

Reality Checks in Mozambique

- Building better understanding of the dynamics of poverty and well-being -

Annual Report

Year Three, 2013 – Agriculture, Climate and Employment



ORGUT

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The Reality Checks in Mozambique are implemented by ORGUT Consulting (Sweden) in association with COWI Lda (Mozambique) and the Chr. Michelsen Institute (Norway) on behalf of the Embassy of Sweden in Maputo. The Reality Checks are implemented between 2011- 2016, with fieldwork being carried out each year in the Districts of Cuamba, Majune and Lago in the Niassa Province. Sub-Team Leaders are Carmeliza Rosário, Minna Tuominen and Inge Tvedten.

This is the Annual Report for the 3rd Reality Check, synthesising the main findings from the three sub- reports. The report is written by the Team Leader for the Reality Checks in Mozambique Dr Inge Tvedten - with support from Carmeliza Rosário, Minna Tuominen and Dr Samuel Jones (Thematic Advisor).

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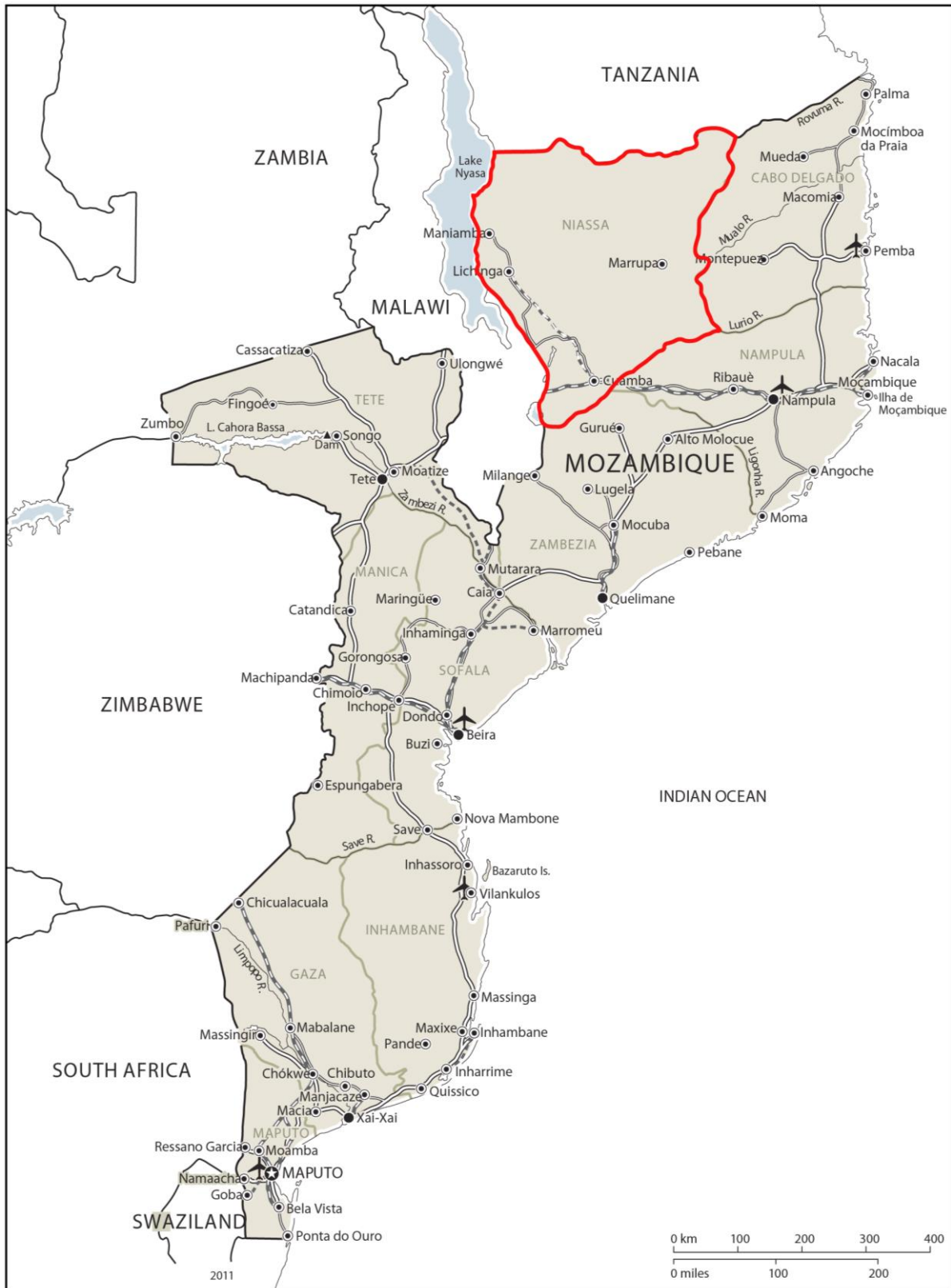
Cover Photos:

1. Garnets from local mine, Cuamba. Photo: Carmeliza Rosário
2. Woman watering field, Niassa. Photo: Kajsa Johansson
3. Truck loading tobacco bought from local farmers in Majune. Photo: Minna Tuominen

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Map 1. Reality Checks Mozambique / Niassa



1. INTRODUCTION

Poverty monitoring and evaluation in Mozambique primarily take place within the framework of the implementation of Mozambique's Poverty Reduction Strategy PARP/A (GdM 2005; 2011), and is informed by quantitative data derived from different types of national surveys and similar studies done by bilateral and multilateral aid organisations (see e.g. INE 2010; MPD 2010; World Bank 2007; UNICEF 2011).

However, by their quantitative nature such surveys do not capture all the dimensions of poverty that are relevant to the design of policies and programmes. While quantitative data yield valuable information about the mapping and profile of poverty over space and time, qualitative data are necessary in order to better understand the dynamics of poverty and the coping strategies of the poor (ORGUT 2011a; Addison et al. 2009).

1.1 The Reality Checks

Against this background, the Swedish Embassy in Maputo and the Swedish International Development Cooperation Agency (Sida) have decided that there is a need to assess the impact of development and poverty reduction policies 'from below', and to regularly consult local populations in order to understand local processes and relationships.

A series of five "Reality Checks in Mozambique" will take place in the period 2011-2016, focussing on the dynamics of poverty and well-being with a particular focus on good governance, agriculture/climate and infrastructure that are key sectors in Swedish development cooperation with the country. Each Reality Check will be published in the form of one Annual Report and three Sub-Reports from each of the three selected study-sites (see ORGUTa 2011 for more details).

More concretely, the "Reality Checks in Mozambique" are expected to:

- i) Inform the public discussion among key development actors on poverty reduction, especially in the province of Niassa;
- ii) Contribute to a better understanding of qualitative poverty monitoring methods in Mozambique;
- iii) Provide Sweden with relevant qualitative data on developments and results from its engagement in Mozambique and support further implementation of its programme in Niassa.

The Reality Checks are expected to achieve these objectives by enhancing knowledge on:

- i) Poverty (non-tangible dimensions of poverty, such as vulnerability and powerlessness; poor people's own perceptions of poverty; causal processes underpinning poverty dynamics: coping/survival strategies adopted by women and men living in poverty);
- ii) Local power relations and relationships with state institutions (formal [i.e. political, administrative] institutions that enable or constrain people to carry out their strategies; informal [i.e. cultural, social, family or kin-based etc.] institutions that enable or constrain people to carry out their strategies), and;
- iii) Policies and services (access to, use of and demand for public services according to people living in poverty; quality of public services according to people living in poverty).

There is also an expectation that the Reality Checks shall, to the extent that it is relevant for the local population under study, pay special attention to "priority issues identified in the annual reviews of projects and programmes within Swedish priority sectors (see Terms of Reference).

The series of studies was initiated by an Inception Report published in August 2011 (ORGUT 2011a). Through that exercise, it was decided that the Reality Checks shall be based on

fieldwork in three different Districts/Municipalities in the Province of Niassa that display variations in terms of geographical locations, access to public services and levels of poverty and well-being. The three areas selected were i) the District of Lago; ii) the Municipality of Cuamba; and iii) the District of Majune (see Map 2).

Map 2. Reality Checks Mozambique / Niassa Project Sites



Fieldwork for the 1st Reality Check was carried out in September 2011, with Sub-Reports from the Districts of Lago (ORGUT 2011b), the District of Majune (ORGUT 2011c) and the Municipality of Cuamba (ORGUT 2011d) as well as the 1st Annual Report synthesising main findings (ORGUT 2011e). The 1st Reality Check serve as a 'baseline' for subsequent reports, and includes background information and data about Niassa and the three project sites that are useful when reading the subsequent reports for the period 2012-2015.

The 2nd Reality Check in Mozambique was carried out in September 2012 (ORGUT 2012a, b, c and d). In addition to the general objectives listed above and in line with the Terms of Reference, the reports for the 2nd Reality Check had a thematic focus on governance.

This is the Annual Report for the 3rd Reality Check in Mozambique, synthesising the main findings from the sub-reports from Cuamba (ORGUT 2013a), Lago (ORGUT 2013b) and Majune (ORGUT 2013c). Fieldwork was carried out in June 2013, and the thematic focus is agriculture, climate and employment.

The Reality Checks produced so far have been presented and discussed in a number of different settings, including i) the Swedish Embassy in Maputo for national stakeholders ; ii) in seminars in Lichinga for representatives of provincial government, civil society and the private sector in Niassa; iii) for Local Government in Cuamba, Lago and Majune; iv) in interviews on the national news broadcast “Noticias” ; and v) for the community radios in Majune, Lago and Cuamba; and vi) through expositions of photos, participatory exercises etc. in all three project sites (ORGUT 2011f).

Illustration 1: Cover of the Lago sub-report



1.2 Methodologies

Methodologically, the studies are based on a combination of quantitative information derived from the National Institute of Statistics (INE) and District Authorities; a Baseline Survey carried out in the three project sites for this project; key informant interviews in the provincial capital Lichinga and the selected Districts/Municipality; participant observation in the local communities selected for fieldwork; and a set of qualitative/participatory methodologies including immersion with households in different socio-economic positions. The methodologies are described in detail in a separate report entitled “Reality Checks in Mozambique. Approach and Methodologies” (ORGUT 2011f), but a brief summary is in place:

Quantitative data. For the mapping of poverty and well-being in Niassa, the team relates actively to existing quantitative data. These include the 2007 National Census (INE 2009b); the 2008/09 National Household Expenditure Survey (INE 2010); and other more sector-specific studies (see List of Literature). In addition to national data-sets, we use quantitative data from locally based surveys with particular attention to data produced by provincial-, district and municipal governments that form the basis for their development plans – including the Provincial Social and Economic Development Plan (GdN 2007, 2012) and the District Social and Economic Development Plans (PESODs).

We secure adequate quantitative data to map poverty and well-being and peoples’ relations to public services in the three study sites by carrying out a Baseline Survey with a total of 360 households (120 in each site). The survey is to be done twice with the same families, i.e. in the beginning (2011) and end (2015) of the project period, and represents rare panel-data. The Baseline and the follow-up survey seek to combine i) classical socio-economic data on the composition of households, income and expenditure, levels of education, health and access to public services; ii) questions relating to people’s *perceptions* of conditions in the household and their community and iii) the *social relationships* (with public institutions, aid projects, family, friends etc.) in which they are engaged.

Qualitative data. For the political/institutional dimensions of the Reality Checks, we mostly rely on i) semi-structured interviews with key development actors including provincial government, district/municipal government, Institutions for Community Participation and Consultation (IPCCs), traditional authorities and private sector representatives, and ii) case-studies of concrete programs and interventions particularly in the areas of governance, agriculture/employment and infrastructure (the thematic topic for 2014). We also complement the classical anthropological methodology of ‘participant observation’ with a set of concrete participatory methodologies that will be applied in focus groups, and expanded case studies at household level (ORGUT 2011f). The groups are composed of men or women, young or old or a mixture of such groups, depending on the topic at hand.

The participatory methodologies used for the 3rd Reality Check include the *Most Important Change* (with the objective of identifying the main political, economic and social changes in the community the past year); the *Community problem matrix* (identifying and ranking the most important problems that affect the community in general and agriculture, fisheries and employment in particular); *Seasonal Maps* of agriculture and fisheries; *Matrix of Daily Activities* of men and women respectively; and *Matrix of Local Diets*. In addition, we revisit and refer to focus group exercises done in the 1st (2011) and 2nd (2012) Reality Checks to assess possible developments and/or changes. These include *Force-Field Analysis* (with the objective to capture perceptions of what conditions may inhibit or accelerate the type of change and development favoured by the community); the *Venn-diagram* (identifying the most important resources [people and services] that the community has access to); and the *Wealth Ranking* (with the objective to capture the community’s own perception about different levels and categories of poverty and well-being).

Focus Households. The wealth ranking exercise formed the basis for our identification of Focus Households with whom we relate closely through various forms of immersion during the course of the Reality Checks. As will be discussed in more detail below, the communities tend to distinguish between 2-4 levels of poverty or ‘poor people’ and 1-3 levels of well-being or ‘better-off’ people – each with their own dynamics and position in the communities. Altogether 22 Focus Households have been selected from these categories and will be interviewed in depth every year, with a focus on changes in their social relationships with the extended family, neighbours and friends, community organisations and state institutions as well as changes in their socio-economic position.

Illustration 2: Presenting to the District Consultative Council Majune



Photo: Minna Tuominen

1.3 Socio-economic Indicators, Niassa

We will end these introductory notes with a brief outline of poverty and well-being and the situation as regards agriculture, climate and employment in the province of Niassa to put the study in context (for more background information, see ORGUT 2011f). The province stands out as having shown the clearest and most consistent improvements in consumption-based poverty the past few years – even though from a very low point of departure. Poverty in the province has been reduced from 70.6 percent in 1996/97, to 54.1 percent in 2002/03 and to 31.9 percent in 2008/09 – albeit disguising an unusually high discrepancy in poverty between

male-headed households (28 percent) and female-headed households (45 percent) (INE 2010). As seen from Table 1 below, Niassa shows a varied picture in relation to other quantitative indicators of poverty and well-being. An important aspect of the Reality Checks in Mozambique is to assess the realism, relevance and dynamics behind these figures, by applying qualitative and participatory methodologies involving the population itself.

Table 1: Key Socio-Economic Indicators – Mozambique and Niassa (Percent)

Indicator	Mozambique	Niassa
Poverty Headcount	54.7	31.9
Gini Coefficient (0-1)	0.414	0.427
Proportion Female Headed Households	29.6	16.3
Illiteracy of household head	44.3	51.6
Primary School Attendance Rate	81	78
Chronic malnutrition under five years	43.7	45.0
HIV-AIDS Prevalence	11.5	3.7
Quality housing (solid roof)	24.8	8.1
Electric lighting in dwelling	13.2	5.8
Bicycle ownership	38.1	65.4

Sources: MISAU 2005; INE 2010 and 2009a.

In official quantitative terms (INE 2010), the three Districts possess a set of social and economic characteristics that reveal their similarities and differences. As seen from Table 2, Cuamba is most populous followed by Lago and Majune. Cuamba generally comes out as the best-off and Majune as the poorest and most deprived district of the three – with the exception of bicycle ownership where Lago scores low primarily for ‘topographic’ reasons. Otherwise they share characteristics of a high proportion of households defined as female-headed. The indicators of poverty and well-being are important and frequently used in national and donor statistical accounts, and will be updated at the end of the Reality Checks project period when new comparative data will be available. However, we shall see that they only partially reflect peoples’ own perceptions of what it means to be ‘poor’ or ‘well-off’.

Table 2: Social Indicators – Districts of Lago, Majune and Cuamba (Percentage)

Social Indicators	Cuamba	Lago	Majune
Population	184.773*	83.099	29.702
Proportion Female Headed Households	24.0	35.1	35.2
Primary School Attendance	67.3	65.01	54.3
Solid Roof Housing	0.79	1.18	0.13
Electricity at Home	6.3	4.38	0.39
Radio ownership	55.0	67.5	45.0
Cell-phone	3.3	0.97	0.61
Bicycle Ownership	68.0	29.8	63.1

Source: INE 2009 * of this population, 79.779 lives in the Municipality of Cuamba.

The economic context in which people in the three districts develop their coping strategies and efforts for upward social mobility is reflected in Table 3. The data are taken from the District Economic and Social Plans and their reassessment (*Balanço*), that is the key policy-making instrument of the District Administrations. Also these data reveal differences between the three districts, both in their ability to collect these types of data, and in type and level of economic activities. Some differences are the natural outcome of differences in population (such as total agricultural production), and others in geographical distinctions (such as fish production and number of tourists), but some also indicate how each District Administration fulfils its responsibilities for developing their District (number of extension workers, investments in forestry, energy-clients, number of social security beneficiaries, the use of the

District development Fund etc.). Updated figures will be given in each Reality Check, in order to ascertain the Districts' own representation of developments in their area of responsibility.

Table 3: Economic Indicators – District of Lago, Majune and Cuamba 2012

Economic Indicator	Cuamba	Lago	Majune
Area under cultivation (Ha)	109.943	8.363	18.538
Agricultural production (1000 kgs)	165.258	76.240	38.676
Agricultural extensionists	3	0	4
Farming associations	15	16*	46*
Domestic animals heads/kgs/owners	470	10.500	7.209.000
Forestation (new trees/ha)	490.000	6.050*	20.000 (ha)
Number of tourist agents	0	8	5
Fish production (1000 kgs)	n.a.	4780.8*	n.a.
Commercial establishments	32	193*	177*
Public water sources	272	136	50
Energy (number of clients)	691	1.517	350
Energy (clients cut off)	n.a.	497	n.a.
INAS (Number of beneficiaries)	3.187	1.388	801
District Dev. Fund (No. of Projects)	159	66	130
District Dev. Fund (Total, Mt)	8.000.000	7.848.000	7.556.400
Distr. Dev. Fund (Reimbursed, Mt)	0	316.000	490.111

Sources: GdN/DdLago, Majune and Cuamba 2012 * 2010 Figures. Comparative figures for 2011 not available.

1.4 Employment and Agriculture, Niassa¹

To introduce this year's thematic focus, the most detailed overview of agriculture and employment in Niassa can be gained from the 2007 population census. In comparison to the rest of Mozambique, the province of Niassa is more rural and has a lower population density. It follows that smallholder agriculture is by far the predominant occupation. Tables 4 to 7 (**Annex 1**) give a sense of district-level average differences in employment structure within the province, focusing on individuals aged 16 and over. A key distinction is between those districts that have some officially designated urban areas and those that do not. This is indicated in the first column of Table 7, which shows that, with the exception of Cidade de Lichinga and Cuamba, the remaining districts are almost exclusively designated as rural. The table also shows that a very large share of the working-age population is economically active. Indeed, in most exclusively rural districts such as Majune, over 80 percent of all adults are economically active and less than 5 percent are inactive (not studying and not undertaking domestic duties). This is consistent with a situation where most households are too poor to afford to allow some members not to work.

Table 5 confirms that agriculture, which includes fisheries and forestry, is the main occupation of virtually all workers. In rural districts, around 90 percent of workers are primarily engaged in agriculture, followed by a small share in transportation activities, which also is likely to be directly related to agricultural production. Fisheries is particularly important for communities located along Lake Niassa, such as in Lago district; elsewhere in the province crop production dominates. Outside of urban areas, commerce and services, including public administration, occupy a very small share of the population. Overall, artisanal mining is the primary activity of a small proportion of workers (<2 percent). However, in some districts it is more material; particularly so for Lago, where approximately 10 percent of workers are active in this sector. Consistent with what is known about the structure of employment in rural areas in Mozambique (Jones and Tarp, 2013), Table 6 indicates that the

¹ This section has been written by Dr Samuel Jones, the Thematic Advisor for the 2013 Reality Check Mozambique.

vast majority of workers are self-employed (which encompasses unpaid family workers), indicating they are not part of any structured enterprise. The table shows that outside urban areas, well over 90 percent of workers are self-employed. Moreover, there is very little employment in private enterprises. For instance, in Lago and Majune districts less than 2 in 100 workers are employed in the private sector. Rather, although also small in number, public sector jobs are generally more prevalent than those in private enterprises. It can also be noted that in both the private sector and public sectors, employees are frequently not native to the district but are recruited at the provincial or national levels due to specific skill requirements.

