Authors
Christian Morabito
Mario Negre
Miguel Niño–Zarazúa
Coordination
Anda David

Research papers

The distributional impacts of development cooperation projects

UNION EUROPÉENNE

AFD
éditions
AGENCE FRANÇAISE
DE DÉVELOPPEMENT

Agence française de développement

The distributional impacts of development cooperation projects

Auteurs

Christian Morabito

Mario Negre

Miguel Niño-Zarazúa
EADA Business School

Coordination
Anda David

Abstract
In 2015, world leaders committed, through the adoption of the 2030 Agenda for Sustainable Development, to reduce inequalities. Accordingly, a specific Sustainable Development Goals Goal (SDG 10) has been expressly devoted to address this challenge. The objective of this study is to test the validity of a proposed methodology that assesses the extent to which programmes and projects implemented or funded by development cooperation agencies contribute to the goal of reducing inequality. The study focuses on three projects funded by Agence française de développement: a programme that supports the improvement of urban housing in Tunisia, a programme that focus on building capacities of SMEs in Cameroon, and a budget support operation aimed to support a health sector reform in Colombia. Specifically, the study identifies whether programmes' beneficiaries of the selected interventions belong to the bottom 40% of the wealth distribution, through a mix of analytical tools. First, a scoreboard that assesses whether or not inequality reduction is a central objective of development programmes; second, the Equity Tool, which helps assess the position of direct beneficiaries within the national (urban or rural) wealth distribution, and iii) the Commitment for Equity Tool, which helps estimate the distributional impact of general or sectoral budget support. Results show the efficacy of the methodology, in particular the possibility to obtain, with a limited budget and timeframe, relevant information about how, and the extent to which, development cooperation programmes reach the poorest bottom 40%, and whenever inequality reduction is an explicit objective of policy interventions. The methodology can be implemented ex-ante at baseline, before the implementation of projects or programmes, as well as ex-post, at end line of policy interventions. The analysis shows the efficacy of the methodology to evaluate the potential inequality reducing effects of development cooperation programmes and projects.

Résumé

En 2015, les dirigeants mondiaux se sont engagés, par l'adoption de l'Agenda 2030 pour le développement durable, à réduire les inégalités. En conséquence, un objectif spécifique des Objectifs de développement durable (ODD 10) a été expressément consacré à relever ce défi. L'objectif de cette étude est de tester la validité d'une méthodologie proposée qui évalue dans quelle mesure les programmes et les projets mis en œuvre ou financés par les agences de coopération au développement contribuent à l'objectif de réduction des inégalités. L'étude se concentre sur trois projets financés par l'Agence Française de Développement : un programme qui soutient l'amélioration de l'habitat urbain en Tunisie, un programme qui se concentre sur le renforcement des capacités des PME au Cameroun, et une opération d'appui budgétaire visant à soutenir une réforme du secteur de la santé en Colombie. Plus précisément, l'étude identifie si les bénéficiaires des programmes des interventions sélectionnées appartiennent aux 40% les plus pauvres de la distribution des richesses, grâce à une combinaison d'outils analytiques. Premièrement, un tableau de bord qui évalue si la réduction des inégalités est ou non un objectif central des programmes de développement ; deuxièmement, l'outil d'équité, qui permet d'évaluer la position des bénéficiaires directs dans la distribution nationale (urbaine ou rurale) des richesses, et iii) l'analyse de l'incidence fiscale, qui permet d'estimer l'impact distributif du soutien budgétaire général ou sectoriel. Les résultats montrent l'efficacité de la méthodologie, en particulier la possibilité d'obtenir, avec un budget et un calendrier limités, des informations pertinentes sur la façon dont, et la mesure dans laquelle, les programmes de coopération au développement atteignent les 40% les plus pauvres, et lorsque la réduction des inégalités est un objectif explicite des interventions. La méthodologie peut être mise en œuvre ex ante au niveau de la situation de référence, avant la mise en œuvre des projets ou des programmes, ainsi qu'ex post, au niveau de la ligne finale des interventions politiques. L'analyse montre l'efficacité de la méthodologie pour évaluer les effets potentiels de réduction des inégalités des programmes et projets de coopération au développement.

Mots-clés

Inégalités, distribution des revenus, coopération au développement

1. Introduction

Addressing persistent inequalities in income and other dimensions of wellbeing is a key policy objective of the Sustainable Development Goal 10 (SDG 10). This stems from two recognitions: The first one is instrumental. The goal of eradicating extreme poverty can be reached faster if inequalities are addressed (Ravallion 2001; Ferreira, Galasso and Negre 2018). The second reason is that the current levels of inequality in many countries are high, and far beyond any economic argument can justify (Niño-Zarazúa, Roope and Tarp 2017; Jorda and Niño-Zarazúa 2019), which undermines social justice and cohesion, and threaten democratic institutions. Evidence shows that high inequality tends to be linked to increased social instability, political and economic elite capture, and even shorter growth periods (World Bank, 2016).

Over the past decades, in particular since the introduction of the Millennium Development Goals in September 2000, and then, with the subsequent adoption of the Sustainable Development Goals (SDGs) in September 2015, multilateral and bilateral donor agencies have devoted their efforts towards promoting good governance, human and economic development, fighting hunger and reducing inequality.

The increase in development funding has been accompanied by the need not only to monitor progress on the SDGs, but also to evaluate the contribution of development cooperation towards achieving these goals. However, indicators attached to several targets of the SDGs, including the SDG10, are not fully developed, or easily identifiable, thus, it remains challenging to track and assess their performance. While a large number of development cooperation programmes or projects aim to promote social and economic development, they lack analytical tools to assess whether, and the extent to which, these interventions contribute to the goal of reducing inequality.

So far, development agencies have attempted to evaluate the potential impact of their programmes and projects based on changes in a set of inequality measures. However, changes in inequality are due to a myriad of factors, from redistributive policies, the structure of labour markets, to land and wealth concentration, among other things. As a result, the potential distributional impact of development cooperation interventions cannot be measured by changes in inequality at the macro level. This does not mean that it is not possible to say something about the potential

distributional effects of development cooperation programmes or projects.

There are currently methods that can potentially be used to assess the effects of development cooperation interventions on inequality reduction. A limited number of studies, based on quantitative and qualitative methods, have been implemented to assess the potential effects of development programmes and projects on inequality (Soares *et al.* 2009; Holtham and Hazelwood 2010; Fernández-Baldor *et al.* 2014; Kotsadam *et al.* 2018). More *ad hoc* poverty and inequality tools designed to assess specific interventions have been tested in various contexts (e.g. USAID (2018) for microenterprise and microfinance projects, Porroche-Escudero and Popay (2020) for health policies, Cohen (2010) for measuring rural poverty, and Murphy (1998) for employment intensive projects). While these approaches are useful, their implementation is demanding in terms of technical expertise, financial resources and time.

The analysis presented in this study is based on a series of analytical methods that seek to identify potential distributional effects of programmes and projects implemented by development cooperation agencies, and their potential contribution to inequality reduction, in light of the SDG10. Depending on context and available information, these methods include:

- An assessment of the distributional position of the beneficiaries of development cooperation programmes or projects. If these interventions explicitly aims to support beneficiaries in the lower part of the wealth distribution, then it can be assumed that the programme contributes to reducing inequality.
- In the case of budget support or support to government spending, the methodology assesses the potential distributional effects of policies and whether they disproportionately benefit the bottom 40% of the income distribution.
- Analysis of the geographical allocation of funding can help identify whether financial contributions from cooperation agencies are directed to areas with high proportion of households at the bottom of the income distribution.
- Willingness of cooperation programme or projects to address inequality as a goal. This is assessed through the analysis of the associated documentation pertinent to the programme or project and the agency's country strategy – as well as national strategies when the donor supports them. This may also involve assessing any economic channels or drivers specified in the documentation through which inequality is meant to be tackled.

The methodology had not been applied and tested before. Thus, this study assesses how effective the proposed methodology is in identifying the potential contributions of development cooperation interventions in reducing inequalities in partner countries in a rapid, accessible and costly manner. As case studies, the analysis focuses on three projects funded by the French Development Agency (Agence française de développement – AFD) that were implemented in Tunisia, Colombia and Cameroon. This study presents the results of these analyses.

The remaining of this report is structured as follows: Section 2 introduces the proposed methodology and the analytical steps required to analyse the potential inequality reducing effects of development cooperation interventions. Section 3 discusses the background of case studies, including an analysis of recent inequality trends and drivers in the selected countries. Section 4 presents the analysis of the three case studies, while Section 5 concludes with a discussion on policy recommendations.

2.   Methodology

The analysis presented in Section 4 relies on a methodology presented in Negre (2019) and which we briefly discuss in this section. The methodology provides a set of analytical tools that assist bilateral and multilateral development cooperation agencies in assessing whether their operations - portfolios, programmes or projects and budget support - contribute to reduce inequality in partner countries. The methodology consists of four analytical steps:

1. Analysis of inequality levels in the country, and its drivers
2. Analysis of whether inequality reduction is a focus of national or sectoral strategies or plans, donors' agreements, and countries' programmes.
3. Analysis of potential inequality reducing effects of programmes or projects, or
4. Analysis of potential inequality reducing effects of budget support operations

2.1.   Analysis of inequality levels and its drivers

As a first step, we assessed the level of inequality and its drivers in the countries where the AFD projects and programmes were implemented. This was done by reviewing the most updated available data and databases, including the following:

- PovcalNet for country, regional and global poverty and Gini estimates.
- World Bank's Poverty and Shared Prosperity reports for shared prosperity data premium (SDG10.1)
- World Development Indicators builds on PovcalNet and expands into a large number of additional indicators.
- UNU-WIDER's World Income Inequality Database (WIID)
- World Inequality Database (WID) for information on top incomes shares
- National Statistical Agencies Offices
- Distributional studies
-

2.2.   Analysis of national and donors' plans

As a second step, we assessed whether inequality reduction has been an objective of AFD's interventions and the associated government strategies, plans and programmes, with clear benchmarks and indicators, building from Robilliard and Lawson (2017). For this purpose, a

scoreboard was developed, with a set of inequality markers to establish if, as part of a programme's or project's objectives, inequality reduction was:

I-0: not targeted
I-1: a significant objective
I-2: is the principal objective

The presence and relevance of the following points within the programme's or project's documentation:

- Analysis of trends and drivers of inequalities in the policy area of the intervention.
- Specific activities designed to directly benefit the poorest bottom 40% individuals or households.
- Measurable targets to assess progress in reaching and benefiting the poorest bottom 40%, against a baseline
- Evaluation plan to assess progress to benefit the bottom 40%.

Other – secondary – markers are also included to provide information on project design, limitations and potential negative effects of the programme on inequalities (see Table 1).

Table 1. Inequality Markers

Objective *Is inequality reduction*	
I-0: not targeted	0
I-1: a significant objective*	1
I-2: is the principal objective	2
Programme Design	
Is there an analysis of trends and drivers of inequalities in the policy area of the intervention/programme?	No
	Partially
	Yes
Are there specific activities designed to <u>directly</u> benefit the bottom 40% income (or Socio-Economic Status) individuals or households**?	No
	Partially
	Yes
Are there measurable targets to assess progresses for bottom the bottom 40% income (or Socio-Economic Status) individuals or households**, against a baseline?	No
	Partially
	Yes
Is there an evaluation plan to assess progresses for bottom 40% income (or Socio-Economic Status) individuals or households**?	No
	Partially
	Yes
Other aspects to consider (secondary)	
	No
	Partially

Dialogue was undertaken with civil society and representative of beneficiaries (bottom 40% 40% income or SES individuals, households**) during the phase of the design of project	Yes
Illustration of possible limitations (e.g. informalities making complex to target, absence of data etc.) for targeting bottom 40% income or SES individuals, households**	No
	Partially
	Yes
Accounting for potential indirect negative effects (e.g. lowering employment, increasing informal sector, etc.) on bottom 40% income or SES individuals, households**	No
	Partially
	Yes

*   Objectives refer to both access and quality of a specific service (e.g. education, health) or outcomes (income, education results, health status etc.).

**   Beneficiaries can be also considered in geographical terms, as a result where most of individuals or households belong to the bottom 40% income or wealth rank.

2.3.   Analysis of potential inequality reducing effects of programmes or projects

As a third step, the analysis considers the potentially inequality reducing effects of development programmes and projects. Any type of programme or project can potentially have an impact on inequalities, regardless of whether this is intentional or not. Finding the direct causal relationship between interventions and outcomes in nonetheless cumbersome and an extremely time- and resource-intensive endeavour.

A practical way to get around this challenge is to provide a first order assessment of potential effects on inequality, without accounting for indirect and general equilibrium effects. This is done by looking at the targeted beneficiaries of development projects or programmes. If more than 40% of beneficiaries are at the bottom two quintiles of the income or wealth distribution (following the criteria set by the Sustainable Development Goal 10 (SDG10), then we can safely say that the project or programme is likely to have an inequality reducing effect.

Finding out whether direct beneficiaries are at the bottom of the distribution does not require a large and expensive survey. We propose the use a ready-available tool, the Equity Tool, which relies on a set of questions tailored to every country to identify in which income or wealth quintile an individual is located. This set of questions range between 12 and 15 questions with a reliability of 85%.[1] This provides a quick and inexpensive way of identifying whether direct programme beneficiaries belong to the bottom 40%.

---

[1]   See the Equity Tool at https://www.equitytool.org/

2.4.   Analysis of potential inequality reducing effects of budget support operations

In the case of budget support operations, it is difficult to observe direct beneficiaries, partly because these resources are largely fungible. Thus, the study relies on an incidence analysis of government expenditure to identify the extent to which government expenditures assisted by budget support operations, benefit the lowest part (bottom 40%) of the income distribution.

In this study, we rely on the Commitment to Equity (CEQ) assessment tools and Standard Indicators. "The CEQ provides an overview of the overall distributional incidence of a government as well as the disaggregated impact of taxation and social expenditure. The overall distributional impact of the government on the economy is given by the combination of both, the fiscal system as a whole – and of course any other policy implemented by the government".[2]

From the CEQ one can obtain an indicator of whether the Bottom 40 is disproportionally benefited. Budget support operations can be regarded as being inequality reducing if government expenditure disproportionally benefits the bottom 40.

---

[2]   See the CEQ at http://commitmentoequity.org/

3. Case studies' background

3.1. Tunisia and the AFD PROVILLE 2 Programme

Tunisia emerged from its revolution in 2011 with an existing history of strong growth and poverty reduction. However, cronyism, rent-seeking, regional inequality, and lack of social and economic opportunities may have been core contributory causes to lead the people to opt for a new government and a new social contract (Cuesta, 2016).

According to World Bank estimates, poverty and inequality in Tunisia are relatively low, especially in the context of a Lower-Middle Income Country. In 2015, Tunisia's Gini index value was 32.8, equivalent to the 2016 estimate for Ireland, and poverty headcounts were at 0.25%, 3.03%, and 17.48% for the $1.90, $3.20, and $5.50 per day thresholds, respectively (Povcalnet). In this regard, Tunisia not only outperforms regional peer countries like Morocco and Egypt, but it also rivals some EU members like Greece and Romania. However, these figures mask persistent struggles with job creation and unemployment, insufficient social safety nets, and provision of basic services. On top of this, the government of Tunisia is trying to find ways to reverse the trend of severe and growing regional inequality between the more urban coastal and the more rural inland governorates. Due to the focus of economic activity in and around major cities along the coast, poverty rates are much higher in smaller towns and non-communal areas everywhere, as well as in the more inland regions as a whole (NIS, ADB, & World Bank, 2012).

The national Gini value has fallen in Tunisia over the last 20 years, and intraregional inequality has fallen regardless of the region under consideration. However, regional income has actually diverged, and interregional inequality has increased, although moderately (NIS, ADB, & World Bank 2012, Boughzala *et al.* 2020a). Although intraregional Gini index estimates are about the same in almost every region and poverty rates have fallen in every region, poverty rates are still much higher in inland regions. This is due in large part to a lack of employment opportunities in those regions, while economic development mostly occurs along the coasts. Disparities in human capital seems to play a key role in explaining inequalities between regions (Boughzala *et al.* 2020b). The North-East, Mid-East, and Greater Tunis regions, collectively, produced close to 90% of new enterprises and jobs by 2010 (see figure 4), and they received 95% of foreign direct investment (Boughzala & Hamdi, 2014). Due to the disparities in growth, economic activity in the inland regions is undiversified and focused on low-productivity rural activities. Thus, it is also more vulnerable to economic and environmental shocks. Of course, these inland regions also have worse access to improved

water and sanitation, with close to 20% of the Center-West region relying on unimproved sanitation in 2012, a problem that existed to a lesser extent in the Northwest, but was negligible in the eastern regions (World Bank, 2018).

The Tunisian government has not only been aware of this problem since the revolution, but the Ben Ali regime was already attempting to foster regional convergence 20 years ago. Public investment per capita has been higher in interior regions since 1990, including investments in improving road networks, improving other infrastructure, and stimulating economic activity (OECD, 2018).

3.1.1.   The PROVILLE 2 programme

The PROVILLE 2 programme carried out by the AFD in Tunisia aimed to allow the catch-up in basic urban infrastructure of 140 quartiers (districts), with low access to social services, high population density and high socioeconomic prevalence of poorer population. It also aimed at promoting the dynamics of local development by the realization of socio-collective facilities and industrial premises. In addition, the program included an important component of support to national authorities in the development of urban policy, particularly on issues of planning, housing and development on the one hand, and in supporting the decentralization process initiated in Tunisia since the revolution on the other hand.

PROVILLE 2 was similarly designed to intervene in deprived urban areas in order to improve the living conditions of people living in informal settlements by contributing to better access to basic services, but also to their socio-economic integration. It was thought to also contribute at national level to reducing socio-territorial inequalities, since the regions with the lowest development index disproportionally benefit from more investment in favour of the poorest urban populations. The programme's integrated urban approach was designed so as to help to strengthen Tunisia's social stability and territorial cohesion.

The programme also aimed to strengthen the institutional capabilities of stakeholders in order to improve the design, implementation and management of operations. In particular, the funding would make it possible to develop preventive urban planning tools to limit informal and uncontrolled urban growth. This was done by supporting urban operators - national and local - in developing and implementing a range of strategic planning, land control and operational urban planning tools. The programme is structured around two components, namely: supporting the government's PRIQH 2 (Programme for the Rehabilitation and Integration of Residential Neighbourhoods) in its infrastructure and

capacity building components; and supporting national and local actors in charge of defining city policy and implementing preventive urban planning tools.

The overall funding of this programme consists of a sovereign loan (PS-PRI2) granted to the Republic of Tunisia for an amount of €77 million over a maximum period of 20 years, with a 7-year grace period, to finance the programme's investments; a European grant of €30 million requested in the framework of the Neighbourhood Investment Facility; and a €1 million grant from the 209 envelope that will support the call for projects mobilising civil society in support of PRIQH 2 (parallel appraisal). The European Investment Bank also participates with €77 million and the Government of Tunisia with €50 million.

