



# Reality Checks in Mozambique

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

Year Three, 2013

## Sub-Report, District of Lago



# ORGUT

in cooperation with:



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 2011-2016 and each year field work is carried out in the District of Cuamba, the District of Lago and the District of Majune in the Niassa Province. Each Reality Check focusses on a specific theme. This is the 3rd Sub-Report from the District of Lago, focussing on agriculture, climate and employment. An Annual Report is produced each year to summarise the findings and conclusions from all three sub-reports.

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Cover Photo: 'Ready for fishing ussipa' by Inge Tvedten

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**Map 1. Reality Checks Mozambique / Niassa Study Sites**



## 1. INTRODUCTION

Poverty monitoring in Mozambique primarily takes 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 distribution 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).

### 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" will take place in the period 2011-2015, focussing on the dynamics of poverty and well-being with a particular focus on good governance, agriculture and infrastructure that are key sectors in Swedish development cooperation with Mozambique. 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 ORGUT 2011a 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).

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 Municipality of Cuamba; ii) the District of Lago and iii) the District of Majune (see Map 1).

The 1st Reality Check was carried out in 2011 in the form of three sub-reports (ORGUT 2011 b, c, d) and the first Annual Report (ORGUT 2011 e), and represent a baseline upon which the subsequent Reality Checks will build. Much of the background information given in the first set of reports will not be repeated, and being familiar with the base-line studies will therefore ease readings of the subsequent reports. The second set of reports was produced in 2012 with a thematic focus on governance (ORGUT 2012a-d). This is the sub-report on Lago for the 3rd Reality Check 2013, to be complemented by similar sub-reports from Cuamba and Majune. Key lessons from all three reports will be compared and analysed in the 3rd Annual Report. In addition to pursuing the overall issue of the dynamics of poverty and well-being in the Districts/Municipality and local communities in question, this year's reports will have a thematic focus on agriculture, climate and employment.

## 1.2 Methodologies

Methodologically, the studies are based on a combination of existing quantitative information derived from the National Institute of Statistics (INE) and Provincial and District Authorities; a Baseline Survey in the three project sites; key informant interviews in the provincial capital Lichinga and the selected Districts/Municipality; a set of qualitative/participatory methodologies including immersion with households in different socio-economic situations; and participant observation in the local communities selected for fieldwork. The methodologies are described in detail in a separate report entitled "Reality Checks in Mozambique. Analytical 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, the District Social and Economic Development Plan (PESOD), and the Evaluation of the District Social and Economic Development Plan (Balanço do PESOD).

We secure adequate quantitative data to map poverty and well-being and peoples' relations to public services in the three study sites through a Baseline Survey with a total of 360 households (120 in each site). The survey will be done twice with the same families, i.e. in the beginning (2011) and end (2015) of the project period. The Baseline and the follow-up survey will 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. In this sub-report, we give particular attention to data from the Baseline Survey related to the issue of agriculture, fisheries and employment.

**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 and infrastructure. We also complement the classical anthropological

methodology of 'participant observation' with a set of concrete participatory methodologies that we apply 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 these, depending on the topic at hand.

The participatory methodologies used for the 3<sup>rd</sup> Reality Check in Lago 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* (see ORGUT 2011f for full overview of methodologies).

**Focus Households.** The wealth ranking exercise carried out in the first series of reports in 2011 formed the basis for our identification of *Focus Households* with whom we will relate closely through various forms of immersion during the course of the Reality Checks. The communities in Lago distinguish between 4 levels of poverty or 'poor people' and 3 levels of well-being or the 'better-off' – each with their own dynamics and position in the communities. Altogether seven Focus Households have been selected from these categories, and will be visited and 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. This year, particular emphasis has also been given to their involvement in agriculture, fisheries and rural employment.

### 1.3 Socio-Economic Indicators

To end these brief introductory notes, we present a set of key economic and social data, an overview of the budget and expenditures and key development policy statements as these appear in official publications from the Lago District Administration and the National Institute of Statistics. Table 1 and Table 2 will be updated every year of the Reality Check, in order to give a sense of overall developments in the District.<sup>1</sup> Table 3 will be updated at the end of the project period, when data from the new National Household Survey will be available.

**Table 1: Socio-Economic Indicators – District of Lago**

Economic Indicator	2010	2011	2012	2013	2014
Area under cultivation (Ha)	23.828	28.363	33.392	-	-
Agricultural production (1000 kgs)	72.740	76.240	82.870	-	-
Agricultural extensionists	0	0	6	-	-
Heads domestic animals	9.760	10.500	14.292		
Production of meat (kgs)	1.010	5.067	8.147	-	-
No. of Small Scale Industries	n.a	175	177	-	-
Forestation (in Ha)	6.050	n.a	n.a.	-	-
Number of tourists	8.000	1.860	2.060	-	-
Fish production (in 1000 kgs)	4.780	7.778	6.974	-	-
Energy (number of clients)	1.156	1.456	2.163	-	-
Energy (clients cut off)	497	160	194	-	-
INAS (Number of beneficiaries)	682	1346	1388	-	-

Sources: GdN/DdL 2010, 2011, 2012

<sup>1</sup> The information given for 2010 and 2011 is not totally comparable; some of the data for 2010 were changed in 2011 publications; and some indicators appearing 2011 did not appear in 2012.

**Table 2: Budget and Expenditures – District of Lago**

Economic Indicator	2010	2011	2012
Self-generated income (MTn)	20.530	47.370	28.139
Self-generated/assigned income (MTn)	213.311	550.316	607.623
Expenditures for goods/ services (MTn)	3.129.060	5.781.380	3.229.900
Infrastructure investments (MTn)	n.a	6.112.000	7.709.260
No of public employees on payroll	684	782	829
No of trad.authorities on payroll	227	231	233
District Dev. Fund (No. of Projects)	117	66	n.a.
District Dev. Fund (Total, Mt)	7.666.000	7.848.000	8.897.000
Distr. Dev. Fund (Reimbursed, Mt)	207.860	316.000	n.a.
Distr. Dev. Fund (No. of beneficiaries)	585	330	n.a.

Sources: *GdN/DdL 2010, 2011, 2012*

**Table 3: Social Indicators – District of Lago (Percent)**

Social Indicators	2007	2015
Population (est. 2012)	83.099	-
Proportion FHHs	35.1	-
Primary School Attendance	65.01	-
Solid Roof Housing	1.18	-
Electricity at Home	4.38	-
Cell-phone	0.97	-
Bicycle Ownership	29.8	-

Source: *INE 2009*

Below, we also quote what the District of Lago itself sees as the main challenges for development and poverty reduction for 2011, 2012 and 2013 as this appears in the relevant Social and Economic Development Plan (Box 1, 2, 3). As can be seen, the development objectives are largely the same for the years in question, even though there are some changes in emphases from year to year.

**Box 1: Development Objectives of the Government of the District of Lago 2011**

“The main focus of the Government of the District of Lago for 2011 is [to] give priority to economic growth that will be reflected in the well-being of the population, [and] this development will be key in order to minimize the inequality between the communities. The Government will [also] continue to implement the Public Sector Reform, with emphasis on the well-being of the population and change of attitude and behaviour of the public servants and consequently an improvement of the quality of the services offered to the inhabitants [all] in order to secure a public administration that is transparent, efficient and responsible”.



**Box 2:** *Development Objectives of the Government of the District of Lago 2012*

“The main focus of the Government of the District of Lago for 2012 is [to] give priority to economic growth that will be reflected in the well-being of the population, [and] this development will be key in order to minimize the inequality between the communities. The Government will [also] continue to implement the Public Sector Reform, with emphasis on the well-being of the population and change of attitude and behaviour of the public servants and consequently an improve-ment of the quality of the services offered to the inhabitants [all] in order to secure a public administration that is transparent, efficient and responsible through securing enhanced skills and more training; increases in revenue collection, and contribute to the state budget in the District”.

**Box 3:** *Development Objectives of the Government of the District of Lago 2013*

“The main focus of the Government of the District of Lago for 2013 is [to] fulfil its promises to carry out the Strategic Plan for the District of Lago, the objectives of which focus on the reduction of poverty in the midst of the District population through the support of the District Development Fund – FDD (7 Million). In addition, the great wager of the Government of the District of Lago for 2013 is to create indicators of economic growth that reflect the well-being of the population and make rural development the main avenue for poverty reduction in the communities. In other words, the Government takes on the responsibility to continue the Public Sector Reform, increase income, contribute to the rational use of the State Budget for the District and improve infrastructure”.

## 2. FISHERIES, AGRICULTURE AND EMPLOYMENT

Driving from Niassa's provincial capital Lichinga to the District of Lago (see Map 1) in early June 2013, we first pass the highland or *planalto*. We see a number of larger agricultural fields (*machambas*) where people are busy harvesting crops such as maize and cassava. Many homesteads along the road seem deserted, reflecting both the busy season in the fields close by and the fact that many households migrate to their agricultural land on a seasonal basis. We also see herds of cattle (well looked after by herd-boys) and flocks of goats apparently under no control whatsoever. Also the planted forests on the planalto have grown, both in area and the size of trees. Signs along the road tell us about the importance of the plantations (see Illustration), while numerous flags identifying the presence of sorcerers (*curandeiros*) and the opposition parties Renamo and MDM remind us of the controversies surrounding the current developments in Niassa.

Approaching the steep hills down towards Lake Lago and the main population centres in the District, we also see new forestry activities and later learn that the Finnish company 'Forests of the Planalto' is in the process of starting production in areas stretching all the way from Maniamba to Cobwe Administrative Posts in apparent conflict with areas destined for coal production by the Brazilian Vale company (ORGUT 2012b). While appearing to be virgin land, many of these areas are part of the rotating system of agriculture with *machambas* lying idle for periods of up to 15 years. Arriving the low-lying areas in the vicinity of Lake, fields become smaller, cattle and goats more rare and the main economic activity more obvious: The beaches are full of small motor boats and canoes and with hectic activities of both fishermen and traders - resulting, we later learn, from a frantic search for fish after more than a month with minimal catches even of the usually omnipresent small sardine *ussipa* or 'engraulicypris sardella'.

Illustration 1: Save the forests!

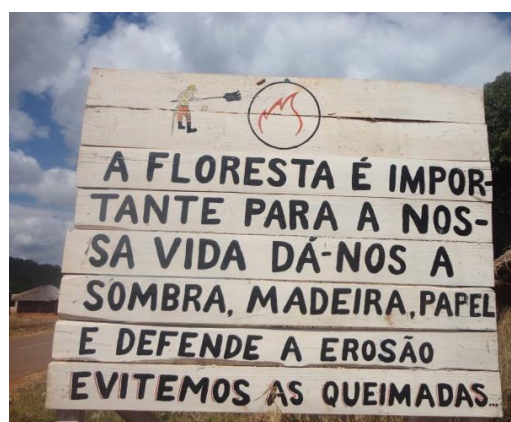


Photo by: Inge Tvedten

### 2.1 Overview

Interviewing key management staff in the Lago District Administration, they confirm that the importance and productivity in fisheries and agriculture vary considerably within the district. The Administrative Posts of Maniamba (on the Planalto) and Lunho (to the north) are primarily agricultural, while the Administrated Posts of Cobwe and Meluluca are primarily based on fisheries. At the same time there is an apparent move of more people settling on the Planalto, ostensibly to pursue production of food crops at a time when fisheries seem to be increasingly unpredictable.