Research on the link between employment and poverty in low income countries, including for Mozambique, consistently suggests that access to non-agricultural sources of income can be an important route out of poverty, as well as a means to smooth shocks (Barrett et al., 2001; Haggblade, 2010). Although the census data provides limited information of this type, a simple proxy is to count the number of different employment sectors in which adults from the same household are engaged. If this number is greater than one, it suggests the household is likely to have access to more than one form of income. This information is reported in Table 7. In contrast to the relatively homogenous picture painted previously, it suggests that across virtually all districts there are important differences in household livelihood strategies. Even in most rural districts, more than 10 percent of households appear to have access to multiple income sources². Note that this excludes multiple forms of agriculture (e.g., animal husbandry and crops), and therefore is likely to understate actual levels of differentiation.

A neglected aspect of employment is casual or exchange labour used in small-scale farming. Some insight on this can be gained from the recent agricultural census (2009/10; see INE, 2011), which suggests that 10 percent of plots (*explorações*) employ some full-time agricultural labour and 85 percent use some part-time labour during the year³. This points to an important potential production constraint – since labour is generally scarce in the province and demand for labour in agriculture is typically high across all plots at specific times of the year (see Figure 1, Annex 1), it follows that labour shortages may restrict the ability of smallholders to expand their activities beyond what can be reliably served by family labour. The sub-reports from Cuamba, Lago and Majune all indicate that wealthy households typically have more ready access to additional (non-family) labour, which is critical in the peak periods of agricultural work. This access comes from non-crop income as well as accumulation of credits, for example by lending to poorer households at other times of the year.

As noted above, agriculture is fundamental to the well-being of the majority of households in Niassa, especially those in rural areas. In contrast to the semi-arid regions found across much of the South of the country, Niassa generally is considered to have favourable conditions for agriculture. This is due to its moderate temperatures (linked to its higher altitude), a relatively stable climate, good soil fertility, and reasonable availability of water. However, the hydrographic network of the province is intermittent, meaning that some rivers dry up during the dry season; thus, if irrigation is to be used in these areas, it typically must depend on bore holes, pumps or small-scale dams.

Besides crop husbandry, silviculture, fishing and animal husbandry are relatively widespread in the province. However, their intensity varies significantly with location – e.g., fishing activities are concentrated on Lake Niassa and main rivers. Approximately 77 percent of the province is covered in forest which is well above the national average.⁴ The principal indigenous type of forest is of the Miombo variety, characterised by open woodlands and a low density of commercially valued species. As a result, presently there is only a low volume

² A figure, we shall see later, that is higher in the Baseline Survey carried out in Cuamba, Lago and Majune for the Reality Checks Mozambique project.

³ This figure is lower in the Reality Check Mozambique Baseline Survey (see below), as many of the poorest small-holders are not in a position to hire agricultural hands and have to jeopardise their own agricultural production to sell their labour.

⁴ This estimate includes commercial plantations; data taken from: www.malonda.co.mz.

of commercial trade in timber products. That said, due to a range of factors including the favourable climatic conditions, low population densities, availability of land and low forestry concession (usage) fees, there has been and continues to be considerable interest from foreign investors in establishing large commercial forestry plantations, with non-indigenous species such as eucalyptus and pine being favoured for their rapid rates of growth.⁵

Detailed data on the types of agricultural practices in which household engage is relatively limited, at least at the district level. Table 8, which is taken from the 2007 census, shows that animal husbandry is practiced in some form by around half of all households, dominated by keeping chickens, goats and/or ducks. With the exception of a few districts (e.g. Mecanhelas and Cuamba), however, only a small proportion of households own larger livestock such as pigs or cows. Similarly, there are few districts where holdings of cashew trees or coconut palms are prevalent.

As in other parts of Mozambique, the scale of individual crop farms is small with an average plot size of less than two hectares. Indeed, according to the agricultural census (INE, 2011), there were only 574 farms larger than 10 acres in the province in 2009/10. Information from the series of agricultural surveys 2002-2008, reported in Table 9, detail the main food and cash crops grown in the province as a whole. They show that maize is grown by virtually all households practicing agriculture. Whilst this is mainly for self-consumption, the same data indicates that around 25 percent of households sold some maize during the 2008 season. A relatively wide range of other staple crops are grown, including sorghum, cassava and rice, as well as some pulses (beans). For most of these crops, between 10 percent to 20 percent of households (and more for pulses) sold some portion of their harvest. On the one hand this points to excess levels of production and the existence of local markets for the goods.⁶ On the other hand, evidence from the Cuamba, Lago and Majune sub-reports indicates that many households make 'emergency' sales of staple foods in order to purchase important non-food items (e.g., soap).⁷ Moreover, the same reports point to thin and volatile markets for local produce, meaning that prices can often be dictated by buyers.

Throughout the district, agricultural production methods remain rudimentary. Only a very small share of farmers use any modern technologies or inputs, such as fertilisers (<8 percent), pesticides (<5 percent), irrigation (<5 percent), or improved seeds (no data).⁸ Equally, less than 1 percent of farmers have access to credit. Thus, crop production is predominantly rain-fed and vulnerable to shocks. The principal shocks reported by smallholders in recent years include loss of crops to pests and wild animals, as well as irregular rainfall. These precarious conditions typically push farmers into planting a more

Illustration 3: Truck loading tobacco bought from local farmers in Majune



Photo: Minna Tuominen

⁵ To date, a number of companies have begun operations. They include including Chikweti Forests, Florestas de Niassa, Green Resources, Florestas Do Planalto SA (UPM) and New Forests. Their focus is on the north western Lichinga plateau region, which encompasses the Lago, Ngaúma, Sanga, and Muembe districts.

⁶ This is substantiated by food security data which suggests no significant problems for the province, especially compared to areas of Gaza and Inhambane where rainfall is much less reliable. See FEWS NET: <http://www.fews.net/Pages/country.aspx?gb=mz&l=en>.

⁷ According to the Reality Checks Baseline Survey, the proportion of households making such 'emergency sales' is above 50 percent (see later in this report).

⁸ These figures are taken from INE (2011).

diverse range of crops rather than just the most productive ones, potentially lowering overall productivity. As shown by Jones and Tarp (2013), households that are exclusively reliant on (smallholder) agriculture show the highest rates of poverty, whether measured by consumption or ownership of assets.

A number of cash crops are grown in Niassa among which tobacco is the most common, grown by around 14 percent of farmers in 2008 (see Table 9).⁹ According to the most recent agricultural census (2009/10), however, cotton (which has been of historical importance) and sugar cane have become somewhat more prevalent over recent years (grown by around 4 percent and 8 percent of household respectively), in turn suggesting substantial variation in cash crop choice over time.¹⁰ Many of the cash crops are based on out-grower schemes where, depending on the nature of the contract, a commercial operator provides seeds and inputs (and possibly credit) in exchange for sole rights to purchase the crop. However, these schemes often face a range of problems including volatile world prices (e.g., of tobacco and cotton), difficulties in meeting export quality standards, and weak commitment of farmers. More recently, some new schemes (large-scale buyers) have emerged, including the purchase of cassava by Cervejas de Mocambique (a subsidiary of SABMiller) for the production of beer.

In addition to agricultural policies and interventions, in a longer term perspective the sector is likely to be affected by climate change. Estimates by Schlosser and Strzepek (2013) regarding probable climate outcomes for the Eastern Zambezi River Valley, which includes Niassa, suggest that under an 'unconstrained emissions' scenario, average summer temperatures would be likely to rise by around 1.5°C and rainfall could decline by around 5 percent (see Figures 2 and 3, Annex 1). In light of the vulnerability of agricultural practices, this would have very serious implications for crop production. Preliminary and anecdotal evidence from the Cuamba, Lago and Majune sub-reports confirms a sentiment that climatic conditions are now less predictable than in the past. More generally, pressure on natural resources such as fish stocks in Lake Niassa appears to be rising with potentially large economic and social consequences particularly if the fishery becomes more industrialised.

1.5 Future Challenges, Niassa

The Provincial Directorate of Agriculture is the body responsible for agriculture in the province of Niassa. Asked to present their version of the main challenges for agriculture in the province in an interview held early June 2013, the Director of the Directorate listed:

The government's capacity to transfer *improved technologies* to small-scale producers. They are currently trying to improve by hiring agricultural extensionists, and have covered around half of the districts with eight extensionists plus one supervisor. The plan for 2014 is to hire 48 more.

Agricultural infrastructure, primarily in the form of irrigation schemes. There is a large potential for increased production in Niassa, but technologies are very rudimentary and usually in the form of 'diques'. In addition, there is a need to increase the number of warehouses with the current situation making it very difficult to increase commercialisation particularly outside the main harvesting season. This should be done through public/private partnership.

Environmental/climate changes are detrimental to increased agricultural production, primarily through erosion (Marrupa) and uncontrolled fires that destroy the eco-system. The challenges are different in the south of the province (where there is a combination of maize, cassava and sorghum) and the north (where maize is most important). The Director argues that there is an ongoing change of climate, which affects temperatures as well as rainfall.

⁹ As such, of all provinces Niassa appears to have the highest proportion of farmers engaged in cash crop production. In absolute terms, however, other provinces report larger numbers of cash crop producers.

¹⁰ These dynamics are poorly understood. Selection of crops is likely to be driven by price expectations; however, the information available to farmers and used to form such expectations is unclear.

Land is not the challenge that many argue it is, with 12 million hectare for a population of 1.4 million people in Niassa. There is at least 2 million hectare that is fertile land and should be accessible for initiatives like ProSavanna. ProSavanna is currently in the planning stage with the development of a business plan (*Plano Director*), and will be implemented in the corridor along the western part of Niassa. The basic idea is to make larger commercial farmers out of 'the best' of subsistence farmers.

Human capacity is still a major constraint, particularly at the technical level in agriculture and silviculture. The Director is not worried about the interest of young people in agriculture, as young people through generations have been sceptical but eventually gone into the sector.

Illustration 4: *Vegetable Gardening, Majune*



Photo: Minna Tuominen

2. AGRICULTURE AND EMPLOYMENT IN CUAMBA, LAGO AND MAJUNE

In the following, the broad picture of agriculture and employment in Niassa presented above will be the subject to a more detailed analysis from the three selected study sites (the Districts of Cuamba, Lago and Majune, see sub-reports for more details), based on interviews with government officials and other authorities and our own data. The three districts display variations in terms of geographical locations, access to public services as well as levels of poverty and well-being, and they are also different in terms of the profile and relative importance of agriculture and employment – with Cuamba being the most complex with a relatively strong commercial sector, Lago being characterised by fishing as a key sector rendering agriculture less important, and Majune being most dependent on agriculture both for subsistence and income (see the Sub-Reports for more details).

Upon arriving **Cuamba** for fieldwork, the road construction work that started last year had been delayed and is not expected to be completed before 2014. On the other hand, the train from Nampula whistled on its approach reminding us about the central location of the District and Municipality. In the city itself a lot of construction takes place, including a new health centre, new boreholes, rehabilitation of markets, and a centre for the elderly. Except for the home for the elderly (INAS) and the boreholes (FIPAG), all the construction work is undertaken by the Cuamba Municipal Council. Also the streets seemed busier than in September last year, primarily reflecting the end of the agricultural year with farmers selling their produce and buying goods.

Driving from Lichinga to the district of **Lago** on the *planalto*, people are busy harvesting their machambas, cattle herds are well looked after by herd-boys and there has been a significant increase in forest plantation areas - primarily we later learn by the Finnish company 'Forests of the Planalto'. Arriving in the lower lying areas in the vicinity of Lake Niassa and the district capital Metangula, we are reminded about the great variations in adaptations in the District as machambas become smaller, cattle more rare and with beaches full of fishermen, traders, women and children. The pivotal role of the Lake is also evident in the construction of a new harbour, to accommodate the modern passenger boat that (finally) will be set in traffic.

Arriving **Majune** in early June there seems to be maize everywhere and people are in a good mood. We are told that the harvest has been good, with enough rain and fewer problems with elephants than usual. At the same time, traffic has started slowly increasing since the opening of the bridge over Luchimu River last year. Together this has invigorated the central market place in the district, where not only tomatoes, onions and salads are available but also potatoes, sweet peppers and even eggplants. Yet another indicator of the awakening of the local economy is the fact that the Vietnamese telecom company Movitel has established itself both with an antenna and a commercial outlet.

2.1 Subsistence Agriculture

The District Directorate of Economic Activities (SDAE) is responsible for the development of the agricultural sector at the District level. Summing up findings from Cuamba, Lago and Majune (see individual Sub-Reports), the large majority of farmers essentially cultivate for own consumption. However, around 50 percent of the households sell parts of their produce - usually to accommodate immediate needs for cash for education, health, transportation or consumption items such as soap, cooking oil and salt. Prices vary considerably immediately after harvest and later during the 'hungry season', and those in situation to wait with selling crops are in a much better bargaining position.

People in all three districts grow a large variety of crops (see Table 10, following on from tables in Annex), but there is a concentration around maize, cassava, rice, sorghum,

pumpkin and sweet potatoes. The limited proportion of households who plant other varieties is to large extent based on tradition, but is also related to natural conditions and the rudimentary methods used. While rainfed extensive farming is most common in all three districts, Lago and Majune also have low-lying inundated areas close to rivers with a potential for up to three harvests per year with proper irrigation methods. Access to rainfed land is not a problem in the three sites, but access to good inundated land is.

Table 10: Types Crops Planted the Previous Agricultural Season (Percentage)

Product	Cuamba	Lago	Majune	Total
Maize	97.0	86.7	97.2	93.3
Cassava	61.4	96.7	67.9	76.5
Rice	16.8	50.8	84.0	51.1
Sorghum	65.3	10.0	90.6	53.2
Groundnut	38.6	47.5	82.1	56.0
Pumpkin	30.7	66.7	73.6	57.8
Butter Beans	45.5	24.2	56.6	41.3
Sweet potato	15.8	75.0	69.8	55.0
Banana	10.9	25.0	37.7	24.8
Tomatoes	7.9	36.8	28.3	24.8
Cow peas	65.3	2.5	29.2	30.6
Irish potato	0.0	5.8	18.9	8.3
Kale	2.0	0.8	13.2	5.2
Sesame	9.9	28.3	15.1	18.3
Sugar cane	10.9	21.7	12.3	15.3
Tobacco	8.9	3.3	10.4	7.3
Yam	0.0	9.2	9.4	6.4
Cabbage	1.0	1.7	6.6	3.1
Onion	4.0	3.3	6.6	4.0
Garlic	1.0	4.7	0.8	2.1
Other products (*)	11.7	5.0	0.8	5.8

Sources: Reality Checks Mozambique Baseline Study (2011) (*) Cotton, beans (boero), millet, maize (fine), piripi.

A common denominator for all three districts is also the inadequacy of agricultural extension services. Lago received its first six extension officers in 2012, while Majune and Cuamba have a total of four and five respectively. Although they work under considerable constraints such as limited access to transportation and inadequate technological inputs, there is broad agreement among agricultural authorities and the population alike that improved extension services is key to the development of the sector. At the same time, farmer associations are relatively rare with the partial exception of Cuamba. Associations would be one way to introduce new technologies to a maximum number of farmers. At the same time, district authorities argue that the Farmer Union (UCA) seems to increasingly focus on political issues and larger agricultural units (such as ProSavana), and that they have lost much of their roots of working directly with farmers in the fields.

2.2 Commercial Agriculture

Commercial agriculture is most common in Cuamba, of limited but increasing importance in Majune, and hardly existing in Lago. The main cash crops are cotton and tobacco supported by Sociedade Algodeira do Niassa João Ferreira dos Santos (JFS) and Mozambique Leaf Tobacco (MLT) respectively. Both companies have monopoly buying rights in Niassa, and provide seeds, inputs and advice to farmers who pay for this at the time of harvest. Sesame seeds and soya beans are mainly produced by cooperatives, which are supported by intermediary cooperatives such as Alimi (Cuamba). In Majune there was a new jatropa

farming operation established in 2012, but which turned to soya, maize and beans as the former turned out not to be commercially viable.

Broadly speaking, these operations provide few economic opportunities for the general population and typically orient themselves towards wealthy and more 'advanced' farmers – even though more people have turned to tobacco the past year due to high and robust prices particularly of Virginia. Cotton, on the other hand, have seen highly fluctuating and deteriorating prices due to developments in the world market. For both products, the entry of the Brazilian mining giant Vale and concomitant competition for access to the railway line has increased transportation costs considerably.

Concerning ProSavana in particular, respondents have different views as to the objective and nature of the interventions planned for this project. A consensus, however, is that the strategy of dealing with the family sector is not at all clear. To the extent that ProSavana involves the establishment of large-scale commercial farmers there are two main concerns: One is land conflicts with existing producers, as has been the case with forestry plantations. And a second is excess supply of food crops to the local market, leading to lower prices for local producers. To the extent that ProSavana will involve engagement with local producers, a main concern is that in the absence of credible mechanisms or modalities of contact with

Illustration 5: *Drying sesame, Majune*



Photo: Minna Tuominen

smallholders this will follow the usual pattern of provision of credit and equipment – but with inadequate follow-ups in terms of technical support.

Among the three districts under study, forestry is most important in Lago. Authorities claim that there has been a change in attitude and approach among the forestry companies which may make them more useful from the point of view of development. While the forestry company Chikweti has been poor in communication (“operating with concepts such as ‘10,000 hectares that people could not understand’”) and primarily relating to traditional leaders, the new companies such as ‘*Floresta de Planalto*’ communicate better and have clear ideas about how to

compensate for land. They try to avoid planting close to villages, and when people have to be moved they get help to open up new fields of the same size in the form of tractors, labour and seeds. At the same time however, all decisions on production are done at the level of the Province and the District’s role is really only to ‘communicate with the local communities affected’.

2.3 Fisheries

The two key institutions in fisheries are the Fisheries Research Institute (IPP) and the Institute of Small Scale Fisheries (IDPPE), both located in Lago. They emphasise the importance of small scale fisheries for the whole province of Niassa, but claim they do not have resources to follow up the lakes and rivers outside the Lago District. This is also the case with Majune, where fishing in rivers is important and practised by 26 percent of the household. In addition to being an important source of protein, nearly $\frac{3}{4}$ of the households fishing in Lago and Majune sell parts of the catch. While fishing is less important in Cuamba due to dry rivers, fish still represents an important part of people’s diet (see below).

All fishing in the Lago District is small-scale, with an estimated 2500 fishermen counting owners of boats/canoes and gear (*patrões*) as well as fishery workers (*marinheiros*). For each fisherman, there is an estimated 1-2 additional people involved in production and maintenance of equipment, processing and commercialisation. The main fishing methods used are boat seines (*cerco/chillimila*), gillnets (*emalhe de superfície*), beach seines (*arrasto para praia*), and longline (*palangre*).

Illustration 6: *Preparing for fishing*



Photo: Inge Tvedten

According to IIP, 2011 was a good season in terms of production, 2012 was a very poor season, and 2013 promises to be somewhere in between – even though the month of our fieldwork June was exceptionally poor. The fisheries are influenced by the water level in the Lake, which primarily (“80 percent”) is determined by rainfall. Rain has been poor the last 2-3 years, which affects the productivity of the stocks. Furthermore, the weather the past couple of years, with strong winds and varying temperatures, has led to movement in the layers of different water temperatures. Currently (i.e. the winter of 2013) water with limited levels of oxygen from depths down to 725 metres is moving to the surface, causing many fish to die.

While there are concerns about the situation of the Lake among people in the District Administration and (as we shall see) among the population depending on fisheries, the management of the IIP claims that the current situation is part of a natural cycle – even though it also acknowledges that the institution’s resources are too limited to have a solid scientific basis for their views. Among other things, the migratory pattern of the small pelagic *ussipa* (accounting for 80 percent of the total production on the Mozambican side) and the most common demersal species (*chambo*, *nkhomo*, *kampango*, *utaka*) are not sufficiently well-known for effective management to take place.

