good.

Thus, it is this theory of value which provides the common metric on which commensuration in CBA is based, namely money. In other words, it is through the relationship between utility, value and price that is possible to assess costs and benefits together. This theory of value makes it also plausible the use of the notions of WTP and WTA to estimate the value of non-market goods.

As should be clear from this short examination, rational choice theory and utility theory of value (i.e. CBA's theoretical and methodological apparatus) are extremely demanding in terms of assumptions. The more CBA is applied to non-market goods, and the more these goods are deemed as incommensurable, the more these assumptions are stretched and become untenable.

However, the use of WTP and WTA in CBA for the estimation of the costs of displacement is liable to criticisms also in reason of problems which can arise even when all the necessary assumptions hold.

In the first place, as pointed out by Nussbaum (2000a), using WTP to measure costs and benefits implies a very specific system of weighting, one which assigns weights in accordance with the *intensity* of the preferences expressed for the good evaluated (whether conceptualised as a cost or a benefit). This is reflected in the fact that the WTP for *any* type of good (be it access to a natural park or a vaccine against malaria) will always, *ceteris paribus*, be higher for a rich person than for a poor person, from which one might infer that the rich person values the good (i.e. environment or health status) more than the poor one. Similarly, it could be found that the WTP to avoid displacement is lower for the poorer household, because of more stringent budget constraints. As discussed, when it comes to estimating the costs of a project involving displacement, the problem can be solved using WTA rather than WTP. WTA is in fact unconstrained and potentially infinite, if it were not for the fact that low income people are likely to report amounts of money in the range of those they are used to. Furthermore, the less people are used to market transactions, the more difficult they will find it to state an amount of money in exchange for the loss of a non-market good, such as the forest. Despite these problems, on the grounds that WTP is income-constrained whereas WTA is potentially infinite, Garikipati argues that the use of WTP and WTA opens a window of opportunity for a more equitable CBA (Garikipati 2011:189). If, as it often happens, the beneficiaries of the project are comparatively richer than those adversely affected by it, the WTP of the former will be weighted less than the

WTA of the latter in CBA, with some sorts of redistributive effects. Even the potentially equitable twist of using WTP and WTA, however, is acceptable only as long as the use of preferences as normative principles for political judgements and social choice is acceptable. This use of preferences though has received criticism from the outside as well as from within welfarist social choice theory, particularly in relation to the debate around capabilities and development (see particularly Nussbaum 2000b and the bibliography quoted there). This debate is brilliantly summarised by Nussbaum (2000a and 2000b), but it is worth mentioning here the main limitations of the concept of preferences, which are then reflected in the shortcomings of the notion of WTP and WTA when applied to the estimation of compensation for displacement.

In the first place, as Sen maintains (see for instance Sen 1984 and Sen 1995), preferences are *adaptive* by nature. That is, they are shaped by habit, social pressure, experience, existing laws and institutions. Rather than an intrinsic personal inclination, a preference can just reflect the adaptation to a bad state of affairs. People displaced by a dam project and originally living on the bank of the river, might prefer to keep living in their original location despite the prospect of their house and land being flooded every year.<sup>25</sup> More generally, using WTP and WTA does not allow one to distinguish adaptive preferences from *autonomous* (Elster 1982) preferences, as well as preferences based on ignorance, haste, resentment, etc. Staying with the case of displacement and resettlement, a group of people might have a very high WTA displacement just because that would entail relocation in an area close to a population belonging to a different ethnic group or caste. In this case of course the debate remains open whether such preference, based on prejudice, should be respected or not by the policy maker. The existence of this dilemma is, however, just another aspect of the limits of the notion of WTP/WTA as based on preferences. The dilemma emerges because the validity of the value expressed through the WTP approach is based on the validity of the procedure adopted, not on its consistency with a substantive theory of justice and human capability (which should be reflected in the value of the good assessed and the motives behind such subjective evaluation).

Two types of solutions have been advanced here. Nussbaum (2000a) suggests continuing with CBA, but abandoning the notions of WTP and WTA and replacing them

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<sup>25</sup> Of course the counter-argument, which is also the core of the critique to a Platonist approach to preferences (Nussbaum 2000b) is that there is wisdom embodied in people's preferences which comes from actual experience, and this wisdom should not be discarded as irrational or naive.

with some system of weighting the alternatives which is externally determined. This strategy has the advantage of bringing the debate on weighting out of CBA, thus clarifying its ethical and eventually political nature. Although Nussbaum does not explicitly say it, it also has the implication that CBA has to abandon the claim of accounting for non-material costs and benefits (in other words, for incommensurables), at least as long as an alternative is not found to hedonistic pricing. This also means that CBA cannot be used to estimate the costs and benefits of displacement (and hence compensation for it). Sen (2000) makes a similar point in arguing that a CBA which accounts for distributional equity needs to abandon the market analogy and explicitly incorporate social choice judgements.

A less radical approach is suggested by Zerbe (see Zerbe and Bellas 2006 and Zerbe 2007), who is so positive of having found a way to redeem the discipline, that he names it “ethical cost-benefit analysis”. CBA is “ethical”, provided it meets the following requirements: 1) all moral values for which WTP or WTA exists, are accounted for in the analysis, including those concerning distributional and ethical considerations; 2) no compensation test is performed and the only requirement is that the Net Present Value of the project is positive; 3) the definition of losses and gains is grounded in law and in the existing structure of property rights, with WTP used for gains and WTA for losses; 4) gains and losses which are legally illegitimate or which violate moral principles are excluded, whereas transaction costs of operating a project are included; 5) government intervention is justified by transaction costs and not by market failure; 6) the purpose of CBA is to generate information and predictions, not to constitute a rule for decision-making.

Zerbe claims that this approach to CBA accounts for moral and distributional considerations and therefore addresses most of the criticisms raised against it. However, even accepting the validity of the corrections made, two issues remain.

In the first place, ethical CBA still relies on the concepts of WTP and WTA and the notion of preferences, as postulated by the compensation principle. Not performing a compensation test only implies a less stringent requirement for CBA to pass (a positive Net Present Value, rather than a Net Present Value big enough to pay compensation), with all the other methodological prescriptions retained.

Secondly, ethical CBA, like “normal” CBA, neglects or hides what Martha Nussbaum

calls “the tragic question”<sup>26</sup>: “is any of the alternatives open to us free from serious moral wrongdoing?” In fact, ethical CBA brings commensuration to its extremes: as long as what is *good* and what is *bad* is measurable, it is included in the accounting exercise, no matter whether we are talking of the chance of survival of a bird species, of the speed and fluidity of traffic at a roundabout or the displacement of a tribe from its ancestral land. In this sense, the inclusion of moral values in ethical CBA hides the question even more, as it blends moral values with pure economic considerations.

Therefore a CBA for displacement-inducing projects which incorporates benefits and costs of displacement, at best generates information based on very strong assumptions, but it still does not provide a rule for decision making (admittedly, this is also one of Zerbe's point). Moreover, it does not tell anything on the *nature* of the costs generated and the moral compromises needed to pass the project. Ultimately displacement is conceptualised in terms of costs and benefits rather than dynamic consequences and development paths.

Finally, even if no issues arise in the estimation of the non-market losses of displacement and hence of its overall costs (and benefits), there still is nothing in CBA which makes the passage from estimation of the costs to payment of compensation automatic. Estimating the losses is different from paying them back and since CBA in itself is nothing more than an accounting methodology, it needs some external criteria to determine what type of losses - and in which circumstances- should be compensated. Unfortunately CBA rests on a normative framework which has nothing to say on the matter, as it purposefully discards equity considerations. At this point, therefore, an exploration of this normative framework is necessary, and specifically, the compensation principle.

#### **2.4. The Compensation Principle**

Cost-benefit analysis is theoretically and methodologically derived from the compensation principle- on which however, as seen in section 2.2, the literature on displacement has assumed a very critical stance. It is therefore worth looking at what exactly this principle suggests, on which assumptions it is based and what it would

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<sup>26</sup> Nussbaum (2000a) also acknowledges that CBA can answer the “obvious question, “what shall we do?”.

prescribe if applied to compensation for displacement.

In the domain of welfare economics, the creation of winners and losers from a policy change is a violation of the golden rule of Pareto Efficiency. As is well known, “a Pareto efficient allocation is one for which each agent is as well off as possible, given the utilities of the other agents” (Varian 1992:225). Therefore, an alteration of the existing equilibrium (be it a change in price or the construction of a dam) is considered efficient, and therefore an *improvement* to the existing situation, if, and only if, it makes someone better off, without making anybody worse off. Obviously, the creation of winners and losers through a policy intervention does not match with this definition of improvement.

Thanks to the work of Hicks (1939) and Kaldor (1939), welfare economics is provisioned, however, with another (apparently) reasonable and yet elegant principle, which makes efficient the creation of losers from a project and avoids worries about distributional issues when using the Pareto principle. Indeed the whole logic and theoretical justification of CBA rests on this principle.

According to the compensation principle, Pareto efficiency is preserved if the winners *can* use part of their gains to compensate the losers, so that the latter also prefer the new allocation.<sup>27</sup> In other words, the aggregate benefits are greater than the aggregate costs, and theoretically it would be possible to redistribute the benefits so as to make everyone better off.

It takes an attentive reader to identify the paradox within the principle. Compensation from winners to losers needs to be *possible* in order to have a *potential* Pareto improvement, but it does not need to actually take place. To quote Hal Varian in his *Microeconomic Analysis* “it seems reasonable that if the winners do *in fact* compensate the losers, the proposed change will be acceptable to everyone. But it is not clear why one should think  $x'$  is better than  $x$  merely because it is *possible* for the winners to compensate the losers.”<sup>28</sup> (Varian 1992: 405). As Varian explains in the following paragraph, *it does not need to be clear*, as the only purpose of the compensation principle is to restore allocative efficiency,

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<sup>27</sup> The principle also works using weak preferences: losers are compensated if they are *indifferent* between the old and the new allocation. While the use of strong or weak preferences makes little difference for the formal consistency of the model, it has strong implications in practical and policy terms. It is, for instance, the difference which exists between saying that a fair compensation is one which pays back the material losses and arguing that an effective resettlement programme should supplement compensation with development-oriented investments.

<sup>28</sup>  $x'$  and  $x$  correspond respectively to the new and the old allocation.

with no concerns about equity. As it is, the compensation principle only provides a decision criteria (should the change be implemented or not?) on the basis of Pareto efficiency, but has no normative claims.

Paradoxically, a complete application of the compensation principle would offer the possibility of a well-informed choice, at least within the domain of a model of welfare economics. As a matter of fact, although the compensation principle dismisses the need of actual compensation, it still requires the feasibility of such compensation to be tested. That is, tests are required to ascertain which allocations through redistribution are potentially achievable and whether they would correspond to a Pareto improvement.

Kaldor (1939) and Hicks (1939, 1943) addressed this problem by suggesting that costs/losses and benefits/gains were to be measured through welfare measures (the compensating and the equivalent variations) and that a project would respect the compensation principle and hence pass the test if the welfare measures for the gains were greater than the welfare measures for the losses.

The compensating variation and the equivalent variation are defined as income adjustments that maintain the consumer at the original level of welfare after a policy change (in their original formulation, after a change in price).

More precisely, Just *et al* define *compensating variation* as “the amount of money which when taken away from an individual after an economic change, leaves the person just as well off as before. For a welfare gain, it is the maximum amount that the person would be willing to pay for the change. For a welfare loss, it is the negative of the minimum amount that the person would require as compensation for the change” (Just *et al* 1994:9).

*Equivalent variation* is instead “the amount of money paid to an individual which, if an economic change does not happen, leaves the individual just as well off as if the change had occurred. For a welfare gain, it is the minimum compensation that the person would need in order to forgo the change. For a welfare loss, it is the negative of the maximum amount that the individual would be willing to pay to avoid the change” (1994:9).<sup>29</sup>

The Kaldor-Hicks test is then passed if the aggregation of the individual WTP for the project is greater than the aggregation of the individual WTA compensation for the losses it

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<sup>29</sup> One of the appeals of using a WTP/WTA interpretation of the compensating and equivalent variation is that it avoids the attribution of a cardinal interpretation to the welfare change.

generates.

So, for instance, using the example of a dam project generating displacement, and assuming that the farmers are those who receive all the benefits (in the form of improved irrigation) and the indigenous peoples are those who bear all the losses (in the form of expropriation of land and displacement), the test is passed if the WTP of the farmers for the project is higher than the indigenous peoples' WTA in exchange for displacement.

Note that for the purpose of CBA, the compensating variation is the relevant welfare measure (i.e. the economic change does happen); in addition, as the Kaldor-Hicks test assumes the status-quo and the existing structure of property rights as the starting point, gains are measured by WTP and losses by WTA.

As we have seen in section 2.2, when asked to provide principles which might guide the determination of an effective compensation and the design of successful resettlement, the economic literature has turned its attention to the compensation principle and the concepts of WTP and WTA.

To seriously assess the contribution that welfare economics can give to the issue of compensation for displacement and resettlement, it is therefore necessary to verify what the application of the compensation principle would predicate for the resolution of this policy problem.

In the first place, a displacement-inducing project is implemented as long as the benefits outweigh the costs (including benefits and costs arising from displacement). Benefits and costs, even those involving immaterial and non-market goods, can be estimated and computed into CBA, by conceptualising them in terms of WTP and WTA. More precisely, the benefits must be sufficient to pay back the losers their compensating variation, or that amount of money that they would be willing to accept in exchange for the losses, and that therefore would restore their pre-project utility level. The Compensation Test does require the estimation of the willingness to accept displacement of the project-affected people, which is then a measure of the *efficient* amount of compensation. Not only the compensation so obtained is consistent with Pareto efficiency, but being obtained through WTP and WTA, it also reflects the true preferences of the affected people and is able to account for the material (whose value is estimable using market price) and immaterial

costs.<sup>30</sup>

As the existence of benefits large enough to pay the compensating variation is a sufficient condition for the re-establishment of economic efficiency, the compensation principle does not have anything to say on the payment of actual compensation.<sup>31</sup> That is because in its original formulation the principle embraced an understanding of welfare economics which sees the separation of efficiency considerations from equity consideration as an achievement.<sup>32</sup> This separation however turns out to be one of the main limits of the compensation principle, as it is evident when one tries to associate it with policy making and, particularly, to improving resettlement practice. Before looking at these limits, it is, however, worth summarising the internal critique which has been moved against the principle.

In the first place, it has been shown that the fact that a project passes a Kaldor-Hicks compensation test is not a sufficient condition for Pareto efficiency. The most notorious of these critiques is the Scitovsky reversal paradox (Scitovsky 1941), which occurs when (1) the winners from the project can compensate the losers using the initial prices and income distribution to evaluate the change, but (2) the losers can compensate the winners when undoing the project, using the post-project prices and income distribution. So it can happen that the with-project situation is preferred to the without-project situation, but the without-project situation is also preferred to the with-project situation. In order to avoid the paradox, Scitovsky suggested an “augmented” version of the compensation principle, where a project is desirable (i.e. economically efficient) if the winners can compensate the losers, and the losers cannot bribe the gainers into not undertaking the project (for a description see for instance Just *et al* 1994 and Little 1960).

The existence of this paradox is an indicator of the weakness of the principle, which turns out to be not even strong enough to guarantee efficiency. Besides this, the amount of data needed to implement a Kaldor-Hicks and a Scitovsky test is considerable (see Keenan and Snow 1999 on the informational burden of the test), so decreasing its feasibility in

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30 That is to include both direct use and passive use values.

31 The Compensating Variation should nonetheless enter CBA, which must account for all the costs and benefits.

32 In Kaldor's words, when it comes to the part of Welfare Economics dedicated to distribution, “the economist should not be concerned with 'prescriptions' at all [...]. For it is quite impossible to decide on economic grounds what particular pattern of income distribution maximises social welfare” (Kaldor 1939:551).

practice and the likelihood that it is actually applied for policy making.

Considering all these limitations, the compensation principle appears to be, in Sen's words, "either redundant or unconvincing" (Sen 2000:947). The questionable use of the principle is underlined by the fact that it is not possible to observe its systematic application in policy-making.

Of course the principle *is* fundamental for policy making. Any articulation of the latter always generates winners and losers and actual compensation is not always paid, at least not in the form of direct compensation, with an explicit transfer which is meant to re-establish the original welfare level. This practice can be justified in three ways: i) the purpose of the government is indeed to favour the winners at the expense of the losers; ii) the losers are such only apparently, as they will receive indirect benefits; iii) the compensation principle exists, whereby some form of redistribution could be arranged in theory and that is all that matters.

However, in some cases actual compensation is paid. This is observed especially when some form of *taking* by the State is involved, even more if displacement and evictions are undertaken. At the same time, the criteria applied in the determination of the compensation to be paid vary immensely, according to the historical period, the country, the type of project and the social group taken into consideration.

These criteria are not provided by the compensation principle, in reason of its constitutive separation between equity and efficiency consideration, that is, of its neglect for the distributive consequences of the project to be evaluated. Attempts have been made to reconcile equity and efficiency, one of the most remarkable being Little's (1960) Welfare Criteria. This states that an economic change is desirable if i) it results in a good redistribution of wealth; and ii) the potential losers could not profitably bribe the potential gainers to oppose the change (Little 1960:275). In other words, Little adds a "good distribution criteria" to the Scitovsky and Kaldor-Hicks test. Despite the fact that it might be argued that actual compensation is provided when a project has a significant distributional impact, Little's Criteria does not add much to what we already (do not) know. In fact, it has nothing to say on what makes a "good distribution" and not even a distributional change "significant" and therefore liable to be compensated for.

This brings us back full circle to CBA and its observed inability to prescribe the

circumstances in which compensation should indeed be paid. As nothing of the sort is present in the compensation principle, it is evident that the search for economic principles driving the improvement of resettlement practice remains unsatisfied.

The original concern of this discussion was an investigation into what the economic discipline has to offer in terms of principles guiding the design of compensation for displacement. As long as the search is limited to welfare economics, little seems to be available. The compensation principle, which is in fact one of the pillars of welfare economics and particularly of CBA, turns out not to be a sufficient condition for economic efficiency; it has an excessive distributional burden, it provides no useful criteria for policy making and in fact it does not explain what is observed in practice when it comes to compensation for displacement. At this point one should wonder whether other disciplines are more suited to saying something on the criteria driving the attribution of compensation, particularly when the appropriation of land is involved. This study attempts to follow an alternative approach: without abandoning the economic discipline, it explores the potential contribution of political economy. This analysis is carried out in chapter 3 at a theoretical level and in chapter 6 at an empirical level.

Before turning to political economy, the investigation into the welfare economics of compensation for displacement has to be completed, particularly with regard to its methodological implications. Let us recall in fact that the literature investigating compensation for displacement and resettlement has been claiming that something could be saved of the compensation principle (Kanbur 2003, Pearce and Swanson 2008, Garikipati 2011). It is the methodological blueprint that the latter offers for the estimation of the (material and immaterial, use value and non-use value) costs of displacement and from them of compensation which is emphasised by this literature, which is seen as a potential to be developed. In this sense the criticisms above do not impinge on the utility of the principle. Unfortunately, it is in its operationalisation as a tool for the estimation of the right compensation that the compensation principle meets its most significant limit. The notions of WTP and WTA, from which the costs of displacement and compensation are supposed to be derived, are the expression of a very rigid model of human behaviour which is badly equipped to represent the complexities of the processes of displacement and resettlement. Even more problematic is the translation of this model into numbers. The estimation of WTP and WTA requires the use of Stated Preference methods, which require

that model of human behaviour to be reflected in preferences expressed not through actions , but through a cognitive process which results in a hypothetical choice.

The two main stated preferences approaches, the contingent valuation method and choice experiments, are reviewed in section 2.5.

## **2.5. Estimating the costs of displacement with State Preference Methods. Is it possible and what good can it do?**

When applied to the problem of displacement, the compensation principle recommends the estimation of compensation through the elicitation of the WTA (cash in exchange for expropriation and resettlement) of the affected population.

As mentioned in section 2.1, this is in fact what is suggested by the most recent literature on compensation for displacement and resettlement. This literature is substantiated at the empirical level by Garikipati's investigation of resettlement preferences of the Sardar Sarovar's affected population. This study is to date the only practical application of WTA's methodological apparatus to resettlement.

In order to assess what it means to translate into policy the theoretical claim that an efficient compensation for displacement can be obtained from the estimation of WTA, a review of the methodologies available is needed.

It is important to bear in mind in the first place that estimating WTA displacement means entering the field of non-market goods evaluation. The latter has troubled the economic discipline since its dawn, but it acquired a practical relevance only in the Eighties with the spread of environmental economics and environmentalism in general. The economic discipline felt in fact that it had to give its contribution to the rescue of the planet through the development of techniques suitable to attribute a price to the environment. These techniques have developed in two different directions: the Revealed Preferences approach and the Stated Method approach; both are extensively adopted for environmental policy analysis and assessment of public projects. While in the Revealed Preferences approach the unknown value of the non-market good is obtained through the observation of demand behaviour, the stated preferences approach elicits it directly from the consumer through hypothetical questions.

The stated preferences approach has acquired popularity as the methodology answering the needs and the challenges posed by damage assessment in litigation cases in US and Canada, in reason of its focus on the estimation of passive use values (Adamowicz *et al* 1998b). It has then evolved with the purpose of quantifying the benefits of non-market environmental goods and attributes, so that the estimated values could be used for cost-benefit calculations (Bateman and Willis 1999).<sup>33</sup>

The first technique to be developed within the stated preferences approach was the contingent valuation (CV henceforth) method, which came to the fore following the running aground of the oil tanker Exxon Valdez in Alaska.<sup>34</sup> An extensive CV assessment of the passive use damages caused by the environmental disaster was in fact commissioned by the State of Alaska. In reaction to this, the Exxon company commissioned a study to investigate the validity of the CV technique, particularly with respect to the problem of embedding (where values for a good are conditional upon the circumstances of its presentation). The interest for the technique was obviously motivated by very material considerations, as the CV assessment was supposed to be used for the estimation of the compensation to be paid by Exxon for the non-use damages. However, it prompted a high-profile academic debate, which culminated with a symposium (Cambridge Economics 1992) and a book (Hausman 1993) as well as with the consolidation of a split in the acceptance of the validity of CV studies. The two positions were represented by two articles by Kahneman and Knetsch (1992a and 1992b) on the embedding problem and an article by Smith (1992) on the other.

The dispute was somehow resolved by the NOAA (National Oceanic and Atmospheric Administration) scientific panel, commissioned by the US Federal government. No less than two Nobel laureates were mobilised, being chaired by Kenneth Arrow and Robert Solow. The panel investigated the validity and reliability of the use of CV for the estimation of non-use values, concluding that “CV studies can produce estimates reliable enough to be the starting point for a judicial or administrative determination of natural resource damages, including lost passive-use value” (as quoted in Carson 1999:7).

The CV method aims at estimating the value that a person places on a non-market good, directly trying to elicit his or her willingness to pay for that good or the willingness to

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33 As an alternative or a supplement to travel-cost and hedonistic-price models.

34 The disaster caused the release of 11 million gallons of crude oil and the death of 36,000 sea-birds, 1,000 sea otters, and over 150 bald eagles (Maki 1991 quoted in Bateman and Willis 1999).

accept a sum of money in exchange for the loss of that good. Different kinds of questions can be used to elicit this value, but all in one way or another imply an explicit exchange between a sum of money and the good under investigation. In other words, a hypothetical transaction must be built for the analogy with the market to work. The outcomes are therefore contingent upon respondent choices.

The hypothetical transaction can be built using an open-ended or a closed-ended (or dichotomous choice) format. In the first case, the respondents are explicitly asked to indicate an amount of money, that is their WTP for the good. In the close-ended format instead, the respondent has to choose between the status quo (the existing good or service) and the modified scenario (an alternative version of the existing good or service), which implies the payment of a given sum of money (the “price” for the alternative scenario is usually assumed to be charged by the government authority through increased taxes, higher prices associated with regulation or user fees). The respondent is free to accept or refuse the alternative offered. This format is modelled within a discrete choice framework from which welfare measures can be estimated (for a detailed treatment see Hanemann and Kanninen 1999).

For instance Adamowicz *et al* (1998) employ a closed-ended format to investigate the WTP and the WTA for a Woodland Caribou Habitat Enhancement programme, where the respondents were asked whether they would accept the programme upon the payment of a given sum of money or not.

If, as it has usually been the case in the empirical literature employing this method (see below), the objective is estimating WTP or WTA for some type of environmental good, the consumption of environmental goods needs to be modelled as one of the determinants of individual utility.

Specifically, utility will be a function of price  $p$  and income  $m$ , as well as of environmental goods  $q$ , so that an improvement in the availability or quality of environmental goods will determine an increase in the level of utility. Formally:

$$U^1 = (p, q^1, m) > U^0 = (p, q^0, m).$$

$U$  is here the indirect utility function,  $q$  represents the environmental good and  $q^0$  and  $q^1$  are the alternative levels of the good or quality indexes (with  $q^1 > q^0$ ).

As explained, the change in utility can then be measured by the compensating variation

interpreted as the WTP for that change. Formally, WTP is that amount of money that, if taken away from the person's income, given the improvement in the good consumed, will keep his or her utility constant:

$$U^1(m - \text{WTP}, p, q^1) = U^0(m, p, q^0).$$

If the environmental good deteriorates rather than improves (with  $q^0 > q^1$ ), WTA is the correct welfare measure to employ, so that:

$$U^1(m + \text{WTA}, p, q^1) = U^0(m, p, q^0)$$

If the alternative scenario  $q^1$  presented to the respondents is randomly associated with different cost levels, it is possible to trace out a distribution of the WTP for it. When a parametric functional form is assumed for the WTP distribution, summary statistics such as mean and median WTP can be estimated.

More recently, and despite the criticism which arose against CVM (see below for a review of the critiques), the application of the stated preferences approach to environmental evaluation has further advanced towards techniques which permit the evaluation of the characteristics of the damaged good, so as to determine the appropriate restoration project (Adamowicz *et al* 1998; Alpizar *et al* 2001). The underlying idea is that the restoration of the losses can be achieved with the implementation of actions aimed at enhancing existing or creating new environmental goods, in a measure equivalent to those lost (Adamowicz *et al* 1998). Such practice requires identifying and quantifying the attributes of environmental goods (and of the services that they provide) which are deemed valuable by the people and that therefore can be improved as part of a compensation package. The contingent CV does not allow such practice, whereas choice experiments do.

Choice experiments (CEs henceforth) are a method of preference elicitation through the generation of behavioural data from consumers, so that an explicit link to a theory of choice behaviour can be established. In particular, CEs are based on Lancasterian consumer theory (Lancaster 1966), which states that consumers derive utility from the characteristics of the goods, and not directly from the goods themselves. Therefore consumers make choices not on the basis of the marginal rates of substitution between goods but between attributes of these goods.

A CE requires the creation of a hypothetical setting where the consumer is asked to make a choice between two or more alternatives. Each alternative represents a different

version of the (non-market) good, being characterised by different attributes or level of the attributes. By choosing an alternative the consumer expresses an opinion of how highly a certain attribute (or combination or level of attributes) is valued in comparison to the others. This allows the researcher to attach a value to the attributes and enables the policy maker to understand which alternative should be implemented. A monetary compensation for the change in the attribute(s) can also be estimated through the evaluation of the appropriate welfare measures (see below).

In terms of economic models, applying Lancasterian theory to CEs requires the use of discrete choice random utility models to relate choices to attributes level (Hanemann 1984, 1999). Such models are grounded on the hypotheses that individuals make choices based on the attributes of the alternatives, along with some degree of randomness, which is consistent with individual preferences. It is also assumed that the researchers have only a partial knowledge of the real structure of the respondent's preferences, while the unknown component is assumed to behave stochastically. Random utility models also allow the estimation of the probability that a consumer will choose a certain scenario with given attributes on the basis of a set of explanatory variables. Thus a CE can predict a consumer's choice by determining the relative importance of various attributes in the consumer's choice process (Hanemann and Kanninen 1999).

The rationale is that individuals will choose the scenario which provides the greatest utility, and hence the probability of selecting a given alternative increases with the utility associated with it (Adamowicz and Boxall 2001).

The consumer  $n$  is then assumed to have a utility function of the form:

$$U_{in} = U(A_i, p_i, m, Z_n);$$

where  $A_i$  is the alternative  $i$  (where  $A$  is a vector of attributes),  $p_i$  is its price,  $m$  is income and  $Z_n$  is a vector of explanatory variables (representing the socio-economic characteristics of the consumer  $n$ ).

The probability that the consumer will chose the  $i$ -th scenario is then:

$$\Pr(i | C) = \Pr[U_{in} > U_{jn}] = \Pr[U_i(A_i, p_i, m, Z_n) > U_j(A_j, p_j, m, Z_n)], \forall i \in C;$$

where  $C$  is the complete choice set of alternative scenarios.

The reliance on a random utility model necessitates the identification of a systematic and

of a random and unknown component of utility. The latter is represented by the disturbance  $\varepsilon_i$  and is due to omitted variables, measurement errors and mistakes in the elicitation process.

The probability the consumer  $n$  will choose profile  $i$  then becomes:

$$\Pr(i | C) = \Pr[U_i(A_i, p_i, m, Z_n, \varepsilon_i) > U_j(A_j, p_j, m, Z_n, \varepsilon_j)], \forall i \in C. \quad 35$$

The extent to which the systematic component of utility  $U_i$ - which arises from the attributes of the environmental good, can be captured through estimation depends on how well the factors which influence the choice of the consumer are included in the model. These factors can be calculated using a preference determinant function which includes socio-economic and institutional circumstances. However this requires one to make assumptions about the direction and the magnitude of the influence of the variable (that is about how the characteristics relate to the preferences). Assumptions are therefore needed on how personal and community characteristics relate to preferences.

These assumptions, and more generally, the relationship between the factors identified and the choice behaviour, need to be formally specified in a utility function, so that the systematic component can be expressed as a function of a vector of explanatory variables:

$$U_i = \beta' x_i;$$

where  $\beta$  is the vector of utility coefficients (i.e. marginal utilities) associated with the vector  $x$  of explanatory variables (income, prices, other socio-economics, individual characteristics). The objective is then the estimation of the vector  $\beta$ . Assuming a linear utility function, the ratio of the coefficients of two attributes provides their marginal rate of substitution (Alpizar *et al* 2001). What is observed is how choices of the different scenarios proposed (and hence preferences for different attributes) vary with the characteristics of the respondent.

The main purpose of CEs however is to estimate the welfare effects of changes in the attributes of a non-market good (Alpizar *et al* 2001). Choice experiments do not directly elicit WTP or WTA, although their estimation is possible through the estimation of the

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35 The exact form assumed by the econometric model then depends on what specification of the probability distribution of the random error term is adopted. The most commonly adopted model has been the Multinomial Logit model (Hanley *et al* 1998; Alpizar *et al* 2001), which assumes that the random components are independently and identically distributed with an extreme value type I distribution (Gumbel). Such distribution is characterised by the scale parameter  $\mu$  and a location parameter  $\delta^2$ , where  $\text{var}_\varepsilon = \pi^2/6\mu^2$ . The choice probability then becomes:  $\Pr(i | C) = \exp(\mu U_i) / \sum_{j \in C} \exp(\mu U_j)$ .

compensating and equivalent variations (for which the specification of the underlying utility function and consumer choice model is required).

The compensating variation CV is given by:

$$U(A_i, p_i, m) = U(A_i, p_j, m + CV).$$

Conceptually it corresponds to that amount of money that, if given to the consumer, would leave his or her level of utility unmodified among the different scenarios, i.e. that amount of money which makes up for the change in the attributes (assuming that the change decreases utility). Moreover, assuming constant marginal utility of income, the marginal WTP for a change in the attribute will be given by the ratio between the coefficient of the attribute  $\beta_i$  and the marginal utility of income  $\gamma$  (the coefficient on the price attribute in the logit equation can be interpreted as the marginal utility of income) (see Hanley *et al* 1998 and Alpizar *et al* 2001).

So it seems that contingent valuation (CV) and choice experiment (CE) offer a route for the estimation of the costs of displacement, and through them, of compensation. The extent to which they can contribute to the improvement of compensation for displacement and resettlement, however, needs to be assessed in the consideration of the limits of these techniques. CV and CE are based on a methodology which assumes a closed system, where economic agents think and act rationally, i.e. according to the characteristics postulated by (Hicksian and Lancasterian) consumer theory. The latter employs the notion of WTP and WTA to provide a measure of the compensating and equivalent variations. The compensating and equivalent variations are observable if the demand functions are observable and they satisfy the conditions implied by utility maximisation and consumer theory (integrability conditions). Additionally, they can be given a WTP/WTA interpretation only as long as there is a dual relationship between demands and preferences.<sup>36</sup> Finally, preferences must behave as postulated by rational choice theory.

Thus, the limits of CV and CE are of two types: the closed system assumed is a meaningful approximation of reality, but CV and CE are not adequate to elicit and represent it; or the assumptions on which CV and CE rest do not hold and therefore the answers that they elicit cannot be used for policy making.

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<sup>36</sup> That is, just as demands can be derived from preferences through utility maximisation, one can determine preferences in an ordinal context from consumer demand equations.

The first type of problems have mainly to do with the fact that Stated Preference methods are based on information revealed by the economic agent upon request (rather than on their observed behaviour). As (stated preferences) surveys are “structured conversations between strangers” (Mc Fadden *et al* 2005), problems of confusion, misinterpretation, imperfect recall, presence of second aims, and minimisation of effort are likely to be the norm rather than the exception. If the CV or CE requires complex and elaborate cognitive processes, the respondents might report only their best guesses and/or estimates, using a more or less sophisticated heuristic (McFadden *et al* 2005). Answers which reflect these problems and in particular the adoption of some sort of strategic behaviour cannot be easily detected from those which reflect truthful preferences. Biased answers can also be due to the presence of incentives for not truthfully revealing preferences, as it might be the case in consequential surveys. The latter are surveys perceived by the respondent as liable to potentially influence authorities decisions, or surveys whose outcome the respondent cares about. A survey investigating the preferred type of compensation for displacement and targeting the affected people, is likely to be a consequential survey.

The adoption of lexicographic ordering for instance might be a strategy adopted by the respondent as a result of excessive task complexity, carelessness, learning, or fatigue effects (Alpizar *et al* 2001). Another implication is that the values elicited are contingent upon the circumstances with which the exercise takes place (as the same name “contingent valuation” suggests), so they may depend upon the elicitation method adopted and more generally to how carefully the experiment is designed (Bateman and Willis 1999).

The second type of problems arise when the respondent does not behave as predicted by the economic model underlying CV and CE, so that the preferences for the good evaluated are not well-defined and/or do not have the characteristics postulated by the theory. Bateman and Williss (1999) classify these problems in three categories (with reference to environmental goods): 1) cognition problem: difficulties of observing and understanding a particular environmental system and weighing up the attributes of the good; 2) problem of incongruity: individuals being unable to accept that price can capture all relevant information about a good and its value; 3) problem of composition: the inability of individuals to accept that an environmental good can be commodified in order to be priced separately from its intrinsic contribution to the whole.

The cognitive problem is due to the fact that CV and CE are based on hypothetical transactions, as the goods evaluated (such as the survival of a bird species, the protection of a given amount of hectares of the Amazonian Forest, or the fact that one is living on the land of your ancestors) are not experienced through market exchange, and in fact they are rarely thought of in terms of monetary value. This problem arises more compellingly in CV, as a monetary evaluation is always implicit in the choice, and less so in CE, where the focus is on qualitative attributes. Nonetheless problems can arise if the preferences for the good and the attributes are not very well defined. This is likely to be the case the less familiar the respondents are with market transactions and therefore in CV and CE exercises carried out in household surveys in developing countries.

The *cognition*, *incongruity* and *composition* problems can explain why preferences do not necessarily behave as postulated by the economic model. It is the case of the *embedding* and the *warm glow* effect. Embedding, or insensitivity to scope, corresponds to an implausible relationship between the increase in WTP and the increase in the quantity or scope of the good being provided. The cause of this phenomenon has been indicated in the “warm-glow” effect, or the feeling of moral satisfaction that one experiences from the act of paying for a good, independent of the actual characteristics of the good (see for instance Carson 1999 and Hanemann 1999).<sup>37</sup>

The misbehaviour of preferences has led some to argue that passive use values should not be included in economic analysis at all, whether it is because this value cannot be properly elicited, because it does not exist, or because either way, attempting to do it is morally dubious. This claim rests on the idea that trying to attribute a price to the environment, to wildlife, to tribal culture, is just the extreme manifestation of commensuration and commodification theoretically justified by the application of neoclassical economics to every field of policy-making. As the *price* is considered as the bearer of every purposeful information and its attribution the ultimate scope of economic analysis, CV and CE are built so as to generate this type of information, in conformity to the theory's assumptions. This can come at the costs of forcing the interpretation of the behaviour observed into the assumptions, and neglecting all the additional knowledge around the issue contained into the unpredictable and irrational behaviour observed.

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<sup>37</sup> The same authors however also claim that CBA is inadequate in accounting for the ethical issues raised by displacement by development, for it does not account for distributive justice (2011:82).

This is very much the case when it comes to using CV and CE to investigate compensation for displacement and resettlement. In the first place, it implies the commodification of every loss (and gain) associated with displacement, be it the loss of the spiritual connection with the forest, the increased accessibility to health services or the loss of access to free firewood. In fact, any change in the lives of people is translated into a welfare change, representable through a utility function and measurable through the concept of WTP/WTA if a hypothetical market transaction is implemented.

In addition, the value of the welfare change so elicited incorporates not only the value of what is lost, but also the cost of obtaining a substitute for the loss. It means assuming that the respondent is able to attribute a value to the lost livelihood, to the cost of building a new one and consistently reporting this value through the stated WTA (or the stated choice). Not only this intellectual exercise appears demanding and liable of leading to implausible results, but, as discussed in section 2.3 in reference to the case of the Yavapai people, it is also liable to encounter resistance and unpredictable reactions. Resistance to participation to the exercise by the affected people is possible if the use of CV and CE for estimation of the costs of displacement threatens to overcome the social and cultural boundaries which separate the commensurable from the incommensurable. Unpredictable reactions, particularly in the form of misbehaved or “irrational” preferences, would be justified by the fact that incommensurables by definition cannot be reduced or compared to something else, and therefore do not admit trade-offs (Espeland and Stevens 1998).

Moreover, as WTP/WTA are elicited mimicking a market transaction, they assume that the exchange hypothesised is voluntary. However, as stressed by Daly (2008) there is little voluntary about displacement, and for as much as the transaction between the goods expropriated and the compensation is hypothetical, it is still induced by force and coercion rather than by the aim of maximizing one's utility. As a result the preferences expressed have one reason more not to conform to the characteristics postulated by Consumer's Theory (which assumes voluntary choice).

At this point it is necessary to point out how CE, unlike CV methods, have the potential to overcome some of the limitations just discussed. As mentioned, a CV focuses on a precise scenario and aims at generating information on respondents' choice and preferences regarding this scenario, while a CE focuses on different attributes of the scenario and the preferences for these attributes. So, both postulate the existence of well-behaved

preferences, but a CE shifts the focus from commensuration to the elicitation of the preferences for different attributes. Recalling the example drawn from Adamowicz *et al* (1998) on the Woodland Caribou Enhancement Programme, the authors used the case-study to implement both a CV exercise then a CE. While the CV asked the respondent whether they would be willing to pay a certain amount of money (in the form of increased taxes) for the implementation of the programme (including caribou and wilderness area increases, recreation restrictions and employment creation) the CE asked respondents to choose among different versions of the programme, differing in terms of the five dimensions mentioned (increase in taxation, employment creation, recreation restrictions, wilderness area and wildlife population).

This approach allows CE to be used to understand the general trade-offs which an individual is willing to make concerning the good and its attributes (Adamowicz *et al* 1998b). The information elicited on the preferred attributes are likely to be useful in policy making, as most decisions are concerned with changing the attributes of a good (be it an environmental good or a public service), rather than losing or gaining it (Hanley *et al* 1998). Not only is the evaluation of multi-level scenarios more transparent with this approach, it is also possible to focus on those attributes which have a lower degree of substitutability or for which it is more difficult to make a choice. The challenge is then the choice of the attributes which describe the alternatives. Finally, the trade-offs between the attributes (and their WTAs and WTPs) *can* be commensurated if a monetary attribute is included, but estimation of a monetary value is not necessary to give meaning to the CE. Therefore, commensuration is not necessarily the primary objective of a CE.

This approach differs for example from the use of the CV method made by Garikipati for the investigation of the resettlement preferences of the displaced population. She designed four R&R packages with different attributes (and levels of cash compensation), which were then offered to the affected people, in a hypothetical transaction, in exchange for the status-quo. The amounts of cash compensation contained in the package accepted were to reveal how much the status-quo was valued by the respondent, so providing indications on the amount of cash compensation to be paid and the other attributes to be included in the resettlement package. The focus of the exercise is ultimately on the estimation of WTA, therefore on the commensuration of the alternatives offered.

In light of what said so far on the potentialities and the weaknesses of CE and CV, this

thesis suggests to abandon the focus on commensuration (i.e. the estimation of WTP and WTA for displacement), in favour of resettlement preferences, to be investigated through a CE approach. Offering different resettlement packages with different characteristics through a CE should reveal which are the aspects of the status quo that people value the most and are unwilling to give up, and which are instead the features of an acceptable resettlement package. As explained, WTA can be estimated through a CE if a monetary attribute is included, but it is argued here that this is not necessary to give meaning to the experiment. In general the focus is on the attributes and how they relate to each other, not necessarily on their monetary value. Cash compensation is just one (and not necessarily the most important) aspect of a good R&R package. Eliciting information on what are the attributes of a R&R package which the affected people deem important might therefore be even more useful than estimating the “exact” cost of displacement.

Before concluding, a few considerations must be made on the strengths and limitations of a CE approach, in particular in comparison to a CV.

First, a CE still assumes the existence of preferences for the alternative attributes offered, and to the extent that it is grounded on an economic model, it also requires these preferences to behave as postulated by rational choice theory. As we’ve seen, the existence of “rational” preferences is not guaranteed when we enter the field of non-market goods, all the more so if these goods are deemed “incommensurable” by the participants to the experiment. In this sense, a CE is open to similar criticism than a CV.

However, if the CE is not used to estimate WTP or WTA, but only to elicit and analyse preferences in a systematic way, the theoretical and methodological apparatus required by CBA to estimate the value of non-market goods can be dismissed. In other words, the assumptions imposed by rational choice theory and utility theory can be removed. Preferences still must exist, but they don’t have to be “rational” and they are not attributed a normative meaning (see also chapter 4 on this).

Of course, a CE employed in this fashion is something quite different from a stated preferences method. In fact, it’s a tool for the direct consultation of people concerning their favourite forms of resettlement and compensation, rather than an instrument to test human behaviour on the grounds of an underlying economic model. This thesis argues that such an approach can provide useful information for design of R&R programmes. A problem that

the approach is not able to overcome, is the fact that a choice is requested from the respondent even if none of the alternatives is truly liked. This is particularly likely to be the case if the alternatives are exogenously given and therefore imposed to the respondent. However, the problem can be attenuated complemented the CE with more interactive and participatory consultation methods, like focus groups.

This thesis adopted a CE approach in the way just described to investigate the resettlement preferences of the people affected by the Polavaram dam in Andhra Pradesh, the case study object of this research. Chapter 4 makes some further methodological considerations on the use of CE as a consultation tool, while chapter 7 describes the results of the experiment as implemented with the Polavaram affected people.

## **2.6. Conclusion**

The aim of this chapter was to review what the field of economics has to offer for the creation of an “economics of resettlement with development”. The underlying motive was the observed failure of Resettlement & Rehabilitation programmes and the search for principles and theories which might illuminate their reform.

The review of the economics literature on compensation and resettlement has revealed that the issue has been interpreted mainly as a problem of public choice, to be addressed with the tools offered by welfare economics, that is, cost-benefit analysis and the compensation principle. On this matter, CBA recommends the estimation of the costs of displacement through methodologies designed to elicit passive use values of non-market goods. In particular, the costs can be approximated by the WTA money in exchange for displacement of the affected population. Willingness to accept however is a controversial concept, whose use rests on the acceptance of the assumptions postulated by a model of Consumer Theory. Furthermore, its elicitation is performed through stated preferences methods, which also require very strong and in some cases implausible assumptions on people’s behaviour. Moreover, the examination of the compensation principle has revealed that it is unfit to drive policy making, particularly in the case of development projects inducing displacement, as it would lead to unfair, morally and logically questionable and socially unfeasible prescriptions. If taken seriously it would in fact recommend the non-

payment of any kind of compensation to the displaced people. If not taken seriously, it does not have anything to say on the circumstances in which actual compensation should be paid.

We are thus left with no strong methodologies for the estimation of compensation and no principles for the determination of compensation. More importantly, looking at displacement and resettlement through the premises of welfare economics has the undesirable consequence of reproducing the discourse around displacement in terms of costs and benefits rather than the legitimacy and fairness of the development process it presupposes. The effects of displacement are numerous and complex; they emerge along different time-spans and are often dynamic. As such, they cannot be simply categorised as costs and benefits to which a monetary value can be attributed. There is no such thing as a price for displacement: displacement means for the affected people the loss of a livelihood and the disruption of a life-style. What they lose cannot be easily substituted, not even with the payment of the “correct” amount of money.

The fact that welfare economics is not equipped to address the complexity of the problem does not mean that the discipline of economics has nothing else to offer for the improvement of Resettlement & Rehabilitation.

In line with Cernea (1999b), it is argued here that economics can and should in the first place drive the identification of the differential impacts of displacement and the ensuing costs and benefits. It should also provide criteria for the full internalisation of these costs. In this sense CBA is the appropriate technique, if employed according to Nussbaum's interpretation, i.e. as a neutral accounting tool for which external moral prescriptions are needed, and not a rule for decision-making. Economics can also play an important role in risk analysis, particularly of the risks of impoverishment inherent in displacement. Risk analysis is also needed for the design of effective resettlement programmes, which should supplement compensation with investment and other interventions aimed at economic recovery and growth enhancement. For this, economics can be expected to have something to say. Finally, although Stated Preference methods are likely to generate questionable results if employed for the estimation of compensation through the elicitation of WTA money in exchange for displacement, they offer a framework for the systematic consultation of people's preferences which can be adapted to the investigation of the most effective (or the least disliked) type of resettlement. This is particularly the case of choice experiment, in virtue of their focus on the attributes of a good.

## **Chapter 3**

### ***A Political Economy approach to Displacement and Resettlement: the Adverse Incorporation framework***

#### **3.1. Introduction**

This thesis claims that the failure of resettlement at the practical level is mirrored by its weak understanding at the theoretical level. The theoretical weakness is particularly embodied in the reformist-managerial approach to resettlement described in chapter 1. It is also argued here that using political economy to investigate resettlement can lead to a richer and more articulate understanding of resettlement, and of the structural factors which lie at the roots of its failure.

This chapter first analyses the two main theoretical models on which the reformist-managerial approach rests, showing their weaknesses (section 3.2). Then, it develops a framework based on the notions of adverse incorporation and a relational view of poverty (section 3.3). The framework is applied step-by-step to the problem of resettlement (section 3.4). It is claimed that resettlement of people displaced by development projects can be configured as a process of adverse incorporation and that adopting this framework can help to identify the structural factors which explain its systematic failure in preventing the impoverishment of the displaced people. The economic dimension of incorporation in particular is explored using the notions of accumulation by dispossession and surplus labour. It is found that resettlement programmes are by themselves unable to tackle the problem of surplus labour, and this inability indeed largely explains their systematic failure.

#### **3.2. Critique of the reformist-managerial approach to resettlement: lack of political economy**

It has been claimed in chapter 1 of this thesis that the current, dominant discourse around development-induced displacement, originating from the World Bank, understands resettlement primarily as a problem of implementation and management, and its failure in

preventing impoverishment essentially as a form of institutional failure. A number of critiques of this approach have been put forward, and the one on which this thesis focuses has very important practical implications: it is argued here that this current approach misses important reasons for the failure of resettlement and hence it promotes a solution which cannot fully eliminate the problem. This is not to suggest that the institutional landscape, the accuracy and the transparency of implementation and management do not play a role in determining the performance of a resettlement programme. However, these factors alone cannot prevent the impoverishment of the affected population, if certain dynamics are at play within the development process in which the affected people are incorporated as a result of displacement. Indeed, it is claimed here that the main limitation of the reformist-managerial approach is its failure to account for the process of development which requires displacement in the first place and which then determines what are the terms of (re)incorporation of the resettled population into that very same process. In other words, the focus on implementation and managerial aspects can lead to standardised blueprints of action in which no space is left for the endogenous processes at play in the resettlement region, i.e. where, no room is made for political economy considerations which link the displacement-inducing project to its dynamic consequences on the resettled population.

However, explaining the failure of resettlement without accounting for political economy factors does not allow one to identify what the mechanisms are which prevent different forms of restitution and rehabilitation typically incorporated in a resettlement programme, from positively impinging on the lives of the affected people. Put it in another way, the solutions suggested can mitigate the problem (i.e. the failure of resettlement and the impoverishment of people), but not eliminate it.

This inability to identify (let alone explain) key mechanisms is not only a shortcoming of the World Bank guidelines but also a flaw in the two main theoretical models underpinning the reformist-managerial approach: Scudder's Four-Stage model and Cernea's Impoverishment Risks and Reconstruction (IRR) model.

Scudder's Four-Stage model has for instance been criticised for an excessive level of generalisation, being based on the assumption that resettled people respond in the same way everywhere and at any time. According to De Wet's (1992:322), the model is unable to deal with variation as "[it] is formulated to explain the similarities, rather than the differences in people's reactions to involuntary relocation". Scudder's response (2005:42) is that the

existence of variation does not invalidate the theory on which the model rests. Indeed it is unavoidable that a theory aiming at predicting human behaviour generalises it, and it is based on observed regularities. What is criticisable is rather that the model seems to be built on a tautology and not a theory. Recall that the model describes how resettled communities can be expected to behave during a successful resettlement process and that the path to success is defined by a sequence of stages. Final success is defined as “development that is environmentally, economically, institutionally and culturally sustainable into the second generation” (*ibidem*:32). But according to the model, this is achievable only as long as each stage is successfully completed, and completion of each stage is in turn defined by the occurrence of certain behaviours. The “conditions” which make these behaviours possible are taken as exogenous and not qualified. So the model predicts that when resettled people behave in a certain way, then success is achieved. However achievement of success is in turn defined as the occurrence of that very same behaviour. Hence the underlying theory appears to be little more than circular reasoning, with no explanatory power and from which little can be learnt on what a resettlement programme should do to achieve success.

These conclusions are reinforced by a closer look at the Fourth Stage: *Handing Over and Incorporation*. Incorporation involves here “integration of the resettlement area or areas into the surrounding political economy in which on-going success requires that the second generation be able to compete for their share of national resources” (*ibidem*:32). On the one hand, no qualifications are made of the terms of this integration (what *type* of integration are we talking about?). On the other, integration seems to happen in a vacuum, in the sense that it is not affected by the specific political economy processes which are at play in each specific circumstance.

Cernea's Impoverishment Risks and Reconstruction model turns the attention from describing expected behaviours in successful cases, to explaining the mechanisms of impoverishment triggered by resettlement. Cernea claims that his model captures “the dialectic between potential risk and actuality”, as “all forced displacements are prone to major socio-economic risks, but not fatally condemned to succumb to them” (Cernea 2000:19). Using the concept of risk has the advantage of establishing a direct link between resettlement and impoverishment. Indeed the establishment of this link can be claimed to be the most important contribution of the model, as it makes explicit that the observed negative effects of displacement are a consequence of it, and that resettlement is

responsible for preventing or attenuating them. As the negative effects refer to the multiple dimensions of impoverishment, it also provides a theoretical justification to bring compensation for displacement beyond mere asset restitution.

More generally, the concept of risk makes poverty easily reducible within a policy framework from which pre-settled and standardised measures can be drawn. In particular the model makes clear those aspects of well-being that a resettlement plan is responsible for (housing, food security, health care). Cernea's model retains the problem-solving and optimistic attitude of the reformist-managerial approach, as “[t]he policy message embodied in the model is clear: the general socio-economic risks intrinsic to displacement can be controlled by an integrated problem resolution strategy, but not by piecemeal palliatives; and by allocating adequate financial resources” (Cernea 1997: 1580). If this approach emphasises the need for policy actions to prevent poverty and make them a responsibility of resettlement, it also conveys an understanding of poverty and impoverishment where again no room is made for political economy factors and relational aspects.

The ecological, social, political and economic landscape in which resettlement takes place, for instance, is treated as an exogenous variable, so that we do not know how different contexts can cause resettlement and impoverishment risks to interact differently. The lack of political economy dimension also means that, as noted by Muggah (2000), all the focus is on the consequences of displacement with no consideration for its causes, and that, more importantly, no link is established between causes, consequences and resettlement methods. Another implication is the lack of analysis of the role of the different actors. In Penz *et al*'s (2011:20) words, the IRR model does not address “why particular developers, political agents and beneficiary groups are powerful enough to initiate development projects that will displace people, and why the oustees are comparatively powerless to resist”. This problem is also emphasised by Muggah (*ibidem*), who points out that the model treats displaced people as passive victims in the face of adversity. Put in another way, no agency is recognised to the beneficiaries of resettlement in preventing or opposing the impoverishment mechanisms. The role played by the State is also left out of the analysis, despite the fact that indeed the State is a key agent in both development-induced and conflict-induced displacement. Again this means disregarding an important variable for the performance of resettlement. For instance, Muggah (*ibidem*) found this to

be the case for Colombia, where the State, through its armed forces, was directly contributing to conflict-induced displacement, which had negative effects on the efficacy and effectiveness of the resettlement efforts.<sup>38</sup>

It is true that Cernea acknowledges that the model needs to be contextualised (see for instance Cernea 1997), but he does not specify what the processes are, nor the actors and the institutions which should be taken into consideration for contextualisation. In other words, the model is able to detect different types of risks, but not to explain how they arise and why, as it leaves out of the analysis the categories needed for these explanations.

Finally, understanding impoverishment as a *risk* implies conceptualizing poverty as the outcome of unexpected events, whereas production and reproduction of poverty is generally based on *regularities* (regularities which concern the terms of incorporation in the process of development). Processes of impoverishment triggered or reinforced by resettlement are also ascribable to these regularities. In fact, displacement increases the exposure to them, and resettlement can avoid the intensification of poverty only to the extent that it breaks these regularities. The implications of this understanding of poverty is further developed in section 3.3; for now it suffices to say that, to the extent that these regularities are underpinned by social relations (indeed social relations of power), they must be investigated through a political economy approach. If political economy is needed to make sense of the mechanisms of impoverishment, then its neglect leads to a weak understanding of resettlement failure.

By analogy with what was stated for the reformist-managerial approach, neglect of regularities and limited regard for contextualisation determine the inability of the model to pinpoint the mechanisms which prevent a resettlement programme from positively impacting the lives of the affected people.<sup>39</sup>

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38 The relationship between the state and the affected population was also found to play an important role in influencing resettlement in the case-study object of this thesis, see chapters 6 and 7.

39 Taking the risk of landlessness as an example, the model does not help in the understanding of what sorts of dynamics lead to landlessness in a specific context- and therefore of how to prevent them. The same considerations apply when the model is reversed to be used as a problem-resolution tool. No room is found for a discussion of the constraints which can arise to land-restitution and land-based resettlement.

### **3.3. Impoverishment as a regularity: relational approach to poverty and adverse incorporation framework**

It has been claimed in the previous section that the production and reproduction of poverty is the outcome of regularities rather than unexpected events, and that a political economy approach is needed in order to detect (and act upon) these regularities. It is a central argument of this thesis that such an approach needs to be employed to investigate the poverty produced and reproduced by displacement despite, and possibly, through resettlement. It is also suggested that such a political economy approach can be operationalised through a theoretical framework based on a relational understanding of poverty and the notion of adverse incorporation. This section presents the main elements of this framework, while section 3.4 develops the framework in reference to displacement and resettlement.

#### ***3.3.1. Relational approach to poverty***

An exhaustive critique of the limits of the mainstream approach to poverty research is far beyond the scope of this work, which instead builds on the growing literature calling for a political economy approach to poverty research (for some of the most significant contributions see Bracking 2003, 2005; Green and Hulme 2005; Green 2006; Harriss 2007; Mosse 2007, 2010), or to put it in John Harriss's words for “bringing politics back into poverty analysis” (Harriss *ibidem*). Departing from the predominant view which sees poverty as an entity to be attacked and as external to the social relations which generate it (Green 2006), this essentially means accepting and elaborating from the fact that poverty is instead a structural aspect of how modern societies function (Harriss *ibidem*). The underlying assumption is that poverty (in fact, *chronic poverty*)<sup>40</sup> is produced and reproduced by historically determined social relations which are embedded within the existing political institutions and economic structure, and that the category of power is key to understanding the mechanisms which underpin this production and reproduction. This clarifies our previous claim that poverty is the outcome of regularities.

The most thorough and engaging exploration so far of what is entailed by a *relational*

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<sup>40</sup> See Hulme and Shepherd (2003) for a discussion of the concept of *chronic poverty*.

*approach to poverty* (a term first employed by Bernstein *et al* 1992:24) has been provided by David Mosse in two recent contributions (2007 and 2010), which systematise in a coherent framework different disciplinary understandings of the social relations of poverty. It emerges that a relational approach to poverty is one which “first views persistent poverty as the consequence of historically developed economic and political relations [...], and second, that rejects the individualism of neo-liberal rational choice models by emphasising the effect of social categorisation and identity in reproducing inequality and making exploitation socially viable” (Mosse 2010:1157). It also “understands poverty as the effect of social relations, understood not narrowly in terms of connectivity or networks, but in terms of inequalities of power” (Mosse 2007:5).

As extensively discussed by Mosse, this approach then requires one to incorporate power with its multiple interpretations into the analysis. Unlike the (rather meagre) literature which has explicitly investigated the relationship between poverty and power (Mosse 2007 quotes Alsop 2005 and Eyben 2006), the focus here is not on empowerment as a strategy for poverty alleviation, but on power relations as the root causes of poverty. The challenge is to account for the fact that social relations of power are generated at multiple levels (that is in the realm of different social facts, from the family to the political system) and that all of them must concur to provide a full explanation of poverty. Put differently, a relational approach to poverty has to account for the tension which exists between structure and agency in the (re)production of power relations.<sup>41</sup> Mosse (2005:53 and 2007:8) describes this tension identifying two understandings of power which poverty research needs to combine: a structural view and an actor-oriented /voluntaristic view of power.

The structural view of power is needed to account for the systematic nature of social behaviour and the fact that inequalities are produced by the relative position occupied in the socio-economic system. The systematicity of social behaviour is what reproduces the

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41 As Mosse makes clear in all his contributions quoted here, the relationship between structure and agency is only one of the many challenges in dealing with the multiple dimensions and concepts of power in poverty analysis. For instance, his framework heavily draws on the concept of three-dimensional power by Lukes (2005), so that the powerlessness of the poor is to be understood as: i) subjugation to someone else's will; ii) failure to become a constituency and influence the terms of the political representation of poverty; iii) consensual compliance to the interests of the dominators, expressed through autonomous/independent actions, preferences and decisions. The perspective offered by the tension between the structural and the actor-oriented views of power however, better serves the purposes of the present task in discussing how power relations determine the terms of incorporation into the process of capitalist development.

structures of domination and it is indeed the first sense in which poverty (as a relation of power) is the outcome of regularities. This mechanism can be explained resorting to Bourdieu's concept of *habitus* (i.e. “a system of durable, transposable dispositions, structured structures predisposed towards acting as structuring structures”, 1977:72): individual strategies and collective practices operate in a way which reproduces the existing structures of domination because they obey the logic of the *habitus* (in fact of its cognitive and meaning structures), which in turn is shaped by the working of the relations of domination (for a discussion see Gledhill 2000). Adopting a structural view of power then means looking at poverty as the outcome of dynamics of capitalism, and privileging class analysis as the social fact (or the ‘structured structure’) which determines the position in the socio-economic system and the source of the regularities in the working of power relations. The social relations that we are interested in (the regularities of social behaviour which are relevant for the production of poverty), are then those of production, reproduction, property, accumulation, dispossession, differentiation and exploitation (Bernstein *et al* 1992). Even from this perspective however, class is not the only social fact relevant for the analysis. This is another point developed in Bourdieu's analysis: class consciousness, as used by Bourdieu and its material interests, are defined not only in terms of the relation to economic capital, but also by the different dimensions of power relations (Gledhill 2000:141).

Of course this just brings us back to our initial point that a structural view of power needs to be complemented by an actor-oriented view of power, that is, one which conceptualises power as a *voluntaristic* expression (Mosse 2007). So, in order to understand how the social relations listed above work while avoiding determinism, they must be explained in each specific circumstance as the outcome of context-specific and autonomous “strategies, interests and complicity” (*ibidem*:8). This implies incorporating identity, culture and agency in the explanation of how relations of power are reproduced and how the structural configurations of poverty are shaped. If social behaviour has a meaning which is locally defined, then the same is true for the regularities which produce and reproduce poverty.

The role of *categories* which define *identity* (based on race, gender, ethnicity, class, age, disability, etc.) in producing *durable inequalities* has been most convincingly theorised by Charles Tilly (1998). According to Tilly, social categories are functionally used by the system to reproduce inequalities and hence power. This is done through mechanisms of

exploitation, opportunity hoarding, emulation and adaptation,<sup>42</sup> which generate divisions following the categories (of caste, ethnicity, gender, age, class, educational level, etc.) available in the society. The different categories however are not attributed explanatory power by themselves: it is not the belief or the ideology underlying the category which generates inequalities, but the way in which they are functionally used by the system (by determining certain types of interactions among groups and individuals) to make the mechanisms above function (Mosse *ibidem*). Tilly's approach thus overlooks the voluntaristic dimension of the exercise of power, and also of the subordination to power. In order to achieve an actor-oriented perspective then, *culture* needs to be brought into the analysis. Following the line of analysis proposed by Mosse, it is through culture that the exercise of power and subordination to it are made intentional and acquire a locally defined meaning. This happens through culturally legitimised formal systems (e.g. party-politics, the State) and informal systems (e.g. patron-client relationships). Within these systems, poverty takes the form of "powerlessness, subordination and injustice in the face of intentional assertions of unaccountable power rather than complicity in categorical distinctions" (*ibidem*:21). Finally, *agency* is fundamental in understanding power in its second and third dimensions, which encompass political power as representation and decision-making, and the capacity to secure the consent to domination of willing subject (Lukes 2005, see also footnote no. 42).<sup>43</sup>

Resolving the tension between structure and agency in power relations is not task of this thesis (see Gledhill, 2000 for an illuminating examination of the problem), but it was important to remark here how a full explanation of poverty requires a relational approach

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<sup>42</sup> *Exploitation* "operates when powerful, connected people command resources from which they draw significantly increased returns by coordinating the effort of outsiders whom they exclude from the full value added by that effort"; *opportunity hoarding* "operates when members of a categorically bounded network acquire access to a resource that is valuable, renewable, subject to monopoly, supportive of network activities, and enhanced by the network's modus operandi" (Tilly 1998:10). They are reinforced by mechanisms of *emulation* ("the copying of established organisational models and/or the transplanting of existing social relations from one setting to another", *ibidem*) and *adaptation* ("the elaboration of daily routines such as mutual aid, political influence, courtship, and information gathering on the basis of categorically unequal structures", *ibidem*). In this way, the transactions implicit in mechanisms of exploitation and opportunity hoarding generate unequal categories and when these categories match with those available in the society, the costs of performing those transactions are reduced. Emulation and adaptation contribute to maintain the stability of those categories.

<sup>43</sup> Mosse provides an example of how these different conceptualisations of poverty are at play at the same time, pointing out how "transactions across unequal categories and opportunity hoarding today pervade economic activity in India, reproducing caste inequality and disadvantage even in the absence of hierarchical value" (2010: 1162) and at the same time, culturally-legitimised informal systems play a key role in perpetuating inequalities- typically through caste dominance, patronage and brokerage.

which accounts for both views of power. This approach allows us in fact to relate the external manifestation and proximate determinants of poverty at the micro level with the ultimate causes at the macro level, while articulating this nexus of causality as a structural feature of the society rather than a pathological exception. These conclusions are being progressively strengthened and developed by current strands of the literature reflecting on the concepts of *sustainable livelihood*, *social exclusion* and *chronic poverty*. Green and Hulme (2005:876), for instance, emphasise the need to research the ultimate causes of poverty, differentiating them from its external manifestations (e.g. illness, malnutrition, illiteracy) and proximate determinants (e.g. lack of assets) by “exploring the constraints that close off opportunities for upward social and economic mobility, and analysing the politically entrenched social relations (household, community, national and international) that work to produce the effects that constitute the experience of chronic poverty”.<sup>44</sup>

The need to link the macro with the micro level of the analysis is also found in Hulme and Shepherd’s review of the concept of chronic poverty: while they express their support of using the livelihood framework for investigating chronic poverty at the micro and meso level, as “it permits the tracking over time of a household’s asset [...] in relation to its vulnerability context” and it “recognises human agency” (Hulme and Shepherd 2003: 414), they also argue that the framework fails to account for social relationships and power, and as such, “it needs to be supplemented by an analysis of how any specific household fits into wider social structures” (*ibidem*). Similar considerations are found in Murray (2001), which also discusses the potentials and limitations of the livelihood approach. In particular, Murray underlines the need to achieve a better understanding of the tension between the different levels of analysis, i.e. the micro level of the household, the meso level of institutional intervention and the macro level of national policy-making. He also acknowledges the need to support livelihood research with an analysis of the structural, historical and institutional context.

However, the most important conclusion to which most of the poverty literature engaging with a political economy approach is progressively advancing, is the trivial, yet so

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<sup>44</sup> These ideas are expressed in the paper “From Correlates to Characteristics to Causes: Thinking about Poverty from a Chronic Poverty Perspective”, contained in a special issue of the *World Development* (Volume 33, Issue 6, June 2005) dedicated to political issues of (discursive and material) representation of chronic poverty. The approach to chronic poverty delineated by most of the papers is the one which underpins most of the research carried out by the Chronic Poverty Research Centre (CPRC), within which the framework of “adverse incorporation” (see below in this section) has been developed.

far neglected, idea that poverty is the outcome of adverse terms of incorporation in the dominant socio-economic system, i.e. in capitalism (see in particular Bernstein *et al* 1992; Murray 2001; Bracking 2003; Du Toit 2004; Harriss-White 2006; Harriss 2007; Hickey and Du Toit 2007). In other words, poverty is created by including people in the process of (capitalist) development, not excluding them from it. What impoverishes people are the *terms* with which they are incorporated, which are adverse to the extent that they are underpinned by a disadvantageous power relation. In this sense, the concept of adverse incorporation allows us to operationalise the relational approach to poverty, also incorporating the tension between the structural and the agent-oriented views of power. Indeed, making reference to the dynamics of capitalism emphasises how poverty is the outcome of regularities. In this sense it is the structural view of power which prevails, with poverty as the outcome of relations of power which are given by the relative position in the socio-economic system. The terms with which incorporation takes place are *adverse* in a sense that is locally meaningful, because the power relations that define the adversity are given by the context specific articulation of identity and culture.

### ***3.3.2. The Adverse Incorporation Framework***

Harriss-White (2006) has been the most eloquent in drawing a direct link between the expansion of capitalism and the production and reproduction of poverty. She identifies eight processes through which this happens. The first is the dispossession of productive assets and the forced reallocation of property rights that occurs with primitive accumulation (this point is further explored in section 3.4.1). The second is the reproduction of pauperising petty commodity production carried out through the super-exploitation of family labour and debt relations. Processes of rural differentiation, for instance, pull peasants into pauperising petty commodity. The third process is the creation of pools of unemployment through two mechanisms: the decrease in the elasticity of labour absorption with respect to growth as a consequence of technological progress, and the adjustment of markets to fluctuations through the creation of idle capacity in labour. The fourth is the process of commodification of domestic work carried out to meet physical and emotional needs. The fifth is the production of pauperising and socially harmful commodities and waste (like weapons, alcohol and tobacco). The sixth process concerns the creation of new

poor through economic crisis and the subjugation of public finance and debt management to the unstable wills of the financial markets. The seventh is the poverty generated by global environmental destruction (including global warming) and ecological disasters arising from environment exploitation pursued in the name of economic growth. Finally, the eighth process concerns capitalism's ability to determine what kind of individuals are eligible to enter the work-force and the ensuing exclusion of some as unproductive, undeserving poor and the criminalisation of others as social enemies.

These eight processes make clear how poverty is indeed the outcome of regularities which are structural to the reproduction of the system. Additionally, they illustrate how *exploitation* is not the only way through which incorporation into the process of capitalist expansion can lead to poverty. However the exploration of poverty as the outcome of adverse incorporation is not exhausted by the mechanisms illustrated above. That would in fact lead to an excess of determinism and a neglect of the role of agency, as shaped by factors of identity, politics and culture.