Fisheries is acknowledged as the key primary sector in the District, referring to its combined importance for employment, income and protein. Many people are directly or indirectly involved (as builders of boats and canoes, menders of fishnets or *comerciantes*), and prices are relatively good. A main preoccupation is that too much fish is taken to Lichinga, which sometimes lead to inadequate local access particularly in Metangula and the planalto ("They think the prices are higher in Lichinga, but do not calculate the costs for transportation"). To counteract this, the District Administration plans to open a new market for fresh fish in Metangula (*Mercado da Primeira Venda*) in August 2013. They have also invited a trader in fishing equipment from Angoshe (province of Nampula) to open an outlet in the District

centre (“He has already brought the gear”). At the same time, the interviewees are concerned about the conditions in the Lake – with the recent reductions in production particularly of *ussipa* and the fact that “fish is dying by itself and floating onto the shore”. The District management do not know whether this has natural causes, or is the result of the way people use the Lake.

Still according to management in the District Administration, there have been several important developments in the agricultural sector the past year. First, there has been an increase in the proportion of people producing for sale partly as a result of the District Development Fund scheme. Secondly, there are more products on the local market particularly in the district capital Metangula, and prices are higher (“a bucket of maize meal goes for 300 Meticaís, which is close to the price in Lichinga”). Thirdly, there has been a diversification of agricultural products including potatoes, tomatoes and onions for which there is little tradition in Lago. The District is actively encouraging increased agricultural production in the low-lying wetland areas with potentials for irrigation and a second (and even a third) harvest. They have set aside 1 million Meticaís from the District Development Fund to support 10 farmers in agricultural production along the Lunho River. And finally, they see a change of 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 was 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 ‘Florestas de Planalto’ communicate better and have clear ideas about how to compensate for the land. They try to avoid planting too 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. Moreover, communities are compensated with one dollar per hectare planted forest when there are no cases of wildfires (*queimadas descontroladas*) – that may be devastating for the forestry companies – for community projects such as schools, wells and mosques. Still, there are challenges related to forestation for the District. All decisions on production are done at the level of the Province, and the District’s role is only to “communicate with the local communities affected”. It is also acknowledged that the employment and income the forestry companies create are limited, and the size of the most recent initiative may come into conflict with current adaptations in agriculture – including the migratory pattern.

One important aspect of agricultural production in Lago is the apparent contradiction between having ample access to food in the form of basic foodstuffs such as maize, cassava and beans and fish (“There is no hunger in Lago”) on the one hand, and one of the poorest nutritional values in the Niassa Province on the other “which many reports confirm” (see e.g. Huhn 2013). For the very poorest, the only nutrients in addition to the staples are beans with water and salt. In addition, there is no tradition for eating vegetables (*verduras*) and fruit. Even fruits that are readily available or not usually eaten, and when they are (such as with mangoes) they are often consumed before they are ripe. Enhancing the production of vegetables through a better exploitation of the Lake, rivers and irrigation is one of the main objectives of the District Administration for increasing production and improving the nutritional standards of the population.

Asked, finally, to mention the three most important developments in the District of Lago the past year, the key Administrative staff listed three projects that are in the process of being implemented: i) The creation of a horticulture-project in Lunho; ii) The new market for fish in Metangula; and iii) The new forestry areas on the Planalto. They also tell us that one of their main headaches in 2012 – the breakdown of the passenger-boat ‘Chambo’ and the arrival of a far too advanced and expensive new boat (ORGUT 2012c) – seems to have found a solution by the boat being sold to a private Portuguese company (Mota Engil).

## 2.2 Fisheries

The two key institutions in fisheries are the Fisheries Research Institute (IPP) and the Institute of Small Scale Fisheries (IDPPE). They both emphasise the importance of small scale fisheries for the whole province of Niassa, but claim they do not have resources (including means of transportation) to follow up the lakes and rivers outside the District of Lago - including two larger lakes in the districts of Mechanhelas and Mecula.<sup>2</sup> IDPPE is primarily involved in supply of credit for fishing boats, motors and nets and extension services in the largest fishery communities (including Meluluca). Most of their work is done through associations. An important focus has been the prohibition of the use of mosquito nets, which the interviewees claim is now only a problem in the very northern and the very southern parts of the District where they do not reach.

All fishing in the District is small-scale, as opposed to the situation on the Malawian side of the lake where there is a number of semi-industrial vessels. There is altogether an estimated 2500 fishermen in the Lago District, counting owners of boats/canoes and gear (*patrões*) as well fishery workers (*marinheiros*). For each fisherman, there is an estimated 1-2 additional people involved in production and maintenance of equipment, processing and commercialisation.<sup>3</sup> The main fishing methods used by the fishermen are boat seines (*cerco/Chillimila*), gillnets (*emalhe de superfície*), beach seines (*arrasto para praia*) and long-line (*palangre*) (IIP 2013). In addition, however, practically every household living along the Lake and rivers use handlines (*linha de mão*) and/or traditional fishing gear (traps and snares) at the time of abundance of fish and/or particular needs (these will not consider themselves fishermen, leading to an under-reporting of the importance of fish for the household economy in quantitative surveys).

The last 2-3 years IDPPE has been heavily involved in discussions around plans for the Conservation of Lake Niassa made by the Ministry of Environmental Protection and the World Wildlife Fund (WWF). According to our interviewees, the original plans involved restrictions on fisheries within a 200 miles zone from the shore. This would have been “an absolute catastrophe” for the artisanal fishermen in Lago, forcing 80-90 percent of the fisherman to stop their activities. The plans have now been reassessed and changed into ‘partial reserves’ (*Reserva Marinha com Carácter Parcial*) with a focus on protection of spawning areas and limitations of fish size (WWF 2012). However, this is complicated by what the interviewees argue are “changes from clear distinctions between fishery seasons to a situation where it is all confusion”.

While there are considerable 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 Fisheries Research Institute claims that the current situation is part of a natural cycle – even though it also acknowledges that the institution’s resources are too

**Illustration 2:** Fish waiting to be sold



Photo: Nair Noronha

<sup>2</sup> According to our interviewees, in 2011 funds from Sweden were earmarked to extend activities but ‘disappeared’ on their way into the Provincial Economic and Social Development Plan.

<sup>3</sup> In marine waters the rule of thumb is 2-3 additional workers, because of larger outfits and productivity.

limited to have a solid scientific basis for their views.<sup>4</sup> 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 general terms, they further claim, 2011 was a good season in terms of production, 2012 was a very poor season, and 2013 promises to be somewhere in between. 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.

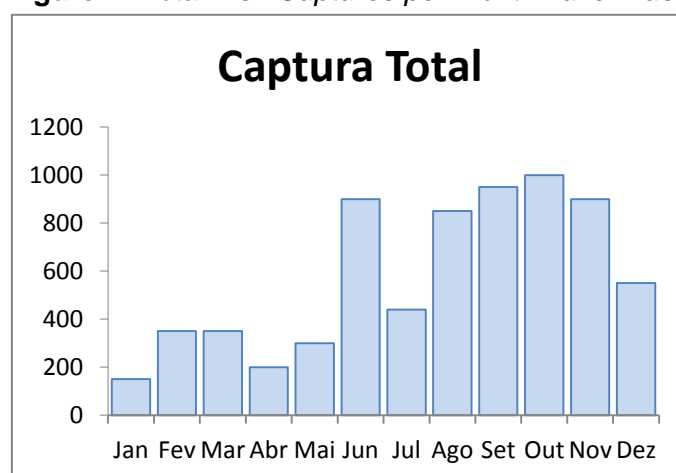
In fact, the Fisheries Research Institute argues that the Lake is in a quite healthy condition on the Mozambican side (IIP 2013). The potential sustainable catch is 16.000 tonnes, with the current production being between 6.000 and 8.000 tonnes. A main reason for this is the low level of technology used. 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). For key fishery statistics, see Table 4 and Figure 1.

**Table 4: Key Fisheries Statistics, District of Lago 2012**

Type of Gear	Total Captures (Metric Tons)		Fishery Efforts (No of Efforts)		Catch per Unit Effort	
	2011	2012	2011	2012	2011	2012
Boat-seine	6415	5046	27,558	28,016	232.8	180.1
Beach-seine	549	1269	22,323	23,688	24.6	53.6
Gill-net	613	491	699,161	642,017	0.9	0.8
Handlines	119	96	27,208	24,273	4.4	4.0
Long-line	85	73	10,848	13,180	7.8	5.5

Source: IIP (2013)

**Figure 1: Total Fish Captures per Month Lake Niassa 2012**



Source: IIP (2013)

<sup>4</sup> The Institute was involved in larger scale scientific projects until 2000, but since then it has had to manage on its own partly because international cooperation had been made difficult by disputes between Malawi, Tanzania and Mozambique about international boundaries in the Lake.

## 2.3 Agriculture

The District Directorate of Economic Activities (SDAE) is responsible for agriculture in the District of Lago. According to the management of its Department of Agriculture, conditions are good both on the planalto and along the Lake. The main challenges are, as they see it, i) to diversify production (from cassava to maize, beans and cash crops); ii) the inadequate use of fertilisers and other input factors; and iii) a guaranteed market so that the farmers know that they can sell what they produce beyond subsistence.

Rainfed farming is most productive on the planalto where the soil is most fertile and temperatures are lower, which is why many people along the Lake have *machambas* there to which they migrate on a seasonal basis. At the same time, the low-lying inundated areas of the District have a great potential for up to three harvests a year with a proper utilisation of rivers and the Lake. There are some big farmers in the District, but being 'big in Lago' is more a question of having large areas than being productive.

Despite this, the SDAE Management continues, agricultural production is much lower than what it ought to be. One major reason is the dearth of agricultural extension officers. When the current Director of SDAE came in 2011, there were no plans for agricultural technicians. Six have now been recruited, and will be distributed throughout the District during 2013. One of their main tasks will be to push for enhanced use of fertilisers and other 'modern' input factors - but as we shall see many farmers are opposed to this due to what they claim are poor experiences from Malawi.

There are some activities in agricultural research, primarily through the *Instituto de Investigação Agrária* (IIA). For the 2012/2013 season six families have been selected for experimental production of sweet potatoes on the planalto, and experiments will be followed up in the coastal area in 2013/2014. Finally improved seeds are distributed through a national programme (DPA), but the Director acknowledges that very little reaches the farmers. Prices vary between 28 Meticaís for 10 grams of tomato seeds and 20 Meticaís for 10 grams of onion seeds, which is enough to plant 50x50 metres. However, farmers seem to prefer their own seeds and the Department is uncertain why.