3.2.   Colombia and the AFD Budget Support Programme

Colombia has generally experienced higher annual growth in GDP per capita over the last 20 years, about 2.5%, relative to the average of about 1.4% for Latin America and the Caribbean. Today, Colombia is classified by the World Bank as an upper-middle income country. Economic growth over this period has been, on the whole, pro-poor in reducing poverty and income inequality (World Bank, 2014). Despite large reductions in poverty in the country over the last two decades, as of 2018, over 4% of Colombians still live on less than $1.90 per day , more than 11% live on less than $3.20 per day, and over 28% live on less than $5.50 per day. Based on national poverty lines, 8.5% of Colombians lived in extreme poverty, while nearly one-third lived in moderate poverty and 18% lived in multidimensional poverty (SEDLAC 2020)[3]

Although social mobility is not especially high in the country, Colombians appear to experience a greater likelihood of upward social mobility than downward mobility (Balcazar *et al.*, 2018). However, with the income share held by the top two deciles at about 55% compared to the mere 4% held by the bottom two deciles, reflecting a Gini index of 50.4, the country remains one of the most unequal in the region.

When compared to other Latin American countries with similar or higher Gini index values prior to 2005 (e.g. Bolivia, Ecuador, Peru, etc.), Colombia's economic growth does appear to have been relatively weakly pro-poor (Messina & Silva, 2018). Figure 1 shows the Gini coefficient over time for Colombia and other similar countries in the region. Underlying this persistent inequality are disparities between urban and rural areas, as well as significant regional disparities between the departments.

---

[3]   Multidimensional poverty measures are based on attributes such as housing, education and access to water and sanitation.

Figure 1. Inequality over time for Colombia and similar countries
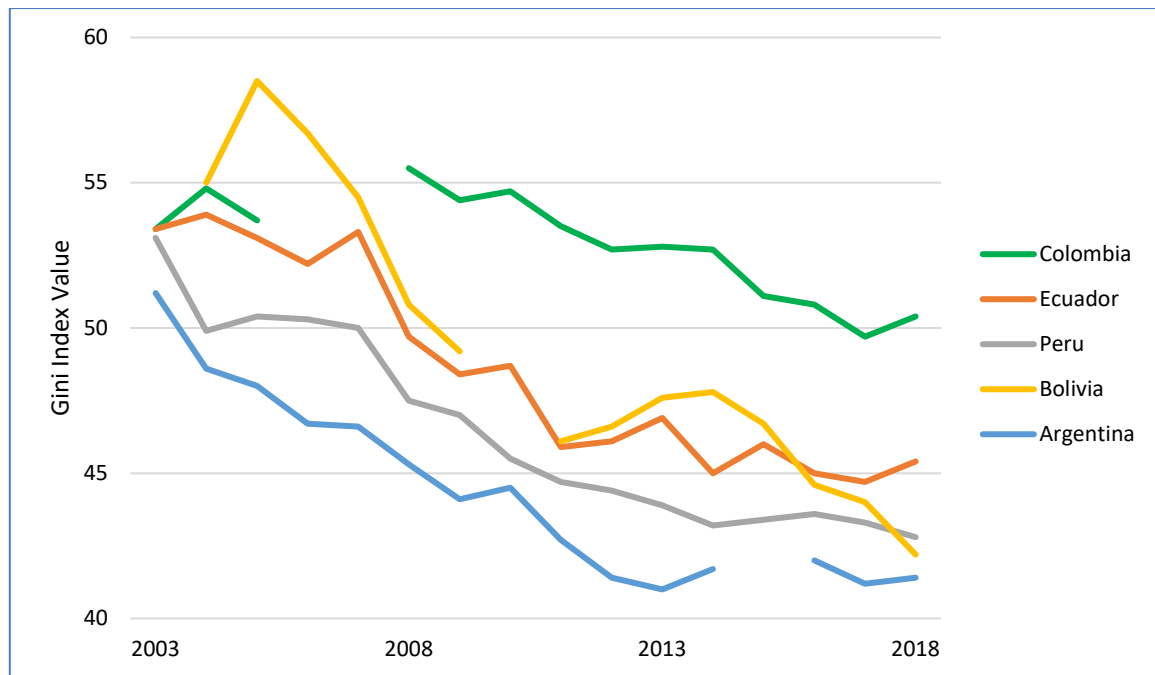
Source: World Bank's World Development Indicators

This is highlighted by the fact that the various departments in Colombia have shown a divergence of moderate poverty rates over the last 2 decades, rather than a poverty rate convergence (World Bank, 2019c). The story of Colombian poverty and inequality also includes structural and social issues, particularly in healthcare.

Since the creation of the mandatory system for guarantee of quality care (Sistema Obligatorio de Garantia de la Calidad en Salud) in 2006, Colombia has made great strides in expanding coverage and quality of healthcare throughout the country. However, while the population coverage of healthcare services is higher than other OECD countries, there are a number of general healthcare indicators that continue to lag behind. For instance, the maternal mortality rate in Colombia is by far the highest of all OECD countries (World Bank, 2019a). The country also experiences approximately 46 deaths per 100,000 every year due to poor quality of care, and a further 24 due to non-utilisation of or poor access to healthcare services (ibid.). This rate of deaths due to poor healthcare quality does not appear unusually high compared to other Latin American countries, but its magnitude relative to most other OECD countries points to major problems with quality of, and access to, healthcare.

Significant disparities contribute to Colombia's healthcare challenges. Such disparities exist between public and private facilities, rural and urban facilities, and between departments with relatively high and low poverty rates. One striking example of this is the fact that rates of delivery of screening mammographs for women aged 50-69 ranged from 1-3% in the relatively high poverty departments of Vichada, Vaupés and Guainía, as compared to the

8

national average of 10.3%. In addition, in 2014, in-hospital mortality rates within 72 hours of patient admission were more than 3 times as high in rural facilities than those observed in urban facilities (World Bank, 2019a).

There are also large regional variations in expected wait times. One reason for this is the limited supply of medical professionals and specialists in rural areas and in departments with higher poverty rates. This shortage severely hinders access to healthcare and can have broad-ranging health impacts. For instance, while almost all urban births in 2015 were attended by a skilled professional, 88% of births were attended in rural areas (World Bank, 2019b).

Although new medical graduates are required to spend one year working in a rural facility, they rarely stay longer. This leaves rural facilities understaffed, with some departments having up to 6 times as many health providers per capita compared to other departments (World Bank, 2019a). Additionally, the greater travel distances involved in seeking care can be a great burden for those living in rural areas. In 2011, 16% of the rural population reported neglecting to seek health care services because of the distance between them and the nearest facilities, compared to only 2.3% of the urban population (OECD, 2017). This lack of healthcare density is striking in some regions. While the national average number of hospital beds per 1000 people in 2014 was over 1.5, at least five departments had only about 1 or less, one of which (Vaupés) had less than 0.5 (see Figure 2).

Figure 2. Hospital beds per 1000 people, by department
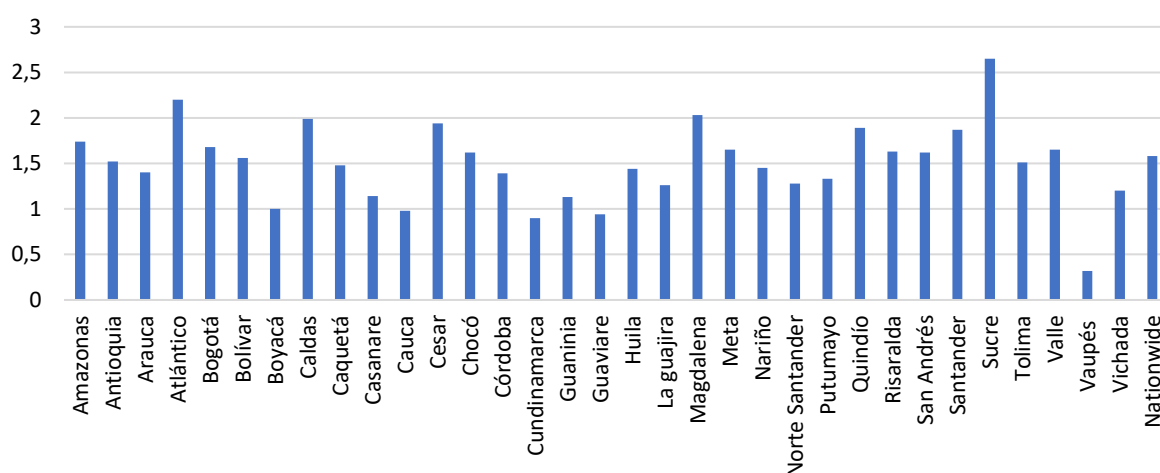
Source: OECD (2017)

Furthermore, the structure and organization of the healthcare system can sometimes force patients to wait long periods of time and travel to multiple locations for different tests when specialist care is required (World Bank, 2019a). This is naturally more burdensome for lower income patients, likely leading to additional inequality in the utilisation of healthcare services.

3.2.1.   The AFD Budget Support Programme

The Colombian government has undertaken a reform of the health system which aims to improve the health status of the Colombian population through (i) greater equity and efficiency of the single-tier health coverage system, (ii) a reorientation of the health system towards prevention and the first level of care, and (iii) improvement of the quality and availability of health care, with a consequent improvement in the geographical equality of access to care.

AFD's has supported this reform through a budget loan granted to the Colombian State for the implementation of the reform. This loan has been accompanied by (i) the development of a regular technical dialogue between AFD and the Ministry of Health and Social Protection (MOHSW) to monitor the implementation of the reform within the framework of a formalized mechanism over the period of 2014 through 2018 and (ii) a major cooperation program using two different tools over the same period:

- a bilateral technical cooperation programme between the actors of the Colombian health system and those of the French system, within the framework of a formalized memorandum of understanding.
- a broader programme of support for the implementation of the reform to boost the capabilities of key players in the Colombian health system.

AFD's budget loan will amount to USD 400 million, in addition to a USD 250 million budget loan from the Inter-American Development Bank (IDB). The bilateral technical cooperation program will be financed by AFD's own resources, for an indicative amount of €300,000.

3.3.   Cameroon and the AFD SMEAA (PMEAA) Project

As the result of a strong economic growth in recent years, following a devastating recession in the 1980s and 90s, Cameroon is today classified as a lower-middle income country. Notably, the government has an ambitious development plan in place to reach the upper-middle income status by 2035. Despite the recent economic convergence, the country still struggles to deal with poverty that persists in its Northern and Eastern regions, and high levels of regional inequalities in terms of income and opportunities.

While poverty headcounts have declined modestly in the last 20 years in Cameroon, they remain high. The most recent World Bank estimates (2014) put the poverty rate at 26% and 47% based on the $1.90 and $3.20 poverty lines, respectively. The Gini index for Cameroon has in fact not declined, but instead, increased by 4.5 points to 46.6 from 2001 to 2014 (PovcalNet). This reflects, among other things, the fact that while poverty rates fell in urban areas, it has increased in rural areas, especially in those with dominant French-speaking populations (INS, 2015). This in part is no surprising given the activity of Boko Haram in the rural northern parts of Cameroon and the influx of refugees into the North and East from Nigeria and the Central African Republic, as well as internally displaced persons (World Bank, 2018).

The economy of Cameroon is largely based on agriculture (47% of the population lives in rural areas) and informal (90% of jobs are in the informal sector), reflecting the country's reliance on its agricultural sector (World Bank 2016). This sector employs 70% of the country's workforce and accounts for 42% of GDP and 30% of exports (Trevino, Casanova, & Piccioni, 2020). The country is an internationally significant exporter of cash crops like cocoa, coffee, cotton, and bananas. However, when it comes to rice, a major dietary staple, the country imports about three quarters of its annual domestic consumption (World Bank, 2019). Food crop production, in particular, is characterized by a predominance of small, low productivity traditional family farms with little to no mechanization and very little use of fertilizers. There are also a number of agricultural State-owned enterprises (SOEs) that either provide assistance and supplies to private farmers or produce agricultural products themselves, though direct SOE production is largely focused on cash crop exports.

Especially in the Northern regions characterized by mono-modal rainfall patterns, access to water can be problematic. These regions are not only more heavily agriculturally-focused, but exhibit the highest poverty rates (World Bank, 2016). Many farmers lack access to irrigation infrastructure, leaving them vulnerable to climate shocks and low crop yields. Some SOEs, such as the Company for the Expansion & Modernization of Rice Cultivation at Yagoua (SEMRY) and the Northern Region Development Agency (MEADEN), exist to provide assistance with land preparation and irrigation services. However, their capacity to fulfil their intended purpose has been eroded by years of financial mismanagement and declining revenues, leading to shortages of materials, deteriorating equipment, and increasing needs for state subsidies (World Bank, 2019). For instance, MEADEN currently irrigates less than half of the land originally intended to be serviced by the infrastructure that it manages, and SEMRY is forced to hire machinery from the private sector that may not be available for their use when needed (Trevino et al., 2020).

3.3.1.   The AFD SMEAA (PMEAA) Project

The agricultural sector hosts the largest number of Cameroon's SOEs, but their financial viability has been flagging. This is especially true of those like the Cameroon Development Corporation (CDC), which produces mostly rubber, bananas, and oil palms, which has neglected productive investments due to long-term financial mismanagement (World Bank, 2019). For this reason, it is becoming increasingly important for the government to assess its current structure for supporting the agricultural sector in the country.

As a result, the aim of the 'Support Programme for Small and Medium Enterprises in Agriculture and Food Processing' (Programme d'Appui aux PMEs Agricoles et Agroalimentaires (PMEAA) project carried out by the AFD in Cameroon (2015-2018) was to contribute to the improvement of the living conditions of rural populations in Cameroon by developing production, processing and marketing activities for agricultural products, through financial and non-financial support to small and medium-sized agricultural and agri-food enterprises (SMEs).

In order to achieve this objective, PMEAA targeted rural SMEs and farmers' groups, and offered non-financial services focusing on the development of management capacities (e.g. market studies, business plan development, products labels, accounting and administrative skills, strengthening sales networks, etc.). In addition, other activities were carried out more at the macro/systemic level to facilitate access to financial services provided by private lending institutions, and strengthen the system of information sharing between SMEs, economic actors, institutions, and lenders. to contribute to the improvement of the living conditions of populations in rural areas by developing production, processing and marketing activities for agricultural products, through financial and non-financial support to Small and Medium-sized Agricultural and Agri-Food Enterprises. The PMEAA programme cycle has been funded with €5 million.

4. Analysis

In this section, we present the analysis of the selected case studies. We fist present an analysis of the relevant documentation, including monitoring and evaluation reports, whether openly available or provided directly by AFD. The analysis assesses, through a scoreboard, the extent to which inequality reduction was an objective of AFD projects and programmes, and helps identify key elements for the empirical analyses.

The empirical analysis has been conducted in Tunisia based on primary data collected from a representative sample of households who have benefited from the PROVILLE 2 programme and the Equity Tool. In the case of Colombia, since the AFD programme supported a sector reform via a loan to the health budget, we conduct an incidence analysis of government health spending, based on data from Encuesta Nacional de Calidad de Vida (ENCV 2014), which is the most recent household survey with expenditure data available on the Commitment to Equity (CEQ) Assessment tool, upon which this analysis is based on.[4] In the case of Cameroon, the collection of a household survey had been planned to be undertaken in the second quarter of 2020, however, due to the COVID-19 pandemic, and the subsequent lockdown of countries, it was not possible to collect the primary data needed to conduct the analysis.

4.1.   Analysis of the PROVILLE 2 programme in Tunisia

4.1.1.   Analysis of the Documentation

In this section, we present a brief scoreboard project document analysis of the AFD intervention in Tunisia and assess whether the intervention had a focus on inequality reduction. More specifically, we assess the extent to which inequality reduction was an explicit objective in AFD's programme, with clear benchmarks and indicators. In the following sections, we present a summary of the inequality markers, based on desk analysis of documents and reports of the AFD intervention in Tunisia.[5]

---

[4]   Data are available on the following link: http://commitmentoequity.org/ceq-data-center/.

[5]   Note de Communication Publique. Programme d'appui à la politique de la ville (PROVILLE 2), 2012 ; PROVILLE: appuyer la politique de la ville en Tunisie, 2015.

Table 2. Inequality Markers of the PROVILLE 2 programme

Objective *Is inequality reduction*	
I-0: not targeted	
I-1: a significant objective	1
I-2: is the principal objective	
Programme Design	
Is there an analysis of trends and drivers of inequalities in the policy area of the intervention/programme?	Yes
Are there specific activities designed to <u>directly</u> benefit the bottom 40% income (or Socio-Economic Status) individuals or households?	Partially
Are there measurable targets to assess progresses for bottom the bottom 40% income (or Socio-Economic Status) individuals or households, against a baseline?	Partially
Is there an evaluation plan to assess progresses for bottom 40% income (or Socio-Economic Status) individuals or households?	Partially
Other aspects to consider (secondary)	
Dialogue was undertaken with civil society and representative of beneficiaries (bottom 40% income or SES individuals, households) during the phase of the design of project	Yes?
Illustration of possible limitations (e.g. informalities making complex to target, absence of data etc.) for targeting bottom 40% income or SES individuals, households	Yes
Accounting for potential indirect negative effects (e.g. lowering employment, increasing informal sector, etc.) on bottom 40% income or SES individuals, households	Yes

Inequality reduction is a significant objective of the programme but cannot be considered as the principal objective as seen in Table 2. This due to the fact that beneficiaries selected are "quartiers populaires", which does not refer to "precarious districts" with low access to basic services and higher share of poor inhabitants, but rather "highly populated area", according to the official Tunisian government terminology, districts which have grown outside of urban regulations, with a minimum density of 20 dwellings per acre + 80% of district perimeter has to be urbanized. The density varies greatly between urban / semi-urban and peripheral districts and between coastal and inner regions.

> *Les objectifs sont de : (i) Contribuer à l'effort de rattrapage en infrastructures urbaines de base en faveur des quartiers populaires, (ii) Favoriser des dynamiques de développement social et local par la réalisation d'équipements socio collectifs et de locaux d'activités dans ces mêmes quartiers, (iii) Contribuer à la mise en place d'une action globale et cohérente sur les dynamiques urbaines par la préparation d'outils et de dispositifs et (iv) Renforcer les capacités des collectivités locales en matière de gestion municipale.*

There is an accurate analysis of drivers of inequalities in the housing/urban development: the rate of inhabitants living in urban areas is increasing in the last decades but with poor strategies and governance. This resulted in marginalized areas in terms of access to infrastructures and presence of social and collective spaces, undermining social cohesion.