In fact, the Fisheries Research Institute argues that the Lake is in a quite healthy condition on the Mozambican side (IIP 2013). The potential sustainable catch is 16.000 tonnes, with the current production being between 6.000 and 8.000 tonnes. A main reason for this is the low level of technology used. Introduction of semi-industrial fisheries, as in Malawi, would severely jeopardise the sustainability of the Lake as a source of employment, income and protein. Between 2011 and 2012, total production was reduced by 10.4 percent. The peak seasons are based on beach seines (June) and the *chillimila* (August-November).

2.4 Employment

While agriculture and fisheries are the main sources of subsistence and income for the vast majority of people in Cuamba, Lago and Majune, many also have alternative sources of income and a few make a living exclusively from non-agricultural activities. Most of the alternative activities are related to primary production such as commerce and transportation, but there is also a wide array of other alternative sources of employment even though they may yield limited income. As seen from Table 13 and counting the number of alternatives under ‘Others’, a total of as many as 58 types of alternative employment were recorded in our Baseline Survey - which means that constraints are more related to the management of

small-scale enterprises and markets for products than knowledge about alternative types of activities *per se*.

The most common source of informal employment is working for others (*ganho-ganho*) in agricultural fields, as carriers/transporters, in people's homes etc. Except in urban Cuamba, this type of work is most common for women and the pay is usually very low and often in kind. In Lago, working for others also has strong cultural prohibitions making it difficult to recruit people even in times of need. In Cuamba, many larger scale in commercial agriculturalists prefer to hire people from outside the district ostensibly because they work better and more reliable – but probably also because it is easier to underpay single individuals coming from other areas. And in Majune, only the very poorest engage themselves in such work.

2.5 Communication

A recurring theme in all three Reality Check sub-reports this year is the importance of communication. In the 2012 Reality Checks we emphasised the considerable leeway for better communication of government policies and interventions at the local level, and the same goes for agriculture, fisheries and employment. People are not aware of central issues related to their economic adaptations such as the utility of improved agricultural technologies, the development of fishing stocks in Lake Niassa and prices for their produce in different parts of the province.

An obvious, but grossly underestimated, channel of communication is the Community Radio. Community radios in Mozambique/Niassa had their heyday around year 2000, when UNESCO supported the establishment of, and trained personnel for, such radios. Many work with very small funds from government and/or NGOs, and have turned into 'music boxes' rather than informative radio. Radio Lago shows the potential. They have continued to transmit programmes despite shortages of funds, depending largely on voluntary work from teachers and youngsters. They have programs including local news, announcements, women's programs, traditional music, youth program and dedications. After the spread of Movitel, the number of people calling in has also increased considerably.

The potential seems to be particularly pronounced in agriculture and fisheries, with a large listenership who is interested in learning. The management of both types of institutions listed a number of issues they find relevant to communicate through the community radio, including technologies and potential incomes from vegetable gardening and scientific information about fish stocks in order to reduce anxieties and ad hoc decisions. At present, however, they have to buy time with the radio for which they have no budget, and they find it difficult to get their points across in interview situations that are often linked to specific incidents.

Illustration 7: Lago Community Radio



Photo: Inge Tvedten

3. THE COMMUNITIES

In each of the three districts described above, the Reality Checks have identified a set of communities for more in-depth and participatory methodologies and analyses (see Introduction). In each community we meet people who relate to the structural political and economic conditions described above the best they can, from the position in which they find themselves. In the District of Cuamba the focus is on the urban neighbourhoods of **Airport** and **Maganga** and the peri-urban village of **Mucuapa**; in the District of Lago the focus is on the Administrative Post of **Meluluca**, which is located about an hour's drive from the District capital Metangula; and in the District of Majune the focus is on the district capital **Malanga** and the nearby village of **Malila** (for more details, see sub-reports).

3.1 Most Important Changes

Recording most important changes since our last visit in 2012, the situation in the local bairros Airport and Maganga and the peri-urban village of Mucuapa in **Cuamba** seem to be much the same. Agriculture and related activities continue to dominate the local economy, as does various informal economic activities (such as transportation of goods and artisanal mining) primarily carried out by young men. An apparent proliferation of entertainment stalls playing music and showing videos is the most visible change, following from the expansion of the electricity grid to these communities a short while ago.

The most significant changes mentioned in our participatory exercises ('Most Important Change' and review of the 'Community Mapping Exercise') was the increased coverage of the water supply compared to last year. At least three localities (Adine, Namuthimbua and Maganga), which previously had the most severe water supply problems, benefited from construction of boreholes. The Municipality's activities this year have also included improved hygiene and environmental sanitation services through construction of improved latrines in schools and markets. In an effort to contribute to family income and improve the efficiency of rubbish collection, the Municipality introduced a new collection programme targeting youth and based on rotational community involvement and small incentives. Despite this, rubbish collection is not efficient as tractors primarily pick it up in the centre of the city largely leaving the periphery to dispose of their own garbage.

With regard to infrastructure, paving of a street with direct access to the District Health Services (DDS) and District Education Services (DDE) is underway. Improved dirt roads have also been constructed or broadened in the bairro of Maganga. Health centres are being built in different localities, e.g. Adine and Rimbane. And priority has also been given to increasing and improving classrooms and expanding or building markets. Communities are contributing with labour and some construction materials to build schools, thereby splitting the cost between communities and the state. At the same time, the communities do not agree with the Municipality's prioritisation, arguing that it is primarily the city centre that benefits.

The importance and impact of INAS continues to rise as it has managed to increase the number of beneficiaries. The INAS basic welfare subsidy is provided to old people, households that are unable to work and have insufficient income to meet their basic needs, and people with disabilities or chronic or degenerative illnesses. The impact and reach of INAS was demonstrable in the Focus Families (see below). This year, the monthly amount given increased from 130 Mts to 250 Mts, according to the Cuamba INAS delegate. As last year, orphans continue to benefit every fortnight from a basic food basket. INAS has also completed and inaugurated a day-care centre/home for the elderly, which is intended to keep old people busy during the day. The centre has capacity for 84 old people, and aims to be a centre where traders can send donations on Fridays for the city's beggars.

Driving to the communities in **Meluluca**, the road that has been so important for the economic developments taking place is still in acceptable condition. We also pass a completely new village, made up of the entire population of the village of Maloo that has decided that they want to live closer to the road – and health and education facilities. In Meluluca itself there are not many visible changes. If anything, activities seem to be lower than last year, which turns out to be related to an abrupt reduction in access to fish.

On closer scrutiny, however, a number of changes have taken place largely following initiatives taken by the new Head of the Administrative Post. These include easier access to education services for the marginal population areas by splitting up 1-3 Grade into smaller units, and access to solar panels - to compensate for electricity from Cahora Bassa that still seems a distant project. The new Head of the Administrative Post has also explicitly encouraged community leaders to initiate work instead of waiting for government. Two examples are a road between the new community established along the road and Nchepa, and a new provisional school in Lussefa built while waiting for a new proper school to be constructed (the old one blew down in 2011). In both cases, he has secured extra funding from government after the work has been initiated.

To ascertain perceptions of changes in the community, two groups of men and women respectively were organised in the community of Milombe. In both cases, perceptions of change were dominated by the recent (1 month) poor fisheries that affects all levels of the community - from Meluluca's relations with the outside world to the individual households. For the women the most immediate effects were the sharp reduction in the number of minibuses (*chapas*) as traders had nothing to buy, and the lack of money for "soap, salt, sugar, cooking oil, mattresses, and health".

Other changes during the past year reported by the group of women included i) that they have to pay up to 200 Meticaís for delivery of babies (which formally should be free); ii) that the ceiling of the Primary School has been in poor condition and children have had to leave the classroom when it is windy (the school building in question eventually collapsed); iii) that a new bridge has been constructed over the Lussefa River, which makes it possible to reach Milongo by car; iv) that the new Movitel antenna has greatly improved communication with relatives and friends outside Meluluca; and finally viii) that the relations with the Administrative Post has improved in the sense that they get quicker and better responses to their questions and preoccupations

When enquiring about the main changes in the community of Malila in the **Majune** district, the first thing they point out is the repair of one water post, next to the house of the queen or *rainha* – there are three water posts in the village, and all of them are now fully functioning. Access to water has always been a critical issue in Malila and clearly, it still is.

There are also two new privately owned flour mills in the village, but at the same time there are three older ones that have stopped functioning. One important improvement has been the opening of the public transport route to Mitande, on the other side of the Luchimua River. There is a minibus (*chapa*) now, that takes people there every Tuesday and Saturday when there is an agriculture market (*feira*) in Mitanda and in Mandimba.

Life is thus moving ahead through small improvements that nevertheless can make a major difference to the day-to-day life in Malila. There are great expectations – particularly among the wealthiest people – concerning what will happen next year when the District gets connected to the national power line, as has been promised by the government. That will be

Illustration 8: Focus group at work, Lago



Photo: Inge Tvedten

a major event, but only time will show to what extent it will have an impact on the everyday living of ordinary people in Malila.

All in all then, there are smaller changes taking place in the form of government and private sector investments in infrastructure, education, health and communication in all three communities. While acknowledging this, one overall perception in the local communities is that much of these investments are still too centralised to the main district centre (Cuamba) or main village (Meluluca Sede). On the other hand, it is also a clear notion locally that much can be accomplished by active and competent government representatives at the local level within a state structure that may seem rigid – such as in the case of the Head of the Meluluca Administrated Post.

Agriculture was not very prominent in discussions we had with focus groups about main changes in their communities. This does not necessarily mean that there have been no changes, but being parts of people's daily lives and struggles they may not be that visible. We now turn to the characteristics and dynamics of agriculture, fisheries and employment in Cuamba, Lago and Majune (see the individual sub-reports for more details).

3.2 Agriculture

Practically all households in the communities are involved in agriculture, even though there are differences between the three study sites. In Cuamba people practice a mixture of subsistence and cash crop production, and as a hub of economic activities and with a large number of people passing through on their way to neighbouring provinces there is a local market for agricultural products. In Lago, fishing is both economically and culturally considered so important that agriculture is actually a secondary activity both for subsistence and income. And, finally, in Majune rainfed extensive subsistence agriculture is key – even though some also produce for sale and grow cash-crops.

We have already seen that people produce a large variety of crops (Table 10), and as seen from Table 11 below around half of all households sell produce. Very few households have a large income from agriculture (5000 Meticaís or more), with the majority of those vending selling small amounts when they are in need of cash. At the same time, people are well aware that there are more productive ways. Many have seen and experienced agriculture in Malawi, which is both mechanised and subject to heavy fertilisation. They also refer to small 'projects' by government, by NGOs and by farmers unions but complain that they are not properly followed up.

Domestic animals are rare. According to the Baseline Survey, chickens are owned by 40 percent of the households, ducks by 15 percent and goats by 9.4 percent – and mainly kept as a source of saving and for fulfilling cultural expectations during celebrations and visits. Only 1.9 percent possesses cattle, 1.1 percent sheep and 0.3 pigs – which is avoided also for religious reasons.

Table 11: Total income from preceding harvest (Percentage)

Income	Cuamba	Lago	Majune
No income	52.6	56.7	49.1
Income	47.4	43.3	50.9
< 250	10.2	5.8	13.0
251-500	4.1	13.5	24.1
501-1000	0.0	5.8	9.3
751-1000	6.1	19.2	14.8
1001-1500	4.2	13.5	11.1
1501-2500	18.4	13.5	7.4
2501-5000	24.5	13.5	5.6
>5.000	24.5	15.4	14.8
Total	100.0	100.0	100.0

Source: *The Reality Check Baseline Survey 2011.*

Common denominators for most households in the three communities are very rudimentary technologies, small fields (56.2 percent 1.5 hectares or smaller) and limited production. 1.5 hectares is sufficient to feed a family and small enough for two adults to manage – but not enough for producing a surplus with the current level of technologies. Practically everybody uses machetes and axes to clear fields, and hoes as their main agricultural tools – with only 1.4 percent using animal traction and 1.7 percent using tractors. Most households practice rainfed agriculture, and some use shifting cultivation producing the same field for a period of approximately 5 years before they consider it ‘exhausted’ with fallow periods of up to 10 years. Except for the gathering of dry leaves in the *machamba* furrows in order to preserve moisture, hardly any other fertilisers – whether natural or artificial – are used.

As in the rest of Mozambique, customary law regarding land ownership still is practised in all three project sites – even though there are examples of people having to buy ‘informal land titles’ from traditional leaders, neighbours, etc. in areas with a pressure on land resources. Both the notion that land is abundant and customary land title mean communities assume there is no need to register their land because it belongs to them. In Cuamba, the Community Land Initiative (ITC) is currently implementing a project of improved security to land to support land ownership and community development, land registration, and land mediation, valuing and promoting partnership between communities and both larger and smaller private sector actors. The initiative is particularly relevant in Cuamba due to the onset of ProSavana. The National Union of Farmers (UNAC) is vocal in its opposition to the project

and is demanding that rather than accede to agro-industrial development programmes, the Mozambican government should favour and protect family sector production.

Illustration 9: Watering ‘baixas’ by hand, Lago



Photo: Inge Tvedten

In the old days, rainfall was very predictable. According to the local population in Majune, the rain started every year at the end of October with short, light showers; it grew gradually in December-January-February into more intense rainfall; and then started to recede again until it finally stopped in early May. Occasionally, there were bad years with low precipitation (less than 1000 ml/year), but it happened seldom, with long intervals in between. Nowadays, people say, the rainfall is highly unpredictable. It often starts only in November, but it may come

with heavy showers and then suddenly stop again for several days. Evidently, irregular water provision affects the growing of crops and reduces the potential of the harvest. In order to respond to the problem, some farmers occupy larger and larger areas for cultivation. Obtaining low yield from a large *machamba* nevertheless guarantees food for a longer period than low yield from a small field.

Wetland agriculture. There is also a second type of agriculture in the low-lying areas (*baixas*) close to rivers, using natural inundation or manual irrigation from waterholes for watering. In Lago people separate between *mbwelas* that are fertile between May and August, and *nyatas* that are fertile between August and November/December. Good *baixas* are much more uncommon than rainfed fields, and owned by only about ‘two out of 10 households’ according to a focus group in Lago. While formally part of the communal areas this land is always transferred from one generation to the next, with a focus group emphatically stating that such land is ‘never for sale’. People in our focus groups also argued that dryland agriculture is becoming increasingly difficult with unpredictable rainfall and

higher temperatures. Partly for this reason, more people seem to turn their attention to wetland, at least in Lago and Majune with more perennial rivers.

Vegetable gardens, or *hortas*, require much more work and investment than an ordinary *machamba*. It needs fertilisation, one needs to buy most of the seeds; and watering requires a lot of labour. Historically large areas in Lago and Majune were naturally inundated by overflowing rivers, but erosion and uneven rainfall have made it necessary to dig wells and passways and water with buckets. Development of wetland agriculture will require cheap and adapted techniques for watering. Horticulture will render the local diet healthier and also lead to increased incomes – currently particularly for tomatoes, cabbages and onions.

Selling Agricultural Products. In essence, small-holder subsistence farmers in all three study sites cultivate land to feed their family. They choose the crops thinking about their own diet. Yet, the Reality Check baseline survey revealed that more than half of the small-scale farmers (52.8 percent) sell some of their food crops (see above). This is done in order to get money to purchase oil, soap, clothes, school materials, or other goods. When the need arises, the family sells a small quantity, one tin (*lata*) at a time, just to get enough money to manage unavoidable cash expenses. Given that the sale seeks to satisfy an acute need, the farmers cannot wait until later in the year when the prices go up. Often they sell the crops right after the harvest at the local market place, without concerted attempts of bargaining the price.

“The price depends on the degree of despair of each one. The greater the despair, the lower the price.”

Woman farmer, Majune

The commercial traders, who usually are middlemen between the producers and larger companies, take advantage of the agony of the poor and buy their products in large quantities right after the harvest when the prices are the lowest. The products are then stored until the end of the year when the market prices start to rise. In a poor agriculture year, the small-holders may deplete their food stocks within a couple of months and after that they start buying food. When that happens, the market prices start increasing; sometimes the farmer pays three times more for a tin of maize in December than what he earned when he sold one in June.

Commercial Farming. Some 10-15% of the families in Majune and Cuamba cultivate cash crops with the sole purpose of selling the entire harvest. No such production takes place in Lago/Meluluca. The most common cash crops in Majune are sesame and tobacco. The former is being promoted by Mundukide and the latter by Mozambican Leaf Tobacco (MLT). Both entities support the farmers with technical assistance throughout the year, but they apply different commercialisation strategies. MLT offers, at the beginning of the season, all the required inputs to the farmers and discounts the value of the inputs from the final payment when they buy the tobacco at the harvest time. MLT determines the quality and hence the price of the tobacco that they buy, which is an issue of frequent upheaval and dissatisfaction amongst the farmers.

“In order for one to become a farmer, one needs to plan: how much one wants to grow, or the potential buyers, how much one will sell, and how much one will keep. That’s what distinguishes a farmer from a peasant.”

Commercial farmer, Cuamba

Mudukide, a Spanish NGO, follows a different philosophy. The ultimate goal of the organisation is to prepare the local farmers for a market economy and to train them to sell

their produce with a profit. The organisation does not offer anything for free, except knowledge. In order to promote new crops, such as sesame, Mundukide sells the seeds at a low cost to the farmers. At the time of the harvest, Mundukide assists the farmers in identifying traders to whom to sell their produce. The price is negotiated between the trader and the farmers. Mundukide keeps the farmers informed of the market prices so as to support their negotiations.

Associations. The bargaining position of the farmers is often weak particularly when they negotiate one by one with traders. The large majority of farmers (96.9 percent) in the three study sites are not organised in farmer associations (The 2011 Baseline Survey). In Majune, we were told that several years back there were NGOs promoting the creation of farmers' associations, and subsequently several farmers' groups were formed. However, according to many key informants, these groups fell apart soon after the NGO support ceased. Currently, there are two organisations, Conselho Cristão de Moçambique (CCM) and Iniciativa de Terras Comunitárias (ICT), trying to mobilise farmers again into associations. Reportedly, they have succeeded in gathering several groups, but based on past experience, the prospects of such organisations are short-lived without strong internal motivation.

Farmer associations and co-operatives are more common in Cuamba, where cash crop production is more important. According to people there, the advantages of being members include receiving agricultural inputs such as seeds and agrochemical products, access to warehouses for collective sale of products, and improved power of negotiation concerning prices vis a vis the cotton and tobacco companies. Non-governmental organisations such as We Effect (previously called the Swedish Co-operative Centre) and a German organisation called MISEROR have supported the associations and co-operatives.

Climate and Environmental Change. The National Environmental Policy, approved under resolution n° 5/95, on 6 December, supports the country's natural resource and general environmental management, in order to prepare functional and productive capacity for current and future generations. In all three project sites, there is broad agreement that changes in climate and environment are taking place – primarily in the form of poor and intermittent rain. In Lago, there is also broad agreement that fisheries are affected by changes in rain and temperature, making the fish disappear into the more distant and deeper parts of the Lake.

“The dry season appears to be the wet season, and the wet season appears to be the dry season. And when it rains, the temperature is so high that the moisture doesn't settle.”

Old man, Lago

Even though the most common explanation for environmental changes is that it is all 'God's work', ancestors and spirits are also called upon. In Majune, Malila households are spiritually linked to their queen, 'Bibi', whose principal mission is to spiritually protect the community and ensure the agricultural season is a success. *Bibi* also acts as a communications channel between the community and their ancestors' spirits in periods when hunger, natural disaster or serious problems affect the community.

The main agricultural ceremony in Malila is called *sadaka*, a Jaua word for ceremony. The *sadaka* is organised and called by *Bibi*, and takes place at two separate moments. The first moment is at the time of sowing and the objective is to ask the ancestors to guarantee a good agricultural season and that the seeds germinate well. At this time, *Bibi* holds a general ceremony in her house and invites the whole community to participate. In this ceremony she prepares the *maqueia*, a spiritual powder with a flour base. This powder is later distributed to the community members for them to scatter in their *machambas* before sowing. The process of scattering the *maqueia* in the *machamba* is called *popedzi* (flour scattering) and is done by the oldest member of the household.