There is no tradition and poor conditions for cash crops, particularly in the low-lying areas of the District due to sandy soils, with an attempt at implementing cotton production in 2011/2012 having largely failed (ORGUT 2012b). And there is also a lack of tradition for a cattle herding, which according to the key staff is more related to tradition ("Herding cattle was seen as the work of the 'village fool'") than lack of natural conditions for pastoral production.

The Farmer Union (UCA) is not present at all in the lower lying and most populous parts of the Lago District, but are active on the planalto. However, the Director argues that they have lost much of their roots of working directly with farmers in the fields and are more preoccupied with politics – such as the ProSavana scheme aiming at large scale production

**Illustration 3:** A rare breed in Lago



Photo by: Inge Tvedten

of soya and maize. Part of the problem is also, still according to the Director, that farmers are not interested in working through associations due to poor historical experiences with 'cooperativas' from the time of centralised government. The associations that are formed, he claims, are actually groups of people who come together with the main objective of securing project funds, only to disperse when funds are obtained and production actually starts.

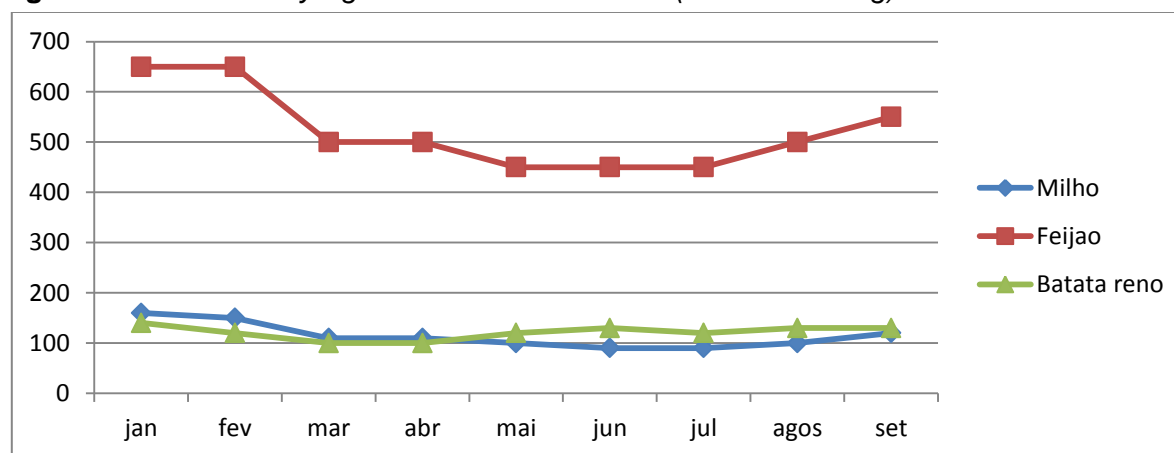
The key problem as seen from SDAE is that agriculture in Lago is primarily a subsistence activity, with fisheries being both culturally and economically more important. The main challenge will be to convince people that agriculture has potential and to introduce a 'culture of income' ("cultura de rendimento"). For key agricultural statistics from the District of Lago see Table 5, and for variations in prices for key agricultural products in Metangula see Figure 2.

**Table 5. Agricultural Production 2012/2013 Season**

Type of Crop	Area Under Production (Ha)	Production ('000 kgs)	Production for sale ('000 kgs)
Maize	16.160	27.620	9.120
Sorghum	1.700	1.380	20
Rice	4.820	4.660	3.100
Beans	4.300	3.840	2.810
Peanuts	380	240	120
Cassava	4.850	37.700	13.098
Potato	760	6.230	5.210
Sweet Potato	320	1.080	910
Vegetables (various)	102	120	124

Source: SDAE 2013

**Figure 2: Prices for Key Agricultural Products 2012 (Bucket of 20 kg)**



Source: SDAE 2013

## 2.4 Communication

For public institutions in fisheries as well as agriculture, effective communication with the local communities will be essential. For fisheries, it will be particularly important to share scientific information so as to reduce anxieties and ad hoc decisions. During our stay in Lago and Meluluca a fishing boat went too far out into the Lake searching for fish, and capsized. Three out of a crew of four died, with all leaving behind wives and children. For agriculture, the importance of improved technologies for basic food crops as well as potential income from vegetables need to be communicated – not least in a situation where the large majority of farmers have no contact with extension officers.

An obvious, but grossly under-estimated, 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. Some of them, including Radio Lago, are still functioning but against a number of obstacles. Radio Lago is practically without funding, depending on the initiative and dedication of primarily young (often unemployed) people. In Lago the equipment is impressively intact after several years of use (see Illustration), and programmes are transmitted daily for a total of nine to 10

**Illustration 4:** Lago Community Radio



Photo by: Inge Tvedten

hours. However, due to limited funds music is taking over an increasing share of the programming and programmes are increasingly made in the district capital Metangula at the expense of rural areas.

As regards fisheries and agriculture, key staff is interviewed from time to time but if they want to get on air with their own information they have to pay - for which they have no budget. The management of both types of institutions listed a number of issues they find relevant to communicate through the community radio, and they are convinced that this will be effective. Recent improvements in communication with rural villages through the establishment of Movitel (a Vietnamese telecommunication

company) have also created a basis for a more interactive radio. When Movitel constructed an antenna in Meluluca six months prior to our visit, the community suddenly became the most active participants in various call-in programmes. Table 6 below shows the programme schedule for a randomly selected day during our stay in Lago in early June 2013.

**Table 6.** Programme Schedule Radio Lago, Thursday 9 June 2013

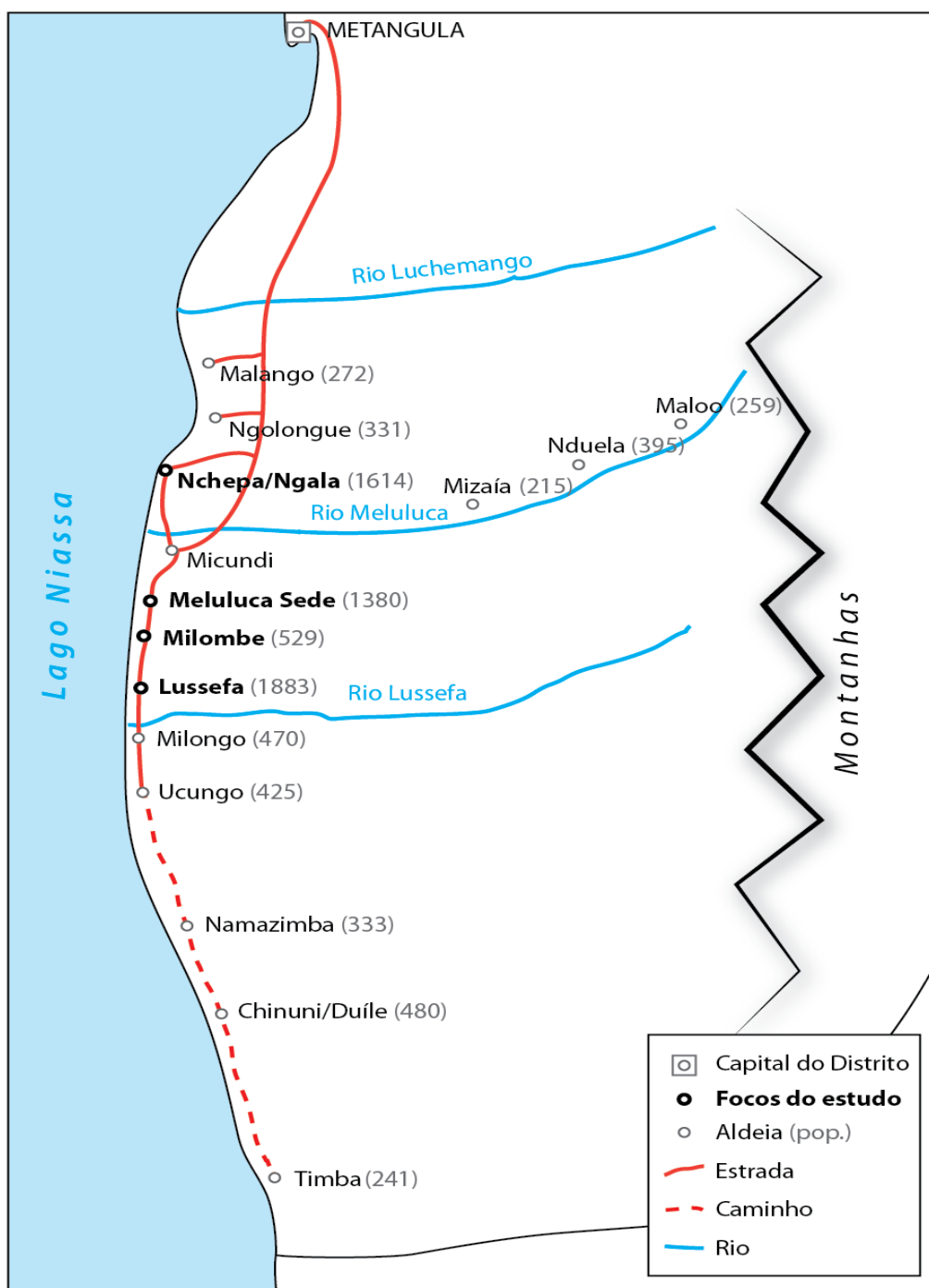
<b>Morning</b>	<b>Nyanja</b>				
04.55	Opening	12.15	Varied Music	19.15	Varied Music
05.15	Dedications	12.30	Call-in listeners	19.30	News
06.00	Announcements	13.00	Local News	20.00	Trad. Music
07.00	News Bulletin	13.10	Dedications	<b>Night</b>	<b>Portuguese</b>
07.10	Women's Program	13.55	Farewell Music	20.30	Local News
07.25	Traditional Music	14.00	Closure	20.50	Presentations
08.00	Closing	<b>Tarde</b>	<b>Nyanja</b>	21.00	Announcements
<b>Mid-day</b>	<b>Yao</b>	17.55	Opening	21.20	Women Program
11.30	Opening	18.10	Announcements	21.35	Dedications
11.40	Announcements	18.25	Dedications	22.05	Traditional Music
12.00	Women's Program	19.00	Youth Program	22.30	Closure



### 3. THE MELULUCA COMMUNITIES

Driving from Metangula to the Administrated Post of Meluluca (see Map 2), the narrow and dwindling road constructed in 2008 – being the main reason for the area’s recent positive developments (ORGUT 2011b, 2012a) – is still in acceptable condition. The first *novidade* we encounter is a sign to a new tourist resort, the development of which is hampered, we later learn, by conflicts between the owner and local traditional authorities over land rights. We also see a completely new village being constructed along the road (close to Nchepa), turning out to be made up of the entire population of the village of Maloo that has decided that they no more want to live isolated from education and health facilities. In accordance with tradition, the last person to move out was the Chief (*régulo*).

**Map 2.** *The Meluluca Administrative Post*



Entering the main community (*sede*) of Meluluca, the two most visible changes are the destruction of the school building put up by the community last year (ORGUT 2012a) and a wooden structure or platform that turns out to have been central in a recent Muslim feast (the *siala*) that attracted people from all over the District. Otherwise there are apparently fewer people in the villages now in June than last year, partly – we later learn – because people are busy with the harvest in their *machambas* and partly because the fishery has been exceptionally poor the last month which has immediate effects on the general level of economic activities (see below).