A more exhaustive framework for the operationalisation of the concept of adverse incorporation, which also allows the relational conceptualisation of poverty described above, is the one proposed by Hickey and du Toit (2007) and then further developed within the *Chronic Poverty Research Centre*. The authors argue that poverty research should focus on investigating the causal processes which lead poverty to be produced and reproduced. According to them this means looking at processes of Adverse Incorporation and Social Exclusion (AISE), and how they relate to the state of chronic poverty. Objects of study are particular forms of interaction among the state, the market, communities and households, as well as the politics and the political economy of these interactions. The relevance of context-specific institutional arrangements and cultural frameworks is thus acknowledged. Objects of study then are long-term historical processes concerning the nature and forms of capitalism, different stages and types of state formation and institutionalised patterns of social norms and attitudes. In order to understand how these processes are related to poverty production and reproduction, the authors propose to explore four dimensions of AISE: economic, political, socio-cultural and spatial dimensions.

The **economic dimension of AISE** (i.e. how economic aspects of adverse incorporation and social exclusion lead to poverty) is primarily concerned with the way the poor engage with and within the market, where the latter is intended in a dynamic way. In the authors'

view, four aspects of this dynamicity need to be taken into account: the social and power relations in the context of increasingly complex economic networks, the implications of globalisation, the development and restructuring of transnational commodity systems and the changing internal structure of the economies of developing countries.

According to the authors, this resolves into focusing on four types of economic relations. The first are labour relations and more generally the labour market, which are topical in determining the terms of incorporation. Attention must be paid to both the lives of the working poor and to the relationships at firm level between employers and employees. The second type of economic relations concerns the broader structure of the economy, going beyond dualist explanation of the relations between formal and informal, marginal and mainstream sector. The third type of relations are the processes of restructuring (modernisation, urbanisation, monetisation, de-agrarianisation) and the power relations attached to them, which ultimately influence the terms upon which the poor people take part in the process of economic growth. Here particular attention must be given to structural adjustments and privatisation and liberalisation policies. The fourth type are the transnational processes of integration, particularly the ways in which developing countries are inserted into the international trading system and the power relations that are created through the restructuring of the international commodity chains.

More generally, it is argued here, the economic dimension of AISE is concerned with the articulation of the relations of production and reproduction and the specific characteristics assumed by capitalist accumulation in a specific context, which must be investigated in their evolution and in consideration of the relationship in which they stand with each other.

The **political dimension of AISE** should look at processes of political inclusion and exclusion in terms of citizenship and clientelism. The authors claim that the relationship between chronic poverty, citizenship and clientelism is complex and controversial, in at least four ways. Firstly, citizenship can involve important exclusionary dimensions; indeed the dominant notions of citizenship necessarily involve the exclusion of, and from other groups. Secondly, clientelism can constitute a winning strategy for the poor, at least in the short term. Engaging in patron-client relationships, the poor can in fact trade agency with social security. While this undermines their perspectives for the future (see Wood 2003 on the 'Faustian bargain' implicit in this transaction), it can address survival needs in the short-term more effectively than weak citizenship entitlements. Moreover, clientelism and

citizenship are to be understood not as a dichotomy but rather as inter-related forms of political subjectivity, as “the prospects of the poor shifting their status from clients to citizens via their incorporation into political society will be shaped less by issues of democracy and good governance than by challenging particular forms of political rule and governmentality- the practices and performances of power undertaken by those in positions of authority vis a vis poor and marginal groups” (Hickey and du Toit *ibidem*:12). Finally, both clientelism and citizenship have to be understood in relation to wider political processes of political representation and competition, state formation and modes of governmentality.

The **socio-cultural dimension of AISE** is concerned with the way factors of identity, culture and social norms articulate with political and political economy processes in producing and reproducing poverty through discrimination and gender inequality. Understanding this articulation is particularly important considering the intertwined relations which develop between socio-cultural categories (e.g. caste and ethnicity, and also gender) and forms of economic disadvantage. It is equally important to understand how these relations tend to become institutionalised, so that their effects are reproduced over time.

The **spatial dimension of AISE** explores the ways in which persistent forms of poverty and inequalities are linked to systematic forms of spatial disadvantage. This involves investigating the terms in which remote areas are linked to other places, processes and institutions and how local exclusionary dynamics interact with the uneven impact of trade openness and globalisation. In the authors’ words, “it is precisely the ways in which spatiality both reflects and combines with other processes and relationships associated with AISE to produce interlocking and multidimensional forms of chronic poverty that is of interest here” (*ibidem*: 20).

It is finally important to note that the authors choose to include in the framework processes of social exclusion, despite acknowledging the problematic aspects of the concept. They underline how the idea of adverse incorporation draws upon research on social exclusion, which, within poverty analysis, was the first to look at processes of marginalisation and deprivation as the outcome of dynamics of economic and social transformation, focusing on the analysis of the context, historical processes and issues of causality (see for instance Ruggeri Laderchi *et al* 2003 on the innovations introduced by the

social exclusion discourse into poverty research). There are however a number of problems with the idea of social exclusion, primarily its implicit assumption that incorporation in the mainstream is a good thing, according to pre-established criteria on how social life should be organised (for a critique see, for instance, Jackson 1999 and du Toit 2004). Besides, while neglecting the role of agency, the social exclusion discourse also leaves out of the analysis the concept of *exploitation* (Byrne 2005).<sup>45</sup> All these points, and particularly the latter, are addressed by the concept of adverse incorporation. In Murray's words: "the experience of the rural poor must be understood in relation to the experience of other social classes. For this reason the idea of 'differential [or adverse] incorporation' into the state, the market and civil society is perhaps more appropriate than the now conventionally predominant idea of 'social exclusion' from the state, the market and civil society" (2001:5). On the other hand, however, economic, social, political and cultural marginalisation (which indeed is an aspect of poverty) is not fully captured by adverse incorporation. Hickey and du Toit therefore chose not to rule out social exclusion from the analysis, but rather to put it into a relation of critical dialogue with adverse incorporation.<sup>46</sup>

While we agree with this choice from an ontological and methodological point of view, this thesis is primarily concerned with the innovative explanatory power of the concept of adverse incorporation and will not elaborate on the notion of social exclusion. It instead applies the adverse incorporation framework and the relational approach to poverty to the investigation of resettlement and the causes of its failure in preventing impoverishment. In chapter 6 the framework is applied to the case of the Polavaram dam in Andhra Pradesh (AP henceforth) and to the resettlement package designed by the government for the displaced population. The following section, by contrast, is mainly theoretical, and shows why it can be claimed that resettlement of displaced people is a process of adverse incorporation.

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<sup>45</sup> However the existence of declinations of social exclusion which adopt a more problematic conception of the term, must be acknowledged, as, for instance, in Kabeer, 2000. Drawing on Fraser (1997) the distinction between 'affirmative' and 'transformative' remedies for injustice, she argues in favour of the adoption of a 'radical social policy' based on transformative remedies against social exclusion, which challenge the hegemony of the market forces and destabilise the distinction between economic growth and social welfare.

<sup>46</sup> The complementarity of the notions of adverse incorporation and social exclusion is also pursued by Mosse in his systematisation of the relational approach to poverty, through the combination of Marxian ideas of exploitation and dispossession with Weberian notions of social closure (2010:1157).

### **3.4. Resettlement of displaced people as a process of adverse incorporation**

This chapter so far has argued that the reformist-managerial discourse offers a weak understanding of displacement and of the reasons for the failure of resettlement. It has been claimed that its main limitation consists in neglecting the dynamics which underpin the development process which triggers displacement in the first place and which determine the terms of the incorporation of the resettled population into that very same process. We have also claimed that poverty is the outcome of regularities, where these regularities are underpinned by relations of power. It is in these terms that the poverty produced and reproduced by displacement and resettlement must be understood.

On this basis, this thesis argues that a political economy approach to resettlement, founded on the notion of adverse incorporation and a relational approach to poverty, can enlighten the understanding of resettlement and the reasons for its failure to prevent the impoverishment of the affected population. In particular, the adverse incorporation framework stresses the importance of the dynamics of capitalism in determining the terms of incorporation into the process of development, while accounting for the tension between the structural and actor-oriented views of power. Understanding resettlement through the framework can help identify the structural factors which determine the failure of resettlement. With this aim, section 3.4.1 explores in detail the economic dimension of incorporation using the notions of accumulation by dispossession and surplus labour. The remainder of this section describes in general how the four dimensions of adverse incorporation are relevant for resettlement, and how they translate in the reproduction of poverty. The analysis is drawn referring primarily to development projects implemented in rural areas, but the conclusions (with the due distinctions) also apply to cases of forced eviction in urban areas.

Displacement of people as a consequence of development projects typically implies the expropriation of their land (and possibly of other assets) by the State or a private entity, and the abandonment of their place of residency. To the extent that land expropriation is regulated by a national legislation and that the project authority is responsible for the relocation of the population affected, displacement also implies some forms of restitution of the losses incurred and resettlement in a new location. Both the form (and extent) of restitution and the destination of relocation are decided by the project authority and not by

the ‘beneficiaries’ of these measures. As widely discussed in chapters 1 and 2, these measures are intended to compensate for the costs suffered by the affected population, to avoid their impoverishment, and ultimately to restore justice. However, as described in chapter 1, there is a common agreement within the literature and among policy makers that resettlement practice so far has more often than not failed in achieving these objectives.

This systematic failure is explained by the incapacity of the measures typically included in a resettlement programme (i.e. monetary and non-monetary forms of compensation, relocation activities and other types of benefits or transfers) in restituting or regenerating the sources of livelihood of which people are deprived as a consequence of displacement.

To understand why these measures have been ineffective, it is necessary to stress how the whole displacement-resettlement process (to which we will henceforth refer to only as resettlement) adversely incorporates the affected people into the process of development, in all the four dimensions of AISE described in section 3.3.2.

In the first place, incorporation in this case assumes a strong *spatial* dimension: as stated above displacement typically involves relocation in a place determined by the project authority. Resettlement colonies can be expected to be built in accessible locations, for two reasons: to keep the promise of improved access to social services after relocation, which usually comes with the imposition of abandoning one’s home; and to make it easier for the project authorities and the State bureaucracies to control the whole resettlement process. To the extent that displacement-inducing projects are implemented in geographically remote areas (as is often the case for dam, mining and other extractive industry projects), resettled people are incorporated in the sense that from a situation of isolation they are brought (relatively) closer to where the process of development is happening. The *adversity* of the incorporation also has a clear spatial dimension, as relocation often implies the deprivation of the access to a given landscape and its natural resources. Displacement and resettlement then often become entrenched with pre-existing conflicts around access to those resources and either deepen inequalities or create new ones. The spatial dimension of incorporation is for instance very relevant for the tribal people affected by the Polavaram dam, who will be forced to move from a hilly forest area to plain areas, losing access to their traditional environment. These dynamics will be described in detail in chapters 6 and 7.

It was stated in the previous section that the terms with which incorporation takes place

are adverse in a sense that is contextually meaningful. *Socio-cultural* factors then are relevant for resettlement in two senses. Firstly, the repartition of costs and benefits following a displacing project is driven by inequalities of class, but also of caste, ethnicity and gender. Resettlement programmes are usually unable to combat these inequalities and often reinforce them. Secondly, there is a symbolic meaning to the losses triggered by displacement, which is determined by local factors of identity, culture and social norms. These losses can disarticulate social relations within the family and the community to the extent that they involve *inalienable possessions*, that is possessions which are “imbued with intrinsic and ineffable identities of their owners” (Weiner 1992:6) and which consist in “basic productive resources [that] express and legitimate social relations and their cosmological antecedents” (*ibidem*:4). Moreover, “the loss of such an inalienable possession diminishes the self and by extension, the group to which the person belongs” (*ibidem*:6). Not only are these intangible losses impossible to compensate, but they can also lead to the disintegration of individual and collective identities and either increase the marginality of the resettled communities or trigger dysfunctional relations between individuals, the community and the ‘external world’. Needless to say, the loss of inalienable possessions can seriously affect the success of a resettlement programme.

The *political* dimension of adverse incorporation takes place primarily at the level of the decision-making process. Not only is the decision of realising a displacement-induced development project imposed on those who bear the costs in terms of resource dispossession, but it is also the outcome of the interplay of power relations among the dominant proprietary classes. The determination of the winners and the losers of a project, then, is driven by the dynamics of the local politics. Resettled people are also incorporated in the sense that they become the explicit object of a state intervention. If they rarely have a say in decisions concerning the implementation of the project, where they locate with respect to the tension between citizenship and clientelism, and the extent to which they constitute an electoral constituency can instead affect their ability to negotiate the amount of compensation and the details of the resettlement package.

However, it is in the *economic* dimension of incorporation that the failure of resettlement in preventing the impoverishment of the displaced people is most immediately evident. Indeed, the failure of resettlement here leads to adverse incorporation because it equates to the inability of reconstructing the livelihoods disrupted by displacement. Using the adverse

incorporation framework here means investigating the link between the dynamics of capitalism which require displacement in the first place and the systematic failure of resettlement in preventing impoverishment. The economic dimension therefore concerns primarily the relations of production and reproduction in which the affected people engage before and after resettlement, as well as the characteristics of the process of economic development in which the displacement-inducing project is located.

The affected people are incorporated through the dispossession of their means of production and physical and social reproduction, which are needed for the project. In turn, the project is supposed to promote growth, creating physical capital and new investment opportunities. To the extent that the latter do not ‘trickle down’ to the dispossessed people, and do not translate into restoration of the old livelihoods or creation of new sustainable ones, the incorporation is adverse. Through dispossession and displacement people become part of the process of development, but this ‘membership’ is dysfunctional if livelihoods are lost and not restored or recreated.

The argument just described has three significant implications.

First, the failure of resettlement programmes is the failure to support the restoration of the disrupted livelihoods or to promote the creation of new ones. Second, this failure is determined outside the resettlement programmes even more than inside them. In other words, saying that resettlement is a form of adverse incorporation equates to saying that structural factors exist which hamper its success in preventing impoverishment; these structural factors derive from the characteristics of the development process of which the displacing project is part. Third, there is a logic which links the requirements of the development process (in terms of natural resources and primarily land) to the means employed to satisfy those needs (dispossession and displacement) and the deepening of inequalities and poverty which follows resettlement.

The next section will develop these three points, and in particular, it will show how this logic is explained if development-induced displacement is understood as a form of accumulation by dispossession, which leads to the generation of surplus labour.

### ***3.4.1. The economic dimension of adverse incorporation: accumulation by dispossession and surplus labour***

According to Marxian political economy, primitive accumulation is “the historical process of divorcing the producer from the means of production” (Marx 1995:364) through extra-economic means. As mentioned above, Harriss-White (2006) pointed out that the accumulation of capital through the dispossession of productive assets, and the ensuing forced reallocation of property rights in favour of the capitalist class, is indeed the first mechanism through which capitalism produces poverty.

That development-induced displacement is a form of primitive accumulation (in fact, of accumulation by dispossession, see below) has been variously and more or less directly suggested in the literature (see for instance Cammack 2002; Escobar 2003, 2004; De Angelis 2004; Akram-Lodhi 2007; Chandra and Basu 2007; Perspectives 2008). Displacement of people in the name of development projects implies the expropriation of their land and the negation of access to other natural resources, which enter capitalist accumulation as means of production. The process therefore implies the commodification of the environment on the one hand, and the disruption of pre-existing modes of production (i.e. livelihood strategies) and customary relations to land, forest and water on the other. This is particularly true in the case of dam and mining projects, which target areas often inhabited by tribal communities intensively relying on forest produce, and more generally on the landscape, for their subsistence. These types of projects also constitute excellent avenues for capital to find new investment opportunities with the protection of the State, which has the legitimacy to enforce expropriation, resorting to coercive ways. The redistribution of property rights, which comes with expropriation, forces most of the displaced people to become wage labourers. The ‘proletarianisation’ of the displaced people however does not occur if the displacing project does not create additional employment and is part of a growth process which is not labour-intensive. If this is the case, then the displaced people become surplus labour.

Claiming that development-induced displacement is a form of accumulation by dispossession has therefore important implications for the destiny of the displaced people, specifically for their resettlement. These consequences, however, have not been researched in the literature. The remainder of this chapter takes for granted that displacement equates to accumulation by dispossession and focuses instead on the consequences for resettlement

and its outcomes. It shows in particular how these consequences can explain the systematic failure of resettlement.

In order to proceed with the discussion, a qualification of the notion of primitive accumulation is needed. In particular it must be emphasised how primitive accumulation is understood here as a continuous and constitutive character of capitalist accumulation. It is with the purpose of emphasising this character that here it is referred to as ‘accumulation by dispossession’.<sup>47</sup> This interpretation of the phenomenon has been advanced by a number of authors (Perelman 1983, 2000; De Angelis 2001, 2004; Bonefeld 2001, Harvey 2003, 2005; Glassman 2006; Sanyal 2007)<sup>48</sup> in contrast to the understanding of primitive accumulation as the *necessary historical event prior* to capitalist accumulation. The latter descends from a literal interpretation of Marx’s description of the process of land enclosure which underpinned the transition from feudalism to capitalism in England and paved the way for the Industrial Revolution. The underlying logic of this view is stringent: if “capitalist production presupposes the pre-existence of considerable masses of capital and of labour-power in the hands of producers of commodities” (Marx 1995:363) and “the complete separation of the labourers from all property is the means by which they can realise their own labour” (*ibidem*: 364), then primitive accumulation, intended as “the expropriation of the immediate producers; i.e. the dissolution of private property based on the labour of its owner” (*ibidem*:378), is *antecedent* to capital accumulation.

According to this view, primitive accumulation serves the purpose of creating the preconditions for capitalist accumulation and characterises the transformation towards capitalism of the agricultural sector.<sup>49</sup> Moreover, by separating the direct producers from the means of production, it releases free labourers which come to depend on the market for their subsistence and therefore turn into proletarians. To the extent that this process leads to an improvement of the material conditions and to an advancement in the social relations outside the sphere of production, with the overcoming of oppressive relations of power not

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<sup>47</sup> However the term 'primitive accumulation' will still be used in authors' quotes.

<sup>48</sup> Although in different terms, the idea is also found in Rosa Luxemburg (2003) and Samir Amin (1976 and 1977).

<sup>49</sup> In this sense it played an important role in the debate on the transition from feudalism to capitalism (e.g. Dobb 1947 and Brenner 1976), and, similarly, is still a key aspect of the debate in the agrarian transition (e.g. Bernstein 1996 and Araghi 2009).

based on class, primitive accumulation also has a progressive aspect.<sup>50</sup>

In modern times, this function of primitive accumulation has been played by land reform as carried out by the Developmental State through the non-market reallocation of land, of which the most successful examples are South Korea and Taiwan (Byres 2005).

However, more often primitive accumulation has been observed with modalities and outcomes differing from those predicted by the theory. On the one hand, it appears in contexts where a transition to capitalism has already taken place, and on the other, it occurs in non-capitalist settings without leading to a transition to capitalism, and alighting instead on the pool of surplus labour.

The occurrence of primitive accumulation in already capitalist contexts has been most emphatically stressed by Harvey, who coined the term ‘accumulation by dispossession’ to emphasise the ongoing nature of the process (Harvey 2003:144). According to Harvey, privatisation and commodification, financialisation, management and manipulation of crises and State redistribution are the four key modalities assumed by accumulation by dispossession under Neoliberalism (Harvey 2005:159-160).<sup>51</sup> According to Harvey, the primary objective of accumulation by dispossession is the overcoming of an over-accumulation crisis through the release of assets at a very low cost (through their expropriation by extra-economic means or their devaluation), which the over-accumulated capital can appropriate and put into profitable use (Harvey 2003:149-150). In this sense, it is an essential aspect of neoliberal strategies of expansion and redistribution of wealth and income (2005:159).

The failure of primitive accumulation in the form of land dispossession to lead to a successful capitalist transformation in certain developing countries has, for instance, been pointed out by Byres (*ibidem*). According to Byres, this inability is attributable to the absence of an accumulating urban bourgeoisie of sufficient size, of a resolution of the agrarian question<sup>52</sup> and a state of capable intervention (*ibidem*:88). Moreover, these

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<sup>50</sup> Without entering the debate on the transition from feudalism to capitalism, primitive accumulation in Europe was progressive to the extent that it allowed the “emancipation from serfdom and from the fetters of the guilds” (Marx 1995:365) of the producers turned into wage-labourers.

<sup>51</sup> The complementarity of the notions of adverse incorporation and social exclusion is also pursued by Mosse in his systematisation of the relational approach to poverty, through the combination of Marxian ideas of exploitation and dispossession with Weberian notions of social closure (2010:1157).

<sup>52</sup> Byres means here the occurrence of an uncompleted agrarian transition, that is, an agrarian transition that “do[es] not necessarily imply the full development of capitalist social relations of production in agriculture as part of the establishment of the dominance of capitalism within a particular social formation

conditions do not arise because they are suffocated by the same neoliberal policies which have been reactivating processes of dispossession in those countries (*ibidem*).<sup>53</sup>

However, the observed feature of contemporary primitive accumulation (i.e. of accumulation by dispossession) which is of primary interest for our discussion of the causes of resettlement failure, is its tendency to create surplus labour.

This tendency is the object of thorough analysis with specific reference to the Indian context by Sanyal (2007), who describes primitive accumulation in post-colonial capitalism as follows: “a scenario in which direct producers are estranged from their means of production, the latter are then transformed into constant and variable capital, but not all those who are dispossessed find a place within the system of capitalist production. Bereft of any direct access to means of labor, the dispossessed are left only with labor power, but their exclusion from the space of capitalist production does not allow them to turn their labor power into a commodity. [...] Primitive accumulation of capital thus produces a vast wasteland inhabited by people whose lives as producers have been subverted and destroyed by the thrust of the process of expansion of capital, but for whom the doors of the world of capital remain forever closed” (Sanyal 2007: 52-53).

Surplus labour is therefore composed of the ‘inhabitants of the wasteland’, who engage in a need economy, intended as “an ensemble of economic activities undertaken for the purpose of meeting needs” (*ibidem*: 209). Sanyal also stresses how this notion of surplus labour differs from Marx's reserve army of labour. In Sanyal's words, “Marx's reserve army as a category supplements the working class, in that it is maintained for later use by capital; the inhabitants of the wasteland resist being captured in terms of any such characterisation as their exclusion from the domain of capital is permanent” (*ibidem*:55). While the reserve army of labour is *functional* to the accumulation of productive capital (as it serves the purpose of providing wage workers while maintaining a low wage rate), surplus labour is either *irrelevant* or *dysfunctional* to it.<sup>54</sup> Sanyal is suggesting that the free labourers

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(Akram-Lodhi and Kay 2009:21). For a review of the debate on the agrarian question and the agrarian transition (including Byres' perspective) see, for instance, Akram-Lodhi and Kay (2009) and Bernstein (2009) in the same volume.

53 A similar point is made by Akram-Lodhi when noting that expanded commodification in the context of neoliberal agrarian restructuring in developing countries, in the form of enclosures of land and transfer of assets and space to capital, “has not, in many instances, been reflected in a marked increase in the rate of accumulation” (2007: 1453).

54 See Bhattacharya 2010 for a review of the literature on the distinction between surplus labour and the reserve army of labour.

released by the separation of the direct producers from the means of production that constitutes the core of primitive accumulation, are a waste or a by-product of, rather than a pre-condition to capitalist expansion. The latter is just not able to productively employ the newly free labourers created, who therefore remain trapped in the need economy. Finally, according to Sanyal surplus labour and need economy define the informal sector.

Sanyal's account of the relationship between accumulation by dispossession and surplus labour and of the features of the latter provides the cornerstone of our argument that structural factors explain the failure of resettlement. Specifically, the creation of surplus labour through accumulation by dispossession *is* the key structural factor which explains it. To clarify why this is the case, some of the features of surplus labour as understood here must be clarified. In order to do that, we substantiate Sanyal's understanding of the informal sector as the *locus* of surplus labour engaged in a need economy<sup>55</sup> with notions of the informal sector drawn by Breman (1996, 2001, 2003, 2007), Davis (2006) and Harriss-White (2003).<sup>56</sup>

First however, we must stress a key difference between Sanyal's understanding of surplus labour and the one adopted in this thesis. Sanyal understands surplus labour as constituted by the dispossessed direct producers which are unable to turn their labour power into a commodity, and therefore are excluded from the space of capitalist production. By contrast, it is stressed here that surplus labour *can* be part of the capitalist system and *can* be employed for a wage. What qualifies surplus labour (or labour adversely incorporated into capitalism) is its being in excess of the existing means of production. Then, the worker is not freely entering a labour relation even when it's employed for a wage. The worker's freedom is bounded by the terms of the labour contract (which can be exploitative on the basis of power relations defined outside the realm of class) and by the fact that the latter is pursued as a coping strategy, when other employment (or livelihood) opportunities are negated or inexistent.

As the *locus* of surplus labour, the informal sector is intended as liquid and mobile category which crosses sectoral and spatial (rural and urban) boundaries and is

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<sup>55</sup> We subscribe to this understanding without implying that accumulation by dispossession is the only force explaining the existence of the informal sector.

<sup>56</sup> Despite the fact that two of the three authors mentioned, namely Harriss-White and Breman, write with specific reference to the Indian context, the considerations made here on the features of surplus labour can be extended, with the due distinctions, to developing countries in general.

characterised by a heterogeneity of activities (small and marginal farming, petty trade, micro-enterprises wage labour) and modalities of employment.

The labour relations in which the inhabitants of the informal sector engage are underpinned by often temporary, precarious and more or less exploitative employment arrangements. The latter are shaped by inequalities of caste, religion, ethnicity and gender, which act as ‘social structures of accumulation’ (Harriss-White *ibidem*). Temporariness and precariousness mean lack of formal contracts establishing rights and protections, and a high level of competition and increasing inequality within the sector. As a result, the abundance of short-term and short-distance labour migration, often entrenched with some form of neo-bondage contracts, is another key feature of the informal sector (Breman *ibidem*).

As stressed by Davis (*ibidem*), the heterogeneity of activities and the diversification of livelihoods are to be understood as coping strategies pursued by surplus labour. Indeed, they signal that none of the activities in which surplus labour engages guarantees by itself a secure and sufficient income.

Further, the role that the agricultural sector plays in this configuration of the informal sector and surplus labour must be stressed. Two aspects are particularly relevant. First, processes of dispossession occur primarily in the agricultural sector, triggered by globalisation and neoliberal agrarian restructuring, which require the commodification of products, labour, nature and space (Akram-Lodhi, Kay and Borras 2009). Dispossession leads not only to landlessness, but also to fragmentation of landholdings and differentiation of the classes of agrarian labour (Bernstein 2009). Second, the processes just described increase small and marginal farming while decreasing its profitability (Rigg 2006), so that farmers are forced to diversify their “forms and spaces of employment and self-employment” (Bernstein 2009: 248). Thus, small and marginal farming is in itself a form of surplus labour.

Overall, surplus labour is configured here as a heterogeneous category which inhabits the informal sector and encompasses different modalities and combinations of wage employment and self-employment across the rural and urban sector. Its inhabitants engage in relations of production and reproduction which can only guarantee their subsistence, but not a systematic improvement in the standard of living. Finally, the agrarian sector is at the root of this “crisis of labour as a crisis of reproduction” (Bernstein *ibidem*:251) which

characterises surplus labour.

We started this discussion with the claim that accumulation by dispossession must be understood not as the moment of creation of the pre-conditions to capitalist accumulation, but as a continuous and constitutive character of the latter. It was argued that this claim is empirically supported by the fact that accumulation by dispossession is not necessarily associated with capitalist transition and it rather generates a by-product in the form of surplus labour. These empirical observations raise the question of what then *is* the function of accumulation by dispossession in relation to capitalist accumulation, and why it occurs in certain contexts with given modalities and not in others. A clear consensus in the literature in response to this question has yet to be found, and reviewing the debate on the ontological status of primitive accumulation and accumulation by dispossession is beyond the scope of this chapter and of this thesis (but see De Angelis 2001 and Glassman 2006 for a synthetic review of the debate). However, the two main positions found in the literature are reported here to complement our discussion.

The first is Harvey's argument that accumulation by dispossession works as a fix for a crisis of over-accumulation through the provision of assets which capital can appropriate at a low cost.<sup>57</sup> Central to his argument is, therefore, the existence of an organic relation between accumulation by dispossession and expanded reproduction (Harvey 2003:142).

The second position is best illustrated by De Angelis (2001, 2004). According to De Angelis, primitive accumulation and capital accumulation only differ in the conditions and the form with which they realise the separation between the immediate producers and the means of production. In the case of primitive accumulation, the separation is perpetrated *ex-novo* and it is driven by extra-economic forces (with a key role often played by the State), whereas capital accumulation proceeds through the *reproduction* of the separation. This separation is indeed what underpins the alienated character of labour and ultimately the conflictual nature of capitalist accumulation. In De Angelis' view, then, primitive accumulation occurs when obstacles are posed to the reproduction of the separation, that is to capitalist accumulation. These obstacles arise at the margins of the capitalist mode of production, where the margins are both geographical as well as social.<sup>58</sup> The continuous

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57 For a critique of this argument see Levien (2011).

58 According to De Angelis, capital strategically identifies the limits to its expansion, whose overcoming through modalities of primitive accumulation creates new social spaces for accumulation. There are two types of limits: limits as a *frontier*, that is spaces of social life that are still relatively uncolonised by

character of primitive accumulation, then, is given by the “oppositional nature of the capitalist-relation” (De Angelis 2001:19). When oppositions to capitalist expansion arise outside the capitalist mode of production, primitive accumulation comes into play.

The two positions, which are not mutually exclusive, share a common element: accumulation by dispossession arises when expanded reproduction ceases to be *self-subsistent* and needs to resort to some external element to reproduce the conditions of its existence. This also explains why surplus labour is created: it can happen that capitalist accumulation requires the dispossession of the means of production without being able to productively employ the dispossessed free labourers. We do not wish to carry out a discussion on the relationship between accumulation by dispossession and expanded reproduction here; rather we reformulate the previous observation as a hypothesis: the modalities and the outcomes assumed and displayed by accumulation by dispossession depend on the relation in which it stands with expanded reproduction, and on the conditions of the latter.

While we leave the investigation of this hypothesis to further research, we stress here how it implies that the analysis of accumulation by dispossession in concrete cases needs to take into account what the relationship is with expanded reproduction and what forms the latter assumes. This implication in turn brings us back full circle to the claim made in section 3.4 that investigating resettlement as a process of adverse incorporation means looking at how the systematic failure of resettlement links to the dynamics of capitalism which require displacement in the first place. If development-induced displacement is a form of accumulation by dispossession which arises when obstacles are met by expanded reproduction, then the displaced people are likely to turn into surplus labour. Put differently, capitalist accumulation requires the displacing project, but it is not at the same time able to create sufficient, secure and appropriately remunerated employment for the free labourers released with dispossession.

The systematic failure of resettlement then rests in the inability (in fact the impossibility) to contrast these processes by itself. To clarify this point, the benefits and the provisions (including cash and land compensation) typically provided with resettlement programmes are not able by themselves to either undo the separation between the direct producers and

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capitalist relations of production and modes of activity; and limits as *political recomposition*, where the limit is identified in a social force that poses its activity in opposition to capital (De Angelis 2004:72-73).

the means of production, nor solve the problem of surplus labour. Often they are also unable to attenuate the crisis of reproduction which underpins surplus labour. In the best case scenario, the people displaced by development projects are relocated in a colony built by the project authority and compensated for their material losses with cash and land. Land-for-land compensation, however, (in the increasingly rare cases in which it is indeed granted) does not shield the small and marginal farmers from the processes of differentiation, commodification and polarisation mentioned above. In fact, they can find themselves exposed even more than before to the riskiness and decreasing profitability of agriculture, as well as to the pressure towards further fragmentation of land-holdings. This is due not only to the intrinsic difficulties of starting up a new activity and recreating a livelihood, but also to the embeddedness of land relations in power relations and inequality.

It can also be argued that as long as we are facing a form of accumulation by dispossession, compensation for displacement cannot be expected to fully replace the expropriated means of production. Indeed expropriation followed by land compensation which does put the farmer in the conditions to start an accumulation process, would simply not be an instance of accumulation by dispossession. What instead is consistent with the latter is compensation in the form of devalued land or land which cannot be put to profitable use, an eventuality which also will emerge in the analysis of the case study.

A similar point can be made about cash compensation: to the extent that we are facing accumulation by dispossession, cash compensation cannot truly be assumed to enable the re-purchase of the dispossessed means of production. As will be shown in chapter 7, the amount of money granted as cash compensation to the farmers displaced by the Polavaram dam, is not sufficient to acquire land in the relocation area. Independent of the amount of land compensation, as the case-study will also reveal, cash in itself is not sufficient to regenerate a new profitable livelihood (be it based on farm or non-farm activities). And of course money does not buy a job, particularly when the displaced population is underskilled and belongs to socially discriminated categories, and the industrial sector is either incapable of creating new employment or purposefully relies on casual and unorganised labour.

For these reasons land and cash compensation do not enable resettled people to escape the category of surplus labour.

Finally, neither cash nor land compensation can make up for the fact that displacement

often also implies the loss of the means of physical and social *reproduction*, at the level of the family and of the community. This is typically the case of tribal populations which as a consequence of displacement lose access to the forest and its produce. Again, the impossibility of replacing the means of reproduction is a structural feature descending from accumulation by dispossession, as the latter “entails appropriation and co-optation of pre-existing cultural and social achievements as well as confrontation and supersession” (Harvey 2003:146). The loss of means of reproduction indeed is a major factor keeping people trapped in the need economy, all the more so, when the means of reproduction are ascribable to the category of inalienable possessions described in section 3.3.<sup>59</sup>

The concepts of accumulation by dispossession and surplus labour have helped to explain the existence of structural factors hampering the ability of resettlement programmes to prevent the impoverishment of the displaced people. This explanation directly relates the performance of resettlement to the dynamics at play in the process of development. Before concluding, two weaknesses of this explanation must be underlined and addressed. First, as it stands, this explanation of the failure of resettlement suffers from excessive determinism. In fact, it offers an explanation of the reproduction of poverty which is entirely based on a structural view of power, neglecting the voluntaristic dimension which we have emphasised in the previous section. Furthermore, our claim that resettlement is a process of adverse incorporation is not exhausted by the economic dimension of the process, that is, by the interpretation of the phenomenon through the Marxian notions of accumulation by dispossession and surplus labour.

The first point can be addressed by accounting for the fact that the terms of incorporation into the process of development are context specific,<sup>60</sup> which is to say that the relations of production and reproduction in which surplus labour engages are underpinned by context-specific power relations, determined outside the category of class.<sup>61</sup> In particular, they depend on the historical articulation of the relations of power and the categories along

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59 Referring to the commodification of inalienable possession entailed by accumulation by dispossession, Julia Elyachar suggests that the latter undermines historically constituted forms of collective identity and cosmology (2005:28).

60 So are the conditions of expanded reproduction and how this relates to accumulation by dispossession.

61 Harvey seems to suggest something similar when he states that “[t]he process of proletarianisation [...] entails a mix of coercions and of appropriations of pre-capitalist skills, social relations, knowledges, habits of mind, and beliefs [...]. Kinship structures, familial and household arrangements, gender and authority relations (including those exercised through religion and its institutions) all have their part to play” (2003:146).

which they develop. In this way, the actor-oriented view of power can be incorporated into the analysis.

Regarding the second point, we wish to reinforce the argument that the failure of resettlement is not determined exclusively by the economic dimension of adverse incorporation. The centrality attributed in this thesis to the economic dimension rests on the fact that one of the main purposes of this thesis indeed is to demonstrate the potential contribution of political economy to the understanding of resettlement. While all the dimensions of adverse incorporation should fit in a political economy framework, reasons of time and space have imposed the focus on one single dimension. Given the aforementioned purpose, the chosen dimension necessarily had to be the economic one.

### **3.5. Overview and Conclusion**

This chapter has illustrated how a political economy approach can enrich the understanding of resettlement, offering an alternative explanation of its apparently systematic failure in preventing impoverishment of the affected population. For this purpose, it has developed a theoretical framework based on the notion of adverse incorporation and a relational view of poverty.

This framework is used to investigate processes of impoverishment, emphasising on the one hand how they link to the dynamic of capitalism, and on the other, how they are underpinned by power relations, where power is understood in voluntaristic and in structural terms. Poverty, then, is produced and reproduced by incorporating people into the process of development, where the terms of incorporation are adverse due to the disadvantageous position occupied by the poor in the power relations which underpin it. The adversity of the incorporation has an economic, as well as a political, a socio-cultural and a spatial dimension.

It has then been claimed that resettlement of people displaced by development projects adversely incorporates them into development in economic, political, socio-cultural and spatial terms. All these dimensions contribute to determine the failure of resettlement to prevent impoverishment. The analysis has particularly focused on the economic dimension of incorporation, employing the Marxian notions of accumulation by dispossession and

surplus labour. The use of a Marxian framework has allowed the possibility of identifying the mechanisms which systematically prevent resettlement from positively affecting the lives of the people involved.

In light of this framework, it has emerged that what makes resettlement a process of adverse incorporation is the fact that it is required to dispose of people who are (purposefully or not) made redundant by the same process of development, which proceeds through projects that appropriate new sources of capital (read natural resources and land) at a low cost. In Marxian terminology, displacement equates to a manifestation of accumulation by dispossession in contexts where capital accumulation encounters limits to its expansion. To the extent that this takes place in conditions where the agrarian sector does not guarantee sustainability and subsistence, and the process of development does not create enough employment to accommodate everyone, the displaced population is bound to enter the informal sector and turn into surplus labour. When the displaced people are *already* part of surplus labour, displacement enhances the precariousness of the position that they occupy into it, and the regressivity of the social relations that they enter. In other words, the conditions of expanded reproduction (especially concerning labour and agrarian relations) are such that the free labourers released by accumulation by dispossession cannot be absorbed by capitalist expansion. Surplus labour engages in relations of production and reproduction which limit its capacity to rise above subsistence. The regressivity of these relations depends on context-specific power relations (determined outside the category of class), and also on the extent to which the means of production expropriated through accumulation by dispossession also constituted means of physical and social reproduction at the level of the household and the community.

Resettlement then fails because neither cash nor land compensation enable people to escape surplus labour nor to contrast the adversity created and perpetuated by the processes underpinning the informal sector. The inability of resettlement programmes to counteract surplus labour is explored in chapter 7 in reference to a concrete case of displacement and resettlement. More generally it will be shown how using the adverse incorporation framework can help identify the structural factors which in a concrete case limit the ability of resettlement to prevent the impoverishment of the displaced people.

## Chapter 4

### *Methodology, Strategies of Inquiry and Methods*

#### 4.1. Introduction, Research Questions and Hypothesis

This research is the outcome of a four-year reflection on the problem of resettling people displaced by development projects. My understanding of the problem has significantly evolved over time and this evolution is reflected in the multiple levels of analysis contained in the thesis. Resettlement is first of all a practical problem and a policy issue, and I initially approached it in this way. The concrete nature of the problem is mirrored in the importance attributed in this work to the description and analysis of the case study. The investigation of the practical reasons of the failure of resettlement, however, brought to the surface the limits of this very same approach, particularly in recognising that a considerable part of the failure is due to the actions of structural factors which exist prior to and independently from resettlement. These factors interact with resettlement and affect its performance. In order to uncover these structural factors, it increasingly seemed necessary to re-think resettlement from a theoretical and from a methodological point of view. Indeed, this is what this thesis attempts to do, framing the problem within the following research questions:

*1) What explains the persistent failure of Resettlement and Rehabilitation (R&R) programmes in avoiding the impoverishment of the population displaced by development projects?*

*2) What contribution can economics give to the design of improved R&R programmes?*

*3) Does a choice experiment constitute a useful methodology to improve the design of R&R programmes?*

The literature review contained in the first part of the thesis (chapters 1 and 2) is in fact a meta-analysis of the existing discourses about resettlement and its failure, and of the use of economics for resettlement research and practice invoked by this discourse. This analysis led to the formulation of three hypotheses in response to the research questions:

**HYPOTHESIS 1:** *The failure of R&R is explained by, and reflected through, shortcomings at the theoretical, methodological and practical levels.*

*1.i) At the theoretical level, there is an unsatisfactory conceptualisation of displacement and of what resettlement entails for the displaced population in terms of (re)incorporation into the process of (capitalist) development. In particular, the existing theoretical framework does not acknowledge that the systematic failure of resettlement is attributable to structural factors of the context-specific process of development.*

*1.ii) At the methodological level, excessive emphasis has been attributed to the potential contribution of welfare economics in providing principles and guidelines for the design of compensation and resettlement packages, while neglecting the potential contribution of political economy. If translated into policy prescriptions, this excessive emphasis implies an exclusive focus on cash compensation.*

*1.iii) At the practical level multiple failures tend to occur: flaws in the implementation of the resettlement packages, no application of the official guidelines, insufficiency of the money allocated for resettlement.*

**HYPOTHESIS 2:** *Political economy can significantly contribute to address the observed systematic failure of resettlement and improve its performance.*

*2.i) Political economy conveys a richer and more articulated understanding of resettlement, incorporating into the analysis the processes of inclusion, exclusion and adverse incorporation which underpin it, thus uncovering the link between the failure of resettlement and the regularities in the production and reproduction of poverty.*

*2.ii) Resettlement of people displaced by development projects can be configured as a process of adverse incorporation into (capitalist) development.*

*2.iii) Employing political economy, and, in particular, the notion of adverse incorporation to investigate resettlement allows for the identification of the structural factors which determine the failure of resettlement to prevent the impoverishment of the displaced population. Identifying the structural factors also leads to the reformulation of the policy prescription for a successful resettlement programme.*

*HYPOTHESIS 3: Methodologies for the estimation of values of non-market goods through stated preferences elaborated within welfare and experimental economics are not suitable for the estimation of the immaterial costs of displacement and resettlement (and hence for the estimation of a just compensation). However they can provide a useful format for the direct consultation of the affected population about the preferred typologies of compensation and resettlement, thus contributing to the design of more effective and fair R&R programmes.*

The case study then serves the purpose not only of investigating the failure of resettlement at the practical level, but all the three hypothesis above, following three strategies of inquiry described in section 4.3.

Specific attention is merited here for hypothesis 2 and in particular 2.ii. Testing the hypothesis that political economy conveys a better understanding of resettlement and of the factors which determine its performance requires the drawing of a theoretical framework for the analysis of resettlement which employs the categories of political economy. This indeed has been attempted in chapter 3, following a *retroductive* research strategy (Blaikie 2000). This kind of strategy begins with the observation of a regularity, which is assumed to be explained by structures and mechanisms that are not directly observable. In our case, the observed regularity is the failure of resettlement, and the unobservable structures and mechanisms are the structural factors that cause it. The task of the researcher is therefore to construct a model of these structures and mechanisms, an operation which was performed in chapter 3 and which resulted in the adverse incorporation framework and the highlighting of the categories of accumulation by dispossession and surplus labour. The model is then tested as a hypothetical description of actually existing entities and their relationship, which is the task undertaken in chapter 6, where the adverse incorporation framework is applied to the case study. The next stage consists in identifying further consequences of the model, which can be stated in a manner open to empirical testing. This is also carried out in chapter 7, showing how the dynamic consequences in Polavaram (i.e. the deepening of landlessness, fragmentation of landholdings, and casualisation of labour) correspond to the processes underpinning the production and reproduction of surplus labour in AP. Consistent with the retroductive research strategy, the intent of the framework is not predictive but explanatory, where “explanation is achieved by establishing the existence of

the structure or mechanism that produces the observed regularities” (*ibidem*:113). This explanatory intent is particularly appropriate for investigating a phenomenon which is currently in progress and whose effects and outcomes have just started to display themselves. Finally, the retroductive research strategy is consistent with two key characteristics of the adverse incorporation framework: the fact that the terms of incorporation are context-specific, and the inclusion of both a structure-oriented and an actor-oriented view of power. As concerns the first characteristic, retroduction allows for regularities to be explained by the aggregation and the interaction of the mechanism with the context.<sup>62</sup> Regarding the second characteristic, individual choices are understood as being constrained or enabled by characteristics of the social context in which the individual is located, thus allowing both agency and structure to enter the explanation.

The following sections describe the methodology adopted by this research, the strategies of inquiry and the methods for data generation and data collection.

#### **4.2. Methodology: Case study**

A case study methodology has been employed to investigate the research questions. The hypotheses are tested with respect to a specific instance of resettlement, following three different strategies of inquiry (described in section 4.3).

The understanding of case study methodology adopted in this thesis corresponds to the definition suggested by Yin (2003:13-14): “Case study is an empirical inquiry that investigates a contemporary phenomenon within its real life context, especially when the boundaries between the phenomenon and context are not clearly evident. The case study inquiry copes with the technically distinctive situation in which there will be many more variables of interest than data point, and as one result relies on multiple sources of evidence, with data needing to converge in a triangulating fashion, and as another result benefits from the prior development of theoretical propositions to guide data collection and analysis”.

The very first purpose of adopting a case study methodology here is indeed to describe an instance of mass displacement which is still in progress (in fact, at its initial stages). The

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<sup>62</sup> In Blaikie’s words: “explanation of social regularities, rates, associations, outcomes or patterns come from an understanding of mechanisms acting in social context” (*ibidem*: 112)

second purpose is to test an alternative theoretical model for the explanation of the failure of resettlement. This model attributes explanatory power to structural characteristics of the context of analysis, thus emphasising that the boundaries between the phenomenon and the context are not clearly evident. Finally, not only are there a number of variables of interest, but also of perspectives of analysis adopted. Multiple methods were employed to generate evidence concerning the case study, and all of them contributed to provide evidence for the strategies of inquiry.

It must be also emphasised that the description of the case study on the basis of original evidence is in itself one of the aims of this research, in consideration of the little academic literature existing on the Polavaram dam. With this aim, a range of different methods and sources (described in section 4.5) have been employed for the collection and production of primary data.

### **4.3. Strategies of inquiry**

The ‘strategy of inquiry’ describes the logic linking the data to the hypothesis. Here, three strategies have been adopted to interrogate the case study about the research questions and the following hypothesis. All of them correspond to a way of assessing resettlement in Polavaram, from a theoretical, a methodological, and a practical perspective.

#### **1) Consultation methods: choice experiment and focus group (chapter 7)**

The first way in which resettlement in Polavaram is assessed is through the affected population’s own opinion and preferences. The strategy of inquiry is their direct consultation through focus groups and a choice experiment (CE hereafter), which question the affected people about their favoured forms of restitution and relocation.

The hypotheses addressed with this strategy are hypothesis 3 (directly) and hypothesis 2.ii (indirectly). With regards to hypothesis 3, the CE is tested on the Polavaram affected population, and the results are triangulated with those of the focus groups. The CE and the focus groups therefore have here an explorative function and are employed as methods for the generation of primary evidence. As concerns hypothesis 2.ii, the preferences expressed

by the affected population are measured against the emphasis on cash compensation implied in the prescriptions of welfare economics and of the compensation principle. Anticipating the results of this strategy of inquiry, it transpires that monetary compensation is not the factor which in itself determines the success of a resettlement programme. The conclusion that follows is that attributing to the tools of welfare economics the capacity to solve the failure of resettlement, through the estimation of the efficient (and fair) amount of cash compensation, is therefore misplaced.

## **2) Description and assessment of the compensation and resettlement operations (chapter 6 and 7)**

The second strategy of inquiry directly addresses hypothesis 1.iii, but it also generates evidence in support of all the other hypotheses. The case study in this instance plays a descriptive purpose, as the strategy consists in the description of what constitutes the resettlement package in Polavaram and the details of its practical implementation. Both primary and secondary data are employed. The description also allows for a preliminary assessment of resettlement in Polavaram, on the basis of three criteria: i) the implementation and management performance, and the completion with the policy and legal framework of reference; ii) the comparison with the affected people's preferences elicited through the CE and the focus group; iii) the capacity of the package to support the reconstruction of the disrupted livelihoods. The first criterion is discussed in chapter 6, while the second and the third criteria are examined in chapter 7.

This preliminary assessment generates evidence consistent with the hypothesis that the failure of resettlement is determined not only by shortcomings in implementation and management, but also by structural factors.

## **3) Application of the adverse incorporation framework to the case study (chapter 6 and 7)**

The third strategy of inquiry consists in the application of the theoretical and analytical framework developed in chapter 3 to the case study. It is argued that resettlement in Polavaram is a process of adverse incorporation. Consistent with the retroductive research strategy, it is examined whether the key categories of analysis of the framework are

relevant for the case study, and whether the factors identified as the structural causes of the failure of resettlement are at play in the case of the Polavaram dam project and people. The context-specific articulation of these categories and factors and their role in determining the outcome of resettlement is emphasised. In particular, chapter 6 identifies the structures and mechanisms underpinning surplus labour in Andhra Pradesh, and how they are relevant for the displaced population; chapter 7 shows how these structures and mechanisms interact with the shortcomings of the Polavaram Resettlement and Rehabilitation package (PRRP) in turning resettlement into a process of adverse incorporation.

The adverse incorporation framework, however, is not applied to the concrete case in its entirety. The framework in fact identifies four categories of incorporation (economic, political, social, and spatial), while only the economic dimension is explored in the case study.

Finally, this strategy relies more than the others on secondary evidence, because not all the categories of interest could be investigated during fieldwork; in addition, many of the phenomena of interest have a meso and macro dimension (that is, they are determined at the district, state and national level).

#### **4.4. Fieldwork**

The strategies of inquiry described in section 4.3 employ primary evidence generated during fieldwork in India, through four methods of data collection: interviews, focus groups, survey, and a consultation exercise based on CE approach (for brevity, often referred to as “choice experiment” throughout the thesis).

The fieldwork took place from April to July 2009 across Delhi, Hyderabad, Eluru, and the Polavaram affected areas. The first two weeks of my stay in India were spent in Delhi, residing at the Jawaharlal Nehru University (JNU) Guest house. There I had the chance to plan with more detail the work for the following months, meet my supervisor (who was on sabbatical at the Institute of Advanced Studies at JNU) and make useful contacts with academics and journalists. From Delhi I moved to Eluru, the head-quarter of the West Godavari district in Andhra Pradesh (AP). Eluru is a town of around 400,000 habitants located close to the important railway junction of Vijayawada, where my main contact was

based, a local Non-Governmental Organisation (NGO) named SEEDS, and its executive director, Mr Pagano Didla. For the following months I was a guest of SEEDS, lodging in the office of the organisation.

SEEDS works mainly with tribal people and has considerable experience in the areas and in the villages which will be directly affected by the Polavaram project. The staff of SEEDS shared with me their knowledge of the Polavaram project and of the local context. Their support was essential for the success of my fieldwork, particularly in reaching and interviewing the affected people. I was assisted in particular by four people: Mr Shyam Karamsetty, Mr Israel Ray Abbadasari, Mr Murthy Peddireddi, and Mr Subba Rao (all of whom will hereafter be referred to as ‘research assistants’ or by name).

These research assistants helped me to organise the logistics of the visits to the Polavaram affected villages, accompanied me during the trips, and played the role of gatekeepers, intermediaries and translators during each mission on the field. Murthy and Israel often travelled in advance to the villages which I had planned to visit in order to inform the people of our arrival. They also visited the offices of the local administration to request official documents on the project and resettlement package.

During my stay in Eluru, I travelled six times to the field, each time for a period of 2-4 days, visiting in total 19 of the affected villages. The focus groups, the survey and the CE were implemented during these visits.

Each trip was preceded by a meeting with the research assistants and Pagano Didla, during which not only the logistics, but also the objectives of the mission were discussed, as well as the questionnaires for the focus groups, the survey and the CE. The latter were repeatedly improved upon what had happened during the previous trips (including the misunderstandings that emerged at the stage of translation) and the comments and contributions of the research assistants. Pagano played a key role in this phase: being familiar with the requirements of academic research; during these meetings he mediated the communication between me and the research assistants and helped me frame the research problems into questions which could then be translated into colloquial Telugu sentences. All the questionnaires were written in English, while the focus groups, the survey and the CE were conducted in Telugu by my research assistants, who then translated back the answers in English to me. Telugu is one of the official languages of AP and the one spoken,

together with some local dialects, by the people living in the Polavaram affected villages and, generally, in the rural areas of the State. Because of my ignorance of the Telugu language and my research assistants' level of English, the language barrier did occasionally constitute an obstacle. In particular, it often meant the loss of details of the conversation, as I was given a shortened and standardised version of the answer provided by the respondent. The quality of the survey was not significantly affected by this situation, as the same structure of the questionnaire requires standardised answers. The focus groups, however, did suffer from the impossibility to establish a fluid conversation and from my inability to control the dialogue. Yet, as also emphasised below and elsewhere in the thesis, the fact that the multiple methods employed obtained similar results, and that this was the case regardless of which research assistant was translating, this contributes to confirm the validity and the reliability of the findings.

I deliberately chose not to record the conversations held with the villagers to avoid inhibiting them and generating the suspicion that their comments on the compensation received and the resettlement process might be later used to their disadvantage.

The final weeks of my fieldwork were spent in Hyderabad meeting with key stakeholders of the project: government officials, representatives of NGOs and a journalist (see section 4.5.4). I did not record these interviews either, in this case for fear that my interlocutor (especially in the case of government officials) would not otherwise reveal important details about the project.

#### **4.5. Methods for data generation and collection**

Different methods were employed during fieldwork for the generation of primary evidence on the case study: interviews, focus groups, survey and choice experiment. Official and unofficial government documentation concerning the project and the resettlement operations was also collected.

Interviews, focus groups and documents are classified as qualitative data, and were analysed as such. The survey and the CE, generating information in numerical form, qualify as quantitative data. To the extent that the three strategies of inquiry adopted in this research draw from both types of data, this thesis embraces a 'mixed method' approach

(Creswell 2009). This method rests on the possibility to triangulate the qualitative and quantitative data as a way of confirmation and cross-validation of the findings. This indeed was performed within each strategy of inquiry; in particular the results of the focus groups were triangulated with those of the CE, while the government documents (reporting information on the affected population) constituted the base for the validation of the results of the survey.

Before describing the methods of data collection in detail, the procedures adopted for the analysis of the quantitative data must first be clarified. In both cases (i.e. survey and CE) the ‘numerical information’ obtained was not used for statistical inference, but only for descriptive purpose, i.e. for the estimation of averages and proportions. In addition, both methods also produced qualitative information. For instance, the CE was complemented by follow-up questions which asked the respondent to explicate and justify the preference expressed. The survey contained a section with semi-structured questions investigating the level of awareness of the respondent concerning the displacement and resettlement process. This type of information was processed through coding and contributed to qualify and corroborate the other findings.

#### ***4.5.1. Household Survey***

The purpose of the survey is primarily descriptive, that is, it aims to provide a snapshot of the Polavaram affected population and of its characteristics. In this sense, it is functional to all the strategies of inquiry described in section 4.4. It is functional in particular to the application of the adverse incorporation framework to the case study, to the extent that it informs on the sources of livelihood of the affected population. The notion of *sustainable livelihood* adopted here is best described by Chambers and Conway (1991:6), according to which a livelihood comprises “the capabilities, assets (stores, resources, claims and access) and activities required for a means of living: a livelihood is sustainable when it can cope with and recover from stresses and shocks and maintain or enhance its capabilities and assets, and provide sustainable livelihood opportunities for the next generations, and which contributes net benefits to other livelihoods at the local and global levels and in the short

and long term”.<sup>63</sup>

While the unit for the selection of the survey sample was the household (a term which is used here interchangeably with family), the survey also collected information at both family and individual level. The respondent to the survey questionnaire was the same person to whom the CE was administered, so that the second purpose of the survey was to collect information on the socio-economic characteristics of the respondents to the CE. Until the early stages of my fieldwork, the latter was in fact the main purpose of the survey, as the socio-economic characteristics were to be used to estimate a preference determinant function to be associated to the CE in the framework of a discrete choice random utility model.<sup>64</sup> The underlying assumption was that individual and family characteristics would explain the preferences expressed by the respondents at the individual level. For this reason, I attempted to include in the sample not only the head of the household, but also members staying with the latter in various relationships. Similarly, when possible women were asked to answer the questions, so as to attempt an equal share of male and female respondents.<sup>65</sup>

A note is needed at this point on the underlying definition of household. For the purpose of the sample selection, the residential unit was assumed to coincide with the family unit.<sup>66</sup> The respondent was then asked to list the members of the family. The respondent subjectively interpreted this as the nuclear family, including married sons and daughters. It was not always clear whether the latter were living in the residential unit being analysed or elsewhere. For this reason, none of the variables of analysis is adjusted for the family number.

The selection of the survey sample was based on a multi stage sampling procedure: first the clusters, i.e. the villages were identified, and then families were selected within each village.<sup>67</sup> At both stages a non-probability sampling procedure, based on *quota sampling*, was followed. Quota sampling consists in the identification of category of interests to the research topic on the basis of which the population is to be selected; it is then decided what

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63 See also chapter 3 for a discussion of how the *sustainable livelihood approach* informs the adverse incorporation framework.

64 This plan was later abandoned due to the impossibility of assuming that the preferences expressed did behave consistently with the proprieties postulated by the theory, see section 4.5.2.

65 In spite of this, an equal share of female and male respondent in the sample was not achieved.

66 The residential unit is more relevant if the purpose is investigating those who will be displaced as a result of the submersion of their house.

<sup>67</sup> As the sample selected for the survey was also administered the choice experiment, the considerations made here in terms of sampling strategy for the former also hold for the latter. This is also true for the sampling errors discussed later in this section.

proportion of respondents to include in each category: whether equal numbers in each category or numbers proportional to their real incidence in the population (Blaikie 2000).

Besides pursuing quota sampling, my other objective in determining the sampling strategy was to maximise the dimension of the sample and the number of villages visited (i.e. to maximise the sample frame with respect to the universe), given the amount of time and resources which I had available. The reason of this choice was that with my fieldwork I wanted to obtain a general overview of the displacement scenario, including a snapshot of the affected population and of their knowledge of the project and feelings towards displacement and resettlement. I also wanted to use the consultation tool based on CE with as many villages as possible, in order to diminish the endogeneity of the results obtained with it. The main limitation of this strategy is that it came at the expenses of the statistical representativeness of the sample (see below).

At the first stage of the sampling procedure, a total of 15 villages were selected, of which four are in West Godavari (Ramayapeta, Chegondapalli, Tutigunta, Pydipaka), three in East Godavari (Kondamodalu, Talluru, Kegunduru), and eight in Khammam (Lacchigudem, Rudramkota, Aghra Koderu, Sabari Kothagudem, Vinjaram, Gundala, Bovanagiri, Totapalli). In addition, four villages in West Godavari were visited for the preliminary focus groups (Devaragundi, Mamidigundi, Koruturu, Sirivaca). For the purpose of selecting the villages, the two categories of interest were the geographical location and the social composition. First, all of the three affected districts were to be covered. The highest proportion of villages included are located in Khammam because this district is home to almost two thirds of the total project affected population. The preliminary focus groups were all conducted in West Godavari because the villages of this district will be the first to be displaced and resettled. Interviewing the people of these villages about their resettlement was therefore deemed to be of particular interest. Second, villages with varied social compositions were included. Thus, of the selected villages (including the four visited for the preliminary focus-groups), 13 had a majority of Scheduled Tribe (ST) population, three a majority of Scheduled Caste (SC) population and three had a mix of SC and Other Castes (OCs), with a minority of STs. The final choice of the villages was, however, also determined by their accessibility, by logistical considerations (mainly the ability of the village to host the whole research team, which was composed of at least four people plus

the driver), and by the presence of Naxalite groups in the area.<sup>68</sup>

Basic information on each of the villages visited was collected through a questionnaire which was filled out by one of the research assistants with the help of key local informants, usually the head of the village (Sarpanch), a teacher, or the coordinator of the self-help groups. The information collected concerned the presence of infrastructure in the village and the availability of public transport and health and education services. They were primarily designed to assess the level of remoteness of the village.

At the second stage, 167 families<sup>69</sup> were selected with the aim of replicating the social group composition of the total affected population. The category of interest was therefore the social group; for each social group the number of families included was proportional to their real incidence in the total affected population. Thus, 56% of the interviewed families were from STs, 25% were from SCs, 9% from Backward Castes (BCs), and 10% from OCs.

The families were not selected following a probability sampling procedure, primarily because of the lack of a readily available list or census of the families (or the individuals) living in each village. Generating this list by myself for each village would have required additional time and resources which were unavailable, or would have involved reducing the number of villages included in the sample. As mentioned above, it was preferred to use the time and resources available to maximise the number of villages covered rather than pursuing statistical representativeness of the sample (although quota sampling guarantees that at least the categories chosen are distributed in the sample as in the population of reference), consistently with the explorative nature of this study (i.e. investigating a new instance of displacement and testing a new tool for consulting people about their resettlement preferences).

The choice of which families to interview was taken upon our arrival in each village, on the basis of the information provided by my research assistants (in case they already knew the village) or our local key informant. In many cases we would just walk from house to house in search of a family with the desired characteristic and willing to participate. If necessary, we would ask the same villagers to indicate to us a family belonging to the desired social group.

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68 Naxalite groups are present in Khammam district, including in the areas affected by the project.

69 Distributed as follows: 12 in Ramayapeta, 11 in Chegondapalli, 13 in Tutigunta, 10 in Pydipaka, 6 in Kondamodalu, 12 in Talluru, 12 in Kegunduru, 13 in Lacchigudem, 12 in Rudramkota, 12 in Aghra Koderu, 6 in Sabari Kothagudem, 12 in Vinjaram, 14 in Gundala, 8 in Bovanagiri, 14 in Totapalli.

Each family was approached by one of the research assistants, who would clarify our identity and the purpose of our visit. He would then ask whether a member of the family was willing to take part in the survey and the CE. When this was the case, it was explained to the person identified in more detail the purpose of my research and the type of questions that we were going to ask. It was stressed in particular that we had no type of relationship with the government, and that neither the participation in the CE, nor the answers provided were in any way to affect the resettlement package that the family was going to receive. A written consent form was presented at the beginning of each survey questionnaire, which the respondent was asked to sign after having agreed to participate in the survey (the form was written in English and orally translated into Telugu).

### **Sampling and non-sampling errors**

Generally speaking, the results of a survey are affected by two types of errors: sampling and non-sampling errors. Sampling errors derive from the procedure adopted to select the sample. For the purpose of this survey, a non-probability sampling procedure was adopted, with the implication that the findings could not be statistically tested. The main potential bias derives from the fact that the villages were selected from among those already known by my research assistants (with the exception of three villages), as they had already undertaken some social development work there (not necessarily on behalf of SEEDS), and in some cases, precisely on issues linked to the Polavaram project. This ensured a friendly and collaborative attitude by the people; however it also implies that the level of awareness concerning the project and the resettlement package demonstrated by these villages might not be representative of that of the whole sample. The previous acquaintance with the villages selected might also have induced a response bias in the CE, in the sense that people belonging to these villages might have systematically provided the answers that they thought would have pleased us, or alternatively they might have felt free to provide certain answers because reassured by the friendly atmosphere.

In addition, the adoption of quota sampling with selection of families ‘on the spot’ until the quota was achieved, meant the elimination of the problem of *non-response*, but created other potential biases. In particular, this method could have excluded families living at the margin of the village. Minimising this bias was attempted by specifically asking the key

informant to indicate us families with given characteristics, including the poorest and most isolated. Further, endogeneity biases in the responses obtained might have arisen for (at least) three reasons. First, my research assistants might have been inclined to approach more often families which were known to them, thus reinforcing the biases described above for the village level coming from previous acquaintance. Second, when we would ask the respondent just interviewed to introduce us to a new family, the person in question might have indicated us families with similar resettlement preferences than his own. This sort of self-selection mechanism of families with similar resettlement preferences might contribute to explain the homogeneity of the responses obtained in the CE. However, as only a small part of the sample families were approached in this way, even if some endogeneity in the preferences indeed is present, it does not seem sufficient to account for all of the response similarity. Finally, another source of preference endogeneity might have come from the fact that usually we would let the family decide which member should reply to our answers. This usually resulted in the respondent being the head of the family and/or literate. To the extent that literacy and the role played within the family affect resettlement preferences, endogeneity in the latter might have been caused by this other respondent selection mechanism. Once again, while the effect of this bias cannot be ruled out, here two factors can be mentioned which attenuate its relevance. First, there is no obvious association between being literate or the head of the family and a given resettlement preference (e.g. there is no obvious reason why literate people should prefer more often than non-literate people relocation in the forest). Second, although freedom was left to the family to choose the respondent, some care was taken to include in the sample respondents of different gender, age and role within the family. When the results of the CE were examined, no systematic difference was observed in the answers provided by respondents with characteristics other than being male, literate and head of the family.

Non sampling errors are related to the validity (the degree of approximation to the 'true' value of that characteristic in the universe') and the reliability (the consistency of the measurement) of the findings of the survey. In our case, non-sampling errors might have been induced by the respondents willingly or unwillingly reporting untrue or inexact information. Another source of potential bias might have come from the fact that half of the interviews were conducted by two of my research assistants (usually Murthy and Shyam)

without me being present.<sup>70</sup> However, upon examination of the findings of the survey, the latter did not seem to be the case, to a large extent because the survey addressed objective aspects of the life of the respondents and left little space for subjective interpretation, either by the research assistant or the respondent. As concerns the CE, where subjectivity was a fundamental aspect of the questions, the homogeneity of the findings (see chapter 6) rules out the possibility that a significant bias might have been induced by the person asking the questions.

Regarding the possibility of faulty answers, and the general validity and reliability of the survey, three factors should have minimised the former and maximised the latter: first, the climate of friendliness and cooperation established during the conversation, thanks primarily to the attitude of my research assistants; second, and in confirmation of the first point, the very low level of missing information;<sup>71</sup> and third, the fact that the objective reality (i.e. material conditions and sources of livelihood) described by the findings of the survey is consistent with the other existing sources of information on the Polavaram affected population, including the census and the government survey (see chapter 5).

### **The survey questionnaire**

As mentioned above, the survey questionnaire was designed with the purpose of collecting information on the socio-economic characteristics of the respondent and of his or her family, which could explain the preferences expressed during the CE. Eventually however, the survey was used as a source of information on the objective material conditions of the affected population. The explanatory purpose was therefore replaced by a descriptive one. This was possible because the characteristics assumed to influence preferences about compensation and resettlement referred exactly to the material conditions of the family.

In particular, the questionnaire was comprised of six sections, which are illustrated below.

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70 We usually conducted the interviews in two groups and I would usually work with Israel or Subba Rao.

71 These include the level of literacy in eight cases, the primary source of lighting in one case, ownership of land in one case, and extent of land owned in three cases.

1) and 2) *Characteristics of the respondent and of each member of the family*

These included gender, age, relation to the head of the household and educational level.

3) *Household and housing characteristics and income*

This section inquired about the social group of the family (ST, SCs, BCs, OC), its average monthly income<sup>72</sup> and the primary source of energy for cooking and lighting. Two questions were also included about the ownership of livestock and of a range of durable consumer goods.

A comment is needed here to clarify the purpose of these questions. The survey did not aim to estimate the level of income or consumption of the households. This operation would have required a completely different survey by itself. Moreover, official government estimations already reveal that 95% of the Polavaram affected population is below the poverty line<sup>73</sup> (see chapter 5). However, it was deemed important to collect some information on the level of income and wealth of the families, for two reasons: i) to make comparisons within the sample, in particular within villages which had already received compensation and villages which had not;<sup>74</sup> ii) to obtain a benchmark for future comparison of the level of income and wealth before and after resettlement.

4) *Land ownership*

This set of questions asked whether the family owned any land, for how long they had owned it, and if they were in possession of any official title of ownership. It also asked what crops were produced and whether they were for sale at market or for self-consumption, as well as whether any assigned land was cultivated. Finally, it was asked whether land improvements had been made recently or were planned in the near future.

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72 The answer to this question was not expected to be a precise approximation of the real level of income of the household (and it has not been used as such in this thesis). In fact, it was interpreted by the respondent as the earnings from agricultural wage labour. In this sense, it provided a useful indication of the salary received for this activity.

73 The understanding of poverty adopted by this thesis has been thoroughly discussed in chapter 3.

74 This could for instance be done estimating an asset index using the data obtained on the possession of durable goods (for an example see Wall and Johnston 2008).

#### *5) Main economic activities of the family*

The aim of this section was to identify the main sources of livelihoods of the family. For this purpose, it asked the respondent to indicate the main source of income, whether the family was participating in any government employment scheme and whether it was practising any communal labour sharing. The respondent was also questioned about the products collected from the forest and whether these were sold or consumed by the respondent's family.

#### *6) R&R package related question*

The last part of the survey questionnaire included questions related to the level of awareness regarding the dam project and the Resettlement & Rehabilitation package provided by the government of AP to the affected families (see chapter 7). The respondent was asked whether he or she was aware that the family was going to be displaced as a result of the construction of the dam, and who had conveyed this information. The respondent was also asked whether he or she knew that the family was entitled to compensation for the loss of house and land and to a resettlement package, and whether they had already received any money. If this was the case, it was also asked how this money had been used. Finally, the respondent was asked to indicate whether someone in the family had ever taken part in a protest against the dam or against the R&R package.