The second *sadaka* takes place after the harvest, normally at the end of June. This *sadaka* is also organised by *Bibi* to thank the spirits for the harvest, whether or not it has been a good agricultural year. At this time, a party is held in *Bibi*'s house where the community members are invited to contribute with foods. *Bibi* asks for a gun from the District Services for Economic Activities, so the village official hunter can kill a buffalo which is eaten at the party by all community members. At this *sadaka*, *Bibi* also prepares a *maqueia* of thanks.

In Cuamba, local authorities have involved communities in land management through the ITC-programme to ensure they benefit from agreements with private operators. From the taxes paid by private operators, funds should be used for community social development. Communities, however, complain these dividends are slow in coming. Private operators and government claim the reason is these are long-term projects and take time to generate dividends. Moreover, initiatives to guarantee forest sustainability are made through distribution and planting of tree seedlings. For example, MLT has a re-forestation programme which specifies each burley tobacco producer should plant 350 tree seedlings and each virginia tobacco producer should plant 500.

The government is responsible for overseeing the different activities related to this and other natural resource management activities – including wild fires. However, supervision is seriously compromised due to the lack of material and human resources, as well as poor working conditions for extension workers.

3.3 Fishing

Fishing is important in all three project sites, but particularly so in Lago. Good fishing affects the mood of the entire community, while poor fishing has immediate and detrimental effects on income as well as social relationships.

According to our Baseline Survey, 57 percent of the households in Lago are involved in fisheries, 26 percent see fisheries as their main source of subsistence and income, and as many as 85 percent of the households involved in the sector sell all or part of their produce (Table 12). In Majune, fishing is practised by 26 percent of the households according to our Baseline Survey. This is a considerably larger proportion than shown in the 2007 National Census (13 percent), and probably reflects a general under-estimate of the importance of inland fisheries partly related to people's definition of what is to be a 'fisherman'. In Cuamba, rivers are drier and fish less accessible with only 8.3 percent of the households involved in the sector, but still as many as 59 percent report that they ate fish the week before the 2011 Baseline Survey – often bought from other districts.

In the Lago/Meluluca, the three main types of fisheries are encircling nets used to capture the *uusipa*; standing or gill-nets used to catch demersal or larger bottom-feeding fish; and the less common beach seines used to catch a variety of fish. In addition many people will fish from – or close to – shore with lines and hooks, but solely for consumption. Only men are involved in fishing, but as we shall see women are active in the processing and commercialisation of the catch.

Of the methods mentioned, the encircling net (*chillimila*) used to catch *uusipa* is the most common and economically most important. The method involves a crew of 8-10 people in three boats: The main boat or *boti* with an outboard motor, a small wooden canoe (*bwato*), and an intermediate boat (*boti-bwato*). Production and income depends on the quality of the crew, the boat and the fishing equipment. During one and the same night one boat may catch to 200 buckets of *uusipa*, while another may get practically nothing.

The prices of fish also vary considerably. In parts of the year with little fish one bucket of *uusipa* may sell for 300 meticaís, while the same bucket may sell for 80 meticaís in times of abundance. The other types of fisheries are more individually based (with the owner of the canoe and the net usually fishing himself with one or two helpers), but with much lower potential production and income. All fisheries are seasonal depending on temperatures,

currents, winds and (in the case of the *uusipa*) the position of the moon as they are attracted to the surface of the lake by light at night.

Table 12: Perceived average income per fishing trip (Unit Effort) (Percentage)

Income (MT)	Cuamba	Lago	Majune
No fishing	91.7	42.5	74.2
Fishing	8.3	57.5	25.8
No income	50.0	15.5	25.8
Income	50.0	85.5	74.2
< 250	60.0	20.3	56.5
251-500	40.0	22.0	34.8
501-750	0	15.3	4.3
751-1000	0	16.9	0
1001-1500	0	3.4	0
1501-2500	0	10.2	4.3
2501-5000	0	10.2	0
>5.000	0	1.7	0
Total	100.0	100.0	100.0

Source: *The Reality Check Baseline Survey 2011*.

When landing their catch, processing is still done in the simplest way either drying and salting or drying only on large wooden racks covered with fine nets. The fishermen usually do not do this work themselves, but leave it to family members (often one of their wives) or other locals. Small fish such as the *uusipa* only needs a day to dry, while larger fish should preferably dry up to 3 to 4 days. While fish is either quickly consumed in the local community or bought by traders (see below), access to ice would make it possible to sell larger fish fresh in Metangula or in Lichinga where there is a market. As also argued by fishermen, various alternative ways of processing such as smoking and fermenting would have increased the durability and value and hence enhanced potential income.

There is an apparently insatiable market for fish. There are locally based traders (usually women) who sell fish in external markets in Metangula and Lichinga, but the larger bulks are sold to traders (often young men) who arrive in Meluluca in small trucks or minibuses and leave the same day. In periods of good fishing, up to 8 to 10 minibuses may arrive per day resulting in a frantic competition and a good bargaining position for the fishermen/processors in Meluluca. In periods of poor fishing (such as during fieldwork in June) hardly any cars arrive at all. The easiest to sell is *uusipa* which is a staple for the majority of the population, while larger fish are more difficult both because they are harder to conserve and because the market is much smaller.

3.4 Alternative Employment

Alternative sources of employment and income in Cuamba, Lago and Majune are primarily related to agriculture (and fisheries in Lago) in the form of production of input factors, processing and commercialisation. As many as 60 percent of the households in the three study sites have some form alternative income (Table 13).

The most common additional employment options include small-scale traders or 'ambulantes' (selling mainly agricultural products along the road); traders (usually selling basic consumer goods such as flour, sugar, cooking oil and soap from marketing stalls or 'bancas'); shop owners or 'comerciantes' (selling a larger variety of goods and commodities of which much is imported from Malawi); charcoal producers; carpenters (producing doors, window frames and agricultural tools such as enxada, machado and charrua); tailors (who tend to mend old rather than produce new cloths); and finally piecemeal work or *ganho-ganho*. *Ganho-ganho* is by far the most common source of alternative employment

particularly among female headed households – who otherwise are hardly involved in any other alternative sources of employment outside their domestic chores.

Table 13: Households with Alternative Sources of Income (Percentage)

Source of Employment	Cuamba	Lago	Majune
No alternative employment	31.7	28.3	30.0
Alternative employment	68.3	71.7	70.0
Formal employment	26.8	1.2	27.4
Handicraft	2.4	18.6	7.1
Traditional medicine	1.2	0	2.4
Coal/wood	19.5	0	2.4
Production/sale of beverages	11.0	1.2	1.2
Trade (shop-owners/bancas)	6.1	10.5	7.0
Small-scale trade (ambulantes)	7.3	7.0	4.8
Rent out house/room	1.2	0	0
Mason	6.1	11.6	4.8
Carpenter	1.2	2.3	2.4
Locksmith	1.2	0	0
Electrician	0	1.2	0
Tailor	0	1.2	1.2
[Pwati]	3.7	1.2	1.2
Ganho-ganho	4.9	51.2	26.2
Others	25.6	22.1	33.2

Source: *The Reality Check Baseline Survey 2011*.

There are also quite a few semi-skilled people who sell their services to other people. There are people who offer construction services (mainly bricklaying), barbering services, dress making, bicycle repairing, traditional medical services, etc. One popular task is that of a *lateiro*, a person who repairs metal pots and buckets. There are also some people with religious calling who provide services as teachers in *madrassa*, i.e. an Islamic school. Another category of moneymaking includes rental services. People who are fortunate enough to own a bicycle can actually make their living by renting their bike to others. There are also a few people who have cars, and more established businesses of transporting people and/or goods.

In fact, the total list of ‘occupations’ captured in our Baseline Study is quite extensive and shows that there are alternative options for people. In addition to the occupations listed in the Table, people claim to be: truck sidemen, old combatants, barbershop-owners, barbers, corrugated iron beaters, hunters, money-changers, informal miners (*garimpeiro*), petrol-salesmen, guards, religious teachers (*madrassa*), religious leaders, car mechanics, bicycle mechanics, mill-owners, drivers, pensioners, healers, and nursery owners. The main development challenges are hence not to ‘invent’ new types of occupations, but to make the ones that exist (and that people know) more efficient and viable. Moreover, many informal traders still come from neighbouring

Illustration 10: ‘Lateiro’ repairing metal pots and buckets, Majune



Photo: Minna Tuominen

countries and provinces (known as *vientes* in Cuamba) meaning that people from Niassa need to enhance their competence and capacity for informal trade.

While there are quite a number of these kinds of informal jobs, they are usually characterised by irregularity/unpredictability; short duration; and low payment. In this context, it appears that there is no one single job that would be more appreciated than others. For example, when we asked women in a Focus Group whether they would prefer to farm a *machamba* or simply sell products, they unanimously voted for the *machamba*. If the harvest is good, the *machamba* provides a higher level of wellbeing than trade, they explained. Hence, it seems that the social status attached to a job depends on the level of wealth and wellbeing that it generates. It also appears that many young people, particularly boys, shun the idea of farming. There is also an increasing consciousness about the value of money among women, particularly in Cuamba which has a more 'commoditised' economy (see Box).

"I have already been a domestic worker, but only earned 700 Meticias [per month]. I thought it was very little for so much domestic work. Here at home I can always rest, but where I worked I couldn't rest. I want to work, but only if I earn 1500 or more"

Young woman, Cuamba

3.5 Government – Citizen Relations

The relationship between primary producers and the district government in the three study sites is complex, as the needs and expectations of the former often surpass the capacity of the latter. The main reason for this is the very limited resources that the district government has for the agriculture sector, and with the dearth of decision-making authority/resources at the level of Administrative Posts.

There are, first of all, very few extension officers. The main task of such officers is to instruct the farmers on more efficient farming techniques. This is done through demonstration and sensitisation. For demonstration, the 'extensionists' cultivate one farm field each, that ought to serve as an example of best practices. For planting, they use improved seeds provided by SDAE, but not necessarily other modern inputs. On such plots, the extension officers are to apply the proven farming techniques that they wish to promote.

Ideally, then, the harvest of the extension officers should turn out ampler than that of the others. The power of good or successful examples can be compelling. In Majune, for example, many farmers get the courage to start cultivating new crops (e.g. soya or sesame) when they first see another neighbour having success with it. However, the extension officers do not always achieve a successful harvest, admits the representative of SDAE. Due to the nature of their work, the 'extensionists' travel frequently from one village to another and stay several days away from their model fields.

In addition to the extension services, the SDAE also provides industrialised seeds at a low cost. However, the quantities are usually insufficient to the number of farmers in the districts. Furthermore, it happens occasionally that the quality control of the seeds fails and the crop yield turns out similar to that obtained with 'traditional' seeds. Consequently, local people do not have strong confidence on the seeds sold by SDAE. Given the monetary investment required, many people prefer to continue cultivating with their own seeds.

When it comes to credit provision, the Government uses the District Development Fund (FDD) to support the small-scale farmers and others who wish to expand their income generating activities. But the FDD is widely criticised for poor transparency and corruption. People have openly told us that one needs to be in good terms with the local power-holders in order to get a loan proposal approved. And there are examples of farmers who have to pay upfront in order to be allowed to hand in an application in all. Thus, the opportunities of

many ordinary farmers to access a loan from the FDD are deterred from the onset. Cuamba in particular has more alternatives (NGOs, Amoder, Promer etc.), but also there the threshold for credit is relatively high.

Lastly, the issue of defending the farmers vis-à-vis the private companies is a sensitive matter. There are very few employment opportunities in the three study sites, and therefore the government is eager to preserve the few existing private operators existing. In Majune and in relation to MLT, the farmers got particularly upset when the company, two years ago, switched to a new tobacco variety (Virginia), which is more labour demanding than the previous one (Barley). The farmers asked the government to intervene, but as explained by SDAE, their hands were tied. From the point of view of the government, it was better to keep at least some farmers well-paid (i.e. those who accepted to plant Virginia), rather than having no farmers making money at all.

In fisheries, the government has been more directly involved primarily in Lago and through the Institute of Small Scale Fisheries (IDPPE), in the form of supply of credit for boats, motors and nets as well as the establishment of Fisheries Associations and savings schemes. Also here, however, people only partially acknowledge the state's contributions and tend to emphasise the control aspect of the relation to the extent that one *patrão* told us that the real reason for its presence in Meluluca is to "control the boats and fishing so that they can tax us" (owners of boats and gear have to pay an annual tax of 300 Meticaís). However, the main challenge is for the extension officer working for the Fisheries Research Institute (IPP), who records catches on the beach. IPP does not seem to have been able to convey to the fishermen that this is used for scientific purposes that in a longer run should benefit the fishermen themselves.

For the large majority of the population involved in fishing, buying boats, motors and gear is way beyond their economic capacity. For them, savings-groups and a rotating credit fund (*grupos de poupança rotativas*) established by IDPPE and managed by the fishery extension officer has turned out to be valuable. A main reason for its success (as opposed to many similar credit funds in agriculture) seems to be the quick turnover of money in fishing. There are altogether five such savings groups in Meluluca, with members involved in production, processing and marketing.

Each group has a maximum of 30 members, and most of the members are women. They pay 20 meticaís as an entrance fee (*jója*). Each member contributes according to their means and needs, and pays a small fee (*juro*) on what they borrow. Each payment is also accompanied by a small social contribution of five meticaís, which is used for important social events such as marriages and funerals of members. Repayments shall take place within one month, and those who do not pay a small fine (*multa*) of five meticaís. The *juros* and the *multas* are not lent out, but divided between the group members in the end of the year.

3.6 Main Challenges

Ending this chapter, we will give a brief summary of what the local population in Cuamba, Lago and Majune see as the main challenges for their communities (see individual subreports for more details) – as captured in Focus Groups (see earlier Reality Check-reports for comparisons).

In Cuamba water remains one of the main problems, despite the efforts by FIPAG to extend the water supply. Another major problem is unemployment, particularly to the educated youth. The major employment opportunities are in the Public Sector. Other opportunities outside agriculture are mostly in the informal sector. There are still complaints regarding the scarcity of health infrastructure. But these are less pronounced than last year, possibly due to the visible investments that are being done. In relation to electricity, the complaint is not about lack of access, but rather frequent power cuts. People are now less concerned with criminality ("the police is working better") and the quality of the roads (with some having been rehabilitated).

In Lago, access to potable water remains the main problem for both men and women. Everybody depends on the Lake, which creates diarrhoea despite the fact that they boil the water they drink. Further, the women Focus Group highlighted the lack of access to secondary schools, the long treatment of applications for pensions for old combatants, the limited number of women who receive project financing through the District Development Fund (FDD), and finally, the importance of opening the new road to the southern parts of the Administrative Post. For the group of men, the skewed selection of beneficiaries for project financing from FDD, the lack of employment outside fisheries and agriculture and the continuous postponement of electricity from Cahora Bassa (which they see as 'their own') were highlighted.

Illustration 11: Voting for Main Challenges, Lago

	TOTAL	PESSOAS APECTADAS	SERIEDADE DO PROBLEMA
FALTA DE ÁGUA POTÁVEL	36	19	18
FALTA DE APROVAÇÃO DE PROJECTOS PELO P.A (COMPRÁ DE MATERIAL DE PESCA E CHEQUANIMAR)	21	11	10
FALTA DE RESPOSTA POR PARTE DO GOVERNO (EX: SOU 119 DE RESPOSTA PARA pedido de pensão de antigos combatentes)	23	10	13
TEMPO CHUVOSO NÃO HÁ COMUNICAÇÃO TELEFÓNICA MAS CONDIÇÕES DA ESTRADA (ACALDO em MIZONDE)	22	14	8
FALTA DE ESCOLA SECUNDÁRIAS (DEBOL DA 2ª)	30	13	17

Photo: Nair Noronha

In Majune, the three main concerns have been access to water, loss of harvests to wild animals and lack of employment. In Malila, there are only three functioning water posts to serve 3000 families. Many people – girls and women – have to walk long distances every day to fetch water. Although there are fewer reported problems with large animals this year, the number of monkeys and wild pigs has soared. Many children stay out of school to help their parents chase them away. With few jobs available, particularly young people see little point in taking education as long as it

will not lead anywhere. In addition, the women Focus Group ranked high the limited number of, and skewed selection of, beneficiaries for support from the National Institute of Social Action (INAS). Other challenges listed were the limited trade facilities and absence of basic goods, insufficient transport services to neighbouring provinces and lack of a tractor or other mechanic equipment to ease farming.

According to the same groups, the main responsibility for solving these problems rests with the government – even though NGOs are also called upon for more specific projects. There are few cases where people argue that they will solve them themselves – probably equally much the result of a realisation that they do not have the necessary funds and contacts as an unwillingness to contribute *per se*. As we have seen in Lago, for example, people do contribute when they get the right incentives.

4. SOCIAL RELATIONS OF POVERTY AND WELL-BEING

We have seen in earlier Reality Check reports how poverty and well-being is defined on the basis of a combination of income and material assets on the one hand, and the extent and nature of social relationships on the other. The very poorest score low on both, while the best-off tend to have material wealth as well as extensive social networks. While male headed households find themselves on all levels of poverty and well-being, female headed households tend to be among the poorest – although there are exceptions to this rule.

We have also seen that external support primarily comes from the extended family and locally-based organisations (traditional authorities and religious societies), with the State and non-governmental organisations being much less important – at least in the eyes of the local population. According to the Baseline Survey, 30 percent of the households receive some type of external support, and among these 86 percent get support from extended family and 44 percent from neighbours and friends. At the same time 33 percent of the households support others - all of which are male headed households. The figures are relatively equal for all three project sites.

4.1 Organisation of Primary Production

Agriculture. Looking more specifically at the social organisation of primary production, in agriculture most land is worked by the household only, because of the relatively small sizes of fields, the high costs of additional labour, and cultural prohibitions of working for others. Only five percent of the households in Cuamba, Lago and Majune use external labour (The 2011 Baseline Survey).

In Majune, the poor effectively depend on members of their nuclear family (especially if they live in the same house) to farm their land; the ultra-poor depend on their own physical ability or on the kindness of community members to work on their *machambas*; and the better-off hardly ever work on their own *machambas* as they generally hire poor or very poor members of the community as labourers.

More specifically, the better-off households are often led by people who come from other provinces in the country, or by people who have had contact with other regions outside the province or with neighbouring countries. This seems to imply that the better-off households are more creative at identifying their economic activities and that these households have a greater understanding of the risk of only having one income generating activity (agriculture).

The poor households, despite living off agriculture, also usually practice some kind of business in the local community market. When the agricultural season ends, poor families that have accumulated some money from selling products such as vegetables and cash crops (sesame) concentrate on trading maize – buying small quantities from the population (poorer farmers) to store and then resell to the community in hunger periods.

As regards the very poorest, there is a system of mutual assistance and payment for farming work on other people's *machambas* (*ganho-ganho*) which allows some income generation also among such households. Even the less poor households at some stage engage in this work. *Ganho* is the quickest way of earning money without having to sell farming produce; in periods of food scarcity it is the only way poor people can survive.

In terms of the distribution of labour within the household, our findings imply that women generally do planting, weeding, harvesting and protection from animals, while men usually take part in land clearance and harvesting. This means that women and children will stay in the *machambas* for weeks during parts of the agricultural season. Many households, particularly in Cuamba, also practice nomadism and shifting cultivation, which is an ancestral practice but also less productive and with social costs for example for children's education.

The more detailed distribution of work in agriculture, as described by a focal group of women in Lago, is the following:

By women: “Slash and burn [the plot]; make field beds; plant maize, cassava, sweet potato, sesame seeds, beans, pumpkin etc.; remove grass next to the field beds; control that the seeds are germinating (and if not plant more); divide the field in sections for cassava and potatoes for them to have more space to grow and arrange them again; go to the rice field to remove grass; transplant the rice to a better place if necessary; harvest the maize and other planted crops; cut the rice; work the land in order to plant a second harvest in the wetland area; control monkeys in between during the day.” *And by men:* “Cut trees; collect grass for the field beds; cut the cassava in small pieces”.

Despite the central role of women in agriculture, male headed households tend to be the most productive and most successful as female-headed households have problems opening new fields. According to the Baseline Survey, moreover, central intra-household decisions about production and sales of agricultural produce are primarily taken by men, even though 27.7 percent claim that such decisions are made jointly between the household head and his wife or wives. In Cuamba, some interviewees stated that this is changing, and some institutions (NGOs, private sector) promote autonomous female producers of cash crops. But the mentality generally remains male-focussed (see Box). Below, the cases of a successful and a less successful farmer reveal some of the structural constraints and opportunities that smallholders in the three study sites face.