### 3.1 Most Important Changes

However, upon interviewing the new head of the Meluluca Administrative Post we soon discover that number of changes have taken place. One is an apparent significant increase in the population in Meluluca since the Census in 2007 from 8.827 to an estimated 13.090 in 2013 (an annual increase of 8.2 percent) – based on data collected by the new Head in cooperation with traditional authorities in early 2013. While some of this is due to natural population increase (“It is difficult to find families with less than eight children in Meluluca”), the opportunities in fisheries and positive economic developments in the area have also attracted people from the outside. There is still sufficient space except in the main villages, and traditional authorities argue that people are given land except in the most central and fertile areas. There is also a notable increase in new settlers from Malawi.

Furthermore, the new head of the Administrative Post has a much more proactive approach to his work than the former, confirming the importance of well-qualified personnel at this level of government as argued in our 2012 report (ORGUT 2012a). On the one hand, he has taken initiatives related to government institutions. Having been told that Meluluca will not get electricity in the foreseeable future, he has invited the National Fund for Energy (FUNAI) to supply solar panels to the community for which 250 households have signed up. Part of the staff at the Health Centre, that was a major source of dissatisfaction last year (Orgut 2012a), has been substituted on the initiative of the new Head. He has also secured a new house for the new nurse in the hope that she will stay. And in education, he has dealt with the long distance for many small children to school (being a major reason for non-attendance) by moving some of the lower classes (1-3 Grade) to the villages most affected – such as Milombe and Mizaía (see Map 2).

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 side-road between the new community established along the main road (see above) and Nchepa, and a new provisional school made in Lussefa while waiting for a new proper school to be constructed (the old one blew down in 2011). In both cases, the Head has secured government funding after the work has been initiated. Finally he has tried to develop more of a community spirit by emphasising the importance of joint festivities. Both the Day of Children (*Dia de Criança*) and Women’s Day (*Dia de Mulher*) were celebrated actively, with the former resulting in an announcement with a slightly ‘political tilt’ to it (Box 4).

**Box 4. Statement by Pupils at the Meluluca School on Children’s Day 2013.**

“We, the children of this school, would like to thank papa António [the head of the school district] for the education we get, but we think it would be even better if we had enough school-books and if it did not rain into the classroom.”

Other tangible developments since mid-2012 – as reported by the Administrative Post – have been an increase in the number of meetings in the Consultative Council (38 members); the

construction of two more water posts (making the total number 18 of which eleven are functioning); rehabilitation and cutting of grass along the main road with the help of community labour; strengthening of the quality of services at the Health Centre in Meluluca Sede (with 354 new cases of malaria and six new cases of HIV/AIDS recorded the past year); a “wave of crime” (*onda de criminalidade*) in the form of a robbery of four solar panels from the Health Post and one local youth physically attacked by Malawians; and the destruction of one – and the construction of another – school building with education showing positive developments both in terms of number of students and an improvement rate of 82.5 percent (P.A Meluluca 2013). Adult education has shown a particular increase much thanks to the arrival of a new book in Nyanja (Dzuka or “Wake Up”) – albeit still with the large majority of students being women (pers.comm. Director of EPZ).

To ascertain perceptions of changes in the community, two groups of men and women respectively were organised in the community of Milombe.<sup>5</sup> 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 abrupt reduction in the number of minibuses (*chapas*) coming to Meluluca 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 were i) that the bridge over the Meluluca River is in poor condition so that people are afraid of passing it (on their way to their fields); ii) that the position of midwife at the Health Post has been vacant and that they have to pay up to 200 Meticaís for deliveries (which should be free); iii) that the ceiling of the Primary School has been in poor condition and that the children have had to leave the classroom when it is windy (the school building in question eventually collapsed, see above); iv) that a new bridge has been constructed over the Lussefa River, which makes it possible to reach Milongo by car (even though the bridge over-floods when the River is high); v) that a new house has been constructed for government employees (which they hope will make it possible to retain health workers and particularly midwives); vi) that the new Movitel antenna has greatly improved communication with relatives and friends outside Meluluca; vii) that some people have bought small solar panels which makes it possible to charge cell phones; 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.

**Illustration 5:** Focus Group at Work



Photo by: Inge Tvedten

For the group of men, the main determinant of continuity and change in Milombe is still political. They argue that their reputation of siding with the opposition (visualised by the very noticeable MDM flags that were raised in 2012, see ORGUT 2102a) is the reason why the changes that do take place in other parts of Meluluca bypass Milombe. The main bone of contention is still water points (wells). They argue that both Meluluca Sede and Lussefa have new wells, and that they depend on the Lake

<sup>5</sup> Focus groups were organised in the communities of Meluluca Sede and Lussefa in 2011 and 2012. The inclusion of Milombe, which perceives itself to be marginalised and isolated for political reasons (ORGUT 2012a), was done at the explicit request of the new head of the Administrative Post “in order to include them properly in Meluluca”.

with continued problems of diarrhoea. Also improved roads (towards Timba and Metangula) bypass Milombe, where two deep ‘ditches’ are still making it difficult to pass with cars particularly in the rainy season. Nevertheless, they do acknowledge some positive changes: Some members of the community have managed to improve their houses with zinc roofs, and some have bought small solar panels (albeit “only strong enough to charge cell phones”). Movitel has greatly improved communication (emphasising that the company is foreign and not Mozambican in order not to give credit to the government....). Finally they acknowledge that there is a new head of the Administrated Post - but say it is too early to conclude whether this is an improvement or not.

Since 2012, then, Meluluca appears to continue the positive development that was initiated with the establishment of the tertiary road to Metangula in 2008. The most notable changes are the expansion of the road towards Timba (which hit here to has been totally isolated), small improvements in education and health, and improved communication via cell phones. The developments are also likely to be further consolidated by the coming of a new and more effective head of the Administrative Post. However, the socio-economic effects of the dearth in the production of fish (to which we will return to below) are stark reminders of the vulnerability of rural and marginal communities like Meluluca.

### 3.2 Fisheries and Agriculture

Looking more specifically at agriculture/fisheries, climate/environment and rural employment that are the thematic focuses of this year’s Reality Check, there is little doubt that fisheries dominate economically, socially as well as culturally.

#### Box 5. *Nyanja Saying*

”Mulungo waibisa vula ndi nchombw, sitichidiwa cholinga chake“  
*[God hides the rain and fish, but we do not know His intentions]*

Lake Niassa and its shores are omnipresent as the main source of employment and income; as the location for bathing, cleaning and socialising; and as a source of local cosmologies. 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 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.

At the same time, people acknowledge the importance of agriculture particularly for subsistence. Still according to the Baseline Survey, *all* households in Meluluca have access to one or more agricultural fields, 49 percent of the households see agriculture as their main source of subsistence and income, and 43 percent sell parts of their agricultural produce. The main *machambas* are usually small (69.2 percent 1.5 hectare or less) and people use very rudimentary agricultural methods, but there are significant differences in productivity between rainfed (*djinja*) and inundated (*mbwele*) fields.

Alternative sources of employment and income are primarily related to fisheries and agriculture in the form of production of input factors, processing and commercialisation. As many as a 71.7 percent of the households have some form of additional sources of income (the Baseline Survey). There are no formal income opportunities in Meluluca beyond public administration, education and health.

## Fisheries

Fishing is important, but hard and dangerous work with fishermen staying out on the Lake all night without life-vests or other types of safeguards. The three main types of fisheries are encircling nets (*rede de arrasto* or *chillimila*) used to capture the *ussipa*; standing or gillnets (*rede de emalhe*) used to catch demersal or larger bottom-feeding fish; and the less common beach seines (*arrasto para praia*) used to catch a variety of fish. In addition many people 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 *chillimila* used to catch *ussipa* is the most common and economically most important. Boats usually leave around seven o'clock at night when it gets dark, and stay out on the lake until early morning around four o'clock. 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*). They usually go out

**Illustration 6:** Preparing for Fishing



Photo by: Inge Tvedten

together (with the main boat pulling the others), but the canoe may also go earlier if fishing is relatively close to shore. The canoe is equipped with a master fisherman and a set of strong lights, and it is his job to read the moon, the winds and the currents, locate the schools of fish and decide when to launch the net. The *chillimila* is then set by the *boti-bwato* (using the motorised boat would scare the fish away), and the huge net is pulled in by people in the main boat. The operation may be repeated 4-6 times during one night.

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 *ussipa*, while another may get practically nothing. The prices of fish also vary considerably. In parts of the year with little fish one bucket of *ussipa* 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 *ussipa*) the position of the moon as they are attracted to the surface of the lake by light at night.

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 *ussipa* only needs a day to dry, while larger fish should preferably dry up to 3 to 4 days. While fish currently 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 and alternative ways of processing such as smoking and fermenting would increase the durability and value of the fish.

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 daily resulting in a frantic competition and a good bargaining position for the fishermen/processors. In periods of poor fishing (such as during fieldwork in June) hardly any cars arrive at all. The easiest to sell is *ussipa*, while larger fish are more difficult both because they are harder to conserve and because the market is much smaller. As we have seen people may be able to fish only around 10-14 days/nights per month and catches and income vary considerable per fishing trip. Table 7 below shows the average income per trip as assessed by households involved in the sector.

**Table 7.** Perceived average income per fishing trip (Percent)

Income (MT)	MHH	FHH	Total
No fishing	36.4	92.3	57.5
Fishing	63.6	7.7	42.5
No income	14.7	0	15.5
Income	85.3	100.0	85.5
< 250	20.7	0	20.3
251-500	22.4	0	22.0
501-750	13.8	100.0	15.3
751-1000	17.2	0	16.9
1001-1500	3.4	0	3.4
1501-2500	10.3	0	10.2
2501-5000	10.3	0	10.2
>5.000	1.7	0	1.7
Total	100.0	100.0	100.0

Source: *The Reality Check Baseline Survey 2011*

While fishing has a large potential, however, it is also capital intensive. A new motor cost 100,000 Meticaís, and a new circling net (*chillimila*) 55,000 meticaís. The price of boats and canoes vary, but even with the use of locally-based building material and boat builders the investment is considerable. According to a focal group of 12 men (where all except one were involved in fishing), the main problem they currently face is low access to fish. The fish is there, they claim, but it has moved further out from the shore and into deeper waters. To catch it, they need better boats and gear. The group also acknowledges the problem with overfishing, referring to the fact that most of the boats located in Meluluca have now moved to the north towards Metangula to fish, and argue that some kind of restrictions may be necessary (“People who come here to fish must register with the queen (*rainha*), but this is only in the case of death so that she can notify the right people”).