However, activities undertaken under the programme (strengthening infrastructures and social collective spaces and equipment) do not specifically and explicitly target the

neighbourhoods where the bottom 40% income households are predominant. As previously outlined, according to the Programme Document, criteria of selection of beneficiaries' neighbourhoods are related to population density and lack of infrastructures rather than to socio-economic or income level of their inhabitants.

> *La sélection des quartiers couvre tout le territoire, notamment les gouvernorats de l'intérieur du pays, et s'est basée sur les critères suivants : i) quartiers comprenant plus de 200 logements, ii) surface urbanisée du quartier supérieure ou égale à 80% de la surface globale, iii) densité urbaine supérieure à 20 logements par hectare, iv) desserte insuffisante en réseaux d'infrastructures de bases et en équipements socio-collectifs.*

In addition, indicators to measure the success of the programme and consequent evaluation plans are present, looking at the evolution of the living conditions of the beneficiaries, by comparing before and after the program the living standards (and employment, mobility, governance perception etc.). However, they are not explicitly set to assess performances form the 40% income (or the lower part of the income/wealth distribution) households.

> *Le programme contribuera aux cinq indicateurs agrégeables suivants:*
>
> *   *Nombre de personnes gagnant accès à un système d'assainissement amélioré*
> *   *Longueur des voies réhabilitées ou créées*
> *   *Emploi concerné*
> *   *Nombre d'entreprises bénéficiaires*
> *   *Nombre de personnes habitant des ==quartiers défavorisés==, dont l'habitat est amélioré ou sécurisé*

PROVILLE 2 follow the first phase of the programme, where consultations were carried out among inhabitants of the neighbourhoods, local institutional stakeholder from the neighborhoods and entrepreneurs. One of the main objectives of consultations where to dialogues between the different actors in order to design through participatory approaches, the second phase of PROVILLE. In the programme document there are several assumptions about possible limitations and risks, notably in terms of governance, financial, presence of social stakeholders, environment. In addition, potential negative effects for bottom 40% are considered. In particular, in the impact evaluation plan, one of the research questions refer to the need of analysing possible effects of the programme on evictions of lower income households.

4.1.2.   Analysis of the distributional impact of the PROVILLE 2 programme

The aim of the analysis is to assess if inequality has potentially been directly targeted in practical terms by looking at whether beneficiaries are in the lower part of the wealth distribution. This information can then in turn be used to better take decisions on how to improve targeting, shall this be deemed necessary. It is important to strongly caveat this, however. There are many plausible reasons by which a development cooperation project,

programme or even portfolio may not be targeting the poorer segments of society even when that may be part of the objectives. For instance, donors may align to government priorities; coordinate with other donors; target more accessible and less conflict-affected regions; and exploit their comparative advantage, among other reasons. Therefore, the analysis presented herein aims to provide better insights so that future decisions can be better informed.

As described in the methodology section, the Equity Tool is an online tool that provides a reduced questionnaire to rank a persons' wealth within the national wealth quintile distribution with some degree of certainty. This reduced questionnaire is obtained by minimising the number of questions and simultaneously maximising their explanatory power to reproduce UNICEF's Multiple Indicators Cluster Survey's wealth index.[6] This is exercise needs to be specifically carried out for each country. The equity Tool kindly agreed to produce the analysis for Tunisia so that the assessment presented in this report could be conducted.

In the case of Tunisia, the reduced questionnaire consists of 12 questions (see Appendix B) concerning characteristics of the person's household in terms of possessions and energy sources. This substantially reduces the original number of questions in UNICEF's wealth index down from 42 and allows for the simple, economical and quick fielding of surveys among project/programme beneficiaries.

4.1.2.1.   *Data and sampling strategy*

Funding under this project mainly supported the provision of economic infrastructure in 125 urban areas spread across governorates. To a much lesser extent, the project also funded housing improvements for a number of households but since this constitutes a fraction of the total expenditure and contact data on the beneficiary households were not available, it has not been possible to assess whether this part of the funding has targeted poorer households or not.[7]

Out of the 125 quartiers, surveys were fielded in 124 of them, with one of them not being accessible because of Covid-19 restrictions as of August 2020. In four cases, we do not possess data on population density in the neighbourhood, reason why we have excluded them of the analysis for comparability reasons. In the end, 4969 randomly selected respondents were included in the survey, around 40 in each quartier (see Table A.1 in Appendix A).

One important characteristic of the methodology used and tested herein is that it is thought to provide quick and economical results. For this reason, with very limited surveys costs we

---

[6]   For information on how the original wealth index is built, please consult: http://mics.unicef.org/tools .

[7]   Should these data become available and there be interested in assessing the distributional profile of these beneficiary households, simple telephone interviews may allow to readily obtain a wealth quintile profile through the same Equity Tool questionnaire used for the quartiers.

designed a simple sampling frame that allows us to have nationally representative results. At governorate and neighbourhood level, results are not representative at the standard 95% of confidence level and 5% of margin of error but still a very good indication: 90% confidence level and 13% margin of error based on 40 respondents per neighbourhood. This, in any case, compounds on the imprecision incurred by using the Equity Tool reduced questionnaire instead of the original one from UNICEF with far more questions. In our view, in this case it is more important to have a good general overview without missing any quartiers than sampling across quartiers and potentially miss some important ones. This means that results at neighbourhood level are less reliable that those at national level. We still think they are a good indication of the quartiers' profile and so we include them in the analysis.

Respondents in each neighbourhood were addressed at four randomly-chosen points in the neighbourhood (primary sampling units or PSU), with 10 respondents in each location. Each randomly-chosen sampling point was assigned a starting location (near mosque, police office, post office, etc.) and all interviewers had instructions to follow a set of random-walk rules:

- Selecting households always on the right.

- The 1st household selected according to the date (so as to change each day): if 22 August, then 2+2=4, so 4th households on the right.

- Then skip 2 Households, then skip another 2 households, etc.

- In each PSU, 10 households are selected (and 5 for replacements in case of refusal, etc.)

- Households are selected by interviewers following the instructions. The routes end when the predefined number of respondents (or households) is achieved (40).

In addition to the wealth-related questions, we also collected information on gender, age interval, household size and main language of respondents. In the next section, we present the results of the analysis.

4.1.2.2. Results

We present the survey results first by respondents and then weighted by neighbourhood population and population density. Unweighted results show the quintile profile of the respondents from sampled quartiers. The assumption here is that funding to these quartiers benefitted the same number of people in each of them because we have the same number of respondents in each neighbourhood (40). The analysis based on respondents without weighting is helpful if we assume that regardless of how many people live in these quartiers, the funded infrastructure benefited those who lived in their proximities.

One could also assume, however, that since the funding provides improvements in infrastructure, more people are expected to benefit if a neighbourhood is more populous. Therefore, we also provide results weighted by population so that each respondent contributes to the total quintile count with the population of their neighbourhood. That is, if respondent A from neighbourhood B with population 3000 is in quintile 2, then 3000 persons are added to this quintile nationally and the same is done with every respondent.

Yet another possible assumption is that, in fact, the number of real beneficiaries will likely more closely depend on the population density of the neighbourhood. The rationale behind is that in more densely populated quartiers, infrastructure is more likely to have more people nearby and therefore have a higher beneficiary count. Results under this assumption can also provide a better understanding on the wealth profile across quartiers depending population density.[8]

Beyond visually comparing the quintile composition of beneficiaries, we also provide in Table A.1 in Appendix A the share of beneficiaries in the lower two quintiles, the shares of the bottom 20% (B20) and bottom 40% (B40). The latter is the reference used by both SDG10 on Inequality and the World Bank's Shared Prosperity goal. Apart from providing a good tool for assessing progress on targeting these goals, the B40 estimates give an idea of whether the lower part of the distribution has been disproportionately targeted, thus contributing to inequality reduction.

Results by urban areas

Since the PROVILLE 2 project was implemented with the objective of improving the basic urban infrastructure of quartiers with high prevalence of poorer populations, we focus the analysis on urban areas to compare the wealth profile of potential beneficiaries in 'treated' quartiers, relative to the wealth distribution of the urban population of Tunisia.[9] It is important to point out that urban areas in Tunisia tend to be wealthier than rural ones. This merit the question of whether the beneficiary quintile profile in urban areas is more focused on the upper part of the wealth distribution, relative to the national distribution. We return to this question later when we present the national results.

As can be seen in Figure 3, the beneficiaries in the targeted urban quartiers disproportionately belong to Q1 and Q2, the lowest two quintiles. Indeed, 30.1% and 46.7% of all beneficiaries are in these two quintiles, respectively. The programme managed to disproportionately benefit the poorer urban households, although it still targeted a

---

[8] An important caveat is in order here. Since Tunisia's National Institute of statistics (L'Institut National de la Statistique, INS) does not collect population and surface data at quartier level, because this is not an administrative unit – the official figures are reported at governorate level – the analysis based on population and surface figures at quartier level that are provided by municipalities should be treated as estimates.

[9] A similar procedure is recommended by the Equity Tool Tunisia.

significant share of efforts to very wealthy quartiers. Beneficiaries in the top two quintiles make up 34.6% of all beneficiaries.

**Figure 3. Urban quintile distribution of targeted households (unweighted sample)**
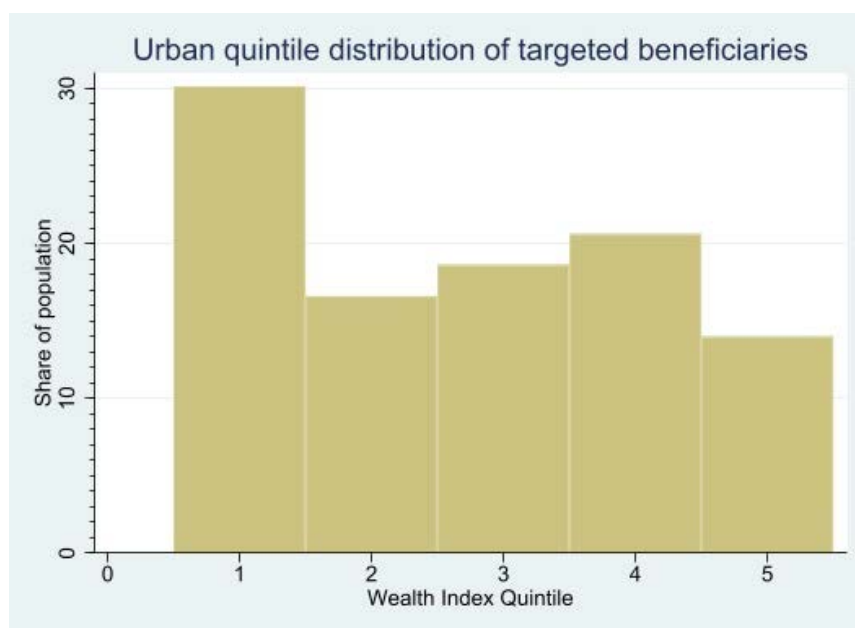
When we weighted the sample by quartiers' population (see Figure A1 in the Appendix), we observe that results do not change substantially but the share of beneficiaries in the B20 and B40 are respectively reduced to 26.9% and 43.3%. This suggests that more populous quartiers tend to be wealthier and that assuming more people benefit in these quartiers leads to less pro-poor targeting of beneficiaries. Weighting by population density, results further diminish the inequality target of the programme in terms of potential direct beneficiaries (see Figure A2). In this case, beneficiaries in the first and second urban quintiles represent 24.7% and 42.3% of the total, respectively. Although there is a disproportionate concentration on beneficiaries in Q1, this is partly compensated by much lower share of beneficiaries in Q2, making the overall profile barely favourable for the B40 in relative terms.

Results by gouvernorats

We focus now on the results based on the unweighted sample at governorate level, which are displayed in Figure 4. We observe a considerable variability, with a number of governorates in which the PROVILLE project appear to have reached a more pro-poor targeting (e.g. Gabes, Sidi Bouzid, Gafsa, Tozeur, Kebili, Medenine and Tataouine) while in others, the project failed to reach the poorest (e.g. Tunis, Manouba, Ben Arous and Monastir).

Urban quintile distribution of targeted beneficiaries by Gouvernorat
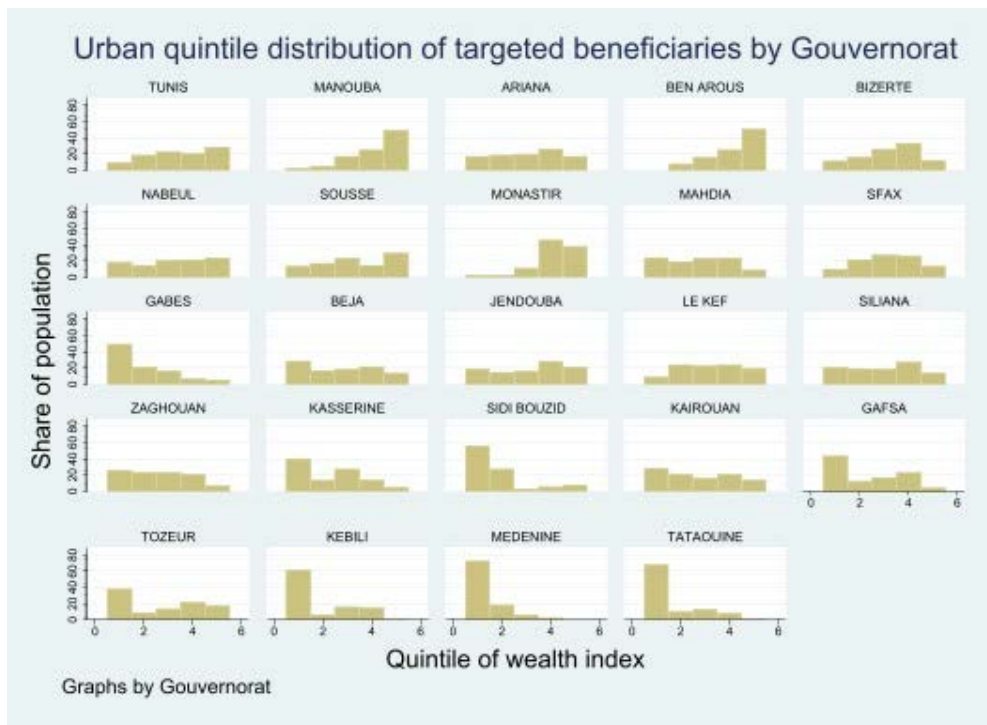
Once the distribution of households is weighted by quartier population, we observe in Figure A3 of the Appendix that in some populous governorates, the PROVILLE project benefited more the better off than the poor (e.g, in Tunis, Manouba, Ben Arous and Monastir), while in other governorates, we observe the opposite (e.g. in Gabes, Kasserine, Sidi Bouzid, Tozeur, Kebili, Medenine and Tataouine). Results per governorate weighted by population density in Figure A4 are very similar to those presented in Figure A3.

Urban Results by gender and age intervals

Unweighted results by gender show a relative equality in the composition of targeted beneficiaries of the PROVILLE 2 project, with women marginally benefiting more than men among to poorest quintiles (see Figure 5). Consistent to the previous findings, once we weight the sample by population size, but especially by population density at quartier level, we observe a considerable decline in the number of project beneficiaries at the bottom two quintiles, irrespective of their gender (see Figures A5 and A6 in the Appendix).

Figure 5. Urban quintile distribution by gender (unweighted sample)

Urban quintile distribution of targeted beneficiaries by gender
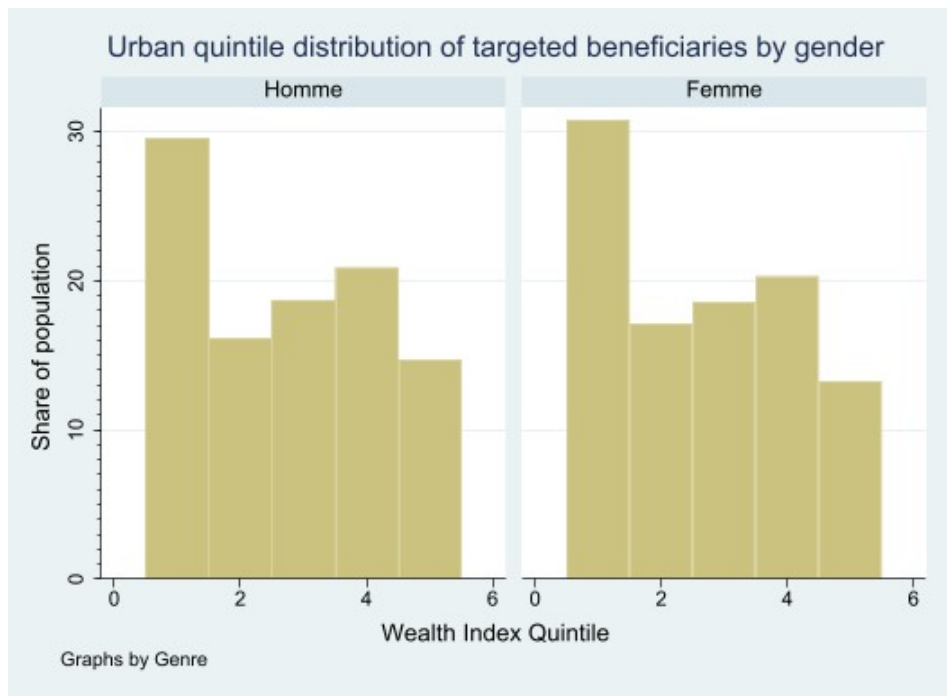
A similar picture, although a more heterogenous one, emerges when looking at the distribution of project beneficiaries by age intervals. If the analysis is conducted without weighting the sample, one observes that the PROVILLE 2 project seems to have benefited proportionally more those in the first quintile, and aged between 40 and 49 years and 50 years and older (see Figure 6). However, once the distribution of household is weighted by population and population density of quartiers, we observe a shift in the distribution of beneficiary households towards to the top deciles (see Figures A7 and A8).