“My husband sometimes doesn’t give me money or let me study.... It’s his money and I cannot ask for it. He gives it if he wants to”

Young married woman, Cuamba

Case 1: One of the most prosperous farmers in the village of Malila in Majune is now an elderly man who started from nothing in 1992. He had lost all his assets, and his health, to the war. All what he had left was his wife and nine children. According to his own recount, the first turning point came with a chicken that a neighbour, delighted to see him alive, offered him. The farmer sold the chicken and with the money, he bought cabbage seeds. In his youth, he had lived in Zambia where he had learned about vegetable gardening, and that was what he now started doing in Malila. During two years he planted cabbage. To boost the yield, he fertilised the soil with goat manure. He sold the harvest and managed to accumulate 2000 Meticais. After two years, he had partly recovered his health and was able to clear a *machamba*. Now he could cultivate maize, peanuts and rice in addition to vegetables. He carried on and every year, he sold one part of the harvest and kept the rest to feed his family. With the earnings, he systematically expanded his income generating activities while also continuing farming the *machamba* and the vegetable garden. One year, he bought fish tanks and started breeding and selling fish. Later on with more funds accumulated, he also bought cattle and planted several fruit trees. Running these multiple activities simultaneously was possible thanks to his large family that participated in every step and shared the labour burden.

Case 2: Chabane Abudo from Lago/Meluluka is a young man of around 30 years, who inherited a small area of wetland (approximately 500 square metres) from his mother. He has a wife and three small children. Having to fish most nights as a *marinheiro*, the small family has problems allocating enough time to agriculture. The field needs near constant care, as there are lots of monkeys and weeds and as watering from wells has to be done by hand. To be able to produce, he has had to invite his brother and his wife to work the field - which means lower production and income for him. Other labour is not available and would have been too expensive in any case. The main limitation, he claims, is the manual watering. If he could have watered his field by inundating it mechanically at regular intervals, he would have been able to have three harvests.

Fisheries. In **fishing** on Lake Niassa, the most important fisheries (for *ussipa*) involves a crew of 8 to 10 people, and the income for each fisherman depends on their position in a strict hierarchy: The owner of the boat, the motor and the net (*patrão*) gets 50 percent of the catch - but also bears the burdens for investments and repairs of the equipment. The remaining 50 percent are divided with one part to 'the motor' (actually going to the *patrão*); two parts for the expert fisherman (*signal*); and one part for each of the other crew members (*marinheiros*). With the incomes involved, it is very difficult for *marinheiros* to earn enough from fishing to be able to invest in their own boat, motor and fishing nets.

Recruitment to fishing units is primarily done from the extended family or the local community, making it possible to employ people of confidence and over whom the *patrão* has social control. However, in the busiest seasons particularly young men are coming from outside Meluluca to work *marinheiros* more on an *ad hoc* basis. They either rent a room or sleeping space with local families (as with one of our Focus Households, see below), or sleep in huts in one of the fishing camps (*acampamentos*) along the coast of Meluluca. These tend to be the first to lose their jobs when fishing is poor, and usually go back to their villages in other parts of the Niassa province.

The processing and commercialisation is also primarily done in cooperation with family members (often one of the wives of *patrão*) or other people in the local community. Also in this case, however, people come from the outside during times of large production. Most of the *comerciantes* are young men, who try to make a living often with very small profits as their bargaining position vis-a-vis the fishermen is relatively poor. The most lucrative occupation in the chain of commercialisation seems to be the transporters, who are in a good bargaining position as young men desperately try to get their fish to the markets in Metangula, Lichinga or neighbouring countries before it is damaged.

The case below shows the potential for developing successful economic enterprises and create employment in fishing, but also the importance of credit in order to become a boat owner (*patrão*) and not remain a hard-working but poorly paid *marinheiro* throughout one's life.

Case 3: Jamel Pinto is one of the most successful fishermen in Meluluca, and owns three boats (with their accompanying *boti-bwato* and *bwato*). Mr Pinto has two wives and a total of 10 children, who all live close by each other. His father was a fisherman, and he was supported by him when he got his first boat. The only external support he has received was credit from the Ministry of Fisheries for a second boat and motor, which he claims that he has repaid. Jamel Pinto employs close relatives (a brother and two brothers-in-law) in each boat, but otherwise prefers to use *marinheiros* from outside Meluluca who he argues work harder as they have 'nothing else to do'. His first and second wife cooperate in drying and selling the catch, also to the extent of looking after each other's children when one is away. Their earnings are kept within their own household, and in addition to daily expenditures are primarily used to cover costs related to the education and health of their children.

Alternative employment. Finally as regards employment outside the primary sectors, there is a clear gender division in all three project sites with women primarily working with informal trade of agricultural products and men with sale of commodities and various artisanal activities and trades (see Chapter 3.4). This is partly the outcome of cultural and religious prohibitions against women working and earning money on their own, and partly because many of the artisanal activities demand initial investments that women cannot afford or have access to.

There is also a generation gap here, in that (at least from the point of view of elders...) young people are reluctant to get into the hard work and drudgery of agriculture and seek other 'easier' sources of income. Many also stay at home and live off their parents longer than both parties want. To marry 'properly' with bride wealth, a socio-culturally acceptable wedding and a separate dwelling and plot of land requires resources that most young men do not have. Young girls continue to marry early in accordance with tradition and spurred by poverty – either with young men their own age or with older men as a second or third wife.

The dream of everybody, young and old, is to find a "real job", a long-term job that guarantees regular payment. But there are currently very few prospects for obtaining such a job in the communities under study. That is why, people say, the young are not motivated to go to school or to study. It would be, in their view, a waste of time. Rather, they just hang around doing nothing and try to come up with ideas for a possible self-employment. For girls who have more responsibilities at home and in the *machambas* from an early age and are often expected to marry, 'revolting' against social cultural expectations this way seems more difficult. The cases below exemplify the potential, as well as the socio-cultural constraints, of developing self-employment and income in the three local communities under study.

Case 4: Lucas Mussala in Lago/Meluluca used to fish and owned a small 'barraca'. In 2011 he received 160,000 Meticaís from the District Development Fund, and expanded his 'barraca' to a shop. It went very well for a while, but he has lately experienced problems with both his wives being frequently sick and with frequent problems at the border with Malawi where he buys most of his goods. Mr Mussala himself attributes this to witchcraft, arguing that there are people who do not like his success. Still, he is optimistic about the future, and states that he knows how to do business because he has managed seventh grade and has taken a short course in accounting (with the NGO Concern) which has made it possible for him to calculate both incomes and expenses "which most people do not do". He is also hopeful because he has managed to send children to secondary school, even though none of them seem interested in moving back to Meluluca.

Case 5: In Cuamba, we were introduced to a woman who has received financial support from Amoder and sells vegetables and eggs in the market. She is assisted in her activity by a younger brother who goes to Malawi to buy the eggs. She has accomplished enhanced economic independence, and already managed to improve her house and buy a motorbike. She has also separated from her first abusive husband, and is now married to another who buys pots in Nampula and sells them in Cuamba. Selling in larger formal markets is still primarily a male activity in Northern Mozambique, but there is a change going on in urban areas like Cuamba.

4.2 Food and Nutrition

We have emphasised throughout the Reality Check series of reports that poverty is a multifaceted concept (see ORGUT 2011), and access to sufficient food and proteins is a central aspect of the well-being of households in the three communities under study.

Eating is economic as well as cultural. People eat what they can afford and have access to, but also what they are customarily used to. In discussing these issues with a group of women in Lago/Meluluca, they emphasised how some households have three meals a day while others can hardly afford one. Most people eat the basic staples of cassava or maize porridge (*ntchima*), with a side-dish (*ndiwo*) in the form of leaves, beans, fish or meat – depending on their economic situation and the time of the year. Ideally an accompanying liquid sauce (*nsuni*) of tomato, oil, onion and salt should be added to an *ndiwo* to improve its texture, taste and health provisioning properties – but this is usually a 'luxury' for the few.

People also eat fruits (such as bananas and mangoes) when in season, and bread (usually seen as a sign of improved living conditions) is becoming more common. At the same time, the male household head is given a clear preference when '*ndiwo*' is served and for other foodstuffs - with the wife and children often eating separately from him.

The foodstuffs that the group of women identified as the best (*os melhores*), such as chicken, larger fish (i.e. not *ussipa*), onions, tomatoes and potatoes are primarily eaten for special occasions such as births, marriages and deaths or to entertain visitors. The extended family is usually mobilised to supply food, but serving food still remains a heavy toll on the host's resources. Entertaining visitors is a very important determinant of one's social status. When family members or other people arrive they expect to be treated well by being given a chair

to sit on (with only a reed mat or *esteira* being seen as a clear sign of poverty), and a meal with proper *ndiwo* – or ingredients beyond the cassava/maize porridge or rice.

The time of our Baseline Survey was September 2011 and hence an ‘intermediate’ time of the year in terms of access to food. It was 3-4 months after a reasonable harvest (the most

Illustration 12: *Eating the basics, Lago*



Photo: Nair Noronha

difficult time of the year in terms of access to food is the first three months of the year, i.e. at the end of the agricultural cycle), and fishing had been good. Table 14 shows the types of products eaten in the week before the Survey. Our Baseline Survey also shows that 48.6 percent of the households in the three study sites spend less than 250 Meticaís on food the week, and that as many as 35.0 percent of the households have to spend money and food during the month of harvest and only 31.7 percent have food stocks that last five months or more after harvest. At the same time, the Baseline Survey shows that 34.2 percent of the households have at least one month per year when they eat only one meal per day.

Table 14: *Food-Products Consumed the Week Before Baseline Survey (Percentage)*

Food product	Cuamba	Lago	Majune	Total
Meat	29.2	18.3	31.7	26.4
Chicken	13.3	30.8	24.2	22.8
Fish	78.3	99.2	77.5	85.0
Porridge/Rice	99.2	100.0	100.0	99.7
Vegetables/Leaves	95.8	98.3	97.5	27.2
Bread	55.0	54.2	16.7	41.9
Milk	7.5	24.2	10.8	14.2
Eggs	13.3	27.5	12.5	17.8
Fruits	22.5	63.3	57.5	47.8

Source: *The Reality Check Baseline Survey 2011*

4.3 Family and Household Dynamics

Moving on to changes in poverty and well-being at the level of households and individuals, we showed in the 1st Reality Check that people in the three study sites have clear perceptions about there being different levels of poverty (*wakulaga*, *olemela*, *ohawa*) and well-being (*wakupata*, *umphawi*, *okhalano*), and what that entails for people’s options for social mobility (ORGUT 2011e). To systematically pursue issues of poverty, wealth and social mobility, we have selected a total of 22 households from the different categories that are visited every year to ascertain possible change.

The situation of the selected households in terms of composition, economic adaptations and perceived challenges was presented in the 1st Reality Checks (ORGUT 2011e). In the 2012 Reality Check (ORGUT 2012d), particular attention was given to the perceptions and experiences of the households with public institutions and governance. This year, special emphasis will be given to perceptions and experiences with agriculture and employment. Below we will give a brief summary of the situation of each household in 2011 and 2012, and focus on changes between 2012 and 2013 (for more details, see each sub-report).

Table 15a: Levels and Characteristics of Poverty and Well-Being in Cuamba (Macua)

The Poor	
<i>Ohawa vanchipali</i>	The very poor. Those who do not know how or where they are going to get their next meal.
<i>Ohawa ovelavela</i>	The relatively poor. Those who have no initiative to take themselves out of poverty.
<i>Ohawa vakanene</i>	The transitional poor. Those who have least two meals a day.
The Better-Off	
<i>Opunha</i>	The 'wanna be' rich. Those who enjoy life without being necessarily rich.
<i>Okhalano</i>	The truly rich. Those who have it all.

Family 1 (Olupwana ohawa vanchipali). This is a man who is living in his ex-wife's yard, thanks to their daughter, who also lives there after having been separated, taking pity on him. He is elderly, weak, has problems with his eyesight and unable to produce his own food. None of his other children, who live in Nampula, will take him in. He lives on what his ex-wife produces in the fields and cooks for him. She is also elderly, and unable to produce in excess.

Developments in 2012-2013: The daughter with whom the man lived has died since last year. Tensions have escalated between the man and his ex-wife, as she is asking him to leave. She says now that their daughter is gone he should not continue living there. A medical team operated on a number of elderly, and the household head was operated and regained his eyesight. However, he says that he cannot cook for himself because his eyes are too sensitive around fire and smoke, and he runs the chance of blinding again. The ex-wife cooks for him, but she will not fetch water for him. She alleges she is as old as he is, so he should get the water for himself.

Family 2 (Ohawa vanchipali). In this family, the head of the household lives with three of her grandchildren. The children were sent by their mothers, who live close by, to help with the domestic chores. The daughters of the household head are farmers and sell their produce in the market. Their mother has problems with her eyesight and is unable to cultivate her own food. She gave her land to one of the daughters to farm. The household is completely dependent on support from relatives.

Developments in 2012-2013: The head of the household resided with her mother until last year, when the latter passed away. The house where the head of the household's mother lived is still there, but is now abandoned. A few meters from it a grandson of the head of the household is building a house. He used to live in Lichinga, and worked as a temporary worker. The company where he worked went bankrupt, so he decided to return to Cuamba. The head of the household is currently in Lichinga, in her son's house, to operate on her eyes. While she is away, one of her unmarried daughters tends for the grandchildren left alone in the house.

Family 3 (Mutiana ohawa vanchipali). This is an elderly traditional healer who lives with her daughter. The daughter is a farmer, but the family mostly lives off the woman's healing. She is currently teaching her daughter to become a healer too, asking her to pick the herbs and assist in preparing them. She used to be a combatant during the independence war and is a strong Frelimo supporter. She has recently been approached by the opposition party MDM because of her outspokenness, but even if she feels abandoned by Frelimo she will not change parties. One granddaughter lives nearby and sometimes helps out with domestic chores. One grandson mines for garnet stones. Another grandson works as an informal electrician in the neighbourhood. They all live in their own houses.

Developments in 2012-2013: The woman had problems with her eyesight. The medical team who operated on the 'olupwana ohawa vanchipali' (Family 1) also operated on this traditional healer. Due to the operation she has regained her eyesight. She is thus able to work on her healing again. She is confident and positive, and has even been invited to treat someone in

Lichinga. Last year her daughter had a husband who helped put the roof over the roofless house, but she had to sleep outside so the couple would sleep inside. This year the husband is gone. He was a miner in Montepuez. He turned ill, and on his return from the mines he decided to go back to his previous wife. This family has improved their living conditions and are no longer as vulnerable as they were before.

Family 4 (Mutiana ohawa ovelavela). This family was headed by an old woman who had died when we visited the household the year after our initial visit. Her daughter became the head of the household. The new head lives with two minor sons, and in her yard her eldest daughter lives with her own husband. The woman's son-in-law works, and the women are farmers. The mother sells her produce at the market.

Developments in 2012-2013: Last year the oldest daughter refused to go to the 'machamba', but this year she is helping out and says that hunger drove her to it. The money they make just is not enough to make ends meet. Otherwise there have not been many changes in the family. The daughter's husband changed jobs, from a pharmacy to a restaurant. The grandmother's absence is noticeable through the young boys, who grow increasingly restless. When the grandmother was alive she was strict and would watch over them when their mother was absent in the fields or the market. Presently neither women in the house are able to control the children, as they are trying to provide for the house.

Family 5 (Ohawa ovelavela). This family is composed of a disabled couple. She has a lame foot and he has lost part of his extremities due to leprosy. They live with a grandson. Their daughter died last year. The other son makes a living from occasional work and is seldom around. He also contributes little to the parents' home. They have a field where they produce what they can, which with their reduced physical ability is not much. They receive support from INAS, and when in extreme need also from neighbours. The man also begs on Fridays.

Developments in 2012-2013: Not much has changed with this family. One of the roofs that was falling down last year was recovered by the neighbours. Relatives have lent the man a bicycle to go to the fields. They also gave chicken for a festive day. This is a slight improvement from the previous two years when they said their family and neighbour network was weak.

Family 6 (Okhalano). This is a rich family. The head of the household has two wives, each living in their own house, with the respective children. He has two stores. One is managed by him and a son from the first wife. They sell basic food staples. The other store is rented out to Nigerians who sell car parts. The family also sells the surplus of whatever they produce in the machambas, and rent a truck to carry products or transport logs to Lichinga. They also have a mill. The first wife manages the crop production. They contract 'ganho-ganho' workers to cultivate, plant, weed and harvest. The husband pays the workers. The children only help out during school breaks. During harvest the first wife moves to the fields to oversee the work personally.

Developments in 2012-2013: The head of the household has received cattle from the Municipality, as part of a District Development Plan. When the cattle reproduces he has to give back the same number of calves as he has received. He has tried to apply for the '7 million' both in Cuamba and Ngauma, where he was born. In Cuamba he did not get any, but in Ngauma he did because he has influential friends. However, because he is not residing in Ngauma it was eventually taken back. The best grown crop in 2013 was maize. He will wait for the scarcity months (August/September) to sell it at a higher price. Rice was the worst crop, because the rain ended too soon. He intends to produce tobacco, because it is more profitable than cotton. His reasoning is that too many people are producing cotton, which lowers the price. But the new tobacco requires different techniques, and is more difficult to grow.

Table 15b: Levels and Characteristics of Poverty and Well-Being in Lago/Meluluka (Nyanja)

The Poor	
<i>Osowedwa</i>	People who do not have money, and no clothes. They are not in a position to marry because they do not have the necessary material means and no one wants to marry them. They depend on others.
<i>Chilekwa</i>	Men and women who are lazy (<i>preguiçosos</i>), and who do not contribute anything to the community.
<i>Masikini</i>	Men and women with physical or mental deficiencies.
<i>Okolamba</i>	Older men and women who do not have support from their family because no one is close to help.
The Better-Off	
<i>Odjifunila</i>	People who manage well (<i>desenrascar</i>) in their daily life, and who do not depend on others.
<i>Opata</i>	People who are in a position to give informal employment (<i>biscatos</i>) to other people in agriculture, fisheries and construction.
<i>Olemela</i>	People who have a car, who have companies in (Metangula), who pay fixed [monthly] salaries to their employees, who have a bank-account and who sell products coming from Malawi and Tanzania.

Family 1 (Osowedwa I). The household consists of a couple with six children from 2 months to 19 years of age. They have two *machambas* and the husband makes and repairs agricultural tools and doors – for which there is limited demand. The husband claims his family has always been poor, and he has no relatives left. The one person they rely on in times of crisis is the wife’s uncle, who lives close by. The main change between 2011 and 2012 was that the oldest child had to leave his studies in Metangula because the family could no longer pay for his accommodation. Concerning relations with the State, the family claimed that “up till now there have been no reasons for complaints [about our relations with the State] except that there are no medicines at the Health Post”.

Developments 2012-2013. The household continues to work hard, even though the head complains that his oldest son does not contribute as he should despite having been given “part of my *machambas*”. The head also had to give up plans of making canoes, as the ‘mestre’ stopped working. He continues to produce agricultural tools, window frames and doors, but has had to reduce the price as not enough people bought them. He has extended his range of products by producing bamboo frames (*cestos de bamboo*) that people use to prohibit soil from falling into latrines. With his wife, Osowedwa I works hard on his *machamba* about two hours walk from his house and produces both cassava and maize – albeit without getting enough for sale. He also has a *baixa* that he inherited from his mother, but this year they did not manage to plant tomatoes as planned. Through their hard work the large family manages, but without being able to produce a surplus.

Family 2 (Osowedwa II). The household consists of a single mother, one of her two children and the child of an older sister who lives permanently with her. Her oldest daughter is 15, has a child and just moved in with a man in the neighbourhood. Osowedwa has no contact with the fathers of her children, and never receives any type of support. She has a small *machamba*, but survives by selling small *bolinhos* and raising chickens and ducks, and gets fish when she rents out a small shack to fishermen. In 2012, Osowedwa depended on support from her brother, and income from renting out a part of her dwelling to a fisherman. She had stopped selling *bolinhos* because the price of wheat increased, and the chickens she used to sell died. The household’s relation with the State is solely through the school and health services. She is pleased with the former, but very dissatisfied with the latter. The household did not receive any support neither from traditional nor from public institutions.