#### **4.5.2. Consultation exercise with Choice Experiment Approach**

Choice experiment methodology, together with its theoretical underpinnings, was the object of thorough discussion in chapter 2. It was argued there that, if used as a consultation tool to explore resettlement preferences, a CE can provide useful information for the design of resettlement programmes. The consultation exercise based on CE approach implemented with the Polavaram affected population is described in detail in chapter 7. This section further qualifies the use of CE as a consultation tool, focusing in particular on the underlying ontological understanding of preferences.

As discussed in chapter 2, choice experiment and contingent valuation (CV) survey belong to the class of stated preferences methods, whose aim is the estimation of the value

of non-market goods. Theoretically, it is argued by the literature reviewed in chapter 2 that they could be used to estimate the subjective cost of displacement and therefore the amount of monetary compensation which, if paid, would make displacement *voluntary*. In this sense, their main purpose is that of *commensuration*. The only study that to the author's knowledge applies a CV survey to the problem of compensation for displacement, is Garikipati's investigation of resettlement of people displaced by the Sardar Sarovar project (Garikipati 2000, 2005, 2011). She uses the CV method to elicit the willingness to accept different amounts of money and typologies of resettlement in exchange for displacement. She also estimates a preference determinant function and finds that the elicited preferences are explained by the socio-economic circumstances of the respondents. Garikipati's study (which is reviewed in detail in chapter 2) significantly inspired my research and influenced the design of my CE, there are however some relevant differences between her approach and mine which are worth mentioning here.

Garikipati uses a CV survey with an 'accept or reject' format, which allows her to estimate people's WTA for relocation with loss of commons, relocation with loss of one's own community, relocation with no housing or land provided. People either accept or reject the sum of money offered with one of these three forms of relocation, thus implicitly stating a price for the loss associated with each type of relocation. The focus of her approach is therefore on attributing a 'price' to the losses which come with displacement. This focus is consistent with the CV method, which always implies an exchange between a sum of money and the good under investigation (in this case, one of the losses triggered by displacement).

This thesis, by contrast, shifts the focus away from attributing a price to the losses induced by displacement and re-directs it to the attributes of a resettlement programme which are preferred by the affected people. For this reason, it adopts a CE rather than a CV format. The two differ in that the CE asks the respondent to make a choice between two goods of the same type but which differ for some attributes. If one of these attributes is expressed in money, by making a choice the respondent implicitly indicates the monetary value that he or she gives to that attribute. Thus a CE can also be used to estimate WTA and other welfare measures, and in this sense it is similar to a CV survey. However, including a monetary attribute is not necessary for a CE to be an informative exercise. It can also be used to explore what attributes of a good are preferred by the people. It is precisely in this

sense that a CE is adopted by this thesis. Its purpose here is to explore the aspects of people's present life which are valued the most, and at the same time what characteristics make a resettlement package acceptable by the displaced people.<sup>75</sup>

Moreover, a CE is used here as a *method* of direct consultation for the elicitation of people's opinion and desires about their resettlement, not as a *methodology* to test human behaviour on the grounds of an underlying economic model. As made clear in chapter 2, using a CE as a methodology would have implied assuming that preferences follow the properties postulated by rational choice theory and that they can be explained by a random utility model. While retaining the assumption that people's socio-economic characteristics affect their preferences, this study does not assume that these preferences behave as postulated by the theory. Of course, in refusing this assumption the CE cannot be grounded in a consumer utility model and a preference determinant function could not be estimated, nor could WTA. In addition, the preferences expressed cannot be used for their indirect informative content, i.e. the subjective monetary value attributed to goods and their attributes.

However, this does not imply that the preferences expressed, and therefore the whole CE, are meaningless. Rather, they are used for the direct information that they convey, namely people's desires, inclinations and opinions. A statement is not made about the extent to which these desires, inclinations and opinions are autonomous and authentic rather than the outcome of *adaptation*, that is, the result of habit or adjustment to life as it is known. The reason is that this statement is not needed for the use of CE which is made in this thesis. The preferences expressed are taken to indicate what aspects of their life people value (independently of the reason why they value them) and for which they should be compensated, if the purpose of compensation is to re-establish justice. At the same time, the preferences expressed indicate the attributes of a resettlement programme which are more likely to make it acceptable by the displaced people. Finally, in offering a standard format for the direct consultation of displaced people about their resettlement, a CE has the potential to bring to the surface resettlement related issues which might otherwise remain hidden (this potential is widely discussed and demonstrated in chapter 6). In consideration of all this, preferences expressed through a CE can inform the design of resettlement

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75 Asking people to make a choice between attributes, rather than explicitly or implicitly asking them to assign a monetary value to them, also reduces the cognitive burden of the exercise.

programmes without necessarily being attributed a normative value. To further clarify this point, if the CE finds that tribal people prefer to stay in the forest rather than being relocated in plain areas, the implication is that the loss of life in the forest induced by displacement should first of all be adequately compensated, and second, be considered as a sensible issue with possible negative consequences to be addressed in the design of the resettlement package. No value judgement of the loss of the forest is needed to arrive at this conclusion.

Consistent with this assumption that the preferences expressed are meaningful, respondents are also deemed capable of making a choice between a sum of money and an aspect of their life which is otherwise lost (for instance, life in the forest). However, that sum of money is not taken to represent the monetary value attached to the forest. Again, the focus is not on the estimation of the price for the loss, but on understanding what is valued. This is consistent with what is said elsewhere about monetary compensation not being the most important determinant of a successful resettlement package.

#### **4.5.3. Focus Groups**

Focus groups were implemented during fieldwork in eight villages affected by the Polavaram dam with a twofold purpose: to generate information for the design of the CE, and to adopt a direct consultation method alternative to the CE so as to create a base for triangulation of the findings.<sup>76</sup> Four focus groups were held before the proper set-up of the CE, in order to obtain information which could guide the design of the resettlement packages to be offered with the CE. They were used specifically to investigate the losses induced by displacement from the point of view of the affected population and therefore the attributes to include in the packages.<sup>77</sup> In addition, they were used for testing the feasibility of some questions and identifying the key words and the key concepts on which to focus in the translation from English to Telugu.

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<sup>76</sup> The questions asked during the eight focus groups and the answers obtained are discussed in detail in chapter 6.

<sup>77</sup> The same literature on stated preference methods claims that qualitative methods can sensibly improve the results of studies based on choice experiment and contingent valuation. In particular focus groups can help in gaining an understanding of how the issue is perceived by the target population, enriching the meaning of the valuations elicited and determining additional explanatory variables of the preferences (Powe 2007).

In contrast, the second set of focus groups was run in four of the same villages where the CE was being implemented. In this case the aim was to ask people's opinion about their resettlement options, in order to create evidence which could be triangulated with the findings of the CE.

The focus groups took place in the collective space normally devoted to village meetings: typically under a tree or in the temple. Participation was voluntary and no limit was set on the number of people who wanted to join in. The conversation was held by one of the research assistants in Telugu and then translated to me. As also mentioned above, the language barrier did constrain the conversation and my ability to catch the nuances of the answers received. Furthermore, on the side of the villagers the conversation tended to be manipulated by two or three persons, usually the Sarpanch, a teacher, or the coordinator of the self-help groups. For this reason, it cannot be assumed that the focus groups were immune from a 'person bias' (Chambers 1983), namely that the answers obtained were representative of the opinion of individuals which hold a position of authority in the village, but not of that of the 'voiceless' people. Yet, the homogeneity of the findings obtained across different villages with different characteristics, and their consistency with the results of the CE constitute a proof of their validity and reliability.

#### ***4.5.4. Interviews and informal conversations***

During my stay in AP I had the chance to meet a number of people variously involved with the Polavaram dam project and the resettlement process. These meetings took place as semi-structured interviews, and constitute a source of evidence for this research to the extent that they widened and enriched my understanding of objective facts concerning the project and the resettlement process, and of the social, economic and political context in which they take place. They also offered me perspectives of different types of stakeholders on these issues. At the government level, I met with the Resettlement & Rehabilitation Commissioner and Special Secretary to government, Mr Chiranjiv Choudary; the former Joint Collector of West Godavari, Mr Law Agarwal; and the then Revenue Divisional Officer of West Godavari, Mr Venkateswarulu Vasam. At the level of the civil society, I was in contact with the representatives of two NGOs based in Hyderabad, namely SAMATA and SAKTI. Both work on forest and tribal rights related issues and were closely

following the events concerning displacement and resettlement in Polavaram. I also had a conversation with Ms Uma Maheshwari, one of the few independent journalists who has been documenting the project since 2004. Finally, I conducted semi-structured interviews with two families living in the resettlement centre for the village of Devaragundi, the only centre which had already been completed at the time of my visit.

#### ***4.5.5. Government documents and other official sources***

Thanks to the visits paid by my research assistant to the local administrative offices (the Mandal Revenue Offices and the Forest Department), I was able to obtain some internal government documents concerning the project and the resettlement process. These include technical reports of the Polavaram project, descriptions of the affected population, and details of the compensation and resettlement operations. Considering the lack of information surrounding the Polavaram project, they represent a precious source of evidence. The content of these documents is analysed in chapter 5. Appendix VI lists the main sources (government documents, independent reports, newspaper articles) employed for the description of the case study.

#### **4.6. Conclusion**

Before concluding this illustration of the methodological approach adopted by this thesis, it is necessary to add some key aspects of the failure of resettlement which are not addressed here and which will need to be taken into consideration for future research.

First, the structures and mechanisms identified by the adverse incorporation framework as being at the root of the systematic failure of resettlement, primarily through the production and reproduction of surplus labour, need to be investigated in more detail with respect to the Polavaram affected population. This includes implementing a survey researching the features of agricultural wage labour and small and marginal farming, including, in relation to the latter, tenancy agreements and the processes underpinning the diversification of farming. The investigation must be directed not only at the affected population, but also at the resettlement area.

Second, the dimensions of adverse incorporation that this thesis does not fully investigate deserve to be further explored.

Third, gender must be incorporated into the analysis, at the level of the theoretical framework and of the empirical analysis, in particular, the relationship between resettlement and the incorporation of women in the labour market through surplus labour.

Fourth, considerations on the failure of resettlement in Polavaram and of its outcomes in terms of adverse incorporation should be enlightened by a thorough analysis of the (potential) benefits of the project and their capture by the affected people. Finally, a risk analysis of resettlement of the Polavaram displaced people, based on the Impoverishment Risk and Reconstruction model should complement the investigation of the structural causes of the failure of resettlement through the adverse incorporation framework. This would create the basis for a broader reflection on how the two frameworks can inform each other.

## Chapter 5

### ***The case-study: the Polavaram dam project and the displaced population***

#### **5.1. Introduction**

This thesis adopts a case-study approach in order to investigate the reasons for the failure of resettlement and explore the different methodological approaches which can be adopted to improve its performance. The case in question is the Polavaram dam in Andhra Pradesh (AP hereafter), whose construction is still in progress and which will eventually lead to the displacement of around 200,000 people. This chapter is dedicated to the description of the Polavaram project and of the population displaced by it. It also examines the resettlement process as it is being carried out by the government in Polavaram, looking at the legal and policy framework of reference and at the state of advancement of the resettlement operations. The technical details of the dam, its claimed benefits, its negative effects and the controversy surrounding it are dealt with in section 5.2.3. It must be noted that this is not a work on the political economy of dams in AP, and as a consequence, a selective approach has been adopted in treating issues related to its official and unofficial positive and negative effects. This thesis does not attempt a review of all the social and economic costs and benefits of the dam, nor does it assess whether the project is indeed justifiable in the name of the *common good*. As the focus is on resettlement, the main cost that we are interested in, is the displacement of people, their loss of access to a specific environment which is not replicable elsewhere, and the ensuing disruption of their livelihoods. These are also the aspects from which the controversial nature of the dam project arises and which are also reflected in the complexity that resettlement assumes in this very specific case. For these reasons, the review of the negative effects focuses on these aspects and is not exhaustive. As concerns the benefits, they are reviewed in section 5.2.1, but thereafter are not frequently discussed in the rest of the work. We anticipate here that they are unequally distributed from a geographical point of view. Andhra Pradesh is divided into three geographical regions (Telangana, Rayalaseema and Coastal Andhra) which differ in terms of socio-economic characteristics due to historical processes and their specific resource bases. The districts which will benefit from the Polavaram project (East

Godavari, West Godavari, Krishna and Visakhapatnam) all belong to Coastal Andhra, while the district where the majority of the displaced population is concentrated and which does not receive any benefit (Khammam district) is located in the Telangana region. The benefits generated, moreover, will have limited relevance for the resettlement population.

This chapter also introduces one of the key findings of this thesis: that the characteristics of the displaced population and more generally of the submersion and resettlement areas affect the dynamic effects of displacement and contribute to turn their resettlement into a process of adverse incorporation. In the case of the Polavaram dam, resettlement assumes a very specific character as almost half of the affected population belongs to STs and the submersion area is classified as Fifth Schedule Area<sup>78</sup>. This argument is substantiated in section 5.3 with a description of the socio-economic profile of the affected population, with particular reference to their sources of livelihood. Section 5.3.1 looks at the conditions of Scheduled Castes (SC) and Scheduled Tribes (ST) at the national, state and district level on the basis of secondary data. Section 5.3.2 puts flesh on the bones on this data, explaining how historical processes of tribal land alienation and forest eviction have determined the current livelihood strategies adopted by STs (and to a certain extent SCs).

The legal background of resettlement in Polavaram (or lack thereof) is described in section 5.4.1 with reference to the national level, while section 5.4.2 looks at the state policy on R&R. Section 5.5 describes the state of advancement of the resettlement operations in practice on the basis of primary and secondary data.

Finally, it is to be noted that there is striking paucity of academic research on the Polavaram dam and very little media coverage, especially at the international level. The reasons for this warrant investigation, especially since the project is set to be one of the largest and most disruptive ever realised in India.<sup>79</sup> The present research has involved an intense process of tracking down sources and reconstructing the details and the events surrounding the project. The main sources on which the following account draws are listed in Appendix VI.

Figures 5.2-5.5 show different maps of the Polavaram project, the affected area and the submergence villages. Appendix X contains a short description of these maps.

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78 See section 5.2.2 for details on the Fifth Schedule Area.

79 The lack of media coverage and academic interest is particularly striking in comparison with the national and international attention raised by the Sardar Sarovar dam project in the Narmada valley.

Figure 5.1 Map of Andhra Pradesh



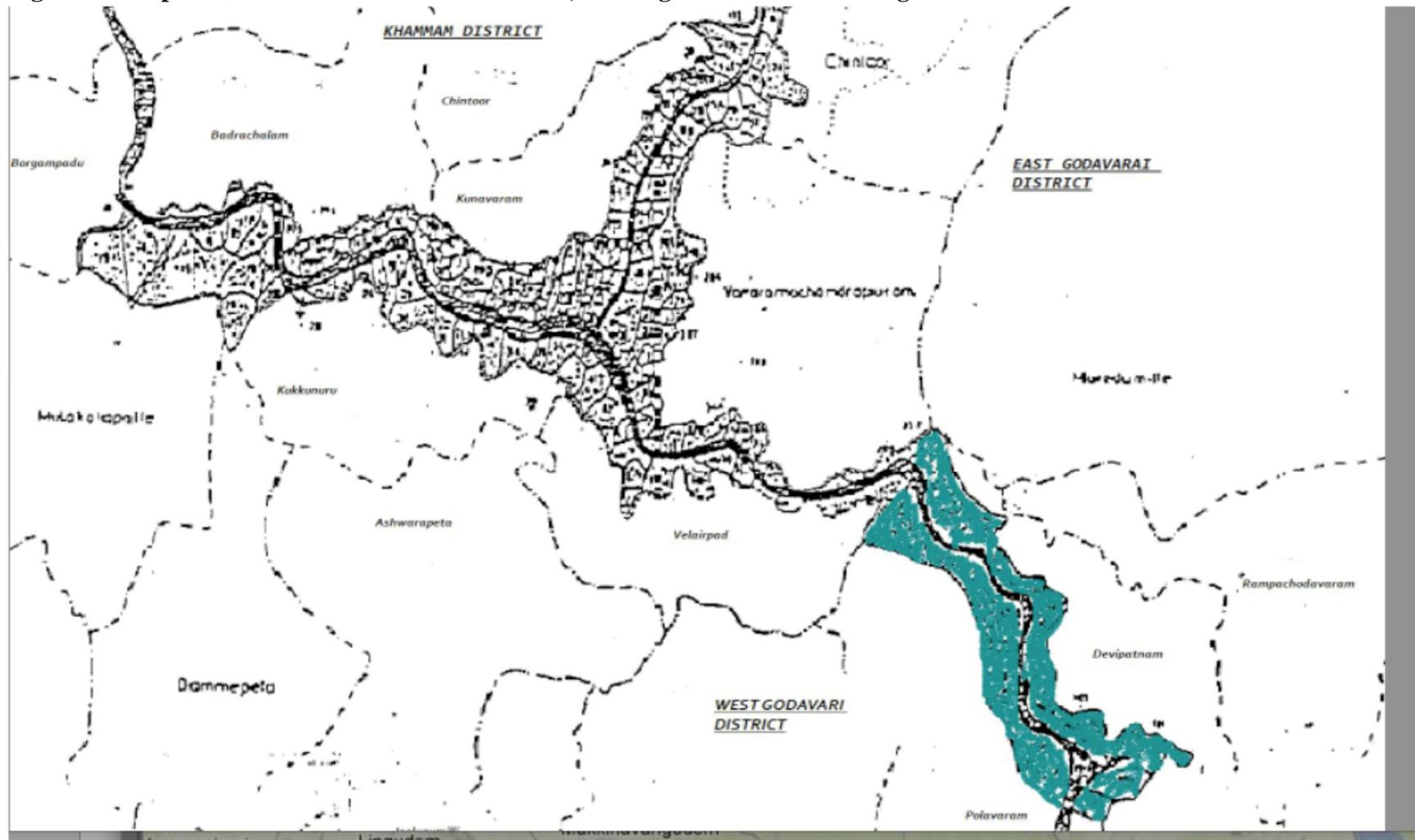
Source: <http://maps.newkerala.com/andhra-pradesh-travel-map.php>

**Figure 5.2 Map of the Polavaram dam affected area, showing the type of terrain**



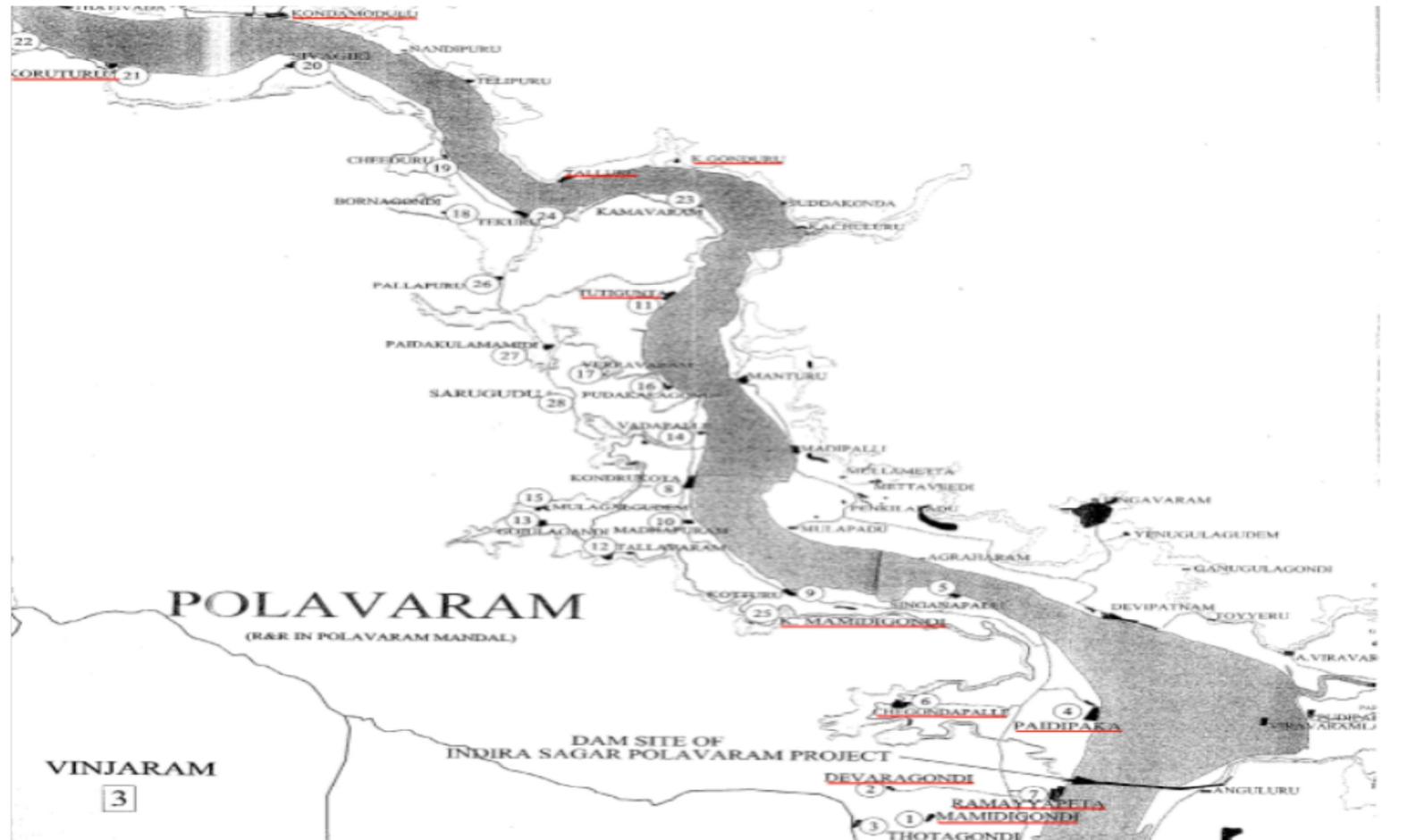
*Source: Googlemaps, snapshot modified by the author*

**Figure 5.3** Map of the Polavaram dam affected area, showing the submersion villages



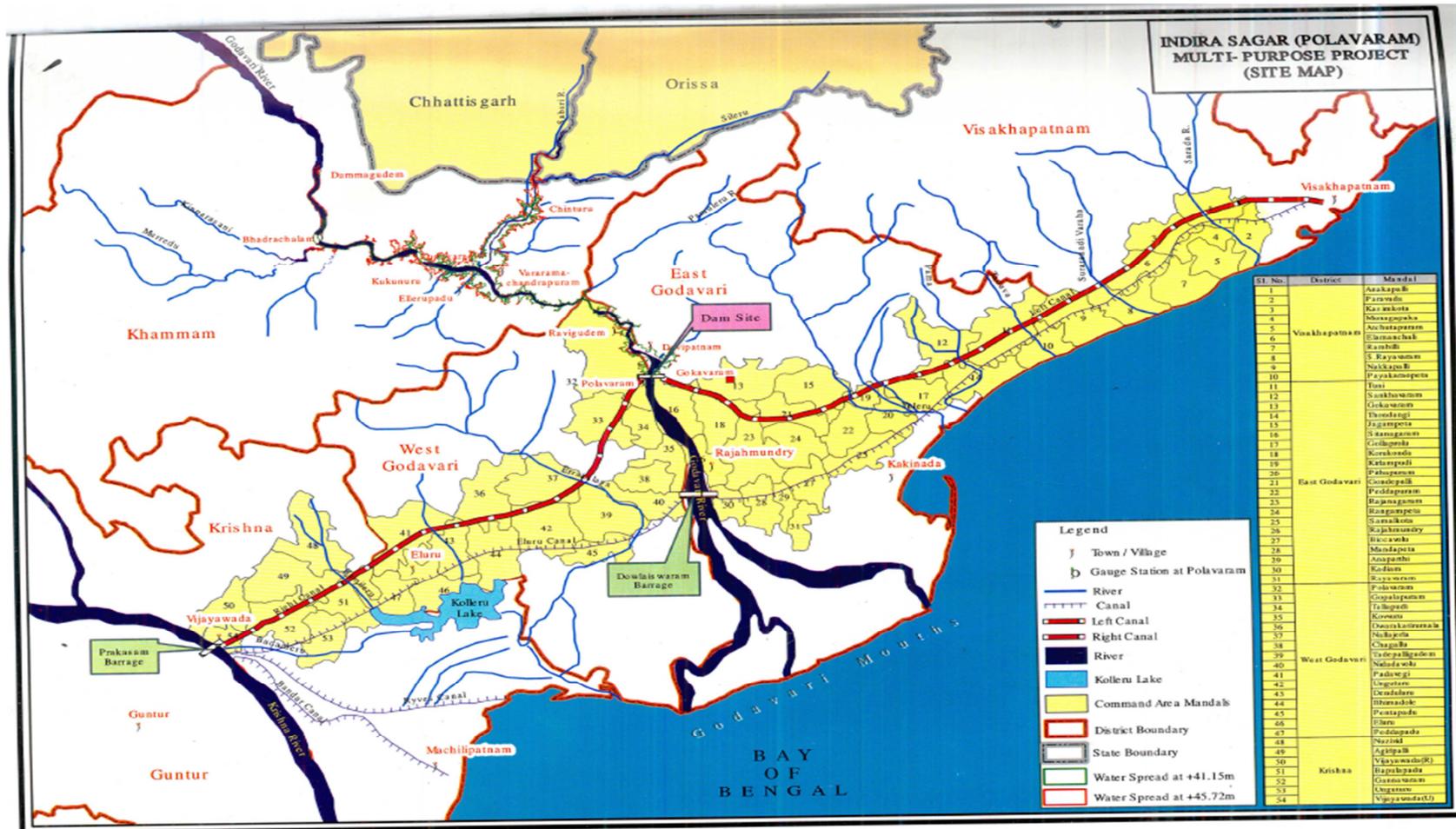
Source: “Brief Note on Indira Sagar Polavaram. Jangareddigudem division”, government document modified by the author

**Figure 5.4 Map of Polavaram dam affected villages, West Godavari and East Godavari Districts**



Source: extract from “Indira Sagar Multipurpose Project. Map showing the details of submergence villages and rehabilitation centres. West Godavari District”.

Figure 5.5 Map of the Polavaram project, Main Right and Left Canals



Source: Perspectives on Polavaram, Gujja et al 2006

## 5.2. The Polavaram dam project

### 5.2.1. Technical details and claimed benefits

The Polavaram dam is a large multi-purposes dam,<sup>80</sup> located next to Polavaram town, on the Godavari river, in the West Godavari District in the Indian State of Andhra Pradesh. It is the first of the projects within the National River Linking Project to be realised, which envisions a link between the Krishna and the Godavari rivers. The National River Linking Project aims at transferring water from water-surplus basins of the country to water-deficit basins in order to reduce the imbalance in the water availability across the various Indian regions. It plans to connect the 37 major rivers of the country through 30 links, a dozen large dams and thousands of kilometres of canals. The construction of the Polavaram dam will allow the realization of the first of these links, between the Godavari river, which is classified as a surplus-basin, and the Krishna river, which is in water deficit (GoI 1999).<sup>81</sup>

There are two main sources which provide technical details about the project: the *Environmental Impact Assessment* (EIA) of 2005, prepared by the Agricultural Finance Corporation for the Government of AP and the *Feasibility Report of Polavaram (Godavari)- Krishna (Vijayawada) Link Project*, prepared by the National Water Development Agency (NWDA) for the Government of India in 1995 and circulated in 1999. The figures reported by the two studies differ on some technical details, the two most important being the length of the dam and the dimensions of the submergence area. According to the EIA, the dam will be 2.31 km long and the reservoir created will cover an area of 38,186 Ha.<sup>82</sup> The NWDA study, meanwhile, reports a length of 2.16 km and a submergence area almost twice the size of 63,961 Ha.<sup>83</sup> As noted by Stewart and Rao (2006), the existence of such substantial disparity in key technical details indicates

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80 An earth-cum-rock fill dam.

81 The classifications of the Godavari River as surplus basin made by the National Water Development Agency (the institution put in charge by the Government of India to realise the feasibility study of the project) is, however, questioned by a study of the International Water Management Institute. Its authors criticise the methodology used by the NWDA to estimate the water available for link transfers. In particular, they contest the use of annual time-step data rather than monthly flow time series to estimate the water available at different levels dependability (50% and 75%). They claim that the use of annual data does not capture enough variability in flows and can lead to overestimate the water available throughout the year. As a result, much more water can be perceived to be originally available at a site of transfer than is the actual case (i.e. Smakhtin et al 2007).

82 Of these, 3223 ha are Reserved Forest land, 403 ha are Wet land, 22479 are Dry land and 12081 are Poramboke land (unassessed land which is property of the Government).

83 Of this total, 60,063 ha are in Andhra Pradesh, 2398 ha in Madhya Pradesh, 1230 ha in Orissa, while no data on submersion was reported for Chhattisgarh.

incompetence and/or untrustworthiness by one (or possibly both) of the two parties.

This is indeed just one of the many examples of the lack of transparency and reliable information which surrounds the project. For instance the *Water Resources Information System* website of the Irrigation Department used to report an estimation of 8908 acres (equivalent to 3604.94 Ha) of land which needed to be acquired by the government (<http://irrigation.cgg.gov.in/OngMaj/Polavaram.htm>, page updated at 01/06/2004 and accessed on 16/02/2009). However this information, along with any details on the area, villages and population to be submerged, has later disappeared from the webpage, which now reports an estimation of the total land to be acquired for works of 25,713 acres or 10,405.48 ha (page updated at 01/09/2010 and accessed on 8/07/2011). Internal government documents, to which I had access during my fieldwork, report yet other estimates. A document titled *Resettlement and Rehabilitation. Project affected families rehabilitation plan (PAFERP)*, signed by the Executive Engineer, the Superintending Engineer and the Chief Engineer of the project (which I found as Annexure to yet another document: the *Application for prior approval for diversion of 16 ha of forest land in Badrachalam (North) Forest division under F(C) Act 1980 & under amended rules for 2003 Indira Sagar Project, 2008*), indicates that 44,763.84 ha are needed (of which 3223 ha are of forestland).

The Full Reservoir Level (i.e. the level at which the river will rise once the dam is finalised) has been fixed at 150 feet (45.72 metres). The project will divert water to the Krishna delta through two canals. The Right Main Canal is planned to be 174 km long and to divert <sup>80</sup> TMC<sup>84</sup> into the Krishna river near Vijayawada and to provide irrigation to an area of 129,000 ha in the West Godavari and Krishna districts. It will also provide drinking water to the villages along its path. The Left Main Canal will be 181.5 km long, and will provide irrigation facilities for 162,000 ha located in the East Godavari and Visakhapatnam districts, besides diverting 23.44 TMC of water for drinking and industrial needs to the city of Visakhapatnam, the local Steel plant and the villages en route. It is also planned that 960 MW of hydroelectric power will be generated.<sup>85</sup>

Thus, the benefits in terms of irrigation are supposed to be felt by 54 Mandals<sup>86</sup> located

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84 TMC= a thousand million cubic feet=28,000,000 cubic metres.

85 There is no disparity between the studies indicated concerning the Full Reservoir Level, whereas the estimation concerning the two canals do differ in a substantial way. The data used here are those reported in the 2005 EIA, unless otherwise stated.

86 In Andhra Pradesh, a Mandal is the administrative division below the district level.

across four districts (East Godavari, West Godavari Krishna and Vishakapatnam), while water for industrial uses will mainly benefit the city of Visakhapatnam. The latter is the second largest port of India and is located in an economically dynamic region (Amis and Kumar 2000). The area hosts India's first port-based steel industry and the Visakhapatnam Special Economic Zone, and it will also be crossed by the Vizag-Kakinada Industrial corridor. The supporters of the project stress the fact that the improved availability of water and electricity will benefit sectors vital for economic growth and that will positively affect a region with strong potential.

However, despite the wide range of claimed benefits, the project remains highly contested, in reason of its costs and negative effects, but also because of concerns regarding the real effectiveness of the benefits. In the first place it has to be noted that the project has been left on stand-by for more than sixty years. It was firstly conceived in 1941, after which a number of plans with different technical characteristics (especially in terms of site location and height) followed, whose realization, however, was hampered by financial constraints and technical difficulties. The proposal which was finally agreed by all parties and all States involved (see below) was finalised in 1978 and submitted to the Central Water Commission (with later modifications in the 1980s and in 2005). The convergence of political and private interests necessary to realise the project however was only achieved in the early 2000s<sup>87</sup>: the government decided to proceed with the execution of the project in July 2004 and in March 2005 the contractors commenced the works (and were accordingly paid), without waiting for the approval of all the necessary clearances from the Ministry of Environment and Forestry (Osskarsson 2005, Gujja et al 2006, see also below). The opponents of the project argue that it is this convergence of interests, which is benefiting mainly politicians, contractors and some local corporate companies, which is the main motivation of the project (Naagesh 2006; Rao 2002). This claim is somewhat supported by the fact that the revival of the project in the 2000s came with no major update of the plan elaborated in the 1980s. There has been no investigation of the evolution of the needs in the meantime, no attempt to account for the change in the socio-economic and demographic

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87 The project was revived by the newly elected Chief Minister of Andhra Pradesh Y. S. Rajasekhara Reddy as part of a wider irrigation development plan called "Jalayagnam", which is still in execution. Its objective is to increase the gross area under irrigation from 44 per cent (5.797 million Ha) to 90 per cent (11.755 million Ha) resorting to the otherwise unused water of the state (Reddy 2006). The plan was one of the key measures adopted by the Government as a reaction to the agrarian crisis that had been affecting the state since the early 2000s (Srinivasulu 2009).

conditions of the area, and no exploration of more cost-effective alternatives (Stewart and Rao *ibidem*, Naagesh *ibidem*).<sup>88</sup>

More concretely, it seems that the neglect of an updated needs analysis might lead to creation of new irrigation facilities where they are not primarily needed. As mentioned above, the command area of the dam has been estimated to be equal to 291,000 ha (129,000 ha by the right canal and 162,000 by the left canal), leading to the claim that the main achievement of the dam will be the creation of new irrigation in a region where this type of infrastructure is lacking. However it has been found by several sources that the region is in fact *already* under irrigation in its most parts. According to Naagesh (*ibidem*), 90% of the command area of the right canal and 60% of the command area of the left canal are already irrigated.<sup>89</sup> The feasibility study of the Polavaram-Krishna link prepared by the NWDA found that the total cultivable area of the Polavaram link canal (i.e. the Main Right Canal) is 139,740 ha. Of this area, 71 % (99,755 ha) is irrigated by bore wells, tanks and open head channels from the river, while only 29 % (39,985 ha) is non-irrigated. Moreover, an independent study of the International Water Management Institute on the National River Linking Plan and specifically the Krishna-Godavari river link, found that 95 per cent of the cultivated area in the canal's command area is already under irrigation, of which 84% is by groundwater and 9% by canals (Bhaduri *et al.* 2007 quoted in Bharati *et al.* 2009). Admittedly, the widespread reliance on groundwater irrigation might also provide a justification in favor of the construction of the dam, given the low degree of economic and environmental sustainability of groundwater irrigation (see section 6.2.2.2).

At best, then, the project is set to provide additional irrigation where it is not primarily needed, while the land which will be submerged is in fact among the most fertile in the country. The project's EIA of 1985 described the target area as backward and undeveloped, whereas twenty-five years later it is one of the most agriculturally advanced regions in the state. Besides this, its proximity to the ports of Visakhapatnam and Kakinada, has meant that the region is experiencing significant changes in land use (moving towards industrialisation), which make irrigation less of a priority (Naagesh *ibidem*). Already at the

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88 Stewart and Rao (*ibidem*) mention an alternative brought forward by the Institute of Engineers Of Hyderabad which combines three lift irrigation schemes and redistributes the water more in favour of the Telangana region; Naagesh (*ibidem*) reviews a number of other alternatives, which are based on a lower Full Reservoir Level, or on a different location of the barrage, or the combination of different lift irrigation schemes. All these alternatives are less costly than the Polavaram project.

89 In the case of the right canal, most of the irrigation is provided by bore wells.

end of the 1980s, for instance, it was found that the growing capitalist farmer class was investing its surplus outside agriculture (Upadhyaya 1988).

Finally, there is the possibility that many of the benefits will be eroded by environmental problems triggered by the creation of an artificial basin. This is for instance the case of sedimentation and the backwater effect that this can create. Backwaters are caused by heavier sediment being deposited in the back of the reservoir, where the water enters, so that a backwater delta is created, which gradually advances towards the dam. As a consequence there is a rise in the water level of the dam, whose capacity is diminished, and an increased risk of flooding for the surrounding towns, villages and farmland. This problem seems to have been largely ignored or underestimated by the government (Stewart and Rao *ibidem*; Naagesh *ibidem*).

### **5.2.2. *The negative effects: details of submergence and displacement***

The negative effects of the Polavaram dam are primarily due to the environmental impact of the creation of an artificial basin and the resulting submergence of land, forest and villages. Since the point of departure for this exploration of the project is the resettlement of the affected population, it is in displacement that we are primarily interested when discussing the negative effects. It is relevant therefore to dwell on the characteristics of the population due to be displaced and of the area to be submerged.

There is uncertainty over the total area to be submerged, and the total number of villages and people affected (see table 5.1 for a summary of displacement estimations according to different sources).<sup>90</sup> According to Reddy's report on resettlement (1996), 276 villages will be submerged, corresponding to a total population of 117,034. The villages identified are spread across nine Mandals: Chintoor, Polavaram, Velairpadu, V.R. Puram, Devipatnam, Kunavaram, Bhadrachalam, Kukkunur, Burgampadu, and belong to three districts: West Godavari, East Godavari and Khammam. In Vol. II of the 2005 EIA, the number of affected villages drops to 157, but because of demographic growth, the total population increases to 170,000. While the increase in population is consistent with the demographic growth which the tribal population is experiencing, Stewart and Rao (*ibidem*) explain that the decrease in

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90 It must be mentioned that all the estimations reported here do not account for the land and the people who will be displaced by the major canals infrastructure, which according to the 2005 EIA amounts to 9,489.31 ha and 15,105 households.

the number of affected villages might come from using the 2001 Census of India ‘revenue villages’, which incorporates the population of the non-revenue hamlets.<sup>91</sup>

**Table 5.1 Summary of displacement estimates according to different sources**

Source of information					
	Reddy (1996)	IEA 2005	G.O.Ms.No. 111	PAPERF	R&R Commissioner
No. affected villages	276	157	412		277
No. affected people	117,034	170,000		187,211	
No. affected families				44,574	42,701
Submersion in other states	10 villages in Chhattisgarh 7 in Orissa				
Social composition of affected population	47% ST 14.4% SC	53.17% ST 12.58% SC			47.36% ST 15.42% SC

Moreover, a document of the AP Government released in July 2005<sup>92</sup> estimates the number of “villages likely to be affected fully or partially under the project” as 412 (including villages located in the Krishna and Visakhapatnam districts). In a later document<sup>93</sup> it is stated that the number of project-affected families is 44,574 which, using a family size of 4.48 (which is the figure reported in India Census 2001 for AP) corresponds to a population of 187,211.

According to Reddy’s studies, ten villages in the Dantewada district in Chhattisgarh and seven in Malknagiri district in Orissa will also be submerged due to their proximity to the conjunction between the Sabari and Sileru effluents with the Godavari river (although, different numbers have been reported by different sources). However there is no mention of these villages in the EIA, nor has there has been a public hearing in the respective states, nor have any R&R plans been prepared for them yet.

91 A “revenue village” is the basic unit of analysis of the Indian Census, i.e. the smallest area of habitation. It can be composed of many clusters of habitations, which are called hamlets.

92 G.O.Ms.No. 111, Irrigation and CAD Department.

93 The aforementioned *Resettlement and Rehabilitation. Project affected families rehabilitation plan (PAFERP)*.

The most up-to-date information is found on the website of the Commissioner of Resettlement & Rehabilitation of the government of AP,<sup>94</sup> which contains data on the state of advancement of the resettlement operations. According to this source, the total number of affected villages is 277, of which 119 will be fully submerged and 158 will be partially submerged. By the 31<sup>st</sup> of May 2011, all the 277 villages had been notified about the project and in all of them a new round of surveys had been conducted. Of the 277 villages, 43 are in East Godavari, 29 in West Godavari and 47 in Khammam. The total number of affected families is 42,701, of which 40,100 (94%) are below the poverty line (see table 5.2).

**Table 5.2 Details of affected villages and populations according to R&R Commissioner**

District	Tot. number of affected villages	Project Displaced Families	Families Below Poverty line
East Godavari	43	4,630	4,409 (95%)
West Godavari	29	4,363	4,139 (95%)
Khammam	205	33,708	31,552 (94%)
Total	277	42,701	40,100 (94%)

Source: *Status of R&R villages as on 31-05-2011* and *Status of PAFs and PDFs of R&R Projects as on 31-05-2011*, both from the website of the Commissioner of Resettlement & Rehabilitation of the government of AP (<http://www.aprr.gov.in/RandrAction.do?fwdpage=abstract>).

As concerns the social composition of the affected population, the aforementioned internal government document states that 21,109 of the affected families are from STs (47.36%) and 6875 are from SCs (15.42%). These figures are consistent with those reported by Reddy (*ibidem*), who found that 47% of the affected population was from STs and 14.4% from SCs. The 2005 EIA found instead that 53.17% of the affected people are from STs and 12.58% are from SCs.

Stewart and Rao (*ibidem*) estimate a much greater number of people affected, i.e. 400,000. This number is obtained by adjusting the estimation provided in 1985 by the Environmental Impact Assessment of 150,697 people for the population growth rate experienced by the area. The high incidence of tribals among the affected population is particularly significant in view of the fact that at the State level they represent only 6.5% of

94 <http://www.aprr.gov.in/RandrAction.do?fwdpage=abstract>

the total population (while SC are the 16.2%; see also section 5.3).

It is not by chance that the majority of the affected population belongs to either SCs or STs. Indeed, the whole submerged area is covered by the Fifth Schedule of the Constitution and/or by the Integrated Tribal Development Agency. The Fifth Schedule is contained in Article 244 of the Indian Constitution and lists the Scheduled Tribes and the Scheduled Areas which are given special safeguard in view of their disadvantageous conditions and as a measure to compensate for the historical injustice suffered by the ST in the form of land alienation and forest eviction.<sup>95</sup> The Integrated Tribal Development Agency (ITDA) is the institution which in AP has been established for the administration of schemes and programs dedicated to the development of tribal people. Both the Fifth Schedule and the ITDA delineate special provisions for land administration, benefits and protective legislations which are intended to safeguard the rights of STs. Around half of the tribal population of AP (approximately 2.8 million people) lives in areas covered by the Fifth Schedule and/or ITDA and is therefore entitled to their special treatment.

All the Polavaram submerged villages are located in Mandals which are administered by the ITDA, and all of those in the East and Godavari districts are also located in Scheduled Area. As will be discussed in the following sections and chapters, the special provisions emanating from the Fifth Schedule and the ITDA make the project particularly controversial and have serious implications in terms of the way land compensation and resettlement are delivered.

Another aspect of the submerged area needs to be considered among the factors which make the project controversial, especially from the point of view of the displaced population. As mentioned before, the 2005 EIA estimates that 3223 ha of the submerged area are located in the forest. The latter constitutes a fundamental source of livelihood for a broad section of the displaced population. The main implication, widely discussed in the following chapters, is that a large proportion of the displaced population will lose access to a key source of livelihood which is not replicable at the resettlement site.

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<sup>95</sup> According to Article 342 of the Constitution, the Scheduled Tribes are the tribes or tribal communities, or part of, or groups within these tribes and tribal communities which have been declared as such by the President through a public notification. As per the 2001 Census, the Scheduled Tribes account for 84.33 million people, representing 8.2% of the country's population. Scheduled Areas are found in nine states: Andhra Pradesh, Jharkhand, Gujarat, Himachal Pradesh, Maharashtra, Madhya Pradesh, Chhattisgarh, Orissa and Rajasthan.

### ***5.2.3. The controversies surrounding the project***

Since 2006, the construction works have slowed down and proceeded intermittently, indicating the permanence of controversies around the project. These concern the existence of tangled legal disputes, and the rising costs of the project, and the inability of the State government to fully support them. Interestingly, while different forms of grassroots resistance have been displayed in the first phases of implementation of the project, they seem to have subsequently faded away. This might be due to the inability of the different people's organisations and local tribal leaders to form a unitary movement, which is also linked to the lack of a strong political opposition to the project and the apathy of local MPs in representing the interests of the tribals (Bondla and Rao 2010).

The controversies linked to the legal disputes arise for two reasons: for the fact that the land to be submerged is subject to special rules and provisions accruing from the Fifth Schedule of the Indian Constitution; and because the catchment area of the Godavari river falls across six states (Maharashtra, Karnataka, Andhra Pradesh, Madhya Pradesh, Chhattisgarh and Orissa), meaning that inter-state agreements are needed to regulate the use of the river basin and its water (Lakshmaiah 2006).

In order to address the inter-state issues, in 1969 the Godavari Water Disputes Tribunal (GWDT) was constituted, within which in 1980 AP achieved an agreement with Madhya Pradesh, Karnataka and Orissa concerning the technical characteristics of the dam required to minimise submersion in the riparian States. According to this agreement the dam's height was fixed at 150 ft., AP committed to the payment of compensation to the submergence areas in the neighbouring states, and to ensure protection to the areas above 150 ft. level in other states, either by constructing protective embankments or by paying compensation. This agreement was incorporated into the Bachawat Tribunal Award and the Central Water Commission took note of it.

Despite the agreement, the project continues to be contested by the other riparian states which will also face submersion, particularly Orissa and Chhattisgarh. Indeed they claim that the AP Government is violating a number of constitutional and statutory provisions.

Orissa has reached the point of appealing in the Supreme Court against the Environmental clearance, the Forest clearance and the Central Water Commission clearance.

The Environmental clearance for the project was obtained in October 2005 upon

submission of the Environmental Impact Assessment. Orissa contests the clearance in reason of the change by the Central Water Commission of the estimation of the Probable Maximum Flood of the dam (from 102,000 to 140,000 cusecs<sup>96</sup>). The clearance was based on the original estimation and does not account for the higher levels of inundation in the neighbouring state that the new estimation implies (particularly in the Malkangiri district of Orissa). As concerns the Forest clearance, it was agreed by the Union Ministry of Environment and Forest (MoEF) in July 2010 on the condition that in order to avoid submergence in Orissa and Chhattisgarh, AP would build protective walls along the Sabari and Sileru rivers. Orissa, however, claims that the proposed embankments do not guarantee safety, and that no public hearings have been held with the affected parts, as had been requested by the MoEF.<sup>97</sup>

Orissa is also contesting the project on other grounds: that the construction works have started before obtaining the clearance from the Central Water Commission in 2009; that the Environmental Impact Assessment is based on an outdated study (completed in 1985) and hence its validity cannot be trusted; and that, generally, the conditions of the 1980 agreement are not adequately met.

Despite all these legal issues concerning different aspects of the project, in April 2011 the Supreme Court turned down Orissa's plea to stop the construction works and it appointed instead a commission formed by CWC members to inspect the project and submit a report (*The Hindu* 2011). As a reaction to the Supreme Court's denial of a stay of the project, Orissa government plans to apprise the Apex Court of a violation of the Forest Rights Act and of the Environment Protection Act by the project (*Outlook India* 2011).

The violation of these two acts is related to the other main legal issue, that the land to be submerged belongs to the Fifth Schedule Area, and as such, is subject to special rules and provisions. In execution of the latter, in 1959 the government of AP passed a stringent legislation prohibiting alienation of tribal land to non-tribals (Rao *et al* 2006): according to

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96 Cusecs is a measure of flow (cubic meters per second). In this case the estimation refers to the water which is supposed to flow through the spillway, that is that structure which controls the release of water from the dam to the downstream area in case of a flood, so that the excess water does not overtop and damage the dam.

97 The government of Andhra Pradesh came up with the proposal of constructing protecting walls to avoid submergence for the first time in 2006, following a decision of the High Court of Orissa which prohibited the submersion of land and forest in the state. A new Environmental Impact Assessment comprising the embankments was submitted, but again no public hearings were held. As a consequence, in 2008 the National Environment Appellate Authority revoked the environmental clearance. The issue was also raised in the clearance of the Central Water Commission in 2009.

the *Andhra Pradesh Scheduled Area Land Transfer Regulation* of 1959 (as amended by regulation 1 of 1970) in the Fifth Schedule Area, non-tribals are prohibited from purchasing land from tribals and non-tribals alike. The presumption is that all land in the Scheduled Area originally belonged to the STs (Balagopal 2007; Ramachandraiah and Venkateswarlu 2011). As discussed in detail in section 5.4.2, this has substantial consequences in terms of the compensation provided for the expropriated land, as established by the *Resettlement & Rehabilitation Policy* of AP.

However, the law which is being more blatantly violated is the *Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act* of 2006 (*Forest Rights Act* hereafter). This Act explicitly acknowledges the right of tribal people and more generally of traditional forest dwellers to live in the forest, to collect minor forest produce, to cultivate and graze cattle, to fish and use other products of water bodies in the forest area. In light of the future discussion of resettlement policies in India, it is important to point out here who is considered a potential beneficiary of the Act, and on which conditions. In the first place, both individuals and communities are entitled to these rights, as long as they belong to “forest dwelling scheduled tribes” or to “other traditional forest dwellers” groups. The former are defined as members or communities of STs who primarily reside in and who depend on the forests or forest lands for *bona fide* livelihood needs. The latter are members or communities who have for at least three generations (i.e. 75 years, with the cut-off date for claiming residency fixed on the 13<sup>th</sup> of December 2005) primarily resided in, and who depend on the forest or forestland for *bona fide* livelihood needs.

The *Forest Rights Act* is the most comprehensive institutional reform of forest rights in India since Independence and it stems from the recognition that a historical injustice has been perpetrated by the State forestry bureaucracy against the rural population (Sarin and Springate-Baginski 2010). The act provides the legislative basis to redress this injustice, as it establishes the right (subject to checks and proofs) of individuals and communities to claim ownership (private title or *patta*) of land and common property resources currently in State forest land. While the Act remains subject to the right of eminent domain of the State to expropriate land for the purpose of development projects, it also establishes that the forest rights have to be settled first.

The Polavaram dam project is set to displace a considerable number of people who are entitled to claim the recognition of forest rights, yet most of them are not aware of the

existence of these rights. Rather than addressing this information gap, the government is delaying the implementation of the Act in the Polavaram affected area (Reddy *et al* 2010). The motive is obviously to avoid attributing entitlement to land and other forest resources for which compensation would then have to be paid. Reddy *et al (ibidem)* report that three of the five Panchayats<sup>98</sup> to be submerged in the Polavaram Mandal (West Godavari District) appealed for the recognition of community forest rights, which however were denied due to the fact that the claimed lands are revenue lands, and as such, don't fall within the *Forest Rights Act*. Besides, fifty-two villages (from West Godavari, East Godavari and Khammam districts) have complained to the Union MoEF that their forest rights are not being settled (Mahapatra 2011). Despite this, the project obtained Forest clearance from the Ministry and in fact the government of AP is accused of lying about the non-existence of pending rights in order to obtain the clearance.<sup>99</sup> It is on this basis that Orissa is contesting the Forest clearance and claiming the violation of the *Forest Rights Act*.

There is another legal safeguard of SCs and STs that is suspected to have been violated by the Polavaram project. This is the *Panchayat (Extension to the Scheduled Area) Act, 1996* (commonly called PESA Act). The Act makes it mandatory for the State government to consult the local Gram Sabha<sup>100</sup> before the undertaking of any development project, and furthermore, no land can be acquired for this purpose in the Scheduled Area without the Gram Sabha's consent. In order to obtain the forest and the environmental clearance, the State government assured the Ministry of Environment and Forests that consultations had been held and the Act's provisions had been complied with. However several sources (Rao 2006a, Rao 2006b, Mahapatra 2011) have reported that the procedure has been violated at different levels. The government conducted public hearings on the 10<sup>th</sup> of October 2005 simultaneously in four districts: Khammam, West Godavari, East Godavari Visakhapatnam

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98 The Panchayat is an institution of self-government established by the article 243B of the Indian constitution and it serves the purpose of basic unit of administration in rural areas. It has 3 levels: village, block and district (the district level is the relevant level in this case). At the village level, the Panchayat is represented by the Gram Sabha, a body whose members are elected at the village level (The Constitution of India).

99 I found an analogous discrepancy in the internal government documents to which I had access, where it is stated that none of the 44,574 project-affected families live in Reserved forest area. Given that 95.92% of the forest cover of the state is classified as Reserved Forest, and my own experience of having crossed large tracts of land indeed densely covered with trees and bushes during my fieldwork to visit the project affected villages, this statement seems dubious, if not fallacious.

100 The Gram Panchayat is the lowest level of local self-government and has the power to convene the Gram Sabha, i.e. the village assembly. "Village" here indicates the revenue village, which in some cases can contain several hamlets spread over a large area. At the same time, in some states a single Gram Panchayat can include several revenue villages.

and Krishna. However, many villages claim to have been deceived in the obtaining of their consent, with the minutes of the meetings with the Collector held as a proof of the Panchayat's consent and used as an official certificate.

Moreover, clearance from the Tribal Welfare Department has been obtained much later than the project had started, despite a Government Order of 1990 stating that clearance from the Tribal Welfare Department is needed to take up any project in the Scheduled Area.

#### **5.2.4. Cost and sources (lack there)of funding**

The other main reason for the delay in the completion of the project is the difficulty faced by the government in financing it. The only additional source of funding at the moment, apart from the state's own budget, is the national Ministry of Water Resources, through the Accelerated Irrigation Benefit Program (AIBP<sup>101</sup>) The project is experiencing a cost overrun when it is still far from being completed and according to *Down to Earth* (2011) the rehabilitation works have stopped because the budgeted money has already been exhausted.

The real cost of the project is another key piece of information on which it seems impossible to achieve clarity and uniformity. Stewart and Rao (*ibidem*) indicate that according to official government figures (for which no base year is indicated but which the authors locate in the second half of the 1990s) the total cost of the project is Rs 10,850.3 crores<sup>102</sup> (approximately \$ 2.437 billion<sup>103</sup>), of which Rs 8194.4 crores (\$ 1.84 billion) is for capital works and Rs 2655.9 crores (\$ 596.5 million) is for economic rehabilitation. They also report that a later government source (probably at 2005 prices) updated the total cost to Rs 13,000 crores (\$2.92 billion). The 10,850-13,000 crores range for the total cost is confirmed by other sources: the aforementioned *Water Resources Information System* website of the Irrigation Department states that the estimated cost of the project is Rs 9072 crores (\$ 2.04 billion) and the revised cost is Rs 10,151.04 crores (\$ 2.28 billion) and that on July 2010 a total of Rs 3229.14 crores (\$ 725 million) had been spent for the project since inception (including capital investment, R&R and others, but excluding Operations &

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101 The programme was conceived in 1996 to provide financial assistance to states to complete various ongoing projects.

102 1 crore= 10,000,000

103 Exchange rate as on 15<sup>th</sup> of July 2011: INR/1 \$= 44.5262 (Reserve Bank of India official data)

Maintenance).<sup>104</sup> Not only has one third of the estimated budget already been spent with the project far from completion, but a sharper escalation of the costs is to be expected in the future. As noted by Stewart and Rao (*ibidem*), cost overrun of big dams projects in India have averaged 300-400% (with a peak of 2,900% for the Tehri dam and 714% for the Sardar Sarovar dam). If these ratios were to be applied to the Polavaram costs, assuming (although unlikely) that the project will be completed by 2015, the total final cost would amount to Rs 33,000-52,000 crores (\$7.4-11.68 billion).

The public finances of AP are in relatively good health, mainly as a consequence of the process of fiscal reforms and consolidation embraced by the State since 1996. The public debt, for instance, was 30.28% of the Gross State Domestic Product (GSDP) in 2004-5 but declined to 21.8% in 2010-11. Similarly the fiscal deficit was 3.87% of GSDP in 2004-05 and 2.42% in 2010-11 (GoAP 2011). The State also managed to eliminate the revenue deficit and the Gross Fixed Capital Formation, as the share of GSDP increased in the same period, from 25.86% in 2004-05 to 29.43% in 2008-09. (GoAP 2011). However, the government is also embarking on a number of infrastructure projects, particularly in irrigation, which are requiring increasing outlays and levels of borrowing (Osskarsson 2005). For instance, at present there are 86 active irrigation projects (44 Major + 30 Medium + 4 Flood Banks + 8 Modernisation), for which financial assistance has been obtained or requested by the World Bank, the Japan Bank for International Cooperation, the National Bank for Agriculture and Rural Development of India and the Union Government under the AIBP (GoAP 2011). Two issues can be noted here in relation to the Polavaram project.

First, as it stands, the AP Government is unable to seek foreign sources of funding (although both the World Bank than the US Exim Bank have already been approached) as Foreign Direct Investments require prior approval from the Central Government, and the Constitution of India allows only the Department of Economic Affairs of the Central Government to receive foreign aid. So for instance, in order to receive a loan from the World Bank for the Polavaram project, the government needs to go through the Department.

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104 It is worth mentioning another relevant source which indicates yet a different estimation: an internal governmental document (*Brief Note on construction of Indira Sagar (Polavaram) Project*, released by the Forest Division of Badrachalam) states that the cost of the project as submitted by the Irrigation Department is Rs 11,411 crores (\$2.56 billion).

But the process of recognition of the Polavaram as a National Project is dragging behind.<sup>105</sup> Indeed, it is unlikely that it will be obtained until the inter-state disputes are resolved, an eventuality which in view of Orissa's latest appeal to the apex court seems unlikely to happen in the near future.<sup>106</sup>

Secondly, heightened reliance on external borrowing risks falling into a debt trap if the rate of growth of the economy is not able to keep up with the interest rate. This consideration is significant in light of the fact that interest payment as a share of total expenditure has increased steadily since 2006-07 (from 10.6% in 2009-10 to 14.38% in 2010-11, calculated using data from GoAP 2011). Moreover, if the GSDP growth rate seems to have recovered in 2010-11 up to 8.9%, it had dropped 5.02% and 5.79% respectively in 2008-09 and 2009-10, while the interest rate fixed by the Reserve Bank of India was 7.5% in 2007-8 and 6% in 2010 (GoAP 2010 and 2011).

Even if the State's economy keeps growing as forecast, and the debt trap is avoided, a trade-off persists between the increasing amount of resources needed to service the debt and social sector expenditure. The cost overrun of the Polavaram project is likely to intensify this trade-off, particularly if its completion is delayed for years or decades. If the project receives national recognition and it is financed by external loans, the debt exposure will increase. If this does not happen, the excessive financial burden that would ensue is likely to translate into a lack of money for resettlement and other forms of assistance for the affected population.

### **5.3. The Polavaram displaced population: socio-economic characteristics and sources of livelihood**

The previous section has enumerated a number of controversies surrounding the Polavaram dam project which explain why the project is experiencing several delays in its implementation. It was made evident that many of the issues arise from the fact that at least

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105 Besides in February the state government was urging the UPA Government for declaring "Indira Sagar Project" a National Project (NewKerala 2011a). However it seems that the project has received no special treatment in the current budget allocation. (NewKerala 2011b).

106 In June 2011 however the chief minister N Kiran Kumar Reddy announced a tender worth Rs 16,010 crores (around \$3.6 billion) for executing the four main components of the project. Three of these (earthen-cum-rockfill dam, spillway, foundation pit for powerhouse) will be realised by contractors under the responsibility of the Irrigation Department, while the powerhouse is to be constructed by AP Genco (the Andhra Pradesh Power Generation Corporation Limited) (The Hindu 2011b; The Times of India, 2011).

half of the project-affected population belongs to SCs and STs. In order to proceed in the next chapters with an examination and an assessment of resettlement in the case of the Polavaram project, the peculiar socio-economic characteristics of the affected population need to be taken into consideration. Indeed, the examination of these characteristics is important in support of the argument that structural factors exist which affect the performance of resettlement. In the case of the Polavaram dam these structural factors include the characteristics of the affected population, particularly their social composition, their sources of livelihood and the type of engagement in the labor market. This section provides a first analysis of these characteristics in reference to SCs and STs on the basis of data at the National, State and District level. Chapter 6 examines in specific how they are displayed by the Polavaram affected people.

### ***5.3.1. Scheduled Castes and Scheduled Tribes in Andhra Pradesh***

According to the 2001 Census, at the State level SCs represent 16.2% of the population, while 6.6% belong to STs.<sup>107</sup> For the three districts primarily affected by the dam, (East Godavari, West Godavari, Khammam), the presence of SC and ST is described in table 5.3. West Godavari is the district with the highest share of SCs population (higher than the State average) and East Godavari is the one with the highest share of STs (also higher than the State average).

Scheduled Tribes and Scheduled Castes constitute the most vulnerable social groups in India. Mehta and Shah (2001), for instance, report that whereas in 1993-94 at the all-India level 37.23% of the total rural population was found to be poor, the share was of 52% for STs and 48% for SCs. Estimates of severe poverty also showed that whereas 12% of non-Scheduled Caste and Tribe rural households were severely below the poverty line, as many as 22% SCs and 25% of ST households were in severe poverty. A 1997 report of the World Bank (based on a 1996 Survey of the National Council of Applied Economic Research investigating the socio-economic characteristics of the poor in India) similarly indicated that the incidence of poverty for SC was 50% and for ST 51% (World Bank 1997b). More recent data based on a smaller survey carried out by the NCAER in 2005 (the *India Human Development Survey*, see footnote no. 111) reveal that the rate of poverty is 32.3% among

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107 The SCs of AP are 7.41% of the total SC population of India, while STs are 5.96% of the total ST.

Dalit and 49.6% among Adivasi<sup>108</sup> (Desai *et al* 2010).

**Table 5.3 Distribution by district of SC and ST population as a percentage of Total Population**

District	% of SC of District Population	% of Total State SC population	% of ST of District population	% of Total State ST population
Khammam	16.5	3.5	26.5	13.6
East Godavari	17.9	7.1	3.9	3.8
West Godavari	19.2	5.9	2.5	1.9

Source: 2001 Census data, quoted in GoAP 2006

**Table 5.4 Head-Count ratio (HCR) at the All-India and Andhra Pradesh levels, 2004-2005**

	INDIA					ANDHRA PRADESH				
	Com-bined	Urban	Rural	POVERTY LINE (Rs per-capita per month)		Com-bined	Urban	Rural	POVERTY LINE	
				Urban	Rural				Urban	Rural
HCR based on URP* consumption	27.5%	25.7%	28.3%	538.6	356.3	15.8%	28.0%	11.2%	542.9	293.0
HCR based on MRP** consumption	21.8%	21.7%	21.8%	538.6	356.3	11.1%	20.7%	7.5%	542.9	293.0
Tendulkar Committee Poverty Line	37.2%	25.7%	41.8%	578.8	446.7	29.9%	23.4%	32.3%	563.2	433.4

Source: GoI 2009, Mehta *et al* 2011.

\*URP stands for Uniform Reference period. It means that household consumption is estimated on the basis of all the items consumed in the previous year as reported by the household.

\*\*MRP stands for Mixed Reference Period, on the basis of which consumption of certain items is recalled by the household with reference to the previous year and for others with reference to the previous week or month.

The latest poverty estimation for India and AP for the whole population (based on the result of the 61<sup>st</sup> Round of the NSSO Household Consumer Expenditure survey, conducted between July 2004 and June 2005 and released by the Planning Commission) indicates that poverty rates range between 21.8% and 41.8% in rural areas for India and between 7.5%

108 *Dalit* is an alternative term for SCs and *Adivasi* is another way to refer to tribal people.

and 32.3% for AP. The corresponding figures for urban areas are 21.7% and 25.7% at the all-India level and 20.7% and 28% for AP (see table 5.4).<sup>109</sup>

According to the estimation of the Planning Commission (which uses the Uniform Reference Period consumption), AP has been particularly successful in reducing poverty in the last decades, with the poverty rates in rural areas declining from 20.92% in 1987-1988 to 11.2% in 2004-05 (GoAP 2011). The reliability of these data is questionable, however, and there has been criticism of the methodology adopted by the Planning Commission for their estimations (for a review see Deaton and Dreze 2002, Sen and Himanshu 2004, Deaton and Kozel 2005). Without engaging in a critical review of these problems, it is important to note here how in fact the data depict a puzzling reality. In the first place, they suggest that poverty in AP is higher in urban than in rural areas, unlike the rest of India. Second, the low headcount poverty ratio would suggest a good performance in terms of human development. However, the state has been lagging behind in terms of the Human Development Index (which was 0.416 in 2001, below the Indian average, CESS 2008), ranking 10<sup>th</sup> among the other 15 major Indian States in 2001. The relatively bad performance of the Human Development Index is driven by a literacy rate which is also lower than the Indian average (60.5% versus 65% in 2001), particularly for women (51% versus 54% in 2001). Even worse is the situation for SCs and STs: in Andhra Pradesh in 2001 only 53.5% of the SC and 37.1% of the STs were literate. Another indicator of deprivation which is surprisingly high and contrasts with the relatively low poverty rate is the incidence of child labour, which is the highest among the Indian states: 6.6% of children were working in AP in 2004-05 (the corresponding figure at the all-India level was 3.3%; NSSO 2006). The estimations of poverty based on the Tendulkar Poverty Line (see table 5.4) seem therefore to be more consistent with the reality depicted by indicators of human development.

Lanjouw *et al* (2003) used the NSSO data on household consumption to estimate poverty at the regional level in AP<sup>110</sup> using a different methodology from the Planning Commission. They find that poverty declined in both rural and urban areas between 1993-

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109 The different estimations are the result of the use of alternative poverty lines. The official methodology adopted by the Planning Commission is the one which produced the lowest rates, while the highest rates are found using the poverty line proposed by the Tendulkar Committee, which moves away from anchoring the poverty line to a calorie intake norm and uses another method to construct the reference poverty line basket (for a description of the new poverty line see GoI 2009).

110 They use an alternative methodology which seeks to correct for some of the aforementioned problems.

94 and 1999-2000 in all the regions, but less than the levels suggested by the official methodology. Moreover, in all the regions rural poverty is higher than urban poverty. Rayalaseema I has the highest incidence of poverty and Coastal Andhra has the lowest.

Little is available in terms of direct estimation of the incidence of poverty among SCs and STs in AP. The Sachar Committee (GoI 2006) used the data of the 61<sup>st</sup> Round of the NSSO and the official methodology of the Planning Commission (based on Uniform Reference period consumption) to estimate the incidence of poverty among socio-religious groups in different Indian States in 2004-05. For Andhra Pradesh they find that 16% of SCs and STs (the two groups were considered together) in rural areas were poor and 41% in urban areas.

**Table 5.5 Regional level estimates of poverty (Head-Count ratio)**

Region	1993-94		1999-2000	
	Rural	Urban	Rural	Urban
Coastal	31.2%	19.1%	24.3%	16.2%
Telangana (Inland North)	25.9%	12.1%	20.6%	9.7%
Rayalaseema I (Southeast)	38.6%	20%	33.1%	27.3%
Rayalaseema II (Inland South)	21.9%	25.2%	22.3%	12.4%
Andhra Pradesh	29.1%	17.8%	23.6%	13.6%

Source: Lanjouw *et al* (2003).

It is worth noting that the socio-economic profile of the poor in India, as well as in AP, tends to correspond with that of the ST and SC population. Firstly, poverty is still concentrated in rural areas: according to the poverty estimation for 2004-05, 73.2% of the total poor population of India live in rural areas (Mehta *et al* 2011), and the SC and ST population of AP are mainly rural-based: according to the 2001 Census, 83% of total SCs population and 92% of STs lived in rural areas (GoAP 2006).

Not only are the poor concentrated in rural areas, they are also found primarily in two employment categories: casual wage labourers and marginal farmers. The aforementioned study of the World Bank indeed found that these two categories at the all-India level accounted for 61% of all poor households. Similar results emerge from two more recent

household surveys conducted between 2004 and 2005 by NCAER.<sup>111</sup> The first of the two surveys (table 5.6) suggests that the occupation of the chief earner for 63% of the households in the bottom quintile of the distribution was labour, and for 30% of them was self-employment in agriculture. Similarly, the second survey (table 5.7) indicates that the main source of income for 35% of the households in the bottom quintile of the distribution was agricultural wages, for 19% was non-agricultural wages, and for 21% was cultivation.

**Table 5.6 Distribution of households by occupation of chief earner and household income quintile, 2004-05 all-India level**

Occupation of chief earner	Distribution (% , Quintile 1 lowest 20%)				
	Q1	Q2	Q3	Q4	Q5
<b>RURAL</b>					
Regular salary/wages	14	3.3	6.1	15.2	34.3
Self-employment in non-agriculture	4.3	7.4	13.1	18.4	16.9
Labour	63.1	48.4	31.0	18.0	5.7
Self-employment in agriculture	30.3	39.8	47.8	44.6	38.7
Others	0.9	1.1	2.0	3.8	4.4
<b>Total</b>	100.0	100.0	100.0	100.0	100.0
<b>URBAN</b>					
Regular salary/wages	10.6	9.7	22.3	36.9	56.2
Self-employment in non-agriculture	24	16.3	33.2	32.8	33.3
Labour	59.0	67.8	38.4	20.5	2.7
Self-employment in agriculture	3.3	2.8	1.9	3.8	2.1
Others	3.1	3.4	4.2	6.0	5.7
<b>Total</b>	100.0	100.0	100.0	100.0	100.0

Source: Mehta *et al* 2010, based on data from NSHIE 2004-05, NCAER (see footnote No. 111)

These data suggest a picture of the poor as still mainly dependent on agriculture and increasingly shifting from self-employment to (casual) wage labour. This pattern is also identifiable among SCs and STs. For instance, it is revealed by the second of the survey

111 The first one is the National Survey of Household Income and Expenditure (NSHIE 2004-05), whose results are presented in the volume "How India earns, spends and saves" R. Shukla 2007, New Delhi: The Max New York Life Limited; the second one is the India Human Development Survey (HIS), whose results constitute the basis of the report "Human Development in India. Challenges for a society in transition", Desai *et al* 2010.

mentioned (see table 5.7) that 29% of the Dalit and 30% of the Adivasi households depend on agricultural wages as the primary source of income, while 27% and 22% respectively rely on non-farm wages and 11% and 23% on cultivation.