Figure 6. Urban quintile distribution by age cohorts (unweighted sample)
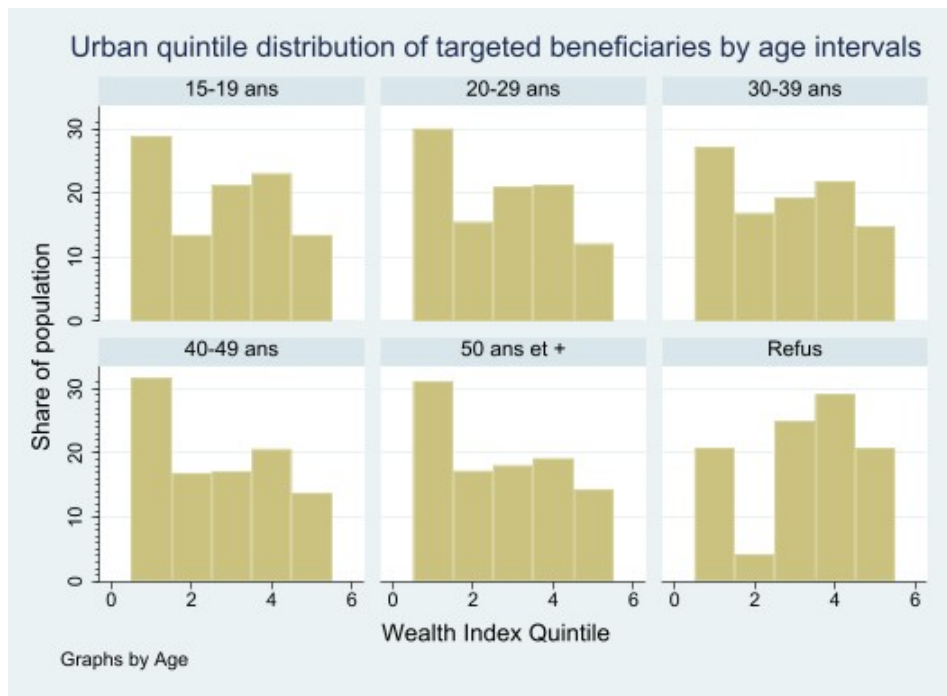
So far, the analysis has focused on how effective the PROVILLE 2 project was at reaching the B40, based on the wealth distribution of households living in urban areas in Tunisia. However, since people living in urban areas are on average better off than those living in rural areas[10], it is informative to understand how effective the PROVILLE 2 project was at reaching the poorest B40, taking into consideration the national, not only urban, wealth distribution. In the next section, we present the results for the national distribution.

National results

We begin the discussion by looking at the unweighted sample in each of the 120 quartiers for which we have complete data. We recall that the unweighted sample assumes that the PROVILLE 2 project affected quartiers equally, regardless of their populations. As can be seen in Figure 7, very few (1.9%) of the beneficiaries belong to the poorest 20% of the national wealth distribution. The second and third quantiles represent about 25% of beneficiaries each, but the fourth quantile absorbs a disproportionately higher share. Indeed, the share of the poorest B40 is just about 26.6% while 48.5% of project beneficiaries are at the top 40% wealthiest quintiles. Results are slightly skewed towards the top quintiles when the sample is weighted by population and population density, as seen in Figure A9 and A10 in the Appendix), with only 1.4% and 21.3% of beneficiaries located in the B20 and B40, respectively in the case or the population density weighted sample. This appears to be driven by an

---

[10] 26% of people living in urban areas in Tunisia are in the richest national quintile, relative to only 3% of those living in rural areas ((Equity Tool 2020).

22

average correlation between higher population density and higher wealth, which stems from some wealthier quartiers presenting higher population density.

This indicates that if we consider the national wealth distribution, instead of the urban wealth distribution, and account for the concentration of people living around the locations where the PROVILLE 2 project was implemented, it seems like the project disproportionately benefitted better off households.

Figure 7. National quintile distribution of targeted households (unweighted sample)
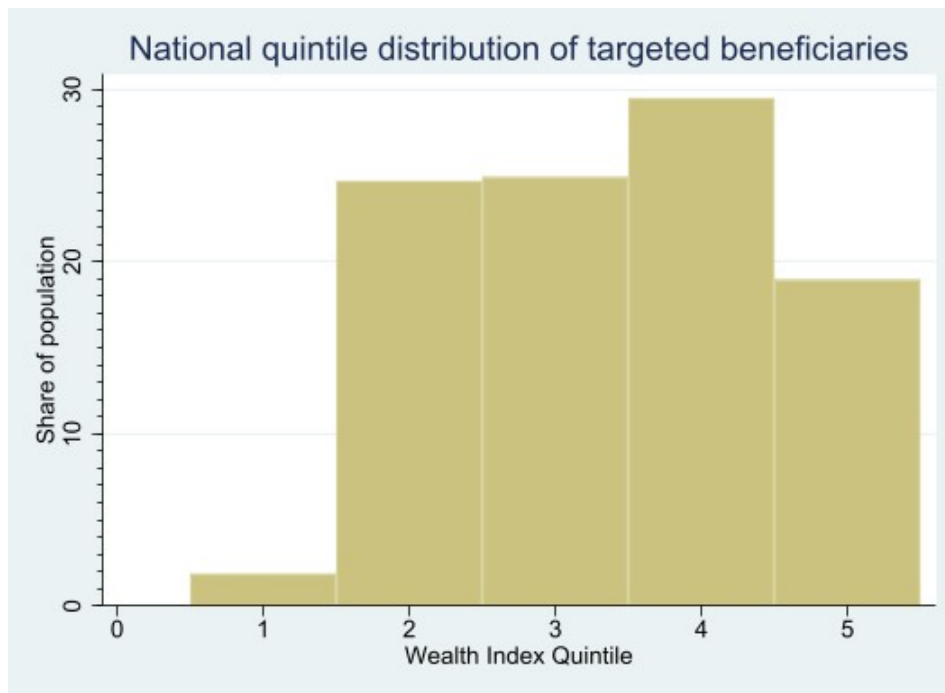
The national histograms, however, do not capture the wealth variability that exists across governorates' beneficiaries, although the subnational distributions, with the only two exceptions of Zaghouan and Tatouine, remain skewed toward the upper quintiles (see Figure 8). The results show a higher concentration at the top quintiles in governorates on the coast and/or in and around the capital Tunis after we account for population and population density of quartiers (see Tables A11 and A12 I the Appendix).

Quintile distribution of targeted beneficiaries by Gouvernorat
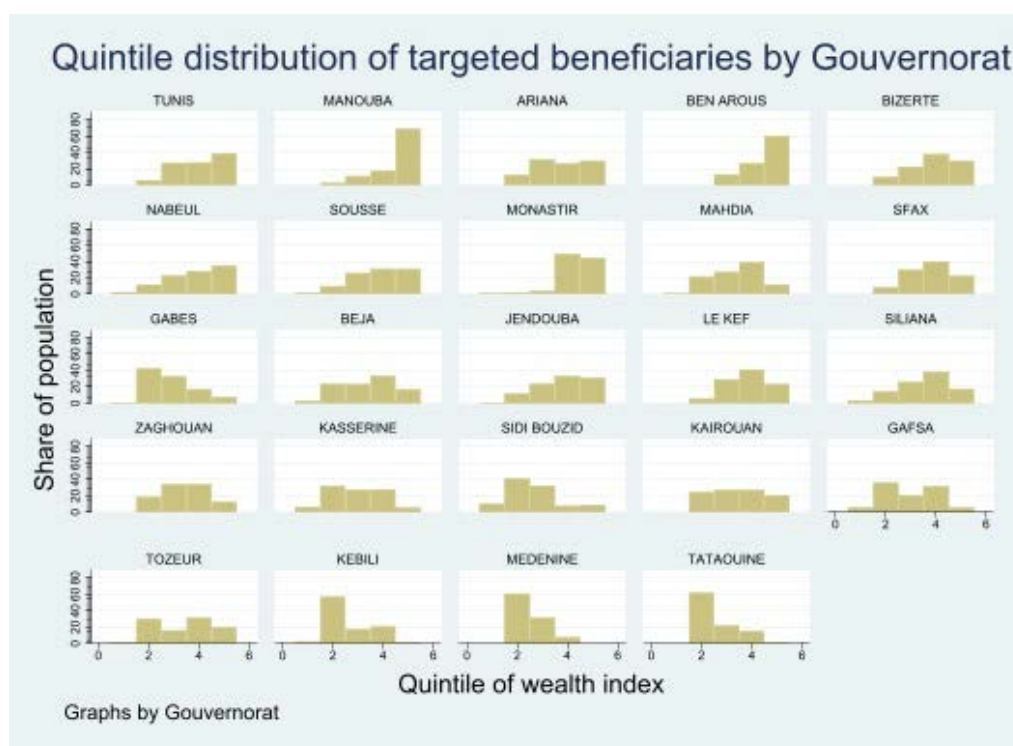
4.1.3. Concluding remarks on the PROVILLE 2 project

This study has analysed the potential distributional impact of the PROVILLE 2 project, which was implemented with the specific objective of improving the basic urban infrastructure of highly populated quartiers. Overall, the results indicate that the PROVILLE 2 project reached just over 40% of the poorest households in urban areas, suggesting a small inequality reducing effect. It is important to point out that the share of project's beneficiaries located at the B40 goes down when the size and density of the populations within the targeted quartiers are considered in the estimates. This underscores the importance of accounting for the size and density of the population to get a closer approximation of the actual contribution of development projects on inequality reduction.

The analysis also indicates a degree of heterogeneity in terms of project's outreach, with some gouvernorats observing more pro-poor targeting of the B40 than others.

We have focused the analysis on the urban wealth distributions because of the objectives of the PROVILLE 2 project. However, since urban areas in Tunisia tend to be wealthier than rural ones, it is important to note that these results do not reflect the potential redistribute effect of the project at the national level. If project administrators are also interested in the potential contribution of the project in achieving the SDG10, in particular target 10.1 "By 2030, progressively achieve and sustain income growth of the bottom 40 per cent of the population at a rate higher than the national average", the results show that the majority of

beneficiaries are not in the lower parts (B40) of the wealth distribution at national level. It is therefore unlikely that the project contributed to reducing inequalities at the national level.

These results provide a good opportunity for future, better informed targeting strategies aimed at reducing inequality by reaching the bottom part of the wealth distribution. Needless to say, not all development cooperation programmes have inequality as a core objective, therefore, the results presented here reflect partial picture of the overall effect of the project, showing only the distributional profile of beneficiaries and do not provide any evidence of impact.

4.2.   Analysis of AFD budget support to the health sector in Colombia

4.2.1.   Analysis of the Documentation

In this section, we present a brief documentation analysis of the AFD intervention in Colombia and assess whether the intervention had a focus on inequality reduction. More specifically, we assess the extent to which inequality reduction was an explicit objective in both AFD's and the Colombian government strategies, plans and programmes, with clear benchmarks and indicators.[11]

Inequality Markers	
Objective *Is inequality reduction*	
I-0: not targeted	
I-1: a significant objective	
I-2: is the principal objective	2
Programme Design	
Is there an analysis of trends and drivers of inequalities in the policy area of the intervention/programme?	Yes
Are there specific activities designed to <u>directly</u> benefit the bottom 40% income (or Socio-Economic Status) individuals or households?	Partially
Are there measurable targets to assess progresses for bottom the bottom 40% income (or Socio-Economic Status) individuals or households, against a baseline?	No
Is there an evaluation plan to assess progresses for bottom 40% income (or Socio-Economic Status) individuals or households?	No
Other aspects to consider (secondary)	
Dialogue was undertaken with civil society and representative of beneficiaries (bottom 40% income or SES individuals, households) during the phase of the design of project	n.a.
Illustration of possible limitations (e.g. informalities making complex to target, absence of data etc.) for targeting bottom 40% income or SES individuals, households	No
Accounting for potential indirect negative effects (e.g. lowering employment, increasing informal sector, etc.) on bottom 40% income or SES individuals, households	Partially

Note: n.a. stands for no available

---

[11]   Apoyo para la reforma del sistema de seguro social en salud Misión de la AFD en Colombia, 2014

Inequality reduction is explicitly indicated as the *principal* objective of the AFD project, following an analysis of drivers of inequalities in the health sector. The project aims to improve access and quality of health services, as well as treatment for the poorest population.

> *Améliorer le dispositif de couverture sanitaire universelle (plus équitable et plus efficient), à travers : une meilleure égalité financière d'accès aux soins ; une meilleure efficience des ressources budgétaires : rationalisation des circuits, séparation des rôles entre recouvrement et achat de soins ; une meilleure régulation des services et bien médicaux remboursés.*

In addition, a well-documented analysis of trends and drivers of inequalities in the health sector is present, and the project objectives and activities are clearly designed to address them.

> *Réorienter le système de santé vers la prévention et le premier niveau de soins,*
>
> *Améliorer la qualité et de la disponibilité de l'offre de soins, avec en conséquence une meilleure égalité géographique d'accès aux soins.*
>
> *L'élargissement du panier de soins, la meilleure répartition de l'offre de soins à l'échelle du pays, ainsi que l'amélioration de sa qualité, constitueront les principaux effets sociaux de la réforme.*

However, although the project has, overall, a focus on inequalities, neither the evaluation plan nor the results matrix that measure the achievement of the project (see table below), contain indicators that capture progress in inequality reduction. In the case of the budget support component, the focus of this analysis, the indicators for project performance were set as 'triggers' for loan disbursements, but these indicators did not consider *ex ante* distributional aspects of the intervention (see table below). In the next section, we conduct a redistributive analysis of budget support.

	General Purpose : Supporting The Implementation of the Sectorial Health Policy			
Content of the reform	Results		Base value (if relevant)	Verification purposes
General restructuration of the system	- Preparation, presentation and adoption of a law bill which redefines the general social security system for health, in particular the organisation of health services provision, the role of the different actors, the incentives for achieving health results, with emphasis on prevention			- Official gazette and the technical annual report on implementation
	- % of population who feels that the health system works well		- 17% (2013)	- Perception survey of the health services users
	- % of population who feels that his/her health is good		- 79% (2008)	- Life quality survey (Encuesta de Calidad de Vida – ECV)
Orientation of the system towards prevention and primary health care	- Definition and formal adoption of guidelines for providing services in regions with scattered population			- The adopted guidelines and the technical annual report on implementation
	- % of population who has a general practitioner and is regularly consulting him/her for health services		- 34% (2013)	- Perception survey of the health services users
	- Rate of hospitalizations falling within primary health care competence		- 21,7% (2008)	- Primary Care Effectiveness and the Extent of Avoidable Hospitalizations in Latin America and the Caribbean
	- % of women aged from 15 to 19 who already gave birth or are pregnant		- 20,5% (2008) - 0,89 (2010)	- Life quality survey (Encuesta de Calidad de Vida – ECV)
	- Ratio between the institutional deliveries in rural areas compared to institutional deliveries urban areas			- Encuesta Nacional de Demografía y Salud (ENDS 2010)
Establishing an unified structure for the management of the financial resources allocated to finance the health insurance system (revenue collection, enrolment and pooling)	- Adoption of the above mentioned law, creating an unified structure in charge of managing the financial resources allocated to finance the health insurance system			- Official gazette and the technical annual document
	- Preparation of the technical specifications for the structuration of the information system of the unified structure above mentioned			- The technical specifications document and the technical annual document
	- Cost of the financial resources recovery and transfer of the health insurance system (in terms of value and of percentage of the total value of the resources)		- 137,5 billions of Colombian pesos Or 13,7%of the total value of the resources	- The technical annual document
Redefining the basic health care benefits package and improving the regulation of health technologies prices and tariffs	- Preparation of a new set of rules regarding (i) medicine price regulation and of the use of biotechnological medicines, and (ii) transparency in the information regarding the market medicines			- The set of rules and the technical annual document
	- Costs of events not included into the benefits package		- 2,4 trillion of Colombian pesos (2010)	- The technical annual document (indicator monitored under the national pharmaceutical policy)
	- Ratio between the average international price of medicines compared to the average Colombian price of medicines, in selected market segments		- 2,4 – 1,27	- Idem
Strengthening the capacity of the monitoring, inspection and control system	- Approval of the restructuration of the National Health Superintendence (*Superintendencia Nacional de Salud*)			- The decree and the technical annual document

No indication about dialogue with beneficiaries is mentioned but it might have been done during the design of the national reform. In the programme document there is no assumptions about possible limitations. Yet, trade-offs are partially considered, notably in relation to financial sustainability.

4.2.2.   Budget support analysis

In order to get an approximation of the extent to which the AFD financial contribution to sectoral budget support in Colombia contributed to reduce inequality, we conducted an incidence analysis of government health spending, based on data from Encuesta Nacional de Calidad de Vida (ENCV 2014), which is the most recent household survey with expenditure data available on the Commitment to Equity (CEQ) Assessment tool.[12]

The literature on foreign aid has underscored the high degree of fungibility of budget support operations (Feyzioglu, Swaroop, and Zhu 1998; Pack and Pack 1993). In the particular case of the AFD loan, it was indeed disbursed within the health sector with no earmarked purposes (GINGER Credes 2018, pp. 10). This implies that the additional resources made available by AFD to the Colombian government most likely followed the existing patterns of budget allocations within the health sector. Thus, for the purpose of this evaluation, we assume that any inequality impact of the AFD loan for sectoral budget support followed the incidence of the overall health spending distributional impact.

While this approach is limited, it still provides relevant information about the shape of government budget's distribution, and the likely effect of its components (and AFD budget contributions) on inequality reduction. To conduct the analysis, we address three interrelated questions:

First, have inequality measures declined after accounting for government redistribution? And if so, for how much? We address this question by comparing inequality measures based on 'market income' with inequality measures based on 'final income', with the latter accounting for the effect of monetary values of social services such as health care that are provided by the State.

Note that *market income* captures pre-tax gross labor income (formal or informal), self-consumption, capital income, imputed rent for owner-occupied housing and private transfers such as remittances and gifts. *Disposable income* is the outcome of market income minus direct taxes on personal income and contributions to social security, except for the portion earmarked for old-age pensions. *Consumable income* results from disposable Income plus the indirect subsidies received by individuals, less indirect taxes and contributions paid, while *final income* is consumable income plus the monetary value of social services provided by the state (Lustig 2018).

Second, has budget support to the health sector achieved an equalizing effect? In order to address this question, we compare concentration coefficients (C) for health (and other social sectors) spending with Gini coefficients for market income (G).[13] If C < G, then we can argue that health spending contributes to reductions in overall inequality. If C > G, we can

---

[12]   Data are available on the following link: http://commitmentoequity.org/ceq-data-center/.

[13]   We present in the following section a brief discussion on how to estimate concentration coefficients

argue that health spending increases inequality, and if C has a negative value, we can argue that health spending not only has an inequality-reducing effect, but it is also pro-poor.

Third, has health spending benefitted proportionally more the poorest bottom 40% relative to the rest? And if so, to what extent? In order to address this question, we calculate the share of budget support to the health sector that goes to the B40. If the results exceed 40%, then we can argue that health spending has a pro-poor redistribution. The results are presented in the next section.

4.2.2.1.   Results

We address the first question by comparing the Gini index before and after government redistribution. Figure 3 presents two inequality measures, the Gini index and the Theil Index, as well as the share of income going to the bottom 40%. The results show very high levels of market income inequality, which go down just marginally from 0.575 to 0.515 after accounting for direct taxes on personal income, contributions to social security, indirect subsidies, indirect taxes, and the monetary value of health care and other social services provided by the State.