Developments 2012-2013. The situation for Osowedwa II has deteriorated. Her brother has left the village, and does not support her any more. Moreover, her married daughter is in a difficult situation and cannot continue to give her a helping hand. The household head’s

health situation has also become worse, but she does not have money to find out what the problem is. Her *machamba* is relatively close by and she has managed to produce cassava, but not enough for her small family (“We have not eaten anything today”). She used to have a small field in a *baixa* area where she produced rice, but does not have the strength to water. Even the small income from renting out a room to fishermen is not coming in any more, as the fishing is so poor. At present, she totally depends on support from neighbours.

Family 3 (Chilekwa). The household consists of an old widow as the household head; her daughter with three children for whom she does not get any support; and her granddaughter of approximately 15 years who has a child of 3 months and a husband who is usually ‘out travelling’. The three women live separately in small dwellings, but claim they belong to the same household as they ‘eat from the same pot’. They have a *machamba* but do not produce anything (‘we don’t have husbands who can help us’), making a living from working in the fields of others and helping out with small chores for neighbours. Between 2011 and 2012, the main changes were the construction of a small house for the household head, as the old house had fallen down. The family only has direct contact with the State through its health services. Even though the household is very poor, they still don’t get support from the community.

Developments 2012-2013. A new dwelling has been constructed with the help of a son of the household head after her dwelling had fallen down – making the compound consisting of three small dwelling units “but still without a latrine”. The relation with neighbours has improved, but the women acknowledge that they do not get much involved with them. This year they have managed to produce cassava, and a little maize, beans and sweet potatoes. They tried to plant maize close to their dwellings, but it was robbed. The household still depends on working in the fields of others (*ganho-ganho*), for which they may get the maximum of one small basket (*cesto*) of cassava per day of work. They do sometimes get a little help from the son of the household head who is a fisherman, but basically continue to struggle as a relatively isolated household of unmarried women.

Family 4 (Masikini). ‘Masikini’ lives alone with a heavily handicapped boy of around eight years of age. Their one-room dwelling is nearly falling apart. She has a total of five children, with the other four being married and living elsewhere in Meluluca. Her fortunes changed in 2009, when her husband died and she lost her main source of support. Her main source of income is a few chickens, and she also makes mats (*esteiras*) when she can get hold of the material. Her neighbours, she says, can only afford to give “moral support”. In 2012, the main source of income was the production and sale of reed mats, as the chickens had died. The main change was that her handicapped son was able to walk and move around alone, with the help of a *curandeiro*. Her relationship with the State had been through the Health Post, but they “did not have any medicines”. The family did not receive any support neither from the State nor from the community.

Developments 2012-2013. The main change in the situation of this household is that their precarious dwelling has fallen down, and Masikini has been offered an alternative house by an older man who had one vacant. She does not have to pay anything. Otherwise her life continues to be influenced by her handicapped son. Now being able to walk he often leaves on his own, and is frequently beaten by other children and even adults. She has also had to abandon her activities of making reed mats because straws are difficult to get hold of. Masikini has tried to collect firewood, but it is difficult because she can only be away for short periods during the night when the boy sleeps. Her only *machamba* is far away, and she has only managed to produce a little cassava. Her three children have stopped supporting her because they are “not very well married”, and she basically depends on hand-outs from neighbours.

Family 5 (Okalamba). The household consists of two elders living in a one-room dwelling, and a small *machamba* is their main source of subsistence and income. Their field is far away, and as they are old they do not have the strength to work much. In addition to themselves, they also have the *de facto* responsibility for several grandchildren who come to stay with them for longer or shorter periods of time. They sometimes get support from the

wife's oldest brother's oldest son in Metangula, who once supplied fishing net to a fisherman on the condition that he gave fish to Okalamba. Arriving at the dwelling of this household in 2012, we were told that they had not been present for a couple of weeks as they had managed to open another agricultural field with the help of a relative.

Developments 2012-2013. The old lady in this household, who we were not able to meet in 2012, turns out to be the first wife of a polygamous man who only stays with her in between. Three grandchildren have moved permanently in with her. Only one of the children's fathers help out with a little money for education. The new *machamba* they had opened last year turned out not to yield any produce and has been abandoned, and they remain with one rainfed field where they produce cassava ("sometimes with good results") and a small wetland area close to the Meluluca River originally owned by her mother. There she produces rice, but this only gave three *latas* (approximately 60 kilo). In a poor year like the current they depend on doing *ganho-ganho* for others. Still Okalamba is determined to work hard for her grandchildren – referring to her earlier experience as member of OMM.

Family 6 (Odjifunila). The husband is 46 years old, lives in Nchepa/Ngala, and has two wives and a total of 15 children. Odjifunila claims he grew up under poor conditions, moving between Meluluca and Malawi. Returning to Meluluca he worked hard in his *machambas*, and ended up being able to start selling fish (and marrying a second wife). His business received a boost in 2008 when he received funding from the District Development Fund. In 2010 his first wife also became involved in commercialisation of fish – again with a loan from the '7 Million Scheme'. Odjifunila sends all his children to school. When visiting the household in 2012, we learnt that illness of the second wife had compelled the household head to stay with her at the hospital in Malawi for close to four months – but he worked hard and managed to re-establish his fish-sales through good contacts.

Developments 2012-2013. The size of the household has returned to 'normal', as one new child has been born after one who died last year. Odjifunila still divides his time equally between his two wives, and 10 of his children go to school including three in higher education. The family has three *machambas*: one close to the dwelling where they cultivate cassava, one in the highland area where he grows sorghum and sweet potatoes, sesame and fine maize (*milho fino*), and one in the baixa area where they grow rice. In addition, Odjifunila is part of an association who owns and cultivates a field together. They employ three or four people working for them against pay in cash or kind. Odjifunila usually sells his surplus in Metangula, where "prices are twice as high as in Meluluca". The involvement in buying, drying and selling fish in Metangula and Lichinga has seen a temporary halt as most of his money has been spent on the illness of his second wife and the education of his children, but he is currently in the process of borrowing money from people he knows ('*conhecidos*') in order to re-establish his business.

Family 7 (Opata). 'Opata' left for Malawi at long and regular intervals during the two wars. Returning in 1995, he started out producing tobacco which gave sufficient income to start other small businesses. One was to sell dried fish and the other *capulanas* - in both cases using his contacts in Malawi. The business went well, and Opata eventually managed to invest in larger boats and cattle. He now has a total of five boats, over 30 heads of cattle, and 15 goats. His economic success has also had social implications: He has expanded his family and has a total of four wives and 20 children between 23 years and one month of age. During 2011-2012 the main changes for the household were the illness of the oldest child, who was followed up well both in Mozambique and Malawi. Otherwise his business continued to expand.

Developments 2012-2013. The household continues to do well – except for the oldest child who has become sick again. The head's businesses develop 'little by little' (*pouco a pouco*): He has increased the number of cattle to a total of 48, and sells each cow for between 10-15.000 Meticaís. Fisheries is also going well, insisting that the current dearth in production is only temporary. With new funding from the District Development Fund he has also opened a new shop (*barraca*) in Metangula in addition to the one he has in the community where he lives. The household also has four *machambas* in a wetland area primarily with maize,

cassava and rice, managed by each of the four wives. Opata insists that there are possibilities to earn money in Meluluca, but points out that "People are different. There are those who manage to make their money grow and those who do not".

Table 15c: Levels and Characteristics of Poverty and Well-Being in Majune/Malila (Yao)

The poor	
Mazikine	Men and women who are physically disabled. The <i>mazikine</i> live on their own and depend on external assistance to sustain themselves.
Wakulaga n'nope	Men and women who have difficulties to cultivate. These households often consist of one adult only. They depend on external assistance, at least one part of the year. They live in dwellings built with mud bricks and straw. They have no furniture, not even a straw mat.
Wakulaga panandi	Men and women who live on agriculture and are unemployed. They live in dwellings built with mud bricks and straw. They do not have furniture, but normally a locally built bed and perhaps a few chairs. The diet consists mainly of what they cultivate. They may own a bicycle, a bucket and a straw mat.
The better-off	
Wakupatha panandi	Men and women who live in proper housing structures, and who may have a car. They may run a business, or have employment. They may do some farming works, but they do not depend on their harvest. They have kitchen utensils, buckets, telephone and some also a TV. This category includes the teachers, nurses and other civil servants.
Wakupatha	People who run their own business. They have other people working for them, and they do not depend on farming. They have one or more residential buildings, built with cement blocks, proper roofing, and furnished. The <i>wakupathas</i> eat well, drive cars and "have everything".

Family 1 (*mazikine I*). A divorced man who, as a child, had polio. He was married and has an adult son who lives and studies in Muembe district of Niassa province. About ten years ago, *mazikine 1* lost his sight – possibly due to cataracts – and his wife left him. Since then, even though he recovered his eyesight through surgery paid for by Catholic nuns, he has not remarried. *Mazikine 1* lives alone in a small hut built from adobe bricks and covered with straw. He supports himself by repairing old pots and buckets. On bad days, when he has nothing to eat, he asks his neighbours for help.

Developments in 2012-2013: there have not been major changes to *mazikine 1*'s sources of income; he continues to depend on the help of his neighbours and on repairing pots and buckets, charging between 30 and 50 MT for each repair. Despite being irregular, the Social Security (INAS) subsidy continues to provide financial support to *mazikine 1* – in 2013 he received this only once. This year his ex-wife fell ill and died. This resulted in a reduction in one of *mazikine 1*'s sources of support – despite being separated, his ex-wife used to help with food in periods of critical need. This year we noted that, despite some difficulties in movement due to physical disability, *mazikine 1* has a small *machamba* where he grew a small amount of corn.

Family 2 (*mazikine II*). The family comprised a male widower who had four adult children living in Malawi. *Mazikine 2* had become ill some time ago and one of his legs atrophied, which meant he was no longer able to work. *Mazikine 2* lived alone in Malila in a small hut built by the community. He depended on the community for food and on a niece who sporadically cooked and brought water so he could wash himself. In early 2013, his illness worsened and he passed away.

Family 3 (*wakulaga n'nope I*). This household is headed by a single woman thought to be well over 40 years old who has three children (two girls and a boy) aged 15, 10 and 9. The woman broke her foot in the war and since then has limped painfully. The household has a

small *machamba* which supports the family for part of the year. When there is no produce from the *machamba*, the woman and her oldest child do *ganho-ganho*, working on other people's fields in exchange for food or money which they use to buy soap and salt. When they are not able to engage in *ganho* or cultivate their own *machamba*, *wakulaga n'nope 1* depends on help from her sister's household or receives help from neighbours. However, it is more common for her to ask for bran (*farelo*) from people in the village and to gather sweet potato leaves (*n'tolilo*) in the bush for her food. She has yet to be allocated an INAS subsidy and there is no prediction of when she will be registered in the system.

Developments in 2012-2013: In 2013, just like the year before, *wakulaga n'nope 1's* vulnerability increased. She and her children now live under a shelter that has no walls. Her sister is still sick and was not able to grow any crops this year. Two of her nieces got divorced and live now with her sister. This year her sister's husband returned to the village and he is engaged in *ganho* to support the family. In 2012-2013, *wakulaga n'nope 1* grew sorghum and maize, but the latter never germinated. Whilst we were in the community, she still had sorghum to harvest, but said it was not enough to feed the family for long and that it would also be shared with her sister's household. This year, *wakulaga n'nope 1's* oldest daughter is helping an aunt in selling oranges at the market place of Malanga, and gets some food in return.

Family 4 (*wakulaga n'nope II*). In 2011, the household was headed by an older widow with her disabled adult daughter and four granddaughters. No one was able to cultivate the land; the household lived on what they received from their neighbours. The household composition changed dramatically in 2012 when the old lady died. Since then, the disabled daughter and her daughters have moved to live with her sister and her husband in Malila. The sister and husband grow crops and support the whole family with what they manage to grow. The three oldest daughters of the disabled lady were going to school but had to drop out. The old lady who died used to receive 130 MT from INAS, but her disabled daughter receives nothing.

Developments in 2012-2013: *Wakulaga n'nope 2's* vulnerability is increasing year by year. This year *wakulaga n'nope 2's* oldest daughter married and is living in another village with her new family and has no contact with her mother. The sister who took her in after the death of their mother seems physically more worn out than in 2012. From the end of 2012 to May 2013 she was separated from her husband, a fact that diminished the family budget and reduced labour on the family plot – even though when we arrived in the village in June 2013, they had just been reconciled. The family home is in a worse state of repair and the fencing has been completely destroyed by wind. This year, *wakulaga n'nope 2's* sister grew a small amount of maize because she was not able to count on help from anyone other than *wakulaga n'nope 2's* small daughters. The harvest was poor and will not last long. *Wakulaga n'nope 2's* children do not go to school and there appears no awareness among the adults in the house of the importance of education.

Family 5 (*wakulaga n'nope III*). This household comprises an older couple – husband and wife. The husband is almost blind and the wife has other health problems that limit her physical movement. The husband is a traditional leader from the lowest category (3rd category); he inherited the title from his late uncle and participates in meetings with other traditional leaders and government. The couple had two children, but both died some years ago. The couple supports itself with a subsidy from INAS. The husband and wife each receive 130 MT a month. When the money runs out or when INAS pays late, the couple ask neighbours for help. This household only became involved in the Reality Checks in 2012.

Developments in 2012-2013: Financially the couple are better-off as the husband was formally recognised by the District government as a 3rd category leader and, consequently, now receives occasionally a government subsidy. Unlike in 2012, this year the couple grew crops on a *machamba* cleared by a young person from the community to whom they paid 1000 MT for the service (money saved from their INAS subsidy). On this *machamba* the couple grew maize and bóer beans. The harvested maize is stored in a small granary by the house and the bóer beans are collected when they want to eat them. Other products are purchased in the community markets or received from neighbours. In relation to our last visit

(in 2012), the couple appears physically weakened due to their age and their health problems. Were it not for the INAS subsidy and the traditional leaders' subsidy, this couple would be extremely vulnerable as they have no family that could support them in a crisis and depend only on the goodwill of others. Access to other sources of income places them in a better economic position in relation to other *wakulaga n'nope* in the community.

Family 6 (*Wakulaga Panandi*). The household comprises a couple and their four children. The husband is about 45 years old and his wife about 30. The oldest child is six and the youngest one year old. Their household has three rooms and is on a large, fenced plot of land. The couple is from Malila. When she was younger, the wife lived in an aunt's house in Malawi for 5 years where she learned about farming. The husband has never left the village. The couple have no school education. The household only lives from farming (they have a 3-hectare *machamba*) and animal husbandry (10 goats, received with the support of a Spanish NGO – Mundukide). The two times we visited this year, the couple's oldest child was in the field with his father, where they had spent the night chasing off wild animals. The *wakulaga panandi* considered this year's harvest unsatisfactory as they thought the maize would not last until the next harvest. When the maize runs out, the couple will engage in *ganho* in other people's fields. This is a new household that was included in the Reality Checks in 2013. According to *wakulaga Panandi's* wife, life has not changed since 2011.

Family 7 (*wakupatha panandi I*). The household is headed by a 40 year old widower. Some years after the death of his first wife, he remarried. He has 6 children with his late wife – all living in Lichinga in a house provided by *wakupatha panandi 1*. He also has two children (a boy and a girl) with his new wife with whom he lives in Malila. *Wakupatha panandi 1* earns his living through a transport business. In 2012, his youngest daughter was born, the household made improvements to the house which is one of the few in Malila built with cement blocks and that has a solid roof, and they bought a new and more powerful generator.

Developments in 2012-2013: Since 2012, the main changes to the household include construction of a brick kiosk in front of *wakupatha panandi 1's* house. In addition to cold drinks, the kiosk sells essential products bought in Lichinga. The stall has a generator which provides light and enables playing music. Work on *wakupatha panandi 1's* house has not progressed much because, according to him, he had to channel his resources into building the kiosk. In 2013, *wakupatha panandi 1* also achieved his dream to work in construction and he was awarded a public works contract by the district government to build a waiting home for pregnant women¹¹ at the health centre in the district capital, Malanga. He is employing six people for this project. Towards the end of 2012, he began an agricultural supply and marketing business, but gave it up as it was very difficult and required trustworthy people. This year, as in 2012, the family also grew rice on a 1 hectare *machamba* supervised by his wife with support from casual labour hired from the community.

Family 8 (*Wakupatha panandi II*). The household consists of a husband, wife and their three children. The husband supports the family through a transport business which he has been managing for years together with his older brother, who died in 2012. Since then, *wakupatha panandi 2* has been supporting both his own and his brother's family. In 2012, *wakupatha panandi 2* began to buy and resell maize and fuel. Both businesses are being looked after by his wife. In addition, his wife runs various small businesses from home. Two of his children (girls) live with *wakupatha panandi 2's* sister-in-law in Lichinga where they go to school. His youngest child (a boy) lives with the couple in Malila.

Developments in 2012-2013: In 2012 the family earned a lot of money selling maize and fuel in Malila and this year they continue this business. *Wakupatha panandi 2's* wife stopped running her business to recharge cell phones and is focussing on selling fuel, agricultural trade, and selling credit for cell phones. This year they have only grown maize for their own consumption, but the harvest was very poor because *wakupatha panandi 2's* wife became

¹¹ The waiting home (*casa de mãe espera*) is where pregnant women who live in communities a long way from health facilities wait until they are ready to give birth.

pregnant and could not go to the fields to supervise the field labourers, who therefore did not do a good job. Due to the pregnancy, the family has been living temporarily in their house in Lichinga for the last three months.

Family 9 (*wakupatha*). *Wakupatha* is a 56 year old man with two wives: the first in Lichinga and the second in Majune. He has a total of 16 children. All, except the very young ones, go to school; the oldest are at university in Cuamba city. He manages a variety of businesses, including a small shop, a boarding house and a construction company in Malila, and a transport business in Lichinga. Both wives take an active part in the husband's businesses and do not grow crops.

Developments in 2012-2013: In 2013 *wakupatha* was removed from the District government's list of preferred constructors because it considers his work of poor quality. The other businesses appear to be doing well. Nonetheless, *wakupatha* admitted his income is being affected by the expenses with his children who are attending university – he pays over 55,000 MT for each of the three children per year in tuition, food and accommodation costs. Nevertheless, he believes this is the best investment he can make so his children can prosper in the future. *Wakupatha* admits his businesses have not grown over the last two years because of increased competition in the district. This year he grew 3 hectares of beans and maize which has yet to be harvested. He hopes to harvest 20 sacks of maize and thinks if they collect a lot of beans he will be able to sell them in the local market. He employs seasonal workers hired from the community on his *machamba*. In total, including all his business activities, he employs 11 people.

4.4 Social Mobility and Gender

As in the 2012 Reality Check, the general picture presenting itself on the basis of the focus households is one of non-mobility for the very poorest and upward social mobility for families who are already relatively well-off. The structural constraints are simply too difficult to surpass for the poor, and investments outside of agriculture require resources that the poorest don't have. If anything, it seems easier for the poor to fall down to the categories of ultra-poverty (extra expenses for health, poor harvest etc.) than to climb in socio-economic terms.

Being a female head of household only seems to exacerbate the difficulties of social mobility due to existing social-cultural, as well as practical, connotations of not having a husband. As discussed in earlier Reality Checks, while the position of women is relatively strong due to the matrilineal system of kinship, they are still expected to marry to become "whole person" (just as single men are not considered to be fully 'adults'). Divorce is relatively easy to accomplish with the support of the extended family, but it is difficult to get married again, particularly if children are involved. As we have seen, women are also prohibited from – or not expected to – doing a number of tasks in agriculture and fisheries.

Being poor also makes it difficult to plan for the future. Their main concern is to 'kill their hunger' (*'matar a fome'*), which makes it necessary with *ad hoc* decisions such as working for others for immediate returns rather than invest in one's own field. Keeping children away from school to help in the field, or postpone going to the hospital to seek help when sick, will also jeopardise the longer-term options for upward social mobility. When asked about future plans, one respondent replied (see Box):

"I have no idea [about what to do]. I know I am suffering, but I have no idea about how to improve my life."