For the *marinheiros* in the group the main problem is to be able to buy boats/ canoes, motors and nets and hence climb to the level of *patrão*. The Ministry of Fisheries and its Institute of Small Scale Fisheries (IDPPE) have been present in Meluluca for many years (with frequent visits and the last two years with a permanent Fishery Extension Officer); has established a number of small scale Fisheries Associations; and has supplied boats, motors and nets on credit. However, many fishermen have found the credit terms too hard and the nets supplied not sufficiently adapted to local conditions. Among those who have bought through the Ministry, very few have paid back their loans and IDPPE has recently become much more restrictive in their lending policy. In fact, the most important source of credit (and the main reason for the considerable growth in the number of boats from eight in 2008 to 38 in 2013) has been the District Development Fund (see below). Most of the new boats and gear are bought directly from Malawi, where it is cheaper.

For the large majority of the local 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

**Illustration 7:** Keeping Track of Credit

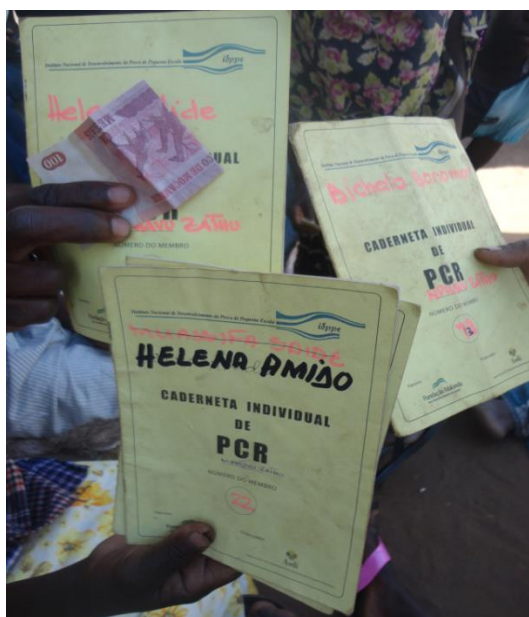


Photo by: Nair Noronha

member contributes according to their means and needs, and pay 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, and divided between the group members in the end of the year.

A meeting we witnessed in one of the savings groups gathered 15 of its 30 members, was carried out at the centre of the village for everybody to see, and led to the contributions of 890 meticaís. In addition to written records by the fishery extension officer, each member keeps track of his or her contributions and loans in their own small book (see Illustration). The money is carefully put in a wooden box, with three locks and three keys, kept by three members of the group who do not know about each other (a box may contain up to 100,000 meticaís). Apparently, the keys are passed on

to other members at night and at irregular intervals for security. People primarily borrow money to buy fish in quantity in order to process or sell. As there was no fish at the time of our visit, nobody wanted to borrow money during the meeting we witnessed.

## Agriculture

All households in Meluluca are involved in agriculture, and depend on it for their well-being. Nevertheless, it is considered a secondary activity and it is primarily done for subsistence. People may sell small quantities if they are in need for money, but only a handful of farmers produce for sale. According to our focus groups, this is so because 'we have always done it this way' and because 'it is difficult to sell what everybody has'. However, there is a clear tendency towards increasing emphasis on crops that may be sold – particularly vegetables. Domestic animals are primarily kept as a source of saving, and for fulfilling cultural expectations during celebrations and hospitality.

In Meluluca there are two main types of farming. One is rainfed and primarily done in areas towards the highland (*planalto*), with the majority of the machambas being located between one and two hours by foot away from the string of villages along the Lake (see Map 2). According to our Baseline Survey, 75 percent of the households have a main agricultural field between one and two hectares, while 67.5 percent of the households have two machambas or more. A few, usually smaller machambas, are located close by the villages. Land is in the outset readily available and obtained through the traditional authorities (*rainha* or *régulo*), and at the same time 95 percent of the households state that their machambas

belong to the household head and will be passed on to their children or other close relatives (Baseline Survey).

The second type of farming is done in the low-lying areas (*baixas*) close to rivers (see Map 2), using natural inundation or manual irrigation from water-holes for watering. People separate between *mbwelas* that are fertile between May and August, and *nyatas* that are

**Illustration 8:** Rice



Photo by: Inge Tvedten

fertile between August and November/December. Good *baixas* are much scarcer than rainfed fields, and owned by only about 'two out of ten households' according to our focus groups. While formally part of the communal areas, this land is always transferred from one generation to the next – with the focus group emphatically stating that such land is "never for sale" and that there are never conflicts around it (we met several poor families who had been able to hold on to their *baixas*). The traditionally most fertile *baixas* are located along Rio Meluluca, and this is also the main reason for the establishment of villages away from the Lake (see Map 2).

While Meluluca boasts both ample and fertile land, however, production remains very low. The two main reasons for this, still according to the focus group, are dearth of labour, and what people themselves acknowledge to be "simple agricultural methods". Labour is scarce primarily because most men are involved in fishing (taking them to the Lake for up to 10 hours a night), implying that they have limited time and strength to work in agriculture. They are involved in clearing fields and harvesting, but agriculture is very much a woman's occupation. In addition, there are strong cultural prohibitions against working for others in the community (*ganho-ganho*), which means that larger farmers have problems recruiting labour in peak parts of the agricultural season. Such work is primarily done by very poor women, who have no other option.

People in Meluluca practice shifting cultivation, and will usually produce on the same field for a period of approximately five years before they consider it 'exhausted' – with fallow periods of about 10 years. Practically everybody uses machetes (86.7 percent) and hoes (97.5 percent) as their main agricultural tools, with only 54.2 percent of the households owning an axe – all according to the Baseline Survey. Animal traction (*carroça de bois*), a plough (*charrua*) and a tractor is only used by two households in our sample of 120 - including one of the focus households to which we will return below. Except for the gathering of dry leaves in the furrows in order to preserve moisture (*composto*), no other fertilisers - whether natural or artificial – are used. During vulnerable parts of the agricultural season, such as the time of germination and just before harvesting, parts of the family (often elders and children) will move to the *machambas* for several weeks to protect their crops from monkeys and other animals.

People in our focus groups argue that dryland agriculture is becoming increasingly difficult with unpredictable rainfall and higher temperatures. "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 [*não se sente*]" . Partly for this reason,



more people seem to turn their attention to wetlands. As we witnessed and had explained to us in an area close to the village of Maloo along the Meluluca River, overflowed wetlands used to cover an area of hundreds of hectares on a regular basis (following the rainy season on the planalto). The most productive farmers had *machambas* on three different levels of the terrain, utilising the water as it withdrew to produce three harvests. However, the Meluluca River (as the Lussefa and Lichai rivers) have suffered such heavy erosion that the water currently overflows only very limited areas – even though people argue that the quantity of water is as before. Also the groundwater level is becoming lower, they argue. The results of this development is that the large majority of farmers having access to land in the *baixas* depend on digging wells and watering by hand, which is both labour and time-consuming.

According to our Baseline Survey – and largely confirmed by a focus group of women – the most common food crops produced in Meluluca (with the proportion of households in parenthesis) are: cassava (97 percent), maize (87 percent) and sweet potatoes (75 percent), while some also produce pumpkin (67 percent) rice (51 percent), peanuts (48 percent), sesame (28 percent), tomatoes (28 percent), beans (25 percent), bananas (25 percent) and sugarcane (22 percent). Other less common crops include cabbage, garlic, onions, yams, peas, sorghum, potatoes and chilli. People are thus well aware of a large variety of crops. Nevertheless, many only produce the three staples. The limited number of people producing alternative crops and vegetables is the combined outcome of culture and tradition; the limited emphasis given to agriculture; the need (in the case of vegetables) to own inundated land; and the restricted local market for agricultural products.

The combination of the low socio-cultural value attributed to arable agriculture and the limited productivity makes agriculture into a subsistence activity for the large majority of households in Meluluca. At the same time, however, 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' over a span of years (by government, by NGOs and by the farmers union), but complain that they have never been properly followed up. To demonstrate the importance of this, they refer to the extension officer in fisheries and the death of a similar person for agriculture.

**Illustration 9:** Watering *baixas* by hand



Photo by: Inge Tvedten

While the focus groups acknowledged the need to improve their agriculture, they also have strong opinions about the type of interventions that would be useful. They are *for* the use of animal traction (and tractors albeit realising that this is less relevant) to be able to open fields and plant more efficiently; they are *for* the use of improved seeds and a larger variety of crops; and they are particularly *for* more efficient ways of utilising the rivers for irrigation by introducing some type of mechanical device for getting the water into the field (but do not know what). But they are *against* the use of chemical fertilisers (arguing that it has ruined the soil in Malawi); they are *against* the introduction of cash crops (which they say is a lot of work with hardly any remuneration); and they are *against* seeds from the government (that they claim are too expensive and not adapted to the sandy conditions in much of Meluluca).

Whereas 43 percent of the households sold parts of the agricultural produce after the last harvest (Table 8), the large majority only sell when they are in dire need of cash. Locally there is a market for traditional food crops such as maize (*milho*), peanuts (*amendoim*) and beans (*feijão*), and – although still to a more limited extent – vegetables such as tomatoes (*tomates*) and lettuce (*alface*). With most people trying to sell soon after harvest - because they need cash and do not have good ways of preserving their products – the market tends to be saturated and the prices low. There is no market for cassava (*mandioca*), which is resistant, easy to produce, and in relative abundance. As seen from Table 8, only 28 percent of those selling agricultural products made more than 2.500 Meticaís after the previous harvest.

**Table 8.** Total income from preceding harvest (Percent)

Income	MHH	FHH	Total
No income	55.1	69.2	56.7
Income	44.9	30.8	43.3
< 250	6.3	0	5.8
251-500	14.6	0	13.5
501-750	6.3	0	5.8
751-1000	16.7	50.0	19.2
1001-1500	14.6	0	13.5
1501-2500	12.5	25.0	13.5
2501-5000	14.6	0	13.5
>5.000	14.6	25.0	15.4
Total	100.0	100.0	100.0

Source: *The Reality Check Baseline Survey 2011*

Domestic animals have no central place in the everyday life of the Nyanja in Meluluca, and 29.2 percent of the households do not have any animals at all. Cattle are owned by six percent of those who do own animals, and is primarily used for investment and sale. Goats are owned by 30 percent, and chicken, ducks and doves is owned by 85, 40, and 13 percent respectively. These are primarily kept as ‘savings’ and only rarely included as condiment (‘caril’) in people’s everyday food intake. When eaten or sold, this is primarily connected to celebrations related to births, marriages and funerals or to people visiting from towns and cities where such food is more common.

Finally, there is no production of commercial crops like cotton, tobacco or soya-beans. The reasons given are that Meluluca is too far away and difficult to access for the relevant companies; that the heat, humidity and sandy soils are not suitable; and that traditional leaders in Meluluca refuse to give away land. As reported in the Lago Reality Check for 2012 (Orgut 2102a) an attempt to introduce cotton was done last year by contracting individual farmers and having them replace their food crops, but this failed due to poor communication from the part of the company leading to minimal returns to the farmers. No farmer produces cotton in the 2012/2013 season.

**Box 6:** *Perceptions of Climate Change*

There is broad agreement among people in Meluluca that temperatures, rainfall, winds and currents in the Lake were ‘better’ before, and that agriculture and fishing were more productive ‘in the old days’. Relating to current climate and environmental changes that affect everybody, they invariably refer to God and God’s will in explaining why changes take place and what can be done about them. When misfortunes such as a failed harvest and poor fishing affect individual households more than others, however, witches are blamed and *curandeiros* are called for.