The limited redistributive capacity of the Colombia government becomes even more apparent when we observe the small fraction of income going to the poorest households. The poorest 40% received just 9.3% of national income, and this share went up just marginally, to 12.6% after government redistribution.
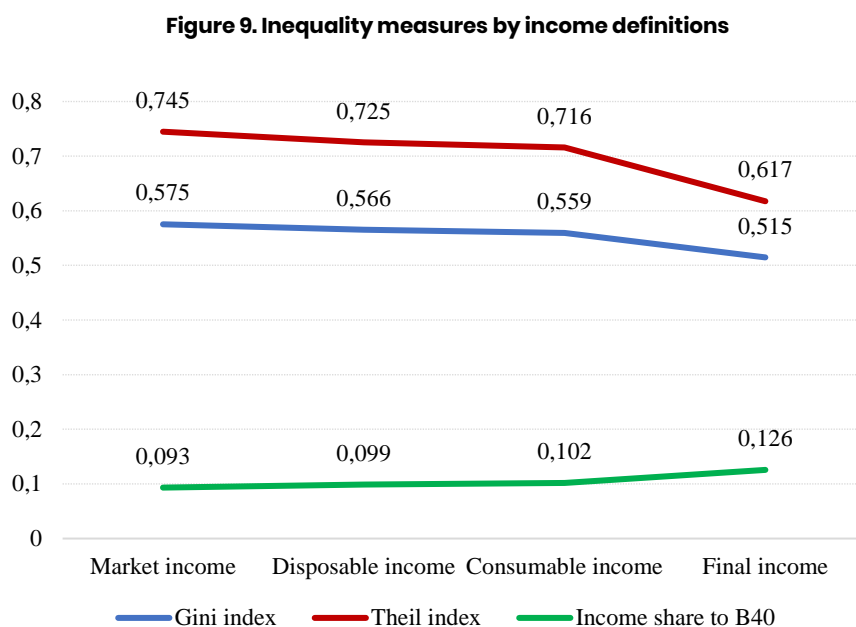
Figure 9. Inequality measures by income definitions

Source: Authors, based on the Commitment to Equity (CEQ) Standard Indicators

29

We turn to the second question and compare concentration coefficients of the health budget (and other social sectors) with market income Gini coefficients. The concentration coefficient is an indicator of the progressivity or regressivity of policies or government budgets that proxy policy choices as in our case. The concentration coefficient is calculated as the area between the 45° line of perfect equality and the distribution curve (with a negative value when the curve is above the 45° line) over the area below the 45° line. This is illustrated in Figure 10. The closer the concentration coefficient is to –1 the more progressive is the distribution of impacts.

Figure 10. Concentration coefficients
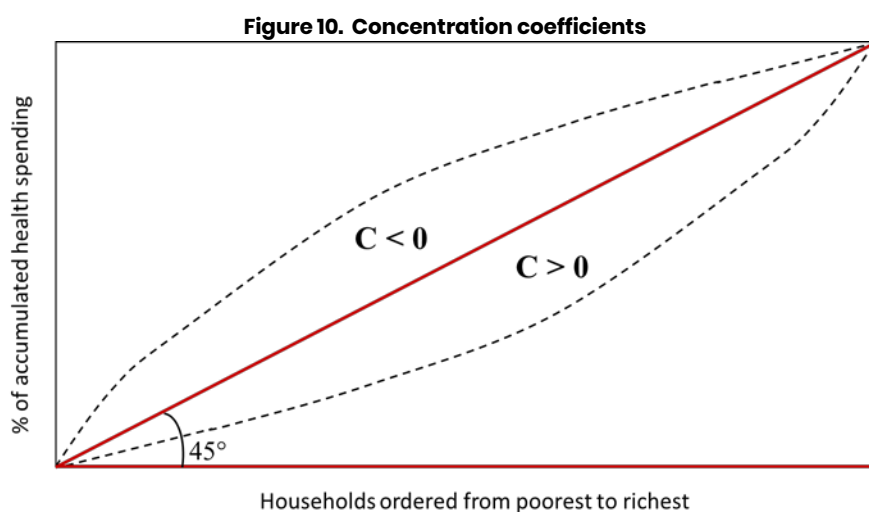
More formally, let *p* be the cumulative proportion of the population ordered in increasing market income, and *C(p)* be the cumulative proportion of the government budget received by the poorest *p* percent of the population. The concentration coefficient of that government spending can thus be defined as $C = 2\int_0^{-1}\big(p - C(p)\big)dp$.[14]

Thus, the budget support provided by AFD to the health sector would be:

- ***Progressive*** (i.e. it would contribute to inequality reduction) if the concentration coefficient of health spending was lower than the Gini for market income.

- ***Regressive*** (i.e. contribute to more inequality in Colombia) if the concentration coefficient of health spending was higher than the Gini index for market income.

- In addition, budget support to the health sector could only be treated as being pro-poor if the concentration coefficient of the overall government spending to the health sector had a ***negative value***.

---

[14] For a formal discussion, see (Kakwani 1977, 1980) For a more formal discussion, see (Kakwani 1977, 1980)

Before moving to the discussion, it should be noted that government spending refers here to *general* government sector spending, which includes spending by central, state, provincial, regional, and local governments, as well as social security funds, following the definition of the International Monetary Fund's *Government Financial Statistics Manual 2014* (GFS) (Lustig 2018). The most recent data on government spending from the Commitment to Equity (CEQ) Standard Indicators is not disaggregated by level of government, or by subsectors of activity in the particular case of health spending. This has limited the possibility of conducting an incidence analysis by level of government, and subsectors of the public health care system.

We present the results in Figure 11. We observe that the concentration coefficient for health spending is in the order of 0.1246, well below the Gini index for market income, which indicates that budget support interventions to the health sector are generally progressive although they cannot be treated as being strictly pro-poor, since its value is positive. The results indicate that the only sectors in which budget support interventions could strengthen a pro-poor redistribution are the education sector and direct transfers such as conditional cash transfers and other antipoverty targeted policies. Thus, while budget support to the health sector contributes to reducing overall inequality, constraints remain to reach the poorest, due to the current fiscal structure of Colombia.

Figure 11. Concentration coefficients and Gini index for market income
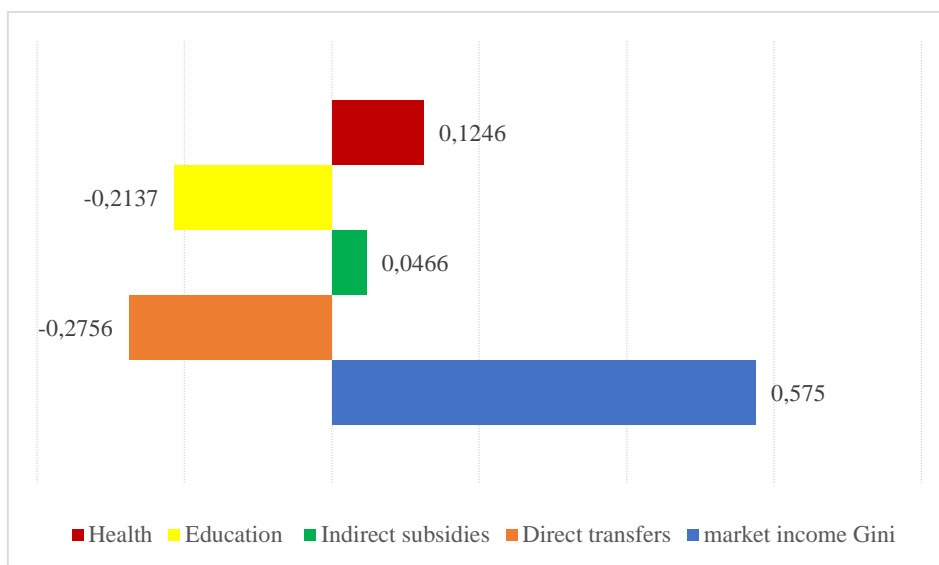
Source: Authors, based on the Commitment to Equity (CEQ) Standard Indicators

So far, the analysis suggests that AFD budget support operations to the health sector were progressive, but not strictly pro-poor; however, we still do not know the extent to which the poorest 40% benefitted from government health spending. In order to answer this question,

31

we resort to the information available on the CEQ Standard Indicators tool and calculate the concentration shares of health spending going to the bottom 40%.[15]

We note that since the AFD loans were disbursed to support the overall health budget it is reasonable to assume that these resources followed existing programmatic rules for budget distribution. Based on previous results, we expect an outcome below the 40% threshold that defines a pro-poor redistribution, but what is the extent of this gap? We present the results in Table 3 and Figure 11.

Table 3. Government social spending by income deciles

Decile	Social Spending			
	Direct transfers	Indirect subsidies	Education	Health
1	19%	8%	16%	8%
2	17%	8%	14%	7%
3	13%	9%	13%	8%
4	12%	10%	12%	8%
5	10%	10%	11%	9%
6	8%	11%	10%	10%
7	8%	11%	8%	11%
8	6%	12%	7%	11%
9	5%	12%	5%	13%
10	3%	9%	3%	14%
B40	**60%**	**35%**	**55%**	**32%**

Source: Authors, based on Commitment to Equity (CEQ) Standard Indicators
Note: Estimates without contributory pensions

---

[15] The analysis is based on a level of government health expenditure in the order of 5.4% as percentage of GDP.

Figure 12. Concentration shares of health spending by deciles
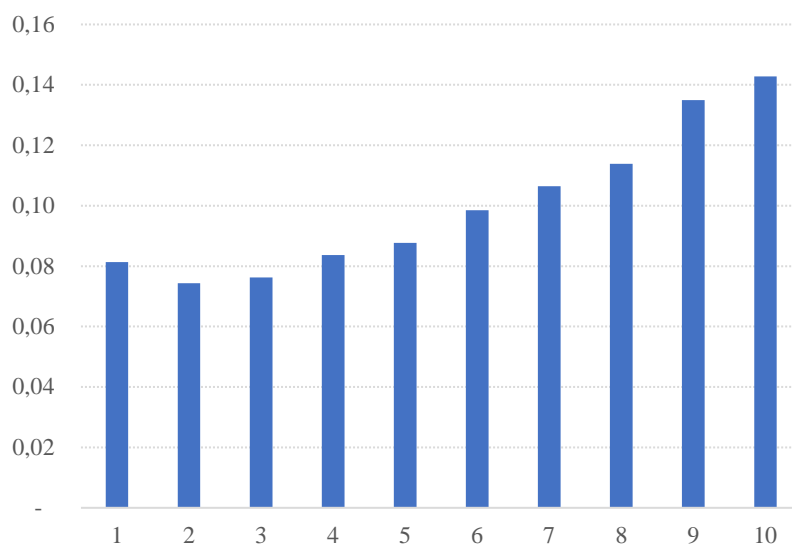
Source: Authors, based on the Commitment to Equity (CEQ) Standard Indicators

From the concentration shares of government spending, we observe that approximately 32% of health spending went to the bottom 40% (B40) in 2014. The share of health spending to the B40 was considerably lower than other social sectors, such as education and direct transfers, but even more skewed towards the top deciles than indirect subsidies on fuel, electricity and food, which are traditionally regressive. The results indicate a redistributive gap of approximately 8% to make health spending strictly pro-poor, and also underscores the importance of supporting the health sector to narrow down this gap.

Furthermore, analysis also indicates that the structure of health spending in Colombia has improved very marginally between 2010 and 2014; therefore, it is unlikely to expect that a contribution of US$400 million, which represented approximately 2.3% of the health budget in 2014, could have substantially shifted the existing shape of the health spending Lorenz curve depicted in Figure 13.

Figure 13. Health Spending Lorenz Curve
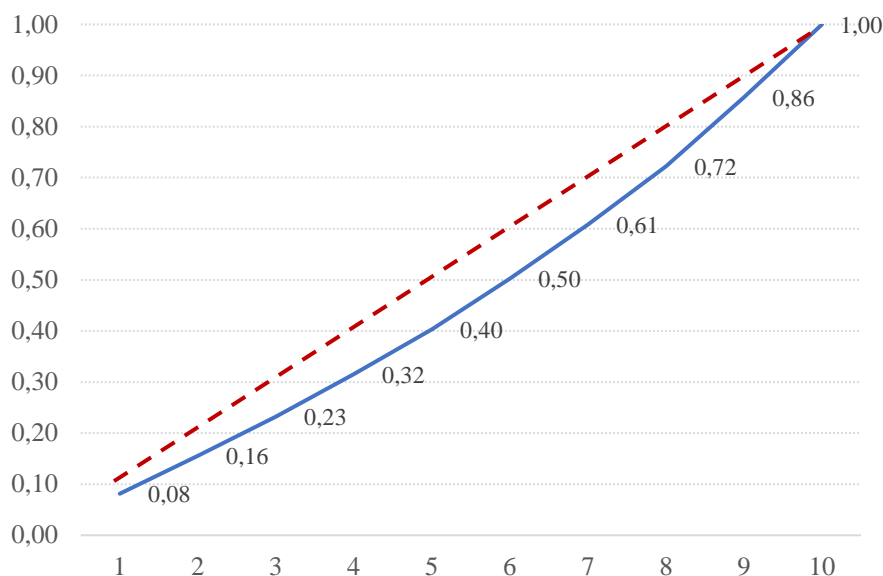
Source: Authors, based on the Commitment to Equity (CEQ) Standard Indicators

4.2.3.   Concluding remarks for the budget support to the health sector in Colombia

Colombia has high levels of inequality and the inequality-reducing effect of redistribution is marginal. The limited redistributive capacity of the Colombia government becomes evident when we observe that the poorest 40% received just 12.6% of national income, after government redistribution.

The analysis indicates that while budget support provided by AFD to the health sector was most likely progressive, it certainly did not follow a strictly pro-poor redistribution. In fact, only 32% of health spending (including the additional budget support allocations) went to the bottom 40%. So based on our estimates, we conclude that while the AFD intervention was positive and progressive, it is unlikely that it substantial shifted in the shape of the health spending Lorenz curve.

With more information on subcomponents of health spending, it could have been possible to detect ex-ante where the distributional gaps are more pronounced in the health sector, so future budget support interventions in the heath and other social sectors could be better targeted to address bottle necks that prevent a more pro-poor redistribution. Furthermore, with information on spending by different levels of government, it could have been possible to identify how well targeted health policies are at subnational level and help design interventions that contribute to making health spending more efficient at the local and

national levels. This additional information could be generated straightforwardly over time and across sectors and countries, with relatively modest financial resources.

With the limited information currently available, we conclude that given the current shape of the government spending, the only sectors that can be regarded as strictly pro-poor are education and direct transfers such as conditional cash transfers and other antipoverty targeted policies. However, more information is needed to better understand the potential distributional effects of subsectors of the health care system in Colombia.

4.3. Assessment of the SMEAA (PMEAA) project in Cameroon

In this section, we assess the extent to which inequality reduction was an explicit objective in the AFD programme documentation.[16] We focused only on the documentation analysis as we were unable to implement the Equity Tool survey, partly due to the COVID-19 pandemic, but mostly due to our inability to get access to the contact details of the 90 SMEs identified by the AFD Office Cameroon and the Ministry of Economy, Planning and Land Planning (MINEPAT) in charge of the programme's implementation. Access to contact details would have allowed us to identify not only the direct SME beneficiaries, but also the villages where these 'treated' productive units operate, which is critical to measure potential indirect trickle-down effects of the AFD intervention. Limitations due to the COVID-19 pandemic also had an impact on access to national stakeholders and consequently relevant information. With a more extended timeframe, it would have been possible to overcome difficulties caused by the pandemic, and also accompany the quantitative survey with a qualitative component involving local stakeholders to validate the results of the empirical analysis.

4.3.1. Analysis of the Documentation

Inequality Markers	
Objective *Is inequality reduction*	
I-0: not targeted	0
I-1: a significant objective	
I-2: is the principal objective	
Programme Design	
Is there an analysis of trends and drivers of inequalities in the policy area of the intervention/programme?	No
Are there specific activities designed to <u>directly</u> benefit the bottom 40% income (or Socio-Economic Status) individuals or households?	No
Are there measurable targets to assess progresses for bottom the bottom 40% income (or Socio-Economic Status) individuals or households, against a baseline?	No
Is there an evaluation plan to assess progresses for bottom 40% income (or Socio-Economic Status) individuals or households?	Partially

---

[16] Programme d'Appui aux Petites et Moyennes Entreprises Agricoles et Agroalimentaires (PMEA), 2012

Other aspects to consider (secondary)	
Dialogue was undertaken with civil society and representative of beneficiaries (bottom 40% income or SES individuals, households) during the phase of the design of project	No
Illustration of possible limitations (e.g. informalities making complex to target, absence of data etc.) for targeting bottom 40% income or SES individuals, households	Partially
Accounting for potential indirect negative effects (e.g. lowering employment, increasing informal sector, etc.) on bottom 40% income or SES individuals, households	No

Inequality reduction is not targeted by this programme as per its documentation. It is important to underscore the fact that inequality was not considered to be a prominent goal in the development agenda by the time the programme was initiated (i.e. prior to the adoption of the SDGs framework, especially the SDG10). The programme focused on enhancing SME capabilities operating in rural areas departments, in terms of business operations and access to credit, under the assumption that it would indirectly benefit poorest households , in particular labourers working for SMEs participating in the programme. While the programme may have indeed reached and benefited the poor, it was not possible to verify this potential channel empirically.

La finalité du Programme est le développement des activités de production, de transformation et de commercialisation des produits agricoles à travers l'accompagnement financier et non financier des PMEAA des zones rurales. Très concrètement, le Programme vise à institutionnaliser trois outils de politiques publiques qui sont (i) un fonds de refinancement pour des crédits moyens termes, (ii) un fonds de « chèque conseil-formation-services » pour accompagner les porteurs de projets, et (iii) un dispositif de collecte et d'échanges d'informations technico-économiques entre les acteurs.

This is reflected in the choice of beneficiaries. Stringent selection criteria to participate in the programme (i.e. registration) might have prevented informal SMEs (where higher concentration of bottom 40% income individuals or households are usually observed) to benefit from the intervention.

This is reflected in the choice of beneficiaries (in this case economic areas) which is based more on an economic criteria (such as the presence of markets) than on poverty incidence or the presence of bottom 40% income individuals or households. Moreover, the stringent selection criteria to participate in the programme (i.e. registration) might have prevented informal SMEs (where higher concentration of bottom 40% income individuals or households are usually observed) to benefit from the intervention.

Indicators to measure the success to the programmes are set in terms of number of SMEs supported by counsellors, increase of sales, employment, obtained credit. Yet, evaluation plan, although it does not contain measurements of progresses for the bottom 40% income

of SMEs, it does include an indication about improvement in revenues (through a questionnaire to SMEs).

Finally, no indication about dialogue with beneficiaries is mentioned but it might have been done during the design of the national plan form SMEs. There is no explicit description of possible limitations in terms of reaching the bottom 40% income of SES and possible indirect negative effects. However, it is acknowledged that criteria to access (registration) might preclude informal SMEs to access the programme (and therefore also bottom 40% income groups which largely belong to informal sector).