**Table 5.7 Distribution of households by source of income and household income quintile, 2004-05 all-India level**

Occupation of chief earner	Distribution (%, Quintile 1 lowest 20%)					
	Q1	Q2	Q3	Q4	Q5	All
Salary	7	9	17	29	49	21
Agricultural wages	35	27	17	8	1	18
Non-Agricultural wages	19	28	25	17	5	19
Family business	8	11	15	18	19	14
Cultivators	21	20	20	20	17	20
Other	10	5	6	8	9	8
<b>Total</b>	100	100	100	100	100	100

Source: Desai *et al.* (2010), based on data from HIS (2005), NCAER (see footnote No. 111)

**Table 5.8 Proportion of households income by source, for All-India and by social group**

	All India	Andhra Pradesh	Social group (All-India level)					
			Forward Caste Hindu	Other Backward Caste	Dalit	Adivasi	Muslim	Other religion
Salary	22	23	32	21	19	15	19	30
Agricultural wages	18	35	8	17	29	30	11	10
Non-Agricultural wages	19	16	9	17	27	22	27	12
Family business	14	11	18	14	8	7	21	16
Cultivators	20	9	24	23	11	23	16	21
Other	8	7	10	7	7	4	7	12
<b>Total</b>	100	100	100	100	100	100	100	100

Source: Desai *et al.* (2010), based on data from HIS (2005), NCAER

In AP the process of casualisation of labour in rural areas is even more pronounced than at the All-India level. As shown in table 5.8, the share of households that depends on agricultural wages is higher than for all-India (35% versus 18%). Similar results are

suggested by the 2007-08 Employment and Unemployment Survey of the National Sample Survey Organization (NSSO), which found that 36.7% of households were engaged in agricultural labour in AP, versus 26.6% at the all-India level. As for the occupation of SCs and STs in AP, in 2004-05 38.9% of the STs families and 59.6% of the SCs families worked as agricultural labourers, while 27.7% and 10.4% respectively were self-employed in agriculture (NSSO 2006).

Agricultural wage labour is identified with casual labour, being characterised by low wages, lack of formal contract and social security benefits and absence of regular availability of work (Bino *et al* 2009). Yet, most of self-employment in India (and in AP) shares these characteristics and can be considered casual labour (*ibidem*). According to this definition of casual labour (i.e. including employed and self-employed workers), 48% of the workforce of AP was a casual labourer in 2005-06 (see table 5.10).

**Table 5.9 Percentage distribution of rural households by household type**

Household type							
Rural	Self-employed in			Agricultural labour households	Other labour households	Others	Total (including n.r.)
	Agriculture	Non-agriculture	All				
Andhra Pradesh	22.9	14.5	37.4	36.7	9.8	16.1	100.0
All India	35.0	14.4	49.4	26.6	11.5	12.5	100.0
Urban	Self-employed		Regular wage/salaried	Casual labour	Others	Total (including n.r.)	
Andhra Pradesh	32.8		40.4	15.5	11.2	100.0	
All India	36.6		40.9	13	9.6	100.0	

Source: NSSO 2010

**Table 5.10 Percentage of Casual Labour to the Total Employed**

	Rural Male	Rural Female	Rural Person
Andhra Pradesh	44.0	53.6	48.0
India	33.7	40.2	35.7

Source: Bino *et al* 2009

In Andhra Pradesh the process of casualisation of labour has proceeded together with the fragmentation of landholdings, particularly among SCs and STs. As can be seen from tables 5.11 and 5.12, over time there has been an increase in the total area operated by SCs and STs (15% for the former and 32% for the latter); however this increase has involved only small and marginal SCs farmers and marginal, small and semi-medium STs farmers. For medium and large farmers of both social groups there has been, instead, a decrease in the total area cultivated. The process of fragmentation is also confirmed by the increase in the total number of individual holdings for SCs and STs, by a percentage much higher than the increase in the total area cultivated.

Finally, an important feature of the livelihood strategies implemented by STs (and in certain areas also by SCs) is the reliance upon the forest and its products. The next section looks at this relationship in a historical perspective, while chapters 6 and 7 look at its implications for compensation and resettlement. Indeed, the relationship with the forest landscape has traditionally shaped tribal culture and identity, as well as its economy. Scheduled Tribes of AP resort to forestland for cultivation, grazing, hunting, and fishing (Reddy *et al* 2010). Collection of minor forest produce (firewood, honey, tamarind, soap nuts, etc.) also plays an important role in supporting consumption and cash flows when the produce is sold in local markets (*ibidem*). Households tend to rely more on these sources of income and consumption the more they are economically marginalised and vulnerable.

**Table 5.11 Area operated by different size classes (SC) (area in lakh hectares)**

	1975-76	1980-81	1986-87	1990-91	1995-96	2001	% increase from 1975-76 to 2001
Marginal	2.19	2.71	2.91	3.46	3.96	4.13	89%
Small	2.27	2.57	2.53	3.06	3.07	3.35	48%
Semi-medium	2.56	2.48	2.35	2.64	2.40	2.41	-6%
Medium	2.12	1.53	1.4	1.34	0.94	1.06	-50%
Large	0.7	0.55	0.39	0.32	0.19	0.38	-46%
Total	9.84	9.84	9.58	10.82	10.66	11.33	15%

Source: GoAP 2006

**Table 5.12 Area operated by different size classes (ST) (area in lakh hectares)**

	1975-76	1980-81	1986-87	1990-91	1995-96	2001	% increase from 1975-76 to 2001
Marginal	0.76	1.86	1.10	1.50	1.95	2.24	194.7%
Small	1.19	1.55	1.76	2.26	2.70	3.06	157.1%
Semi-medium	2.44	2.71	2.79	3.21	3.37	3.56	45.9%
Medium	3.19	2.79	2.80	2.77	2.38	2.45	-23.2%
Large	1.39	0.90	0.93	0.71	0.47	0.55	-60.4%
Total	8.97	9.00	9.45	10.45	10.87	11.86	32.2%

Source: GoAP 2006

**Table 5.13 No. of holdings from 1976-77 to 2000-2001 by social group (individual holdings, number in lakhs)**

	1975-76	1980-81	1986-87	1990-91	1995-96	2000-01	% increase from 1975-76 to 2001
SC	8.18	9.28	9.97	11.75	12.83	13.64	66.8%
ST	3.80	4.71	5.15	6.32	7.53	8.60	126.3%
Others	48.79	59.59	66.46	74.29	85.34	93.07	90.8%
All	60.77	73.58	81.58	92.33	105.71	115.31	89.75%

Source: GoAP 2006

The forest population of AP includes 35 different STs and 59 SCs, and ranges between five and ten million people (according to whether SCs and other traditional forest dwellers are included or not). The Recorded Forest Area covers 23.2% of the total geographical area of the State and 29.9% of the total area of East Godavari, 10.5% of West Godavari and 52.6% of Khammam (the three districts affected by Polavaram displacement). These three districts are also amongst those with the highest concentration of forest populations.

### **5.3.2. Tribal land alienation and forest eviction**

A short historical digression on forest eviction and land alienation in AP is useful here in support of our claim that the outcomes of resettlement depend on the specific characteristics of the displaced population and of the resettlement area. It is in fact one of the key findings of this thesis that the history of social relations (particularly power

relations, and more specifically, agrarian relations) affects the impact of displacement and has to be taken into account to control for the dynamic effects of resettlement.

The previous section has illustrated how SCs and STs of AP are still primarily employed in agriculture and significantly reliant upon the forest and its products.<sup>112</sup> It has also been shown how these two social groups are progressively moving towards casual wage labour in agriculture. This shift is being pushed by two processes which have a long history: forest eviction and fragmentation of landholdings. These two processes and the agrarian structure resulting from them, currently characterised by the casualisation of rural labour, are relevant for the present discussion on resettlement in AP and Polavaram in two ways. Firstly, they affect the design of the Resettlement policy (which tries to atone for the historical injustice suffered by the tribal population) and the modalities with which compensation for land is delivered. Secondly, they influence the impact of displacement on the affected population, and even more, the dynamic effect of resettlement. These aspects are investigated in chapter 6 and 7 with specific reference to the Polavaram project and its affected population.

A full understanding of their relevance and present features requires a tracing of their historical roots. While the tribal society is traditionally defined by its relationship with the environment and specifically with the forest, tribal people have been pushed in and out the forests for the past two centuries.

Tribal land alienation began in the 18th Century as an outcome of the penetration of the market economy in the hills region (Gadgil and Guha 1993). In the words of Rupavath, in AP “[t]he process of land alienation has manifested itself mainly in large-scale migration of tribal communities from fertile plain areas to the neighbouring forests. The structural changes occurring in the plain areas have been responsible for this shift [...]. These changes introduced rapid capital penetration, irrigation facilities, railway and communication facilities, sale and purchase of lands and creation of certain land systems like Zamindari, Ryotwari systems, etc.” (2009: 4). The reliance on feudal land systems such as Zamindari and Ryotwari by both the Colonial British and the Nizam rule,<sup>113</sup> which required the use of

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112 The following discussion describes historical processes primarily involving Scheduled Tribes. However, the forests of AP host many dwellers who are not tribals but rather belong to low castes. Hence the considerations made can to a large extent also be applied to SCs.

113 Until Independence AP was divided into two distinct administrative regions: the present coastal Andhra and Rayalaseema districts were part of the Madras Presidency under the Colonial rule, while Telangana was part of the Hyderabad State ruled by Nizam (Laxman Rao et al 2006).

intermediaries to administer the tribal areas, was in fact the primary route followed for the entrance of non-tribals in these areas. The latter provided foodgrains, clothes and, most importantly, money. In fact moneylenders were the first to acquire tribal lands through usurious lending methods, which often led to exploitative practices (Laxman Rao *et al* 2006). In some cases tribal land was acquired by non-tribals through marriages with tribal women: the non-tribals were then entitled to purchase tribal land in the name of their tribal wives. In others the same purpose was achieved through “nestam” or bond of friendship: the non-tribals entered into these bonds and purchased land in the name of their tribal friends (*ibidem*).

Being deprived of the land that they occupied at the foothills, tribal people progressively retreated into the forest, where they engaged in livelihoods based on shifting cultivation (*podu*) and collection of minor forest produce. Both the Nizam and the British rule, however, soon took interest into the richness of resources provided by the forest (particularly timber), and so did later the Independent State. This interest translated into the monopoly of forest and forest resources through the creation of a Forest Department (by the Nizam administration in 1857) and the subsequent issue of forest policies and environmental legislation (Gadgil and Guha 1993, Reddy and Kumar 2010). In the name of environmental protection (with the tribal population being blamed for the degradation and retreat of the forest surface) large tracts of forest were declared “Reserved Forest” and their use and access restricted (Saravanan 2009, Reddy *et al* 2004b). This meant that shifting cultivation was *de facto* declared illegal and amounted to an abrogation of tribals' customary rights.

The post-independence Forest Policies have maintained the focus on the productive and profit-making aspects of forest management, eventually just making it another way of subsidising the industrial sector. For instance the Forest Policy of 1952 aimed mainly at increasing the revenue for the state, declaring production of timber for industries, railways, markets, exports and for defense needs as national interests, which had priority over domestic and agricultural needs (Reddy *et al* *ibidem* ). The 1960s in particular saw an increase in large-scale immigration in forest areas and forest encroachment by non-tribals from the plains, to the point that the 1985-86 Agricultural Census found that the number of tribal holdings in the state was less than 8% of the total (Reddy and Kumar 2010). Only towards the end of the 1980s (with the 1988 National Forest Policy) was tribal peoples'

dependence upon the forest acknowledged and forest policies designed to safeguard their customary rights and well-being (Rao 2006; Saravan *ibidem*). Until recently however the Forest Acts prohibited in one way or another the use of forest products for livelihood. If some exceptions were made for tribal people (for instance through Joint Forest Management programs, (Reddy *et al* 2004)), the ban was more binding for non-tribal forest dwellers. Most of the high value minor forest produce is, however, still monopolised by the State Forest Corporations (which retain the monopoly for the purchase of 35 non-timber forest produce varieties) for which forest dwellers end up being employed as daily wagers (Reddy *et al* 2004).

It is in consideration of these processes that the *Forest Rights Act* indeed constitutes an institutional reform of topical importance for the recognition of the historical injustice suffered by tribal people (and other forest dwellers) and as an attempt to atone for the past abuse and to guarantee future recognition of their rights. However, apart from the Act's limitations due to the inadequacy of some of its statutory provisions and the problems linked to its implementation (see Reddy *et al* 2010; Sarin and Springate-Baginski 2010) and what is said below for AP), its enactment at a time when the multiple interests on forest resources lead to displacement in the name of development, in a way contributes to replicate the push-in-push-out dynamic which has characterised the relationship between the tribals, the state and the forest in the past centuries.

It must also be mentioned that studies which have investigated the performance of the Act and of its implementation so far (see Saravan *ibidem*; Reddy *et al* 2010; G. Reddy and Kumar 2010) have found rather unsatisfactory results, particularly in AP, where the Act has been enforced since December 2007. Not only has the government focused entirely on the recognition of individual rights, neglecting community rights, but the whole process has proceeded in a non-participatory and undemocratic way, with a lack of transparency and the omnipresence of the Forest Department. The fact that the government is reluctant to implement the Act and recognise individual and community rights in precisely the Polavaram affected region (see the discussion in section 5.2.3) is indicative of the schizophrenic push-in-push-out attitude mentioned above.

Finally, it must be highlighted that the legislation enacted to safeguard STs from the unlawful alienation of their land, of which the aforementioned AP Scheduled Area Land Transfer Regulation of 1959 is part has had very limited success. The purpose of the Act

was to prohibit the transfer of tribal land to non-tribals. With its amendment in 1970 (Land Transfer Regulation-I), it also postulated that, unless otherwise demonstrated, the land owned by non-tribals in Scheduled Areas was assumed to have been acquired from tribals, either illegally or by morally-dubious means. The amendment however was not given retrospective power and was instead followed by regulations and executive orders which limited its application (Ramachandraiah and Venkateswarlu 2011). As a result of this, and of the general lack of willingness by the Government to enforce the Act, almost half of the total cultivable land in the Scheduled Areas of the state is still occupied by non-tribals (ibidem).

#### **5.4. The legal and policy framework of resettlement in Polavaram**

This section describes the legal and policy background on the grounds of which compensation and resettlement are provided in Polavaram. This discussion makes possible to assess the extent to which the Polavaram R&R package conforms to this framework and it is functional to the analysis carried out in chapter 7, where the shortcomings of the Polavaram package and of the framework of reference are highlighted.

##### ***5.4.1. The Indian policy and legal framework on Resettlement and Rehabilitation***

At the time of writing in November 2011 India still does not have a Bill on Resettlement and Rehabilitation. The compulsory acquisition of private land by the state is still regulated by the Land Acquisition Act (1894), a colonial act which establishes the sovereign power of the state to expropriate and defines the boundaries of the eminent domain.<sup>114</sup> Despite the amendments made over the past decades (the major one in 1984), it retains the undemocratic character of the colonial legislation and it is inadequate for regulating expropriation of land in view of the extent and the modalities with which it is carried out now in India. A review of the main limits of the Act in relation to issues of resettlement can be found in Ramanathan (2008) and in Das (2006). As the two authors point out, the Act only compels the state to pay compensation for the assets expropriated, but it does not

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<sup>114</sup> The eminent domain is the power of the State to seize or expropriate a citizen's private property under payment of an appropriate monetary compensation, but without need of the citizen's consent.

create any other legal liability to bear any additional cost or responsibility. Hence it does not create any obligations for the state to rehabilitate the people whose land is expropriated, let alone to make provisions for the landless affected population whose livelihood is disrupted by the project for which the land acquisition is required.

In addition, the Act regulates compulsory acquisition of land for development projects (with the state acting as the acquiring agency) to be used not only for public purposes, but also for the purposes of profit-making private companies. This extended conception of the meaning of 'public purpose' is highly contested, in view of the increasing role that the private (national and international) sector is playing in the Indian investment strategy, especially for infrastructure projects and Special Economic Zones (SEZs).

Finally, the ways with which compensation is established and delivered are unfair and tend to disadvantage the poorest and most vulnerable. Compensation is acknowledged only for those landowners who can prove the existence of their property rights over the land expropriated. As a consequence traditional forest dwellers who have been occupying and cultivating land without legal title are excluded. The same is true for common property resources (such as forestland, trees and grazing land), for which no clear property rights are defined. The unfairness is enhanced by the fact that, even when they exist, the land records are often faulty and the result of illegal transactions. Compensation is also exclusively conceived in the form of a cash transfer, while no sorts of assistance or support are provided for the loss and reconstruction of the livelihood. More generally, no reference is made to resettlement of the people whose land is expropriated, let alone of those who are landless but depend on that land for their livelihood.

Indeed, at present there is no policy or legislation at the national level which regulates displacement induced by development projects and resettlement of the displaced people. The adoption of a National Policy on R&R (by making the policy into an Act of Parliament and thereby legally binding) has been attempted in India since the 1980s, yet in 2011 the process still seems far from completion.

The first attempt to draft a National Policy on R&R was made in 1985, when a special committee was appointed by the Central Ministry of Welfare to prepare a rehabilitation policy for tribal displaced people. This attempt was made in view of the observation by the National Commission for SCs and STs that 40% of the affected populations from

displacement-inducing projects were tribals. The committee, however, stated that the policy should cover all the displaced people, regardless of their social group (Fernandes 2008).

The policy drafting proceeded in this direction in the early 1990s, especially following the withdrawal of the World Bank from the Sardar Sarovar project on the Narmada river. In 1993 the Ministry of Rural Development prepared a draft of the policy, which was revised in 1994 and in 1998. The various proposals were widely circulated and discussed with representatives of civil society. A final decision on the draft was taken only in 2004 and a National Rehabilitation Policy was promulgated on the 17<sup>th</sup> of February 2004. However, this version of the policy excluded the progressive clauses that had been incorporated in the previous versions. Among its many limitations, this version only provided for extra cash as compensation, but did not have provisions for support of livelihood. As a consequence it attracted strong criticism and controversy. Consultations were then led by the National Advisory Council (NAC) and the outcome was a revised version of the policy, which the NAC presented to the Government for consideration. The Government, however, did not accept the proposal and in 2006 put yet another new draft of the policy into the public domain. Again criticism and debate followed, which concluded in 2007 when the Government announced the National R&R Policy, 2007. In order for it to be passed as a law, a process started to present the policy for Parliamentary approval.

In 2009 the Resettlement and Rehabilitation Bill, 2009 was in fact passed by the Lok Sabha, together with the Land Acquisition (Amendment) Bill, 2009. These two Bills do introduce some important elements, resulting from the two decade long discussion and consultation process.<sup>115</sup> The most relevant of these is probably the removal from the scope of the Land Acquisition Bill of the acquisition of land for private companies, together with the modification of the definition of “public purpose”. The latter now includes “strategic purposes”, “infrastructure projects where the benefits accrue to the general public” and “any other purpose useful to the general public, for which land has been purchased by a person under lawful contract or is having the land to the extent of seventy percent, but the remaining thirty percent is yet to be acquired” (Section 3, clause *f*). Nevertheless, it has been claimed that this definition leaves some loopholes through which private purpose can be reintroduced. These concern first, the explicit mention of infrastructure projects, which in India are increasingly realised through public-private partnerships; second, the inclusion

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115 For a critical review of the two Bills see Iyer (2011).

of private projects for which a minimum of 30% government acquisition of land is required. Another important change with the Land Acquisition Act is the introduction of tribals and other traditional forest dwellers in the definition of “person interested”. The preparation of a social impact assessment and of a Tribal Development Plan (if relevant) in agreement with the provision of the R&R Bill 2009 are also made mandatory. The explicit reference to tribals and other forest dwellers is intended as being in compliance with the *Forest Rights Act*, as it opens the possibility of compensation for the loss of customary rights. Finally, the determination of market value of land is still based on the price of land at the displacement site, but there remains controversy about the extent to which compensation should be based on the projected value of the land after it has been ‘developed’.

The R&R Bill, applies to affected families, defined as those whose land has been acquired and those who have been deprived of the primary source of livelihood due to involuntary and permanent displacement caused by land acquisition.

The preparation of a social impact assessment is made mandatory by the Bill, to be prepared by an independent multi-disciplinary group and to be discussed in public hearings. Also mandatory is a survey and a census to identify all the affected families and their socio-economic characteristics. The draft scheme of resettlement is to be discussed with the affected families and in case of land acquisition in Scheduled Areas, consultation must be undertaken in conformity to the Panchayat (Extension to the Scheduled Area) Act . Land-for-land compensation is to be provided only to the extent that “this is available in the resettlement area” (chapter 6, clause 36(1)) and this applies also to STs. The preparation of a Tribal Development Plan is however required in conformity to the *Forest Rights Act*, with the purpose of “laying down the details of procedure for settling land rights due but not settled and restoring titles of tribals on alienated land” (chapter 6, clause 49(1)). The affected families are also to be given preference in the allocation of jobs created by the project, but again this provision is not compulsory. One-off financial assistance is also contemplated as compensation for the loss of customary rights for STs.

This version of the Bill addresses some of the weaknesses of the previous drafts; however, it still leaves some important issues open and unresolved.<sup>116</sup> For instance it does

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116 Due to these shortcomings, the National Advisory Council deemed the two Bills unsatisfactory and in May 2011 sent to the government some recommendations for the amendment of the Bill. The most incisive change recommended is the consolidation of the Land Acquisition Act and the Rehabilitation and Resettlement Bill into a unique Bill, whose suggested title is “National Development, Acquisition,

not stress enough that the primary objective should be the minimisation of displacement and that the affected families should be the primary beneficiaries of the project.

This section does not undertake a full critical assessment of this version of the Bill, as its purpose is rather to define the national legal framework (or lack thereof) in which resettlement in Polavaram takes place. However, in the Conclusion of this thesis some policy recommendations are made with respect to the national Bill on R&R, in light of the findings concerning resettlement in Polavaram.

It is important to point out that, in the absence of a National Policy, an *ad hoc* approach has tended to dominate the practice in R&R in India. In most cases resettlement programmes have been designed specifically for each project (as it has been the case for the Tehri Dam or the Sardar Sarovar Project). At the same time policies and legislation regulating special instances of land acquisition and resettlement have been adopted by Central Ministries and by state governments, as well as by individual companies. While these efforts partially make up for the absence of a national policy (and in some cases have contributed to keeping the debate alive), this multiplicity of approaches has inevitably led to a lack of uniformity of rights and treatment under the different central and state laws and policies.

It has also been noted (see Saxena 2006 and Fernandes and Paranjpye 1997:5) that in some cases the state policies were adopted under pressure from the World Bank (see Mathur 2008 for the case of the Coal India Limited) and that this might have undermined their ownership, which could partly explain the poor record of their implementation.

The Andhra Pradesh Resettlement and Rehabilitation policy illustrated in the following section is a clear example of the development of a policy framework at the state level in the absence of a binding legislation at the national level.

#### ***5.4.2. The Andhra Pradesh Resettlement and Rehabilitation policy and the Polavaram Resettlement and Rehabilitation package***

The Government of AP issued its own Resettlement and Rehabilitation (R&R) policy in 2005, as G.O. Ms. No. 68 of the Irrigation and CAD (Project Wing) Department (called AP

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Displacement and Rehabilitation Act". In May 2011 the government declared that it was to accept the recommendation of the consolidation of the two Bills (ABC Live 2011).

R&R Policy hereafter). For its planning, monitoring and implementation, the Government has established an R&R Commissionerate (and an R&R Commissioner as the Head of the Department), to which financial powers have also been delegated. The stated objectives of the policy are the following: the minimisation of displacement and the identification of the non-displacing or least-displacing alternatives; the planning of the resettlement and the rehabilitation of the project affected and displaced families (PAFs/PDFs), including special needs of tribals and vulnerable sections; the provision of a better standard of living for PAFs and PDFs and the facilitation of harmonious relationships between the Requiring Body and PAFs through mutual cooperation.

The state Government has repeatedly presented its Resettlement policy as one of the most innovative in the country, and the Polavaram Resettlement and Rehabilitation package (PRRP) as one of the most generous. Details of the PRRP are discussed below in section, but it suffices to say here that its implementation is in fact lagging behind schedule and the unprecedentedly generous outlay might simply be due to the fact that Polavaram is one of projects with the highest number of people affected ever realised in India, and one of those for which a more serious attempt to account for the costs of resettlement is made. As concerns the AP R&R Policy (whose most important benefits for the resettled population are sketched in Appendix VII), it does include some novel elements and special attention to the resettlement of the tribal population; however these tend to be responding to the legal requirements needed to maintain compliance with the *Forest Rights Act*,<sup>117</sup> rather than the impetus of creativity by the policy-maker, as claimed by the state government. Otherwise, the policy follows a standard model with generic and vague provisions and does not engage in providing directions for its implementation, at the level of management, coordination and monitoring (Stewart and Rao *ibidem*).

A positive aspect which deserves attention is the adjustment process that the policy has gone through since 2005, which has taken the form of a number of amendments. The adjustments have been prompted on one side by the need to conform the policy to the prescriptions of the *Forest Rights Act*, and on the other by the requests of the Polavaram affected population, often mediated by local NGOs (particularly the NGO SAKTI). This has been the case, for instance, of Paragraph 3.10 of the policy, which states that each adult son and adult daughter residing with the displaced family must be treated as a separate

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117 On the relevance of the *Forest Rights Act* for the Polavaram dam project, see chapter 5.

family (the cut-off date for calculating their age of 18 years is be the date of notification of acquisition of the village), and as such, the benefits of R&R are extended to them. While this provision is included in the resettlement policies of other Indian states (but not in the R&R Bill 2009 approved by the Lok Sabha, see section 5.4.1), it did not appear in the first version of the policy, and it has been added to it through amendments and upon the insistence of the affected people. The last of amendment was made in 2010 to also include as a separate family, adult daughters, in addition to adult sons.

As concerns the modifications made in order to conform to the *Forest Rights Act*, the most innovative is the obligation for the government to compensate project affected ST families with land (rather than money). Paragraph 6.5 in fact states: “government *shall* acquire land within the project benefited area, as per guidelines issued by the Government from time to time such that no person should become small or marginal farmers or landless due to such acquisition, for allotment of such land to ST PAFs (who become small or marginal farmers or landless due to acquisition of their land for the project)”. Land-for-land compensation for tribals has also been made mandatory through amendment in 2006, in order to comply with the constitutional provisions for safeguard of Tribal Rights and the *Forest Rights Act*, although again this requirement is absent from the R&R 2009 National Bill.

Compliance with the *Forest Rights Act* has also required a change in the definition of “occupiers” and “other traditional forest dwellers”. The first version of the policy defined occupiers as “members of ST community in possession of forest land prior to 25<sup>th</sup> October, 1980”. This has been later modified in order to also include other traditional forest dwellers (Para 3.15), where in accordance with the *Forest Rights Act*, these are defined as “any member or community who has for at least three generations (generation means a period of 25 years) prior to 13<sup>th</sup> of December 2005 primarily resided in and who depends on the forest land for *bona fide* livelihood needs”.

The compliance of the AP R&R Policy with the *Forest Rights Act* is certainly one of its strengths, yet it has important consequences for resettlement, in terms of the modalities of its delivery and of its dynamic effects. The requirement of land-for-land compensation for tribal people in fact implies that two different types of land compensation are contemplated for households which differ according to their social group but which otherwise share many characteristics, including the village of residence. Specifically, tribal families are granted

land-for-land compensation, whereas non-tribals are paid a price for the land expropriated, through a process which is still regulated by the Land Acquisition Act. The primary purpose of this different treatment is obviously to atone for the historical injustice suffered by tribals; however its dynamic effects can have the opposite effect and indeed contribute to reinforce inequality. The lack of explicit criteria for determining a fair price for the land expropriated (e.g. valuing the land on the basis of its future rather than on its present use) reinforces this problem and can lead to an increase in landlessness and fragmentation of landholdings, as will be shown in the next section with reference to the PRRP. Moreover, there is not total conformity with the *Forest Rights Act*, as no mention is made in the policy concerning the fact that land and forest rights of tribals need to be settled before displacement takes place. As reported in the previous section, the Government of AP has been accused of violating the Act with the Polavaram project, by not allowing villages to settle their forest rights before displacement.

An important amendment was introduced in 2009, which makes compulsory the preparation of a Social Impact Assessment study (in case of mass displacement), which has to take into consideration the project's impact on public and community properties, assets and infrastructure and which is to be examined by an independent multidisciplinary group. Further, in the case that both Environmental Impact Assessment and Social Impact Assessment are required, public hearings must be organised to cover issues related to them. The same amendment also made compulsory the appointment of an Ombudsman to settle grievances arising out of the matters covered by the policy. In particular the Ombudsman is given the power to receive and dispose of petitions of redressal presented by project-affected families for not being offered the admissible R&R benefits (Para 7.5).

Since the launch of the Policy in 2005, an institutional framework has also been developed around it, primarily at the encouragement of the World Bank.<sup>118</sup> In particular the Government approved the proposal of the World Bank on Non Lending Technical Assistance for “strengthening and transforming institutions for management of Land Acquisition and Resettlement and Rehabilitation”.<sup>119</sup> For this purpose a Resettlement and

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118 There is no clear evidence of the role played by the World Bank in the design of the AP R&R policy and of the Polavaram R&R package, however Osskarsson (2005) reports that the compensation package for Polavaram was announced in May 2005, two days before a delegation of the Irrigation department visited the World Bank and US Exim officials, both institutions having been contacted for a loan to complete the project.

119 From the website of the Commissioner of Resettlement and Rehabilitation, Irrigation and CAD Department, Government of AP (<http://www.aprr.gov.in/RANDR/jsp/SMRR.jsp>)

Rehabilitation Society has been set up to function as executing agency of the Policy, under the bombastic name of “State Mission for Resettlement and Rehabilitation”. The agency is (claimed to be) endowed with a flexible organisational structure, operational procedures and financial autonomy, and its first stated objective is to “bring flexibility in planning, implementation and monitoring of R&R” in consideration of the specificities of the local conditions. Its governing body consists of at least 17 members, of which 12 are ex-officio (including the Chief Minister of AP, the Minister for Irrigation and the R&R Commissioner). The five non-official members are to be selected amongst public representatives, representatives of NGOs, activists and participating communities. The management of the mission is attributed to an Executive Committee composed of seven members: the R&R Commissioner, the Joint Director (Finance), a Senior Research Officer, a project administrator of the Andhra region, one of the Telangana region and one of the Rayalaseema region, and the Chief Executive Officer. The utility and the effectiveness of the State Mission will be proved over time: it does not seem to have played a role in the establishment and management of the Polavaram R&R package so far, but this is probably due to its recent creation.

Another organisation which is part of the aforementioned institutional framework and which seems to have been set up to comply with the World Bank Operational Policy<sup>120</sup> on Resettlement & Rehabilitation (OP 4.12, see chapter 1), is the R&R Monitoring Committee, to be separately constituted for each project which requires resettlement (see OP 4.12, Required Measures, Para.13(a)). Its task is the monitoring and reviewing of the progress of the resettlement plan’s implementation, and its members must include a representative of project-affected women, a representative of project affected ST and SC, a representative of a voluntary organisation, a representative of the lead bank, a chairperson of the Panchayat Raj Institutions located in the affected zone, and depute of the area included in the affected zone. The same probably applies for the provision which requires the preparation of a resettlement plan in consultation with the project-affected families which, it is stated, should *decide upon their preference* for location of R&R centre, which should be followed in the process of land acquisition for resettlement (see OP 4.12, Resettlement Instruments, Para.25).

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120 There are no legally binding agreements which compel the government of AP to design a Resettlement policy which complies with OP 4.12, but compliance will affect future requests of loans from the World Bank, which are likely to be made once the Polavaram dam has obtained the status of national project.

## **5.5. State of advancement of resettlement operations in Polavaram**

The construction of the Polavaram dam and its reservoir will lead to the submersion of 277 villages, forcing 42,701 families (94% of which are poor) to abandon their houses and land, and to relocate elsewhere. The government of AP is showing itself to be aware of the importance of providing adequate resettlement to the displaced population and is taking responsibility for it. Compensation for the expropriated land is provided in compliance with the Land Acquisition Act (1894), with the Revenue Department being held responsible for the assessment of the houses' value. Relocation and the provision of other benefits are granted according to the AP R&R policy. These benefits form a package (hereafter called 'R&R package') which grants different amounts of money to different social groups, according to the extent to which their livelihoods are disrupted by displacement (see table 5.14). Each family receives a subsistence allowance, whose purpose is supposedly to compensate for all the intangible costs of displacement and of setting up a new livelihood; all the landless families (i.e. the wage labourers) receive a 'salary' which should compensate for their lack of productive assets; the tribal families receive additional money as compensation for the loss of customary rights (i.e. the access to the forest); and finally, the non-tribal landowning families who become landless after relocation receive (on top of the payment of land compensation) an additional sum of money in acknowledgement of this (significant change of status).

The R&R package implicitly acknowledges that displacement causes the disruption of the livelihoods of the affected people, in various ways, including the loss of access to the forest and the creation of new landless families. Its purpose then should be to put the displaced families in the conditions to regenerate or recreate the disrupted livelihoods. Yet, the only content of the package is the payment of a sum of money, whose rationale seems to be to compensate for (some of) the costs incurred in the whole displacement-resettlement process. The following section will demonstrate how this exclusive focus on cash compensation is in fact one of the major shortcomings of the Polavaram R&R package, as it does not provide sufficient support for the restoration of the disrupted livelihoods.

**Table 5.14 Details of financial benefits to each agricultural labourer/farmer under R&R package in Polavaram Mandal in West Godavari District (tribal and non-tribal); all monetary amounts in INR.**

	Tribal		Non-tribal	
	Agricultural labourers	Farmers	Agricultural labourers	Farmers
Free House site, all categories of Project Affected Families-PAFs)	5 cents (202 sq. metres)			
Grant for House construction (Below Poverty Line(BPL) families only)	50,000	50,000	50,000	50,000
Grant for construction of sanitary toilets (BPL families only)	3,000	3,000	3,000	3,000
Grant of Cattle Shed (all PAFs)	3,000	3,000	3,000	3,000
Grant of Transporting material (all PAFs)	5,000	5,000	5,000	5,000
Minimum Agricultural wages of 625 days @ Rs. 80/per day (all PAFs)	50,000	0	50,000	0
Subsistence allowance of 240 days @ Rs. 80/per day (all Project Displaced Families-PDFs)	19,200	19,200	19,200	19,200
Additional allowance of 500 days @ Rs. 80/per day as compensation for loss of customary rights and usage of forest produce	40,000	40,000	0	0
One financial assistance equivalent to 750 days of Min.Agrl. Wage @ Rs. 80/per day GO 68 (6.19 )	0	0	0	60,000
<b>Total</b>	<b>170,200</b>	<b>120,200</b>	<b>130,200</b>	<b>140,200</b>

Source: R&R details of Indira Sagar (Polavaram) Project as at 05.06.2009, internal government document.

In this section we look at what is being done in practice to compensate and resettle the Polavaram affected population. An effort is being made by the government to provide a transparent account of the implementation of the package: the website of the Commissioner of R&R of the government of AP contains updated information on the state of progress of the construction of the resettlement centres for the Polavaram affected people. Unfortunately, an equally transparent attitude is not applied to the release of information concerning the payment of the monetary transfers envisioned by the package. In fact, the information available, reported in tables 5.15-5.18, indicate a delay in implementation, particularly in Khammam district.

As can be seen from table 5.15, by the 31<sup>st</sup> of May 2011 all the affected villages had

been surveyed, although for more than half of the villages in Khammam the results had not been published. Also, a draft plan scheme had been prepared for only two villages of Khammam district, leaving two villages in East Godavari and three in West Godavari still waiting for one. The absence of a resettlement plan implies that not only the families living in these villages have not received any compensation, but also that the timing and place of their relocation has not been determined yet.

**Table 5.15 Status of R&R villages as at 31-05-2011**

	<b>Tot. no. of villages affected</b>	<b>No. of villages notified</b>	<b>No. of villages socio-economic survey completed</b>	<b>No. of villages socio-economic survey published</b>	<b>No. of villages draft plan scheme submitted</b>	<b>No. of villages draft plan scheme approved</b>	<b>Draft plans to be prepared</b>
<b>East Godavari</b>	43	43	43	43	43	43	2
<b>West Godavari</b>	29	29	29	29	26	6	3
<b>Khammam</b>	205	205	205	92	2	2	203
<b>Total</b>	277	277	277	164	71	51	208

Source: *Status of R&R villages as on 31-05-2011*, website of the Commissioner of R&R, Government of Andhra Pradesh ([www.aprr.gov.in](http://www.aprr.gov.in))

**Table 5.16 Status of R&R centres as at 31-05-2011**

	<b>No. of R&amp;R centres contemplated</b>	<b>No. of Centres R&amp;R land Acquired</b>	<b>Balance land to be acquired</b>
<b>East Godavari</b>	40	4	36
<b>West Godavari</b>	35	22	13
<b>Khammam</b>	205	3	202
<b>Total</b>	280	29	251

Source: *Status of R&R centres as on 31-05-2011*, website of the Commissioner of R&R Government of Andhra Pradesh ([www.aprr.gov.in](http://www.aprr.gov.in))

The creation of the resettlement centres is also behind schedule, as can be seen from table 5.16: in East Godavari land has been acquired for only four centres out of 40, and in Khammam only for three out of 205. The situation is slightly more advanced in West Godavari, where 22 centres out of 35 have been acquired. As table 5.17 and 5.18 indicate,

the construction works have only started in ten centres in West Godavari, in four centres in East Godavari, and in three in Khammam.

**Table 5.17 Status of R&R Infrastructure as at 31-05-2011**

	No. of Centres	Site marking	Levelling	Roads	Water	Electricity	Others
<b>East Godavari</b>	4	4	4	3	4	3	3
<b>West Godavari</b>	22	10	10	5	7	8	-
<b>Khammam</b>	3	3	3	-	-	-	-
<b>Total</b>	29	17	17	8	11	11	3

Source: *Status of R&R Infrastructure as on 31-05-2011*, website of the Commissioner of R&R, Government of Andhra Pradesh ([www.aprr.gov.in](http://www.aprr.gov.in))

**Table 5.18 Status of R&R BPL housing units as at 31-05-2011**

	No. of Housing Units for Below Poverty Line (BPL) contemplated	No. of BPL Housing Units completed
<b>East Godavari</b>	4,235	358
<b>West Godavari</b>	4,139	352
<b>Khammam</b>	31,552	-
<b>Total</b>	39,926	710

Source: *Status of R&R BPL housing units as on 31-05-2011*, website of the Commissioner of R&R, Government of Andhra Pradesh ([www.aprr.gov.in](http://www.aprr.gov.in))

The reason why West Godavari is ahead of the other districts in the implementation of the resettlement operations is that that the barrage of the dam and therefore the construction site is located in West Godavari, adjacent to Polavaram town. The villages located in the area therefore will be affected much before the project is completed and the reservoir is filled up. Accordingly, the relocation of the affected villages of the West Godavari district has been divided in three phases. The first phase includes seven ‘immediately affected’ villages (Devaragundi, Chegondapalli, Mamidigundi, Thotagondi, Singannapalli, Ramayapeta, Pydipaka) whose relocation was to be completed as soon as possible (according to the plans, before June 2008). The second phase of relocation involved four villages (including Tutigunta) and was to be completed by June 2009, while the third phase involved 13 villages (including Koruturu and Sirivaca) and was to be completed by June

2010.

However, at the time of my fieldwork (between April and July 2009), relocation appeared far from completion even for the villages of the first phase. Only the resettlement centre for Devaragundi had been completed; houses were still under construction in four centres (respectively for Totagundi, Singanapalli, Chegondapalli and Mamidigundi), and works had not started yet for Ramayapeta and Pydipaka. Paradoxically, the villagers of Ramayapeta would have been the only ones keen to relocate quickly, as their houses were being seriously damaged by the bomb blasting which was taking place at the dam work site.

The situation in Khammam is opposite to that in West Godavari: the villages in Khammam are the farthest from Polavaram and will be the last to be submerged. Given the slow pace at which the construction of the dam is advancing, their resettlement is not planned for the near future.

More generally, the delay in the resettlement operations is not surprising, given the cost overrun experienced by the project and the increasing financial constraints faced by the state government (see section 5.2.4). Eventually, it will be the availability of financial resources that determines the timing of the resettlement operations.

The fact that the project is still far from being completed somewhat mitigates the concern caused by the delay in the construction of the resettlement centres. Nevertheless, delays and uncertainty still raise issues in terms of the efficacy, the transparency and the fairness of compensation and resettlement.

First, they increase the insecurity (and the feeling of powerlessness) in which the affected people already live. It was clear that uncertainty concerning the timing and modalities of compensation and relocation was a major element of distress for the families affected by the Polavaram project whom I interviewed. In most cases, not only did they have no idea of when and where their relocation was going to take place but they also showed little knowledge of how much money they were to expect as part of the resettlement package. During the survey, when asked whether they were aware of the existence of a “Resettlement and Rehabilitation package” (meaning the allowances to which people are entitled beyond compensation for the expropriated land and house, see table 5.14) and of its content, they all invariably replied ‘no’. The answer here must not be interpreted literally, i.e. as meaning that they did not know *anything* about the package (as

'no' was also the answer in the villages which in fact had already received these allowances), rather as the sign that the respondents considered themselves ignorant with respect to what they were entitled to.

Second, delays and uncertainty can also lead to paradoxical situations and waste of resources. As mentioned above, the resettlement centre for Devaragundi was ready at the time of my fieldwork in 2009 and in fact it had been officially inaugurated in 2008 by the Joint Collector of West Godavari. Its construction had also attracted the interest of the local media, as it had been presented as the 'model' for the future resettlement centres to be built. Yet, in June 2009 only three families were living there, while the rest of the villagers were refusing to move.<sup>121</sup> Of the three families, one had started a business selling bricks to the government for the construction of the resettlement houses, while the other two had moved to be closer to the land that they had received as compensation, and which they had started to cultivate. One year later, not only had the large majority of the villagers yet to move, but many had also rented out their houses in the resettlement centre to non-affected families (Indian Express.com 2010).

Third, delays and uncertainty can have detrimental effects on the use of the monetary compensation paid to the affected families. If the affected families face binding budget constraints, any additional inflow of cash is likely to be spent for everyday consumption, emergencies or social expenses (typically dowries). The propensity to save the money, in order to invest it in a new livelihood after relocation, is likely to be smaller the further in the future and the more uncertain relocation is. Details on how this attitude was displayed by the Polavaram affected people are provided in section 7.3.3.

Fourth, delays in the construction of the resettlement centres -and therefore in relocation- often come with delays in the payment of the monetary compensation due to each family. The documents made available on the website of the Commissioner of R&R do not specify how many families have already been granted their compensation, whether in land or in cash. The information which I gathered during fieldwork was also incomplete and non-systematic. The internal government documents indicated that the money to be paid to each family for the R&R package had been calculated for all the affected villages in West and East Godavari (as an illustration, table 5.19 provides the details of the R&R

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<sup>121</sup> The refusal to move was being used by the villagers to increase their bargaining power in the negotiation of the benefits paid within the R&R package with the Government; see below in the text.

package benefits estimated for three affected villages in East Godavari). It was however not indicated if and where the actual payment had taken place or when it was planned; similarly I found no clue of what was happening with the payment of compensation for the expropriated land (and houses). More revealing was the information that I collected through my visits to the affected villages. Of the 19 villages that I visited, only seven had already received some form of monetary compensation. Of these, five (i.e. Chegondapalli, Ramayapeta, Pydipaka, Mamidigundi and Devaragundi) were among the seven 'immediately affected' villages, for which relocation was supposed to take place in the following months. It was not surprising then to find that these villages had already received the compensation for their lost land and houses, and the amount due for their R&R package. What was surprising, rather, was to find that none of the villages in East Godavari had received any form of compensation yet, but that two villages in Khammam had (Rudramkota and Vinjaram), although only for land. In the case of Vinjaram, it had been the political influence of the local non-tribal big farmer (owning more than 200 acres of land, of which 100 were of assigned land) that had facilitated the early payment (already in 2005) of compensation. During my visit to Vinjaram, I had a brief meeting with the farmer in question, during which he expressed his disappointment at the low price paid for the land expropriated and remarked that it was insufficient to repurchase an equal plot of land somewhere else. I did not collect direct evidence to verify whether the same had occurred in Rudramkota, but the fact that in the village there is at least one large non-tribal farmer suggests that this might have been the case. It was however evident that the early payment of *only* compensation for land had further increased inequality within these two villages. The landowners had received a (sometimes considerable) sum of money for a plot of land which they were still cultivating, while the landless families had not received anything. The unequal relations underpinning the agrarian structure in AP were therefore being deepened (rather than corrected) by the payment of land compensation.

Finally, delays in the resettlement operations and in the payment of compensation reduced the accountability and the ability to monitor the whole process. It becomes more difficult to guarantee that the operations are carried out evenly across all the villages and that everywhere they respect the criteria established by the State R&R policy. Further, it is to be expected that the attention of the media and public opinion will fade over time, and with it the incentives for the government to carry out the process responsibly.

**Table 5.19 R&R package benefits for the project affected families; all figures in INR**

Village Name	Tot families (survey)	House Construction	Cattle Shed Construction	Transportation	Wage to labourers	Subsistence allowance	Special package for tribals	Total amount
Kondamodalu	241	9.36m	225,000	1.20m	9.28m	3.38m,	3.46m	26.9m
Talluru	100	4m	156,000	500,000	3.28m	1.52m	3.07m	12.5m
Kegunduru	52	2.08m	60,000	260,000	920,000	798,720	1.44m	5.56m

Source: *Indira Sagar Project. R&R package benefits for the project affected and displaced families.* Internal Document, R&R Officer Indira Sagar Project and Project Officer, ITDA Rampachodavaram.

## 5.6. Conclusion

This chapter has served to introduce the case study on the basis of which a key hypothesis of this thesis is investigated. The hypothesis argues that resettlement can be configured as a process of adverse incorporation, whose outcomes and modalities are affected by the characteristics of the population to be resettled and of the areas involved, where characteristics cover the socio-economic features, as well as the agrarian structure, labour relations and the historical processes underpinning their current status.

In particular, the chapter described the main features of the Polavaram dam project, drawing particular attention to the disputes that it arises and the negative effects it will have on the affected population. It emerged that large part of the problematic aspects of the project depend on the fact that the submersion area is safeguarded by the Fifth Schedule of the Indian Constitution and the majority of the affected people belong to SCs and STs. How these characteristics operate in affecting the performance of the resettlement operations will be further discussed in chapter 6 and 7.

Finally, the chapter examined resettlement in Polavaram, looking at its policy and legal framework of reference, as well as its state of implementation. This examination allows some considerations on the conformity of the PRRP with the aforementioned policy and legal framework, as well as a preliminary assessment of its performance.

First, the evidence provided so far thus suggests that resettlement in Polavaram conforms to the existing legal and policy framework, acknowledges that displacement

implies the disruption of livelihoods and accounts for (some of) the provisions of the *Forest Rights Act*. However, not all the clauses of the Forest Rights Act are equally complied with, as is the case of the pending forest community rights in Polavaram. Moreover, the construction of the centres and all the other resettlement operations (including payment of compensation) are behind schedule, increasing the uncertainty and the unfairness of the process. There is little transparency on the actual payment of monetary compensation and an inconsistent attitude is found in the publication of information on the state of advancement of the resettlement operations: data are provided on the construction of the resettlement centres, but not on the effective payment of compensation and of the other allowances.

Before concluding, two points need to be noted. First, the construction of the Polavaram dam is still a work in progress, its date of completion is still uncertain and the resettlement process has just started. This of course has methodological implications in terms of how the case is investigated, and these issues were dealt with in chapter 4. Secondly, since it is still in the first stages of realisation, the Polavaram dam project provides a rare opportunity to investigate the resettlement process from its very beginning. In addition, as a still rather unknown instance of development-induced displacement, it is to be hoped that in the future more research will be devoted to its exploration.

## **Chapter 6**

### ***Adverse Incorporation and Surplus Labour in Andhra Pradesh***

#### **6.1. Introduction**

In chapter 3 it was argued that resettlement of people displaced by development projects adversely incorporates them into development in economic, political, socio-cultural and spatial terms, and that all these dimensions contribute to determine the failure of resettlement in preventing impoverishment. It was also claimed that the way in which this takes place depends on context-specific structural factors. In this chapter, this theoretical argument is applied to the case-study, with the intent of analysing displacement and resettlement of the Polavaram affected people through categories of analysis drawn from political economy. The analysis which follows needs a few forewords to be fully appreciated.

First, displacement and resettlement still haven't taken place in Polavaram, although some of their effects are already at play. As a consequence, it can't be fully observed yet how adverse incorporation happens as a consequence of these phenomena. This is particularly true for the economic dimension of incorporation (which has to do with the concrete expropriation of material assets), less so for the other dimensions. For instance, it is already possible to observe how political incorporation is taking place through people's consultation concerning the resettlement operations.

In other words, the application of the framework to the case-study equates to a 'quasi ex-ante' analysis. However, its intent is explanatory and not predictive: it aims at explaining what are the structures and mechanisms which turn resettlement into a process of adverse incorporation. The framework drawn in chapter 3 used certain categories of analysis to explain how adverse incorporation takes place as a consequence of displacement and resettlement. What this chapter does, is verifying the existence and the relevance of these categories of analysis, clarifying what are the structural factors which are liable of affecting the consequences of displacement and the performance of resettlement. Then, in chapter 7 it will be shown how these structural factors interact with the shortcomings of the Polavaram Resettlement and Rehabilitation package (PRRP) in making of resettlement a process of adverse incorporation.

Further, it must be noted that the theoretical framework is not empirically explored to its full extent in this thesis. This is true in three senses. In the first sense, the chapter focuses on the economic dimension of incorporation and provides only a preliminary analysis of the political, socio-cultural and spatial dimension. In the second sense, the categories of analysis developed in the theoretical framework are only partially observed empirically. For both cases, the reason is that I conducted fieldwork before developing the aforementioned framework. As a result, the collection of primary data and the design of the survey were not focused on these categories of analysis, so that my primary data allow to say little on the current status of rural relations in the Polavaram affected area. To compensate, the picture is reconstructed drawing from evidence at the national and state level. This still allows the identification of three key mechanisms which characterise surplus labour and are likely to turn resettlement into adverse incorporation. Third, for reasons of space and focus, the notion of accumulation by dispossession is explored only at the Indian level, but dropped at the other levels of analysis. It is left to future research the task to explore the relevance of this notion for the Polavaram dam.

## **6.2 Displacement, resettlement and the economic dimension of incorporation in Polavaram**

Displacement expropriates people of their means of production and reproduction and alters the terms of access to them, as such is usually accompanied by livelihoods disruption. Resettlement adversely incorporates displaced people in economic terms when it takes place in a situation where agriculture does not guarantee sustainability and subsistence, particularly to small and marginal farmers, and economic development is not able to create remunerative and secure employment for everyone. In this context, neither cash nor land compensation enable people to restore the disrupted livelihoods or create new ones, with the result that they are turned or further pushed into surplus labour. Surplus labour was defined in chapter 3 as labour in excess of the existing means of production, engaging in a variety of employment and self-employment activities which can only guarantee subsistence. These activities are often underpinned by exploitative labour relations, limiting the worker's freedom to leave the contract. They also belong to the realm of the informal sector and are therefore casual, temporary and unorganised. Thus, being part of surplus

labour means being adversely incorporated into capitalism.

In order to investigate displacement and resettlement in Polavaram using this framework, this section verifies the relevance of surplus labour, which is the key category of analysis, for the case study. Moreover, it highlights what are the structures and mechanisms which underpin the production of surplus labour in the case study. In chapter 7 it is shown that these structures and mechanisms (i.e. the ‘structural factors’) contribute to turn resettlement into a process of adverse incorporation.

The investigation is conducted at three levels of analysis: India, Andhra Pradesh (AP henceforth) and Polavaram.

At the Indian level (section 6.2.1) it is examined the relevance of the categories of surplus labour and accumulation by dispossession, looking at of the role of both in the context of postcolonial capitalist development in India. Moreover, the key features displayed by surplus labour in India are identified, and key structural factors for its (re)production are identified in the existence of ‘social structures of accumulation’, the conditions of the agrarian sector and the characteristics of the strategy of capitalist development adopted by the country.

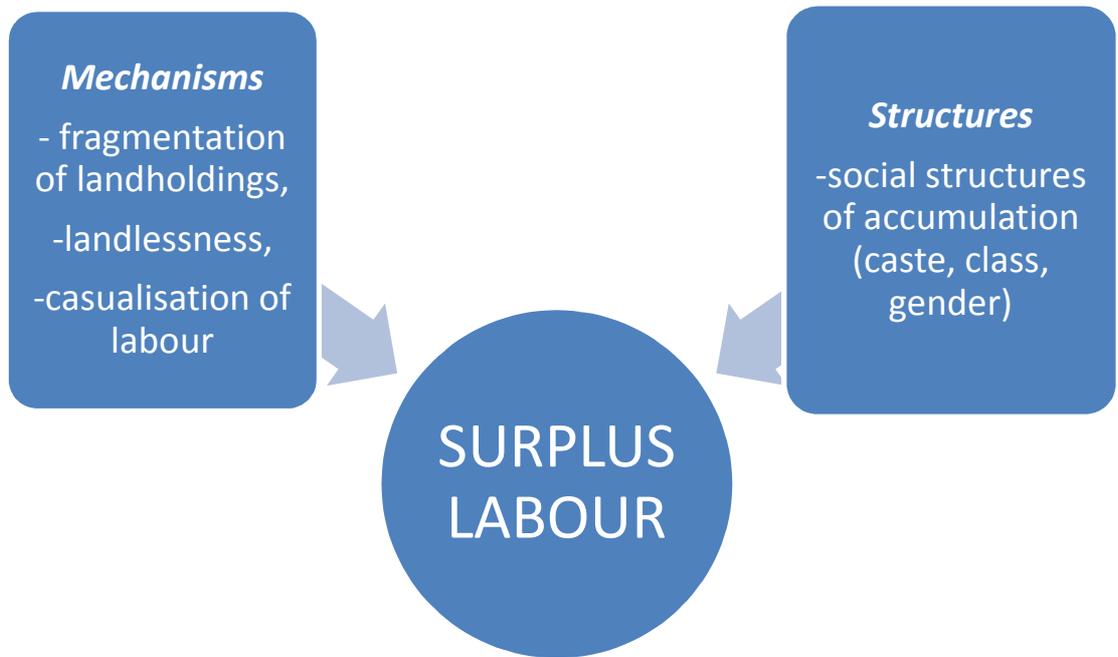
At the level of AP (section 6.2.2), we show that the rural sector is characterised by the existence of a pool of surplus labour composed of small and marginal farmers and agricultural wage labourers, primarily belonging to SCs and STs. The two main forces which have been driving the production and reproduction of surplus labour are the inability of the growth strategy to create enough remunerative employment, and the processes of transformation which have underpinned the agrarian sector in the past decades.

The lack of employment creation is reflected in the three mechanisms underpinning surplus labour in AP: landlessness, fragmentation of landholdings and casualisation of labour. The processes of transformation in the agrarian sector are characterised by the role played by social structures of accumulation, in particular caste and gender, in regulating social and labour relations (see figure 6.1).

Finally, at the level of the case-study, (6.2.3) the focus is brought on the characteristics of the Polavaram affected people. Drawing from primary data, their social composition, sources of livelihood and type of engagement with the labour market are described. It is so demonstrated, on one side that the affected people’s livelihoods will be disrupted by

displacement, on the other that they are exposed or embedded into to the structures and mechanisms which underpin the production of surplus labour in Andhra Pradesh.

**Figure 6.1 Structures and Mechanisms underpinning the reproduction of surplus labour in Andhra Pradesh**



### **6.2.1. Accumulation by Dispossession and Surplus Labour in India**

Investigating resettlement as adverse incorporation meant linking its outcomes to the dynamics of capitalism requiring displacement. This operation allowed us to identify in accumulation by dispossession and surplus labour the key aspect of capitalist development which affects the outcomes of resettlement. That this framework indeed is relevant and appropriate to assess the case study explored in this thesis is demonstrated by the fact that accumulation by dispossession and surplus labour constitute two of the most significant and problematic features of capitalist development in India.

The notion of accumulation by dispossession has acquired a certain prominence in the most recent literature on economic development in India in reference to the spread of Special Economic Zones in the country (Menon and Nigam 2007; Banerjee-Guha 2008;

Levien 2011), but also to dam construction (Roy 1999; Whitehead 2003; Nilsen 2008; Naidu and Manolacos 2010). However, accumulation by dispossession in the form of development-induced displacement is far from being a novel feature of Indian postcolonial capitalism, in fact it has been one of its recurrent elements (Perspectives 2008; Samaddar 2009).<sup>122</sup> Dam-building in particular has been emblematic of the postcolonial Indian development strategy and indeed of the whole narrative of evolution of the Indian State from a past of colonial backwardness to a future of progress and modernity.<sup>123</sup> In his speech celebrating the inauguration of the Nangal dam in 1954, Nehru famously defined dams as the ‘temples of the new age’ (Klingensmith 2007: 254), while Mahalanobis recommended for the second five-year plan to build dams and factories (i.e. to heavily invest in capital goods) to create employment and safeguard the country's economic and political independence (Guha 2007:208). In short, dams represented the willingness and the ability of the State to trigger a process of structural transformation of the economy in a ‘developmental’ direction (Corbridge and Harriss 2000; Klingensmith *ibidem*) through a scientific approach to planning (Nilsen *ibidem*). This development strategy, as pointed out by Nilsen (*ibidem*), was pursued through the dispossession of the productive resources from the subaltern social groups and their concentration in the hands of the dominant proprietary classes (i.e. industrial capitalists, rich farmers and the politico-bureaucratic elite, see Bardhan 1998) through state-led initiatives.

This strategy also entailed the systematic unequal distribution of its costs and benefits, to the disadvantage of the subaltern classes, particularly Scheduled Castes (SCs) and Scheduled Tribes (STs). These groups have historically experienced cultural, political and spatial marginality, which has translated into their repeated defeat in the struggle for access

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122 For reasons of space, we leave out of the analysis the role played by strategies of primitive accumulation under British Colonialism. It is worth recalling, however, that many of the contemporary environmental conflicts and resource shortages which afflict the country are the legacy of the extractive patterns of resource use (based on dispossession and changes in the resource ownership and management systems) adopted during the British rule. Gadgil and Guha (1993) argue, for instance, that colonial forest management, based on forest reservations for commercial uses, caused the impoverishment of the tribal populations living in the areas (the relationship between tribal livelihoods, the forest and forced eviction has been explored in chapter 5 in reference to AP). D'Souza (2006) claims in fact that the ecological rupture instigated by colonial capitalism was functional to the perpetuation of specific economic, political and social relations. For instance, it affirmed itself in the Orissa Delta through a set of hydraulic interventions (including the Hirakud Dam) which turned the delta from a flood-dependent agrarian regime into a flood-vulnerable landscape, thus increasing the capacity of the British rule to control and dominate it.

123 According to Klingensmith (*ibidem*), dam-building after Independence was informed by a specific political culture and was explicitly pursued as a symbol of the conquest of nature and progress, of the modern state and of its empowerment and achievement.

to resources. Gadgil and Guha (1995) describe this process as a systematic transfer of resources (through dispossession) from the category of the *ecosystem people* (those who directly depend on the environment to meet their basic needs) to that of the *omnivores* (made up of urban consumers, industry and large farmers, politicians and bureaucrats). The systematic transfer of resources from the marginal groups to the dominant proprietary classes also signals that the aforementioned development strategy has been enabled by the Indian specific structure of power relations, which is driven by inequalities of caste and ethnicity before class, and by the embeddedness of market relations in forms of authority derived from these inequalities.

Development projects inducing dispossession and displacement have not lost their importance in contemporary Indian capitalism. Mining and dam projects are still considered essential for the provision of energy, irrigation and raw material required to sustain an elevated rate of growth and of capital accumulation (Naidu and Manolacos 2010). More generally, economic growth is advancing in the country relying on a wide range of displacement-inducing activities (urban renewal, Special Economic Zones, transport infrastructure building, and commercial foresting, accompanied by environment and wildlife conservation projects), aiming to make resources available to corporate capital often through the intervention of the state (Badhuri 2008; Perspectives 2008; Levien 2011)

The inability of capitalist accumulation to securely and productively employ the dispossessed people – i.e. the creation of surplus labour through accumulation by dispossession, is consistent with another key feature of the modern Indian economy, namely the existence of a massive pool of workers engaged in subsistence activities within the informal sector. In 2004-05 in the country there were 94 million working poor (Mehta *et al* 2011). These workers are unskilled and poor, and the labour arrangements in which they engage are regulated by social institutions. According to Harris-White, the existence of this pool of workers with the characteristics mentioned is one of the distinctive features of Indian capitalism (Harris-White and Gooptu 2001; Harriss-White 2003). Harriss-White refers to the phenomenon as the ‘unorganised sector’, while here we prefer using the term ‘surplus labour’ to emphasise its redundancy with respect to the mainstream economy, namely the fact that the expanding Indian labour force is in excess of its means of production (and therefore of employment).

For the purpose of our analysis, some features of the phenomenon need to be highlighted.

First, as also noted in chapter 3, surplus labour in India cuts across the rural and the urban sectors and employment and self-employment arrangements. Diversification of livelihoods is pursued as a coping strategy, so that the boundaries between wage workers and direct producers are loose and unstable (Ramachandran 2011). There is also a thin distinction between free and unfree labour arrangements, where a free worker is intended as one who can sell his labour power to the employer of his choice (*ibidem*). Constraints to workers' freedom come from their excess supply, but also from the persistence of bonded and neo-bonded labour relations. Mosse (2007) and Breman (1996), for instance, show that mobilisation of rural labour occurs primarily through mechanisms of neo-bondage based on debt as an instrument of coercion. Typically, workers are recruited in their own villages by brokers, to whom they tie themselves in exchange for a cash advance and with the promise of supplying labour power when and where needed.<sup>124</sup>

Second, as widely documented by Harriss-White (1996, 2003, 2005), labour relations in India are regulated by non-market institutions (i.e. 'social structures of accumulation'), such as caste, ethnicity, religion and gender. These structures are underpinned by unequal power relations which pervade, and are reproduced through, labour relations. To the extent that markets are "sites of relationships of control over people" (Harriss-White 1999: 271), access to the labour market (and the terms of involvement in it) is determined by non-contractual relations which are built on those social institutions and take the form of relations of patronage-clientelism, neo-bondage and brokerage.<sup>125</sup> Similarly Breman notes that in India "[s]ocial ties based on other principles than class solidarity play a leading role in the articulation of identities in the informal sector milieu. Caste and faith operate as signposts in seeking and finding work" (2001:4820).<sup>126</sup> Therefore, social structures of accumulation define the boundaries of the contracts in which labourers can engage, *de facto* constraining their freedom and favouring their exploitation. In this sense, they support the reproduction of surplus labour.

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124 Breman (*ibidem*) argues that neo-bondage differs from the 'old' debt relations for its more de-personalised and monetised character, and for the removal of the duty of the moneylender (or the broker) to provide protection and subsistence.

125 Brokerage is intended here as the establishment of links of mediation between the State and private development institutions such as banks and public works contractors, government schemes for housing and employment, etc.). Upper castes and classes increasingly rely on them to achieve political, electoral and financial gains (Mosse *ibidem*: 22).

126 Breman also argues that such identities (especially gender and localities), far from being forms of false consciousness, also permit collective action (*ibidem*).

Third, the transformations experienced by agriculture and more generally by the rural sector in the past twenty years in India have played a key role in alimenting the pool of surplus labour and shaping its characteristics. The crisis which has been affecting the sector since the early 1990s (the literature on the topic is extensive, see for instance Reddy and Mishra 2009; Deshpande and Arora 2010), together with the neoliberal reforms adopted in the same period, have not substantially affected the rate of capital accumulation in agriculture, but have contributed to make peasant agriculture unprofitable (Vakulabharanam 2005; Taylor 2011). As a result, processes of rural differentiation have polarised the sector between commercial and corporate farming on one side, and a peasantry composed of marginal farmers and landless labourers facing a crisis of social reproduction on the other (Le Mons Walker 2009; Lerche 2011; Taylor *ibidem*). This agriculture-related crisis of social reproduction is another of the defining characteristics of surplus labour in India. The fourth and final point on this topic is that the existence of surplus labour is in contradiction to the existence of underutilised capacity and to the good growth performance of the Indian economy in the past decade. The unsatisfactory rate of employment creation and labour absorption has been pinpointed as one of the major shortcomings of the development strategy adopted by the country (Chandrasekhar and Ghosh 2002; Bino *et al* 2009; Kannan and Ravendran 2009), and the main challenge to poverty reduction (Ghose 2004; Mehta *et al ibidem*).

In relation to our discussion, this contradiction reinforces the hypothesis advanced in chapter 3 that the existence of a link between the characteristics of capitalist accumulation in one given context, and the modalities and outcomes displayed by accumulation by dispossession. In a situation of sustained economic growth, the Indian economy is repeatedly resorting to accumulation by dispossession to overcome the barriers encountered by capital expansion, while being unable to absorb the existing and the newly created surplus labour (Sanyal 2007; Battacharya 2010; Levien 2011). It is suggested here (and left for future research) that investigating the role played by accumulation by dispossession in Indian capitalist development can explain some of the dysfunctional outcomes of the country's development, and in particular the reasons for the production and reproduction of surplus labour.

### **6.2.2. Rural sector, agrarian crisis and surplus labour in Andhra Pradesh**

This section shows that the rural sector of AP is characterised by the presence of a growing pool of surplus labour, which takes the form of landless families, small and marginal farmers, and casual labourers. In this way, it demonstrates the relevance of the category of surplus labour for the analysis of the case-study. The section reveals that the two main forces which have been driving the production and reproduction of surplus labour are the low rate of job creation in rural and urban areas and the processes of transformation which have underpinned the agrarian sector in the past decades. Thus, the section also shows the structures and mechanisms which characterise the phenomenon and are liable to turn resettlement into a process of adverse incorporation.

#### 6.2.2.1. Employment in the rural sector

One of the main factors driving the production and the reproduction of surplus labour in rural areas is the poor performance in employment creation recorded by the State in both rural and urban areas since the 1980s. Between 1983 and 2004-05 overall employment in the state grew at a rate lower than the average for all India: 1.75% for AP versus 2.04% for all India. Besides, the rates of growth of both rural and urban employment declined from the pre-reform period (1983 to 1993-94) to the post-reform period (1993-94 to 2004-05): from 2.32% to 0.72% in rural areas and from 3.82% to 1.87% in urban areas (see table 6.1). In the post reform period, the growth of total agricultural employment was negative, at -0.29% (CESS 2008). Growth of employment in rural areas has slightly recovered in recent years (it was 1.24% between 1999-2000 and 2004-05), but it is still lagging behind the rate at the all-India level (which was 2.43% for the same period).

The causes of these low levels of employment creation in urban areas lie in the sectorial structure of the economy and in the process of growth undertaken by the state in the past decade. First, the secondary sector, and in particular, manufacturing, has been traditionally underdeveloped in AP, unlike neighbouring states such as Tamil Nadu (Aivelu *et al* 2010). Its growth performance even worsened from the 1980s to the 1990s: the growth rate of industry went from 7.36% to 6.2% between the 1980s and the period 1993-94 to 2000-01 (Rao and Dev 2003). Considering the importance of manufacturing for employment creation, it is not surprising that few jobs were created in urban areas in the 1990s.

There has been a recovery of the sector in recent years: the growth rate was 7.11% between 2000-01 and 2004-05 for the whole sector and 7.73% for manufacturing (CESS 2008). Furthermore, the share of contribution of the secondary sector to GSDP has increased over time, from 19% in 1980-81 to 24% in 2004-05. The same has happened to the share of employment in manufacturing, which went from 9.2% in 1993-94 to 10.9% in 2004-05. These trends are encouraging, but the proportions are still too low for the requirements of the country in absolute terms (in terms of employment creation and in terms of creation of an adequate demand able to absorb the services offered by the growing tertiary sector).