### 3.3 Alternative Employment and Income

As noted above alternative sources of employment and income are primarily related to fisheries and agriculture in the form of production of input factors, processing and commercialisation. 71.7 percent of the households have some form alternative income, and 28.3 percent do not (Table 9). There are, as already stated, no formal employment opportunities in Meluluca, except in public administration, education and health that are usually occupied by people from other parts of Lago and Niassa.

The most common additional employment opportunities 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); carpenters (producing doors, window frames and agricultural tools such as hoe and ax); tailors (who tend to mend old rather than produce new cloths); and finally piecemeal work or *ganho-ganho* (Table 9). The total list of 'occupations' also include pensioners, pastoralists, mill-owners and traditional healer. *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 agriculture and their domestic chores.

**Table 9.** Households with Alternative Sources of Income (Percent)

Source of Employment	MHH	FHH	Total
No alternative employment	25.2	53.8	28.3
Alternative employment	74.8	46.2	71.7
Formal employment	1.3	0	1.2
Handicraft	18.8	16.7	18.6
Production/sale of beverages	1.3	0	1.2
Trade (shop-owners/bancas)	11.3	0	10.5
Small-scale trade (ambulantes)	7.5	0	7.0
Mason	12.5	0	11.6
Carpenter	2.5	0	2.3
Electrician	1.3	0	1.2
Tailor	1.3	0	1.2
Pwati	1.3	0	1.2
Ganho-ganho	48.8	83.3	51.2
Others	23.8	0	22.1

Source: *The Reality Check Baseline Survey 2011*

The market for these alternative economic activities in Meluluca is closely related to the fishing sector and the ensuing circulation of money. Traders primarily get their goods from Malawi, where they claim it is cheaper and better quality. However, it has recently become more difficult to import and customs are creating increasing problems at the border by levying taxes "that are much higher than what they should be". Some of the shops or *bancas* in Meluluca still have a wide variety of goods, but usually in limited quantities. The only products that are solely made in Mozambique are cooking oil, soap and biscuits. The 'strategy' to get around the limited purchasing power in the community is to divide goods – from cooking oil to boxes of fishing hooks – into very small quantities making them affordable for individual households. The income generated from alternative sources of employment among households in Meluluca is given in Table 10.

**Table 10.** *Income from alternative sources of employment (Percent)*

Income	MHH	FHH	Total
No income	55.1	69.2	56.7
Income	44.9	30.8	43.3
< 250	31.7	76.9	36.6
251-500	5.6	23.1	7.5
501-750	8.4	0	7.5
751-1000	12.1	0	10.8
1001-1500	5.6	0	5.0
1501-2500	10.3	0	9.2
2501-5000	9.3	0	8.3
>5.000	16.8	0	15.0
Total	100.0	100.0	100.0

Source: *The Reality Check Baseline Survey 2011*

All craftsmen- and women have learnt their trade locally by elders in the community. Tools are usually very simple for all types of products (from canoes to reed-mats), not because people do not know better but because they cannot get access to or afford to buy better saws, hammers, nails etc. Moreover, because of the low demand they usually only produce on request from people in the community. We have not come across any *artesenatos* in Meluluca who produce to sell their products outside the local community – even though there would be a market particularly for housing utensils and fishing equipment outside the village. One of the poorest men in Meluluca is an excellent craftsman and produces window frames and doors, agricultural tools and reed mats (*esteiras*), but still remains poor because of low prices and demand.

**Illustration 10:** *Artesenato at work*

Photo by: Inge Tvedten

### 3.4 Government-Citizen Relations

The Government's direct involvement in the primary sectors of fisheries and agriculture is very limited, but it is indirectly involved for example by building and maintaining roads and bridges (making it possible for traders to reach Meluluca); by opening up for telecommunications (making it possible to ascertain prices in different markets); and most recently by supplying solar panels and electricity through the National Fund for Energy (FUNAI) that can be used for illuminating homes as well as to preserve fish and agricultural products.

At the same time, however, government is not usually given credit for these types of investments that are often denoted '*projectos*' and associated with the private sector or NGOs. In fact, the main 'talk of the village' concerning government this year was, besides the arrival of a new head of the Administrative Post, the issue of taxes. People argue that they have to pay more and more and 'don't get anything back', but the situation is that tax collection has been made more efficient. Instead of leaving the collection of the person tax (*Imposto de Reconstituição Nacional*), the commercial tax (*Licenças de Vendideiras*) and the bicycle tax (*Imposto de Bicicleta*) to the traditional authorities and the bairro secretaries (ORGUT 2011c), the Administrative Post now organises special days for collection of taxes and only those who do not come forward and pay on those days are traced by the traditional authorities.

In agriculture, the state is most renowned for what it does not do. People are particularly concerned about the absence of agricultural extension officers, also because they do acknowledge that they may gain from using improved technologies. Meluluca has never had such an officer, and the one who passed by and presented himself early 2013 never came back (according to SDAE the person in question has leave of absence and will come back in the end of the year). Moreover, some people lament that it is difficult to get hold of improved seeds as they have to go to Metangula, while others complain about the price of quality of the seeds. There are also some who talk with longing about the time when the “government guaranteed to buy what people produced” – but for others this is closely associated with the time of ‘Samora’ and has negative connotations. Finally producer associations, i.e. the backbone of much of the government’s agricultural policies, are hardly present at all with only six percent of the households in the Baseline Survey being involved.

In fisheries, we have seen that the government has been more directly involved primarily 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 IDPP’s 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). The main challenge is for the extension officer working for the Fisheries Research Institute (IPP), who records catches on the beach, writes them into a book and – as narrated by the fishermen – “gives the information to government”. IIP 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.

The main external source of funding for investments in economic activities remains the District Development Fund or the ‘7 Million Scheme’. This was treated at length in our 2012 Lago Report (ORGUT 2012a), and the main challenges remain in 2013: While originally a good idea and representing a vital source of capital, the scheme has been negatively influence by unclear rules and regulations from the very beginning in 2007 (including the issue of repayment); inadequate training and capacity among the local population to develop sound project ideas; and delays and unpredictability in the decision-making process both at the level of the Administrative Post/Consultative Councils and at the level of the District Administration where the final decisions are made.

According to the new head of the Administrative Post, a total of around 25 of the 68 projects financed have had some level of success while the rest have failed or the money have been ‘eaten’. Most of the successful projects are related to fishing, where knowledge already exists and incomes are immediate. Still according to the Head, more emphasis should be given to the development of agriculture and alternative sources of employment. The total allocations under the District Development Fund in Meluluca for the period 2007-2012 are given in Table 11.

**Table 11:** District Development Fund Meluluca 2007-2012

Year	Allocation (MT)	Reimbursed (MT)	Number of Projects
2007	86,200	46,900	2
2008	1,148,210	294,765	10
2009	1,267,675	162,090	11
2010	1,328,400	86,776	17
2011	1,200,000	109,625	12
2012	1,610,600	80,531	16
Total	6,641,085	780,686	68

Source: P.A. Meluluca 2013

### 3.5 Main Changes

In discussing the main challenges in the Meluluca communities in 2013 as seen from the point of view of a male-and a female focus group in the village of Chilowa (see Map 2), the former still emphasises water as a major cause of concern. Everybody depends on the Lake, which creates diarrhoea despite the fact that people boil the water they drink. Previously the shore was washed by big waves giving the shoreline a ‘good clean-up’ (*uma lavagem*), but this does not happen anymore. Further, money from the District Development Fund is only given to people who live in the central villages (Meluluca Sede and Lussefa) and are close to the traditional authorities. Employment outside fisheries and agriculture is also considered a major challenge. For people to take part in public works programmes, for example, one needs identity cards which makes it necessary to go to Metangula or to Lichinga and are difficult to get. Only one person in the village of Cholowa – a tailor – has alternative employment. The group is also frustrated by the lack of electricity, with no one in the village having had the opportunity to sign up for the new solar panels initiative (see above). Finally they complain about the high costs for transportation with minibuses and small trucks (*chapas*), which inhibit many from going more often to Metangula and Lichinga to sell goods and visit family.

After a long and intensive debates about main challenges, the group of women also agreed that water remains a major problem (see Illustration). It is a long walk to the Lake, there are no wells close-by, and particularly in the rainy season the water becomes dirty. Secondly, they highlighted the lack of access to secondary schools (8-10 Grade) in Meluluca, implying that only people with money can educate their children beyond primary school. Thirdly (and probably related to the high average age in the group) they complained about the long treatment of applications for pensions for old combatants (*antigos combatentes*) – with many having submitted applications in 2009 still waiting for responses. Furthermore, they complain about the difficulties for women to have the projects financed through the District Development Fund. And finally, while acknowledging the importance of opening the new road to the southern parts of the Administrative Post they lament that it is in very poor conditions during the rainy season.

Illustration 11: Voting for Main Challenges



Photo by: Nair Noronha

For both groups, then, the problems they see as most serious for Meluluca are those that most directly affect them in their daily lives rather than larger structural issues related to politics, the economy and the social cultural context influencing relationships between men and women and rich and poor.

## 4. SOCIAL RELATIONS OF POVERTY

We have seen in earlier Reality Check reports how poverty and well-being in Meluluca 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 non-governmental organisations and state being much less important. 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.

### 4.1 Organisation of Primary Production

Looking more specifically at the organisation of primary production, artisanal fisheries is organised on the basis of collective efforts between members of different households while agriculture and rural employment is primarily organised on the basis of individual household units.

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 more on an *ad hoc* basis. They either rent a room or sleeping space with local families (as with one of our focus households), 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.

Jamel Pinto<sup>6</sup> 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 wives 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 for expenses related to the education and health of their children.

**Teófilo Manuel** is around 50 years old and has worked as a *marinheiro* all his adult life. He has one wife and four children (of whom one is mentally handicapped), but has only once been able to earn enough money to invest in a gill-net and his own fishing operation. However, he claims that did not pay off "as the *utaca* disappeared". Being a *marinheiro*, Mr. Manuel only rarely gets enough to sell, and with such small quantities it does not pay off to build racks for drying the fish meaning that he usually sells to larger entrepreneurs on the beach. His wife is not involved in the sector at all, and spends her time in agriculture.

In agriculture, most land is worked by the household only, partly because of the relatively small sizes of fields and partly due cultural prohibitions of working for others. Only five percent of the households use external labour (Baseline Survey). *Ganhoganho* is only done by people (usually women) in a very difficult situation, and the payment – in cash or kind – is very small. In terms of the distribution of labour within the household, women generally do planting, weeding and protection from animals, while men usually take part in land clearance and harvesting. For most households this means that women and children will stay in the *machambas* for weeks during the agricultural season, while men stay in the village fishing. The more detailed distribution of work in agriculture, as described by a focal group of women, is the following:

*By women:* "Slash and burn [the plot]; make field beds; plant maize, cassava, sweet potato, sesame seeds, beans [*jugo* and *nhemba*], 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 of maize (and also sweet potatoes, tomatoes, pumpkin, cabbage and okra for some) in the rice 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".