4.3.2. Analysis of the distributional impact of the PMEAA Project

In a project as such, the most critical aspect of the empirical analysis is the selection of beneficiaries to estimate to what extent the programme has targeted the lower part of the distribution.

According to the documentation analysis, inequality reduction was not a declared objective of the project. And the selection of the beneficiaries, notably SMEs within specific production areas "Bassins de Production" in 12 departments located in the regions of Centre, North-West and West, did not directly account for the incidence of households situated in the bottom 40% of the national income (or rural) distribution. Moreover, since participation in the programme was voluntary, this might have disproportionally favoured middle-high income owners and possibly excluding the poorest.

Table 4. SME distribution

Bassins de production	Departments	N of Departments
Centre	Mfoundi périurbain, Mefou Akono, Mefou Afamba, Lékié, Mbam et Inoubou, Nyong-et-Kelle	6
North West	Mezam, Ngog Etundja	2
West	Bamboutos, Mifi, Noun, Menoua	4
Total		12

However, the programme also aims to enhance the role of SMEs as drivers of rural development, notably of as employment generators. As a result, communities in which SMEs operates might also be considered as indirect beneficiaries, in particular, the employees of SMEs which has been involved in the programme (considering that SMEs beneficiaries have been selected among those with 1-20 employees).

According to a beneficiaries' satisfaction survey with a sample of 90 SMEs beneficiaries of "*chèque services*" and "*mécanisme de facilitation*", the intervention has contributed to increase the number of permanent employees of 5.03% and temporary workers of 48%. It is reasonable to expect that a substantial number of labourers, especially in rural areas, belong to the bottom two wealth quintiles.[17]

A similar consideration can be extended towards the villages where the SME operates. Indeed, the same report outlines a growth in the average revenues of SMEs involved in the programme by the 21.30%. A similar increase in revenues (21%) has been observed in local consulting providing non-financial services within the programme, in the form of counselling to SMEs involved in Agriculture and Agrobusiness ("*Services d'Appui aux Entreprises – SAE*"). The same companies have also acknowledged a 18% rise in permanent stuff and an equivalent augmentation in employments' payrolls. As a result, one might assume that revenues generated might have been in part trickled down into the local economy in different forms (e.g. purchase of supplies and services, as well as increase consumption). Although it can be reasonable to consider that any improvement in performance of SMEs might have also contributed to improve the living conditions of some inhabitants of the surrounding areas and departments where companies operate, it is impossible to estimate the impact on the poorest households.

Table 5. Distribution of the population by regions

Regions	Population (Dep.)	Pop (Dep.) in rural areas
Centre		
MFOUNDI	1881876	64352
MBAM-INOUBOU	188927	107503
MEFOU AFAMBA	126025	92176
MEFOU AKONO	59017	45766
LEKIE	286050	222651
NYONG ET KELLE	129819	90342

---

[17] SOREPS sarl Evaluation à mi-parcours du Programme d'Appui aux PMEs Agricoles et Agroalimentaires (PMEAA) : Rapport Définitif, 2019.

West		
BAMBOUTOS	292410	232116
MIFI	301456	62169
NOUN	455083	252190
MENOUA	285764	205289
North West		
MEZAM	199401	144125
NGOG ETUNDJA	144125	43223
TOTAL	**4349953**	**1561902**

To conclude, the programme did not explicitly aim at inequalities reduction, and did not target owners of SMEs households or areas where the population belonging to the bottom 40% of the national (or rural) income distribution live. Criteria to enter the programme for beneficiaries SMEs (voluntary basis and registration) might have discouraged the participation of lower income owners. Yet, it might the case that improved business operations of SMEs enrolled in the programme might have somewhat, although very limitedly, had a positive impact to bottom 40% income households (increase employment and revenues of the companies). As mentioned in the methodology and throughout these analyses, not all projects need to have inequality reductions at its core. But knowing the distributional profile of beneficiaries can only take better informed decisions in the future.

5. Conclusion and policy recommendations

5.1. Conclusion

The objective of the methodology is to assess if inequality has potentially been directly targeted by three AFD development cooperation programmes: a macro programme on housing in Tunisia, a budget support for a national reform in Colombia, and a micro programme on SMEs in Cameroon. The choice of different types of interventions for the piloting exercise has been essential to confirm the applicability of the methodology in diverse scenarios.

The methodology, in practical terms, identifies whether beneficiaries of development cooperation programmes belong to the lower part of the income or wealth distribution. This information can be used subsequently to improve the targeting of interventions, shall this be deemed necessary. It is important, however, to strongly caveat this: there are many plausible reasons causing a development cooperation project, programme or even portfolio to not target the poorer segments of society, or aiming at reducing inequality. For

example, development programmes may support government structural reforms aiming at universality of, for instance, basic education, health care, social protection, or other social services, as the best way to offset social exclusion and historical inequalities. In such cases, targeting the poorest becomes irrelevant. Donors may also decide to target more accessible and less conflict-affected regions, based on feasibility criteria, or exploit their comparative advantage in specific areas of expertise.

The methodology presented here is composed by a number of steps and analytical tools. The focus of the present pilot study has been on: 1) analysing inequalities in the three selected countries, with a focus on the policy areas where AFD programmes have operated; 2) analysing programmes' documents and evaluation reports via a scoreboard) and, 3) conducting empirical analyses using the Equity Tool for a distributional analysis, and the Commitment for Equity Tool to assess the health spending distributional impact.

The methodology used and tested here offers rapid results with a limited budget. Indeed, the combined costs associated with these studies, including the collection of the household survey, represent only about 2% of the combined budget for technical assistance across the three countries. The Equity Tool survey conducted in Tunisia covered a sample of 4969 households, with a budget of 19.880 euro. The analyses have provided an abundant set of information about how (and if) programmes and projects have reached beneficiaries at the bottom 40% of the wealth distribution, which is a key target of the SGD 10.

In the case of the AFD intervention in Tunisia, we find that its objectives have partially aimed at reducing inequalities, by improving physical and social infrastructures of populous quartiers in urban areas. Accordingly, the results of the empirical analysis show that the programme reached just over 40% of the poorest households in urban areas, with a small inequality reducing effect. However, once the analysis takes into consideration the national wealth distribution – which also accounts for the levels of wealth in rural areas – we find that the programme is highly unlikely to have achieved a sizable inequality reducing effect.

With regard to the AFD budget support programme in Colombia, we find that addressing inequalities in health services was the principal objective of the intervention. Nevertheless, while the results indicate that AFD budget contribution to the health sector was progressive, i.e. contributed to reducing persistent inequalities in the country, they also show that the programme was unlikely to have reached the poorest more proportionally than the better off. More specifically, we find that only 32% of government health spending (to which the AFD budget support contributed to) went to the bottom 40% poorest population. If we assume that the AFD budget support followed the incidence of the health spending distributional

impact, the results can be explained by the limited redistributive capacity of governmental health spending in Colombia.

Finally, in the case of Cameroon, we find that the AFD programme did not have as an explicit objective, the reduction of inequalities in the country. The selection of rural SMEs beneficiaries was not made by targeting the poorest population. Indeed, the selection criteria, which involved a process of voluntary registration, is unlikely to have attracted the poorest farmers. Nonetheless, the increase in turnout of SMEs participation in the programme, and the possible growth in waged labour in these productive units, may have led to an indirect channel through which the programme is likely to have benefited the poorest.

Overall, the results underscore the importance of considering a pro-poor targeting *ex-ante* when designing development cooperation interventions that explicitly (or implicitly) aim to contribute to reducing existing inequalities in partner countries. In fact, this is one of the strengths of the methodology. It allows to assess at baseline of development cooperation programmes or projects, the potential reach of interventions among the B40. This information can be critical to finetune policies before they are implemented and rollout, to maximise their redistributive impact.

5.2. Limitations and Opportunities

One limitation of the proposed methodology, for the case of Equity Tool in particular, is that it relies on wealth, and not income, with the latter being the standard aggregate indicator for poverty measurement. However, methodologies that rely on income to estimate poverty and inequal are complex, expensive and time consuming. The proposed methodology relies on a simple set of questions that provides enough information to produce national (and urban and rural) wealth distributions, in which households can be ranked by their levels of assets. Its simplicity makes it a practical tool for redistributive analysis of development cooperation projects.

In addition, the survey analysis based on the Equity Tool, like any other distributional assessment, requires the pre-existence of household-level survey data from which the wealth index can be constructed (e.g. Demographic Health Surveys or UNICEF' Multiple Indicator Cluster Surveys). Updated versions of these datasets are not always available in countries where development agencies operate. Thus, it is essential for donors to support efforts to expand data generation and availability.

Another limitation is the assessment of documentation through inequality markers. Although it is important to identify if the project explicitly incorporated inequality reduction as a goal, assessment on how important inequality reduction is as a policy objective is contingent upon accessibility to key documentation and relevant sources of information.

5.3. Recommendations for the application of the methodology

The present study has shown that the proposed methodology can easily be applied to diverse types of development cooperation programmes. In order to effectively operationalise the methodology, we outline a set of recommendations:

- For Equity Tool analyses, it is critical to identify direct and indirect programme's and project's beneficiaries (e.g. individuals, households, enterprises, farms, areas associated with infrastructure projects, etc.), and have a clear understanding of the development cooperation interventions under analysis.

- For budget support operations, it is critical to understand the objectives and conditionalities of the programmes to effectively use the CEQ tool and interpret correctly the results.

- The analysis of documentation is to some extent subjective. As a result, it is essential to further apply the methodology to build additional case studies and examples, to improve the lessons learned on how to assess inequality markers. The same can also reinforce empirical analyses (Equity Tool and Budget Support operational analyses).

- It is important to consult with key national stakeholders in charge of development programmes and projects in order to communicate effectively the objectives, scope and limitations of the studies. It is also critical to get access to relevant data and information to ensure the successful implementation and completion of studies.

References

Boughzala M., A-R. El Lahga, I. Bouassida *et al.* (2020a) Les Inégalités En Tunisie. Paris: Agence française de développement,.

Boughzala M., A-R. El Lahga, I. Bouassida *et al.* (2020b) Les Inégalités En Tunisie: Quels Rôles Pour Le Capital Humain Hérité et Le Capital Social? Paris: Agence française de développement,.

Cohen A. (2010) The multidimensional poverty assessment tool: a new framework for measuring rural poverty. Development in Practice;20:887–97.

Equity Tool. (2020) Tunisia Country Factsheet.

Fernández-Baldor Á, A. Boni, P. Lillo *et al.* (2014) Are technological projects reducing social inequalities and improving people's well-being? A capability approach analysis of renewable energy-based electrification projects in Cajamarca, Peru. null;15:13–27.

Ferreira F.H., E. Galasso and M. Negre (2018) Shared Prosperity: Concepts, Data, and Some Policy Examples. The World Bank.

Holtham G., A. Hazelwood (2010) Aid and Inequality in Kenya: British Development Assistance to Kenya. Taylor & Francis,

Jorda V. and A. Niño-Zarazúa (2019) Global inequality: How large is the effect of top incomes? World Development;123:104593.

Kakwani NC. (1977) Measurement of Tax Progressivity: An International Comparison. The Economic Journal;87:71–80.

Kakwani NC. (1980) Income Inequality and Poverty: Methods of Estimation and Policy Applications. Oxford: Oxford University Press.

Kotsadam A., G. Østby, S.A. Rustad *et al.* (2018) Development aid and infant mortality. Micro-level evidence from Nigeria. World Development;105:59–69.

Lustig N. (2018) Commitment to Equity Handbook: Estimating the Impact of Fiscal Policy on Inequality and Poverty. Brookings Institution Press.

Murphy L. (1998) Rapid Assessment of Poverty Impacts (RAPI). Elaboration of a Rapid Survey Method of Assessing the Poverty Reduction Impacts of Pilot Employment-Intensive Projects. Geneva: International Labour Organization.

Niño-Zarazúa M., L. Roope and F. Tarp (2017) Global Inequality: Relatively Lower, Absolutely Higher. Review of Income and Wealth ;63:661–84.

Porroche-Escudero A. and J. Popay (2020) The Health Inequalities Assessment Toolkit: supporting integration of equity into applied health research. Journal of Public Health 2020, DOI: 10.1093/pubmed/fdaa047.

Ravallion M. (2001) Growth, inequality and poverty: looking beyond averages. World development;29:1803–15.

Robilliard A-S. and A. Lawson (2017) Addressing Inequality through EU Development Cooperation – Response to the 2030 Agenda. Product A: Conceptual & Measurement Framework for Addressing Inequality. Oxford: FISCUS Public Finance Consultants and IRD-DIAL.

SEDLAC. (2020) Socio-Economic Database for Latin America and the Caribbean. Buenos Aires: CEDLAS and The World Bank, 2020.

Soares S., R.G. Osório, F.V. Soares *et al.* (2009) Conditional cash transfers in Brazil, Chile and Mexico: impacts upon inequality. Estudios económicos:207–24.

**USAID (2018)** Poverty Assessment Tools (PATs).

Appendix A

Table A.1 National quintile composition by Quartier (unweighted sample)

Quartier	Q1	Q2	Q3	Q4	Q5	Total respondents	B20 share (%)	B40 share (%)
20Mars , Hédi Chaker, Chargui	0	0	0	26	14	40	0.0	0.0
9 Avril	4	8	7	7	14	40	10.0	30.0
Abedelha	0	19	0	21	0	40	0.0	47.5
Abou Qasim AlChebi 1 et 2	0	5	8	20	7	40	0.0	12.5
Agence immobilière résidentielle	0	1	14	14	11	40	0.0	2.5
Al Mandara	0	6	16	8	10	40	0.0	15.0
Al wassia posta	1	12	13	11	3	40	2.5	32.5
AlAnwar	0	27	10	3	0	40	0.0	67.5
Alhédi Khalill	0	4	13	3	19	39	0.0	10.3
Arram	0	26	9	5	0	40	0.0	65.0
Bassatin	1	26	13	0	0	40	2.5	67.5
Bazma	3	22	15	0	0	40	7.5	62.5
Belkhir Centre , Hawel eloued	1	11	1	27	0	40	2.5	30.0
Bir Ahmer	0	26	8	6	0	40	0.0	65.0
Bourej Gadhi	1	2	2	22	13	40	2.5	7.5
Centre Chaker	0	2	14	17	7	40	0.0	5.0
Centre Gadoure	0	3	15	14	8	40	0.0	7.5
Chaker	0	1	8	25	6	40	0.0	2.5
Cité Alamel , Sadaa	0	21	12	7	0	40	0.0	52.5
Cité Anes	0	1	12	15	12	40	0.0	2.5
Cité Bourguiba et Khmiri	0	2	6	16	16	40	0.0	5.0
Cité El Saada	0	1	12	15	12	40	0.0	2.5
Cité ElSaada	0	0	2	6	32	40	0.0	0.0
Cité Elhana	0	1	9	17	13	40	0.0	2.5
Cité Tharir	6	19	8	1	6	40	15.0	62.5
Cité Trabelsi	0	2	19	12	7	40	0.0	5.0
Cité Zahwa et Aziza	0	3	7	14	16	40	0.0	7.5
Cité Zouhoure	0	5	6	16	13	40	0.0	12.5
Cité militaire et battah	1	3	8	14	14	40	2.5	10.0
Dkhila	0	32	4	4	0	40	0.0	80.0
Ekhwa Abidi	3	35	2	0	0	40	7.5	95.0
El Brij,Bir Mroua	2	7	5	8	18	40	5.0	22.5
El Chaabi-Minaa-El Menaka	0	12	7	16	6	41	0.0	29.3
El Sfaxi	0	2	7	8	23	40	0.0	5.0
ElAmel	0	4	15	14	7	40	0.0	10.0
ElAns	0	2	11	10	17	40	0.0	5.0
ElNassim	3	1	4	14	18	40	7.5	10.0
ElNoure	2	17	23	30	8	80	2.5	23.8
Elerredh Heriz	0	0	7	12	21	40	0.0	0.0