**Table 6.1 Growth and Elasticity of Employment in Andhra Pradesh and India**

Growth Period	Andhra Pradesh				India			
	Rural	Urban	All	EE	Rural	Urban	All	EE
1983 to 2004-05	1.5	2.81	1.75	0.305	1.73	3.07	2.04	0.361
1983 to 1993-94	2.32	3.82	2.59	0.437	2.03	3.03	2.25	0.431
1993-94 to 2004-05	0.72	1.87	0.95	0.166	1.44	3.11	1.84	0.314
1993-94 to 1999-2000	0.29	0.27	0.29	0.056	0.62	2.28	1.02	0.159
1999-2000 to 2004-05	1.24	3.82	1.76	0.289	2.43	4.12	2.83	0.495

Note: Growth is CAGR (Compound Annual Growth Rate); EE is employment elasticity.

Source: CESS 2008; rates computed on the base of various NSS Employment and Unemployment Survey data.

The second reason for the low level of employment creation is found in the employment elasticity of growth in the post-reform period, particularly in the years 1993-94 to 1999-2000, and if compared to the all-India average (see table 6.1). The unsatisfactory capacity of the growth process to create employment in AP is mainly due to the fact that in the past 15 years it has been driven by tertiary activities, and in particular the Information Technology (IT) sector, which is characterised by a low employment absorption. Andhra Pradesh is one of the main contributors to the growth of the IT sector in India: Hyderabad is a major destination for IT companies and the state ranks fourth in software exports from India, after Karnataka, Maharashtra and Tamil Nadu. Most of the sector's expansion has occurred since 1996-97, as demonstrated by the number of jobs created since then: 4500 workers were employed in IT in the state in 1996-97, while the figure had increased to

187,450 jobs ten years later (CESS 2008). This considerable growth performance is, however, negligible if compared to the total workforce of the state and its characteristics: in 2004-05 only 0.21% of the total labour force was employed in the IT. Also, the jobs created are concentrated in urban areas and require educated and skilled workers. For these reasons it seems unlikely that a growth process primarily based on the IT sector can re-activate employment creation and solve the problem of the working poor, particularly in rural areas.

The low rate of job creation in urban areas and in the secondary and tertiary sector has not been compensated by a sustained growth of employment in agriculture. With 73% of the state population still living in rural areas in 2001 (GoAP 2011) and 15 years of poor growth performance of the sector, the inability to create jobs has led to the formation of a pool of redundant, unskilled and unproductive employed and self-employed agricultural workers.

Indeed, in 2004-05 agriculture still employed the majority of the population (i.e. 58.5%), having declined by just 8.6 percentage points since 1993-94, when it was 67.1% (NSSO 1997 and 2006).

**Table 6.2 Percentage distribution of rural persons by household type, Andhra Pradesh**

RURAL	Household type						Total (including n.r.)
	Self-employed in			Agricultural labour households	Other labour households	Others	
	Agriculture	Non-agriculture	All				
1993-94	31.4	14.8	46.2	39.4	8.4	6	100
1999-2000	28.2	14.1	42.3	43.1	6.7	7.9	100
2004-05	28.4	17.3	45.7	35.7	9.6	8.9	100
2007-08	26.1	16	42.1	37.2	10.7	10.1	100

Source: various rounds of NSSO Employment and Unemployment Survey data.

Table 6.2 provides an overview of the composition of this workforce and of its evolution since the early 1990s. It shows that in 2007-08 less than half of the rural workforce was self-employed (42.1%) and agricultural labour was the first source of employment (37.2% of the households).

It had already been highlighted in chapter 5 that the high share of agricultural labourers of the total workforce is one of the most striking characteristics of the employment structure in rural areas of AP. Similarly, it had been noted that the share of casual labour (employed and self-employed) of total rural workforce is higher in AP than at the all India level (see table 5.10)

The data in table 6.2 indicate that the share of agricultural labourers increased in the post-reform period (1993-94 to 1999-2000), together with a decrease in employment and self-employment in non-agricultural activities. As self-employment in agriculture also diminished, the increase in the share of agricultural labour was the result of the incapacity to create employment opportunities outside farming in rural areas: People engaged in wage labour because they were unable to find other sources of employment. This incapacity was primarily the result of the lack of public expenditure in agriculture and on rural areas in the 1990s . No support was given to the development of off-farm activities such as dairy and livestock rearing; investment in services and infrastructure almost disappeared and traditional rural industrial activities like handloom weaving and *beedi* making further declined (Rao and Dev 2003, Government of Andhra Pradesh 2004; Dev 2007; CESS 2008; Taylor 2011).

The data in table 8.2 also suggest that changes in the structure of rural employment have been taking place in more recent years: the share of agricultural labour in fact declined again after 1999-2000 and that of employment in non-agricultural activities increased. However, it is hard to assess at this stage whether these fluctuations are indicative of an effective improvement in the capacity to create employment in rural areas or, rather, an evolution of the composition of surplus labour, for at least two reasons. The first and more obvious reason is that the data in the table also show a reverse of these trends between 2005-05 and 2007-08, which therefore need to be confirmed by more recent data.

Second, changes in the shares of the different employment categories in the period under examination (1993-94 to 2007-08) have been accompanied by oscillations and a tendential increase in unemployment in both rural and urban areas (see table 8.3).<sup>127</sup> The increase was mostly evident in 2004-05, when the share of agricultural labourers was the smallest, and the share of self-employed was the highest. Analogously, there are indications that the

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<sup>127</sup> The rate of unemployment in urban areas according to the usual status, weekly status and daily status was respectively 3.7%, 5.1% and 8.6% in 1993-94 and 4%, 5.2% and 7.9% in 2004-05.

number of days of employment available to workers has been declining in AP (Ramachandran 2011). A survey conducted in the villages of Ananthavaram (South Coastal Andhra), Bukkarchela (Rayalaseema) and Kothapalle (North Telangana) found that respectively 37%, 47% and 33% of the manual workers had worked for less than 180 days in the previous year (Ramachandran *et al* 2010), suggesting that the number of working days available to workers is rather low in all the regions of AP. Thus, the decrease in the share of agricultural labourers might have been driven by an absolute increase in the number of unemployed persons rather than by an increase of off-farm employment.

**Table 6.3 Unemployment rates in rural areas of India and Andhra Pradesh according to usual, weekly and daily status<sup>128</sup>**

	Andhra Pradesh				India			
	1993-94	1999-2000	2004-05	2007-08	1993-94	1999-2000	2004-05	2007-08
<b>Usual Status</b>	0.8	1	1.3	1.1	1.8	1.9	2.5	2.2
<b>Current Weekly Status</b>	2.7	3.9	3.8	3.1	3	3.8	3.9	3.9
<b>Current Daily Status</b>	6.3	8.1	10.9	8.6	5.6	7.1	8.2	8.4

Source: various rounds of NSSO Employment and Unemployment Survey data.

Finally, the high incidence of casual and agricultural wage labour needs to be understood in light of the performance of agriculture in the past two decades and of the transformations experienced by the rural sector in the same period. This analysis, undertaken in the next sections, will reveal that wage labour is increasingly undertaken by rural households as a coping strategy and as the earning activity of last resort.

#### 6.2.2.2. Agrarian Crisis in Andhra Pradesh

The performance of agriculture in AP has been unsatisfactory since the early 1990s: the growth rate of agriculture has decelerated over the last 15 years, and agriculture's share of GDP has gone down, while the proportion of people dependant on it has remained more or

<sup>128</sup> The reference period for the *usual status* is 365 days. Unemployment is traditionally low or non-existent in India, especially according to the usual status. The increase in the rate of weekly and daily unemployment, which record both chronic and intermittent unemployment are indicative of the increasing casualisation of labour in rural areas.

less stable.

In particular, the growth rate of aggregate agricultural output has declined from 3.4% per year in the 1980s to 2.3% in the 1990s (GoAP 2004). Growth of Total Factor Productivity in agriculture was also low in the 1990s, especially if compared to the national level: during that decade it was 1.3% for all India and 0.8% for AP (World Bank 2003). Between 1993-94 and 2005-06 the sector's output grew at 2.7% per year, but most of the growth was due to the good performance of the livestock sector, which in the same period grew by 8.4%, while the crop sector grew by a mere 0.9% (CESS 2008).

**Table 6.4 Growth rate of gross state domestic product of Andhra Pradesh at constant (2004-2005) prices (percentage change over previous year)**

Sector	2005-06	2006-07	2007-08 (R)	2008-09 (P)	2009-10 (Q)	2010-11 (A)
Agriculture Sector	6.12	1.97	17.38	1.97	1.09	8.39
<i>Agriculture</i>	7.89	2.12	22.95	-0.68	-2.15	8.74
<i>Livestock</i>	3.99	0.35	9.16	7.25	9.19	6.94
<i>Forestry and logging</i>	3.80	1.69	2.22	2.40	2.65	2.75
<i>Fishing</i>	3.46	5.05	15.82	3.40	-0.35	12.88
Industry Sector	10.05	17.60	10.87	1.51	7.10	7.79
Service sector	11.04	12.48	10.30	8.26	7.20	9.61
Gross State Domestic Product	9.57	11.18	12.02	5.02	5.79	8.89

R: Revised, P: Provisional, Q:quick, A: Advanced.

Source: Socio-economic survey 2010-11, GoAP.

Since 2005-06, the sector has shown signs of recovery but also of great instability, as it can be seen from table 6.4. In fact, the high rate of growth of agricultural output (i.e. the crop sector) in 2007-08 followed by two years of negative growth suggest that its performance is still highly dependent on the monsoon, while the livestock sector keeps playing an important part in the overall performance of agriculture.

The most extreme and dramatic manifestation of the agrarian sector's poor performance was the wave of farmers' suicides which hit AP and certain other Indian states. Suri (2006) reports that according to official statistics, there were 8,900 suicides by farmers between 2001 and 2006 in the four states of Andhra Pradesh, Karnataka, Kerala and Maharashtra. The phenomenon was particularly strong in AP where it reached its peak in the summer of

2004, with more than 400 peasants committing suicide between May and June. Similar episodes had already taken place in 1987-88, 1997-98, and 2000, but the phenomenon had been limited to farmers growing specific crops such as cotton, tobacco and chillies. The wave of suicides in 2003-2004 by contrast related to different crops, districts and agro-climatic zones of the state. Between 1998 and 2006, 4403 farmers committed suicide (Galab *et al* 2009). These were mainly males in the age group of under 40 years and belonging to BCs, SCs and, to some extent, to STs. The incidence of the phenomenon was also higher among small and marginal farmers attempting to move from subsistence agriculture to high value crops (CESS 2008).

The farmers' suicides indicate on the one hand the hardships of the process of rural differentiation, and on the other, the fact that liberalisation policies have turned small and marginal farming into an unprofitable and risky activity. This last point becomes particularly evident upon examination of the proximate causes of the suicides.

All the studies which have investigated the proximate causes of farmers' suicides have identified the triggering factor as the high level of indebtedness (see for instance Rao and Suri 2006, and the review in Galab *et al* 2009). A high level of debt exposure, particularly towards informal sources, is indeed a major problem of the rural economy of AP. According to the *Report of the Expert Group on Agricultural Indebtedness* (GoI 2007), in 2003 in AP 82% of the farmer households were indebted, with an average loan per household of Rs 23,965. Not only was the value of the average loan almost double the all-India figure, but the share of indebtedness was the highest of the country (NSSO 2005). Andhra Pradesh was also the state with the highest reliance on non-institutional sources (including for classes of large size of land holdings): 68.6% of the debt was from non-institutional sources in 2003, and more strikingly, 53.4% was from money lenders. The incidence was higher among small and marginal farmers (up to 83% for farmers with a land holding smaller than 0.01).

Both the high level of indebtedness and the widespread recourse to non-institutional sources of credit were caused, to a substantial extent, by the neo-liberal economic reforms implemented in AP in 1996.<sup>129</sup> These included the reform and privatisation of the banking

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129 AP was the first among the Indian states to implement a neo-liberal reform agenda, and also the first to act under the aegis of the World Bank, through the *World Bank's Andhra Pradesh Economic Restructuring Project-APERP* (Galab *et al ibidem*; see also World Bank 1997). Since then the State has been considered at the forefront of the liberalisation process and indeed a 'model' for other States.

sector, which resulted in the decrease in provision of institutional credit to agriculture (Galab *et al* 2009).<sup>130</sup>

The decrease in access to institutional credit occurred when farmers would have needed it the most, to counteract the increase in the cost of farming caused by the same economic reforms. A number of factors combined to make farming more expensive: in the first place the generalised decrease or disappearance of support to input access, alongside a neglect of research and extension. Subsidies for fertilizers were reduced, power tariffs were increased, and other agricultural services, such as seed supply, soil conservation and market information were inadequately provided. The elimination of input subsidies and input market liberalisation were particularly damaging for small and marginal farmers. In fact, the latter had been replacing traditional crops with input-intensive commercial crops (such as cotton, sugar cane and oilseeds) since the Green Revolution (Taylor 2011), thus increasing their dependence on subsidised inputs.

The reduction in public expenditure also caused a decline in capital formation and investment in infrastructure, particularly in irrigation. The share of agriculture and allied activity in state government expenditure under various plans declined from 11.8% in 1980-81 to 1.8% in 2001-02. Rao and Suri (*ibidem*) show that, when compared with other states, Andhra Pradesh had the lowest share of agriculture spending in total plan expenditure till 2002-03 (3% in AP as compared to 7% in Karnataka and 5% at the all-India level). Gross Fixed Capital Formation (GFCF) in agriculture as a share of total GFCF went from 13.83% in 1985-86 to an average of 6-7% in the 1990s (Galab *et al ibidem*). The growth rate of private investment also declined, from 5.2% in the 1980s to -1.7% in the 1990s (CESS 2008). Not surprisingly, the area under irrigation also declined in the same period: from 27.8 lakh hectares in the mid-1950s it had increased to 43.5 by the end of the 1980s, but during the 1990s it declined to 37.1 lakh hectares (CESS 2008).

The overall effect of the decline of public investment in irrigation was not only a slowdown in productivity, but also an increase in the burden of the overall costs of farming on single farmers. The latter were forced to supplement the lack of public investment in irrigation with risky private investment. In particular, they sought alternative individual routes to water provisioning, which were found in the digging of borewells. Today

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130 Between 1990 and 2004 the number of rural commercial bank branches in the state went from 2644 to 2400. Also the share of agricultural lending on total commercial bank credit declined from 80% in 1993-94 to 50% in 2002-03 (Galab *et al* 2009).

borewells serve as the main source of irrigation in 15 districts of the state. A survey of the Centre for Economic and Social Studies (CESS) of Hyderabad found that 26% of the farmers had invested in borewells. The highest share was found among large farmers (46.7%), followed by the medium farmers (34.5%), small farmers (23.6%) and marginal farmers (14.1%). The incidence was higher in South Telangana, followed by Rayalaseema and South Coastal Andhra (CESS 2008).

The heavy reliance on borewells for irrigation had dramatic effects. Many of the wells failed, because of the overexploitation of groundwater, accentuated by the low rainfall level and the unstable monsoon which characterise AP. According to the aforementioned survey, 56.1% of all the investment in borewells was lost due to the wells drying up. The loss was higher in Telangana and Rayalaseema, which are regions characterised by poor rainfall and little surface irrigation. Most of the farmers, lacking public support in the form of infrastructure and credit, had contracted debt with moneylenders to dig or deepen their wells. The widespread failure of the wells led many farmers into a debt spiral which in the most dramatic cases ended with the farmer's suicide. Indeed, all the studies investigating the wave of suicides in AP reported indebtedness for digging a well as the most common cause of contracting a debt. (Suri 2006, Rao and Suri 2006, Galab *et al* 2009).

Finally, the increase in the cost of farming was accompanied by an increase in the volatility of the prices of most commercial crops (Galab *et al* 2009), and in some cases by their decline (Vakulabharanam 2005), as a result of the trade liberalisation which came with the package of economic reforms. This substantially contributed to reduce the profitability of farming, especially for small and marginal farmers, who are more exposed to the volatility of prices.

It was claimed at the beginning of this section that one of the main driving forces behind surplus labour in AP has been the transformation experienced by the rural sector in the past two decades. This transformation has been characterised on one side by a bad growth performance of the sector, and on the other, by processes of differentiation of the rural population, and in particular, of the peasantry. Both these phenomena have been heavily influenced by the neoliberal economic reforms implemented by the state during the 1990s. In particular, these reforms have directed most of the burden of the transformation of the sector onto the shoulders of small and marginal farmers, so that the latter were more heavily affected by the bad growth performance. In this sense, and as argued by Lerche

(2011), the agrarian crisis has been highly class specific. Even after agricultural growth took off again in the state, the processes of rural differentiation continued to be characterised by a growing number of small and marginal farmers in distress (Vakulabharanam 2005; Taylor 2011). Thus, the high incidence of agricultural labour noted in section 8.2.2.1 is not only the outcome of the inability to create off-farm employment, but also of the necessity to supplement farming with other sources of income. The next section discusses two other phenomena indicating the expansion of the class of small and marginal as a result of a regressive process of differentiation. These phenomena are fragmentation of landholdings and increase in tenancy.

#### 6.2.2.3. Fragmentation of landholdings and increase in tenancy

Fragmentation of landholdings can be seen as both a cause and an effect of agrarian distress. It is an effect to the extent that land is for many farmers the only asset which can be leveraged to acquire liquidity in times of emergencies. Repeated crop failures and crisis of profitability associated with heavy indebtedness can force farmers to sell their land. It is also a contributing cause of distress because increasingly fragmented landholdings are not by themselves sufficient to guarantee subsistence. The demographic growth experienced by the state in the past decades has certainly contributed to increase the pressure on land and therefore to its fragmentation. However, the growth rate of population has been slowing down in the past decades, going from 24% in the decade 1981-91, to 14% in the decade 1991-2001 and 11% in the decade 2001-2011 (CESS 2008 and Census of India 2011).

The distribution of land in AP has significantly changed in the post-Independence era, moving towards an increase of the share of holdings at the bottom of the distribution. As shown by table 8.4, marginal holdings represented 38.6% of the total holdings in 1955-56, 56% in 1990-91 and 61.6% in 2005-06. The corresponding shares for small holdings were 18.3%, 21.2% and 21.9%. Not surprisingly, the share of medium holdings decreased from 16.7% to 4% in the same period, and that of large holdings from 8.7% to 0.5%. The change in the share of operated area by these size classes followed a similar pattern.

It was noted in chapter 5 that the fragmentation of landholdings is particularly visible among SCs and STs, also in confirmation of the relatively disadvantaged position that they occupy in rural society. The substantial increase in the SC and ST population in the state

has certainly contributed to the process. The 2001 census data suggest that both the number and the percentage of SC and ST in the state had increased in the decade 1991-2001, following a pattern already started in the 1960s (see table 6.6).

**Table 6.5 Percentage distribution of operational holdings by size class, 1956-2006**

	Share in Number of Holdings					Share in Operate Area					Average size (ha)
	Marginal	Small	Semi-medium	Medium	Large	Marginal	Small	Semi-medium	Medium	Large	
<b>1955-56</b>	38.6	18.3	17.7	16.7	8.7	7.9	9.7	16.1	28.1	38.2	2.43
<b>1970-71</b>	46.0	18.5	17.4	12.7	4.3	8.0	11.3	19.2	30.8	30.7	2.51
<b>1976-77</b>	46.6	20.3	17.4	12.2	3.4	9.3	12.8	20.8	32.3	24.8	
<b>1980-81</b>	49.3	20.9	16.0	9.1	2.1	13.1	16.2	23.3	28.7	18.7	1.94
<b>1985-86</b>	54.2	20.8	15.2	8.0	1.8	14.5	17.3	24.0	27.3	16.3	
<b>1990-91</b>	56.0	21.2	14.5	6.9	1.3	16.4	19.6	25.2	26.1	12.8	1.50
<b>2000-01</b>	60.9	21.9	12.3	4.3	0.6	21.6	24.8	26.4	19.8	7.5	1.25
<b>2005-06</b>	61.6	21.9	12.0	4.0	0.5	22.7	25.8	26.5	19.0	6.1	1.20

Source: Directorate of Economics and Statistics, Hyderabad.

Note: Marginal: 0 to 1 hectare; Small: 1 to 2 hectares; Semi-medium: 2 to 4 hectares; Medium: 4 to 10 hectares; Large: 10 and above hectares.

**Table 6.6 Percentage of SC and ST population on total population in Andhra Pradesh, 1961-2001**

	SC	ST
1961	13.8	3.7
1971	13.3	3.8
1981	14.9	5.9
1991	15.9	6.3
2001	16.2	6.6

Source: CESS 2008

However, the caste-oriented connotation of landholding fragmentation also suggests that the phenomenon has strong historical roots. Its other main contributing factor in fact is the insufficient rate of land redistribution and restitution to SCs and STs. This in turn is the outcome of the poor performance of land reforms implemented since Independence, which on the one hand have favoured the transition to agrarian capitalism, removing those inequalities that had been hampering productivity (Le Mons Walker 2009), and on the other,

have crystallised the caste articulation in the countryside and its relation to land (Srinivasulu 2002).

The first wave of land reforms implemented in AP included the abolition of intermediaries, tenancy reforms and ceiling legislation.<sup>131</sup> These measures were successful in creating a certain homogenisation of the upper landed castes and in reducing the differences between the landlords and the rich farmers. The landless SCs and STs however benefited only marginally from this first attempt at land redistribution, which in practise contributed to reinforce the process of polarisation of agriculture between a capitalist sector and a non-capitalist one. More recently, a second round of land redistribution has been attempted, with more convincing results. For instance, the government has assigned surplus land to the landless poor, with 43.21 lakh acres distributed to 23.98 lakh beneficiaries, of whom 24% were SC and 28% were ST. However, the total land redistributed until 2002 represented only 29% of the total 20 lakh acres of estimated surplus land. (GoAP 2004).

As this brief account of the failed attempts at land reform suggests, rural differentiation has occurred in AP in conjunction with the persistence of unequal land distribution and unequal agrarian relations based on caste. Poor households belonging to SCs and STs over the years have marginally benefited from the capitalist transformation of agriculture. Instead, today they still constitute the bulk of surplus labour, that is, of small and marginal farmers and wage labourers.

It was previously claimed that the fragmentation of landholdings in AP can be understood as both a cause and an effect of agrarian distress, which also has a strong historical connotation rooted in the unequal social relations underpinning the rural society. Another transformation affecting the structure of landholding shares these same characteristics. This transformation is the increase in tenancy observed in the state, and the evolution of the same in two directions: on one side towards fixed-cost competitive rents paid in cash (present for instance in South Coastal Andhra, see Ramachandran *et al* 2010), and on the other, in the direction of a reinforcement of the 'tied harvest' system. The latter

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131 The Madras Estates Act of 1948 was the first legislation to remove intermediaries, bringing all land in Andhra under the *ryotwari* system, while intermediaries in Telangana were abolished through the Abolition of Jagirdari Act of 1949. As concerns tenancy, the Hyderabad Tenancy and Agricultural Lands Act was enacted in 1950 to give protection to tenants, then followed by the AP (Andhra Area) Tenancy Act of 1956 (amended in 1970). This legislation has had a mixed result and it has often led to concealed tenancy. Legislations imposing ceilings on landholdings were passed in 1961 and in 1973 with the Andhra Pradesh Land Reforms (Ceiling on Agriculture Holdings) Acts (Ramachandraiah and Venkateswarlu 2011).

is based on the advancement of a sum of money by the moneylender (who is possibly also the landlord or the lessor) to the renter to pay the rent or purchase inputs, in exchange from the renter of a fixed amount of crops at a fixed (devalued) price (Vakulabharanam 2005; Taylor 2011). The terms of the contract change according to who is the renter and who is the lessor, with smaller and poorer renters facing more disadvantageous conditions (Ramachandran 2011). The increase in tenancy among small and marginal farmers at disadvantageous conditions and through interlocked contracts is to be interpreted as a further sign of the crisis of profitability at the bottom of the land distribution, and of the inexistence of opportunities for livelihood diversification outside agriculture.

#### 6.2.2.4. Wage labour in rural Andhra Pradesh

Agricultural (casual) wage labour complements the livelihoods of the small and marginal farmers who can no longer live of farming alone. In this sense, it is a consequence of the agrarian crisis described in the previous sections, and of the obstacles encountered by farmers to livelihood diversification. However, wage labour is also a social relation which has been shaped by the action of the social structures of accumulation mentioned in section 6.2.1 and investigated in India by Harriss-White (2003).<sup>132</sup> These structures (which in fact operate as *identities*), caste and gender in particular, have historically been regulating the labour market in AP and still play an important role in the reproduction of surplus labour.

The bulk of agricultural wage labour in AP is constituted by landless SCs, as a result of the historical evolution of agrarian relations. Traditionally agricultural wage labour has been associated with landlessness. In AP, and in particular in the Telangana region, the entrance of SCs into wage labour was determined by the abolition of bonded labour and the decline of their traditional artisanal activities. Traditional extra-economic and exploitative forms of extraction of labour and goods were widespread in certain parts of AP until the 1970s. The phenomenon was particularly relevant in Telangana, where landlords were still resorting on *vetti*, a pre-capitalist form of labour exploitation based on the Hindu *jajmani* arrangement, a system of relations of mutual dependence between different castes according to their occupation and the ensuing position in the agrarian society.

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<sup>132</sup> But see also Olsen (1996) for an exploration of rural social relation in AP which focuses on the role of local power structures in regulating markets.

The persistence of these forms of labour exploitation triggered in certain areas of the state the emergence of agrarian struggles based on mobilisation along class lines. The most extreme expression of these struggles was the spread of the Naxalite movement in North Telangana in the late 1960s, although forms of resistance were also carried out by the Communist Party of India (Marxist-Leninist) in the two following decades. These struggles were successful in eliminating *vetti*. The abolition of the latter constituted an improvement of agrarian social relations in the sense that it freed SCs from a bondage which justified their exploitation by the landlord. However, it also deprived them of the norms of mutual dependence and cooperation implicit in the *jajmani* system and of the patronage network attached to it, at a time when agrarian relations were being progressively commodified. As a consequence of the Green Revolution, in fact, industrial products were increasingly entering rural markets, making redundant the traditional artisanal production of these items. These artisanal activities, such as handloom weaving and leather work, were typically carried out by SCs, in particular by the Madiga (the most numerous SC of Telangana) and the Malas (which are prevalent in Coastal Andhra). With the elimination of *vetti* and the decline of traditional activities, most of the rural SCs had to enter the agricultural wage labour market (Srinivasulu 2002).

The transition to capitalist labour relations in agriculture however did not eliminate bonded labour arrangements, but just substituted the traditional forms of bondage with forms of neo-bondage. The resilience of these arrangements has been widely documented in different areas of AP and extending to sectors other than farming (see da Corta and Venkateswarlu 1999; Olsen and Murthy 2000; Venkateswarlu 2003; Chakravorty 2004; Srivastava 2005; Garikipati 2008). All the studies report that these forms of neo-bondage retain the interlocking of the labour contract with a debt relation and often with the sale of output to a predetermined devalued price (the already mentioned 'tied harvest'). Circuits of seasonal migration are also often part of these agreements.

Far from being in contradiction with capitalist development, unfree and (neo) bonded labour arrangements are functional for capitalist farmers facing an increase in the cost of farming, typical of more advanced stages of agrarian capitalist development (see Brass 1994; da Corta and Venkateswarlu 1999; Olsen and Murthy 2000). Neo-bondage arrangements in fact guarantee secure, cheaper and more disciplined workers and therefore help restoring profitability.

The increasing feminisation of agricultural (free and unfree) labour found in AP is another way in which social structures of accumulation favour the reproduction of surplus labour while constraining its freedom. The state has the highest female work participation rate of the country, for both rural and urban areas. According to NSSO data, in 2004-05 48.5% of women in rural areas were participating in the labour force (the corresponding figure at the all India level was 33.3%).

However, micro studies have revealed that the entrance of women in the agricultural labour market has a limited impact on their empowerment within family relations and on their material well-being, and is instead characterised by high levels of exploitation (da Costa and Venkateswarlu 1999; Chakravorty 2004; Garikipati 2008). When women enter the labour market in fact they do so to replace men who are moving from wage labour to better jobs. This dynamic on one side widens the gap between men's and women's income, on the other it guarantees to landlords and capitalist farmers that the pool of cheap surplus labour is continuously replenished. Further, the substitution of men with women occurs also within bondage arrangements: wives substitute husbands in the contract and the burden of the repayment of the debt is passed on to them. Da Costa and Venkateswarlu (1999) found that in 1995 a higher percentage of female than male labourers was tied (68% of female versus 56% of male), while in 1970 the opposite was true (83.8% of male versus 77.5% of female).<sup>133</sup> The wage rate paid to women was found to be structurally lower than that paid to men (Garikipati 2008), in a context where the growth rate of real wages has declined for both men and women (Vakulabharanam 2005; CESS 2008).

The downgrading of agricultural wage labour to unprofitable occupation for the "weaker" groups of society is also confirmed by the co-opting of children into the process. Venkateswarlu (2003), for instance, reports that 450,000 children in the age group of 6 to 14 years are employed in cottonseed fields in India, of which 247,800 in AP particularly in the Telangana and Rayalaseema regions. We have already mentioned in chapter 5 that AP has one of the highest rates of child labour in the country, and we also noted there how this fact contrasts with the official low rates of income poverty. In the context of this discussion it provides further evidence of the distress experienced by rural households.

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133 The results are based on a survey carried out in two villages and 12 surrounding hamlets in Chittoor District in the Rayalaseema region of AP. The survey collected information from 99 women and 97 men belonging to 50 households.

### ***6.2.3. The livelihoods of the Polavaram affected people: a snapshot***

This section provides an overview of the livelihoods of the Polavaram affected people, describing their socio-economic characteristics and the economic activities in which they are engaged. The discussion relies on primary and secondary data. The primary data were generated through the survey which complemented the choice experiment, while the secondary data come from internal government documents to which I had access. For both types of data a few clarifications are needed.

First, it must be remarked that it was not possible to use the two official surveys of the affected population (Reddy's report of 1996 and Vol II of the 2005 EIA), as they were not available in their entirety. The internal government documents documenting the process of payment of compensation and resettlement constitute a richer source of information. Up-to-date and detailed information on the socio-economic characteristics of the affected population are in fact required for the estimation of the right amount and type of compensation for each displaced family. Many of the benefits granted by the AP R&R policy and therefore by the PRRP are contingent upon the beneficiary family being above or below the poverty line, and having as primary source of income farming on their own land, agricultural wage-labour or non-agricultural self-employment. A new survey was therefore implemented by the Joint Collector Office<sup>134</sup> at the district level for generating this information. By the 31<sup>st</sup> of May 2011 all the affected villages had been surveyed, and the results of the survey had been published for all the settlements except for 113 villages in Khammam, which in fact is lagging behind with the implementation of the resettlement operations.

However, the new round of surveys was still running at the time of my fieldwork, between April and August 2009. Besides, the government officials whom I visited were reluctant to share all the details of the resettlement operations.<sup>135</sup> As a consequence, I could only collect scattered pieces of information from these surveys, and only for the East and West Godavari Districts. This section uses this information when possible, and

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134 Districts in India are administrated by the Collectors, which are assisted by Joint Collectors. The AP Resettlement & Rehabilitation Policy establishes that the Joint Collector as the institution responsible for the administration and implementation of resettlement operations relative to each single project at the District level.

135 The government of AP seems to have adopted a more transparent attitude towards resettlement operations, as demonstrated by the creation of a website for the Commissioner of Resettlement and Rehabilitation. The website contains information on the state of advancement of resettlement for the main irrigation projects implemented in the state.

complements them with primary data. The latter were generated through a survey which was conducted during fieldwork in the Polavaram affected area and was described in chapter 4. The survey was originally designed to complement the choice experiment and focused on basic socio-economic characteristics. As land and labour relations were not explored, the data available are quite static and are used in a descriptive way to provide a snapshot of the life of the Polavaram affected population. The fact that the sample used is not random, also excludes the possibility of commenting on the distribution of the characteristics of the sample population.

Despite their limitations, the two sources of data used together still reveal that the displaced population experiences the same processes described in the previous section at the state level and confirm that the large majority of families is affected by poverty, marginality and vulnerability.

#### 6.2.3.1. Social composition of the survey villages

For the purpose of the survey and the choice experiment I visited 19 villages during fieldwork. Of these, four are located in West Godavari, (Ramayapeta, Chegondapalli, Tutigunta, Pydipaka), three in East Godavari (Kondamodalu, Talluru, Kegunduru), and eight in Khammam (Lacchigudem, Rudramkota, Aghra Koderu, Sabari Kothagudem, Vinjaram, Gundala, Bovanagiri, Totapalli). Four more villages (Devaragundi, Mamidigundi, Koruturu, Sirivaca), all located in West Godavari, were visited for the preliminary focus groups, but no survey was implemented there. The over-representation in the sample of villages from the Khammam and West Godavari districts is due to the fact that two thirds of the affected population are concentrated in Khammam District, and therefore it seemed sensible to include more villages from this district; the villages in West Godavari were of particular interest because they will be the first to be submerged and therefore among the first to be resettled.

Tables 6.7-6.9 report the social composition of these villages and show that twelve of them had a majority ST population, three had a majority of SC population and in three the majority of the population belonged to Backward Castes (BCs) or Other Castes (OCs).

**Table 6.7 Social composition of the villages and families below the poverty line  
(West Godavari District, Polavaram Mandal)**

Village	No. of families	Share of BPL* families	No. Of SC families			No. of ST families			No. of families belonging to other castes		
			Of which BPL*	Total	% of total	Of which BPL*	Total	% of total	Of which BPL*	Total	% of total
Devaragundi	114	96.5	0	0	0	110	114	100	0	0	0
Mamidigundi	161	86.3	1	1	0.6	137	159	98.8	1	1	0.6
Sirivaca	82	98.8	0	0	0	78	79	96.3	3	3	3.7
Chegundapalli	291	83.9	0	0	0	243	290	99.7	1	1	0.3
Ramayapeta	489	96.9	20	20	4.1	11	11	2.3	443	458	93.7
Tutigunta	219	98.6	45	46	21	124	126	57.6	47	47	21.5
Pydipaka	483	86.1	166	172	35.6	1	1	0.2	249	310	64.2
Koruturu	160	98.1	0	0	0	137	140	87.5	20	20	12.5
Total (29 affected villages in WG)	4,363	95.0	428	439	97.5	2,456	2,587	94.9	1,255	1,337	93.9

Source: "Statement showing the particulars of ST and SC project affected families including unmarried, major sons for sanction of I.A.Y. of the category of B.P.L. involving Indira Sagar (Polavaram) project in the habitations of Polavaram Mandal, West Godavari District as on 22.06.2009"

\*Below Poverty Line

**Table 6.8 Social Composition of the villages  
(East Godavari District, Devipatnam Mandal)**

Village	No. of families	No. of ST families	% of total	No. of non ST families	% of total	Land-holders		Land-less		Rural artisans		Others	
						ST	Non ST	ST	Non ST	ST	Non ST	ST	Non ST
Kondamodalu	241	114	47.3	127	52.7	5	1	98	112	11	8	0	6
Talluru	100	96	96	4	4.0	18	0	67	4	6	0	5	9
Kegunduru	52	45	86.5	7	13.5	29	0	16	7	0	0	0	0

Source: "R&R package, Indira Sagar (Polavaram) Project. Category wise abstract of project affected families"-

From the villages visited, a sample of 167 families was selected. Of these, the majority belonged to STs (56%) and SCs (25%), and the rest (19%) to OCs. The STs found in the area and in the sample are the Koyas and the Konda Reddys, while the main SCs are the Malas and the Madigas.

**Table 6.9 Social Composition of the villages (Khammam District)**

Village	No. of families	No. of people	ST			SC			Other castes		
			No. of families	No. of people	% of total	No. of families	No. of people	% of total	No. of families	No. of people	% of total
Vinjaram	290	1,037	0	0	0	178		61.4	78 BC 34 OC		38.7
Bovanagiri (Alligudem)	125	425	121		96.8	0	0	0	4 BC		3.2
Ayavaripeta (Totapalli)	128	618		600	97.1	0	0	0		10 BC 8 OC	2.9
Gundala	97	310	1	2	0.7		127	41.0		128 BC 153 OC	90.7
Aghra Koderu	308		286		92.9	6		2.0	14 BC 2 OC		5.2
Sabhari Kotha Gudem	293	1,097	0		0	287		98.0	6 BC		2.1
Lacchigudem	113		111		98.2	1		0.9	1 OC		0.9
Rudramkota	186		3		1.6	100		53.8	50 BC 33 OC		44.6

Source: fieldwork household survey, village questionnaire.

The majority of the respondents were men (73%); literacy rate for the sample as a whole was 48%, lower than the adult literacy rate at the AP level (CESS 2008, on the grounds of Census 2001 data). The data disaggregated by gender indicate that 51% of the women interviewed were literate, while only 43% of the men were. This data contrasts with the reality of facts suggested by estimations at the state and district level for AP, which indicate that literacy is higher among men than women (according to the Census 2001, respectively 65.7% of adult men and 42.5% of women were literate). This discrepancy is most likely due to a bias in the selection of the participants to the survey. In most cases the family approached was left free to indicate who should answer to our questions; it is likely that when a woman was chosen, it was exactly in reason of the fact that she was literate. The literacy rate among the tribal respondent was 38%, more in line with the Census estimation, according to which in 2001 37.1% of the STs was literate.

#### 6.2.3.2. Poverty level and consumption of durable goods

The greatest majority of the Polavaram affected population is poor: government sources

indicate that 94% of the affected families are below the poverty line (see table 5.1). For the sample villages located in the West Godavari district, estimations of the headcount poverty ratio are available (see table 5.13), and indicate that the greatest majority of the habitants are poor (the maximum is 98.78% for Sirivaca and the minimum is 83.85% for Chegundapalli). These percentages may appear excessive, yet they are compatible with and justified by the socio-economic profile of the affected population, which lives in evident conditions of vulnerability and marginality.<sup>136</sup>

**Table 6.10 Three less frequently and three most frequently owned consumption goods**

<b>3 less frequently owned goods</b>			<b>3 most frequently owned goods</b>		
	No. of families owning at least 1	Mode*		No. of families owning at least 1	Mode*
<b>Land phone</b>	5	1	<b>Bed</b>	164	2
<b>Fridge</b>	10	1	<b>Chair</b>	141	2
<b>Sewing Machine</b>	16	1	<b>Sleeping mat</b>	118	1

\*The most frequent value of the number of items owned for each good, excluding the 0 values .

A direct estimate of the level of income or consumption poverty of the Polavaram affected population on the basis of primary data was not attempted.<sup>137</sup> However, the survey collected information on the ownership at the family level of basic durable consumer goods. This information provides an indication of the pattern of consumption of the survey families. Table 6.10 reports the three most frequently and the three less frequently owned items. While the greatest majority of the families owned at least one bed, one chair and a sleeping mat, only a small minority could afford more expensive goods such a fridge, a sewing machine or a land phone. However, 104 families did own a TV and 66 a mobile phone, 77 had a bike and 26 a motorbike. These data become more revelatory if intersected with those on the families who had already received some cash compensation (see table

<sup>136</sup> The documents that I could examine do not describe the methodology adopted to estimate the rate of poverty, therefore it is difficult to comment on their reliability. However, given that the government has to provide a higher compensation to families below the poverty line, it is unlikely that these estimates have been exaggerated on purpose.

<sup>137</sup> The reasons for this choice are discussed in chapter 4

6.11). Indeed, the greatest majority of the total goods owned by the sample as a whole was in the hands of the families who had already received compensation. This was most strikingly the case of land phones (100%), motor-bikes (96%), mobile phones (83%), fridges (80%) and bicycles (76%). These data are consistent with what argued in chapter 7 concerning the fact that cash compensation tends to be used for the purchase of consumption goods rather than for productive investments by families with binding cash constraints; they also suggest that in the sample ownership of the most valuable consumption goods was possible only for those families who had already received some cash compensation, while those who had not benefited of this flow of money could not afford them.

**Table 6.11 Ratio of items owned by families having received cash compensation to items owned by the sample as a whole**

	a) Tot. number of items owned by the sample as a whole	b) Tot. number of items owned by the families having already received cash compensation	Ratio of b to a (percentage)
stools	196	143	73
sleeping mats	151	95	63
watch	91	64	70
bicycle	86	65	76
chairs	335	235	70
mobile phone	75	62	83
land phone	5	5	100
fridge	10	8	80
beds	445	294	66
tv	104	69	66
radio	20	10	50
sewing machine	16	12	75
mattress	54	38	70
Motor-bike	26	25	96
fan	143	99	69

### 6.2.3.3. Main sources of livelihood

The relations of production and reproduction of the Polavaram affected people are deeply affected by the relationship with the surrounding environment. The typical livelihood is made of a combination of direct cultivation on a marginal plot of land, agricultural wage labour and collection of forest produce. The engagement with the market for the sale of the products farmed or collected is usually mediated by middlemen, who also provide credit.

#### **Land ownership and landlessness**

The majority of the Polavaram affected population is employed in agriculture, either as small or marginal farmer or as landless agricultural labourer.

In the 29 displaced villages located in West Godavari, the total extent of land owned is 4488 acres and 48% of it is operated by small and marginal farmers. There is a high rate of landlessness, with 44% of the affected families not owning land. Irrigation is practised only on 591 acres of the privately operated land, while 3719 acres are unirrigated and 75 acres are fallow. The most common means of irrigation is lift from river (69.5%), followed by well (16.6%), canal (10.2%) and tank (3.7%). Rice (paddy), pulses and tobacco are the main crops cultivated.<sup>138</sup>

Landlessness is even higher in the 43 affected villages located in the East Godavari district: government sources<sup>139</sup> indicate that 66% of the affected families are landless poor, and these are almost equally distributed between ST and non-ST. Indeed, around half of the total affected population in the district is tribal (51%) and half non-tribal (49%). Only 28% of the affected families own land, and of these the majority (61%) are tribal. From the same source, data are also available on landlessness at the village level. In the three villages of the district visited for the survey (i.e. Kondamadalu, Talluru and Kegunduru), landlessness was respectively 87%, 71% and 44% (see table 6.8).

In the 19 villages included in my sample, the main economic activity was agriculture, often complemented by the collection of forest produce and in some cases by non-

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<sup>138</sup> The source of the data relative to the 29 affected villages in West Godavari is the document "Brief Note on Indira Sagar Polavaram. Jangareddigudem division".

<sup>139</sup> The source of the data for the 43 affected villages in East Godavari is the document: "R&R package, Indira Sagar (Polavaram) Project. Category wise abstract of project affected families".

agricultural activities. In fact, the majority of the respondents, independently of the social group, claimed to be engaged in agriculture, either as direct producers or as wage labourers.

Of the 167 families in the sample, 90 owned land. Of these, 74% (i.e. 67 families) were either small or marginal farmers. Of the 22 semi-medium and medium farmers, the great majority, 19, were tribal, one was SC and two belonged to other castes. The only big farmer of the sample was also tribal, and claimed to own 25 acres. The bias in the distribution of land in favour of ST is not surprising, considering that the villages are located in the Fifth Schedule Area, where only STs are supposed to own land. Rather, the fact that in the Fifth Schedule Area a significant proportion of landholdings (27%) belonged to non tribals is indicative of the state of agrarian relations (and of the historical processes described in section 5.3.2).

Landlessness was quite widespread in the sample, with 46% of the families not owning land.<sup>140</sup> In particular, 40% of the tribals and 61% of the SCs were landless. Tenancy did not emerge as a particularly widespread phenomenon within the sample: only six respondents (belonging to five different villages) claimed to be renting land and only one to be leasing out land. However, these figures might not reflect the true picture, as the questionnaire was not designed to detect tenancy and did not explicitly ask for it. More significant is the proportion of families cultivating assigned land.<sup>141</sup> A total of 33 families in fact claimed to be cultivating assigned land, of which 24 were tribal, five were SC and four either OC or BC. Of these 33 families, ten were landless, while the other 23 owned some other land. However, all of them claimed that they were not in possession of documentation proving the ownership of the assigned land. There is implication here in that they will not receive any compensation for the loss of this land. Interestingly, three additional families reported that they had been assigned land but that they were not cultivating it, despite all of them being landless. When asked why, they claimed that farming on that land was not sufficiently profitable.

Given that the majority of cultivators in the sample were small or marginal farmers, it is not surprising to find that irrigation other than rainfall was practised only by a small

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140 Yet lower than the share of landlessness at the State level, which according to the NSSO data was 52.3% in 1999-2000.

141 Assigned land is the land redistributed by the government to poor ST and SC families as part of the various land reform initiatives implemented throughout the last decades. The land redistributed was usually private surplus land (land above a legal ceiling established by the government) or excess or waste government land.

minority. Of 101 families cultivating land (either their own or assigned land), only 27 were adopting artificial irrigation, and in all cases, always in conjunction with rainfall irrigation. The most common means was lift irrigation, adopted by 14 farmers, of which ten were concentrated in three villages: Tutigunta (6), Vinjaram (2) and Pydipaka (2). Of the six farmers relying on irrigation from a water tank, five were found in the village of Lacchigudem. The remaining seven farmers obtained water from a tube/bore well or from the river (the latter was, for instance, the case for the only big farmer in the sample). These data suggest that artificial irrigation is concentrated in the few villages with available irrigation infrastructure.

As concerns the main crops produced, these were pulses (black, red and green grams, dal), rice (paddy), chillies, and to a minor extent, oilseeds, cashew nuts, corn, wheat, cotton, tobacco. All the crops apart from cotton and tobacco were cultivated for both sale and self-consumption.

### **Engagement with the labour market**

As concerns the incidence of agricultural wage labour,<sup>142</sup> the survey found that it constituted either the main or an important auxiliary source of income for the majority of the households. Of the 90 families owning land in the sample, when asked about their main economic activities and sources of income, 39 also mentioned agricultural wage labour. This was also the case with the families claiming to have an alternative source of income to agriculture. Overall, 61% of the respondents reported wage labour as one of their main sources of income, although most of it was concentrated in three months per year. The average salary for agricultural wage labour in the area was reported to be in the region of Rs 50 per day for women and Rs 70 per men.

In 25 cases (13.6% of the sample), an activity other than agriculture was mentioned as one of the main sources of income. For three of them this source consisted of a 'petty shop' complemented by either agriculture or gifts from preaching;<sup>143</sup> for 13 it was a regular wage (mainly from employment in the public sector) and the remaining 4 were engaged in some other self-employment activity.

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142 Called *coolis* in the area.

143 i.e. the head of the family was a pastor.

**Table 6.12 Details of income sources outside agriculture**

	OC	BC	SC	ST	Total
Petty Shop	1		1	1	3
Regular wage (e.g. teacher, anganwadi teacher, policeman, journalist, social worker, nurse)	1	1	4	8	14
Self-employment (e.g. rickshaw driving, a dairy business, fish sale business, tailor and carpenter)	1	1	4	1	4
Village dhobi <sup>144</sup>		1			1
Total	3	3	9	10	25

### Forest as a source of livelihood

Of the 167 families interviewed, 132 (79%) declared that they regularly collected forest produce for both self-consumption and trade. This activity allows families to diversify the consumption basket and it also provides a small but certain flow of income. While the former is particularly important during the lean season, when no agricultural wage labour is available and many families exhaust their cash supplies, having access to free staple food can mean the only chance of survival in years of weak monsoon and bad harvest. The products most commonly collected are honey, tamarind, gum, soap-nuts, bamboo, *beedi* leaves and timber. They are either sold in local markets or consumed. *Beedi* leaves, which are used to manufacture cigarettes, are the most common product collected for sale, and they generate around Rs 1000 per year, for no more than 5 to 10 days of work.<sup>145</sup> The most important product for everyday life collected from the forest is timber, which is needed in significant amounts for the construction of houses and tools and even more for fuel. Firewood was in fact the primary source of energy for all the families interviewed (only two families also mentioned gas as an additional source). Firewood is also sold in the market, at Rs 5 for a piece of bamboo and Rs 25 for a piece of wood. The aforementioned village survey conducted by the office of the Joint Collector also estimated the income from collection of minor forest produce. This information is available at the aggregate level for the 29 affected villages located in West Godavari. Surprisingly, the survey reports that only 176 households were engaged in the collection of minor forest produce. The total value of

144 The Dhobi are a Hindu caste specialising in washing clothes.

145 This is the amount reported by the respondents during the survey interviews, while Padmanabha Rao (2006) finds that among the displaced population each household earns Rs. 919 per year from the collection of minor forest produce. During the focus group in Devaragundi, the participants reported that with a half-day of work in the forest they collect products to the value of Rs 120.

the produce collected was estimated to be Rs 186,000,<sup>146</sup> equating to Rs 1,057 per family. Of this amount, Rs 174,000 was income derived from the sale of the produce, and Rs 12,000 was the value of the share which was consumed. These estimates are consistent with the findings of my own survey, with the exception of the unrealistically low number of families engaged and dependent upon the collection of forest produce. Irrespective of the value attributed to the forest produce, acknowledging (or not) that the forest is a key source of livelihood for the majority of the Polavaram affected people has important implications in terms of compensation and resettlement. Many villages own teak, mango, coconut and palm trees, which are considered common property and provide an important complement to people's diet during the lean season

### **Credit-debt relations**

Finally, a few words need to be said on the presence of indebtedness in the sample. The survey did not contain any direct questions concerning indebtedness, nor was it aimed at investigating debt relations. Hence, no systematic evidence was generated on this issue; yet the existence of the problem emerged indirectly through people's answers on the use of their crops (in one case it was transferred to the money lender) and the use of the cash compensation that they had already received from the Government (sometimes used to repay outstanding debts).

### **6.3 Displacement, resettlement and the political dimension of incorporation**

Development-induced displacement and the resettlement of the population thereby forced to migrate can have a substantial influence on political processes of inclusion and exclusion at their different levels of articulation. As discussed in section 3.4, the adversity of the political incorporation manifests itself through the decision-making process concerning the construction of the project and the resettlement operations. The incorporation is adverse in the sense that decisions are imposed on those who bear their costs and the determination of the winners and the losers is driven by the will and power of the dominant proprietary classes. However, even when imposed, the decision-making

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146      Supposedly per year, although this is not specified in the document.

process can instigate dynamics of participation, resistance and co-optation which intersect with each other and lead to unpredictable results.

This section analyses some of these dynamics in reference to the case-study and attempts an assessment of the terms of political incorporation (whether adverse, inclusionary or exclusionary) of the Polavaram affected people triggered by displacement and resettlement. The analysis is preliminary and tentative, as the evidence from which it draws is limited. The latter consists on information collected (sometimes accidentally) through the survey, interviews and informal conversations that I carried out during fieldwork, as well as from newspapers articles.

### ***6.3.1 Decision-making about the dam as an exclusionary process***

At a first level, it can be argued that the process of political incorporation triggered by displacement and resettlement in Polavaram is adverse because the decision of building the dam has been imposed on the people who are going to bear its costs in terms of land expropriation. As mentioned in section 5.3.2, the government has been accused to have violated the Panchayat (Extension to Scheduled Area) Act of 1996 (PESA Act) by not lawfully consulting the Gram Sabhas concerning the land acquisition of the project, whose approval is required for expropriation of land for the purpose of development projects in the Scheduled Area. In the case of Polavaram, not only has the approval of the Gram Sabhas only been sought ex-post as a confirmation of a decision already taken, but in fact the affected people argue that this approval has never really been granted. They claim, in fact, that the mere participation of the representatives of the Gram Sabhas in a meeting with the Collector was held as a sign of consent and the minutes of that meeting as the official document stating it.

Indeed, different sources suggest that the displaced-to-be population was informed of the decision concerning the construction of the dam after that this had already been taken and contextually to the notification of land expropriation. The notification was formally given by the government officers of the Revenue Department, namely the Revenue Divisional Officer (RDO) and the Mandal Revenue Officer (MRO), when not directly by the team responsible for surveying land holdings and buildings for the purpose of valuing the properties to be expropriated (according to the AP R&R policy, the Revenue Department is

responsible for both land expropriation and house evaluation).

This picture is confirmed by the data that I collected through the survey with the affected villages. To all the participants, the survey asked whether they were aware of the construction of the dam and of the fact that this would have led to their displacement. It also asked who had informed them about these facts. All the respondents declared that they were aware of the project and its consequences; the greatest majority confirmed that they had gotten the news from government officers (the MRO and RDO). Overall, only the village of Gundala resulted to have been neglected by the Revenue Department. Later I was explained that the submersion of this village was still uncertain, as it lies in the proximity of an important Hindu temple close to Badrachalam. In order to avoid the submersion of the temple, the government had promised to build an embankment which would also spare the village of Gundala. While the villagers did not seem to trust the government's promise, survey operations had still not been planned for that village.

That these visits from government officials could not truly count as a consultation process, also stands the fact that when I asked the participants to the focus groups whether they knew why the dam was being built, I consistently obtained a negative answer. More significantly, I was often told that “nobody came to tell us”, as a confirmation of the fact that the transfer of information had only concerned land expropriation and displacement.

It is beyond the scope of this thesis to engage in a political economy of dam construction, but even without an articulated discussion on the winners and losers from the Polavaram project, it is evident that the decision to construct the dam was the outcome of an undemocratic process. In this process, no space was given to the representation of the interests of the affected population, which in fact was made part of it only after a decision had been taken. So, if the analysis of the political dimension of the process only looks at the decision-making process concerning the dam construction, it is easy to conclude that the outcome has been adverse if not exclusionary for the affected people.

However, if the analysis is extended to the resettlement process, the terms in which political incorporation took place through it become more articulated and more difficult to locate in the continuum of inclusion-exclusion. In fact, as described in the next paragraphs, in Polavaram resistance to the project has been replaced by resettlement as the main space of contestation. This shift has been characterised by the fading away of radical forms of

resistance to the project and the spread of a feeling of resignation among the affected population. Moreover, the space of contestation so created has two opposing aspects. On the one side, it presents episodes of negotiations between the affected people and the government, with the former wielding a real bargaining power. On the other, it is characterised by paternalistic and top-down attempts by the government to involve the affected people in the resettlement operations, in a way which may be thwarting endogenous forms of participation and articulation of the collective interests.

### ***6.3.2 Resettlement as a space of contestation***

As discussed in section 5.4.2, the design of the AP R&R policy was entirely driven by the government, with very little involvement of the civil society. This lack of involvement was particularly lamented by SAKTI and SAMATA, two NGOs based in Hyderabad and active at the state level on issues concerning tribal welfare and forest rights; their exclusion from the process of setting up the resettlement policy was therefore particularly indicative of the unwillingness of the Government to involve other stakeholders in the process. During an informal meeting that I had with Mr Sivaramakrishna, the director of SAKTI, he gave me his account of the process of definition of the AP R&R policy. In his opinion, the government did not pursue any formal consultation with NGOs in the elaboration of the R&R guidelines, but it did seek and follow his advice in extending the definition of Project Affected People. Indeed, as described in chapter 5, the policy did go through a number of amendments after 2005 which extended the benefits to additional categories of beneficiaries or increased the monetary compensation paid. The primary evidence that I collected on the field does not allow to confirm or qualify the extent of Mr Sivaramakrishna's influence on the government's decisions, but it does suggest that at least another factor is responsible for the amendments brought by the government to the policy. This factor is the pressure that some of the Polavaram affected villages managed to exert on the government in adjusting some aspects of the compensation and resettlement package. This pressure and the role it played need to be understood in relation to the contemporaneous shift observed in the affected population from openly resisting the project to accepting it with resignation and engaging in negotiation with the government. This shift is better described in the following paragraphs.

In 2005, social unrest was spreading almost everywhere in the Polavaram affected area. Many villages had come to the point of prohibiting the entrance of the government officials and of the survey team, primarily to prevent the completion of the census operations needed for the estimation of land and house compensation. Bondla and Rao (2010) documented six forms of resistance implemented against the project between 2005 and 2007: rallies and *dharnas*; silent protests and submission of memorandums to government officials; organisation of forums and seminars on the issue; mass demonstrations involving eminent social activists; long marches to build solidarity and sensitise communities; relay hunger strikes. For instance, in early 2005 around 3000 tribals met for a rally at Chintoor (in Khammam district) with the intent of submitting the memorandum to the MRO. As the latter refused to meet them and receive the memorandum, the rally turned violent and eleven demonstrators were arrested. The latest event that the authors document is a public meeting organised by a tribal organisation (the Kula Peddala Ikya Vedika) in November 2007. The meeting was attended by traditional political leaders from 60 tribal villages, who resolved to prompt their communities to oppose the project.

However, when I visited the affected villages in 2009, I found very little evidence of this resolution to oppose the project and get organised about it. In fact, the predominant feeling seemed to be one of resignation. Although occasionally I met elder tribal men and women vehemently declaring that they would have rather sought shelter on the top of the hills rather than abandon the forest, the most recurring sentence that I heard from the people I questioned was “we don't want to go but we've to go, we have no choice”. This attitude emerged quite clearly in the focus groups that I held with eight affected villages. The major concern of people seemed to be that the government would in fact pay the compensation and grant the benefits promised in the R&R package. For instance, in the village of Kegunduru I was told “we're not happy to leave the forest, but we can't do otherwise, the government has decided. We don't know how to fight. So we are happy as long as the government keeps its promises”. Similarly, people in Kondamodaluru also told us that they “don't know how to protest”.

I had included in the survey a question asking the respondent whether he or she had taken part to any form of protest against the dam and the R&R package. Only 41 persons (i.e. less than a third of the total) gave an affirmative answers. On the ground of these answers, I found that different villages had differently engaged into initiatives to protest

against the project and/or the resettlement package, with various outcomes.

In a first group of villages, people had taken part to various initiatives in 2005 to protest against the construction of the dam, including during the visit of the Chief Minister to V. R. Puram (episode also reported by Bondla and Rao 2010). However, they did not mention any episode occurred between then and the time of my survey in 2009. These villages were Kondamodalu, Kegunduru and Aghra Koderu. Rodramkota had also protested in 2005, taking part to an initiative organised by all the villages of the Mandal, which all together had submitted a memorandum to the collector. Through this initiative they had obtained an increase in the price paid for land compensation from 75,000 RS to Rs 115/130/145,000 per acre (according to the quality of land), a measure then extended to all the other villages.

The villagers of Sabhari Kotha Gudem, Lacchigudem and Bovanagiri recollected instead to have protested in 2007 with the government officials and the survey team visiting them to inform about displacement and the need to survey all land and houses. Initiatives had gone from submission of a memorandum (Sabhari Kotha Gudem) to forbidding the survey people to enter the village (Bovanagiri). Since then however, they had not taken any further action.

Finally, five villages located in West Godavari resulted to be the most actively and most recently engaged in forms of protest. These were Mamidigundi, Ramayapeta, Chegondapalli, Tutigunta and Pydipaka. In these villages, the shift from radical resistance to the project to negotiation to obtain better compensation and resettlement was evident. That they were more actively concerned than other villages of the content of the resettlement package is due to the fact that four of them were among those to be immediately displaced and the fifth (i.e. Tutigunta) belonged to the second phase of relocation (see section 5.4). Their inhabitants felt resettlement as a more real and urgent issue and were more motivated to take action for it. Indeed, in these villages the dialogue with the government had resembled a proper negotiation and the pressure they had exerted had led to substantial changes to the resettlement package (subsequently also adopted in the R&R policy). For instance, from them had come the request to extend the benefits of the R&R package (including housing) to all the adult sons and daughters present in a nuclear family at the time of the survey. This measure had, at least in words, been granted, and included in the policy. The most eloquent in their requests had been the people of Ramayapeta and Pydipaka, two villages primarily composed by families not belonging to

SCs or STs. These non-SC and non-ST families had even obtained to be relocated in a town area in Jangareddygudem Mandal, away from the rest of the community. By large, their power of persuasion came from including among their population members of the Kapu caste, one of the most influential peasant castes of the district. Uma Maheshwari, one of the most active Indian journalists on the issue of the Polavaram dam, reports the example of a Kapu landlord of Pydipaka, who, remising his 125 acres of land to the government in exchange of compensation, had become the richest man of the village and subsequently had moved to Polavaram, leaving the landless working on that land without a job (India Together 2009).

However, not all dissatisfaction had been manifested through negotiation with the government and the submission of memoranda. In different instances these villages had marched to the dam site with the intent to stop the works. The more recent attempts had been carried out by the women of Ramayapeta, whose houses had been damaged by the bomb blasting required by the works. Their efforts however had not been successful, as when I visited them the resettlement colony for Ramayapeta was far from being completed and the bomb blasting was still regularly taking place.

Overall, the primary evidence that I collected, although limited, quite clearly suggests that by mid-2009 the emphasis of the protest had shifted from the dam project to the resettlement package. Not only there was no organic resistance movement, but there seemed to be also little effort by the affected people to get organised into constituencies for the collective representation of their interests. Negotiation of resettlement and compensation was being carried out independently by the different villages and I found no evidence of the existence of autonomous spaces of confrontation and discussion for the affected people.<sup>147</sup>

### ***6.3.3 From resistance to resignation and negotiation: possible explanations***

In order to assess the terms of the political incorporation triggered by the Polavaram project, it seems important to answer the question of how and why the radical forms of resistance prevalent in 2005 evolved into a generalised feeling of resignation and partial

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<sup>147</sup> The fact that I found no evidence of their existence does not necessarily implies that they did not exist at all, but it is indicative that government-driven negotiation was easily observable and autonomous and independent discussion was not.

collaboration. However, this was not one of my research questions when I was in fieldwork and the evidence in my possession only allows me to make some tentative hypothesis. In particular, in the following paragraphs I draw attention to some factors and events which may contribute to explain this (at least apparent) change in strategy.

A first explanation of this evolution in attitude and strategy (at least in reference to the West Godavari district) was offered to me by Mr Law Agarwal, the Joint Collector of West Godavari in the years 2004/05 to 2007/08. I met Mr Agarwal in his office in Hyderabad, where at the time he was working for the Ministry of Education. According to his version of the events, he had played a major role in increasing the trust of the people towards the government and involving them in the resettlement activities. When he took hold of the post between 2004 and 2005, there was little and mainly hostile communication between the government and the affected villages. Agarwal told me that he took care of the situation by regularly visiting the affected villages to explain people the content of the resettlement package and the benefits to which they were entitled in exchange of displacement. Indeed, of the 19 villages which I visited, only in those of the West Godavari district some of my interlocutors remembered to have learned about the project from the Joint Collector and recollected his visits. He had tried to earn people's trust presenting himself as the protector of their interests and blaming NGOs based in Hyderabad and political leaders to “come to see them every three or six months, to tell them not to trust the government and then disappear in their nice AC cars”. However, he had truly managed to get a positive reaction only when he had obtained the collaboration of the Social Service Centre (SSC), a charity linked to the Diocese of Eluru and working with tribals in the Polavaram affected area. Through the SSC, more meetings had been organised in the eight Panchayats covering the 29 affected villages of the district, initially between the collector and five representatives for each village, subsequently involving also the other government officials and the rest of the village. The five representatives had constituted a committee that in later stages had taken charge of supervising the implementation of the R&R package.

This story was also confirmed by Father Moses (whom I met in Eluru), the director of the SSC, and by Israel, one of my research assistants, who had worked as facilitator for the SSC during the 'resettlement-awareness' campaign.

Both Father Moses and Mr Agarwal appeared very confident of the success of their initiatives and positive that the majority of the people was now accepting the project and

primarily concerned with the terms of compensation and resettlement. Mr Agarwal was also very critical of the NGOs encouraging the people to resist the government and to refuse any form of collaboration, as he considered resistance to go against people's own interests. Analogously, Father Moses stressed the role played by the SSC in convincing the people that resistance and opposition were not the winning strategy and that it was in their interest to collaborate with the government to obtain better compensation and resettlement.

The interpretation of the events offered by Agarwal and Father Moses would suggest that resettlement evolved from a space of contestation to one of political inclusion, through the active participation of the affected people to resettlement activities. However, there are a number of other elements in the story which do not fit with this interpretation and suggest instead that these ex-post initiatives implemented to involve the affected people have replaced and possibly thwarted autonomous forms of participation and articulation of the interests, particularly from the weakest sections of the society. These other elements also induce to look for alternative explanations to the shift in attitude and strategy observed among the affected people.

The first dissonant element is that at the time of my fieldwork, not even the habitants of Devaragundi had moved to their “model” resettlement colony, despite the warning of imminent eviction from the government. According to their own account, which I gathered during the focus group I held in that village, they had chosen early on to collaborate with the government, after a number of visits from the collector and the other government officials. For this reason, their resettlement colony had been promoted as the 'model' of what was to come for the others. Mr Agarwal had personally invested in this village, often visiting the people and trying to establish an on-going dialogue with them. Yet, none of the villagers showed up at the first-stone laying ceremony of Devaragundi's “model” colony, at which Agarwal was the honoured guest. As the same Agarwal told me, he had personally complained with the families for letting him down and ten of them had apologised and asked to repeat the celebration together, which eventually they had performed. Yet, not even these ten families were enthusiastic enough about the resettlement colony to move to it before being forced to do so. As mentioned in chapter 5, at the time of my fieldwork only three families were living there. All the others were refusing to leave until the Government had paid the promised compensation for cattle sheds, burial places and the village trees.

So, even the collaborative village of Devaragundi, where theoretically the attempt to

establish a dialogue had been the most successful, was using the threat of not moving as a leverage to increase its bargaining power. This second element also seems to contrast with the picture of a balanced and free negotiation process between the government and the affected villages. Indeed, the fact that the real bargaining power of the villages depends primarily on the threat of not moving implies that the process of negotiation is unstructured and un-coordinated and therefore it is liable to result in uneven outcomes across different villages and instances of displacement. As a confirmation of this, stands the fact that the villages did not seem to be able to negotiate on a more substantial point, that is the location of the resettlement colonies and of the land given as compensation. Most of the villages which had been shown the land allocated to them (e.g. Sirivaca and Tutigunta) were unsatisfied with it and had asked the government a different one. In all cases, they were still waiting for the government to consider their request. When I had enquired him on this problem, the RDO of West Godavari had given me a contradictory answer. First he had said that the villages which did not agree on the location of resettlement, “had to be convinced”. On a second though, he had corrected himself, adding that indeed the villages have the right to choose the relocation site and if they didn't like it, another one had to be found.

As a third dissonant point, it must be noted that while some of the villages, particularly the aforementioned villages in the West Godavari district, did show a certain level of awareness and capacity of negotiation, many others that I visited appeared to have a very limited knowledge and control of what was going to happen to them. None of the villages in Khammam district knew where they were going to be relocated, and of the 19 villages I visited, only seven had received some forms of compensation (see also section 5.5 on this). When I asked the participants to the survey whether they knew “about the R&R package”, the majority replied that they didn't know or knew only a little. Significantly, this sort of answer was obtained also in the West Godavari villages which had been involved in the SSC's 'resettlement-awareness' campaign, which supposedly should have given more confidence to the people about what they were entitled to.

Overall, if considered together these different elements depict the initiatives taken by Agarwal and Father Moses as part of a top-down and paternalistic attempt to consultation and possibly co-optation undertaken to make up for the initial total lack of consultation by the Government. While part of the success of these initiatives may depend on the specific

personality and the commitment of these two individuals, another factor is likely to have played a determinant role. This factor is the caste divisions among the affected population, which includes families from STs, SCs and other castes. These groups, as explained in chapter 5, have different entitlements to land compensation and as a consequence have different stakes from resettlement. As the example of the Kapu landlord mentioned above demonstrates, rich peasant castes (non-SC and non-ST) had enough to gain from a good resettlement package to be willing to cooperate. It is sensible to hypothesise that the richest and most powerful castes have welcomed the spaces of negotiation opened in the way just described, imposing this strategy on the other castes. This hypothesis was shared by both Uma Maheshwari and Mr Satya Srinivas (the coordinator of SAMATA office in Hyderabad), who indicated in the social divisions among the affected population one of the reasons of the cooperative attitude by some and the lack of an organised movement.

Indeed, the lack of an organised resistance movement is another factor which can explain the fading away of radical forms of resistance. In their account of the different initiatives recorded between 2005 and 2007 in resistance to the Polavaram project, Bondla and Rao (*ibidem*) point out that these were primarily implemented by 'People's Organisations', i.e. groups of villagers coordinating common actions against a specific issue. They argue that these organisations emerged with specific reference to the Polavaram project as a reaction to the failure of statutory bodies to represent the tribals' interests and to the little interest demonstrated by political parties in the problem. These organisations were characterised by multiple local leaderships rather than a centralised leadership, and this contributed to keep the resistance movement fragmented.

That divisions exist and run deep in the civil society of AP, particularly among the sectors with a stake in the project, was also suggested by Uma Maheshwari and Satya Srinivas in the conversations that I had with them. Both were of the opinion that there was no social movement around the project, only separated actors protesting or lobbying on their own. According to them, NGOs had given up the fight in favour of collaboration with the government and lobbying for a better compensation, while political parties (including the CPI(M)) were playing a marginal role in the dispute. Of course the evidence reported here is insufficient to provide a complete assessment of the state of the civil society in AP, even if limited to the actors involved in the Polavaram project. However, I had an indirect and involuntary confirmation of these divisions in the very same fact that each person I

spoke to was very critical towards all the others. As mentioned, Uma was critical of NGOs in general, Mr Savaramakrishna of SAKTI was critical of the work done by Law Agarwal, who instead did not appreciate the initiatives of SAMATA. The NGO I worked with on the field (i.e. SEEDS) was sympathetic with the work of Father Moses, but had no contacts with the other NGOs.