**Illustration 12:** Boy with solar panel



Photo by: Inge Tvedten

<sup>6</sup> All names used in this report are fictitious.



As discussed above most households in Meluluca produce for their own consumption and only a small part produce for sales, but many households are forced to sell part of the products when they need cash. Still according to the Household Survey, 62.5 percent claim that the decision about when to keep agricultural products and when to sell them rests with the head of the household, while 27.5 percent claimed that this is a joint decision between the household head and his wife or wives. At the same time, in 83 percent of the cases it is the household head who is responsible for negotiating prices and whether to accept them or not. The main challenge is that the local market is too small, and transport to larger markets such as Metangula and Lichinga is too expensive and infrequent. People in the focus groups mentioned two possible solutions: One is that the state organises the marketing of crops and gives guaranteed prices, and the other is that farmers are given contracts with hospitals, schools and other public institutions.

**Alberto Uacaia** is around 60 years of age and originally from Meluluca, but moved to Malawi when he was young only to return about 10 years ago. He brought his wife from Malawi, and three of his five children. Upon returning he was allocated land close to Lussefa and the Lake, which people living in the community did not want to occupy because they considered infertile. Mr. Uacaia has built himself up to become a big farmer, combining rainfed farming (2 hectares primarily with maize) and land inundated from the Lake where he produces a variety of crops.

He has also invited three other households from Malawi to his area. The small 'village' of around 30 people cooperate in several periods of the agricultural cycle, and proudly shows us stocks of for example *mapira* that officials in SDAE told us are not produced in Lago. They do not use chemical fertilisers (referring to the negative experiences from Malawi) and claim that seeds from SDAE are not good enough, but still manage to produce enough for sales. The main limitation for increased production is access to labour, with people charging 10,000 to 12,000 Meticaís for clearing one hectare. Alberto Uacaia thinks that the problem is that people are used to 'quick money' from fishing. The only way to get around this is to use cattle or tractors, which currently is on his agenda. He also argues that he could inundate much larger areas if he had an effective way to tap water from the Lake. Mr. Uacaia consciously pursues a variety of activities, and has also invested in racks for drying fish which he buys from local fishermen and which his wife sells in Malawi.

**Chabane Abudo** 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 their *machamba*. It 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.

Finally as regards other sources of employment and income, these are as we have seen primarily in the hands of the men in the household. This is partly the outcome of cultural and religious prohibitions against women earning money on their own, and partly because many of the artisanal activities demand initial investments that women cannot afford. However, several of the occupations listed in the previous chapter are carried out by women in other parts of Mozambique, and more gender equality in such activities should therefore be possible. While income from these activities usually contribute to the household budget, many elders complain that young household members rather spend money on themselves – with clothing, cell phones and trips to Metangula and Lichinga being the most coveted items.

**Box 7.**

“Estou entre a espada e a parede, mesmo que pudesse não tinha como fazer mais”  
 [I find myself between the sword and the wall, even if I knew how I could not do more]

Poor man, Meluluca

**Lucas Mussala** used to be a fisherman with his own net, but stopped after an accident “and the disappearance of the *utaka*” and opened a small ‘barraca’ in Meluluca. He has two wives and seven children, and is very active in the community organising labour brigades (“it has only happened twice in the past two years”), social events such as Women’s and Children’s Day and most recently the registration of voters for the 2014 national election. In 2011 he received 160,000 Meticais 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.

**Zambia Salange** has been less ingenious. Together with 10 people he applied for District Development Funds in 2010, with the idea of producing peanuts. They applied for 180,000 Meticais, but the interviewee claims that they only received 40,000. They immediately split the money between them, and some managed to produce “one and a half bucket” of peanuts. Mr. Salange, however, bought “clothes, food and sent two daughters to school”. He now works with *ganho-ganho* repairing houses and fences and admits that he totally failed (“eu fracassei totalmente”) – apparently not understanding how he could have organised the money he received in a more productive way before it was too late.

Discussing the total workload and time-use of men and women respectively in focus groups, there are clear differences in perceptions. While men acknowledge that women have more tasks, they emphasise the drudgery of fishing and argued that there is no time to do other things than fish, eat and sleep. Women’s perceptions of men are exemplified in Table 12, with their own workload and the estimated time used to carry them out recapitulated in Table 13.

**Table 12: Daily Activities of Men**

Men's Activities:	Tempo (minutes/hours):
Fish	4 h minimum – 11h/12h maximum
Wash	5 min
Go to the machamba	2/3h
Eat lunch	3 min
Various tasks (bathroom, roof, instruments)	3/4h (from 14h to 17h/18h)
Take a bath (at home)	5 min
Rest	Depends
Chat with friends and help them mend fishing nets	3/4h
Play dice ( <i>nchuva</i> ) at the market	In the afternoon
Eat dinner	7 min

**Table 13: Daily Activities of Women**

Women's Activities:	Tempo (minutes/hours):
Sweep the house and yard	30 min
Clean dishes (Lago); collect water	50 min
Take a bath	15 min
Prepare breakfast	30 min
Go to the machamba	(3/4h – return 12:00)
Take a bath (some)	5/7 min
Prepare lunch	25 minutes-1.5/2 hours
Eat lunch	5 min- 30min
Clean dishes in Lago and bathe (some)	10 min
Peel the cassava	1h or more
Pound the dry cassava	A whole day
Go to school	3h (from 14 to 17h)
Converse with women when making reed mats	3h
Cut grass for houses and collect wood in the bush	6h
Work for others in their machambas	3/4h
Go back to own machambas (some)	2/3h
Make rolls for sale (and consumption)	5h
Wash cloths (in Lago)	1h
Go to mass	1h
Water the garden	1h
Visit friends and family	1/2h
Give baths to the children	10 min
Make dinner	1h
Prepare for children to sleep	5 min
Watching videos (in the house of neighbours)	1-3h
Converse with husband and children (old stories)	Varies
Sleep	7h

## 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 Meluluca. While fishing has a dual purpose of providing money and food, agriculture is primarily focusing on subsistence production and providing people with their daily needs.

Eating is economic as well as cultural. People in Meluluca 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, 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

**Illustration 13: Eating the basics**


Photo by: Nair Noronha

salt should be added to an *ndiwo* to improve its trexture, taste and health provisioning properties, but this is usually a 'luxery' 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 (*batata reno*) 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. Fishing had been good, and it was 3-4 months after a reasonable harvest (the most 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). Table 14 shows the types of products eaten in the week before the Survey, and Table 15 reveals the amount of money spent on food during the same period. Finally, Table 16 indicates the inequalities in access to basic foodstuffs. As seen, 42.5 percent of the respondents have to buy food the same month as the harvest - implying that they do not produce enough for own consumption. At the same time, the Baseline Survey shows that 29.8 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	MHH	FHH	Total
Meat	20.6	0.0	18.3
Chicken	31.8	23.1	30.8
Fish	100.0	92.3	99.2
Porridge/Rice	100.0	100.0	100.0
Vegetables/Leaves	98.1	100.0	98.3
Bread	57.9	23.1	54.2
Milk	27.1	0.0	24.2
Eggs	29.9	7.7	27.5
Fruits	68.2	23.1	63.3

Source: *The Reality Check Baseline Survey 2011*

**Table 15:** Money Spent on Food the Week Prior to Baseline Survey (Percentage)

Expenditures	MHH	FHH	Total
No expenditures	0.9	23.1	3.3
< 250	54.2	69.2	55.8
251-500	23.4	7.7	21.7
501-750	8.4	0.0	7.5
751-1000	10.3	0.0	9.2
1001-1500	0.9	0.0	0.8
1501<	1.9	0.0	1.7
Total	100.0	100.0	100.0

Source: *The Reality Check Baseline Survey 2011*

**Table 16:** Number of Months after Harvest When Necessary to Buy Staples (Percentage)

Months	MHH	FHH	Total
0	42.1	46.2	42.5
1	13.1	7.7	12.5
2	21.5	15.4	20.8
3	1.9	15.4	20.8
4	0.0	7.7	2.5
5<	0.0	7.7	0.8
Total	100.0	100.0	100.0

Source: *The Reality Check Baseline Survey 2011*

### 4.3 Family and Household Dynamics

Moving on to changes in poverty and well-being among the focus households, we showed in the 1<sup>st</sup> Reality Check that people in Meluluca have clear perceptions about there being different levels of poverty (*umphawi*) and well-being (*olemela*). Their definitions tend to take two issues into account: The level of material poverty and social relationships – or the extent to which a household or an individual is implicated in social networks or socially isolated. More concretely, the Wealth Ranking exercise revealed that people in Meluluca distinguish between four levels of poverty and three levels of well-being in their own vernacular (Table 17, see also ORGUT 2011f).

**Table 17:** Levels and Characteristics of Poverty and Well-Being

The Poor	
Osowedwa	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.
Chilekwa	Men and women who are lazy ( <i>preguiçosos</i> ), and who do not contribute anything to the community.
Masikini	Men and women with physical or mental deficiencies.
Okolamba	Older men and women who do not have support from their family because no one is close to help.
The Better-Off	
Odjifunila	People who manage well ( <i>desenrascar</i> ) in their daily life, and who do not depend on others.
Opata	People who are in a position to give informal employment ( <i>biscatos</i> ) to other people in agriculture, fisheries and construction.
Olemela	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.

Source: *1<sup>st</sup> Reality Check Lago (ORGUT 2011c)*

To systematically pursue the socio-economic and cultural implications of being part of these categories, we have identified seven individual households that belong to each one of them. These represent a ‘panel of households’ (see ORGUT 2011f) that we follow closely throughout the Reality Checks. Below we present the households as we found them in 2011, sum up changes recorded in 2012, and present their situation as of 2013.

**Family 1 (Osowedwa I).** The household lives in Milombe, in a small house with only one room. The couple has six children from 2 months to 19 years of age. They have two *machambas* in the rainfed area that barely produce enough for consumption. In addition, the husband makes and repairs agricultural tools and doors – for which there is limited demand and which pay poorly. The children go to school “sometimes”, with the exception of the oldest

boy who received support to start 8<sup>th</sup> Grade in Metangula. 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.

Developments 2011-2012. The household had not seen any changes in its composition. The family still depended on the sale of bamboo doors and repairs of agricultural tools. However, the husband had also started to learn to make canoes for fishing, which he thought would enhance his income. The wife produced cassava and maize. The main changes in the family situation were an increase in the price of the doors produced by the husband, and that the oldest child had to leave his studies because the family could no longer pay for his accommodation. 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". The family did not receive any support from local institutions, but continued to receive support from the wife's uncle in times of real difficulties.