Poor woman, Majune

It seems the most important element for reaching the higher socio-economic categories is to have income that allows you to circulate money and sustain shocks – i.e. to be integrated into the monetary economy. We have seen several cases where the combination of knowledge (often acquired from longer-term stays outside the immediate community) and access to capital has made small longer terms investments possible, which are then built out to include alternative sources of income both inside and outside the primary sectors. At the same time, wealth accumulation in rural areas is often hidden and difficult to verify. Success of some (and not others) often creates significant animosity (*carinhas*, *raiva*) and may provoke acts of retaliation (incl. witchcraft accusations). Therefore, accumulated wealth is often carefully redistributed within the extended family network or placed/invested outside the community where individuals live.

Illustration 13: Family selling maize outside their house, Cuamba



Photo: Sheila Faquir

In small-scale agriculture, the most accessible way to enhance access to food and income among the poor currently seems to be horticulture, at least in Lago and Majune where rivers carry water throughout the year. We have seen that access to low lying areas or 'baixas' is hereditary, with several poor households having had control of such areas for several generations. Horticulture requires a lot of time and work, but there are also indications that the market for vegetables is improving - as seen, for example by the increased accessibility of such products in the main market in Majune only since last year.

Artisanal fisheries has larger options for employment creation and income generation than small-scale agriculture, but also requires more substantial initial

investments. We have seen how people who have been able to buy a boat, a motor and fishing nets become *patrões* and develop larger economic enterprises, but also how the fishery workers (*marinheiros*) have a small and fluctuating income that make it very difficult to make the initial investment. In fisheries, moreover, only men are involved in production, even though women take part in processing and commercialisation. Typically, women who do this are married to or other close relations with *patrões*.

Alternative sources of income are important in their own right, as diversification reduces vulnerability. We have seen that there is a large variety of informal (self-) employment, but also that some of the most common forms (such as small-scale trade) are saturated and that others (such as carpentry) are very poorly paid. There are also typically strong gender divisions involved. For most young people this is seen as the most relevant sector for social mobility, but few manage to make that as a springboard for a better life. The safest way out of poverty – formal employment that not only comes with regular and predictable pay but also often with additional benefits such as housing, insurance and pensions – is irrelevant for the large majority of the people in the three communities.

Socio-economic position not only has material implications in terms of access to food, housing and commodities, but also for how households perceive themselves and are perceived by the community. Households with a minimum of means can "*wash their clothes and walk clean*" as one informant put it, while those who do not have any resources are constantly reminded about their deprivation. There is a network of social support also among the poorest, but this is usually only to take people through critical situations and also often exclude some social categories - such as elders (often accused of witchcraft) and single mothers who are seen to be responsible for the situation they are in.

5. CONCLUSIONS AND RECOMMENDATIONS

5.1 Main changes in poverty and well-being 2012 to 2013

- The province of Niassa has historically been one of the most remote and poorest in Mozambique, but has seen the most consistent drop in its poverty rate the past 10 years. The province currently seems to be in a transitional period, with planned large investments in extractive industries and agriculture that may change the economy significantly. However, the extent to which these investments will actually engage with local populations to create a positive circle of economic benefits is far from certain.
- Recent developments in agriculture include increased commercialisation into the districts by informal traders, driven by access to funds via the District Development Fund and the expansion of the mobile telephone network Movitel. However, this appears to have been accompanied by growing inequalities between families.
- In the District of **Cuamba** there is evidence of increased commerce and traffic, and the management of the city has improved with the new Mayor. At the same time, the unequal developments between the municipality and the surrounding rural district remain. There are also significant uncertainties surrounding the spill over effects of larger investments in extractive industries and agriculture (ProSavana).
- In the District of **Lago**, authorities and statistics indicate small improvements as regards diversification of small-scale agriculture, positive developments concerning the corporate social responsibility of the forestry industry, and what seems to be only a temporary small reduction in artisanal fisheries that is the backbone of the local economy.
- In the District of **Majune**, there are signs that improvements to the road network, including a new bridge, have led to slightly increased traffic and commerce in the district centre as evidenced by a number of new goods and commodities. Also, political controversies between Frelimo and the opposition recorded during previous Reality Checks seem to have calmed down.
- At the level of the local communities under study within each district, changes are also apparent. In the Cuamba communities, new physical infrastructure is in place. In the Lago communities, a new head of the Administrator Post has improved public services. And in the Majune communities, commerce show early signs of expansion.
- Among individual households, however, social mobility remains rare. A limited number of households display significant growth in socio-economic terms, usually driven by access to several alternative sources of income in addition to agriculture. Among the primary sectors, only fisheries currently seem to offer a basis for the development of larger economic enterprises for the poor.
- For the large majority of the local populations, however, the current structural political, economic and social cultural constraints effectively act as a poverty trap. Female-headed households are particularly disadvantaged, and women who have achieved some social mobility usually do so on the basis of support from their husbands or close male relatives.

5.2 Challenges for Agriculture, Fisheries and Employment

- In the outset, agriculture, forestry and fisheries have high potential in Niassa, with good climate, good soil and an extensive network of rivers and lakes. There are also significant areas of available land and a diverse range of plants grow well.
- The continued low productivity in **small-scale agriculture** is explained by a range of factors: very low access to modern technologies, such as improved seed varieties, fertilisers etc.; weak commercialisation with no guaranteed buyers, even at low prices;

high transportation costs due to poor infrastructure; and minimal contribution by government to raise productivity in the family sector, in turn reflected by an absence of a clear and sustained vision of the desired development path.

- The impact and contribution of **cash crops** (mainly tobacco/cotton) is limited. There is a small number of producers growing these crops; there have been and remain significant conflicts between farmers and the operators/companies linked to the latter's monopolistic practices; the social responsibility practices of the companies have not been adequate; and it is mainly larger, better-off producers who are able to benefit significantly, which further contributes to wealth disparities.
- The impact of **commercial farming/ forestry** ventures also has been limited so far. Difficulties include that commercial farmers/plantations desire the same land used by local communities – i.e. land that has best access to transport, is most fertile and assures access to workers; lack of focus/clarity as regards how local producers are expected to benefit from these investments; and many farmers practice nomadic agriculture by opening up new *machambas* on virgin soil which creates conflicts after demarcations of land.
- In **fisheries**, public institutions (IDPPE and IIP) struggle against inadequate funding and poor levels of human resources. The former only manages to cover parts of the District, and the latter has inadequate resources for scientific research. The fishermen themselves are uncertain about the reasons for what they see as changes in the availability of fish, leading them to take considerable risks by pushing the capacity of their boats and gear to the limit.
- For owners of boats and gear (*patrões*), further expansion of their fishery activities is inhibited by inadequate access to, or high prices of, necessary equipment. For fishermen (*marinheiros*), the main challenge is low and unpredictable incomes due to the system of being paid in part of the catch. Accumulating enough funds to invest in own boats and gear is very difficult.
- For women, the main challenge in fisheries is strong cultural prohibitions against women being involved in the sector. They may be involved in the processing and commercialisation of fish, but it is primarily women with close relations with fishermen who have access as few women have the cash necessary.
- There are also differences in primary sector options and constraints between Cuamba, Lago and Majune. In **Cuamba**, the credit from the District Development Fund tends to go to commerce and industries with few farmers having had access. Also, an exceptionally poor road network makes people depend on middlemen who suppress prices; largely dry river beds makes wetland agriculture less relevant; and there is larger competition from producers in neighbouring provinces where agriculture is more developed.
- In **Lago**, the focus on the fishery sector makes agriculture primarily a subsistence activity. For the same reason, it is very difficult for productive farmers to attract farm labour. However, there is an increasing emphasis on wetland agriculture along rivers and lakes. Vegetables are considered to have a larger potential for income, particularly in the district centre. The main constraint for further development is improved systems of irrigation.
- In **Majune**, subsistence oriented agriculture dominates despite a high potential with fertile soils and high precipitation. Labour is a key constraint, and many families take their children out of school to work. Wild animals are also a severe problem in Majune, and inadequate storage facilities lead to loss of a substantial part of the harvest.
- In terms of **employment**, formal employment opportunities are practically non-existent outside of the public sector – with the partial exception of Cuamba where competition for jobs in the private sector is fierce. The low-level of education in the province implies that many formal jobs are occupied by people from other provinces.

- Informal employment is pursued by the majority of households in all three study sites, and is a vital source of cash income. We have also shown that there is a wide array of informal jobs, even though small-scale trade dominates. The main challenge is to make each individual enterprise more productive, which will raise the income level that currently is very low. Also, gender divisions in informal employment activities need to be surpassed.

5.3 Policy Implications and Development Interventions

- **Government institutions** in agriculture, fisheries and employment work with limited human and capital resources, but should still try to be more attentive to the concerns and aspirations of local populations through more direct contacts.
- Concrete programs and projects in agriculture and fisheries should be carefully planned, and dissemination secured through involvement of, and exchanges between, farmers and fishermen from different parts of the District.
- Inadequate access to improved technologies and a weak and uncertain market for agricultural products remain key constraints to increased agricultural production. A fresh look should be taken at farmer associations and government supplies of input factors through public companies or public-private partnerships.
- The Community Radio is an important means of communication between authorities and the population, and should be supported financially as well as in basic journalism. Separate programs should be developed for agriculture, fisheries and rural employment.
- In **agriculture**, a main policy implication is to significantly enhance access to improved and more efficient technologies and seeds. Whilst this may be supported by an expansion of the network of agricultural extension officers, fresh thinking and willingness to experiment is required to identify scalable and practical solutions.
- In addition, focus should be on encouraging the potential inherent in wetland agriculture primarily by introducing more efficient ways of inundating the relevant land areas through cheap and adapted mechanical devices. Associations/groups to manage collective action problems (e.g. maintenance) must be established.
- And finally, marketing of agricultural produce should be encouraged through information campaigns about the importance of a varied diet and the establishment of improved and organised markets for agricultural products.
- In **fisheries**, one key policy implications is to strengthen fisheries research in Lake Niassa and the communication of research findings to fishermen, who depend on updated knowledge about environmental change.
- A second is to continue to supply credit for fishing boats and gear, but be more attentive to the skewed power relations between *patrões* and *marinheiros* and target poorer fishermen more directly.
- A third is to support the development of improved methods for processing and conservation of fish, which will enhance options for accessing better and more lucrative markets outside the local community.

Illustration 14: Herbs for treatment, Cuamba



Photo: Carmeliza Rosario

- In **informal employment**, efforts should be made to systematically map the wide range of existing activities and invite NGOs or other stakeholders to focus their efforts on developing this type of undertakings.
- Key interventions should be related to the supply of small-scale credit, training, and more efficient tools and other equipment to improve quality and enhance marketability.
- Women should be actively involved in the efforts, as there are fewer social-cultural constraints and more openings for their participation and income generation than in parts of agriculture and fisheries.
- For youth, information about the importance of education and alternative types of employment outside the village should be combined with active involvement of local 'role models' who have made it in the public as well as in the private sector.
- **Physical infrastructure** is central for further development of agriculture and fisheries. Roads and bridges should continue to be improved, both in order to include the more marginal population areas and to ease accessibility to the main population centres and markets.
- With electricity outside of the district centres not coming for the foreseeable future, solar panels should not only be made available for households in a position to pay for them but also cover public spaces such as the main market places, streets, schools and health facilities.
- Telecommunications have greatly improved with Movitel, and services to primary producers in the form of banking and market information existing in other parts of Mozambique should be further developed in Niassa.
- The lack of potable water remains the main concern of people in all three project sites, and increased efforts must be made to secure accessibility, also for more marginal communities.

Illustration 15: *Construction work in Cuamba*



Photo: Carmeliza Rosario

ANNEX 1

Table 4: Working status of adults aged 16+ in Niassa Province (Percentage)

	% Rural	Working status				Total
		Inactive	Student	House worker	Active	
Lichinga Cidade	0.0	4.1	20.9	21.5	53.4	100
Cuamba	54.9	3.3	9.2	23.9	63.6	100
Lago	83.5	5.9	8.2	13.9	71.9	100
Lichinga	100.0	4.1	2.8	13.3	79.9	100
Majune	100.0	4.0	5.6	10.2	80.3	100
Mandimba	87.4	2.2	4.2	15.7	78.0	100
Marrupa	83.8	3.8	6.6	9.3	80.3	100
Maua	100.0	2.6	6.7	10.8	79.9	100
Mavago	100.0	4.4	7.0	23.1	65.6	100
Mecanhelas	96.0	1.6	4.5	14.8	79.1	100
Mecula	100.0	6.6	5.8	11.4	76.1	100
Metarica	100.0	4.8	8.8	21.2	65.2	100
Muembe	100.0	3.4	4.8	6.1	85.7	100
N'Gauma	100.0	1.6	2.5	11.5	84.4	100
Nipepe	100.0	4.1	3.7	8.3	83.9	100
Sanga	93.7	2.9	5.6	11.3	80.3	100
Total	75.6	3.3	7.8	16.1	72.8	100

Source: Own calculations from INE, 2007.

Table 5: Sectors of principal economic activity, workers aged 16+ in Niassa Province (Percentage)

	Agriculture	Mining	Manufacturing	Construction	Transport	Commerce	Other services	Un-known	Total
Lichinga Cidade	46.2	0.1	3.5	1.5	19.4	5.8	22.3	1.1	100
Cuamba	78.2	0.1	2.8	0.5	9.5	2.4	5.7	1.0	100
Lago	75.9	9.9	3.2	0.5	5.3	1.4	3.5	0.3	100
Lichinga	89.9	2.1	1.4	0.1	4.4	0.6	1.2	0.3	100
Majune	89.2	1.4	0.9	0.2	4.5	0.9	2.6	0.3	100
Mandimba	80.8	2.0	1.8	0.2	10.8	1.0	2.7	0.5	100
Marrupa	87.9	0.3	1.4	0.3	4.5	2.4	3.3	0.1	100
Maua	90.5	0.3	0.8	0.1	4.4	0.6	3.1	0.3	100
Mavago	83.8	0.6	1.3	0.2	7.7	1.7	4.1	0.6	100
Mecanhelas	85.5	2.1	1.5	0.1	7.8	0.6	1.9	0.5	100
Mecula	82.6	3.6	0.9	0.2	5.0	1.7	5.6	0.4	100
Metarica	91.2	0.1	0.8	0.0	3.2	1.0	3.8	0.1	100
Muembe	92.1	0.0	0.6	0.2	3.4	0.7	2.7	0.2	100
N'Gauma	90.5	0.1	1.0	0.1	5.6	0.5	1.5	0.6	100
Nipepe	90.5	0.4	1.4	0.1	3.5	0.9	2.9	0.3	100
Sanga	93.2	0.1	1.1	0.2	2.1	0.5	2.4	0.3	100
Total	81.5	1.6	1.9	0.4	7.8	1.6	4.7	0.5	100

Source: Own calculations from INE, 2007.

Table 6: Employment position of workers aged 16+, Niassa Province (Percentage)

	Self-employed	Private sector	Public sector	Non-gov. organization	Entrepreneur	Other	Total
Lichinga Cidade	63.6	9.9	16.9	1.2	3.2	5.1	100
Cuamba	85.7	3.3	4.5	0.4	1.7	4.4	100
Lago	89.6	1.7	2.9	0.3	2.8	2.6	100
Lichinga	95.0	0.9	1.1	0.2	1.1	1.7	100
Majune	94.3	1.2	2.6	0.3	0.9	0.8	100
Mandimba	92.8	1.3	2.1	0.2	1.6	2.0	100
Marrupa	92.5	2.1	3.0	0.2	0.8	1.4	100
Maua	94.6	0.8	2.8	0.3	0.8	0.7	100
Mavago	89.5	1.9	4.4	0.6	1.0	2.7	100
Mecanhelas	94.0	0.7	1.7	0.3	1.9	1.3	100
Mecula	89.0	2.6	5.0	0.2	0.9	2.3	100
Metarica	86.6	1.7	3.8	0.6	0.6	6.7	100
Muembe	95.0	0.5	2.9	0.2	0.9	0.5	100
N'Gauma	94.7	0.6	1.5	0.2	2.3	0.6	100
Nipepe	93.7	0.6	2.9	0.3	1.3	1.2	100
Sanga	93.9	0.7	2.4	0.2	1.1	1.6	100
Total	89.4	2.2	4.0	0.4	1.7	2.4	100

Source: Own calculations from INE, 2007.

Table 7: Number of different employment sectors in which household members aged 16+ work, Niassa Province (Percentage)

	None	Single	Multiple	Total
Lichinga Cidade	13.5	60.9	25.6	100
Cuamba	13.4	71.3	15.2	100
Lago	11.1	65.3	23.6	100
Lichinga	4.6	83.4	12.0	100
Majune	6.4	82.2	11.4	100
Mandimba	5.0	78.0	17.0	100
Marrupa	5.6	76.6	17.8	100
Maua	5.0	84.1	10.9	100
Mavago	13.5	74.0	12.4	100
Mecanhelas	6.0	80.8	13.2	100
Mecula	6.6	76.0	17.4	100
Metarica	16.7	78.9	4.4	100
Muembe	2.7	86.7	10.6	100
N'Gauma	4.4	85.5	10.1	100
Nipepe	5.1	85.1	9.8	100
Sanga	5.7	84.4	9.9	100
Total	8.5	75.9	15.6	100

Source: Own calculations from INE, 2007.

Table 8: Percentage of households engaged in different production activities, Niassa Province (Percentage)

	Fishery	Cashew/ Coconut	Bovine s	Goats	Ovines	Pigs	Chicke ns	Ducks
Lichinga Cidade	1.1	0.4	0.4	1.8	0.4	0.4	11.6	3.8
Cuamba	2.9	6.0	0.3	5.5	0.6	6.1	40.2	10.8
Lago	22.2	1.8	2.2	17.3	1.2	1.0	39.7	6.4
Lichinga	5.1	0.2	0.2	6.4	1.1	0.3	31.4	3.8
Majune	12.8	0.3	0.1	3.9	0.4	0.2	41.8	7.1
Mandimba	7.3	0.4	0.2	7.9	0.8	0.5	41.7	7.5
Marrupa	5.4	1.6	0.1	18.2	0.2	0.2	54.2	7.3
Maua	4.1	3.2	0.2	9.6	0.3	1.5	62.0	7.1
Mavago	5.5	0.7	0.1	9.7	2.2	0.1	51.1	7.1
Mecanhelas	5.4	1.7	1.3	14.2	2.4	11.4	54.5	8.5
Mecula	15.6	11.6	0.2	5.4	0.1	0.2	40.0	4.3
Metarica	5.5	8.4	0.2	6.8	0.3	1.4	51.8	7.4
Muembe	7.6	0.2	0.3	11.1	1.8	0.2	32.8	4.4
N'Gauma	3.9	0.2	0.2	11.9	1.6	0.2	38.3	3.1
Nipepe	18.2	26.8	0.4	9.0	1.0	3.5	59.6	10.9
Sanga	4.3	0.1	0.5	10.2	1.6	0.3	34.9	5.9
Total	6.4	2.8	0.5	9.1	1.0	2.9	40.7	7.0

Source: Own calculations from INE, 2007.