Elkoubeaa, et Elnoure	0	0	2	6	32	40	0.0	0.0
Elmenou	1	25	13	1	0	40	2.5	65.0
Elnoure	7	15	9	43	6	80	8.8	27.5
Elwaha	2	9	3	19	8	41	4.9	26.8
Faouar ville	0	40	0	0	0	40	0.0	100.0
Gharbi	0	30	7	3	0	40	0.0	75.0
Hached	0	1	10	13	16	40	0.0	2.5
Hached 2	0	7	9	18	6	40	0.0	17.5
Hached w Gabouda	0	8	10	19	3	40	0.0	20.0
Harouch	0	2	4	11	23	40	0.0	5.0
Hena, Awled Belhari	7	19	6	1	7	40	17.5	65.0
Hôpital régional	0	7	5	25	3	40	0.0	17.5
Ibeh et Pine	0	2	19	17	2	40	0.0	5.0
Ibn khaldoune et Chaabi	3	17	11	5	4	40	7.5	50.0
Intilaka	0	20	18	31	11	80	0.0	25.0
Jadida	0	7	15	11	7	40	0.0	17.5
Jawehera	0	2	10	20	8	40	0.0	5.0
Jayera	0	6	14	15	9	44	0.0	13.6
Jazira	3	14	4	17	2	40	7.5	42.5
Jbnoune et Sfsaf	0	1	10	6	23	40	0.0	2.5
Kairouan	0	17	10	8	5	40	0.0	42.5
Karyet Bouzzkam	3	10	27	0	0	40	7.5	32.5
Kaser Bardou	1	1	12	17	9	40	2.5	5.0
Kasiba Elgatt et Batman	1	2	5	17	15	40	2.5	7.5
Kettana	0	23	16	2	0	41	0.0	56.1
Khalij	0	2	10	11	17	40	0.0	5.0
Khayema	0	2	12	23	3	40	0.0	5.0
Kheireddine	0	10	17	12	1	40	0.0	25.0
Lac et Jinen Roman	1	8	16	12	3	40	2.5	22.5
Lagdhabna-Khamara	0	3	13	18	6	40	0.0	7.5
Mallassin	1	9	18	11	1	40	2.5	25.0
Mandela	0	8	11	17	4	40	0.0	20.0
Manzel Hbib	2	30	7	1	0	40	5.0	80.0
Manzel Salem, Gadwa et Nachaa	1	6	12	20	1	40	2.5	17.5
Martyrs	2	12	21	4	1	40	5.0	35.0
Mbarka	0	4	10	11	15	40	0.0	10.0
Mchitri	0	2	15	9	14	40	0.0	5.0
Mender 3	1	7	3	17	12	40	2.5	20.0
Monji Slim	1	5	2	17	15	40	2.5	15.0
Nafatiya	0	8	13	15	4	40	0.0	20.0
Najeh	1	15	18	5	1	40	2.5	40.0
Nkhila ,Ferhat, et Chouban	0	6	11	11	12	40	0.0	15.0
Nour et Nouhoudh	0	5	8	24	3	40	0.0	12.5
Noure Et 2 Mars	0	6	6	18	10	40	0.0	15.0
Nouvelle Nafta	0	15	6	7	12	40	0.0	37.5
Nouwiel	0	31	9	0	0	40	0.0	77.5
Oued Zarga	1	22	7	8	2	40	2.5	57.5
Remada	0	33	6	1	0	40	0.0	82.5

|								
Salema	3	30	19	18	11	81	3.7	40.7
Sened Ouest	6	15	19	1	0	41	14.6	51.2
Sidi Aich centre	8	19	13	0	0	40	20.0	67.5
Sidi Boulbaba	0	4	16	10	10	40	0.0	10.0
Sidi Mamoun et Al-Zamarin	0	0	3	11	26	40	0.0	0.0
Sidi Rached	0	7	19	9	6	41	0.0	17.1
Sidi Sameh	4	17	12	4	3	40	10.0	52.5
Snweber et Tharir	0	9	8	15	8	40	0.0	22.5
Srourre	0	15	11	14	0	40	0.0	37.5
Stade	1	10	13	12	4	40	2.5	27.5
Stade , Najeh	0	22	15	3	0	40	0.0	55.0
Swaf	0	11	15	10	4	40	0.0	27.5
Tabib 1et 2	0	6	15	10	9	40	0.0	15.0
Taher Sfar et Zagena	0	10	8	12	10	40	0.0	25.0
Tahrir	0	21	4	14	1	40	0.0	52.5
Tahrir et Elhedi Khfcha	0	3	16	21	0	40	0.0	7.5
Taieb Mhiri	3	7	8	15	7	40	7.5	25.0
Telessa	0	15	12	13	0	40	0.0	37.5
Thawera 2	0	4	6	17	13	40	0.0	10.0
Wafa chiyouh , elharba, bourj amri et hafer maher	0	4	12	13	11	40	0.0	10.0
Zaaferan	2	25	13	0	0	40	5.0	67.5
Zouhoure	0	10	9	12	9	40	0.0	25.0
Zwediya	0	7	18	14	1	40	0.0	17.5
centre ville	0	10	14	14	2	40	0.0	25.0
chabda centre, chabda marra, chabda superieur	0	0	10	10	20	40	0.0	0.0
cité Bourguiba	0	2	11	17	10	40	0.0	5.0
cité Mansoure	0	13	18	7	2	40	0.0	32.5
cité Pine	0	4	11	12	13	40	0.0	10.0
citéElAmal	0	0	4	16	20	40	0.0	0.0
des Jeunes	0	2	9	25	4	40	0.0	5.0
hawess wafi	0	7	8	21	4	40	0.0	17.5
hejema	0	10	10	11	9	40	0.0	25.0
rue 20 Mars et rue 25 Juillet	0	3	8	10	19	40	0.0	7.5
Total	94	1227	1239	1466	943	4969	**1.9**	**26.6**

Figure A1. Urban quintile distribution of targeted neighbourhoods (population weighted)

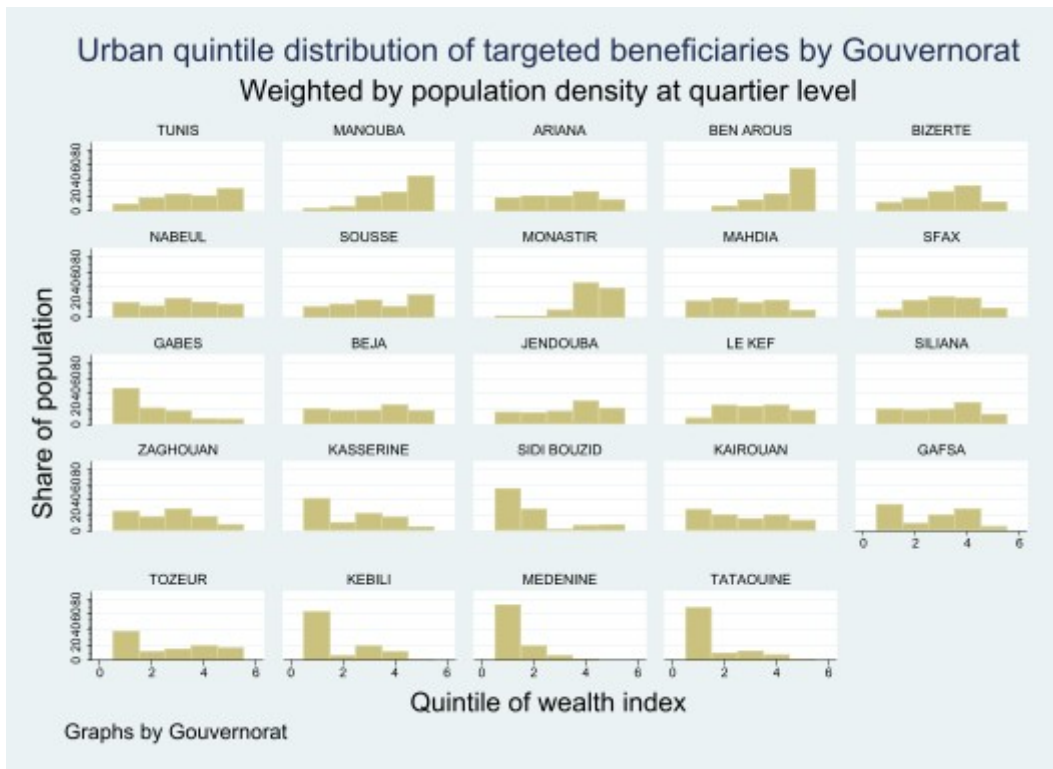Urban quintile distribution of targeted beneficiaries
Weighted by quartier population
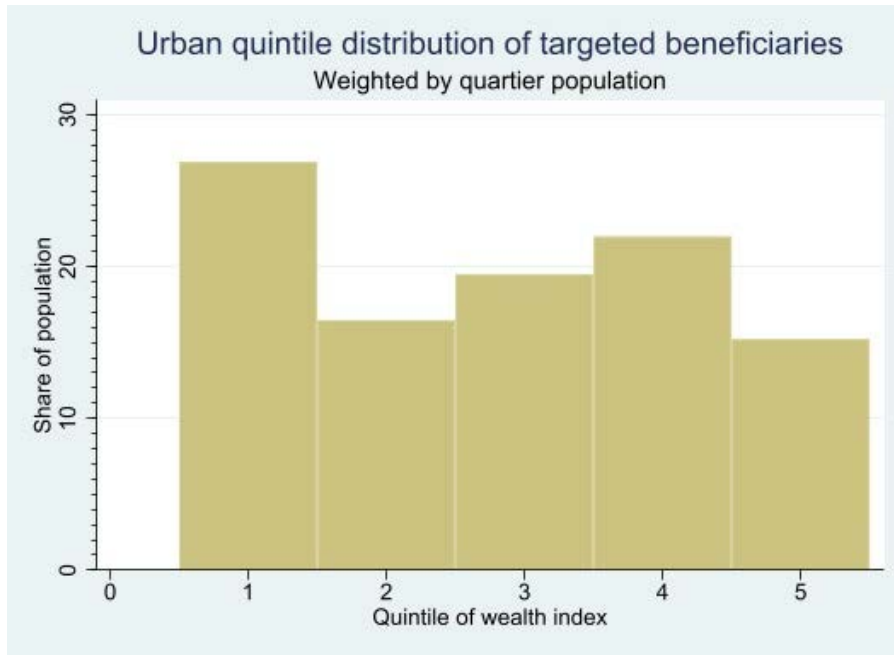
Figure A2. Urban quintile distribution of targeted neighbourhoods (population density-weighted)

Urban Quintile distribution of targeted beneficiaries
Weighted by population density at quartier level
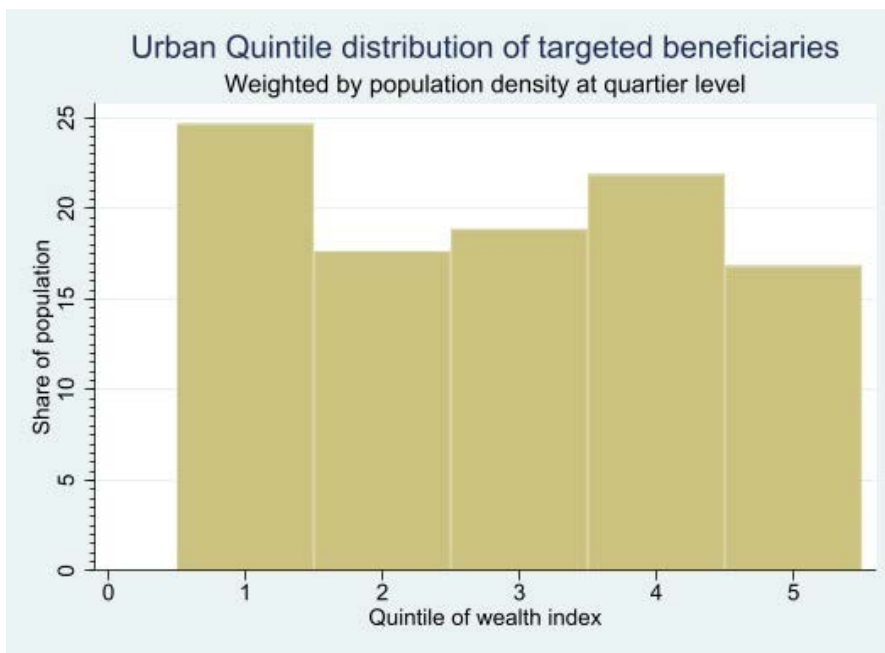
Figure A3. Urban quintile distribution at governorate level (population weighted)

Urban quintile distribution of targeted beneficiaries by Gouvernorat
Weighted by quartier population
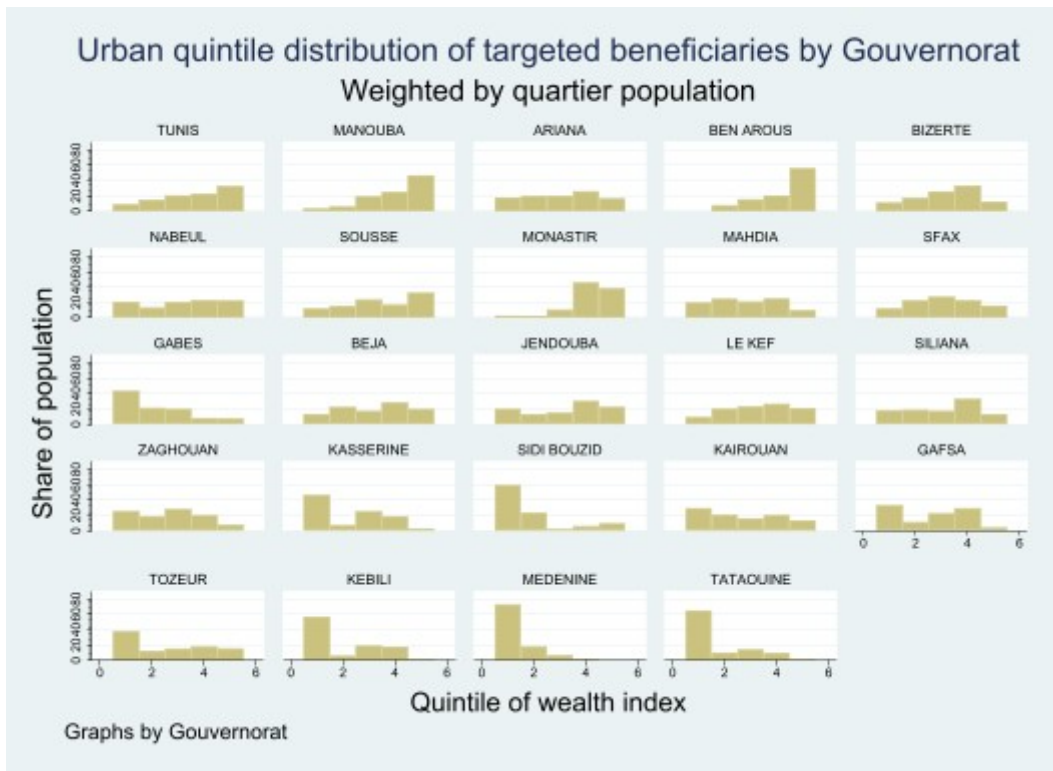
Figure A4. Urban quintile distribution at governorate level (population density weighted)

Urban quintile distribution of targeted beneficiaries by Gouvernorat
Weighted by population density at quartier level

Figure A5. Urban quintile distribution by gender (population weighted)

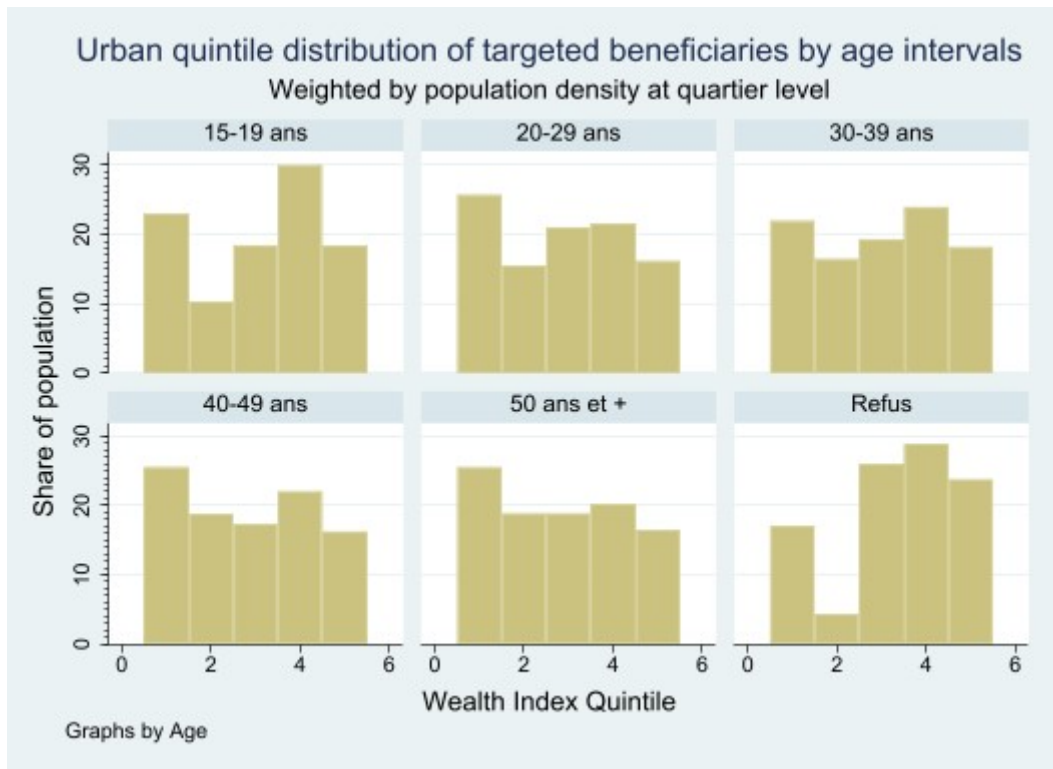Urban quintile distribution of targeted beneficiaries by gender
Weighted by quartier population
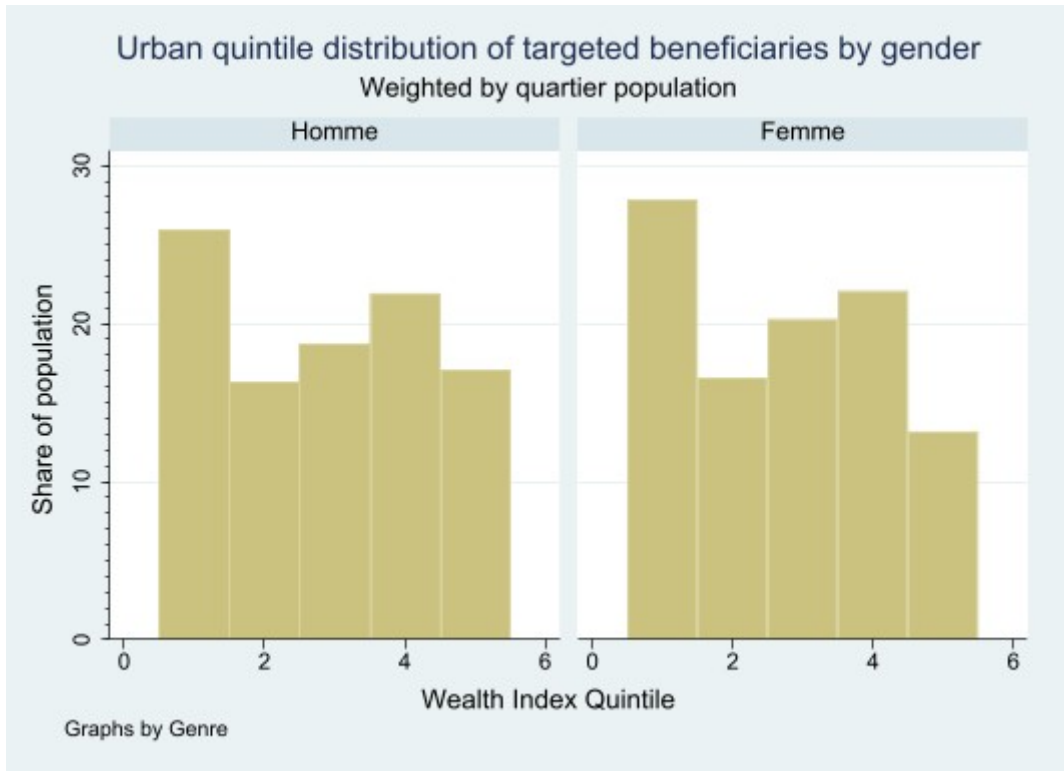
Figure A6. Urban quintile distribution by gender (population density weighted)