As a final element, it must be noted that the lack of a strong resistance movement and the feeling of resignation seemed in contradiction with the strong presence in the area of Naxalite groups, which have officially declared their opposition to the project and regularly visit some of the affected villages. Given the increasing influence of Naxalites on local politics in AP, especially in tribal areas, one would expect their influence to instigate strongest and more manifest expressions of dissent.

To conclude, a preliminary assessment of the terms in which the political incorporation of the Polavaram affected population has taken place so far, in reference to displacement and resettlement, would suggest that these have been adverse. First, the decision-making process concerning the construction of the dam has been undemocratic and exclusionary. Second, the attempts made ex-post by the government to involve the affected people in the resettlement operations have been top-down and paternalistic, and seem to have led to the co-optation of the social groups (i.e. the non-SC and non-ST castes) more interested in getting a higher compensation than avoiding displacement. While these attempts indeed have opened some spaces of negotiation between the affected people and the government, they also seem to have replaced and possibly thwarted autonomous forms of representation of the collective interests. This is reflected in a widespread feeling of resignation and in the incapacity of creating an organised movement around the project, with the involvement of other actors from the civil society. Significantly, the interests of the affected people are not unequivocally represented by any political party.

As the project and the resettlement operations are far from completion, the terms of political incorporation of the Polavaram affected people are liable to evolve in the future in unpredictable directions. As things stand now, resettlement as a space of contestation seems to be an agent of adverse incorporation, but it cannot be excluded that in the future it will prompt political inclusion.

#### **6.4. Spatial and socio-cultural dimension of the incorporation of the Polavaram affected people**

Displacement and resettlement are phenomena in which the spatial dimension necessarily dominates. The Polavaram dam is certainly no exception. Indeed, the spatial dimension of displacement and resettlement for the Polavaram affected people is accentuated by the fact that these processes also imply the uprooting from a peculiar type of environment and the relocation in a rather different one. The specific environment includes the banks of the river Godavari (flowing from Maharashtra to the Bay of Bengal) from the point where it is joined by the river Sabari, in proximity of Badrachalam, to Polavaram town, where the barrage will be located. This tract of the river crosses the Eastern Ghats hill ranges, and is for large part covered by forest. The local hills are called Papikondalu and host a Wildlife Sanctuary.

The spatial dimension of the process is deeply entrenched with its socio-cultural dimension. In fact, the specific environment in which people live not only provides them with sources of livelihoods, but it also defines their identity and their social and cultural systems.

This section uses the notion of adverse incorporation to provide an interpretation of the spatial and socio-cultural consequences of resettlement in Polavaram. It is based primarily on the information that I collected through the visits to three resettlement colonies in West Godavari, which at the time of my fieldwork were still under construction (respectively for the villages of Devaragundi, Totagundi and Chegundapalli and Mamidigundi together).

To start with, the Polavaram affected people will be spatially incorporated because they will be taken away from a remote and isolated area and relocated closer to the core of economic activities and to the mainstream society.

Many of the affected villages are located in the deep forest and are accessible only by mud road, sometimes only by footpath or by river (this is for instance of many of the villages in map 5.4). These villages become very difficult to reach during the monsoon season, making rescue operations particularly difficult in case of floods. The latter occur with regularity, and often force communities to seek refuge on the top of the hills. Isolation also makes difficult to go in search of a job, even to achieve areas where agricultural wage labour is available. The terrain flattens upstream the river (see map 5.2) and the villages located here

are generally more easily accessible. However, the exposition to the flood does not necessarily diminish, particularly for those villages located in proximity of the confluence of the Sabari in the Godavari river (as is for instance the case of Sabari Kotha Gudem and Aghra Koderu).

Of the sample of 19 villages which I visited, Kegunduru was accessible only by footpath or by boat. Six of the 15 villages in the sample were more than 10 km from the nearest town and in all but two (Ramayapeta and Kondamodalu) villagers had to travel at least 5 km to the nearest market. All the villages but Kondamodalu, Sirivaca, Talluru and Kegunduru had a bus stop located within 3 km.

Isolation and remoteness for most of these villages also imply lack of basic facilities and difficult access to health and education services. Many villages rely on the river as the only source of drinking water: in the sample of 19 villages, this was true of Kondamodalu, Rudramkota and Sirivaca, while for the others the most common sources were tube wells or hand pumps. Electricity was, however, available in all the villages.<sup>148</sup> All the villages had an anganwadi centre,<sup>149</sup> and a primary school either in the village or within 2 km. Primary health centres were available in Kondamodalu and Rudramkota, while Tutigunta, Pydipaka, Totapalli, Devaragundi and Chegondapalli had a sub-centre; the other villages were regularly visited by a nurse. Only Chegondapalli and Tutigunta have a secondary school, and the inhabitants of Sirivaca and Kondamodalu have to travel 32 km to find one.

The resettlement colonies for the Polavaram affected people are planned to be located in rural and peri-urban areas, away from the river and the forest. To the extent that it will free people of the negative consequences of spatial remoteness, incorporation through resettlement will have positive effects on their lives. First, the resettlement colonies will be closer to towns and the Mandal headquarters, where services are more easily accessible. Besides, vicinity to economic activities also means a better positioning to catch job opportunities. Moreover, according to the AP R&R policy, resettlement colonies must be provided with all basic amenities and infrastructure facilities, including drinking water, internal roads, drainage, primary school building, playground and access road. These

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<sup>148</sup> AP is one of the Indian States with the highest rate of villages with electric power (94% in 2005, CESS 2008).

<sup>149</sup> Anganwadi centres are part of the Integrated Child Development Services and were established to provide children with health, nutrition and pre-school education services from birth to six years and nutritional and health services to pregnant and breastfeeding mothers.

advantages (i.e. increased accessibility to health and education services and 'freedom' from floods) were also acknowledged by the same affected people during some of the focus groups that I held with them (especially in Kegunduru and Talluru, indeed two of the most isolated villages which I visited).

Yet, even the spatial incorporation which comes with resettlement presents some elements of adversity.

First, as discussed in previous section, relocation in a different environment will imply the loss of a key source of livelihood. However, the fact that the resettlement colonies are less isolated does not guarantee by itself the replacement of the lost source of livelihood. We have seen in section 6.2.2. that AP has a poor record of employment creation, and that agricultural wage labour has become the main source of livelihood in rural areas. As things stand, no significant elements exist to assume that the resettlement areas for the Polavaram people constitute an exception. Of the three resettlement colonies which I visited, only the colony for Devaragundi seemed to be located in an area relatively economically active, almost at the outskirts of Polavaram town. The latter is 13 Km from the resettlement colony for Chegundapalli and Mamidigundi, which instead seemed, at least in appearance, to be located in a rather desolated and poorly connected area. In other words, for some of the relocated villages, the only job market which indeed will be more accessible after relocation might be merely that for agricultural wage labour. To this it must be added that the cultivable land given as compensation is often considerably far from the colony, in the case of Devaragundi for instance, between 5 and 8 Km.

A second element of adversity is given by the quality of the resettlement colonies and the environmental characteristics of the relocation area. The latter is characterised by very hot and dry summers, when the temperature is often above 40° C. Many people were worried of not being able to get used to the new climate and of the scarcity of water at the relocation site. Indeed, in the original villages the vicinity of the forest and the river at least guarantees shadow, breeze and plenty of water. The three families who had already moved to Devaragundi's resettlement colony reported that they were already having problems with the supply of water and were asking the government to provide the colony with a water tank.

The architecture and the dimensions of the colony's houses were also an element of

concern to the people. The lot given to each family was considered too small, having to contain both the house, the courtyard and the cattle shed. The fact that the house was made of concrete was not necessarily deemed an advantage, given that the traditional huts offer a better protection from the heat. The model of house that is provided by the government is composed of two rooms, and improvements have to be paid by the same family.

This brief account of the spatial dimension of the displacement suggests that relocation in a resettlement colony will bring disadvantages but also some improvements to people's life. Yet, as will be widely discussed in section 7.2, when inquired on the favourite type of compensation and resettlement, the greatest majority of the Polavaram affected people indicated that they would have preferred to be relocated close to the forest and to the river, and not in plain area. Indeed, it was evident that they considered the loss of their original environment the main disadvantage of displacement.

This attitude is also revelatory of the terms of the socio-cultural incorporation coming with resettlement. The value that the Polavaram affected people attributed to their specific environment, and in particular to the forest, can be better understood through the categories of constitutive incommensurable and inalienable possession introduced respectively in section 2.3 and 3.4. Both categories stress the fact that certain entities, including land, house and one's own landscape have symbolic meanings and contribute to define individual and collective identities. The deprivation of an inalienable possession leads to the mutilation of these identities; analogously, the attempt to replace a 'constitutive incommensurable' with something of 'equal value' threatens the social and cultural arrangements built around it.

The evidence collected by this research does suggest that the forest is an inalienable possession and a constitutive commensurable to the Polavaram affected people, who are in their majority tribal and forest dwellers. Overall, resettlement will imply the integration into a new environment and the loss of the old one. Incorporation here comes from the greatest vicinity to the mainstream society, which can have positive consequence thanks to an easier access to means of information and to education. It could also lead to the erosion of traditional social arrangements and with it to the disappearance of the most exploitative and exclusionary social relations. However, incorporation will also imply the loss of the part of

the affected people's culture and tradition which is based on the relationship to the forest. To the people I met, this was clearly a painful loss, and they were worried of the consequences it could have in disintegrating the ties which kept the community together.

## **6.5. Conclusion**

The purpose of this chapter was to analyse and interpret the resettlement of the people affected of the Polavaram dam through a theoretical framework based on the notion of adverse incorporation. The investigation of the political, spatial and socio-cultural dimensions emphasised the multiplicity of processes that resettlement will trigger and the quantity of factors which will affect its dynamic consequences. The preliminary finding of this investigation is that the terms of incorporation of the Polavaram affected people at the political, spatial and socio-cultural level will be adverse, despite some positive consequences of the process.

The investigation of the economic dimension of the incorporation engaged in a quest of the structural factors which are liable to turn resettlement into a process of adverse incorporation. These structural factors were identified in the structures and mechanisms which underpin the production of surplus labour in AP. Through a review of the notion of surplus labour at the Indian level, and an exploration of the processes of transformation of the rural sector in AP, it was found that landlessness, fragmentation of landholdings and casualisation of labour are the three mechanisms driving surplus labour, and that social structures of accumulation regulate the social relations through which these mechanisms take place.

Then, the analysis moved to an examination of the characteristics of the Polavaram affected population. The latter resulted to be poor and to belong to the most disadvantaged sectors (i.e. castes) of the Indian society. The affected people are primarily engaged in subsistence livelihoods which heavily depend on the access to land and to forest products. Landlessness is widespread and the structure of land ownership is affected by centuries of land alienation at the expenses of tribal people. As a consequence, most of the landholdings are small and marginal and non-tribals own land in an area where they are not entitled to. Most of the families rely on agricultural wage labour to diversify their sources of livelihood,

however the salary paid barely allows to achieve the poverty line.

This account of the characteristics and the livelihood strategies of the Polavaram affected population is revealing in two senses, First, it highlights that displacement will disrupt the affected people's livelihoods, which are intimately related to and dependent upon their specific environment. Second, it shows that the affected people are exposed to and indeed embedded into the structures and mechanisms which underpin surplus labour, that is landlessness, fragmentation of landholdings and casualisation of labour on one side, and the pervasiveness of social structures of accumulation in regulating land relations on the other side. Next chapter will show that these structures and mechanisms interact with the shortcomings of the PRRP in turning resettlement into a process of adverse incorporation.

## **Chapter 7**

### ***An assessment of Resettlement in Polavaram***

#### **7.1. Introduction**

The Polavaram dam project, when completed, will constitute one of the major instances of displacement by development in Indian history. In order to avoid a human disaster, it is therefore imperative that resettlement of the Polavaram displaced people is fair and effective in preventing their impoverishment.

This chapter attempts to assess resettlement in Polavaram, showing that the process is likely to lead to the adverse incorporation of the affected population. Given that the dam project is still under construction and that the resettlement operations have just started, it was not possible to adopt a conventional impact assessment methodology. To address this problem, two alternative assessment criteria are adopted. First, the Polavaram Resettlement and Rehabilitation package (PRRP) is compared with the preferences concerning compensation and resettlement expressed by the Polavaram affected population through focus groups and a consultation exercise based on choice experiment methodology (section 7.2). The focus groups and the consultation exercise lead to the identification of three key issues concerning compensation and resettlement from the point of view of the affected population. The second assessment criterion is the ability of the resettlement package to address these issues and overall its capacity to support the reconstruction of the livelihoods disrupted by displacement. Particular attention is given to how forest and land are compensated (sections 7.3).

This analysis in turn leads to the identification of the main shortcomings of resettlement package for the Polavaram affected people. In the conclusion of the chapter it is argued that these shortcomings interact with the structures and mechanisms underpinning surplus labour in Andhra Pradesh (AP henceforth) in making resettlement a process of adverse incorporation.

## 7.2. Consulting people about their resettlement preferences: focus groups and choice experiment

This section explores the possibility of directly questioning the affected people about their favoured forms of compensation and resettlement. It does so by looking at the results of a consultation exercise based on choice experiment methodology (CE hereafter) and focus groups implemented with the Polavaram affected population. The consultation of the affected population about the resettlement preferences is relevant for the investigation carried out in this thesis for three reasons. First, the findings can be adopted to design more effective and fair Resettlement and Rehabilitation (R&R) programmes. Second, it provides a criterion against which to assess the Polavaram resettlement programme. Third, it leads to the identification of three key issues concerning compensation and resettlement from the point of view of the affected people.

Chapter 2 documented the existence of a literature which calls for the estimation of welfare measures of the costs of displacement (such as Willingness to Pay-WTP and Willingness to Accept-WTA) as proxy of the amount of monetary compensation which, if paid, would make displacement *voluntary*. The elicitation of WTP and WTA requires the adoption of stated preferences methods, such as contingent valuation surveys and choice experiments.

It is not, however, with the purpose of estimating WTA displacement that a CE was implemented in Polavaram, but rather, as a consultation tool to explore the preferences of the project-affected families with respect to different types of compensation and resettlement packages, and how these preferences vary when facing different combinations of attributes.<sup>150</sup> This allowed us in the first place, to identify what types of compensation and modalities of relocation can make resettlement acceptable to the displaced people; for instance, it was found that land-for-land compensation is the favoured form of restitution and that relocation with one's own community is a priority. The CE also contributed to uncovering other sensitive issues linked to displacement, resettlement and compensation which, if unaddressed, can lead to the failure of the resettlement programme.

This use of CE as a consultation tool also enabled us to detect some inconsistencies in the respondents' preferences with the assumptions and the predictions of rational choice

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<sup>150</sup> “Attributes” mean here the different characteristics of the compensation packages.

theory, in particular the existence of lexicographic preferences. It was also tested the plausibility of the notion of WTA in reference to the resettlement attribute “relocation without community”.

The CE however was not the only methodology of direct consultation employed. Focus groups were also implemented in eight villages with the purpose of investigating with a more flexible tool how displacement and resettlement were perceived by the resettled population, and whether the 'collective voice' of the village would provide different answers from those of the CE. The findings of the two consultation methods were in fact mutually consistent and revealed that the loss of the forest, the constraints to land to land compensation and the shortcomings of cash compensation are the main issues concerning displacement and resettlement in Polavaram.

The following section describes the main findings of the focus groups, while section 7.2.2 is dedicated to the CE.

### ***7.2.1 Focus Groups in Polavaram***

The main purpose of implementing focus groups in villages affected by the Polavaram dam was to hold a collective conversation with the people about their displacement and resettlement. This allowed us to collect information on the state of advancement of the resettlement and compensation operations, and more generally, of the extent to which the affected villages had been consulted. The findings of the focus groups also complemented (and confirmed) the evidence collected through the CE on people's preferences.

As explained in chapter 4, four focus groups (in Devaragondi, Mamidigundi, Koruturu, Sirivaca) were implemented before the start of the CE and were used to inform its design, in particular to determine the attributes to include in the different resettlement packages offered (see section 6.3.1). Additional focus groups were held in four of the villages visited for the survey and the CE (Chegondapalli, Tutigunta, Talluru and Kegunduru).

Two types of questions were put to the participants: the first type asked them what they wanted and deemed fair as compensation for being displaced; the second type pursued a subjective evaluation of the costs and benefits, asking about the main losses from displacement and the advantages and disadvantages of being relocated elsewhere.

This second type of questions was answered homogeneously in all the eight villages: the life in the forest was considered the main loss, from an emotional and a material point of view. It was clear to the participants that relocation will mean loss of access to the free products which they gather from the forest, in particular, firewood, and how this will imply a higher cost of living. In the village of Tutigunta, for instance, I had the following conversation:

***ME: Which do you think are the advantages of this place and which are the advantages of the village where you will be resettled?***

*PARTICIPANTS: Here there are more advantages, we have no problems with water and there is plenty of firewood. We also lose bamboo. Many things are free for us here. Here we can survive with 10 Rs per day, there we need 100 Rs at least. We also lose fish, vegetables, green leaves, which we also get for free. We also lose the trees, like tamarind and palm tree.*

The specific geographic location of the villages (between the hills and the bank of the river Godavari) is considered an 'advantage' which will be lost, as it guarantees a better weather and land with a better quality soil. This feeling for example was clearly expressed by the people of Koruturu:

***ME: What do you think of the place where you will be resettled?***

*PARTICIPANTS: Here we have black soil and there is sand soil, there are no hills, no river, no forest. Maybe the weather is different and we don't know if we will get used to it.*

Few advantages were attributed to the resettlement site (some villages had been shown or told where they will be resettled) and more generally to relocation in plain area and they mainly concerned the easier access to transport facilities (bus stop) and health and education services. The villagers of Talluru, for instance, thought that pregnant women would benefit from living closer to a hospital, in case of any related problems. Talluru is in fact a particularly isolated village which is located on the riverside of the Godavari and which is regularly inundated by the floods caused by the monsoon. As I had heard many of the people complaining about the flooding during the survey, I was surprised that they did not mention eliminating the flooding as one of the advantages. However, when I directly asked them what they thought about it, they did acknowledge that 'freedom from the flood'

was indeed an advantage.

As concerns the questions on the desired type of compensation, they generated some contradictory results which are well summarised by the voice of the people of Kegunduru:

*PARTICIPANTS: We're not happy to leave the forest, but we can't do otherwise, the government has decided. We don't even know how to fight. So we are happy as long as the government keeps its promises.*

*What the government is giving us is not fair. Whatever the government will give us it will never be enough to compensate what we're leaving behind. We're expecting 3 lakhs from the R&R package, free housing and land for land compensation. But even if we ask for more money, the government will not give it to us. Besides, 3 lakhs are sufficient for us.*

Other villages complained for the low price paid for the land expropriated, too little space given to build a new house and claimed that the government should give a job to each displaced family. Yet, the general feeling was the same resignation expressed by the habitants of Kegunduru: people perceive their displacement as an imposition for which no fair compensation exists. However they feel powerless and do not know how to contrast the process, therefore they declare that they will be satisfied as long as the government keeps its promises about compensation and resettlement.<sup>151</sup>

### ***7.2.2. Consulting people with a Choice Experiment Approach***

The choice experiment was implemented with 167 families belonging to 15 villages which will be submerged following the construction of the Polavaram dam. It was preceded by a survey that sought to collect information on the socio-economic characteristics of the families interviewed, which might affect the preferences concerning compensation and resettlement.

It is useful to recall here that 56% of the respondents belonged to STs, 25% to SCs and the remaining 19% to Other Castes (OCs) or Backward Castes (BCs). In addition, 75% claimed to be literate; the majority of the respondents were men (73.5%) and women

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<sup>151</sup> As explained in chapter 7 and 8, the few action of protests put in action by some villages were directed to the improvement of the resettlement package but not to resistance against the construction of the dam.

constituted only 26.5% of the sample. Further, 46% were landless and 15% when questioned about their main source of income, mentioned an activity additional or alternative to agriculture (i.e. to both farming than agricultural wage labour). The choices made by the respondents through the CE controlled for these characteristics, but different socio-economic characteristics were rarely found to be systematically associated with different preferences. In fact, one of the key findings of the experiment is that preferences were homogeneous across the sample. In the following description of the experiment, attention is drawn only to the characteristics of the respondents which were linked with having preferences that differed from the majority.

The CE consisted in a sequence of exercises, through which the respondent was offered and had to make a choice among- 8 different types of compensation packages.<sup>152</sup> Whilst the real package actually offered by the government of AP to the Polavaram affected people was taken as a benchmark to elaborate the alternative packages, it was never offered during the CE.<sup>153</sup>

In fact the main interest relied in observing the trade-offs in the preferences with respect to a package which offered something similar to the maintenance of the status-quo, especially in terms of access to the forest and the Godavari river. It was expected that people would choose this package, which was the only one to guarantee the perpetuation of the access to the forest (called package *Forest* during the experiment, it's described in section 7.2.2.1) with a higher frequency than any other package and irrespective of what was offered in exchange. The justification for this expectation was the strong cultural and spiritual attachment of tribal people to their territory and the reliance of poor families on the resources offered by the river and the forest for their livelihoods. A side objective of the experiment was to explore whether this kind of attachment to the original land was in fact stronger among ST families or it was also found among SC and OC families.

It was then decided to compare the “status-quo” package with packages characterised by the presence of a specific attribute, chosen because it was either lacking in the original government package, or because it was considered an important aspect of the life of the affected families.

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152 The term 'compensation package' is employed in this chapter referring to packages offering different types of restitution for the losses incurred with displacement (cash, land, housing) and types of resettlement.

153 The 'real' Polavaram R&R package is described in detail in chapter 7, together with its main limitations.

During the experiment the families were therefore “forced” to make a choice between the maintenance of the status-quo and a change in one aspect of their lives, so revealing whether they had lexicographic preferences for the status-quo and the access to forest. It was also hoped that the sequence of choice would detect those attributes of the packages (and the relative aspects of life) for which it becomes hard for people to make a choice and revealed preferences are inconsistent with rational choice theory.

The CE was composed of four exercises, the first three consisting a sequence of discrete choices and the last a ranking of four different packages. While the former were meant to elicit the trade-offs in the preferences, the latter aimed at providing a test for the consistency of the preferences.

The exercises were conducted with the help of visual tools (they are reproduced in Appendix IV): each package was represented by a card and each card contained images portraying an attribute of the package (e.g., a house to represent housing facilities provided by the government). This expedient made it simpler for the interviewer to explain the characteristics of each package and for the respondent to memorise them through the different stages of the exercise.

Some debriefing questions were added at the end of each exercise, to be answered by the research assistant conducting the interview and filling the questionnaire. These questions concerned on the one hand the conditions upon which the interview took place (presence of other members of the community, consultation or disagreement with other members of the community, time taken to answer the question), and on the other, any justification adduced by the respondent for his or her choice.

Finally, the CE was implemented in three different rounds, which differed for the resettlement packages offered. Three different versions of the packages were employed: a 'standard', a 'generous' and a 'generous improved' version; in all the rounds the 'standard' version was offered to a control group. The different versions are described in the next section. The use of different versions of the packages was meant to increase the internal validity of the results, albeit at the expenses of external validity. Using different versions in fact meant splitting the sample into non-directly comparable sub-samples and therefore further reducing their statistical representativeness. However, using different versions of the packages also allowed to improve each round of the CE on the grounds of the findings of

the previous rounds. In particular, for two times it was decided to increase the amount of money offered in the packages (hence the names 'generous' and 'generous improved'). This was done in order to exclude (or limit) the possibility that the greatest preference for the 'status-quo' package observed in each round was due to the fact that the alternative packages included too little monetary compensation.

**Box 7.1 Details of First, Second and Third Round of the Choice Experiment**

	<b>1<sup>st</sup> Round</b>	<b>2<sup>nd</sup> Round</b>	<b>3<sup>rd</sup> Round</b>
<b>Villages</b>	Kondamadolu, Aghra Koderu, Sabari Kotha Gudem, Lacchigudem, Rudramkota	Ramayapeta, Chegondapalli, Tutigunta, Pydipaka	Vinjaram, Totapalli, Gundala, Bovanagiri, Talluru, Kegunduru
<b>Version of the package used</b>	Standard (49 interviews)	Standard (24 interviews) Generous (22 interviews)	Standard (36 interviews) Generous improved(36 interviews)

7.2.2.1. Description of the compensation packages

As already mentioned, the design of the compensation packages to be used in the experiment and the calculation of the different amounts of money to be offered were based on the existing R&R package for Polavaram and the market value of land in the relocation area.

This package aimed at replicating the conditions in which the affected people are living at present and seeks the minimum level of change in the lives of the affected people. In fact, despite relocation it guarantees the perpetuation of the access to the forest and to the river. A high frequency of choice for this package when compared to the alternatives would indicate a preference for the status-quo and for the access to forest and the river.

Package *Money* only offered cash, specifically as compensation for the loss of land, loss of housing, loss of access to forest and river, loss of livelihood. It was intended that the government was to provide the relocation site and supply it with basic facilities, but would not give any land or housing. The amount offered was based initially on the amounts envisaged in the actual government package, however it varied in later stages of the

experiment. As the first interviews revealed that package *Money* was rarely a preferred option, in the second round of interviews the monetary compensation offered was increased from 150,000 Rs plus 130,00 Rs per acre of land to 300,000 plus 130,000 Rs per acre (called “generous version”, see Box 7.3) and in the third round to 600,000 Rs plus 200,000 Rs per acre (called “generous improved”). These variations were intended to test whether the distaste for package *Money* depended on the amount offered or on the aversion to cash compensation. The standard version of package *Money* was however still offered to a control group in both the second and the third round.

**Box 7.2 Package *Forest***

- The community will be relocated in a place similar to that of the original village, in particular close to the forest and to the river**
- all the community will be relocated together, in the same colony**
- a new house will be provided by the government, similar to the one that you have now**
- you will be given land for land compensation**
- there isn't any sort of cash compensation**

**Box 7.3 Package *Money***

- relocation is provided by the government in plain area**
- basic facilities are provided in the resettlement colony, but not housing**
- only cash compensation is provided: 150,000 Rs+130,000 Rs per acre<sup>154</sup>**
- GENEROUS VERSION: 300,000 Rs+130,000 Rs per acre**
- GENEROUS IMPROVED VERSION: 600,000 Rs+200,000 Rs per acre of land owned**

Indeed the conversations held with the respondents often revealed that the money offered by the real PRRP was not considered enough even to build a new house. Even more strongly it was felt that land was undervalued and the price offered not even close to be enough to purchase an equal plot of land in the relocation area. However, while the “generous” and the “generous improved” versions were accepted more often, there was no substantial change in the structure of the preferences.

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154 130,000 Rs per acre was the compensation offered by the AP government for cultivable land with canals and irrigation tanks; 150,000 Rs was obtained summing up the following amounts as offered by the government and augmenting the total by 17,500 Rs as compensation for the loss of forest and river : 45,000 Rs grant for house construction; 5,000 Rs grant for construction of a new cattle shed; 5,000 Rs for transportation from the old to the new place, 25,000 Rs for income generating scheme grant; 52,500 Rs equivalent to 750 days minimum agricultural wage (equal to 70 Rs per day).

#### **Box 7.4 Package *Land for Land***

**-The relocation site is decided by the government and provided in plain area**  
**-you will be given 35,000 Rs as compensation for the loss of customary rights and access to forest and river<sup>155</sup>**  
**-housing is provided by the government**  
**-land for land compensation, subject to ceiling of 5 acres (above 5 acres compensation is 130,000 Rs per acre)**  
**-GENEROUS VERSION: 70,000 Rs for loss of forest and river+130,000 Rs per acre of land above the ceiling**  
**-GENEROUS IMPROVED VERSION:170,000 Rs for loss of forest and river+200,000 Rs per acre per acre of land above the ceiling**

Package *Land for Land* is the one that most resembles the package offered by the government. The main difference is that land compensation is provided (subject to a ceiling of 5 acres, which however was relevant only for 11% of the interviewed families) to every family owning land, irrespective of the social groups (SCs, STs, OCs). As discussed in chapter 5, in AP different social groups have different claims over land, at least when it comes to Fifth Schedule areas. The Fifth Schedule of the Indian Constitution provides (a rather generic) protection to the tribal people living in scheduled areas from alienation of their lands and natural resources. The AP government (through the Andhra Pradesh Scheduled Area Land Transfer Regulation of 1959) has reinforced this measure forbidding the transfer of tribal land to non-tribals. This in turn implies the impossibility to offer land compensation to non-tribal families which happen to (illegally) own land in Fifth Schedule areas.

In the present study it was chosen to ignore this constraint in order to observe the variation in the preferences for package *Land for Land*, controlling for the social group and the relative claim over land.

A “generous” and a “generous improved” version were tested also for package *Self-employment*: in the former compensation for loss of forest and river was doubled and cash compensation for land was kept constant, in the latter forest and river compensation was increased of other 100,000 Rs and cash compensation for land was raised to 200,00 Rs per acre. A control group in each village was however offered the initial version of the package.

The rationale of this package was to offer the possibility to abandon the farming activity and to move to self-employment. No land compensation was offered in order to isolate the

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<sup>155</sup> 35,000 Rs (equivalent to 500 days of minimum agricultural wage @ 70 Rs per day) is the compensation for loss of customary rights and usages of forest produce established by the 2005 AP Policy on R&R of Project Affected Families, see chapter 7.

effect of the “preference for self-employment”. The package included, apart from housing and cash compensation for the loss of forest and river, training and technical and financial assistance to implement a self-employment activity (petty shop, carpenter, tailor's shop, etc.). Again, a generous and a generous improved version were offered (see Box 7.5).

#### **Box 7.5 Package *Self-employment***

- The relocation site is decided by the government and provided in plain area**
- you will be given 35,000 Rs as compensation for the loss of customary rights and access to forest and river**
- housing is provided by the government**
- there is no land for land compensation, only cash compensation is provided at the rate of 130,000 Rs per acre**
- as compensation for the loss of livelihood and source of income, a self-employment package is provided. This includes training, technical assistance, money to purchase tools and build a shed**
- GENEROUS VERSION: 70,000 Rs for loss of forest and river+130,000 Rs per acre of land owned**
- GENEROUS IMPROVED VERSION:170,000Rs for loss of forest and river+200,000 Rs per acre of land owned**

#### **Box 7.6 Package *Forest no Village***

- The community will be relocated in a place similar to that of the original village, in particular close to the forest and to the river**
- housing is provided by the government**
- land for land compensation is provided**
- no cash compensation**
- relocation is without community: households are relocated sparsely, maybe in groups or in other villages**

Package *Forest no Village* is identical to Package *Forest* (the “status-quo” package) apart for the fact that the families will not be relocated all together. Its rationale was to test whether the preference for a package offering the perpetuation of the access to the forest and the river was modified when this privilege came at the cost of losing one's own community. The results in section 7.2.2.2 will show that relocation with community could not be waived, not even at the cost of losing the forest.

Package *Instalments* resembled package *Land for Land* but offered a higher cash compensation for each single item: 50,000 Rs rather than 35,000 Rs for loss of access to forest and river and 165,000 Rs rather than 130,000 Rs per acre of land, when land is above the ceiling (analogously 100,000Rs for loss of forest and river rather than 70,000 in the

generous version and 300,000 Rs rather than 170,000 in the generous improved version. The latter also offered 265,000Rs per acre rather than 200,000).

However this higher compensation was offered in 10 instalments split over 5 years. The idea was to check the response towards the offer of a flow of income vis a vis an amount of cash in bulk. The motivation was the observed tendency by displaced people to spend most of the cash compensation before the actual resettlement takes place, so hampering the possibility to invest the money in the development of a new livelihood.

#### **Box 7.7 Package *Instalments***

- The relocation site is decided by the government and provided in plain area**
- you will be given 50,000 Rs as compensation for the loss of customary rights and access to forest and river**
- housing is provided by the government with all facilities**
- land for land compensation is provided, subject to ceiling of 5 acres (above 5 acres compensation is 165,000 Rs per acre)**
- the payment of the cash compensation is split in 5 years: 10 instalments, 1 every 6 months for 5 years**
- GENEROUS VERSION: 100,000 Rs for loss of forest and river+165,000 Rs per acre**
- GENEROUS IMPROVED VERSION: 300,000 Rs for loss of forest and river + 265,000 Rs per acre**

#### **Box 7.8 Package *Money no community***

- relocation is provided by the government in plain area**
- only cash compensation is provided-like in package B**
- relocation is without the community, in exchange cash compensation is provided.**
- Different amount were tested:**
- STANDARD VERSION: 30,000 Rs; 50,000 Rs; 100,000 Rs.**
- GENEROUS IMPROVED VERSION: cash compensation for loss of community was increased to 80,000 Rs; 150,000 Rs; 300,000 Rs.**

Package *Money no community* (MNC for brevity) was used together with package *Money* to attempt the explicit estimation of the willingness to accept relocation without the community, using the contingent valuation approach.

Package *Money no community* resembled package *Money* apart from the fact that it offered a higher amount of money in exchange for being relocated without the community. Each respondent was offered in sequence three different amounts of money: 30,000 Rs; 50,000 Rs and 100,000 Rs when the 'standard' version of package *Money no community* was adopted; 80,000 Rs, 150,000 Rs, 300,000 Rs when the 'generous improved' version

was used (there was no 'generous' version and in the second round the 'standard' version was used instead).

The offer was deemed ridiculous if not outrageous in most of the cases and little changed even when the amounts of money offered were tripled.

#### 7.2.2.2. Description of the exercises

The CE was composed of four exercises combining the seven packages described in the previous section. In three of the four exercises, the respondent was asked to make a choice between two different packages, while in the final exercise she/he was asked to rank them. An exercise based on the contingent valuation approach was also implemented, with the purpose of attempting the estimation of the willingness to accept relocation without the community.

- **EXERCISE 1: *Resettlement attributes***

Please indicate which package you prefer between:

	Preferred package
Package <i>Forest</i> versus Package <i>Money</i>	_____ <i>Forest</i> _____ <i>Money</i>
Package <i>Forest</i> versus Package <i>Land for Land</i>	_____ <i>Forest</i> _____ <i>Land for Land</i>
Package <i>Forest</i> versus Package <i>Self-employment</i>	_____ <i>Forest</i> _____ <i>Self-employment</i>
Package <i>Forest no Village</i> versus Package <i>Land for Land</i>	_____ <i>Forest no Village</i> _____ <i>Land for Land</i>

This first exercise consisted in four discrete choices. Package *Forest* constituted the benchmark against which the other packages were evaluated. The respondent was asked to make an explicit choice between the maintenance of the status quo and a change (possibly an improvement) in a particular aspect of their lives (the relevant aspects had been identified with the help of the ex-ante focus groups). It was so hoped to identify the sensible trade-offs in the preferences, that is those attributes of a compensation package

which make relocation acceptable by people, and to test whether the “status-quo” is always the preferred option no matter what the alternative is, that is whether the respondents have a lexicographic preference for relocation close to the forest and the river.

The aggregate results of Exercise *Resettlement Attributes* are summarised in Table 6.1.

**Table 7.1 Aggregate results of exercise *Resettlement attributes*  
(First, second and third round)**

	<i>Forest VS Money</i>	<i>Forest VS Land for Land</i>	<i>Forest VS Self-employment</i>	<i>Land for Land VS Forest no Village</i>
<b>1<sup>st</sup> ROUND</b>	<i>Forest</i> =36 (73%) <i>Money</i> =13 (27%)	<i>Forest</i> =34 (69%) <i>Land for Land</i> =15 (31%)	<i>Forest</i> =29 (59%) <i>Self-employment</i> =20 (41%)	<i>Land for Land</i> =47 (96%) <i>Forest no Village</i> =2 (4%)
<b>2<sup>nd</sup> ROUND</b>	<i>Forest</i> =46 (100%) <i>Money</i> =0	<i>Forest</i> =41 (89%) <i>Land for Land</i> =5 (11%)	<i>Forest</i> =41 (89%) <i>Self-employment</i> =5 (11%)	<i>Land for Land</i> =43 (93%) <i>Forest no Village</i> =3 (7%)
<b>3<sup>rd</sup> ROUND</b>	<i>Forest</i> =61 (85%) <i>Money</i> =11 (15%)	<i>Forest</i> =61 (85%) <i>Land for Land</i> =11 (15%)	<i>Forest</i> =56 (78%) <i>Self-employment</i> =16 (22%)	<i>Land for Land</i> =68 (94%) <i>Forest no Village</i> =4 (6%)
<b>TOTAL</b>	<i>Forest</i> =143 (86%) <i>Money</i> =27 (14%)	<i>Forest</i> =136 (81%) <i>Land for Land</i> =31 (19%)	<i>Forest</i> =126 (75%) <i>Self-employment</i> =41 (25%)	<i>Land for Land</i> =159 (95%) <i>Forest no Village</i> =9 (5%)

### **Package *Forest* versus Package *Money***

In *Forest* versus *Money* the respondent had to choose between a package which guaranteed continued access to the forest and the river and aimed at replicating the existing living condition of the affected families without providing any kind of cash compensation, and a package which only offered cash compensation but did not envisaged any contribution or support to the creation of a new livelihood in the relocation place. Therefore the choice between the two packages represented a choice between the “old and known” and “the new and unknown”.

The incontestable preference for package *Forest* revealed by the exercise (143 out of 167 of the respondents opted for package *Forest*, i.e. 86% of them) might therefore indicate an aversion to change and to risk and confirm at the same time the essential role played by

the relationship with the environment in the life of the people affected by the Polavaram dam. Using the language of microeconomics, it means that the affected people value their rights and claims over land, forest and river more than the amount offered, that is that their WTA loss of these rights and claims is higher than the compensation offered.

It can be argued however that what drove the choice of the respondents towards package *Forest* was not only aversion to change, the attachment to the environment and the undervaluation of the losses implied in the compensation offered, but also a genuine dislike or distrust of cash (at least cash versus material assets). A number of respondents, when questioned on the reasons for their choice, made clear that they deemed money “not important, not reliable and easily lost”. Indeed some of the families interviewed had had some kind of direct experience with the volatility of money: the cash compensation received for house and land had already been spent at the time of the interview.

In order to check whether the distaste for package *Money* was driven by the insufficiency of the amount offered or by an intrinsic aversion to cash, three different packages encompassing three different amounts of cash compensation were offered.

In the first round, including 5 villages (Kondamodalu, Aghra Koderu, Sabari Kothagudem, Lacchigudem, Rudramkota) for a total of 49 interviews, package *Forest* was preferred 36 times and package *Money* 13 times (that is *Forest* was preferred in 73% of the cases).

The “generous” version of package *Money* was introduced in the second round and surprisingly it did not seem to make it more appealing. During the second round, 46 interviews were realised across 4 villages (Ramayapeta, Chegondapalli, Tutigunta, Pydipaka) and within these interviews, the “standard” version of package B was used 24 times (this version was identical to the one used during the first round), while the “generous” version was used 22 times. In 100% of the cases package *Forest* was preferred to package *Money*, that is there was not any difference in the response rate when using the “standard” or the “generous” version. Besides, both scored worse than the “standard” version in the first round.

Finally, in the third round, the “generous improved” version was introduced. In this round 6 villages were involved (Vinjaram, Totapalli, Gundala, Bovanagiri, Talluru, Kegunduru), for a total of 72 families interviewed. The ‘standard’ version was used in 36

cases, with package *Forest* chosen 33 times (92%) and package *Money* 3 times. The “generous improved” was used with 36 families, of which 28 (78%) chose package *Forest* and 8 chose package *Money*. In the third round therefore we can note a small difference in the response rate between the “standard” and the “generous improved” version but still the attitude to opt for cash compensation is less strong than the one showed in the first round.

The manifested preference for package *Forest* cut across social groups and employment categories: it was shared by tribals and non-tribals, landless families as well as farmers. Some insights however can come from the analysis of the characteristics of those who did not chose package *Forest*, that is whether the preference for cash compensation was driven by some specific factors. Of the 24 which opted for package *Money*, 16 were non-tribal and 12 were landless. Besides, nine of them were found in the village of Aghra Koderu, which is one of the few villages of the sample which is located out of walkable reach from the forest and therefore whose inhabitants do not regularly engage in forest-related activities. Moreover, six of the 25 respondents belonging to families with a source of income alternative or additional to agriculture chose package *Money*. Having already received some compensation did not instead seem to make a difference in the preference for package *Money*. Gender also did not seem to play a role: there was no difference between the proportion of women in the sample (26.5%) and the share of women which accepted package *Money*. The results therefore do not suggest a clear socio-economic profile of the respondents which expressed a preference for package *Money*, it seems however that not depending on the specific location for one's own livelihood and not having a strong cultural bond to the forest (as it's more likely to be the case among non-tribals) were characteristics associated with a stronger inclination to prefer cash compensation.

### **Package *Forest* versus Package *Land for Land***

Package *Land for Land* resembles the package effectively offered by the government, as it includes a relocation site, housing, some cash compensation for the loss of access to forest and river and land compensation (subject to a ceiling of 5 acres). The main difference is that it provides land compensation to every family irrespective of their social group. In a sense package *Land for Land* did try to replicate the livelihood characteristics of the affected people, with the notable exception of the loss of access to the forest and the river.

While a varied propensity to opt for this package according to the social group was expected, its widespread popularity across all social groups was a surprise. Not only did non-tribal families consider it as a guarantee of the perpetuation of a claim over land, but most of the families (especially small farmers) saw in it the only opportunity to keep being farmers after relocation. The cash compensation provided in exchange for the loss of land is in fact insufficient to repurchase an equal (or even smaller) amount of land in the new settlement (the cost of new land ranges from 500,000 to 700,000 Rs per acre). The implication is that the great majority of the non-tribal families, especially the poorest ones, run the risk to become landless.

It was not however at the stage of the discrete-choice exercise that the generalised preference for package *Land for Land* was clearly shown. When compared with the status-quo package in fact, most of the families opted for the latter, confirming that access to the forest and river is considered a priority.

Out of the total 167 families which were interviewed, only 31 favoured package *Land for Land* over package *Forest*, that is 23% of them. Using different versions of package *Land for Land*, with increasing amounts of cash compensation, did not lead to more positive responses for package *Land for Land*.

In the first round, 34 families out of 49 chose *Forest* and 15 chose *Land for Land* (31%). In the second round, with a “generous” version of package *Land for Land* (which encompassed an increase in the compensation for loss of forest and river from 35,000 to 70,000 Rs), the latter was chosen 4 times out of 22 (18%). When the standard version was used, *Land for Land* was chosen only once (4%, across 24 interviews).

Similarly in the third round, when the “generous improved” version was used (with forest and river compensation increased to 170,000 Rs and cash compensation for land over the 5 acres ceiling increased from 130,000 Rs to 200,000 Rs), package *Forest* was chosen 28 times and package *Land for Land* 8 times (22%, for a total of 36 families), while when the standard version was used, only 3 families out of 36 (8%) opted for package C.

So, again the rate of preference for package *Land for Land* was higher in the first round than in the second and the third, when modified versions were used. In the second and third round we can, however, notice a significant difference in the percentage of people who chose *Land for Land* when the standard version was used (respectively 4% and 8%) then

when the “generous” and “generous improved” versions were adopted (18% and 22%).<sup>156</sup>

It is interesting instead to note that those who chose package *Land for Land* over package *Forest* were found mainly among the non-tribals (20 out of 31) and the landless (17 out of 31). Also, in this case eight of the 25 having an alternative or additional source of income to agriculture refused package *Forest* for *Land for Land*. The fact that landless families were attracted by a resettlement package which offers land for land compensation appears puzzling at first sight. When the respondents were questioned on the reasons for their choice, they provided however a very reasonable explanation: they are attracted by the cash compensation element (for the loss of the forest and river) which is present in package *Land for Land* but not in package *Forest*, and working as wage labourers, they benefit from the land for land compensation given to their fellow villagers and potential employers. Finally, it is not surprising to find that package *Land for Land* attracted mainly non-tribals: the 'real' PRRP in fact does not grant land for land compensation to non ST families, whereas package *Land for Land* would have granted to them the continuation of their entitlement to land.

### **Package *Forest* versus Package *Self-employment***

Package *Self-employment* offered the possibility to give up farming activities (no land compensation was offered, not even to tribal families) and implement a self-employment enterprise, with technical and finance assistance. So again the choice was between the status quo and a substantially different livelihood. This package was meant to be appealing especially for landless families, which could, more than all the others, take advantage from the self-employment opportunity offered. Yet, around half (21 out of 41) of those who chose package *Self-employment* did own some land. This choice is striking as it implied the loss of land ownership and therefore the wish to abandon farming but it's consistent with the decreasing profitability of agriculture experienced by small and marginal farmers in drought-prone areas of India. Indeed, it's consistent with the findings of a survey conducted by the NSSO on the conditions of farming in India in 2003, according to which 27% of the farmers did not like farming because it was not profitable and overall 40%, if given a

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156 The increase was not driven by the increase in the cash compensation for land above ceiling: only one of the respondents which accepted package *Land for Land* in the second and third round was a medium farmer which owned more than five acres of land and which therefore would have benefited from the higher price paid.

choice, would have liked to give it up for some other activity (NSSO 2005).

A “generous” and “generous improved” version were used also for package *Self-employment* but in this case the use of modified versions was not expected to generate radically different answers, as it did not change the substance of the package. The trend shown however is consistent with the previous exercises: in the first round *Self-employment* was chosen 20 times (41% of times) and *Forest* 29 times (59%), in the second round there was a retreat of the preferences for package *Self-employment*, for both versions: the standard version of package *Self-employment* was chosen only once over 24 families (4%) and the generous version was chosen by 4 families (18%) over the 22 interviewed. In the third round 6 families out of 36 (17%) chose the standard version of *Self-employment* and 10 families out of 36 (28%) chose the 'generous improved' version.

The results of the discrete-choice exercise seem to indicate that *Self-employment* was considered the “most acceptable” package after *Forest*. It must be recalled in fact that *Self-employment* was chosen (in total across the three rounds) 41 times out of 167, whereas package *Land for Land* was chosen 31 times and *Money* 27 times. However the comments collected during the interviews and the results of the ranking exercise are not entirely consistent with these results. Package *Self-employment* in fact appears only as the third most preferred option in the ranking exercise and in many instances the respondents made clear that they did not consider a self-employment package as a life-resolving opportunity. Employment schemes are often perceived as empty promises by the government, which either will not be kept or will not be able to generate a sustainable or sufficient flow of income. For instance, we were told: “even if the government provides a job for one person, what the rest of the family will do?” (Interview 34). In other cases it was the dimension of the local market which was perceived as a constraint: “how many tailors can possibly be needed in a single village?” (Interview 100).

#### **Package *Forest no Village* versus Package *Land for Land***

Package *Forest no Village* is identical to package *Forest* except for the fact that relocation is without community. Given that both *Forest no Village* than *Land for Land* provide land for land compensation, the trade-off faced by the family in this exercise is between relocation in a similar setting without the community versus relocation in plain

area with the community. The aim was to explore whether people attribute more importance to the location of resettlement or to the presence of the community. The answer provided by the exercise is quite clear: package *Forest no Village* was chosen only 9 times out of 167, thus showing a strong tendency to put life with the original community ahead of the access to the forest.

This tendency is confirmed by the exercise attempting to estimate the willingness to accept relocation without the community (see later in this section): the greatest majority of the families claimed that they were unwilling to accept any money in exchange for being relocated without their own community.

Looking at the results disaggregated in the three rounds, *Forest no Village* was chosen only twice (out of 49) in the first round, 3 times (out of 46) in the second round and 4 times in the third (out of 72). All the respondents who accepted it in the second and third round had been offered the “generous” or the “generous improved” version. However, given the small number of families involved, it seems hazardous to claim that it was the adoption of the modified packages which generated the difference in the attitude.

Rather, it is interesting to note that all the nine respondents but one either belong to villages which are heterogeneous in terms of social composition, or belong to a caste different from the one prevalent in the village where they live. In particular, three of them are OC<sup>157</sup> from Ramayapeta, where the majority of the population is OC, with presence of SC and ST families; one is BC<sup>158</sup> from Vinjaram, where the population is mixed; one belongs to the ST “Bisidi” and lives in Talluru, where the greatest majority of the people are ST “Koya”; two are respectively OC and ST “Konda Reddy” from Kegunduru, where most of the people are ST “Koya” or “Konda Kammari”; one is a ST from Sabari Kotha Gudem, a village with a majority of SC population. The only exception is an ST “Koya” living in Aghra Koderu, where indeed most of the people are ST “Koya”. However, this respondent distinguishes himself from the rest of his fellow villagers for being a large farmer, as he owns 25 acres of land. Therefore, it seems that not belonging to a very homogenous community, or belonging to one but differing from it for at least one characteristic, is a feature shared by those who preferred package *Forest no Village*.

Comparing this choice with the other preferences expressed in the rest of the

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<sup>157</sup> i.e. belonging to Other Castes.

<sup>158</sup> i.e. belonging to Backward Castes.

experiment, it emerges that three<sup>159</sup> of the nine respondents preferred *Forest no Village* not because they valued the forest more than the community, but in fact because they were attracted by the possibility of being relocated away from their original community. This was suggested by the fact that these three accept the package *Money no Community* at the first offer in exercise *Willingness to Accept* (see below) and when questioned about their preferences, they declared that they did not wish to be relocated with the rest of their village.<sup>160</sup> By contrast, the three respondents from Ramayapeta and the one from Sabari Kotha Gudem attributed greatest importance to the place of relocation (without necessarily implying a dislike for their community). In fact, these people always chose package *Forest* and ranked it in the first place in the ranking exercise (see below). Instead, it is more difficult to interpret the choice of the big farmer from Aghra Koderu, who chose *Forest no Village*, but also preferred *Money* to *Forest* and ranked *Money* in the first place in the ranking exercise. A possible explanation is that this person attributed the greatest importance to a large amount of cash compensation (hence preference for *Money*), followed by relocation close to the forest, in turn followed by relocation with his own community.

To sum up, the results of exercise *Resettlement attributes* clearly show that the sampled families have a strong preference for a compensation package which seeks the maintenance of the status-quo, including the perpetuation of the access to the forest and the river, thus suggesting the existence of lexicographic preferences.

The interviews were organised in three rounds, which generated slightly different results, as can be seen from Table 6.1. In the first round, when only the “standard” version of the packages was used, the number (as well as the percentage) of respondents not choosing *Forest* was higher with respect to the second and third round, across all the discrete choices (with the exception of *Forest no Village* versus *Land for Land*). In the third round however this phenomenon was less strong than in the second, suggesting that offering a much higher sum of money might make cash compensation attractive to some. The numbers involved are obviously too small to infer any causality, but the non-randomness of the choices made by the respondents is confirmed by the fact that those who expressed a preference for cash compensation in this exercise, tended to do so across all the other exercises. It is also important to stress that the answers obtained with this exercise were all mutually consistent.

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<sup>159</sup> The two respondents from Kegunduru and the one from Talluru.

<sup>160</sup> While sharing this wish with us, these people did not seem to be willing to reveal the reasons for it, and it was not felt appropriate to push the conversation any further on the topic.

- **EXERCISE 2: *Willingness to Accept***

Exercise *Willingness to Accept* explored the possibility of employing CE and contingent valuation methodology to estimate the 'right amount' of cash compensation for the losses implied with displacement. In particular, it aimed to test the reaction of the respondents to the offer of a certain amount of money in exchange for the loss of an important aspect of their lives and their degree of acceptability of such an offer. It also wanted to generate more evidence on the acceptability of cash compensation by the displaced people as a fair and sustainable form of restitution.

In order to make the test more significant, the most intangible and incommensurable aspect of life of the affected people was chosen, i.e. life with the community. The purpose of the exercise was therefore to verify the feasibility of the estimation of willingness to accept (WTA) relocation without the community.

**Please indicate which package you prefer between :**

	Preferred package
Package <i>Money</i> versus Package <i>Money no community</i> with 30.000Rs	_____ <i>Money</i> _____ <i>Money no community</i>
Package <i>Money</i> versus Package <i>Money no community</i> with 50.000 Rs	_____ <i>Money</i> _____ <i>Money no community</i>
Package <i>Money</i> versus Package <i>Money no community</i> with 100.000 Rs	_____ <i>Money</i> _____ <i>Money no community</i>

If *Money no community* is never a preferred option, than ask the respondent the following:

**What is the minimum amount of money that you're willing to accept in exchange for being relocated without your community?**

\_\_\_\_\_Rs

This was sought through two different types of questions. With the first question the respondent was asked to choose between two only-cash-compensation packages, identical

apart from the fact that package *Money no community* offered a higher amount of money in exchange for being relocated without the rest of the community. Three different amounts were offered in sequence: 30,000 Rs, 50,000 Rs and 100,000 Rs in the first and second round, and 80,000Rs, 150,000 Rs and 300,000 Rs in the third round. The amount accepted would have indicated his or her WTA. In case none of the amount was accepted, the respondent was asked to explicitly state the minimum amount of money that he or she was willing to accept in exchange for being relocated without the community.<sup>161</sup>

Let's look at the results in the aggregate (first, second and third round together):

**Table 7.2 Aggregate results of Exercise *Willingness to Accept***

	<i>Money vs MNC30/ MNC 80</i>	<i>Money vs MNC 50/ MNC 150</i>	<i>Money vs MNC 100/ MNC 300</i>
<i>Money</i>	159	155	152
<i>Money no community (MNC)</i>	8 (5%)	12 (7%)	15 (9%)

As Table 6.2 shows, only 5% of the respondents accepted the no-community package after the first offer, 7% after the second offer and 9% after the third offer. These results therefore show a marked tendency to refuse money in exchange for the community. The typical comment, when asked to explain the reason for their choice, was “I don't want the money, I want to live with my people”, or “I've known these people since birth, I don't want to leave them”, or “The community must live all together, wherever we go”. In some comments it also re-emerged the problem of the volatility of money: “money is not permanent, it will go away” (interview 73); or “what if I accept 1 lakh and then I lose it, who takes care of me, what do I do with no friends?” (Interview 72).

However one might wonder whether this tendency depended on the fact that too little money was offered. The question asking to state the minimum amount of money acceptable should have revealed if this was the case, however only three people provided an answer to this question (see below). In order to double-check the (in)existence of WTA money in exchange for the community, the amounts offered were then tripled. It was so hoped to

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161 This 'direct' way of eliciting WTA belongs to contingent valuation methodology and not to choice experiments.

eliminate the effect due to a potential shyness of people to spell out a “big” amount of money.

The increased amounts (respectively 80,000 Rs; 150,000 Rs; 300,000 Rs) were introduced only in the third round and were tested on 36 families (the 36 left were used as control group). The results are shown in table 7.3 and in table 7.4.

They clearly show that offering a higher amount of money in the first place did generate a higher rate of acceptance of package *Money no community*. The difference is particularly striking if we compare the results within the third round of interviews: when the original version of package *Money no community* was used, only one respondent accepted it and only at the last offer (i.e. 100,000 Rs). When the increased amount was used, 4 respondents (11%) accepted *Money no community* with 80,000 Rs; 2 persons more (that is 6 in total, equal to 17% of the sample) accepted B(i) with 150,000 Rs and the same 6 accepted *Money no community* with 300,000 Rs.

**Table 7.3 Results of Exercise Willingness to Accept, First and Second Round**

	<i>Money vs MNC 30</i>	<i>Money vs MNC 50</i>	<i>Money vs MNC 100</i>
<i>Money</i>	90	88	86
<i>Money no community (MNC)</i>	4 (4%)	6 (6%)	8 (9%)

**Table 7.4 Results of Exercise Willingness to Accept, Third Round**

	<i>Money vs MNC 30</i>	<i>Money vs MNC 80</i>	<i>Money vs MNC 50</i>	<i>Money vs MNC 150</i>	<i>Money vs MNC 100</i>	<i>Money vs MNC 300</i>
<i>Money</i>	36 (100%)	36 (100%)	35	32	30	30
<i>MNC</i>	0	0	1 (3%)	4 (11%)	6 (17%)	6 (17%)

In confirmation of the validity of these results, it must be noted how they were obtained independently of the presence of other members of the community during the exercise. It was in fact my concern that the presence of other people might hinder the respondent's inclination to accept package *Money no community* out of embarrassment to do so in front of fellow villagers. However, the same result (i.e. preference for package *Money*) was systematically obtained by interviews conducted in very different conditions: the

respondent alone in his or her house, in presence of other members of the family, or of a number of neighbours. Vice-versa, the respondents who did accept package *Money no community*, did so even when surrounded by other people commenting the exercise. Overall, while the influence of peer pressure on the preferences expressed can't be completely ruled out, the findings of this exercise do not seem to have depended on the presence of other villagers during it.

As concerns the characteristics of the 15 respondents who overall accepted *Money no community*, seven were landless and seven also had an additional or alternative source of income to agriculture (of these, four were both landless and had an alternative source of income). In addition, only four were tribal (that is 26.6%, less than the share of tribals in the whole sample) and four were women (in this case the share of female respondents on the whole sample was the same). So, not being tied to farming on one's own land for subsistence and already engaging in activities outside agriculture were factors shared by those who found acceptable to exchange relocation with community with a higher cash compensation.

Regarding the question requiring to state one's own WTA relocation without the community, it confirmed the inappropriateness of such concept, at least in those circumstances and for that particular package attribute. Except for three people, none of the respondents was able or willing to mention any amount of money. In fact everybody more or less explicitly stated that they would not accept any amount of money. Respondents of either gender, social group, age or income provided the same answer and the presence or absence of other members of the community during the interview did not seem to make a difference (as it was initially feared).

The refusal to state a price was usually accompanied by comments which underlined the importance of the community in people's life:

“I want to stay with my community, we've faced many problems together” (Interview 118);

“If there are some problems our neighbours can help us. What can we do without the community?” (Interview 64);

“If you accept package *Money no community* you run the risk to lose the money and be in a place where you don't know anybody. At least if you choose package *Money* you have

friends and family to give support.” (Interview 78).

The community is therefore considered as a form of insurance against risk and the uncertainty of the future, often related to health problems:

“My husband has health problems, if something happens and we go away, who takes care of us?” (Interview 96);

“What happens if I get sick and I'm without my people?” (Interview 107).

The fact that living with one's own community guarantees an informal safety net, which is otherwise lost and not replaced by any formal social security system, is in itself a good explanation of the impossibility to identify a price for abandoning the community.

Overall, the results indicate that there was no such a thing as WTA relocation without community for the participants to the exercise. This is consistent with at least two non-mutually exclusive explanations. First, the hypothetical exchange implied in the exercise between such an intangible good as the community and a sum of money imposed an excessive cognitive burden on the respondent. Second, the community was deemed a *constitutive incommensurable*, in the sense used by Espeland in reference to the Yavapai people (see Espeland 2001 and section 2.3 of this thesis). In other words, the respondents define themselves and their identity in relation to their community, which therefore is considered irreducible to and incomparable with money. The preference for package *Money no community* showed by a minority of the respondents is more indicative of the eagerness of certain families for liquidity than of the meaningfulness of WTA in this context.<sup>162</sup> This hypothesis is supported by the fact that of the 15 respondents which chose *Money no community*, eight had also preferred *Money to Forest* in the discrete choice exercise and all but one also ranked *Money* at the first place in the ranking exercise (see below). Thus, those who were more inclined to accept cash compensation, did so across all the exercises.

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<sup>162</sup> For this reason, and also because of the small number of positive answers obtained, the estimation of an average WTA was not pursued.

- **EXERCISE 3: *Compensation in Instalments***

**Please indicate which package you prefer between ....?**

	Preferred package
Package <i>Instalments</i> versus	_____ <i>Instalments</i>
Package <i>Land for Land</i>	_____ <i>Land for Land</i>

One of the main limitations of cash compensation is that it's often exhausted even before the actual relocation takes place. In fact, families with binding cash constraints, an injection of liquidity can relieve, at least temporarily, some of these constraints. Thus, compensation is often used to repay debts, to pay medical expenses, or for the dowry of one or more daughters. Sometimes people use it to indulge in a few “luxuries”, such as a TV, a fridge, a motorbike or a new fan.

The implication is that by the time that people move into the relocation colony, they do not have enough savings to invest in a new livelihood. The situation is particularly serious for landless families, which will not be able to rely on any kind of productive assets.

It could be argued that in using monetary compensation for consumption goods rather than for savings and investment, people are just 'revealing' their preferences and that there is nothing intrinsically wrong with these preferences. No value judgement should be made about the way people chose to use the money they are given. Indeed, the problem with cash compensation is not that it is used to purchase goods, rather that it does not serve the purpose for which it is supposedly granted. In fact, it does not help restore the livelihoods disrupted by displacement, because it is rarely put to productive uses.

In consideration of the phenomenon just described, package *Instalments* offered the same kind of compensation than package *Land for Land*, but with higher amounts of money involved (again using a generous and generous improved version). However the payment of cash was delayed in time, that is split over ten instalments in five years. The aim was to check whether families, when given the possibility, would opt for a (larger) flow of income which lasts for a longer period, rather than a payment in bulk.

The experiment proved however the existence of a strong preference for the present and for bulk payments: only nine respondents out of 167 chose package *Instalments*. Of these

nine, six were found in the third round and were offered the “generous improved” version of the packages, while two belonged to the first round and only one was found in the second round (and was offered the “standard” version of the package). Thus, in this case the adoption of an augmented cash compensation (people offered the “improved generous” version were facing a choice between 170,000 Rs+ 200,000 Rs per acre and 300,000+ 265,000 per acre<sup>163</sup>) did seem to increase the “acceptability” of package *Instalments*.

However what is really revealing in this exercise comes from the motivations brought forward by the respondents for their choice.

The main reason for disliking package *Instalments* was the disbelief that the government would in fact pay all the 5 instalments: people feared that the government might “change its mind”, especially as a result of the change of the party in power.

On the other hand, some other respondents made clear that they deemed a payment in bulk more useful for productive purposes. For instance, they said that “a little amount is of no use, whereas a big one can be used to implement a business” (interview 97), or that “a big amount is better to invest in future development” (interview 98). A woman told us “my son is starting a business in a new village, the money can be used for that” (interview 96) and another that she would “put the money into the bank and get the interest” (interview 66); a few respondents said that they would use the money to buy land in the resettlement area. For others a payment in bulk represented a way to alleviate the cash constraint: “it's better to get the money all together, so I can solve all my problems at once” (interview 114), meaning the repayment of a debt.

Finally, those few respondents who preferred package *Instalments*, claimed that they were motivated by the higher amount of money offered and by the fact that “a single instalment is a waste, you just drink it and it's gone” (interview 97).

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163 Only one of the respondents which overall accepted *Instalments* owned land above the ceiling of 5 acres, so the preference for *Instalments* must entirely be imputed to the difference in the cash compensation for loss of forest and river.

- **EXERCISE 4: Ranking**

Please rank in order of preference the following packages: *Forest, Money, Land for Land, Self-employment*

1: (most preferred): \_\_\_\_\_

2: \_\_\_\_\_

3: \_\_\_\_\_

4: (least preferred) \_\_\_\_\_

In the final exercise the respondent was asked to rank 4 packages (*Forest, Money, Land for Land, and Self-employment*) in order of preference. The aim was to double-check the preferences expressed in the previous exercises, making the respondents reflect deeper on the options faced. The preferences expressed with the ranking exercise were in most of the cases consistent with those elicited with the previous exercises, thus confirming their findings and in particular the strong preference for the resettlement package which replicated the status-quo. However, some cases of inconsistency of the preferences were found, and the implications are discussed hereafter.

**Table 7.5 Summary of ranking results**

	<i>Forest</i>	<i>Money</i>	<i>Land for Land</i>	<i>Self-employment</i>	<b>TOT</b>
1 <sup>st</sup>	133	20	4	9	166
2nd	9	4	126	27	166
3rd	2	32	28	104	166
4th	22	110	8	26	166
TOT	166	166	166	166	

On a total of 166 answers<sup>164</sup> in fact package *Forest* appears 133 times at the first place

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<sup>164</sup> The ranking exercise was done 167 times, but of one of the respondents refused to rank packages *Land for Land, Self-employment* and *Money*, saying that he was willing to accept only package *Forest*. This interview has therefore been eliminated by the aggregate count.

(that is as most preferred option), nine times at the second place, two times at the third place and 22 times as least preferred option.

Package *Land for Land* appears more often at the second place (126 times), confirming its status of “second-best” option. Package *Self-employment* was chosen by 104 respondents as third preferred option and package *Money* confirmed to be the least favoured choice, appearing 110 times in the fourth place.

A closer look at the results in table 2.5 however reveals some unexpected patterns.

First, package *Forest* has been chosen with the second highest frequency not in the second but in the fourth place (22 times), that is as the least favoured package. Those who ranked package A in the fourth place, did it so consistently with their behaviour in the discrete choice exercise: 21 out of 22 never preferred package *Forest* to the alternative package offered in exercise 1 (that is, their sequence of choice in exercise 1 was *Money*, *Land for Land*, *Self-employment*, *Land for Land* or *Forest no Village*). Moreover, as might be expected, the majority of these 22 were landless (13 out of 22) and non-tribal (16 out of 22).

Second, package *Money* is the package which more often, after package *Forest*, has been indicated as the most preferred option. In fact, it appears 20 times in the first place, whereas package *Land for Land* and *Self-employment* respectively only 4 and 9 times. Also in this case, the preference so expressed was consistent with the one revealed in exercise 1: 18 out of the 20 respondents which ranked *Money* in the first place had chosen *Money* over *Forest* in the discrete choice exercise. In this case, only half of them were landless and 13 were non-tribal. As commented above, eight of the 15 respondents who accepted package *Money no community* in the second exercise, also ranked *Money* in the first place.

Finally, the distribution of the preferences for package *Self-employment* somehow confirms the mixed opinions expressed by the respondents concerning this package, as it was mentioned when describing the exercise “*Forest versus Self-employment*”. In the latter exercise, package *Self-employment* was chosen 41 times, being so the package that in the discrete-choice exercise was more often preferred to package *Forest*. It was therefore expected to find it as the most popular package in the ranking exercise after package *Forest*, appearing with the highest frequency in the second place. Not only did this not happen, but in some instances the preferences expressed in the ranking were inconsistent with those

expressed in the first exercise. That is, the same respondents which affirmed to prefer *Self-employment* to *Forest* when facing a discrete choice, did not rank *Self-employment* as the most preferred option, but rather claimed to prefer *Forest* (or *Land for Land*). Said with microeconomic terminology, their preferences did not respect the propriety of transitivity.<sup>165</sup>

When this happened, the respondent was asked to repeat the ranking exercises and, if the results of the latter were confirmed, to repeat the discrete-choice exercise. Usually the repetition of the discrete choice eliminated the inconsistencies, with *Forest* being now the favoured option. This “correction strategy” was not however always adopted and the ranking was left inconsistent with the rest. The reason is that often it was deemed that insisting with the questions might have been felt as an imposition to modify the preferences expressed in the first place. In fact in some cases, when asked to repeat the exercise, the respondent confirmed his or her choices, and could not even see where the problem with the inconsistency was. The typical comment was “if I have to choose between *Forest* and *Self-employment*, I choose *Self-employment*, but in a ranking *Forest* is obviously the best option”. Verifying the existence of this sort of 'irrational behaviour' was indeed one of the purposes of the CE. With irrationality it is meant here the fact that people's preferences do not necessarily behave as postulated by rational choice theory and in particular they do not necessarily have the proprieties assumed by the theory (for instance, transitivity). This finding stands in support of the choice made by this study of using CE as a method to elicit people's preferences removing the assumptions required by rational choice theory.

The total cases of inconsistencies between the choices expressed in exercise 1 and those expressed in the ranking exercise were 15, of which 12 involved package *Self-employment*. The existence of these inconsistencies however does not impinge on the validity of the exercise and the non-triviality of the results. Overall in fact, the preferences expressed did demonstrate consistency within and between exercises.

### 7.2.2.3 Summary and discussion of the findings

The aim of this section was to investigate what contribution methods of direct consultation of people displaced by development projects can give to the design of better

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<sup>165</sup> If x is preferred to y, and y is preferred to z, then x is preferred to z.

R&R programmes. For this purpose focus groups and a consultation exercise based on CE were implemented in villages which will be displaced by the Polavaram dam. Both methodologies investigated the favoured forms of compensation and resettlement and obtained mutually reinforcing results.

As concerns the preferences for different types of compensation and resettlement expressed through the CE, the most evident finding is that the affected population would prefer to be relocated in a setting and with modalities which guarantee the perpetuation of the status quo, in particular the accessibility of the forest and the river Godavari and the ownership of land. Analogously, the main finding of the focus groups was that the forest is considered the main loss caused by displacement.

In particular, exercise *Resettlement Attributes* revealed that the continuation of the status-quo was preferred to relocation elsewhere complemented with different amounts of cash compensation. When faced with the choice of losing the forest and the river or the community, the greatest majority stated that they could do without the forest but not without the community. The importance of the community was also confirmed by the fact that the majority was not willing to exchange relocation without the community with any sum of money. However, some respondents did express the wish to be relocated without the other families. This finding does not invalidate what just stated on the importance of the community, rather it suggests the existence of some conflictuality in the villages investigated that the experiment was not otherwise able to detect and explore.