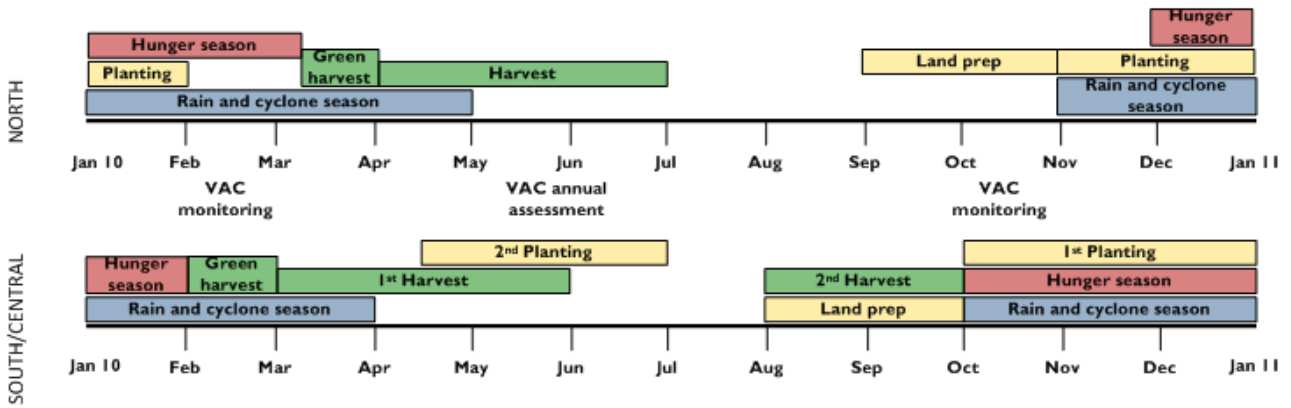
Table 9: Percentage of smallholders planting different crops, Niassa Province 2002-08 (Percentage)

Crop	Cultura	2002	2003	2005	2006	2007	2008	Change
Maize	Milho	99.6	99.5	96.5	97.3	96.5	98.5	-2.1
Sorghum	Mapira	58.5	54.7	38.7	58.2	44.9	44.0	-12.2
Cassava	Mandioca	45.0	47.7	45.6	39.7	35.4	43.0	-7.2
Rice	Arroz	25.0	17.1	9.9	11.0	13.3	14.5	-7.2
Groundnuts	Amendoim	31.4	35.7	32.4	35.7	25.8	23.6	-8.9
Butter beans	Feijão manteiga	45.5	50.4	43.1	43.0	36.5	29.4	-15.0
Cow pea	Feijão nhemba	35.9	32.0	36.3	41.5	12.6	32.2	-11.6
Pigeon pea	Feijão boer	19.7	8.3	10.3	15.3	11.8	32.5	8.2
Tobacco	Tobaco	1.1	13.5	19.1	18.7	14.5	14.4	7.2
Sunflower	Girassol	12.5	6.3	2.7	8.0	2.6	1.9	-7.2
Sesame	Gergalim	5.2	4.3	4.7	8.2	3.3	3.9	-1.2

Notes: 'Change' gives the absolute difference between the mean for 2002/03 and the mean for 2008/09

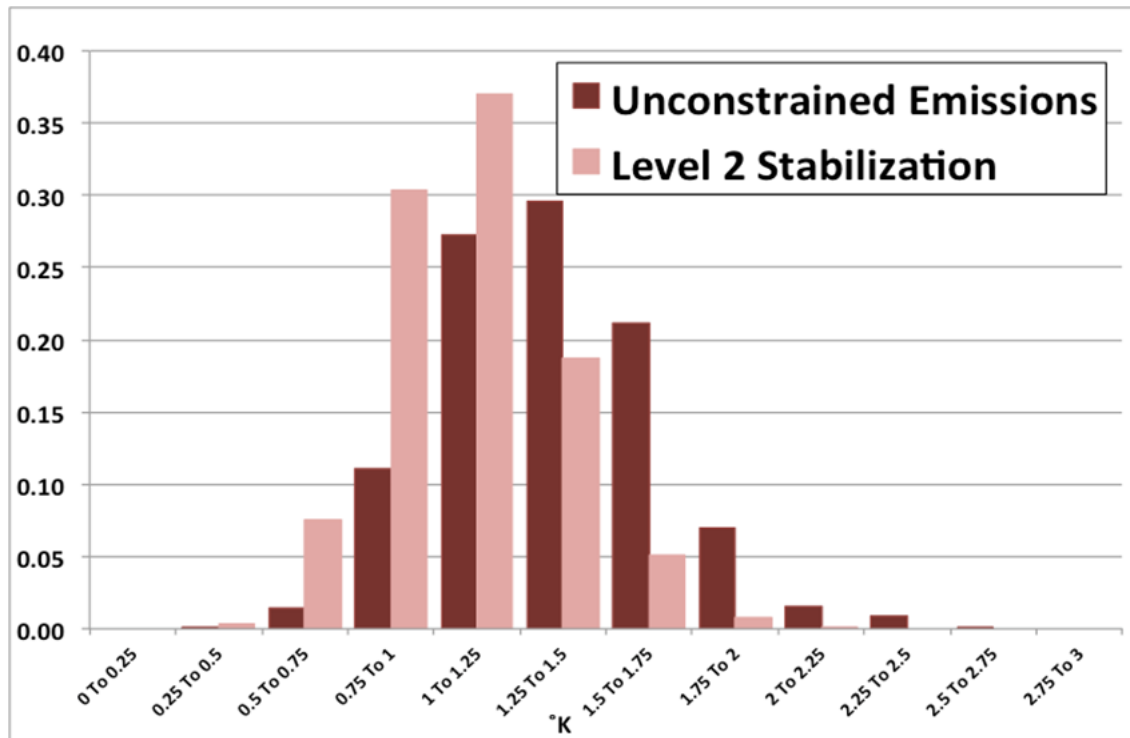
Source: Ministério de Agricultura, 2010.

Figure 1: Seasonal Calendar and Critical Events Timeline



Source: FEWS NET (<http://www.fews.net/Pages/timelineview.aspx?gb=mz&tl=en&l=en>)

Figure 2: Histogram of probabilities of likely changes by 2050 in summer temperatures under alternative emission scenarios, Eastern Zambezi River Valley



Source: Schlosser and Strzepek (2013).

LIST OF LITERATURE

Government Documents

- GdM (2003). *Lei nº. 8/2003 de 19 de Maio Estabelece o Quadro Legal dos Órgãos do Estado*. Maputo Imprensa Nacional de Moçambique.
- GdM (2005). *Plano de Acção para a Redução da Pobreza Absoluta, 2006-2009 (PARPA II)*. Maputo: Governo de Moçambique, Ministério do Planeamento e Cooperação.
- GdM (2006). *Decreto nº 6/2006 de 12 de Abril Estabelece O Estatuto Orgânico Do Governo Distrital*. Maputo: Imprensa Nacional de Moçambique
- GdM (2011). *Poverty Reduction Action Plan (PARP) 2011-2014*. Maputo: Governo de Moçambique, Ministério do Planeamento e Cooperação.
- INE (2009a). *Inquérito de Indicadores Múltiplos (MICS) 2008*. Maputo, Mozambique: Instituto Nacional de Estatística.
- INE (2009b). *Recenseamento Geral de População e Habitação 2007*. Maputo: Instituto Nacional de Estatística
- INE (2009c). *Trabalhos de Inquéritos Agrícolas (TIA)* Maputo: Instituto Nacional de Estatística.
- INE (2010). *Inquérito sobre Orçamento Familiar 2008/09. Quadros Básicos*. Maputo: Instituto Nacional de Estatística.
- INE (2011). *Agenda Estatística 2011*. Maputo: Instituto Nacional de Estatística.
- INE (2011). *Censo Agro-Pecuário 2009-2010: Resultados Definitivos*, República de Moçambique
- Ministério de Agricultura (2010), *Anuário Estatístico do Sector Agrário 2008*, República de Moçambique unpublished
- MISAU (2005). *Moçambique. Inquérito Demográfico e de Saúde 2003*. Maputo: Ministério de Saúde.
- MPD (2010a). *Report on the Millennium Development Goals*. Maputo: Ministry of Planning and Development.
- MPD (2010b). *Poverty and Wellbeing in Mozambique: Third National Poverty Assessment*. Maputo: Ministry of Planning and Development (National Directorate of Studies and Policy Analysis).
- RdM (2010a). *Programa Estratégico para a Redução da Pobreza Urbana*. Maputo: Ministério da Planificação e Desenvolvimento e outros.
- RdM (2010b). *Resolução n.º 02/AM/2009 sobre o PESOM, Investimentos e Orçamentos do Conselho Municipal referente ao ano económico de 2009*. Maputo: Ministério da Planificação e Desenvolvimento e outros.

Swedish Development Cooperation

- MFA, Sweden (2008). *Strategy for Development Cooperation with Mozambique 2008-2012*. Stockholm: Ministry of Foreign Affairs.
- SADEV (2009). *Mainstreaming the Environment. Does Sida Conceptualize Poverty-Environment Linkages in Accordance with the Global Norm?* Stockholm: Swedish International Development Authority.
- Sida (n.d.). *Sida's Support to Niassa Province*. Stockholm: Swedish International Development Authority.
- Sida (2002). *Perspectives on Poverty*. Stockholm: Swedish International Development Agency.
- Sida (2004). *Looking Back, Moving Forward. Sida Evaluation Manual*. Stockholm: Swedish International Development Authority.
- Sida (2006). *Current Thinking – The Two Perspectives of the PGD*. Stockholm: Swedish International Development Authority.
- Sida (2009). *Women's Economic Empowerment: Scope for Sida's Engagement*. Stockholm: Swedish International Development Authority.

- Sida (2009). *Mid-Term Review of Sweden's Development Cooperation with Mozambique*. Stockholm: Swedish International Development Authority.
- Sida (2010). *Ett utvecklingssamarbete i förändring. Sidas resultat och prioriteringar*. Stockholm: Swedish International Development Authority.
- Sida (2009) *Civil Society Support Programme-Annual Report-2009*. Swedish Cooperation Centre, Niassa.
- Sida (2010) *Civil Society Support Programme- Midterm Report-2010*. Swedish Cooperation Centre, Niassa.
- Swedish Embassy (2010). *Terms of Reference. Implementation of Reality Checks in the Niassa Province, Mozambique*. Maputo: Swedish Embassy.

Niassa

- Åkesson, Gunilla and V. Nhate (2005). *Rapid Poverty Assessment, Niassa, Mozambique. Is the Swedish Support to the Niassa Province on Track?* Maputo: Swedish Embassy
- Åkesson, Gunilla and A. Nilsson (2006). *National Governance and Local Chieftancy. A multi-level power assessment of Mozambique from a Niassa perspective*. Maputo: Swedish Embassy and Sida.
- Åkesson, Gunilla, A. Calengo and C. Tanner (2008). *Study on Community Land Rights in Niassa Province, Mozambique*. Report 6/2009. Uppsala: SLU
- AustralCowi (2009). *Socio-Economic Baseline Studies on Rural Electrification Projects in Niassa, Cabo Delgado, Nampula and Zambezia Provinces, Mozambique*. Maputo: EDM, Republic of Mozambique and Sida.
- CAFOD (2011). *Plano de Orçamental dos Parceiros Apoiados pela CAFOD – 2011, Niassa, 2011*.
- Chipeta, Sanne, J.F. Olsen, G.F. Junior, M. Rucki (2010). *SCC-Vi Agroforestry Collaboration and Possible Expansion around Lake Nyasa-Niassa-Malawi. Feasibility Study. Final Report*. Copenhagen: Danish Agricultural Advisory Service
- CIP (2011). *Rastreado a despesa de 2010-Distrito de Cuamba, Niassa*. Edição 01/2011. Estamos.
- CMdCdCuamba (2010). *Balanço das Actividades Desenvolvidas Durante o Ano de 2009 pelo Conselho Municipal da Cidade de Cuamba*. Cuamba: Conselho Municipal da Cidade de Cuamba
- CMdCdCuamba (N.A). *Dados Principais do Município de Cuamba*. Gabinete de Estudos, Cooperação, Assessoria e Planificação. Cuamba: Conselho Municipal da Cidade de Cuamba.
- CMdCdCuamba (2012). *Relatório das Actividades Realizadas pelo Conselho Municipal durante o ano de 2012*. Gabinete do Presidente.
- Concern (2011). *Relatório Annual de Actividades 2010. Lichinga: Concern Universal Moçambique*
- Fredrikson, Malin and A. Grimaldi (2010). *The Sustainable Development for Chikweti in the Forest Industry in Mozambique. How can improved management structure facilitate Chikweti's business performance?* MA-Thesis. Mälardalen: Mälardalen University.
- Gatu, Karin and S. Rodman (2007). *A Green Revolution in Southern Niassa? A field study from a small [scale] farmer perspective about possibilities and obstacles for a Green Revolution*. Wäxjö: Wäxjö University.
- GdN (2005). *Estudo sobre o Desenvolvimento Sócio Económico da Província do Niassa (1997-2005)*. Lichinga: Governo da Província da Niassa.
- GdN (2007). *Plano Estratégico Provincial 2007-2017. Niassa*. Lichinga: Governo da Província do Niassa.
- GdN (2008). *Documento Orientador do Gabinete de Estudos Estratégicos e Desenvolvimento (GED)*. Lichinga: Governo da Província do Niassa
- GdN (2012a). *Plano Económico e Social de 2013. Niassa*. Lichinga: Governo da Província do Niassa
- GdN (2012b). *Plano Económico e Social de 2012. Relatório Balanço Annual 2010. Niassa*. Lichinga: Governo da Província da Niassa.

- GdN (2011c). *Relatório sobre a Situação Global das ONG's Estrangeiras na Província de Niassa e a sua Contribuição para o Desenvolvimento do País Referente ao Ano 2010*. Lichinga: Governo do Niassa
- GdN/DdLago (2010). *Informe por Ocasão da Visita Presidencial. Metangula, 20 de Abril de 2010*. Lago: Governo do Distrito do Lago.
- GdN/DdLago (2013). *Relatório Balanço do PES de Janeiro á Dezembro 2012*. Lago: Governo do Distrito do Lago.
- GdN/DdLago (2012). *Plano Económico e Social para 2013 do Distrito do Lago*. Lago: Governo do Niassa.
- GdN/DdMajune (2013). *Relatório-balanço do ano de 2012*. Majune: Governo do Niassa (Distrito de Majune).
- GdN/DdMajune(2012). *Plano Económico e Social para 2013*. Majune: Governo do Niassa (Distrito de Majune).
- GdN/DdMajune (2012). *Relatório Blanço referente ao Primeiro Trimestre de 2012*. Majune: Governo do Niassa (Distrito de Majune).
- Governo do Distrito de Cuamba. (2012). *Plano Económico e Social 2013*. Cuamba: Governo do Distrito
- Governo do Distrito de Cuamba.(2013). *Relatório do I Trimestre de 2013*. Cuamba: Serviço Distrital de Actividades Económicas.
- Irish Aid (2010). *Relatório do Progresso Annual do PES 2009. Programe do Desenvolvimento Local de Niassa*. Lichinga: Irish Aid
- MAE (2005). *Perfil do distrito de Cuamba 2005*. Maputo. Metier Consultoria & Desenvolvimento Lda.
- MAE (2005). *Perfil do distrito do Lago 2005*. Maputo. Metier Consultoria & Desenvolvimento Lda.
- MAE (2005). *Perfil do distrito de Majune 2005*. Maputo. Metier Consultoria & Desenvolvimento Lda.
- Medeiros, Eduardo da Conceição (1997). *História de Cabo Delgado e do Niassa (c. 1836-1920)*. Maputo: Cooperação Suiça.
- P.A. Meluluca (2011). *Breve Informe do Posto Administrativo de Meluluca*. Meluluca: Posto Administrativo de Meluluca
- P.A.Meluluca (2011). *Relatório das Actividades Desenvolvidas Durante o Primeiro Semestre de 2011*. Meluluca: Posto Administrativo de Meluluca
- ROADS (2010). *Plano Estratégico – 2010, Niassa, 2010*.
- Tew, Mary (1950). *Peoples of the Nyasa Region*. London: International African Institute.
- Weigher, I.M.C. Padre Luis (1995). *Um olhar sobre o Niassa. Trocos históricos-etnológicos*. Maputo: Paulinas.

Publications Reality Checks in Mozambique

- ORGUT (2011a). *Reality Checks in Mozambique. Inception Report*. Maputo: Embassy of Sweden.
- ORGUT (2011b). *1st Reality Check Mozambique. Sub-report District of Lago*. Maputo: Embassy of Sweden.
- ORGUT (2011c). *1st Reality Check Mozambique. Sub-report District of Majune*. Maputo: Embassy of Sweden
- ORGUT (2011d). *1st Reality Check Mozambique. Sub-report Municipality of Cuamba*. Maputo: Embassy of Sweden
- ORGUT (2011e). *1st Reality Check Mozambique. Main Report*. Maputo: Embassy of Sweden.
- ORGUT (2011f). *Reality Checks Mozambique. Approach and Methodologies*. Maputo: Embassy of Sweden.
- ORGUT (2012a). *2nd Reality Check Mozambique. Sub-report District of Lago*. Maputo: Embassy of Sweden.
- ORGUT (2012b). *2nd Reality Check Mozambique. Sub-report District of Majune*. Maputo: Embassy of Sweden

- ORGUT (2012c). *2nd Reality Check Mozambique. Sub-report Municipality of Cuamba.* Maputo: Emb. of Sweden
- ORGUT (2012d). *2nd Reality Check Mozambique. Annual Report.* Maputo: Embassy of Sweden.
- ORGUT (2013a). *3rd Reality Check Mozambique. Sub-report District of Lago.* Maputo: Embassy of Sweden.
- ORGUT (2013b). *3rd Reality Check Mozambique. Sub-report District of Majune.* Maputo: Embassy of Sweden
- ORGUT (2013c). *3rd Reality Check Mozambique. Sub-report Municipality of Cuamba.* Maputo: Emb. of Sweden

Other Documents

- Barrett, C., Reardon, T. and Webb, P. (2001). Nonfarm income diversification and household livelihood strategies in rural Africa: concepts, dynamics, and policy implications. *Food Policy*, 26(4):315–331.
- Cunguara, Benedito and Joseph Hanlon (2010). *Poverty is Not being Reduced in Mozambique.* Crisis States Working Papers No. 2. London: London School of Economics.
- GRM International (2008, 2009, 2010). *Bangladesh Reality Check. Annual Reports.* Stockholm: Swedish International Development Authority.
- Haggblade, S., Hazell, P. and Reardon, T. (2010). The rural non-farm economy: Prospects for growth and poverty reduction. *World Development*, 38(10):1429–1441.
- Jones, Sam and Finn Tarp (2013). Jobs and welfare in Mozambique, WIDER Working Paper No. 2013/045, UNU-WIDER
- Newitt, Malyn (1995). *A History of Mozambique.* Indiana: Indiana University Press.
- SAL CDS, Massala Consult Lda. (2009). *Análise das experiências Relacionadas com a participação comunitária e consulta na planificação distrital em Moçambique-Regiões Norte, Centro e Sul.* Maputo, SAL CDS & Massala.
- Schlosser, C. Adam and Kenneth Strzepek (2013). Regional climate change of the greater Zambezi River Basin: A hybrid assessment, WIDER Working Paper No. 2013/040, UNU-WIDER
- Tschirley, David L. et al. (2010). Institutional Diversity and Performance in African Cotton Sectors. *Development Policy Review*, 28 (3): 295-323
- Tvedten, Inge, Margarida Paulo and Minna Tuominen (2009). *“If Men And Women Were Equal, We Would All Simply Be People”.* *Gender and Poverty in Northern Mozambique.* CMI Report 2009:14. Bergen: Chr. Michelsen Institute.
- UNAC (2011). *Os Senhores da Terra. Análise Preliminar do Fenómeno de Usurpação de Terras em Moçambique.* Maputo: União Nacional de Camponeses.
- UNICEF (2011, forthcoming). *Child Poverty and Disparities in Mozambique 2010.* Maputo: UNICEF
- UNDP (2009). *2008 Mozambique Report on the Millennium Development Goals.* Maputo: UNDP.
- Van den Boom (2011). *Poverty Analysis in Mozambique. Desk Review for the G19.* Amsterdam and Maputo: Centre for World Food Studies and Royal Dutch Embassy.
- World Bank (2007). *Beating the Odds: Sustaining Inclusion in a Growing Economy. A Mozambique Poverty, Gender and Social Assessment* Washington D.C: The World Bank.

Methodologies

- Addison, Tony, D. Hulme, R. Kanbur (2009). *Poverty Dynamics. Interdisciplinary Perspectives.* Oxford: Oxford University Press.
- Chambers, Robert (2008). *Revolutions in Development Inquiry.* London: Earthscan.
- Jackson, Cecile (2002). “Disciplining Gender.” In: *World Development* Vol. 30(3) pp.497-509.

Mikkelsen, Britha (2005). *Methods for Development Work and Research. a New Guide for Practitioners*. London: Sage Publications.

Yin, R.K. (2003). *Case Study Research: Design and Methods* (Third Edition). London: Sage Publications.