Urban quintile distribution of targeted beneficiaries by gender
Weighted by population density at quartier level
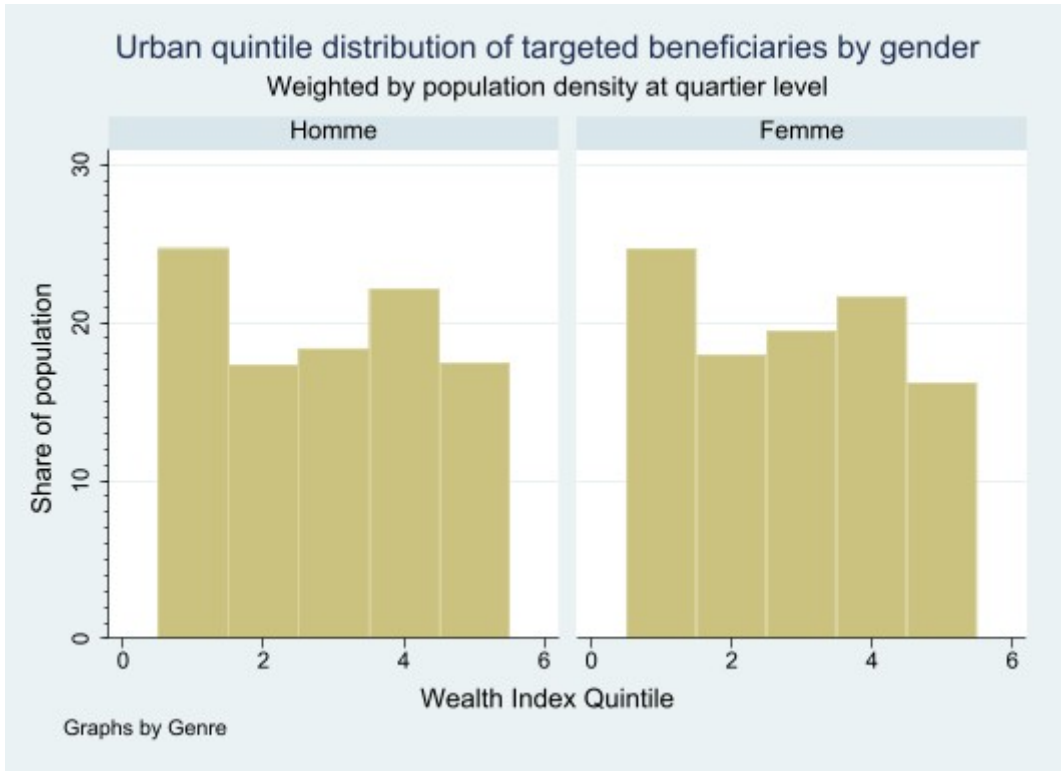
Figure A7. Urban quintile distribution by age cohorts (population weighted)

Urban quintile distribution of targeted beneficiaries by age intervals
Weighted by quartier population
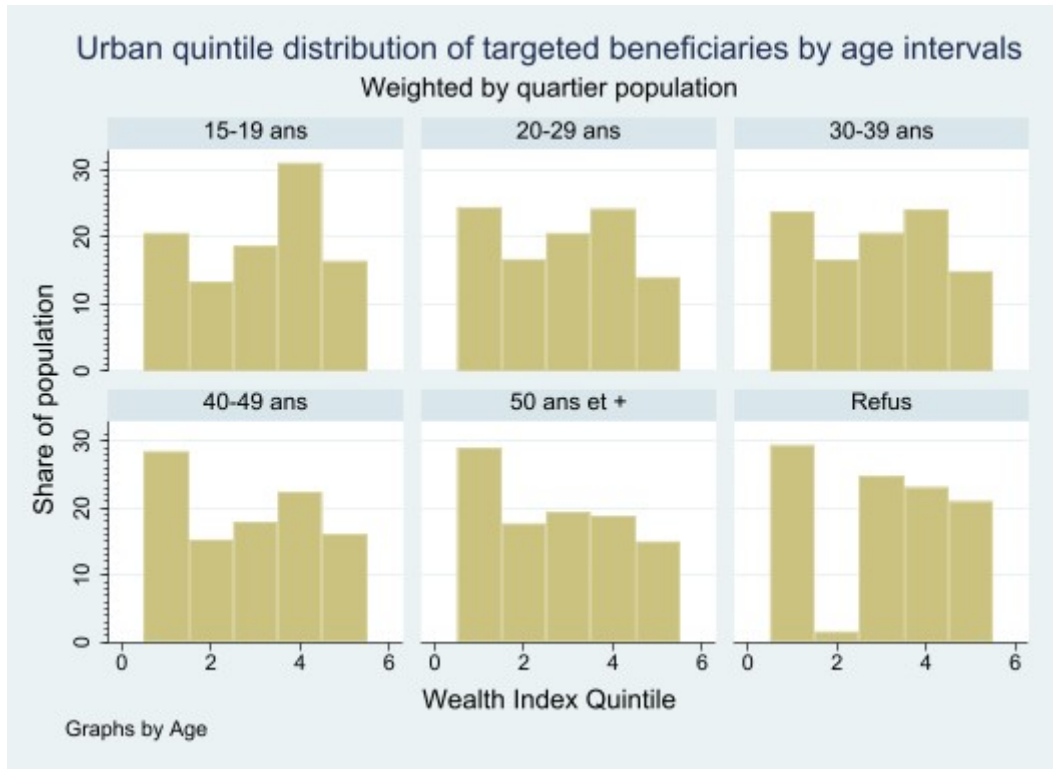
Figure A8. Urban quintile distribution by age cohorts (population density weighted)

Urban quintile distribution of targeted beneficiaries by age intervals
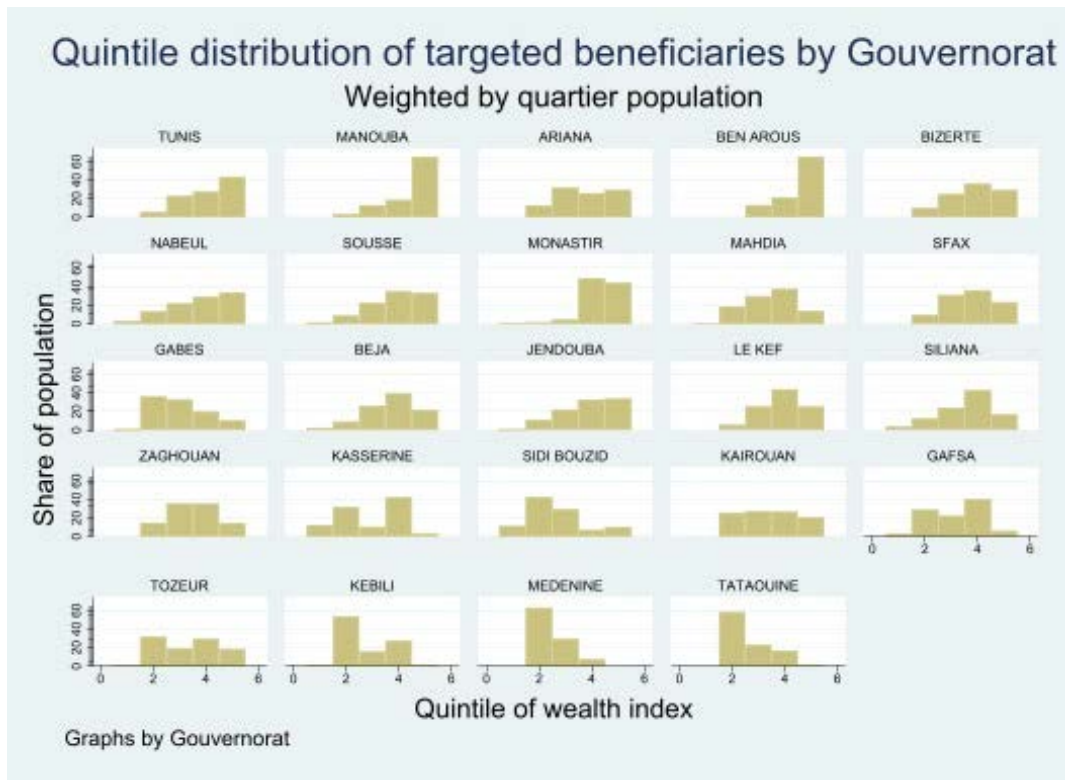Weighted by population density at quartier level

**Figure A9. National quintile distribution of targeted beneficiaries (population weighted)**
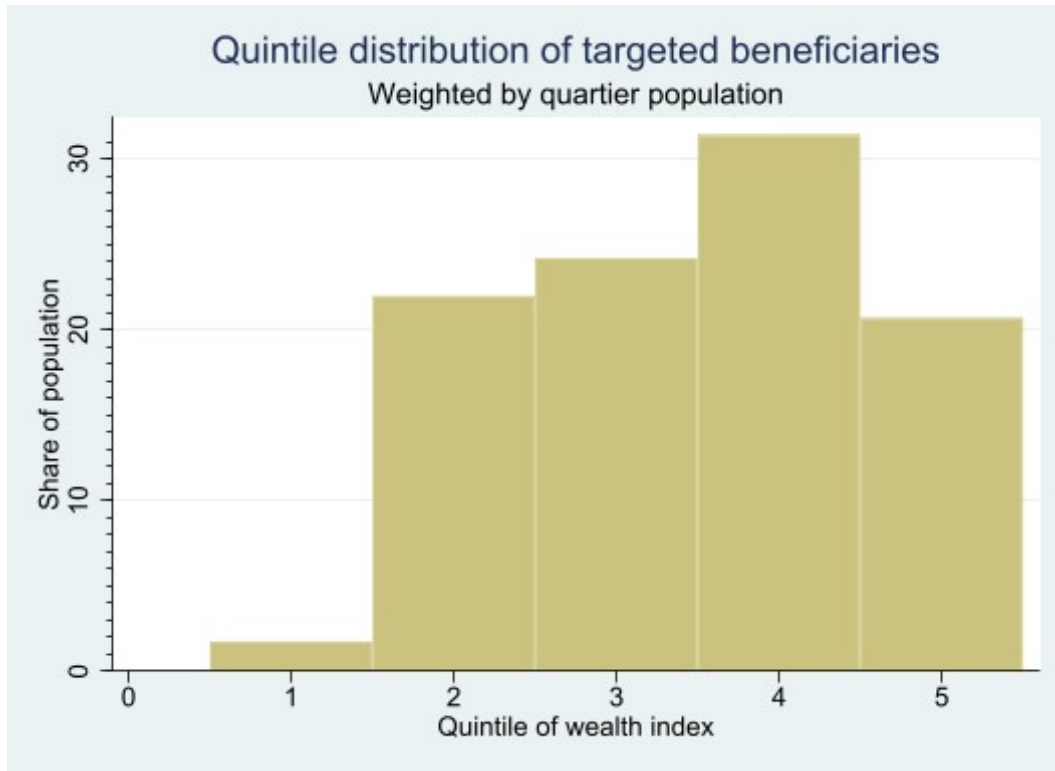
Figure A10. National quintile distribution of targeted beneficiaries (population density weighted)
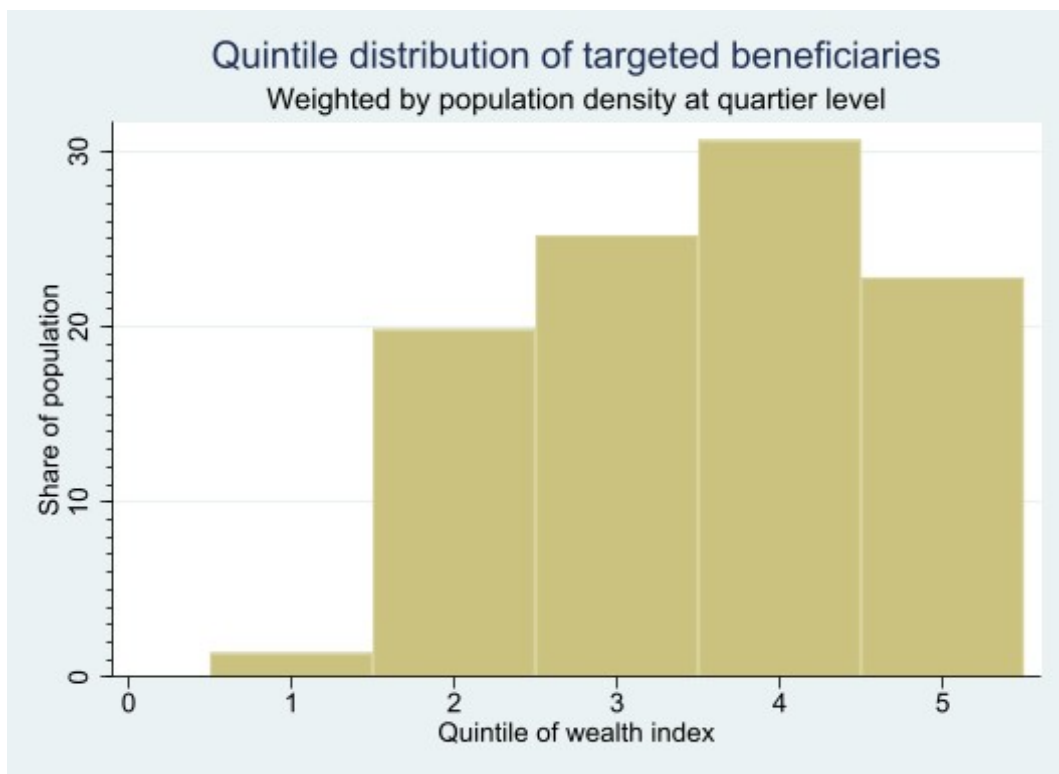
Figure A11. National quintile distribution of targeted beneficiaries by gouvernorat (population weighted)

Figure A12. National quintile distribution of targeted beneficiaries by gouvernorat (population density weighted)

9
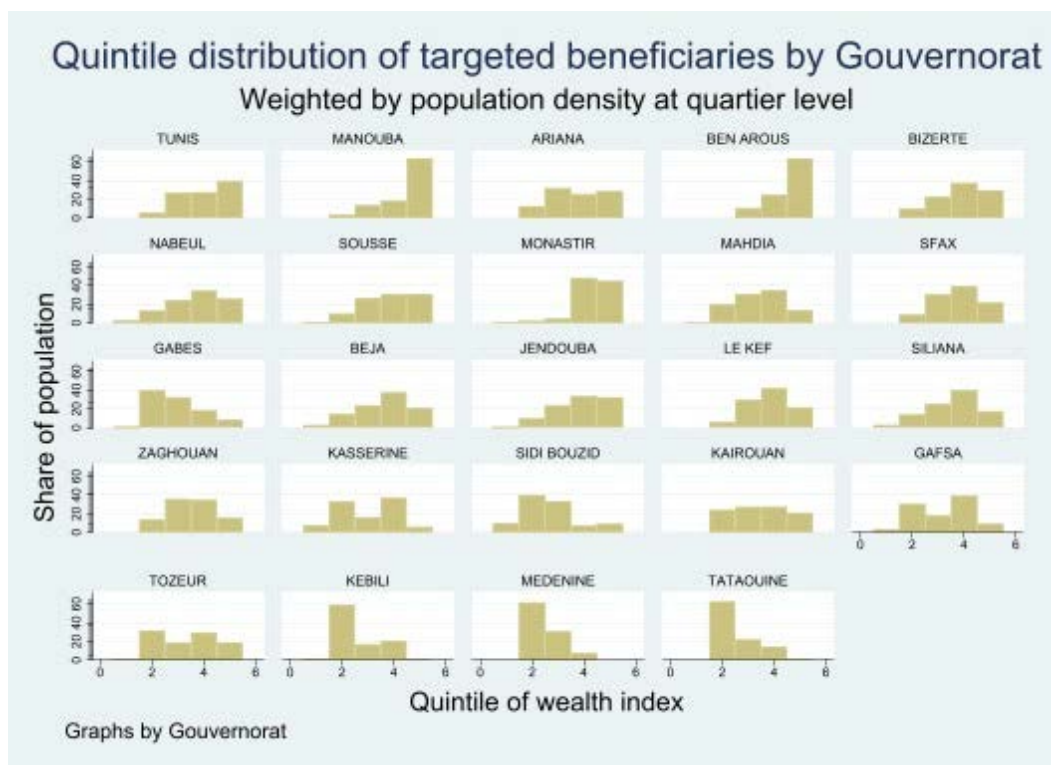
Appendix B

EquityTool Questionnaire (English and French versions)

Variable name	Question	Option 1	Option 2	Option 3 (if applicable)
Q1	Does your household have an Electric oven?	Yes	No	
Q2	Does any member of your household have a: computer or tablet?	Yes	No	
Q3	… bank account or postal account?	Yes	No	
Q4	What is the main material of the floor of your house?	Ceramic Tile	Other	
Q5	In your household, what type of cook stove is mainly used for cooking?	Liquefied Petroleum Gas (LPG)/cooking gas stove	Piped natural gas stove	Other
Q6	What does your household mainly use for space heating when needed?	Manufactured space heater	Other	
Q7	What type of fuel and energy source is used in this heater?	Charcoal	Other	
Q8	What is the main source of drinking water used by members of your household?	Bottled water	Other	
Q9	What kind of toilet facility do members of your household usually use?	Flush to piped sewer system	Other	

Q10	Does this household own any: … Milk cows or bulls?	No	Yes	
Q11	…Other cattle?	No	Yes	
Q12	…Horses, donkeys or mules?	No	Yes	
French version				
Q1	Est-ce qu'il y a dans ce ménage un four électrique?	Oui	Non	
Q2	Est-ce qu'un membre de ce ménage a: … un ordinateur ou tablette?	Oui	Non	
Q3	… un compte en banque ou un compte postal?	Oui	Non	
Q4	Quel est le matérieau principal du sol du logement?	Carrelage en ceramique	Autre	
Q5	Dans votre ménage, quel type de cuisinière utilisez-vous principalement pour faire la cuisine?	Cuisinière a gaz liquide (GPL)	Cuisinière a gaz naturel (Gaz de ville)	Autre
Q6	Qu'est-ce que votre ménage utilise principalement pour chauffer la maison quand c'est nécessaire?	Chauffage manufacturé	Autre	
Q7	Quel type de combustible ou de source d'energie est utilisé pour ce chauffage?	Charbon de bois	Autre	
Q8	Quelle est la source principale d'eau de boisson utilisée par les membres de votre ménage?	Eau en bouteille	Autre	
Q9	Quel type de toilettes les membres de ce ménage utilisent-ils habituellement?	Chasse d'eau reliée à systeme d'égouts	Autre	

Q10	Est-ce que ce ménage possède-t-il des:... vaches latières ou taureaux?	Non	Oui	
Q11	... autre bétail?	Non	Oui	
Q12	... Chevaux, ânes ou mules?	Non	Oui	

What is AFD?

Agence Française de Développement (AFD) Group implements France's policy on development and international solidarity.

Comprised of AFD, which finances the public sector and NGOs; Proparco, which finances the private sector; and soon, Expertise France for technical cooperation, the Group finances, supports and accelerates transitions towards a more resilient and sustainable world.

We are building – with our partners – shared solutions, with and for the people of the Global South. Our teams are active in more than 4,000 projects in the field, in the French overseas departments and some 115 countries, including areas in crisis.

We strive to protect the common good – promoting peace, biodiversity and a stable climate, as well as gender equality, health and education. It's our way of contributing to the commitment that France and the French people have made to fulfill the Sustainable Development Goals. Towards a world in common.