Overall, the behaviour expressed through the systematic choice of package *Forest* in exercise *Resettlement Attributes* and *Ranking* and the refusal of package *Forest no Village* suggests the existence of lexicographic preferences for the maintenance of the status-quo (i.e. life in the forest) and even more strongly for relocation with one's own community.

Another clear finding is the importance attributed to land ownership by most of the respondents, expressed by their preference for land for land compensation (i.e. package *Land for Land*). When maintenance of the status-quo was not possible, the greatest majority preferred resettlement with land for land compensation. This finding is particularly significant in consideration of the fact that the non-tribal households will receive cash for land compensation instead, in an amount which most likely will not allow them to repurchase land in the new location. Issues linked to land compensation emerged during the

focus groups only related to the quality of the land provided. The reason is that all but one of the focus groups villages were tribal, and all the tribal households displaced by the Polavaram dam are granted land for land compensation. As will be discussed later in the chapter, one of the main shortcomings of the PRRP indeed is the provision of different types of compensation for the land expropriated to families belonging to different social groups.

The mixed evidence generated concerning the attitude towards a resettlement package inclusive of a self-employment programme (i.e. package *Self-employment*) suggested the existence of a tension between the willingness to engage in (possibly more profitable) activities outside farming and the reluctance to abandon the known mode of livelihood, as well as to trust a government programme. From the discussion held within the focus groups, however, it clearly emerged how people would be willing to engage in any type of employment programme and that a secure job would have constituted an adequate form of compensation.

The untrustworthiness of the government was also found to have a bearing on the attitude of the affected people towards cash compensation: the preference for a smaller one-time payment rather than a larger compensation payment in instalments delayed in time was primarily motivated by doubts over whether the government would indeed pay all the instalments promised. More generally, both consultation methods suggested a mixed attitude towards cash compensation which casts some doubts on its effectiveness and fairness as a form of restitution for any type of loss. In fact, the greatest majority of the participants to the CE stated that the resettlement package only providing cash compensation (i.e. package *Money*) was the least preferred option. At the same time, package *Money* was the one which attracted the highest proportion of 'deviant behaviour': the respondents who preferred it, did so in exercise *Resettlement Attributes* and *Ranking* and, to an extent, also in exercise *Willingness to Accept*. The deviant respondents also tended to share some characteristics: they belonged more often to non-tribal and landless families; moreover the proportion of 'deviant' respondents was higher among those having an additional or alternative source of income to agriculture. This seems to suggest that monetary compensation tends to attract on the one hand those with no productive assets and secure source of income, and on the other, those who already have a regular flow of income and do not rely on farming for subsistence.

The results of this attempt to directly consult the Polavaram affected people about their resettlement are reinforced by the consistency between the two methods employed, but also by the fact that the same preferences were expressed by respondents with different characteristics in terms of age, gender, social group, land ownership and source of income. In particular, it must be noted how the attachment to the forest was shown by all castes and not only by the tribals (although of course it must also be noted that those willing to abandon it in exchange for a higher amount of money were found more often among the non-tribals).

To conclude, some methodological considerations need to be made on the validity, utility and appropriateness of using CE to explore resettlement preferences.

This research did not employ CE methodology for the estimation of the 'hidden cost' of displacement through the elicitation of the WTA various types of resettlement packages by the resettlement people and their marginal rates of substitution between different attributes of the packages. The assumptions required for such operation were deemed implausible in the context of study. However, it was assumed that preferences did exist and that the choices made by the respondents were truthful and non-random.

The presence of some inconsistent answers by the respondents across the different exercises, while not invalidating the experiment, does constitute evidence of the fact that the preferences of the affected people do not necessarily behave as predicted by rational choice theory. This was also suggested by the adoption of a lexicographic ordering of the preferred resettlement packages by the respondents, manifested by the systematic preference for the status-quo package independently of what was offered in exchange (lexicographic ordering is another violation of the propriety of transitivity of preferences). The existence of preferences and their truthfulness and non-randomness seems instead confirmed by the homogeneity of the answers across different types of respondents together with the consistency of these answers with those obtained by the focus groups.

The attempt to estimate the WTA for relocation without the community failed, in the sense that such exchange was deemed unacceptable by the greatest majority of the respondents. Moreover, the use of different versions of the resettlement packages, including different amounts of money (in return for loss of land, forest, etc.) did not lead to different rates of preferences for the cash compensation packages. So, there seems to be little ground

to justify the monetary estimation of the marginal rates of substitution between the different packages. The more resettlement packages include attributes which correspond to incommensurable aspects of people's life, the more the use of CEs and statement preference methods in general to estimate WTP and WTA seems problematic.

However, the use of the CE, supplemented by focus groups, did allow the identification of a clear pattern in the preferences of the population affected by the Polavaram dam concerning their resettlement, and it provided indications on what is deemed as an acceptable exchange and what is not. In this sense, it can constitute a useful tool to inform the design of R&R packages. As demonstrated by its application to the Polavaram affected population, it can reveal what are the aspects of the status-quo which are valued the most and which therefore need to be more carefully restituted or compensated (not necessarily with money), in order to reduce the unfairness of displacement but also to ensure the success of the resettlement operations.

For instance, in Polavaram it allowed the identification of three key issues concerning compensation and resettlement: the loss of the forest, the modalities of land compensation (in cash or in kind) and the appropriateness of cash compensation. This finding is important because it constitutes the grounds assessing the Polavaram Resettlement and Rehabilitation package (PRRP)'s ability to enable the reconstruction of the livelihood disrupted by displacement. Finally, it must be underlined that CEs cannot constitute the only source of evidence concerning the opinions and desires of the displaced population in guiding the design of R&R programmes. Choice experiments in fact are rigid tools which *force* the respondent to express a preference even when all the objects investigated are *disliked*. Furthermore, by themselves they collect no information on the reasons behind the preferences. They need to be complemented by other methodologies of direct consultation and more generally by other sources of evidence concerning the processes underpinning displacement. This holistic methodological approach has the potential to significantly improve the design (and performance) of resettlement programmes.

### **7.3. The main shortcomings of the Polavaram Resettlement and Rehabilitation package**

This section assesses the Polavaram Resettlement and Rehabilitation package (PRRP) on the basis of the findings of the consultation exercises (focus groups and choice experiment). It also relies on the account made of the case study in chapter 5, particularly on the information on the state of advancement of the resettlement operations and it draws from the description of the characteristics of the Polavaram affected people provided in chapter 6.

The conformity of the package to the preferences expressed through the choice experiment are investigated below, while sections 7.3.1, 7.3.2 and 7.3.3 look at how the package deals with the three issues concerning compensation and resettlement for the affected people which emerged in the previous section: the loss of the forest, the methods of land compensation (in cash or in kind) and the appropriateness of cash compensation. It will emerge that the major shortcomings of the Polavaram R&R package concern its inability to adequately address these issues, and that they ultimately imply that the package lacks the capacity to put the affected people in the conditions to regenerate their disrupted livelihoods.

An important criterion on which the Polavaram R&R package can be assessed is the extent to which it responds to the preferences expressed by the affected population during the CE. The strongest of these preferences, i.e. relocation close to the forest and the river, is not satisfied by the package, and the monetary compensation that tribals are granted for the loss of customary rights is unfit for its purpose (see section 7.3.1). The second strongest preference, i.e. land-for-land compensation, is only partially satisfied as it is granted only to tribal families. As will be discussed in section 7.3.2, one of the major shortcomings of resettlement in Polavaram is the inadequate handling of land compensation. The other major shortcoming of the package is the exclusive focus on cash compensation, for a start because cash compensation was the least preferred form of restitution by the Polavaram people (see section 7.3.3). Preferences are also violated by the package because compensation is being paid in irregular and unpredictable instalments and because no employment opportunities are offered outside agriculture. The only preference which in fact is met by the package is the relocation of the community all together, regardless of the social group.

From this short review, it is possible to claim that resettlement in Polavaram does not meet the preferences of the affected people as expressed through the focus groups and the CE. However, more significant for an assessment of the package is to explore how the three key issues which emerged through the consultation exercises (i.e. loss of the forest, land-for-land compensation and cash compensation) are dealt with. Considering that land and forest have been identified as the main sources of livelihood of the Polavaram affected population, an evaluation of how the three key issues have been handled equates to an investigation of the extent to which the PRRP addresses the disruption of livelihoods caused by displacement.

### ***7.3.1. The Loss of the Forest***

The forest plays a key role in the lives of most of the Polavaram affected population. It was highlighted in chapter 6 that many of the displaced people are (tribal and non-tribal) forest dwellers who rely on forest produce as an important source of livelihood and as a means of physical and social reproduction. Forest products are self-consumed as well as sold at market, providing a small but secure source of income and consumption, regardless of the monsoon or labour market conditions. In this sense, the forest constitutes a sustainable and self-regenerating buffer. The forest is also the catalyst of the social life in the village.

The same people, when questioned through focus groups on the main loss induced by displacement, all mentioned the forest; similarly they made clear during the CE that their favourite form of relocation would have been in a setting which maintains the status-quo, that is which guarantees access to the forest and the river.

The PRRP however, does not satisfy this ‘preference’ of the affected population. The resettlement centres arranged by the government for the relocation of the displaced villages are all located in plain areas, usually 15-20 km away from the forest. Displacement will therefore cause the loss of a key source of livelihood that is able to support both income and consumption, particularly during the lean season and in periods of crisis. As mentioned in section 5.4.2, the R&R package implicitly acknowledges this loss, providing a monetary allowance to tribal families, equivalent to 500 days of minimum agricultural wage @ 80 Rs per day as a form of compensation (see also Appendix VII). The inclusion of this allowance

in the R&R package has an important symbolic value, but it does not replace nor adequately compensate for a source of livelihood. In the first place, the amount of money paid is not inclusive of the indirect and intangible stream of benefits generated by the forest (its spiritual and cultural value, but also the role of buffer stock and informal insurance mentioned above). Secondly, the monetary allowance is calculated by estimating the value of the forest produce (and the income generated by it) at the price paid at the displacement area and not at the resettlement area, where prices are higher. More generally, it ignores the fact that products which were free before displacement, will have to be purchased after resettlement (or will not be affordable at all), with a significant impact on the size and composition of the consumption basket. For example firewood has previously been collected for free, but after relocation is likely to absorb a significant share of the household budget, reducing the money available for other needs.

Hence, paying a monetary compensation for the loss of access to the forest, does not replace the lost source of livelihood, nor does it account for the fact that resettlement will imply a (regressive) alteration in the terms of access to means of reproduction. Furthermore, money does not replace the role of sustainable buffer stock and informal insurance played by the forest.

### **7.3.2. Land Compensation**

The area affected by the Polavaram dam has been characterised by almost two centuries of tribal land alienation, and land ownership is still beset by conflict and power issues. The great majority of the population is still dependent on agriculture, and land is the key source of livelihood and means of production. It is not surprising then that land-for-land compensation was considered by the Polavaram affected population as the most favoured form of compensation, and arguably the only fair method of compensation. This was clearly indicated by the results of the CE. Indeed, the majority of the participants considered the package which guaranteed resettlement with land-for-land compensation (i.e. package *Land for Land*) as their second-best option after the status-quo package. Yet, in a context of land scarcity, social divisions and deep inequalities, land-for-land compensation can be problematic, as the case of Polavaram shows.

There are two kinds of problem in Polavaram: firstly, land-for-land compensation is

granted only to tribal families, while non-tribals are paid a (too low) price for their expropriated land. Secondly, the compensation provided for the lost land (either in cash or in kind) is inadequate, not effective and ultimately unfair.

The provision of land-for-land compensation exclusively to tribal families is an attempt by the AP R&R policy -and therefore by the Polavaram R&R package- to use positive discrimination to restore social justice. The package grants land-for-land compensation only to tribal families, whereas non-tribals (SCs as well as OCs) are offered cash in exchange for the lost land, at the following rates: 115,000 rupees per acre for non-irrigated land; 130,000 rupees per acre for cultivable land with canals and irrigation tanks; 145,000 rupees for land having deep bore wells or small irrigation projects.

The rationale is that only tribal people are entitled to own land in the displacement area and therefore only they are entitled to land-for-land compensation in the resettlement area. All the other households own land somehow “illegally”, and therefore are only compensated with cash. The assumption is that the cash compensation will be used to re-purchase land not located in the Fifth Schedule Area (the social composition of the majority of the affected villages is mixed, including SC and STs but also OCs and BCs).

However, there are two major constraints preventing this: firstly, most of the villages (especially the villages with the majority of ST populations) will be resettled in colonies which are located *in* the Fifth Schedule Area. The motivation is obviously to safeguard the special rights attributed to ST in that area; the implication, however, is that SC and OC families will be relocated in an area where they are *not* supposed to own land. Of course they are free to leave the community and move out of the Fifth Schedule Area, but in the greatest majority of the cases this option is not even contemplated. Not only is settlement in other communities rare because it is risky and costly, but the very idea of leaving the community is regarded as the unluckiest eventuality.

Secondly, even if non-ST families were willing to purchase land outside the Fifth Schedule Area, they would not in most cases be able to do it, as the cash compensation provided is simply not sufficient. The price for a hectare of land prefigured in the R&R package is in fact below the market price of land in the resettlement area, where it ranges

from Rs 500,000 to 700,000 thousand Rs per acre.<sup>166</sup> According to the Land Acquisition Act, the price for the expropriated land is established through a negotiation between the owner and the state, with the market price as a benchmark. In Polavaram the negotiation took place between committees at the state and district level and groups of farmers, and during my visits to the field it emerged that the farmers had managed to slightly increase the initial price offered by the government. However, I could not locate any official document describing the process of negotiation or indicating the prices agreed. The same Commissioner for Resettlement and Rehabilitation whom I interviewed in Hyderabad was very vague on the topic. Generally, it seems that the Land Acquisition Act leaves a substantial element of discretion for the government in directing the process of negotiation, and more seriously, it does not impose standards of transparency and principles of fairness.

The farmers who took part to the survey and the CE were well aware of the gap existing between the price for land which they were being paid and the value of land at the resettlement area. For instance, respondent No. 26 claimed to have received Rs. 201,250 as compensation for the loss of 1.75 acres of land (that is at the rate of Rs. 115,000 per acre). With the same amount, assuming that land in the resettlement area costs Rs 500,000 per acre, he will be able to purchase only 0.4 acres of land. Similarly respondent No. 107, who claimed to have received Rs 618,000 for 6 acres of land, will only be able to purchase 1.2 acres of land. So from being considered a small farmer (i.e. owning five or more acres of land) he will become a marginal farmer (with less than five acres).

As a result, most non-tribal farmers will only be able to purchase smaller plots of land, and many will become landless. Overall, resettlement will be accompanied by an increase in landlessness and fragmentation of landholdings, which in turn will lead to an increase in tenancy and dependence on agricultural wage labour.

Furthermore, it is unlikely that the redistribution of property rights in favour of the STs will lead to a more equal landholding structure. In fact, it comes at the expenses of an already vulnerable and disadvantaged group of people, the (often SC) small and marginal farmers. At the same time, non-tribal big farmers illegally owning land in the area, can be seen to gain from this process, as it gives them a chance to dispose of land which they are not supposed to own and to even receive some compensation for it. The loss of land will

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<sup>166</sup> This was the figure repeatedly mentioned by the respondents complaining about cash-for-land compensation during the interviews and the focus groups.

not significantly affect their livelihood, as in most cases they own land in other locations and will be able to purchase more elsewhere. This was the case, for instance, of the big farmer owning land in the village of Vinjaram mentioned above: living in Hyderabad, he was able to use the compensation money to purchase land elsewhere.

Finally, even when land-for-land compensation is provided, the restoration of the disrupted livelihood is not guaranteed. For instance, the land given as compensation to the Polavaram affected people is of poorer quality than that previously owned, with consequences for its productivity.

A number of the families interviewed (from among those who had already received compensation or had been shown the resettlement area) reported that the land offered was of low quality or far away from the resettlement colony. The quality of the soil was also mentioned as one of the main disadvantages of the relocation colonies during the focus groups. The villagers of Sirivaca, for instance, reported that after having been shown the resettlement area, they complained about the quality of the land (which is sandy) and asked to be assigned another site without success. The resettlement colony for the village of Devaragundi (called New Devaragundi) is five km away from the agricultural land assigned by the government. Low quality land (either infertile or not ready to be put immediately into production) results in lower productivity, more intense work, and above all, a delay in the collection of the first harvest. The fact that land is far away from the resettlement colony entails a significant amount of time and/or money for transport to be spent in travelling to the fields. At present many farmers own land in an ideal position: between the river and the hills and within walking distance from the village; however this fact does not seem to have been taken into account in the estimation of the value of land and land compensation.

To conclude, livelihoods based on land are disrupted by displacement, as the latter implies the loss of the main means of production. Compensation and the R&R package in Polavaram do replace the expropriated land in cash or in kind, but also lead to an alteration in the terms of access to land as a means of production. Thus, they do not adequately support the restoration of the disrupted livelihood, and instead lead to an increase in landlessness, fragmentation of landholdings, increase in inequality and reliance on agricultural wage labour.

### ***7.3.3. Limitations of Cash Compensation: money does not buy a new livelihood***

Compensation and R&R packages are ostensibly designed to retribute to the affected people the equivalent of the material losses borne as a consequence of displacement. Restitution can take place *in kind* (as is the case of land or housing) or *in cash*. Chapter 2 demonstrated how a microeconomic rationale can be called upon in support of cash compensation, according to which money can be claimed to be the best form of compensation as it provides the freedom for the recipients to employ it according to their own preferences, without any imposition on the side of the project authority. With money, people are free to replace what has been lost (whether assets or consumption goods) or not. However a number of constraints impinge on this freedom in practice, and in fact, cash compensation is the form of restitution which least enables the displaced people to regenerate or reconstruct their disrupted livelihoods.

Firstly, money does not necessarily put the affected households in the condition to replace the assets which have been expropriated or lost, if the markets for these assets do not exist, or if the affected households, for some non-economic reasons, do not have access to them. This is particularly the case for land. If land is scarce in the resettlement area, or the land market is interlocked with the credit market and both are shaped by power and exploitative relationships, then being given an amount of money to purchase a replacement plot of land as large as the one lost might not lead to the expected outcome. Of course the existence and the accessibility of the land market become irrelevant if the compensation paid is unfair and insufficient in the first place. This happens when land compensation is estimated at the price for land in the displacement area rather than in the resettlement area, and in the latter the land market is more developed and the price for land is higher. It was demonstrated in the previous section how this is the case for the land compensation paid to the non-tribal families displaced by the Polavaram dam and how this implies a resulting inability to purchase land in the relocation area.

Constraints can also arise if the affected households are unused to carrying out transactions in significant amounts of money or have a low propensity to save. This effect might be enhanced by the existence of binding cash constraints at the family level, so that when the money is received, it is immediately used, typically for everyday needs and petty consumption (e.g.: motorbike, fan, fridge or TV) or the repayment of an outstanding debt.

Even when saved, its primary purpose is often consumption smoothing or the reproduction of the household (health and education), rather than productive investment. Social expenses are particularly pervasive, especially those for the dowry of daughters, which are often disproportionately higher than the annual income of a household. Some families spend the whole amount for health expenses for a member of the family and eventually for his/her funeral.

In Polavaram, of 167 families interviewed, only 46 had already received some cash compensation (either for land and house compensation or for the R&R package). Of these, 31 claimed that they had deposited at least a part of the sum in a bank (the amount ranging from Rs 20,000 to Rs 200,000); only one ST family reported that it had invested part of the money in agriculture; two non-ST families stated that they had used it to purchase land, and two families for the purchase of cattle. At the same time, six families mentioned that they used (or intend to use) part of the money for the dowry or the marriage of children, two families for health expenses, two for children's education, eight for house purchase or construction, and three to purchase a motorbike; three said that they had redistributed the money among the members of the family, one had used it for loan repayment, and 13 for general everyday expenses.

Even when deposited in the bank, the compensation does not seem likely to be used for productive purposes (apart from perhaps the education of the children, which, however, does not help in regenerating a livelihood in the short term). In the first place, the amounts declared by the households which took part to the survey are too small to purchase even an acre of land in the resettlement area; therefore they seem insufficient to constitute the basis for the generation of a new livelihood. It is to be expected that this money will be used for future consumption needs or saved to be used in case of shocks, considering the high level of vulnerability of the affected families.

What this evidence suggests, is that cash transfers to families below the poverty line are welcomed but used for consumption rather than productive purposes. This is also consistent with the mixed attitude towards cash compensation shown by the participants to the focus groups and the CE carried out in the affected villages.

During the focus groups the participants were asked, among other things, to express their opinion on the fairness of the compensation provided by the government and to explain

what kind of compensation they would have preferred, as well as how much money would have made them satisfied.<sup>167</sup>

In all the focus groups some dissatisfaction was expressed towards the amount of money granted by the government and in two cases the participants stated that they wanted Rs 300,000 (plus housing and land-for-land compensation) and Rs 10,000,000.<sup>168</sup> Land-for-land compensation, housing, relocation close to the forest and a secure job were mentioned as the fundamental elements of a fair compensation and R&R package. These preferences are comparable to those expressed during the CE. As described in section 7.2.2, the participants were asked to choose between the “status quo” package (package *Forest* and an “only cash compensation” package (package *Money*). In only 14% of the 167 cases, package *Money* was indicated as the preferred option. In the exercise *Ranking*, package *Money* appeared more often as the least preferred option (110 times out of 160). Finally, the respondents more inclined to prefer cash compensation were those less reliant on the forest or on their own land as sources of livelihood: package *Money* was in fact preferred more often by non-ST, by landless and by respondents with a source of income independent from agriculture.

This is consistent with our previous claim that cash compensation is welcomed by the recipients as a support to their consumption, but that it is not perceived as a substitute for the lost means of production and physical and social reproduction (land and forest).

The CE also offered another explanation for the generalised distrust of cash compensation and the clear preference for other forms of restitution. The majority of the participants preferred a smaller amount of cash compensation paid in a one-time transfer to a higher amount paid in instalments delayed in time, because of the scepticism that the government would in fact pay all the instalments: people feared that the government might “change its mind”, especially as a result of the change of the party in power. Almost two centuries of abuse and neglect by the state (the Colonial Rule first, and later, the

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<sup>167</sup> The exact wording of the questions was (see also Appendix VI):

-Do you feel the compensation that you received is fair? Or do you feel that the government has somehow cheated you?

-what would you like to receive in exchange for having to leave your house and your land and be relocated somewhere else? What do you think the government should give you as compensation for your losses?

-How much money do you think the government should pay to you?

These questions were put during the focus groups held in Chegondapalli, Tutigunta, Talluru and Kegunduru.

<sup>168</sup> I interpreted the amount Rs 10,000,000 as meaning that the person wanted much more money than what the government was offering, and a marginal increase in the price paid for land would have not been sufficient to make him happy.

government of Hyderabad), particularly in the form of the Forest Department towards the tribal people and more generally the inhabitants of the hills, can easily explain this feeling.<sup>169</sup> The state has no track record for delivering benefits in due time, and on the contrary, it is perceived as the bearer of the disruption of the lives of hundreds of thousands of people. It does not come as a surprise that promises of compensation and reward are not always taken seriously, or that, at best, they will be temporary expedients attached to the party in power.

Of course this controversial relationship between the affected population and the project authority, which in this case is the state, is particular to the local history and political situation and does not impinge on the appropriateness of cash compensation in itself. However, leaving aside the fact that it is a contingency, the Polavaram case underlines that more often than not when it comes to displacement-inducing projects, the methods of compensation and resettlement cannot be determined in a vacuum, as their effectiveness is also the result of the interplay of the agents involved. If the families are inclined not to believe the promises that they are made, there are various significant consequences: they are less likely to cooperate and work for the success of the project and the resettlement process; they will face losses through the demobilisation of existing assets, rather than holding on and waiting for the money transfer; and are likely to adopt short-term coping strategies which will accelerate the disruption of livelihoods.

More generally, it is unlikely that any kind of development path can be pursued by the state and the population if a minimum of mutual trust is not guaranteed.

Further on, some considerations also need to be taken on the methodological implications of an extensive use of cash compensation. Providing cash compensation entails estimating the value of the losses for which the former is granted. This practice does not come without consequences. In the first place, it attributes to the project authority the power to decide what kind of losses can and cannot be compensated for. The risk of subjectivity and variability of outcomes here is high in the choice of the intangible losses which should be compensated. National policies and international guidelines exist to limit this risk, but even

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169 Interestingly, comments on the unreliability of the government were reported by tribal and non-tribal families alike. Despite the fact that tribals have been the main victims of land alienation and forest eviction, SCs and marginal farmers in general have suffered the abuses of the Forest Department and are distrustful of the state.

in the case that the project authority adheres to them, a significant level of variability and randomness remains in the *estimation* of these losses.

As illustrated by the case of land, attributing a price to physical losses can be problematic. Transparency and objectivity in the estimated value are severely undermined when there are no markets and no prices *at all* to refer to. The tribals of Polavaram will be uprooted from the forest, which is their traditional environment and the foundation of their spiritual, cultural and social life. Attributing a monetary value to this loss is impossible and probably not even desirable. However, if the whole idea of compensation is based on monetary estimation and restitution of the losses incurred, the implication is that tribal people (and with them all the others in comparable situations) will never be fully compensated and will always lose from displacement.

Finally, even in the case that compensation is fair, sufficient to purchase replacement land and other productive assets, and that an accessible land market exists, the reconstruction of new livelihood takes more than just money. Personal skills and institutional support are needed to invest in income-generating activities. The Polavaram R&R package, however, does not envision any type of mechanisms to endow the displaced people with additional skills or assets which can help them to invest the money productively. More generally, no attempt is being made to link compensation and resettlement with the creation of employment opportunities outside agriculture and to understand livelihoods in a dynamic way.

#### **7.4. Conclusion**

This chapter assessed the Polavaram Resettlement and Rehabilitation package on the grounds of evidence generated through methods of direct consultation of the affected population. These methods informed on the modalities of compensation and resettlement favoured by the affected people, and suggested three key issues which need to be addressed to achieve a fair and effective resettlement. These issues were the loss of the forest, the modalities of land compensation (in cash or in kind) and the appropriateness of cash compensation.

The chapter investigated the conformity of the PRRP to the resettlement preferences expressed through the consultation methods, finding that these are only marginally met.

Moreover, it examined the ability of the package to address the three key issues mentioned above and more generally to put the affected people in the conditions to restore the disrupted livelihoods or generate new ones. It was found that these conditions are not created for the Polavaram displaced people, and that in fact resettlement alters in a regressive way the terms with which they can access the means of production and reproduction.

The major shortcomings lie in the exclusive focus on cash compensation, the inadequate handling of land compensation and the neglect of the creation of employment opportunities outside agriculture. The interaction of these shortcomings with the *structural factors* discussed in chapter 6 makes resettlement have important dynamic consequences, which ultimately will lead to the adverse incorporation of the displaced population into economic development. Before clarifying this point, it is important to note that these shortcomings are derived from the legal and policy framework on which compensation and resettlement in Polavaram are based.

As seen in chapter 5, in the absence of a national R&R Bill, compensation for the expropriated land is regulated by the Land Acquisition Act of 1894 and resettlement by the Andhra Pradesh R&R policy. The Land Acquisition Act allows for land to be estimated at the market value in the displacement area and through non-transparent processes of negotiation, leading to unfair prices being paid to the displaced people. As concerns resettlement, the PRRP reflects the strengths and the limitations of the AP policy. The main strength is the acknowledgement of the livelihood disruption which comes with displacement and the attribution to the government of the responsibility to compensate the affected people for the loss implied. The requirement to conform to the Forest Rights Act has substantially contributed to this policy, making compulsory the provision of land-for-land compensation to tribal families. The issue however is addressed with the mere payment of additional monetary allowances to the different categories of families, and monetary compensation is intended as a form of restitution, not as a tool to address the short, medium and long term effects of these processes.

Overall, there is no account for the dynamic consequences of displacement and resettlement, which are increase in landlessness, in fragmentation of landholdings, and in reliance on agricultural wage labour. They are the results of the interaction between the shortcomings of the PRRP with the characteristics of the affected population, of the

agrarian sector and more broadly of the path of capitalist development at play in the affected area. Moreover, they coincide with the mechanisms which chapter 6 identified as the factors driving the reproduction of surplus labour in Andhra Pradesh.

The key argument of this thesis comes now full circle. The resettlement of the people displaced by the Polavaram dam is likely to lead to their adverse incorporation because of the interaction between shortcomings in its design and context-specific structural factors. This interaction results in the alteration of the terms of access to means of production and reproduction for the affected people and as a consequence it reinforces the mechanisms which underpin surplus labour. As a result, resettlement will further push people into surplus labour and will adversely incorporate them into development.

## **Chapter 8**

### ***Conclusion and Policy Recommendations***

This thesis has investigated the resettlement of the population displaced by the Polavaram dam project in Andhra Pradesh (AP). The construction of the dam will lead to the submersion of 177 villages and the displacement of 200,000 people, of whom the greatest majority belongs to SCs and STs. It was found that the R&R programme set up by the government is likely to fail in preventing the further impoverishment of the population displaced and thereby to adversely incorporate them into the local process of development. The investigation has consisted in an assessment of the performance of resettlement following three strategies of inquiry.

#### **8.1. Summary of the findings**

The first strategy of inquiry used focus groups and a consultation exercise based on choice experiment approach to assess resettlement in Polavaram through the affected population's own opinion and preferences, specifically interrogating them about the favourite forms of restitution and relocation.

The most evident finding was that the respondent considered the loss of access to the forest the main cost of displacement and that the majority of the people would have preferred to be relocated in a settlement securing the perpetuation of the access to the forest and the Godavari river. Another finding was that people had a clear preference for land-for-land compensation, which confirms that in people's view land remains the main productive asset and most secure source of income.

The thesis further showed that people had mixed attitudes towards a resettlement package which included a self-employment programme. This finding suggests the existence of a tension between people's willingness to engage in (possibly more profitable) activities outside farming and the reluctance to abandon the known livelihood strategy. From the discussion held within the focus groups, however, it clearly emerged how people would be willing to engage in any type of employment programme and that a secure job would have constituted an adequate form of compensation.

Cash compensation was found to be the least preferred form of compensation when compared to relocation in a settlement securing access to the forest, to land-for-land compensation and to resettlement with a self-employment scheme. One reason for this result was the fear that the government would not honour its commitments, particularly if payments were made in instalments.

Overall, from the direct consultation of the Polavaram affected population three issues emerged as the problematic aspects of their displacement and resettlement: the loss of the forest, the modalities of land compensation (in cash or in kind) and the appropriateness of cash compensation.

The second strategy of inquiry described the content of the Polavaram Resettlement and Rehabilitation package (PRRP) and provided a description of some aspects of its practical implementation. The analysis revealed that the PRRP meets the preferences expressed by the affected people only marginally, and it does not address adequately the three issues identified above.

First, the PRRP relocates people far from the forest and the river; meanwhile access to the forest, which is a key source of physical and social reproduction, is not restored after resettlement, nor is its loss adequately compensated. Second, the PRRP grants land-for-land compensation only to ST households. The non-tribal families are paid monetary compensation for the loss of land, at a price which is insufficient to repurchase land in the resettlement areas. As a result, many non-tribal families will become landless after relocation. Third, the PRRP focuses almost exclusively on cash compensation, which is provided in insufficient amounts, and paid in irregular and unpredictable instalments. Moreover, monetary compensation is not quantitatively and qualitatively adequate by itself to enable people to reconstruct a new livelihood. Finally, in virtue of the fact that the package claims to compensate for the loss of livelihood with a lump sum monetary compensation, no initiatives are contemplated for the generation of employment opportunities outside agriculture. The only preference which in fact is met by the package, is the relocation of the whole community in one settlement, regardless of the social group.

So, the major shortcomings of the PRRP lie in the exclusive focus on cash compensation, in the inadequate handling of land compensation and in the neglect of the creation of employment opportunities outside agriculture. In reason of these shortcomings, the PRRP

will lead to an alteration of the terms of access to the means of production and reproduction for the displaced families, while not creating the conditions for the restoration of the disrupted livelihoods or the generation of new ones. Moreover, it will have dynamic consequences in terms of increase in landlessness, fragmentation of landholdings and casualisation of labour.

The third strategy of inquiry applied the adverse incorporation framework to the case study, focusing on the economic dimension of incorporation. First, the structural factors which are liable to turn the resettlement of the Polavaram people into a process of adverse incorporation were identified in the structures and mechanisms which underpin the production of surplus labour in AP.

Surplus labour in rural AP is composed of small and marginal farmers and agricultural wage labourers, primarily belonging to SCs and STs. These groups engage in a variety of employed and self-employed activities that can only guarantee subsistence. The production and reproduction of this pool of redundant labourers is the outcome of, on the one hand, the inability of the AP's growth strategy to create enough remunerative employment which could absorb this surplus labour. On the other, it's the result of the processes of differentiation underpinning the agrarian sector. These processes have contributed to turn small and marginal farming into a risky and unprofitable activity, forcing farmers to seek additional sources of income. In absence of employment opportunities outside farming, this means resorting almost exclusively to agricultural wage labour. So, surplus labour is reproduced through fragmentation of landholdings, which increases the marginality of farming, landlessness, which pushes people towards wage labour, and casualisation of labour, which makes the labour available precarious and unsecure. Moreover, social structures of accumulation such as caste and gender regulate the social relations in which surplus labour engages.

Further, the analysis of the characteristics of the Polavaram affected people revealed that the latter are exposed and indeed embedded into the structures and mechanisms which underpin surplus labour. It was then highlighted how these structures and mechanisms interact with the shortcomings of the Polavaram resettlement package in turning resettlement into a process of adverse incorporation.

First, the exclusive focus on cash compensation is particularly problematic when the

affected people are poor because the compensation tends to be used for consumption smoothing rather than investment, and therefore is not used for the purpose of livelihoods reconstruction. Indeed, this was found to be the case for the Polavaram affected people.

Second, the inadequate handling of land compensation interacts with the history of tribal land alienation that characterises the displacement area. Using positive discrimination to amend for the injustice endured by tribals, the PRRP risks to increase the number of landless and marginal farmers among the Scheduled Castes. In this way, it will reinforce the processes of differentiation and polarisation underpinning the agrarian sector.

Finally, the lack in the PRRP of provisions for the generation of employment opportunities outside farming is particularly harming to the Polavaram people, who are used to rely on the forest as key source of livelihood. The latter is lost and not replaced with an alternative source of livelihood, in a context where employment creation is limited to casual wage labour. As a result, the latter will be the only available livelihood source for most of the affected people.

In other words, the interaction of the PRRP's shortcomings with structures and mechanisms will lead to a reinforcement of these very same structures and mechanisms, thus further pushing people into surplus labour and adversely incorporating them into the local process of capitalist development.

The results presented above and in particular the findings regarding the appropriateness of the PRPP stand in strong support of the research questions and hypotheses posed in this dissertation.

To start with, this thesis showed that issues of management and implementation do affect the overall performance of resettlement, but their neglect cannot account as the exclusive cause of the failure of resettlement programmes.

The resettlement of the Polavaram affected population is still at its initial stages and is far from completion, therefore it is not yet possible to provide an overall and comprehensive assessment of its implementation and management performance. However, the preliminary results revealed that even the initial stages of the resettlement operations (i.e. payment of compensation and construction of the new settlements) are behind schedule, possibly because of lack of funds. Besides, the project records a poor

performance in consulting people about their resettlement. In fact, a dialogue has been pursued by the government only ex post and with a top-down paternalistic attitude, thus limiting its effectiveness. This attitude also contributes to make adverse the terms in which the affected population is politically incorporated through resettlement.

Nonetheless, the inability of the PRRP to restore old or create new livelihoods, so as its dynamic consequences, are only marginally the results of the so far unsatisfactory implementation of the package. Rather, they reflect shortcomings in the design of the package itself and, to the extent that the package complies with the existing legal and policy framework, also the limitations of the latter. As outlined above, these shortcomings descend from (i) the inadequate consideration of the sources of livelihood of the affected people and the fact that access to these resources is altered and made more regressive by resettlement; (ii) the fact that the compensation and resettlement programmes do not account for the agrarian and labour market conditions in the area to which people will be relocated; and finally (iii) the fact that no account is taken of the lack of employment opportunities outside agriculture and outside the rural sector.

Thus, the analysis demonstrated that the failure of resettlement in preventing impoverishment is largely caused by structural factors which depend on the characteristics of the affected population, the features of the displacement and relocation areas and the development path undertaken by the specific context. The dominant discourse around displacement and resettlement, i.e. the 'reformist-managerial' approach, with its almost exclusive focus on issues of implementation and management, does not account for these structural factors.

Further, using a political economy approach this thesis achieved a richer and much more articulated understanding of the causes of the failure of resettlement, which included particularly the identification of the structural factors which in Polavaram will affect the outcomes of resettlement. For this purpose, the thesis developed a framework based on the notion of adverse incorporation and, focusing on the economic dimension of incorporation, it investigated the link between the systematic failure of resettlement and the dynamics of capitalism which trigger displacement in the first place. It was found that this link is explained by two notions of political economy: accumulation by dispossession and surplus labour. Resettlement fails in preventing impoverishment and turns into a process of adverse incorporation, because it is required to dispose of people expropriated of their means of

production and reproduction and made redundant by accumulation by dispossession. The redundancy and the impoverishment are caused by the lack of employment opportunities outside the agricultural sector. In addition, the agricultural sector is itself risky and unprofitable and does not guarantee sustainability and subsistence. In other words, the process of capitalist development which, on the one hand, demands a displacement-inducing project, is on the other not able to accommodate the displaced population.

The application of this theoretical argument to the case-study required the use of secondary evidence at the state and national level, because the primary evidence available at the Polavaram dam level was not sufficient to explore all the categories of analysis. This opens a window of opportunity for future research, which should be dedicated to collect empirical evidence on what are the current terms of incorporation of the Polavaram affected people and how these are likely to be affected by resettlement. In other words, a more complete application of the adverse incorporation framework to the case study would require an analysis of the processes of differentiation and agrarian change in the displacement and in the resettlement area, with particular attention to the evolution of land, labour and debt relations.

The results presented above also confirmed this thesis' hypothesis regarding the excessive and misplaced emphasis on the potential contribution of welfare economics in providing principles and methodologies for the improvement of compensation and resettlement. This literature has recommended the use of contingent valuation and choice experiment methodologies for the estimation of the costs of displacement through the elicitation of WTA money in exchange of displacement of the affected population. The argument is that the estimation of the costs of displacement indicates the optimal amount of monetary compensation, i.e. the amount which, if paid, would make displacement (and resettlement) *voluntary*. This thesis has criticised the above argument on the grounds of two findings. First, the assumptions concerning people's behaviour and preferences required for the application of the aforementioned methodologies were too restrictive and possibly implausible in the context object of study. The very implementation of the choice experiment with the Polavaram affected population provided evidence that the preferences of people regarding their resettlement do not behave as predicted by rational choice theory. Second, there is no such thing as an optimal amount of money which if paid would make

displacement voluntary, at least to the extent that displacement disrupts aspects of people's life which are deemed incommensurable, such as ancestral land, relationship to the forest and life with one's community. This was suggested by the consultation exercises run with the Polavaram people and in particular by the failure of the attempt to estimate WTA relocation without community.

In addition, and more significant in terms of policy implications, cash compensation resulted to be i) not the favourite form of compensation by the displaced people, and ii) not sufficient to turn resettlement into a successful process, being by itself not adequate to enable people to reconstruct their disrupted livelihoods or generate new ones.

Finally, choice experiments proved to be useful tools for the design of better resettlement packages if employed for the direct consultation of the affected people. As choice experiments ask respondents to choose between different varieties of the same good, if applied to resettlement packages, they can suggest the form of compensation and the type of relocation preferred. This in turn can help identifying what is deemed as an acceptable form of restitution by the affected people and what aspects of their livelihoods need to be more carefully restituted or compensated (not necessarily with money), in order to reduce the unfairness of displacement and to ensure the success of the resettlement operations.

## **8.2. Resettlement of people displaced by development: a problem in theory, a problem in practice**

This research has investigated how the failure of resettlement in preventing the impoverishment of the displaced population is determined at, or reflected through, the theoretical, methodological and practical level. It found that, indeed, the failure of resettlement in practice is matched by a poor understanding of resettlement at the theoretical level.

In this context, this thesis has advocated the use of political economy to research resettlement, and in particular a framework based on the notion of adverse incorporation. This was based on the assumption that a better theoretical understanding of the problem will lead to more efficient solutions and thus to the design of resettlement schemes able to prevent impoverishment.

The main predicament of a political economy approach to resettlement is that the performance of the latter cannot be separated from, and significantly depends on, the specific process of development in the relocation area. More importantly, from a political economy point of view, resettlement needs to be connected to the mechanisms which dysfunctionally link the poor with development. That is to say, a progressive, and more likely to be successful, resettlement programme, is one which is connected to initiatives directed to shift the balance of power in agrarian and labour relations in favour of the displaced people. The latter remark is particularly significant here as it uncovers the main limitation of the adverse incorporation framework, that is the magnitude and the complexity of its policy recommendations. Indeed, to the extent that what turns resettlement into adverse incorporation is the action of inherent structural factors, addressing the problems requires tackling these factors at the macro level. However, a resettlement programme by itself cannot be invested of the task of making small and marginal farming profitable and creating employment opportunities in the rural non-farming sector. What instead can be done, is to develop progressive demands in favour of small farmers and wage labourers within resettlement policies, and connect the latter with broader political aims of poverty reduction and more equitable distribution.

Adopting a political economy approach also means that the assessment of the performance of resettlement must focus on the position that people will occupy into capitalist development after resettlement and as a consequence of displacement. This assessment has to be made in addition to, and irrespective of, considerations about the necessity of the project, the brutality of displacement, and the legitimacy of localised forms of resistance (aspects whose importance of course is not denied). According to this perspective, resettlement is successful if it avoids adversely incorporating the displaced people into capitalist development.

This perspective also prompts to look for the conditions at which incorporation triggered by resettlement can be turned from *adverse* into *beneficial*. The existence of positive consequences of resettlement emerged in this thesis in the discussion of the political, spatial and socio-cultural dimension of the incorporation of the Polavaram affected people. Another policy prescription of the adverse incorporation framework then is to foster those dynamics triggered by resettlement which are liable to make the incorporation beneficial (e.g. promoting participatory processes in the definition of the resettlement packages, which

can promote political inclusion). This view is also reflected in this thesis' conclusions about the appropriateness of monetary compensations: a decent cash compensation *must* be paid, not least for fairness reasons, but the way it is actually used by the recipients cannot be ignored when assessing its effectiveness. If poor displaced people use the money that they receive as compensation to improve their consumption and not to restore their disrupted livelihoods, then other devices must be arranged to meet this objective. In addition, it must not be forgotten that paying more money does not change the inherent nature of displacement, which remains a disruptive, unfair and imposed process.

These considerations on the relevance and the utility of monetary compensation are not contingent to the findings of this research. This is not to say that the preferences of the Polavaram people concerning compensation and resettlement which were revealed by the choice experiment and the focus groups are representative of the preferences of each and every poor tribal person or marginal farmer displaced by development in India, let alone of all the displaced population around the world. For instance, a similar exercise run by Garikipati (2005) with the people displaced by the Sardar Sarovar Project in the Narmada Valley found that the respondents did not intrinsically oppose relocation, even when this meant loss of access to common property resources, including grazing land and forest. Besides, cash compensation for this loss was, to a certain extent, deemed acceptable by the respondents.

However, what the case of the Polavaram dam *is* representative of, is the alteration of the terms of access to the sources of livelihood caused by displacement, and the inability of cash compensation alone to counterbalance this alteration in favour of the displaced people. If displacement takes place in a context where few employment opportunities outside agriculture exist, and the agricultural sector is itself residual and unprofitable, the fact that the displaced people have a preference for monetary compensation and are happy to be relocated away from the forest and in plain areas, does not substantially alter the ability of the resettlement programme to reconstitute old or generate new livelihoods. To the extent that we assess resettlement on the grounds of its ability to prevent impoverishment, and of what it entails in terms of incorporation into capitalist development, whether cash compensation is liked or not, does not matter for the analysis.

### 8.3. Policy Recommendations for Polavaram and beyond

Resettlement in Polavaram is still at its early stages. This means that there is a window of opportunity to improve not only the implementation of the resettlement package, but also its substance. Several concrete policy recommendations emanate from the research conducted for this thesis.

First, despite the previous claim that cash compensation alone is not the *panacea* for a successful resettlement, the amount of cash compensation paid to the Polavaram displaced people must be increased. The payment of a cash compensation remains important for two reasons: i) adequately retribute for the material losses caused by displacement, land above all; ii) avoid drops in consumption caused by the disruption of the affected people's livelihoods. It is imperative in particular to raise the price paid for the expropriated land, so that it approximates the price for land in the relocation area. This would assure that non-ST farmers will be able to repurchase land after relocation, and it would mitigate the fragmentation of landholdings and the increase in landlessness. More generally, paying a higher price for land will reduce the inequalities created by granting land-for-land compensation only to ST families, which in turn will improve the fairness of the process.

Second, given the conditions of the agricultural sector in AP highlighted in this thesis, and in particular the obstacles to turning farming into a profitable activity, assistance must be given to all small and marginal farmers, regardless of the social groups, even after relocation has taken place.

Third, the loss of access to the forest must be addressed more effectively, not only with the payment of a one-off grant, but also with the provision of insurance or buffer schemes, to compensate for oscillations in consumption and income in presence of shocks.

Fourth, employment and self-employment programmes in the rural non-agricultural sector which already exist in the relocation areas must be reinforced and clearly targeted at the population affected by the Polavaram dam project.

Fifth, cash compensation can have a dent in people's ability to regenerate their livelihoods only if it is paid according to a pre-established schedule and before relocation takes place. Thus, the government of AP must make an effort to pay the remaining monetary compensation in a predictable and transparent way.

Finally, the government is still on time to implement systematic and transparent consultations with the affected population concerning all the issues emerging in the future stages of relocation and rehabilitation, including the location of the resettlement villages. Such consultations could aid to create a climate of mutual trust and cooperation between the affected people and the government authorities. This, in turn, could increase the programme's overall chances of success.

The recommendations made for improving resettlement in Polavaram also extend to the AP Resettlement and Rehabilitation policy and more importantly to the Resettlement & Rehabilitation Bill under discussion in the Indian Parliament. However, for both these two legislative levels, the baseline recommendation remains the minimisation of displacement. Indeed, the latter is also the most effective and possibly less costly way of avoiding the failure of resettlement in preventing impoverishment. All this considered, three final general considerations can be made with respect to what is needed to improve resettlement policies and make resettlement programmes more likely to prevent the impoverishment of the displaced population. Firstly, resettlement of people displaced by development can only start resembling a fair process if maximum effort is made by the government to make it a democratic and participatory one. This is especially so when the decision to implement the project itself was neither shared nor democratic.

Secondly, resettlement programmes must heavily focus on the reconstruction of livelihoods after relocation. This implies granting land-for-land compensation whenever possible and in a way which mitigates, and not reinforces, the existing inequalities in the distribution of land. But more importantly, it means linking resettlement to issues of work and employment for the displaced people, namely accompanying resettlement programmes with interventions directed at creating employment opportunities in the rural non-farm sector, reducing the segmentation of labour markets and the regressivity of certain labour relations, and strengthening the position of small and marginal farmers in the agrarian sector.

Thirdly, the more the costs and the benefits of the project are unequally distributed among the population, the more there is need to supplement compensation and resettlement with some mechanisms of benefit sharing. The most appropriate mechanism should be identified in each specific circumstance, however the poorest are the displaced people, the more the mechanism should resemble a periodical monetary transfer to each affected family.

A periodic monetary transfer, in fact, would effectively support people's consumption also in the long term, while re-equilibrating the distribution of the costs and benefits from the project.

In conclusion, the implementation of the three mechanisms just described, that is participation in decision making, creation of secure and remunerative employment, and periodical cash transfers, would contribute to link resettlement programmes to the broader aims of poverty reduction and equitable distribution, thus turning resettlement into a progressive process.

## Bibliography

- ABC Live (2011). India to Accept NAC's Recommendations on Land Acquisition, Rehabilitation, 19 May 2011, accessed on Wednesday 1 July 2011 <http://abclive.in/national/national/391-nac-land-acquisition-rehabilitation.html>.
- Adamowicz, W. and P. Boxall (2001). Future Directions of Stated Choice Methods for Environment Valuation. Paper prepared for: Choice Experiments: A New Approach to Environmental Valuation. Department of Rural, Economy University of Alberta and Canada. April 10, 2001 London.
- Adamowicz, W., P. Boxall, et al. (1998). "Stated Preference Approaches for Measuring Passive Use Values: Choice Experiments and Contingent Valuation." American Journal of Agricultural Economics **80**(1): 64-75.
- ADB (1998). *Handbook on Resettlement. A guide to Good Practice*, Asian Development Bank.
- ADB (2007). Compensation and Valuation in Resettlement: Cambodia, People's Republic of China, and India Capacity Building for Resettlement Risk Management Series, Asian Development Bank, Rural Development Institute.
- Agricultural Finance Corporation (2005). *Volume II: Resettlement and rehabilitation project affected persons economic rehabilitation plan (PAPERP)*. Environmental Impact Assessment (EIA), Government of Andhra Pradesh.
- Agricultural Finance Corporation (2005b). *Indira Sagar (Polavaram): a multipurpose major irrigation project, Volume I*. Environmental Impact Assessment, Government of Andhra Pradesh.
- Akram-Lodhi, A. H. (2007). "Land, markets and neoliberal enclosure: an agrarian political economy perspective." Third World Quarterly **28**(8): 1437-1456.
- Akram-Lodhi, A. H. and C. Kay (2009). Peasants and globalization : political economy, rural transformation and the agrarian question. London; New York, Routledge.
- Akram-Lodhi, A. H., C. Kay, et al. (2009). The political economy of land and the agrarian question in an era of neoliberal globalization. Peasants and globalization : political economy, rural transformation and the agrarian question. A. H. Akram-Lodhi and C. Kay. London, New York, Routledge.
- Alivelu, G., K. Srinivasulu, et al. (2010). State Business Relations and Performance of Manufacturing Sector in Andhra Pradesh. Working Paper No. 82. Begumpet, Hyderabad, Centre for Economic and Social Studies (CESS).
- Alpizar, F., F. Carlsson, et al. (2001). Using Choice Experiment for Non-Market Valuation. Working Papers in Economics No 52, Göteborg University, Department of Economics.
- Alsop, R. (2005). "Power, rights and poverty : concepts and connections." Washington D.C., World Bank.
- Amin, S. (1976). Unequal Development. An Essay on the Social Formation of Peripheral Capitalism. New York, London, Monthly Review Press.
- Amin, S. (1977). Imperialism and unequal development. New York, London, Harvester

Press.

- Amis, P. and S. Kumar (2000). "Urban economic growth, infrastructure and poverty in India: lessons from Visakhapatnam." Environment and Urbanization **12**(1).
- Araghi, F. (2009). The invisible hand and the invisible foot: peasants, dispossession and globalization. Peasants and globalization : political economy, rural transformation and the agrarian question. . A. H. Akram-Lodhi and C. Kay. London, New York, Routledge.
- Balagopal, K. (2007). "Land Unrest in Andhra Pradesh III: Illegal Acquisition in Tribal Areas. ." Economic and Political Weekly **42**(40).
- Banerjee-Guha, S. (2008). "Space Relations of Capital and Significance of New Economic Enclaves: SEZs in India." Economic and Political Weekly **43**(47).
- Bardhan, P. (1998). The Political Economy of Development in India. New Delhi, Oxford University Press.
- Bartolome, L. J., C. deWet, et al. (2000). Displacement, Resettlement, Rehabilitation and Development. Report submitted to World Commission on Dams, Thematic Review I.3.
- Bateman, I. and K. G. Willis (1999). Valuing environmental preferences : theory and practice of the contingent valuation method in the US, EU, and developing countries. Oxford; New York, Oxford University Press.
- Behura, N. K. and P. K. Nayak (1993). Involuntary Displacement and the Changing Frontiers of Kinship: A Study of Resettlement in Orissa. Anthropological approaches to resettlement : policy, practice, and theory. . M. M. Cernea and S. E. Guggenheim. Boulder, Colorado, Westview Press.
- Bernstein, H. (1996). "Agrarian question then and now." Journal of Peasant Studies **24**(1-2): 22-59.
- Bernstein, H. (2009). Agrarian questions from transition to globalization. Peasants and globalization : political economy, rural transformation and the agrarian question. . A. H. Akram-Lodhi and C. Kay. London, New York, Routledge.
- Bernstein, H., B. Crow, et al. (1992). Rural livelihoods : crises and responses. Oxford ; New York, Oxford University Press in association with the Open University.
- Bhaduri, A. (2008). "Predatory Growth." Economic and Political Weekly **43**(16).
- Bhaduri, A., U. A. Amarasinghe, et al. (2007). *Assessing the Irrigation benefits of India's River Linking: Case study—Godavari Krishna Link*. Unpublished report. New Delhi, International Water Management Institute.
- Bharati, L., V. U. Smakhtin, et al. (2009). "Modeling water supply and demand scenarios: the Godavari-Krishna inter-basin transfer, India." Water Policy **11**(Supplement 1): 140-153.
- Bhattacharya, R. (2010). Capitalism in Post-Colonial India: Primitive Accumulation Under Dirigiste and Laissez Fair Regimes. Open Access Dissertations. Paper 252. PhD Thesis, University of Massachusetts - Amherst.
- Bino, G. D. P., B. Kishore, et al. (2009). *India Labour Market 2008*. Deonar, Mumbai, Adecco-TISS Labour Market Research Initiatives (ATLMRI). Tata Institute of Social Sciences.
- Birkinshaw, M. and V. Harris (2009) "The Right to the World Class City? City visions and

- evictions in Mumbai." The Urban Reinventors Online Journal. The Urban Reinventors Paper Series 2005-2009
- Blaikie, N. W. H. (2000). Designing social research : the logic of anticipation. Cambridge, UK ; Malden, MA, Polity Press Edition: 2nd ed.
- Bombay First McKinsey (2003). VisionMumbai: Transforming Mumbai into a World-Class City. <http://www.visionmumbai.org/aboutusdocs/McKinseyReport.pdf>.
- Bondla, D. J. N. and N. S. Rao (2010). "Resistance against Polavaram." Economic and Political Weekly **45**(32).
- Bonefeld, W. (2001 ). "The Permanence of Primitive Accumulation: Commodity Fetishism and Social Constitution." The Commoner **2**.
- Bourdieu, P. (1977). Outline of a theory of practice. Cambridge, Cambridge University Press.
- Bracking, S. (2003). The Political Economy of Chronic Poverty. Working Paper No 23, Institute for Development Policy and Management, University of Manchester.
- Bracking, S. (2005). "Guided Miscreants: Liberalism, Myopias, and the Politics of Representation." World Development **33**(6): 1011-24.
- Brass, T. (1994). "Some Observations on Unfree Labour, Capitalist Restructuring and Deproletarianization." International Review of Social History **39**: 255-275
- Breman, J. (1996). Footloose labour : working in India's internal economy. Cambridge, University Press.
- Breman, J. (2001). "An Informalised Labour System. End of Labour Market Dualism " Economic and Political Weekly **36**(52).
- Breman, J. (2003). The labouring poor in India : patterns of exploitation, subordination, and exclusion. New Delhi ; New York, Oxford University Press.
- Breman, J. (2007). The Poverty Regime in Village India. New Delhi, Oxford University Press.
- Brenner, R. (1976). "Agrarian Class Structure and Economic Development in Pre-Industrial Europe." Past and Present **70**: 30-75.
- Byres, T. (2005). Neoliberalism and Primitive Accumulation in LDCs Neoliberalism: A Critical Reader A. Saad-Filho and D. Johnston. London, Pluto Press: 83-91.
- Byrne, D. S. (2005). Social exclusion. Maidenhead, England ; New York, Open University Press Edition: 2nd ed.
- Cammack, P. (2002). "Attacking the Poor." New Left Review **13**.
- Carson, R. (1999). Contingent Valuation: A User's Guide. Discussion Paper 99-26, Department of Economics, University of California.
- Census of India (2011). Provision Population Totals. Paper 2 of 2011: Andhra Pradesh. [www.censusindia.gov.in](http://www.censusindia.gov.in)
- Cernea, M. M. (1990). "Internal Refugee Flows and Development-Induced Population Displacement." Journal of Refugee Studies **3**(4): 320-339.
- Cernea, M. M. (1997). "The Risk and Reconstruction Model for Resettling Displaced Populations." World Development **25**(10): 1569-1587.
- Cernea, M. M. (1999a). The economics of involuntary resettlement : questions and challenges. Washington D.C., The World Bank.

- Cernea, M. M. (1999b). "Why Economic Analysis Is Essential to Resettlement: A Sociologist's View." Economic and Political Weekly **34**(31): 2149-2158.
- Cernea, M. M. (2000). Impoverishment Risks and Reconstruction: A Model for Population Displacement and Resettlement. Risks and Reconstruction: Experiences of Resettlers and Refugees. M. M. Cernea and C. McDowell. Washington D.C., World Bank.
- Cernea, M. M. (2003). "For a new economics of resettlement: a sociological critique of the compensation principle." International Social Science Journal **55**(175): 37-45.
- Cernea, M. M. (2008). Reforming the foundations of involuntary resettlement: introduction. Can compensation prevent impoverishment? : reforming resettlement through investments and benefit-sharing. M. M. Cernea and H. M. Mathur. New Delhi, Oxford University Press.
- Cernea, M. M. (2011). Broadening the definition of 'population displacement': Geography and economics in conservation policy. Resettling Displaced People. Policy and Practice in India. H. M. Mathur. New Delhi, Routledge and Council for Social Development, New Delhi.
- Cernea, M. M. and C. McDowell, Eds. (2000). Risks and Reconstruction: Experiences of Resettlers and Refugees. Washington D.D., The World Bank.
- CESS (2008). Human Development Report 2007. Andhra Pradesh. Prepared for the Government of Andhra Pradesh. Hyderabad, Centre for Economic and Social Studies.
- Chakravorty, B. (2004). *Gender Issues in Bonded Labour: A Study of Rangareddy District, Andhra Pradesh*. New Delhi, International Labour Office.
- Chambers, R. (1983). Rural Development. Putting the Last First. Harlow, England, Pearson Education Limited.
- Chambers, R. and G. R. Conway (1991). Sustainable rural livelihoods: practical concepts for the 21<sup>st</sup> century. Brighton, UK. IDS, (Discussion Paper 296).
- Chambers, R., Corp Author: Volta River Authority, et al. (1970). The Volta resettlement experience. London, Pall Mall Press.
- Chandra, P. and D. Basu (2007). Neoliberalism and Primitive Accumulation in India. Radical Notes. Wednesday, 07 February 2007, www.radicalnotes.com.
- Chandrasekhar, C. P. and J. Ghosh (2002). The Market That Failed. Neoliberal Economic Reforms in India. New Delhi, LeftWord Books.
- Cohen, R. and F. Deng, M. (1998). Masses in flight : the global crisis of internal displacement / Roberta Cohen and Francis M. Deng, Brookings Institution Press.
- COHRE (2006). Global Survey on Forced Evictions. Violations of Human Rights. Geneva, Switzerland, The Centre on Housing Rights and Evictions (COHRE). Global Survey 10.
- Colson, E. (1971). The Social Consequences of Resettlement - The Impact of the Kariba Resettlement upon the Gwembe Tonga. Manchester, Manchester University Press.
- Corbridge, S. and J. Harriss (2002). Reinventing India. Liberalization, Hindu Nationalism and Popular Democracy. New Delhi Oxford University Press.
- Creswell, J. W. (2009). Research Design. Qualitative, Quantitative, and Mixed Methods Approaches. Los Angeles, London, New Delhi, Singapore, SAGE Publications.

- Cullet, P., Ed. (2007). The Sardar Sarovar Dam Project: Selected Documents. Aldershot, Ashgate.
- D'Souza, R. (2006). Drowned and Dammed. Colonial Capitalism and Flood Control in Eastern India. New Delhi, Oxford University Press.
- Da Corta, L. V. D. (1999). "Unfree relations and the feminisation of agricultural labour in Andhra Pradesh, 1970-95." Journal of peasant studies **26**(2-3): 71-139
- Daly, H. E. (2008). Forced displacement: allocative externality or unjust redistribution? Can compensation prevent impoverishment? : reforming resettlement through investments and benefit-sharing. M. M. Cernea and H. M. Mathur. New Delhi, Oxford University Press.
- Das, S. (2006). The Land Acquisition Laws in India. Managing resettlement in India : approaches, issues, experiences. H. M. Mathur. New Delhi ; New York, Oxford University Press: viii, 317 22 cm. Language English.
- Davis, M. (2006). Planet of slums. London ; New York, Verso.
- De Angelis, M. (2001). "Marx and Primitive Accumulation: the Continuous Character of Capitals' "Enclosures"." The Commoner **2**: 1-22.
- De Angelis, M. (2004). "Separating the Doing and the Deed: Capital and the Continuous Character of Enclosures." Historical Materialism **12**(2): 57-87.
- De Wet, C. (1993). A Spatial Analysis of Involuntary Community Relocation: A South African Case Study. Anthropological approaches to resettlement: policy, practice and theory. M. M. Cernea and S. E. Guggenheim, Westview Press.
- De Wet, C. (2006). Development-induced displacement: problems, policies, and people, Berghahn Books.
- Deaton, A. and Dreze Jean (2002). "Poverty and Inequality in India. A Re-Examination." Economic and Political Weekly **37**(36).
- Deaton, A. and V. Kozel (2005). "Data and Dogma: The Great Indian Poverty Debate." World Bank Research Observer **20**(2): 177-199.
- Desai, S. B., A. Dubey, et al. (2010). Human Development in India. Challenges for a society in transition. New Delhi, Oxford University Press.
- Deshpande, R. S. and S. Arora, Eds. (2010). Agrarian Crisis and Farmer Suicides. New Delhi, SAGE Publications.
- Dobb, M. (1947). Studies in the Development of Capitalism. New York, International.
- Down to Earth (2011). *Polavaram fraud*, 15/05/2011 <http://www.downtoearth.org.in/content/polavaram-fraud>.
- Down to Earth (2011). *Why Polavaram is a pointless project*, 15/05/2011. <http://www.downtoearth.org.in/content/why-polavaram-pointless-project>.
- Dreze, J. and N. Stern (1987). The Theory of Cost-Benefit Analysis. Handbook of Public Economics (Vol. 2). M. Feldstein and A. J. Auerbach, North Holland.
- du Toit, A. (2004). Forgotten by the highway: globalisation, adverse incorporation and chronic poverty in a commercial farming district of South Africa. CPRC Working Paper 49. PLAAS Chronic poverty and development policy series No. 4, Chronic Poverty Research Centre.
- Dwivedi, R. (2002). "Models and Methods in Development-Induced Displacement (Review Article)." Development and Change **33**(4): 709-732.

- Elster, J. (1982). Sour grapes - utilitarianism and the genesis of wants. Utilitarianism and Beyond. A. Sen and B. Williams. Cambridge University Press.
- Elyachar, J. (2005). Markets of Dispossession. NGOs, economic development and the state in Cairo, Duke University Press.
- Escobar, A. (2003). "Displacement, development, and modernity in the Colombian Pacific." International Social Science Journal **55**(175): 157-167.
- Escobar, A. (2004). "Development, Violence and the New Imperial Order." Development **47**(1): 15-21(7).
- Espeland, W.N. (1998). The Struggle for Water. Politics, Rationality and Identity in the American Southwest. Chicago and London, University of Chicago Press.
- Espeland, W.N. (2001). "Value-Matters". Economic and Political Weekly, **36**(21): 1839-1845.
- Espeland, W.N. and M.L. Stevens (1998). "Commensuration as a Social Process". Annual Review of Sociology, **24**: 313-343.
- Eyben, R., C. Harris, et al. (2006). "Introduction: Exploring Power for Change." IDS Bulletin **37**(6).
- Fahim, H. M. (1981). Dams, people, and development : the Aswan High Dam case. New York, Pergamon Press.
- FAO (2000). Application of the Contingent Valuation Method in Developing Countries. Economic and Social Development Paper No 146, FAO.
- Fernandes, W. (2011). Development-induced displacement in the era of privatisation. Resettling Displaced People. Policy and Practice in India. H. M. Mathur. New Delhi, Routledge.
- Fernandes, W. and V. Paranjpye (1997). Hundred Years of Displacement in India: is the Rehabilitation Policy an Adequate Response? Rehabilitation Policy and Law in India: a Right to Livelihood. W. Fernandes and V. Paranjpye. New Delhi and Econot, Pune Indian Social Institute.
- Fine, B. (2006). The New Development Economics. The new development economics: after the Washington Consensus. B. Fine and J. K. S. London, Zed Books.
- Fine, B. (2009). "Development as Zombieconomics in the Age of Neoliberalism." Third World Quarterly **30**(5): 885-904.
- Frank, R. H. (2010). Microeconomics and Behaviour. Eight edition, New York, McGraw Hill.
- Fraser, N. (1997). Justice Interruptus: Critical Reflections on the 'Post-socialist' Condition. London and New York, Routledge.
- Gadgil, M. and R. Guha (1993). This fissured land : an ecological history of India. Berkeley, University of California Press Edition: 1st University of California Press ed.
- Gadgil, M. and R. Guha (1995). Ecology and equity : the use and abuse of nature in contemporary India. London ; New York, Routledge.
- Galab, S., et al. (2009). Farmers' Suicides and Unfolding Agrarian Crisis in Andhra Pradesh. Agrarian Crisis in India D. N. Reddy and S. Mishra. New Delhi, New York, Oxford University Press.
- Garikipati, S. (2001). An Economic Perspective on Resettlement of Populations Displaced by Large Dams: The case of the Sardar Sarovar Project Displaced, India. PhD

- Dissertation, University of Cambridge (unpublished), Cambridge.
- Garikipati, S. (2002). "Resettlement Sites of Narmada Valley Project: Some Revealing Insights." Economic and Political Weekly **37**(23): 2257-2266.
- Garikipati, S. (2005). "Consulting the Development-Displaced Regarding their Resettlement: Is there a Way?" Journal of Refugee Studies **18**: 340-361.
- Garikipati, S. (2008). "Agricultural wage work, seasonal migration and the widening gap: evidence from a semi-arid region of Andhra Pradesh." The European Journal of Development Research **20**(4): 629-648.
- Garikipati, S. (2011). Misunderstood and misused: re-examining the compensation criterion in resettlement. Resettling displaced people: policy and practice in India. H. M. Mathur. New Delhi, Routledge India.
- Ghose, A. K. (2004). "The Employment Challenge in India " Economic and Political Weekly **39**(48).
- Glassman, J. (2006). "Primitive Accumulation, Accumulation by Dispossession, Accumulation by "Extra-Economic" Means." Progress in Human Geography **30**(5): 608-25.
- Gledhill, J. (2000). Power and its disguises : anthropological perspectives on politics. London ; Sterling, VA, Pluto Press Edition: 2nd ed.
- GoAP (1982). *Project Report of Polavaram major irrigation project, 1981-82*. Hyderabad, Government of Andhra Pradesh.
- GoAP (1985). *Polavaram Project Environmental Impact Appraisal Report*, Irrigation Department, Government of Andhra Pradesh.
- GoI (1999). *The Feasibility Report of the Polavaram Vijayawada Link*. New Delhi, National Water Development Agency, Ministry of Water Resources.
- GoI (2006). *Social, Economic and Educational Status of the Muslim Community of India. A Report*, Prime Minister's High Level Committee, Cabinet Secretariat, Government of India.
- GoI (2009). *Report of the Expert Group to Review the Methodology for Estimation of Poverty*, Government of India, Planning Commission.
- Government of Andhra Pradesh (2004). *Report of the Commission on Farmers' Welfare*. GoAP. Hyderabad.
- Government of Andhra Pradesh (2006). *Fact Book on Scheduled Castes and Scheduled Tribes in Andhra Pradesh*. Hyderabad, Directorate of Economics & Statistics.
- Government of Andhra Pradesh (2010). *Socio Economic Survey 2009-10*. Planning Department and AP Secretariat. Hyderabad.
- Government of India (2007). *Report of the Expert Group on Agricultural Indebtedness*. Ministry of Finance and Government of India. July 2007.
- Government of India and National Water Development Agency (NWDA) (1995). *Feasibility Report of Polavaram (Godavari)- Krishna (Vijayawada) Link Project*.
- Green, M. (2006). "Representing Poverty and Attacking Representations: Perspectives on Poverty from Social Anthropology." Journal of Development Studies **42**(7): 1108-29.
- Green, M. and D. Hulme (2005). "From Correlates and Characteristics to Causes: Thinking about Poverty from a Chronic Poverty Perspective." World Development **33**(6): 867-79.

- Guha, R. (2007). India After Gandhi. The History of the World's Largest Democracy. London, Macmillan.
- Gujja, B., S. Ramakrishna, et al. (2006). Perspectives on Polavaram. A Major Irrigation Project on Godavari. New Delhi, Academic Foundation.
- Hanemann, W. M. (1984). "Welfare Evaluations in Contingent Valuation Experiments with Discrete Responses." American Journal of Agricultural Economics **66**(3).
- Hanemann, W. M. (1991). "Willingness to pay and willingness to accept: how much can they differ?" The American Economic Review **81**(3): 635-47.
- Hanemann, W. M. and M. Kanninen (1999). The statistical analysis of discrete-response CV data. Valuing environmental preferences: theory and practice of the contingent valuation method in the US, EU and developing countries. I. Bateman and K. G. Willis. Oxford, Oxford University Press.
- Hanley, N., R. Wright, et al. (1998). "Using choice experiments to value the environment." Environmental and Resource Economics **11**: 413-42.
- Harriss, J. (2007). Bringing Politics Back In To Poverty Analysis: Why Understanding of Social Relations Matters More for Policy on Chronic Poverty than Measurement. CPRC Working Paper 77. Vancouver, School for International Studies, Simon Fraser University. Chronic Poverty Research Centre.
- Harriss-White, B. (1996). A political economy of agricultural markets in South Asia : masters of the countryside. London, Sage.
- Harriss-White, B. (1999). Agricultural markets from theory to practice : field experience in developing countries. Basingstoke, Macmillan.
- Harriss-White, B. (2003). India Working. Essay on Society and Economy. Cambridge, Cambridge University Press.
- Harriss-White, B. (2005). India's market society : three essays in political economy. Gurgaon, Three Essays Collective Edition: 1st ed.
- Harriss-White, B. (2006). "Poverty and Capitalism " Economic and Political Weekly **41**(13).
- Harriss-White, B. and N. Gooptu (2001). "Mapping India's World of Unorganized Labour." Social Register.
- Harvey, D. (2003). The new imperialism. Oxford ; New York, Oxford University Press.
- Harvey, D. (2005). A brief history of neoliberalism. Oxford ; New York, Oxford University Press.
- Hausman, J. (1993). Contingent Valuation: A Critical Assessment, Elsevier.
- Hicks, J. (1939). "The Foundations of Welfare Economics." The Economic Journal **49**(196): 696-712.
- Hicks, J. (1943). "The Four Consumer's Surpluses." The Review of Economic Studies **11**(1): 31-41.
- Horowitz, J. K. and K. E. McConnell (2002). "A Review of WTA/WTP Studies." Journal of Environmental Economics and Management **44**(3): 426-447.
- Hulme, D. and A. Shepherd (2003). "Conceptualizing Chronic Poverty." World Development **31**(3): 403-23.
- India Together (2009). *Jumping into the fray themselves*, 27/04/2009, article by Uma Maheshwari. <http://www.indiatogether.org/2009/apr/gov-polavdam.htm>

- Indian Express.com (2001). *In a rehab colony, houses on rent*, 19/09/2010. <http://www.indianexpress.com/news/in-a-rehab-colony-houses-on-rent/683646/>
- Iyer, R. R. (2011). Converting resettlement policy into resettlement law: a welcome initiative but no occasion for celebration yet. Resettling Displaced People. Policy and Practice in India. H. M. Mathur. New Delhi, Routledge and Council for Social Development, New Delhi.
- Jackson, C. (1999). "Social exclusion and gender: does one size fit all?" The European Journal of Development Research **11**(1): 125-146.
- Just, R. E., D. L. Hueth, et al. (2004). The welfare economics of public policy : a practical approach to project and policy evaluation. Cheltenham, UK ; Northampton, MA, Edward Elgar.
- Kabeer, N. (2000). "Social Exclusion, Poverty and Discrimination." IDS Bulletin **31**(4).
- Kahneman, D. and J. Knetsch (1992). "Valuing public goods: the purchase of moral satisfaction." Journal of Environmental Economics and Management **22**(57).
- Kahneman, D. and J. Knetsch (1992). "Contingent valuation and the value of public goods: Reply." Journal of Environmental Economics and Management **22**(1).
- Kaldor, N. (1939). "Welfare Propositions of Economics and Interpersonal Comparisons of Utility." The Economic Journal **49**(195): 549-552.
- Kälin, W. (2006). Internal Displacement and the Protection of Property. Realizing Property Rights. F. C. Hernando de Soto. Zurich, Rüffer&Rub. Swiss Human Rights Book Vol. 1.
- Kanbur, R. (2003). "Development economics and the compensation principle." International Social Science Journal **55**(175): 27-35.
- Kannan, K. P. and G. Raveendran (2009). "Growth sans Employment: A Quarter Century of Jobless Growth in India's Organised Manufacturing." Economic and Political Weekly **44**(10).
- Kaufmann, D., A. Kraay, et al. (2008). "Governance Matters VII: Aggregate and Individual Governance Indicators, 1996-2007." World Bank Policy Research Working Paper No. 4654
- Kedia, S. (2008). Nutrition and Health Impacts of Involuntary Resettlement: The Terhi Dam Experience. India. Social Development Report 2008. Council for Social Development. New Delhi, Oxford University Press.
- Keenan, D. and A. Snow (1999). "A complete characterization of potential compensation tests in terms of Hicksian welfare measures." Canadian Journal of Economics **32**(1).
- Klingensmith, D. (2007). One Valley and a Thousand. Dams, Nationalism and Development. New Delhi, Oxford University Press.
- Koenig, D. (2002). Toward local development and mitigating impoverishment in development-induced displacement and resettlement. RSC Working Paper No.8., Refugee Studies Centre.
- Koenig, D. and T. Diarra (1993). The Effects of Resettlement on Access to Common Property Resources. Risks and Reconstruction. Experiences of Resettlers and Refugees. M. M. Cernea and C. McDowell. Washington D.C., The World Bank.
- Lakshmaiah, P. (2006). Project - A historical necessity. Perspectives on Polavaram. A Major Irrigation Project on Godavari. B. Gujja, S. Ramakrishna, V. Goud and

- Sivaramakrishna. New Delhi, Academic Foundation.
- Lancaster, K. (1966). "A New Approach to Consumer Theory." Journal of Political Economy **74**: 132-157.
- Lanjouw, P., B. Parker, et al. (2003). Andhra Pradesh Poverty Note: A Preliminary Profile and Emerging Issues. Mimeo. Washington D.C., The World Bank.
- Le Mons Walker, K. (2008). "Neoliberalism on the ground in rural India predatory growth, agrarian crisis, internal colonization, and the intensification of class struggle." Journal of peasant studies **35**(4): 557-620.
- Lerche, J. (2011). "Agrarian Crisis and Agrarian Questions in India." Journal of Agrarian Change **11**(1): 104-118.
- Levien, M. (2011). "Special Economic Zones and Accumulation by Dispossession in India." Journal of Agrarian Change **11**(4): 454-483.
- Little, I. M. D. (1960). A critique of welfare economics. London, Oxford University Press, Edition, 2d ed.
- Lukes, S. (2005). Power : a radical view. New York, Palgrave Macmillan Edition: 2nd ed.
- Luxemburg, R. (2003). The Accumulation of Capital. London, New York, Routledge Classics.
- Mahapatra, L. K. (1999). Testing the Risks and Reconstruction Model on India's Resettlement Experiences The economics of involuntary resettlement : questions and challenges. M. M. Cernea. Washington D.C., The World Bank.
- Maheshwari, U. R. (2007). Godavari. Yet another dam, yet another story. New Delhi, Peace.
- Marx, K. (1995). Capital. Oxford, New York, Oxford University Press.
- Mathur, H. M. (2008). Mining coal, undermining people: compensation policies and practices of Coal India. Can compensation prevent impoverishment? : reforming resettlement through investments and benefit-sharing. M. M. Cernea and H. M. Mathur. New Delhi, Oxford University Press.
- Mathur, H. M. (2011b). An Interview with Professor Michael M. Cernea. Resettlement News. January 2011/July 2011.
- McCully, P. (1996). Silenced Rivers: the ecology and politics of large dams. London, Zed Books.
- McFadden, D., A. Bemmaor, et al. (2005). "Statistical Analysis of Choice Experiments and Surveys." Marketing Letters **16**(3/4).
- Mehta, A. K., A. Shepherd, et al. (2011). *India Chronic Poverty Report. Towards Solutions and New Compacts in a Dynamic Context*. New Delhi, Chronic Poverty Research Centre. India Institute of Public Administration
- Mehta, L., Ed. (2009). Displaced by Development: confronting marginalisation and gender injustice. Delhi and Thousand Oaks, California, SAGE.
- Menon, N. and A. Nigam (2007). Power and Contestation: India since 1989. London, New York, Zed Books.
- Mosse, D. (2005). Power Relations and Poverty Reduction. Power, rights and poverty : concepts and connections. R. Alsop. Washington, DC, World Bank.
- Mosse, D. (2007). Power and the durability of poverty: a critical exploration of the links between culture, marginality and chronic poverty. CPRC Working Paper 107,

Chronic Poverty Research Centre.

- Mosse, D. (2010). "A Relational Approach to Durable Poverty, Inequality and Power." Journal of Development Studies **46**(7): 1156-1178.
- Muggah, H. C. R. (2000). "Conflict-induced Displacement and Involuntary Resettlement in Colombia: Putting Cernea's IRLR Model to the Test." Disasters **24**(3): 198-216.
- Muggah, H. C. R. (2003). "A Tale of Two Solitudes: Comparing Conflict and Development-Induced Internal Displacement and Involuntary Resettlement." International Migration **41**(5).
- Murray, C. (2001). Livelihoods research: some conceptual and methodological issues Background Paper 5. Manchester: Chronic Poverty Research Centre.
- Naagesh, V. (2006). Alternatives to the proposed Polavaram dam. Dams, Rivers and People. New Delhi, Feb-March 2006.
- Naidu, S. C. and P. T. Manolakos (2010). "Primary Accumulation, Capitalist Nature and Sustainability." Economic and Political Weekly **45**(29).
- NewKerala (2011a). *Andhra Pradesh government pursuing Centre for declaring Indirasagar Polavaram Project as national project*. Hyderabad, 23/02/2011. <http://www.newkerala.com/news/world/fullnews-154224.html>.
- NewKerala (2011b). *YSR's pet schemes ignored in Budget*. Hyderabad, 23/02/2011, <http://www.newkerala.com/news/world/fullnews-154136.html>.
- Nilsen, A. G. (2008). "Political Economy, Social Movements and State Power: A Marxian Perspective on Two Decades of Resistance to the Narmada Dam Projects." Journal of Historical Sociology **21**(2/3).
- NSSO (1997). Employment and Unemployment in India, 1993-94. NSS 50th Round. Report No. 409, National Sample Survey Organisation (NSSO), Government of India.
- NSSO (2001). Employment and Unemployment Situation in India 1999-2000. NSS 55th Round. Report No. 458, National Sample Survey Organisation (NSSO), Government of India.
- NSSO (2005). Some Aspects of Farming. Situation Assessment Survey of Farmers. NSS 59th Round. Report No. 496, National Sample Survey Organisation (NSSO), Government of India.
- NSSO (2006). Employment and Unemployment Situation in India 2004-5. NSS 61st Round. Report No. 515, National Sample Survey Organisation (NSSO), Government of India.
- NSSO (2010). Employment and Unemployment Situation in India 2007-08. NSS 64th Round. Report No. 531, National Sample Survey Organisation (NSSO), Government of India.
- Nussbaum, M. C. (2000a). "The Cost of Tragedy: Some Moral Limits of Cost-Benefit Analysis." Journal of Legal Studies **29**(June 2000).
- OECD (1992). *Guidelines for Aid Agencies on Involuntary Displacement and Resettlement in Development Projects*. Paris, Development Assistance Committee, OECD.
- Oliver-Smith, A. (2002). Displacement, Resistance and the Critique of Development: From the grass-roots to the global. RSC Working Paper No. 0, Refugee Studies Centre, University of Oxford.

- Oliver-Smith, A. (2010). Defying displacement : grassroots resistance and the critique of development. Austin, University of Texas Press Edition: 1st ed.
- Olsen, W. K. (1996). Rural Indian social relations : a study of Southern Andhra Pradesh. Delhi, Oxford University Press.
- Olsen, W. K. and R. R. V. Murthy (2000). "Contract Labour and Bondage in Andhra Pradesh." Journal of Social and Political Thought 1(2).
- Osskarsson, P. (2005). Polavaram multi-purpose project. A 25 year old "solution" for all water problems in northern Andhra Pradesh returns to haunt tribal communities. Hyderabad, SAMATA.
- Outlook India (2011). Polavaram dam: Orissa to Apprise SC of FRA Violation. Bhubaneswar, Orissa, India, 26/04/2011. <http://news.outlookindia.com/item.aspx?719110>
- Parasuraman, S. (1999). The development dilemma : displacement in India St. Martin's Press in association with Institute of Social Studies.
- Pearce, D. W. and T. Swanson (2008). The economic evaluation of projects involving forced population displacements. Can compensation prevent impoverishment? Reforming resettlement through investments and benefit-sharing. M. M. Cernea and M. M. Mohan. New Delhi, Oxford University Press: 99-120.
- Penz, G., P. J. Drydyk, et al. (2011). Displacement by development : ethics, rights and responsibilities. Cambridge, UK ; New York, Cambridge University Press.
- Perelman, M. (1983). Classical political economy : primitive accumulation and the social division of labor. London, Frances Pinter.
- Perelman, M. P. M. and Classical political economy (2000). The invention of capitalism : classical political economy and the secret history of primitive accumulation. Durham, N.C., Duke University Press.
- Perera, J. (2011). The limitations of current approaches to resettlement. Resettling Displaced People. Policy and Practice in India. H. M. Mathur. New Delhi, Routledge and Council for Social Development, New Delhi.
- Perspectives (2008). Abandoned: Development and Displacement. New Delhi, Perspectives.
- Picciotto, R., W. van Wicklin, et al., Eds. (2001). Involuntary Resettlement. Comparative Perspectives. New Brunswick, NJ and London, Transaction Publishers.
- Powe, N. (2007). Redesigning environmental valuation : mixing methods within stated preference techniques. Cheltenham, Edward Elgar Publishing.
- Rajagopal, B. (2000). Human Rights and Development: Legal and Policy Issues with Special Reference to Dams. Report submitted to the World Commission on Dams, Thematic Review V.4.
- Ramachandraiah, C. and A. Venkateswarlu (2011). Dispossessing Tribals and the Poor from Lands: Land Laws and Administration in Andhra Pradesh, India. U. U. Report Submitted to the IS Academy Land Governance, The Netherlands. Hyderabad, Centre for Economic and Social Studies
- Ramachandran, V. K. (2011). "The State of Agrarian Relations in India Today." The Marxist XXVII(1-2 , January-June 2011).
- Ramachandran, V. K., V. Rawal, et al. (2010). Socio-economic surveys of three villages in Andhra Pradesh : a study of agrarian relations. New Delhi, Tulika Books in

association with Foundation for Agrarian Studies.

- Ramanathan, U. (2008). Eminent Domain, Protest, and the Discourse on Rehabilitation. Can compensation prevent impoverishment? : reforming resettlement through investments and benefit-sharing. M. M. Cernea and H. M. Mathur. New Delhi, Oxford University Press.
- Rao, C. H. H. and S. M. Dev (2003). "Economic Reforms and Challenges Ahead: An Overview." Economic and Political Weekly **38**(12/13): 1130-1141.
- Rao, J. P. (2006b). Constitution Violated. Perspectives on Polavaram. A Major Irrigation Project on Godavari. B. Gujja, S. Ramakrishna, V. Goud and Sivaramakrishna. New Delhi, Academic Foundation.
- Rao, P. N. and K. C. Suri (2006). "Dimensions of Agrarian Distress in Andhra Pradesh." Economic and Political Weekly **41**(16).
- Rao, P. P. (2006c). Rehabilitation, Big Task. Perspectives on Polavaram. A Major Irrigation Project on Godavari. B. Gujja, S. Ramakrishna, V. Goud and Sivaramakrishna. New Delhi, Academic Foundation.
- Rao, P. T. (2006a). "Nature of Opposition to Polavaram Project." Economic and Political Weekly **41**(15): 1437-1439.
- Rao, S. L., P. Deshingkar, et al. (2006). "Tribal Land Alienation in Andhra Pradesh. Processes, Impacts and Policy Concerns " Economic and Political Weekly **41**(52).
- Rao, V. (2002). Polavaram to feed industries in AP. Outlook India. Rajahmundry, India, 21/11/2002. <http://news.outlookindia.com/item.aspx?702005>.
- Reddy, D. N. and S. Mishra (2009). Agrarian crisis in India. New Delhi ; New York, Oxford University Press.
- Reddy, M. G. and A. K. Kumar (2010). Political Economy of Tribal Development: A Case Study of Andhra Pradesh. Working Paper No. 85. Hyderabad, Centre for Economic and Social Studies.
- Reddy, M. G., K. A. Kumar, et al. (2010). Obstructed Access to Forest Justice: an Institutional Analysis of the Implementation of Rights Reform in Andhra's Forested Landscapes. D. P. S. N. 47, IPPG Programme Office, IDPM, School of Environment & Development, University of Manchester.
- Reddy, N. S. (1996). Polavaram Project: report on resettlement and rehabilitation of the displaced. Hyderabad, Centre for Economic and Social Studies.
- Reddy, V. R. (2006). "'Jalayahnam' and Bridging Regional Disparities. Irrigation Development and Distribution in Andhra Pradesh." Economic and Political Weekly **41**(43 and 44).
- Reddy, V. R., G. Reddy, M., et al. (2004). Sustaining Rural Livelihoods in Fragile Environments: Resource Endowments or Policy Interventions? (A study in the context of Participatory Watershed Development in AP). Working Paper No. 58. Hyderabad, Centre for Economic and Social Studies.
- Reddy, V. R., M. G. Reddy, et al. (2004b). Participatory Forest Management in Andhra Pradesh: a Review. Working Paper No. 62. Hyderabad, Centre for Economic and Social Studies.
- Rigg, J. (2006). "Land, Farming, Livelihoods, and Poverty: Rethinking the Links in the Rural South." World Development **34**(1): 180-202.

- Robinson, W. C. (2003). *Risks and Rights: The Causes, Consequences and Challenges of Development-Induced Displacement*. Brookings Institution- SAIS Project on Internal Displacement. Washington D.C.
- Rostow, W. W. (1990). The Stages of Economic Growth: A non-communist manifesto, Cambridge University Press.
- Roy, A. (1999). The cost of living. London, Flamingo, HarperCollins Publishers.
- Ruggeri Laderchi, C., R. Saith, et al. (2003). Does it matter that we don't agree on the definition of poverty? A comparison of four approaches. Queen Elizabeth House Working Paper 107.
- Rupavath, R. (2009). Tribal Land Alienation and Political Movements, Cambridge Scholars Publishing.
- Saad-Filho, A. (2005). Neoliberalism. Neoliberalism: A Critical Reader A. Saad-Filho and D. Johnston. London, Pluto Press: 83-91.
- Samaddar, R. (2009). "Primitive Accumulation and Some Aspects of Work and Life in India." Economic and Political Weekly **44**(18).
- Sanyal, K. (2007). Rethinking Capitalist Development. Primitive Accumulation, Governmentality and Post-colonial Capitalism. New Delhi, Routledge.
- Saravanan, V. (2009). "Political Economy of the Recognition of Forest Rights Act, 2006: Conflict between Environment and Tribal Development." South Asia Research **29**(3): 199-221.
- Saxena, N. C. (2006). The Resettlement and Rehabilitation Policy of India. Managing resettlement in India : approaches, issues, experiences. H. M. Mathur. New Delhi ; New York, Oxford University Press: viii, 317 22 cm. Language English.
- Scitovsky, T. (1941). "A Note on Welfare Propositions in Economics." Review of Economic Studies **9**(Nov 1941): 77-88.
- Scudder, T. (1981). The Development Potential of New Lands Settlements in the Tropics and Subtropics: A Global State-of-the-Art Evaluation with Specific Emphasis on Policy Implications. Binghamton, New York, Institute for Development Anthropology.
- Scudder, T. (2005). The future of large dams : dealing with social, environmental, institutional, and political costs. London ; Sterling, VA, Earthscan.
- Sen, A. (1984). Resources, Values and Development, Harvard University Press.
- Sen, A. (1995). Gender Inequality and Theories of Justice. Women, Culture and Development. A Study of Human Capabilities. M. C. Nussbaum and J. Glover. Oxford, Clarendon Press.
- Sen, A. (2000). "The Discipline of Cost-Benefit Analysis." Journal of Legal Studies **29**(S2): 931-952.
- Sen, A. and Himanshu (2004). "Poverty and Inequality in India: Getting Closer to the Truth." Economic and Political Weekly **39**(38): 4247-63.
- Smakhtin, V. U., N. Gamage, et al. (2007). Hydrological and Environmental Issues of Interbasin Water Transfers in India: A case of the Krishna River Basin. Research Report 120, International Water Management Institute.
- Smith, V. K. (1992). "Arbitrary Values, Good Causes, and Premature Verdicts." Journal of Environmental Economics and Management **22**: 71-89.

- Somayaji, S. and S. Talwar, Eds. (2011). Development-induced Displacement, Rehabilitation and Resettlement in India. Current issues and challenges. London and New York, Routledge.
- Srinivasulu, K. (1997). "Impact of Liberalisation on Beedi Workers." Economic and Political Weekly **32**(11): 515-517.
- Srinivasulu, K. (2002). Caste, Class and Social Articulation in Andhra Pradesh: Mapping Differential Regional Trajectories. Working Paper 179. Osmania University and Overseas Development Institute. Hyderabad.
- Srinivasulu, K. (2009). "Y S Rajasekhara Reddy: A Political Appraisal." Economic and Political Weekly **44**(38): 8-10.
- Srivastava, R. S. (2005). Bonded Labor in India: Its Incidence and Pattern. Forced Labor, Paper 18, InFocus Programme on Promoting the Declaration on Fundamental Principles and Rights at Work; and International Labour Office.
- Stewart, T., R. Rao (2006). *India's dam shame: why Polavaram Dam must not be built,* Secunderabad, Gramya Resource Centre for Women..
- Suri, K. C. (2006). "Political Economy of Agrarian Distress." Economic and Political Weekly **41**(16).
- Taylor, M. (2011). "'Freedom from Poverty is Not for Free': Rural Development and the Microfinance Crisis in Andhra Pradesh, India." Journal of Agrarian Change **11**(4): 484-504.
- Thangaraj, S. (1996). "Impoverishment Risks' Analysis: A Methodological Tool for Participatory Resettlement Planning. Understanding impoverishment : the consequences of development-induced displacement. C. McDowell. Providence, RI, Berghahn Books.
- The Hindu (2011). *Supreme Court refuses to stay Polavaram project.* New Delhi, 11/04/2011. <http://www.thehindu.com/news/national/article1687942.ece>.
- The Hindu (2011b). *9 projects under Jalayagnam completed, says Minister.* Hyderabad, 9/06/2011. <http://www.thehindu.com/todays-paper/tp-national/article2089132.ece>.
- The Times of India (2011). *Tenders for Polavaram project soon.* Visakhapatnam, 10/06/2011. [http://articles.timesofindia.indiatimes.com/2011-06-10/hyderabad/29642493\\_1\\_polavaram-project-cm-shot-mining-lease](http://articles.timesofindia.indiatimes.com/2011-06-10/hyderabad/29642493_1_polavaram-project-cm-shot-mining-lease).
- Tilly, C. (1998). Durable inequality. Berkeley, University of California Press.
- Tversky, A. and D. Kahneman (1991). "Loss Aversion in Riskless Choice: A Reference Dependent Model." The Quarterly Journal of Economics **106**(4): 1039-1061.
- United Nations (1966) *International Covenant on Economic, Social and Cultural Rights.*
- United Nations (1966) *International Covenant on Civil and Political Rights.*
- United Nations (1986). *Declaration on the Right to Development.* Adopted by General Assembly resolution 41/128 of 4 December 1986, United Nations.
- United Nations (1998). *Guiding Principles on Internal Displacement.* The Brookings Project and the Office for the Coordination of Humanitarian Affairs (OCHA)
- Upadhyya, C. B. (1988). "The Farmer-Capitalists of Coastal Andhra Pradesh." Economic and Political Weekly **23**(27): 1376-1382.

- Vakulabharanam, V. (2005). "Growth and Distress in a South Indian Peasant Economy during the Era of Economic Liberalisation." Journal of Development Studies **41**(6): 971-997.
- Varian, H. (1992). Microeconomic Analysis, W. W. Norton & Company.
- Venkateswarlu, D. (2004 ). Child Labour in Hybrid Cottonseed Production in Andhra Pradesh: Recent Developments. The Netherlands, India Committee of The Netherlands (ICN).
- Weiner, A. B. (1992). Inalienable possessions: the paradox of keeping-while-giving. Berkeley, University of California Press.
- Whitehead, J. (2003). "Place and Primitive Accumulation in Narmada Valley and Beyond." Economic and Political Weekly **38**(40): 4224-4230.
- World Bank (1994). *Governance, The World Bank's Experience*. Washington D.C., World Bank..
- World Bank (1996). Resettlement and development: the bankwide review of projects involving involuntary resettlement 1986-1993 Environment Department, Paper No 32. Washington, D.C., World Bank
- World Bank (1997). *Andhra Pradesh: Agenda for Economic Reforms*. Report No. 15901-IN, Country Operations, Industry & Finance Division, World Bank.
- World Bank (1997a). *World Development Report. The State in A Changing World*. Washington D.C., World Bank.
- World Bank (1997b). *India. Achievements and Challenges in Reducing Poverty*. Report No 16483-IN, Country Department II, South Asia Region, The World Bank.
- World Bank (1998). *Recent Experience with Involuntary Resettlement*, Operations Evaluation Department, World Bank.
- World Bank (2001) Operational Policy 4.12 on Involuntary Resettlement. Social Development Department. Washington D.C., World Bank.
- World Bank (2003). *Unlocking the Growth Opportunities in Andhra Pradesh*. New Delhi, Poverty Reduction and Economic Management Sector Unit, South Asia Region.
- World Bank (2004). *Involuntary Resettlement Sourcebook. Planning and Implementation in Development Projects*. Washington D.C., World Bank.
- World Commission on Dams (2000). Dams and development : a new framework for decision-making : the report of the World Commission on Dams Corp Author(s): World Commission on Dams. London ; Sterling, VA, Earthscan.
- Yin, R. K. (2003). Case study research : design and methods. Thousand Oaks, Calif., Sage Publications Edition: 3rd ed.
- Zerbe, R. O. (2007). Ethical Benefit-Cost Analysis. Selected Works. The Evans School of Public Affairs and The Law School, The University of Washington.

**Appendix I – Village Questionnaire**

**VILLAGE QUESTIONNAIRE**  
to be completed before/during the visit to the village

<b>[0] descriptive identification of the village</b>			
1: DISTRICT		2: MANDAL	
3: VILLAGE NAME		4: TYPE OF INFORMANT (CODE)	
5: NAME OF INFORMANT:		6: OTHER CHARACTERISTICS USEFUL TO IDENTIFY THE VILLAGE	

<b>[2] particulars of field operations</b>			
1: DATE		3: any particular condition which affected the subministration of the questionnaire/the collection of data	
3: NUMBER AND NAME OF RESEARCH ASSISTANT(S)			

<b>[3] availability of some facilities</b>		
	Code as from census/ official document	Code data collected on the field
Type of approach to the village (paved road-1, mud road-2, foot path-3, navigable river-4, navigable canal-4)		
electricity connection (yes for: street lights – 1, household use – 2, agricultural purpose – 3,; no –4)		
major source of drinking water (tap – 1, tube well /hand pump – 2, well – 3, tank / pond (reserved for drinking) – 4, other tank /pond – 5, river / canal/lake – 6, spring – 7, others – 9)		
main source of irrigation (canal – 1, tube well – 2, stream/river – 3, tank/pond – 4, well –5, others– 9;no irrigation facility– 6)		
whether having any co-operative society? (yes–1,no–2)		

whether having any self-help group? (yes – 1, no – 2)			
whether having any government development programme / scheme relating to:	drinking water (yes – 1, no – 2)		
	housing (yes – 1, no – 2)		
	sanitation (yes – 1, no – 2)		
	approach road (yes –1,no–2)		
	employment (yes–1,yes the NREGA-2 no–3)		
	electricity (yes – 1, no – 2)		
	watershed/minor irrigation (yes – 1, no – 2)		
	pension (yes – 1, no – 2)		
	Children education (yes-1, no-2)		
	total literacy campaign/adult education (yes – 1, no – 2)		
	Is there any NGO working in the village? Which is its name? What kind of activities it does?		

<b>[4] distance from nearest facility</b>			
	Distance (info from official source)	Distance (code) (info collected on the field)	COMMENTS NOTES
panchayat headquarter			
bus stop			
mud road			
all weather/paved road			
post office			
primary school			
secondary school			
college with degree course			
market / weekly market			
fair price shop			

primary health centre			
community health centre/ government hospital			
Private hospital			
medicine shop			
integrated child development centre (anganwadi / balwadi)			
Bank			
River			
nearest town (which one)			
Resettlement office			

**distance code for block 4:** within village – 1; outside village: less than 2 km – 2, 2 to 5 km – 3, 5 to 10 km – 4, 10 km or more – 5

[5] Socio-demographic characteristics					
	INFO FROM OFFICIAL SOURCE	INFO COLLECTED ON THE FIELD		INFO FROM OFFICIAL SOURCE	INFO COLLECTED ON THE FIELD
1:No OF HHS			2:No of people (male/female)		
3: Presence of ST (yes/no); in which, in which %? which is the main tribe?			4:Presence of SC (yes –1, no – 2).In which percentage ?		
5: For how long has the village existed? For how long has the community lived where it is now?			6: Is the land under the 5th/6 <sup>th</sup> schedule (5th-1; 6th-2; none-3)		

<b>[5] social and economic organization within the village and structure of landholding</b>		
	INFO FROM OFFICIAL SOURCE	INFO COLLECTED ON THE FIELD
1: Is the majority of the families landless or small/medium farmers?		
2: Is there any assigned land available in the village? How is it managed? Is it used for shifting cultivation?		
3: How far is the forest?		
4: Are there any trees in the village? How do they share the products of the trees?		

<b>[6] relationship with the dam project</b>			
ONLY INFO COLLECTED ON THE FIELD			
1: Location with respect to the dam (1-project site, 2-reservoir level) distance from the site project		2: Has resettlement already started? (yes-1, no-2)	
4: Has the village taken part to some kind of protest against the dam? if yes, what kind of protest			
6: Have they been told when and where they will be relocated? -when -where -told by who			

## **Appendix II – Household Survey Questionnaire**

**QUESTIONNAIRE SERIAL NO. :**

**DATE:**

**NAME OF RESPONDENT:**

**NAME OF COMPILATOR:**

**TOTAL TIME TO ADMINISTER THE QUESTIONNAIRE:**

**TIME STARTING:**

**TIME FINISHING:**

My name is Chiara Mariotti. I'm a researcher from the University of London, UK. I'm studying the Polavaram dam project and its Resettlement & Rehabilitation package. I'm interested in particular in understanding the preferences of the affected people regarding the kind of compensation provided. In this interview I'll ask you some information regarding your family and I'll make you some questions regarding the Polavaram project and the R&R package. I'll also ask you to express your preferences regarding different types of compensation. Your replies will in no ways affect the compensation that you will receive from the Government. My questions are purely hypothetical and they only aim at gaining a better understanding of the affected people's opinion regarding displacement and compensation.

I assure you that the information you will provide will be used exclusively for this research project and will not be passed to any third party (including the Government or other members of your village).

This interview shall take about 1 hour.

### **CONSENT FORM (SOAS Ethics Statement)**

I have read, or been informed verbally, about the details of the proposed study. My questions have been answered to my satisfaction, and I understand that I may ask further questions at any time.

I understand that I have the right to withdraw from the study at any time and to decline to answer any particular question(s).

I agree to provide information to the researcher(s) on the understanding that my name will not be used without my permission (The information will be used only for this research project and publications arising from this research project).

I agree/do not agree to the interview being taped. I understand that I have the right to ask for the audio recorder to be turned off at any time during the interview.

I confirm that I'm over the age of 16.

I agree to participate in this study under the conditions initially communicated to me.

NAME

SIGNED

DATE

## HOUSEHOLD SURVEY QUESTIONNAIRE

<b>[0] descriptive identification of sample village</b>			
1: DISTRICT		2: MANDAL	
3: VILLAGE NAME		4: Other characteristics useful to identify the village or any particular condition which affected the administration of the questionnaire	
5: criteria/methods used to select the household			

<b>[1] characteristics of the respondent</b>			
1.1: GENDER	---- male ---- female	1.2: AGE	---- years ---- doesn't know/remember
1.3: RELATION TO HEAD OF THE HOUSEHOLD	---- self      ---- <i>spouse of married child</i> ---- <i>other relatives</i> ---- <i>spouse of head</i> ---- <i>unmarried child</i> ---- <i>servants/employees/</i> ---- <i>married child</i> ---- <i>grandchild</i> ---- <i>other non-relatives</i> ---- <i>father/mother</i> ---- <i>brother/sister</i> ---- <i>father-in-law/mother-in-law</i> ---- <i>brother-in law/sister-in law</i>		

<b>[3] household characteristics and household income</b>			
3.1: The household belongs to the following social group:	---- ST      which tribe? _____ ---- SC      ---- BC      ---- OC		
3.2: primary source of energy for cooking		3.3: primary source of energy for lighting	
3.4: How many of the following items are owned by the members of the household all together?	___ stools      ___ sleeping-mats      ___ watch ___ bicycle ___ chairs      ___ mobile phone      ___ fridge ___ beds      ___ tv      ___ radio      ___ sewing machine ___ mattresses      ___ motor-bike      ___ fan		
3.5 Do you own any cattle?			
3.6: Which is the household's			

average monthly income? (Rs.0.00)	
--------------------------------------	--

<b>[4] land ownership</b>			
4.1: Does the household owns any land?		4.2: Extent of land owned	
4.3 Are you cultivating any assigned land? If yes, what is its extent?			
4.4: Are you practising irrigation on your land? what kind of irrigation?			
4.5: Which are the main crops produced? Indicate whether they are used for self-consumption or for trade.			
4.6: Does the household own a document testifying the ownership of land?		4.7: For how long has the household (officially/unofficially) owned that particular piece of land?	
4.8: Have you recently done any kind of improvement/development to your land?		4.9: Are you planning to do any kind of improvement to your land in the near future (specify)?	

<b>[5] main economic activities</b>	
5.1: Which are the main sources of income in your family?	
5.2: Is the family participating in any government employment scheme/NREGA/food for work?	
5.3: Which are the main products that you get from the forest? For which of them specify:	

-in which months it is available -whether you sell it or use for self-consumption -if you sell it, how much money do you get from it	
5.4: Does your family practice communal labour sharing?	

<b>[6] R&amp;R package related questions</b>	
6.1: Do you know that you will have to leave your house and land and be relocated elsewhere because of the construction of a dam?	
6.2: How did you know about it? Who told you?	
6.3: Do you discuss what will happen with:	<p>_____your family                      _____your neighbours</p> <p>_____the rest of the community</p>
6.4: Do you know that you're entitled to some compensation because of the fact that you have to leave your house and land?	
6.5: Have you heard of the R&R package?	
6.6: Have you already received any form of compensation? If yes, what and when?	
6.7: Have you been contacted by any NGO explaining you the R&R package?	
6.8: Have you or any member of your family ever taken part to protest against the dam or against the R&R package (specify)?	
6.9: How did you use the compensation you received/how do you think you will use the compensation you will receive?	

<b>2 Demographic and other characteristics of household members</b> (for categories of coding see next page)						
2.1 No members of household	2.2 sex	2.3 age (years)	2.4 relation to head (code 1)	2.5 Marital status (code 2)	2.6 Main occupation (code 3) <i>(INDICATE THE 3 MOST IMPORTANT FOR EACH MEMBER OF THE HOUSEHOLD)</i>	2.7 General educational level (code 4)
1						
2						
3						
4						
5						
6						

**Appendix III – Questionnaire for Choice Experiment**

## QUESTIONNAIRE FOR CHOICE EXPERIMENT

*Imagine that the government is making you choose the type of compensation and resettlement that you will receive because of displacement, that is you can choose among different kinds of R&R packages the one that you prefer. Each kind of package offered has different characteristics*

*You will be asked to indicate which package/form of compensation you prefer.*

**PLEASE REMEMBER THAT:**

- Your preferences will not be revealed to anybody else in the village, unless you wish so.*
- Your answers will in no way affect the compensation that you will actually receive from the Government*
- There are no right or wrong answers. Feel free to express your opinion.*
- You can discuss the answer with anybody in your family and you can change your mind at any time during the interview*

*I will now offer you two different packages. You can choose the package that you prefer to receive as form of compensation for being displaced.*

### **EXERCISE 1: Resettleemnt Attributes**

**Please indicate which package do you prefer between:**

	Preferred package	Comments
Package <i>Forest</i> versus Package <i>Money</i>	_____ <i>Forest</i> _____ <i>Money</i>	Indicate tot amount of cash compensation offered for package <i>Money</i> : _____
Package <i>Forest</i> versus Package <i>Land for Land</i>	_____ <i>Forest</i> _____ <i>Land for Land</i>	
Package <i>Forest</i> versus Package <i>Self-employment</i>	_____ <i>Forest</i> _____ <i>Self-employment</i>	
Package <i>Forest no Village</i> versus Package <i>Land for Land</i>	_____ <i>Forest no Village</i> _____ <i>Land for Land</i>	

VERSION OF THE PACKAGES USED:	_____ GENEROUS
	_____ REALISTIC

**EXERCISE 2: Willingness to Accept**

**Please indicate which package do you prefer between ....?**

	Preferred package	Comments
Package <i>Instalments</i> versus Package <i>Land for Land</i>	_____ <i>Instalments</i>  _____ <i>Land for Land</i>	
<b>Did the respondent express the reason of the preference for F or C? If yes, what is this reason? (to be answered by research assistant)</b>		

**EXERCISE 3: Compensation in Installments**

**Please indicate which package do you prefer between :**

	Preferred package	Comments
Package <i>Money</i> versus Package <i>Money no community</i> with 30.000Rs	_____ <i>Money</i>  _____ <i>Money no community</i>	
Package <i>Money</i> versus Package <i>Money no community</i> with 50.000 Rs	_____ <i>Money</i>  _____ <i>Money no community</i>	
Package <i>Money</i> versus Package <i>Money no community</i> with 100.000 Rs	_____ <i>Money</i>  _____ <i>Money no community</i>	

If *Money no community* is never a preferred option, than ask the respondent the following: is there an amount of money that you're willing to accept in order to be relocated without your community? How much is it? **Which is the minimum amount of money that you're willing to accept in exchange of being relocated without your community?**

\_\_\_\_\_Rs

**To be answered by research assistant:**

Did the respondent take much time to answer exercise 3?
Did he consult his family?
There was any disagreement with members of the family?
Did he discuss the answer with other members of the community?

**EXERCISE 4: Ranking**

Please rank in order of preference the following packages: *Forest, Money, Land for Land, Self-employment*

1: (most preferred): _____
2: _____
3: _____
4: (least preferred) _____
Did the respondent express the reasons for his/her choice? If yes, which are these reasons? Did he make any particular comments about the packages? ( <b>to be answered by research assistant</b> )

**QUESTIONS ON THE CONDITIONS OF THE INTERVIEW** (to be answered by the research assistant)

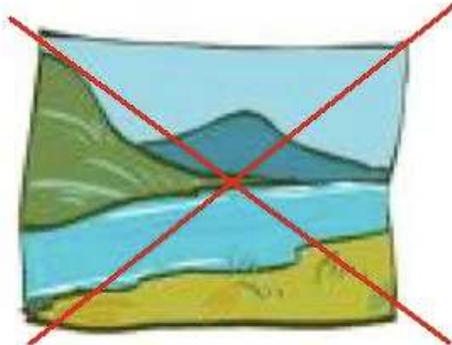
Were other members of the family present during the choice experiment?
Did they take part to the discussion and to the final decision?
In particular, was the wife consulted (in case she wasn't the respondent)?

Were other members of the community present during the choice experiment?
Did they take part to the discussion?
Do you think that their presence influenced the choices of the respondent?
<b>RESPONSE CODE</b> (for the whole interview):

Response code: informant was: co-operative and capable -1, co-operative but not capable - 2,busy -3, reluctant - 4, others -5

**Appendix IV – Cards used to represent the resettlement packages offered in the Choice Experiment**

**PACKAGE A "FOREST"**



*RELOCATION AS IN ORIGINAL VILLAGE (CLOSE TO FOREST/RIVER)*



*HOUSING PROVIDED BY THE GOVERNMENT*



*LAND FOR LAND COMPENSATION*



*RELOCATION WITH COMMUNITY*



*NO CASH COMPENSATION*

## PACKAGE B "MONEY"



ONLY CASH  
COMPENSATION

300.000 RS FOR EACH FAMILY  
+  
CASH COMPENSATION FOR LAND  
(130.000 RS PER ACRE)



RELOCATION SITE IS PROVIDED BY THE  
GOVERNMENT IN PLAIN AREA

**PACKAGE C "LAND FOR LAND"**



*CASH COMPENSATION FOR LOSS OF ACCESS TO FOREST/RIVER RS 70,000*



*RELOCATION SITE IN PLAIN AREA. HOUSING PROVIDED BY THE GOVERNMENT WITH ALL FACILITIES*

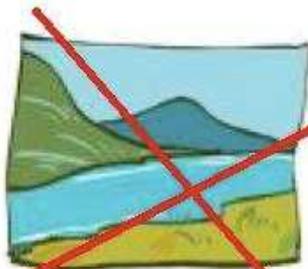


*LAND COMPENSATION SUBJECT TO CEILING (5 ACRES)*



*CASH COMPENSATION FOR LAND ABOVE CEILING (130,000 RS PER ACRE)*

**PACKAGE D "SELF-EMPLOYMENT"**



RELOCATION IS DECIDED BY THE GOVERNMENT IN PLAIN AREA



RS 170,000 CASH COMPENSATION FOR LOSS OF ACCESS TO FOREST/ RIVER



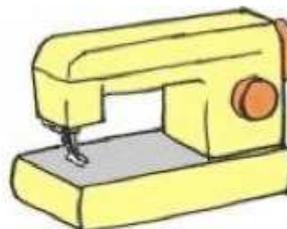
HOUSING PROVIDED BY THE GOVERNMENT WITH ALL FACILITIES. RELOCATION WITH



NO LAND COMPENSATION, ONLY CASH COMPENSATION FOR LOSS OF LAND (RS 200,000 PER ACRE)



ASSISTANCE TO DEVELOP A SELF-EMPLOYMENT ACTIVITY:



- TRAINING  
- TECHNICAL ASSISTANCE  
- MONEY FOR CONSTRUCTION OF WORKING SHED/PURCHASE OF TOOLS

**PACKAGE E "FOREST NO VILLAGE"**

RELOCATION AS IN ORIGINAL VILLAGE (CLOSE TO FOREST/RIVER)



HOUSING PROVIDED BY THE GOVERNMENT



LAND FOR LAND COMPENSATION

NO CASH COMPENSATION



RELOCATION IS WITHOUT COMMUNITY

PACKAGE - "MONEY NO COMMUNITY"



RS 30,000  
COMPENSATION FOR LOSS  
OF COMMUNITY



ONLY CASH COMPENSATION  
RELOCATION IS WITHOUT  
COMMUNITY BUT MONEY IS  
OFFERED IN EXCHANGE

PACKAGE = "MONEY NO COMMUNITY"



RS 50,000  
CASH COMPENSATION FOR  
LOSS OF COMMUNITY



ONLY CASH COMPENSATION  
RELOCATION IS WITHOUT  
COMMUNITY BUT MONEY IS  
OFFERED IN EXCHANGE

**Appendix V – Questionnaire for Focus Groups (preliminary and ex-post focus groups)**

**QUESTIONNAIRE FOR VILLAGE FOCUS GROUP  
(PRELIMINARY FOCUS GROUP)**

**1) OPENING (introduction/ice-breaking)**

**2) INTRODUCTION OF THE TOPIC**

**3) DISCUSSION TOPICS AND KEY QUESTIONS**

○ **GENERAL KNOWLEDGE AND FEELING ABOUT THE PROJECT AND ABOUT BEING DISPLACED/RELOCATED**

- What do you know about the project? Do you know why the dam is built?
- do you know that you will have to be displaced because of the project?
- who told you about the project? Who told you about displacement?
- what do you think of the project?
- which are your general feelings about being displaced/having to leave your land (HOW TO WORD IT?) are you worried/afraid/happy.....
  - does someone see anything good in this? Do you see any advantages in being relocated?
  - are you discussing what will happen with your family/community?

○ **ESTIMATION OF THE LOSSES**

I would now make some questions more specifically on the losses that you will have because of displacement

- do you feel that you're going to lose something because you will be displaced?
- what do you think you will lose because of displacement?
- can you make a distinction between material and non material losses?

○ **DECISION-MAKING PROCESS**

- do you know when and where you will be displaced?
- how did you know about this? did someone from the government come to tell you? If yes, who? When? What were you told exactly?
- have you been consulted about the R&R package?
- is some NGO working in the village? What does it say about the project?
- during election time were you visited by politicians making promises about R&R and compensation?

○ **COMPENSATION and R&R PACKAGE**

We would like to discuss with you what do you think a fair compensation for your losses is/what do you think the government should give you to compensate for your losses. We would also like to discuss the characteristics of the Resettlement&Rehabilitation package-how would you like the package to be.

a) **COMMON PROPERTY RESOURCES**

-if you have to make a choice, what would you prefer as compensation:

- own piece of land
- only access to Common Property Resources
- both (but smaller quantities)

b) HOUSING

- if the government were to provide you a new house, how would you like it to be?
- would you prefer to be relocated in a village/in a small town?

c) CASH

- imagine cash compensation is the only kind of compensation that you are given. How much do you think a fair cash compensation would be?
- how would you use this money?

d) EMPLOYMENT

- when relocated, what kind of job would you like to do? The same you're doing now or something else?
- would you like the government to teach you a new job when relocated? If yes, which one?

e) RELOCATION WITH TRIBE/CAST/COMMUNITY

- how important it is for you to be relocated with your tribe/community/caste/whole village?

**4) ENDING QUESTIONS/CONCLUSIONS/THANKS/REFRESHMENT** (all things considered, which is the final position of the participants)

**QUESTIONNAIRE FOR VILLAGE FOCUS GROUP**  
*(EX-POST FOCUS GROUP)*

Do you know why the dam is built? Do you think you will get any benefit from the project?

Which are your feeling about leaving your land and your house?

How do you imagine your life in the new place?

Which are the advantages and disadvantages of the relocation place?

What do you think you will lose because of displacement?

Do you know when and where you will be displaced?

Did you participate to any kind of protest against the project? Can you tell me what happened?

Did you already receive any kind of compensation? What? When?

Do you feel the compensation that you received is fair?

What would you like to receive in exchange of having to leave your house and your land and be relocated somewhere else? What do you think the government should give as compensation? [It's

Did you receive any compensation for the trees?

## Appendix VI - Main Sources on the Polavaram dam project

- Government of Andhra Pradesh, *Project Report of Polavaram major irrigation project*, Hyderabad 1981-82.

- Government of Andhra Pradesh, *Polavaram Project Environmental Impact Appraisal Report*, Irrigation Department, May 1985 (usually referred to as 1985 EIA).

- Reddy, N. Subba, *Polavaram Project: report on resettlement and rehabilitation of the displaced*, Centre for Economic and Social Studies, Hyderabad 1996.

This is considered the most serious and reliable attempt to survey the affected population, its main limitation being that it is now outdated.

- Government of India, National Water Development Agency (NWDA), *Feasibility Report of Polavaram (Godavari)- Krishna (Vijayawada) Link Project*, 1995 (circulated in 1999).

- Government of Andhra Pradesh, Environmental Impact Assessment (EIA) and Environmental Management Plan (EMP), in two volumes prepared by Agricultural Finance Corporation:

2. *Indira Sagar (Polavaram): a multipurpose major irrigation project, Volume I; Irrigation and CAD Department, 2005;*

3. *Volume II: Resettlement and rehabilitation project affected persons economic rehabilitation plan (PAPERP), September 2005.*

The quality and the comprehensiveness of the 2005 EIA is contested and for instance it does not contain any information on the impacts on ecology, wildlife and habitat disruption. The resettlement plan has been reported to be patchy and poorly planned.

The only one of the aforementioned documents to which I had direct access is the NWDA's feasibility study. As for the content of the others, I had indirect access through a number of independent reports:

- Patrik Oskarsson, *Polavaram multi-purpose project. A 25 year old "solution" for all water problems in northern Andhra Pradesh returns to haunt tribal communities*, June 2005, a report by SAMATA, Hyderabad, India.

- R. Uma Maheshwari, *Godavari. Yet another dam, yet another story*, Peace, New Delhi 2007

- Gujja, B. et al., *Perspectives on Polavaram, a major irrigation project on Godavari*, New Delhi, Academic Foundation in collaboration with WWF-India and Sakti, 2006.

- Stewart, T., R. Rao, *India's dam shame : why Polavaram Dam must not be built*, Secunderabad, Gramya Resource Centre for Women, 2006.

During my fieldwork I had access to a number of internal administrative documents on the state of advancement of the resettlement operations; recently, detailed information on

resettlement in Polavaram has been made available on the website of the Commissioner of Resettlement & Rehabilitation of the Government of Andhra Pradesh (<http://www.aprr.gov.in/>). I have extensively relied on the information from these sources in chapter 5.

For up-to-date information on events concerning the project I have relied on national and local newspaper and magazine articles published online. Finally, the only journal to regularly publish articles on Polavaram (usually in the form of short commentary or reportage) is the *Economic and Political Weekly*.

## **Appendix VII - Main benefits under the Andhra Pradesh Resettlement and Rehabilitation Policy, 2005**

### LAND COMPENSATION

For Scheduled Tribe Project Affected Families:

-Affected families who become small, marginal or landless farmers after acquisition, in lieu of the land acquired from them are given land compensation in the following modalities: to the extent of the land acquired from them, or 2.5 ha of dry land or 1.25 ha of wet land (whichever is lower). For the land in excess of 2.5 ha or 1.25 ha, cash compensation is given.

For Non-Scheduled Tribe Project Affected Families:

-Cash compensation is paid to non-tribal families whose land is expropriated by the project.

-Allotment of waste/degraded land in lieu of acquired land can be provided to those (tribal and non tribal) families who become landless or small or marginal farmers after acquisition, provided that such land is available and the affected families agreed to it. If they do, they will also be given financial assistance of Rs 10,000 per hectare for land development and Rs 5,000 for agricultural production.

### HOUSE CONSTRUCTION AND RELOCATION SITE

-A free house site is provided to each project displaced families, with the following characteristics: 202 Sq.mts in Rural areas and 75 Sq. meters in Urban areas, besides the payment of compensation for the lost structures.

-A house construction grant of RS 50,000 (plus Rs 3,000 for sanitary latrines) is paid for families below the poverty line including sanitary latrines (families which are not below the poverty line are not entitled to this assistance).

-A resettlement colony is provided with basic amenities and infrastructure: drinking water, internal roads, drainage, electricity, primary school, playground, community hall, approach road, community centres.

-Families belonging to the same community are to be resettled in a compact area.

-Each adult son residing with a project-affected family at the time of notification will be treated as a separate family.

-The tribal affected families which are relocated outside the Fifth Schedule Area will receive an increase of the R&R monetary benefits of 25%.

### WAGE AND ALLOWANCES

-750 days @ 85 Rs per day of minimum agricultural wage for loss of livelihood if after the acquisition of land the owner becomes landless if no land is allotted in lieu of the acquired land;

-500 days @ 85 Rs per day of minimum agricultural wage as one-time financial assistance if after the acquisition of land the owner becomes marginal farmer if no land is allotted in lieu of the acquired land;

-375 days @ 85 Rs per day of minimum agricultural wage as one-time financial

<p>assistance if after the acquisition of land the owner becomes small farmer if no land is allotted in lieu of the acquired land;</p> <p>-625 days @ 85 Rs per day of minimum agricultural wage as one-time financial assistance for labourers;</p> <p>-240 days @ 85 Rs per day of minimum agricultural wage as one-time financial assistance for each displaced family (for the affected families which are also displaced families);</p> <p>-500 days @ 85 Rs per day of minimum agricultural wage as compensation for the loss of customary rights and usage of forest produce for tribal affected families;</p> <p>-500 days @ 85 Rs per day of minimum agricultural wage as one-time financial assistance to each non-tribal affected family who is a member of a registered Fishermen co operative Society/Fishing license holders in the affected zone as compensation for the loss of fishing rights. The tribal and non tribal families which have fishing rights in the river/pond/dam and which are members of registered Fishermen co operative Society/Fishing license holders will also be given fishing rights in the reservoir area.</p> <p>-A pension of 500 Rs per month for life is given to each vulnerable person.<sup>170</sup></p> <p>-Rs 25,000 Financial Assistance for construction of workshed/shops for the project-affected families which are self-employed (as rural artisans or small traders).</p>
<p><b><u>OTHER</u></b></p> <p>Each Project-Affected Family will receive:</p> <p>-15,000 Rs financial assistance for construction of a new cattle shed;</p> <p>-5,000 Rs for transportation charges (of people/material) from the old to the new place.</p>

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170 Vulnerable persons are defined as (Para 5.4): disabled, destitute, orphans, widows, unmarried girls, abandoned women or persons above fifty years of age, who are not provided or can not immediately be provided with alternative livelihood and who are not otherwise covered as part of a family. The definition has been amended in 2009 to make it more inclusive and less discriminatory towards women and elderly people.

## **Appendix VIII - The failure of Resettlement: empirical evidence**

As discussed in section 1.4, the predominance of a discourse around development-induced displacement with a reformist-managerial attitude has led to a shift in focus to the process of resettlement. Moreover, as a consequence of the World Bank's own admission, there exists a common agreement that resettlement practice has failed in preventing the impoverishment of the affected population. The failure of resettlement is therefore the point of departure for most of the existing literature on the topic, and expedients to make resettlement more effective are one of the main objects of research.

The negative effects of displacement and the impoverishment impact of resettlement had of course been noticed - and indeed investigated - before the World Bank acknowledged them. The first influential studies to appear mainly concerned projects in Africa. The resettlement plan (and failure) of the Akosombo dam on the Volta river in Ghana, for instance, was extensively investigated at the end of the 1960s by Robert Chambers among others (1970), who had previously published one of the first reviews of resettlement schemes in Africa (1969). In 1971 another classic study was published, on the impact of the Kariba resettlement scheme on the Gwembe Tonga in Zambia (Colson 1971). Ten years later a book appeared on the Aswan High Dam project in Egypt (Fahim 1981).

Two investigations of the impact of displacement and resettlement worldwide appeared in 1981 and 1982 respectively, by Thayer Scudder and by Art Hansen and Anthony Oliver-Smith. The work of these authors was seminal in framing resettlement as a separate field of study, with theoretical as well as policy relevance. Since the 1990s, major contributions have come from Cernea's IRR model and attempts to empirically apply it by a number of authors (see for instance Thangaraj 1996, Mahapatra 1999, Muggah 2000). The popularization of resettlement as a field of study, as a policy problem and a concern for social movements all around the world has also come from the international attention dedicated to two major dam projects located in Asia: the Three Gorges Dam in China and the Sardar Sarovar project in India.

The empirical literature on resettlement of people displaced by development projects and its shortcomings is therefore extensive; it draws from a number of disciplines and it has a considerable geographical and sectoral span. This thesis takes this literature as a point of departure, offering a different perspective on the factors determining the failure of resettlement. It does not aim therefore at providing an exhaustive review of the empirical evidence on the topic. Suggesting an alternative perspective does however require specific definitions of concepts and practices when we talk of the failure of resettlement. For this purpose, the eight risks of impoverishment identified by the IRR model have been chosen as an organising principle. For each risk, an example of a resettlement programme which has failed to prevent or mitigate that risk is described below, drawing on the existing literature. In this way, a sample of case-studies of the failure of resettlement is provided, which also serves to clarify the meaning of the risks identified by the IRR model.

### **Risk of Landlessness**

When displacement involves the expropriation of land used for productive purposes, the economic base and the source of livelihood of the affected population is disrupted. Unless the affected population is put in the condition to recover the lost assets and use them to rebuild a new livelihood, expropriation of land means de-capitalization and pauperisation.

This is in fact the most common – as well as probably the most serious – form of resettlement failure.

In the volume *Risks and Reconstruction: Experiences of Resettlers and Refugees* (Cernea and McDowell 2000), Ranjit Nayak reports the experiences of the Kisan tribe of Orissa and the consequences of land deprivation. Around 100,000 people belonging to the Kisan Scheduled Tribe were affected by the construction of the Mandira Dam at Rourkela in the Indian state of Orissa, which started in 1957 and was designed to provide water for the Rourkela Steel Plant. Land belonging to 15 tribal villages was acquired by the government and three different forms of compensation (cash, land, and employment) were provided in exchange for the lost land.<sup>171</sup> The fieldwork study conducted by the author 40 years after displacement, found that all three types of compensation had failed; many families had become landless and impoverished, and other aspects of their life had also deteriorated. For instance, wasteland had been allotted for the land compensation scheme, so that even the few families which did receive land, were not able to engage in profitable farming after relocation. The additional subsidy of 100 rupees per acre promised by the government was never paid. As for the cash-for-land compensation scheme, this might have been fairer (as the estimated figures were reported to be in line with the market price of land), if the money had actually been paid. However, more than 80% of the population did not receive the money promised, and those who did, exhausted it in a short period of time on petty consumption. Finally, the policy of preferential reservation in government services for each displaced family (employment for land compensation) promised by the government turned out to be impossible to implement, firstly for administrative reasons, and secondly, due to the inadequate skill levels of the affected population.

### **Risk of Joblessness**

When displacement occurs, the affected people can find themselves unemployed and unable to engage in a sustainable income-earning activity, either because their land has been expropriated and not properly compensated, or simply due to their moving to another location. In some cases the displaced people are employed in project-related activities, but this is rarely a sustainable solution. Creating new jobs for the displaced people- who are often low-skilled and with an agricultural background, is indeed one of the main challenges of resettlement.

This is the problem faced by Coal India Limited (CIL) in Orissa, for instance, as described by Hari Mohan Mathur in a number of studies (2008 and 2011). Since coal extraction from underground mines is a very labour intensive activity, CIL mining projects were able in the past to absorb a large share of the work force made available by displacement. However, when coal extraction shifted to open cast mines (which are capital intensive) CIL has been increasingly less able to offer jobs in lieu of lost land. Moreover, the CIL policy on resettlement (adopted in 1994 under the World Bank's supervision) releases the company from the obligation of providing a job to each displaced family. While this helped the company to reduce the weight of overstaffing, it made implementation and management of resettlement more difficult. The policy in fact did require the company to provide compensation for the loss of all economic assets to all families (including landless families) in a situation of decreasing availability of agricultural land. The new resettlement strategy focused therefore on self-employment.

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<sup>171</sup> Unfortunately the author does not provide information on the criteria according to which the different forms of compensation were allocated (or were supposed to be allocated, as he finds that in most cases actual compensation was not delivered at all) and whether in some cases they overlapped.

With the support of the World Bank, from 1994 to 1999 the new policy was applied to 25 open caste mines in 5 different states, with a total of 2129 project-affected families and 6,532 targeted for self-employment. However, the self-employment programme that was implemented failed in attracting the interest of the affected families (at the end of 1999 barely 25% of the entitled affected population had taken part in the programme, and those attending the training course were more interested in the monetary incentive attached to the course's participation than by the real service provided). Nor did the programme create real employment opportunities. By mid 2002, when the project closed, 1724 project-affected persons had completed training. The feedback that they provided suggested that the self-employment scheme had not been able to provide income on a sustainable basis, especially for people with a traditional agriculture background.

### **Risk of Homelessness**

House compensation might appear to be the easiest and the least controversial resettlement activity, nonetheless being relocates in an adequate shelter is an eventuality often faced by the displaced people. For instance, problems can arise if house compensation is paid at assessed value rather than at replacement value, or the conditions of the resettlement site are poor. If the housing at the resettlement site is deemed unsatisfactory by the people, they might devote a substantial part of the compensation received for other purposes to improve them. While this can increase their sense of ownership of the new home, it also reduces the capital available to be invested in creating a new livelihood.

When displacement concerns forced evictions from slums, lack of space, real estate speculation and urban policies may further contribute to homelessness. The plan set up in 2003 to convert Mumbai into a *World Class City*<sup>172</sup> constitutes a clear example of this. According to Birkinshaw and Harris (2009), the urban transformations encompassed by the plan have been negatively affecting the poorest inhabitants of the city, especially through displacement. Between 2004 and 2005, for instance, the Mumbai authorities have demolished 90,000 homes, affecting approximately 350,000 people, including pavement dwellers (COHRE 2006). For 80,000 of the houses which were demolished, no provision for rehabilitation was given (IPTEHR 2005:45). According to the Indian People's Tribunal, there simply is no affordable housing for the poor available in the city (*ibidem*). Indeed, while the plan foresees a 90% reduction of slums, the rate of housing construction for relocation purposes of 3,000 units per year is far from being sufficient to accommodate the people already displaced and the two million or more people still facing eviction (COHRE 2006).

### **Risk of Increased morbidity and mortality and food insecurity**

Resettlement, in conjunction with the other types of impoverishment risks, often implies a combination of decrease in food production and a substantial change in dietary patterns, which often lead to increase in malnutrition and general worsening of the health status of the resettled community. Displacement and resettlement can also induce an increase in morbidity and mortality because of the social and psychological stress that they cause, and the enhanced exposure to parasitic and vector-borne diseases at the relocation site, where unsafe water supply and poor sewage systems are often the norm.

These effects were found by Kedia (2008) in his study of the Garwhali population in

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172 See *Vision Mumbai: Transforming Mumbai into a World Class City*, a plan created by the international corporate consultants McKinsey & Company (linked to the IMF) in association with the Government of Maharashtra. See also *The right to the "World Class City"? City visions and evictions in Mumbai* (Birkinshaw and Harris 2009).

Uttaranchal (India), displaced by the Tehri dam between 1978 and 2004, which affected 100,000 people belonging to 125 villages.. Through extensive fieldwork, the author found that the health and nutrition conditions of the resettled population had considerably deteriorated (together with a generalised worsening of their living conditions). Multiple mechanisms were responsible for this. In the first place the resettlers' dietary intake had changed, shifting from a locally produced, diversified and protein-rich diet to a market-purchased, nutrient-poor and high carbohydrate diet. The shift had been mainly due to the decreased access to freely available products (fish, wild plants, fruits, roots, and herbs) and the reduction in crops for self-consumption (replaced by cash crops). Moreover, the resettlement site was already contaminated with various disease-causing micro-organisms, against which the displaced population had no immunity. Disease vulnerability was aggravated by the new climate, poor hygiene practices, and the absence of a sewage and garbage collection system. Finally displacement had caused stress, depression and anxiety in many people.

### **Risk of Social disarticulation**

Displacement and resettlement can break or weaken the ties which bond families and communities, and disrupt the traditional patterns of social articulation, on the basis of which family and community life reproduces itself. The informal networks which maintain social life are put at risk by displacement, and the result is the disarticulation of communities and the loss of reciprocity networks.

To show how this can happen, Behura and Nayak (1993) report the experience of the village of Khemala in Orissa, displaced by the construction of the Rengali Dam. Resettlement started in 1982 and involved 260 families, of which 146 were resettled together in a new village of the same name. Resettlement seriously altered the traditional mechanisms of production, reproduction and interaction of family and community life, which were based on kinship and caste relationships.

Inadequate compensation and resettlement in fact led to the breakdown of the extended family. The hardship of displacement had put the affected families in the conditions of needing and relying more on support from kinsmen, while their capacity to reciprocate this support had declined, putting at stake the ties on which kinship was based. Besides this, no additional resettlement package (homestead and cultivable land) had been planned for unmarried sons, who, since the start of resettlement, had married and formed separate families. The latter had to resettle with the original family and share a plot of land insufficient to provide support for everybody. A similar, but even more dysfunctional dynamic occurred for the families which were only given cash compensation.

Caste association in the resettlement village also changed. As many low castes among the displaced population preferred to accept cash compensation and relocate away from the rest of the community, inter-caste services (like washing clothes, disposing of dead-animals, cutting hair and fingernails, considered as polluting activities) were no longer available, and the upper castes had to perform these services themselves.<sup>173</sup> As a result they were not able to form social and economic alliances with other upper castes of the region, which exacerbated their economic decline. This change in social roles also contributed to a change in the patterns of marriages, with a disappearance of the exogamy rule. As a result of impoverishment and/or caste pollution, many sons and daughters of the displaced families

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173 Despite the end of this type of subordinate relationship with the upper castes, the lower castes did not benefit from the situation, as they lost their jobs and struggled to find agricultural wage employment in the new settlement.

were not considered desirable marriage matches and were forced to marry within the displaced village. This further limited the possibility of creating alliances with other families, which could have helped with the economic recovery of the village. As a result of all these dynamics, village unity eroded and the community found itself unable to maintain social obligations and generally unable to perpetuate political, economic and ritual coordination.<sup>174</sup>

### **Risk of Loss of Access to Common Property Resources**

When people's livelihoods are heavily dependent upon Common Property Resources (CPRs), they may face a deterioration of their living conditions following resettlement. The right to common property is in fact rarely recognized by governments, and few legal systems guarantee compensation for loss of common property (especially for resources other than land and for uses other than farming, such as grazing, fishing, and the use of forest products). As suggested by Koenig and Diarra (2000), access to CPRs also has a political dimension which is rarely acknowledged and accounted for. The two authors explore the effects of resettlement on access to common property resources with reference to the Manantali dam in Mali, and the ensuing displacement of 10,000 people. They find that access to CPRs declined considerably after resettlement, despite significant attention during the design of the resettlement plan.

They point out that one of the problems often encountered by planners is the incorrect evaluation of the quantity, quality and variety of the resources used at the original site and of those needed at the resettlement location. Authorities also often underestimate changes in natural resources exploitation patterns likely to occur because of resettlement. In Manantali for instance, the usual path followed by nomadic pastoralists was modified by the increase in water levels in the Bafing river. As a consequence most of the herders started using the Manantali bridge, crowding into the neighbouring villages and fomenting conflicts with the local farmers.

Another common failure concerns the management of CPRs after resettlement, especially of newly introduced collective resources. The Manantali resettlement project failed to adequately prepare villagers for the management of village water pumps. Years after resettlement several pumps had ceased to work because the population considered the pumps to be the property of the resettlement authority and deemed it responsible for their maintenance.

### **Resettlement and Gender Issues**

The IRR model has been criticised for its lack of specific attention to gender issues linked to the impoverishment process (Scudder 2005). An increasing number of studies however are concerned with how resettlement can fail to address and in fact worsen the gender bias in its multiple dimensions (see for instance Mehta 2009). It therefore seems appropriate to include an example of this dynamic in this review.

A study of resettlement in the Three Gorges Project in China (Tan 2008) found that as a result of resettlement, women are left worse off than men, and face a higher risk of impoverishment. The main reason is the inability of women to achieve occupational mobility at the resettlement site, so that they are forced to stay at home or be employed in agriculture, where pay is low. The generalised inability to create non-farm employment in

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<sup>174</sup> Social disarticulation then implies the breakdown of traditional community ties, but not necessarily the end of exploitative relationships based on caste, which instead might be reinforced by the increased economic insecurity (see also Chapter 8).

rural areas, along with the segmented labour market, the lower education level of women, and social prejudice all contribute to make resettlement more challenging for women.

## **Appendix IX – Maps of Polavaram**

Figures 5.2-5.5 in chapter 5 contain different maps of the Polavaram project, the affected area and the submergence villages.

In particular, map 5.2 shows the tract of the river along which submersion will take place, as well as the two types of terrain present in this area (hilly forest closer to Polavaram, plain north-west of the Sabari river). Map 5.3 comes from one of the internal government documents I had access to. It is of poor quality, yet it clearly shows the submergence area (the shaded area in the map) and how this is distributed in the three districts (West Godavari, East Godavari, Khammam). The area shaded in green is reproduced in map 5.4. The latter is an extract of a much larger map I was given by the RDO of the West Godavari district, showing the submergence villages and the rehabilitation colonies for the West Godavari and partially for the East Godavari districts. The extract reported in the thesis shows the West and East Godavari affected villages which are located in the Papikondalu hills, where the forest is denser and the villages are more isolated. The seven immediately affected villages are also represented in the map, these are all located in close proximity to the dam barrage. The villages that I visited during fieldwork are underlined in red. Finally, map 5.5 depicts the Polavaram project after completion, showing the Right and the Left canal and their command area.

## Appendix X - Pictures of Polavaram

Picture 1. Works for the construction of the Right Main Canal of the Polavaram Project



Picture 2. Israel watching the construction works of the barrage of the Polavaram dam



Picture 3. The location of the barrage of the dam across the Godavari river



Picture 4. Land to be submerged in the proximity of the village of Devaragondi