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 his plans of making canoes, as the 'mestre' stopped working. He continues to produce agricultural tools, window frames and doors, but has had to reduce to 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 II 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. His plan for next year is to start fishing on a small scale, and he has already made traditional baskets for that purpose. 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. The house where Osowedwa lives is made of burnt blocks of clay, has four rooms and a fenced back-yard. However, it belongs to a younger brother who just moved to Metangula, and Osowedwa's real dwelling is a small shack in the yard. She has no contact with the fathers of her children, and never receives any type of support. She has never gone to school, and her children stopped studying in 3<sup>rd</sup> Grade 'as there was no money'. She has a small *machamba*, but survives by selling small *bolinhos* and raising chickens and ducks, and gets fish when she rents out the small shack to fishermen.

Developments 2011-2012. The household had seen a change in its composition in that the niece left and the brother came back from Metangula with his wife and three children. Osowedwa still depended on the support from her brother, and income from renting out a part of her dwelling to a fisherman. The household head's small *machamba* did not yield anything, because she had been frequently ill. Moreover, Osowedwa had to move out of her brother's house when he returned, and back into the small house in the garden. She also 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 again, and does not support her any more. In addition the roof of his house has fallen down, compelling Osowedwa II to stay in the small shack in the garden. Moreover, her married daughter is in a difficult situation and cannot continue to support. 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, as opposed to last year, she has managed to produce mandioca, 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 lives in Lussefa, and 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 for which they receive pay in cash or kind.

Developments 2011-2012. The composition of the household did not change, but the daughter of the household head was in the beginning of her fourth pregnancy. Moreover, a grand-child gave some financial support and basic food as he saw his grandmother's situation deteriorate. The household did cultivate, but expected low yields as they were 'only women'. The main changes were the construction of a small house for the household head done by another grandchild, as the old house had fallen down. The family only has direct contact with the State through its health services. When they need help, they considered the support to be inadequate. Even though the household is very poor, they still don't get support from the community.

Developments 2012-2013. We meet the daughter of the household head, as the latter has left for a few days after a row. The interviewee has seen a change since last year, in that she has had built a small new house with the help of a brother – making the compound consisting of three small dwelling units "but still without a latrine". The relation with neighbours is good, she claims, but also acknowledges that they do not get much involved with them. They have a *machamba*, where they produce mandioca, and sometimes a little maize, beans and sweet potatoes. As the rain was poor this year they tried to plant maize close to their dwellings, but this was robbed. In reality the household depends on working in the fields of others (*ganho-ganho*), for which they may get the maximum of one small basket (*cesto*) of mandioca per day of work. They do sometimes get a little help from a son of the household head who is a fisherman, but basically continue to struggle as a relatively isolated household of 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. She moved closer to her oldest brother's oldest son – who she realised was the only one who could help her as her own children "are all poor". While 'Masikini' has access to a *machamba*, she does not really produce as she cannot leave her son alone. 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".

Developments 2011-2012. There were no changes in the family-structure. The main source of income was the production and sale of reed mats, as the chickens had died. The small household had also received some support from the oldest children, mainly in the form of food. The household head did not produce anything in her *machamba*. 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 get 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, and of raising chickens because the ones she had died and she cannot afford to buy new ones. 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 mandioca. 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. Their four children are all poor and largely in the same situation as their parents. 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.

Developments 2011-2012. Arriving at the dwelling of this household in 2012, we were told that they had not been present for a couple of weeks and would not return for another two-three weeks. The reason was that they had managed to open another agricultural field with the help of a relative, and had decided to stay in the field and protect crops from monkeys and other 'intruders'. This way, the household had apparently seen an improvement in their situation.

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, including a young girl who got pregnant, but lost the child, last year. Only one of the children's fathers help out with a little money for education. Together the household has constructed a small new house. 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 mandioca ("sometimes with good results") and a small wetland area close to the Meluluca River originally owned by Okalamba. There she used to plant sugarcane, but this was burnt down last year. She also tried to produce rice, but this only gave three *latas* (approximately 60 kilo). Her plan is to start planting cabbage (*couve*) to have something to sell, but she has not managed to get seeds yet. In a poor year like the current they depend on doing *ganho-ganho* for others. The supply of fish from the fisherman who received a net from a relative in 2011 (see above) has stopped. Still Okalamba is determined to work hard for her grandchildren – referring to her earlier experience as number 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. With his first wife he lives in a compound with two dwellings and an additional one under construction. His second wife has a similar living arrangement. 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, with the oldest attending the Pedagogic University in Lichinga.

Developments 2011-2012. During the period in question a child of the second wife died. Otherwise the family composition remained the same. The main source of income for the family was still commercialization of dried fish. The main changes were an increase in the quantity of fish sales to between 50 and 60 buckets per month, and the construction of a brick house next to the first wife’s main dwelling. The illness of the second wife compelled the household head to stay with her at the hospital in Malawi for close to four months. This created difficulties for the business in that period of time, but the household head worked hard to re-establish his fish-sales. His main relationship with the Mozambican State is through education and the school, and he sees no reasons for complaints about the former. His one contact with the Health Post was, however, a very negative experience.

Developments 2012-2013. The size of the household has returned to ‘normal’, as one new child has been born after the 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. The first and the third fields have been inherited, and the second was identified by the family itself. In addition, Odjifunila is part of an association who owns and cultivates a field together. The household has plans for opening a large new *machamba* next year, where they plan to produce rice. Until now, they have usually employed three or four people working for them against pay in cash or kind. They usually try to sell their surplus in Metangula, where prices are twice as high as in Meluluca (three large potatoes and 10 small potatoes, for example, sell for 10 Meticaís in the district centre and five Meticaís locally). The household head’s 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. An important reason for his success, Odjifunila claims, is that he carries out several activities at the same time.

**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.

Developments 2011-2012. During the year in question the mother of the household head died, but otherwise his large family remained the same. The main changes for the household were the illness of the oldest child of the household head and his first wife (who was followed up well both in Mozambique and Malawi); a reduction in the number of cattle to 28; the construction of a wall around the dwellings of all four wives; the construction of a kitchen-section made of cement and with a zinc roof; acquisition of a larger variety of products in their store (spare parts for motorcycles and cars and paint among others); an increase in the quantity of fish; and overall improvements in the living conditions of the family. However, the family did not yet buy the vehicle for transportation they had planned to (“not because we could not afford it, but because we have not had the time”).

Developments 2012-2013. The household, consisting of Opata, his four wives and 21 children, continue 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 10.000 and 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 application was originally for buying and selling maize). The household also has four *machambas* in a wetland area primarily with maize, cassava and rice, managed by each of the four wives ("My wives know more about the *machambas*, I am a *comerciante*"). 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".

#### 4.4 Social Mobility and Gender

In terms of overall structural context, we have seen that conditions for economic development and social mobility in Meluluca are favourable, with the road built in 2008 opening up for outside trade and with fisheries being a sector with considerable potential for production and capital accumulation. During the past year Meluluca has also seen a more active state, with the new head of the Administrator Post having taken initiatives to improve education and health and to secure better infrastructure in the form of a new bridge, new wells and solar panels.

However, we have also seen that the options for social mobility through the primary sectors vary. In fisheries, it is closely associated with economic position. While *patrões* have good options for capital accumulation (even though they also bare the risks involved), the majority of *marinheiros* earn much less making it very difficult to become a boat and/or fishing-net owner. Fishing is also primarily an activity for men.

In agriculture, most people produce for subsistence, and methods are rudimentary, making it difficult to produce more than what is necessary for getting by. However, we have also shown the potential inherent in wetland production where yields are higher and it is easier to produce crops that have a reasonable market. Women may own land, and carry out the bulk of work in the sector.

Alternative sources of employment are important in their own right, as diversification reduces vulnerability. Commercialisation of fish has the largest potential, but requires capital to sell to markets outside the local community. Agricultural products, small-scale trade and handicrafts also have potential for enhanced income and social mobility, but are still negatively affected by simple technologies and a limited local market.

Among the cases reported in the pages above, we have seen two examples of households improving their situation in agriculture and commerce respectively. In the first ('Alberto Uacaia'), the success was based on a conscious decision to diversify their economic activities to include fisheries and fish trade, rainfed and wetland agriculture and by entering into cooperation with neighbours. The main hindrance for further expansion was the inadequate access to labour.

In the second ('Lucas Mussala'), commercial activities have been expanded with the support of the District Development Fund and by a conscious planning of expenses and incomes - aided by a short course in accounting. A strong involvement in community life also opened up opportunities for shorter term employment. In this case, a major constraint was social control mechanism (in the form of witchcraft) set in motion when his shop became too big and affected the business of others.

It has been more difficult to identify female-headed households and women who have managed to enhance their conditions the past year. They are not involved in fisheries, their agricultural plots are often small (partly due to the limited access to men who can help clear

fields), and they are apparently banded from most of the alternative sources of employment – in particular handicrafts. According to one informant, women tend to ‘*voltar para tras*’ (‘go behind’ [their husbands]) when they marry, despite being “better at negotiations and earning money than men”.

Women who have managed upward social mobility – such as ‘Mwnaiba Amido’ who we met in the 2012 Lago Reality Check – are often wives of better-off men involved in fisheries or commercial activities. On the basis of the existing matrilineal socio-cultural structures, they are often able to keep part of income for their own household and children. For female heads of households, there are still economic as well as socio-cultural constraints inhibiting social mobility - including limited productivity, low incomes, exclusion from important social arenas and perceptions of single women are not being ‘complete persons’.

The majority of young people may have their dreams about cities, towns and formal employment, but very few (and usually children of better-off parents such as Odjifunila above) study beyond primary school in Meluluca (see Illustration). For most young boys the main alternative for making a living is fishing, which is hard work but also may yield ‘quick money’. For girls, there are few options beyond getting married and doing agriculture and small-scale trade – even though there are local examples of women who control their own money. ‘Moving ahead’ both requires parents or other relatives who see the value of education, and role models and knowledge about what alternatives entail.

Looking finally at developments among the seven Focus Households, the main trend is also this year that households in the four poorest categories are unable to generate enough income to significantly improve their situation. Poor male headed households with children do manage to maintain a certain standard of living through hard work (such as Osowedwa I and Okalamba), while poor female-headed households have seen their fortunes vary significantly or even deteriorate (Osowedwa II, Chilekwa). Households in the better-off categories are further expanding both economically and socially – even though sudden illness in their family and the abrupt deterioration in fisheries demonstrate also their vulnerability to external shocks.

**Illustration 14:** Preparing for the future



Photo by: Inge Tvedten

## 5. CONCLUSIONS AND LESSONS LEARNT

### 5.1 Main Changes in Poverty and Well-Being 2012 – 2013

- Available statistics for economic development in the District of Lago indicate small improvements in agriculture, a small reduction in fisheries, and status quo for small-scale industries – even though there are considerable differences and inequalities between different parts of the District.
- The number of beneficiaries from social protection measures (INAS) has been relatively stable since 2012, and the poorest and most destitute in communities like Meluluca still totally depend on support from the extended family, traditional institutions, neighbours and friends.
- In Meluluca, a sudden dearth in access to the sardine *ussipa* has had immediate implications for the level of economic activity and the households directly concerned. However, over the past year there still seems to have been a continued positive development – largely based on fisheries but also to some extent on a diversification of agriculture.
- At the level of households, the best-off family units have managed to expand their economic activities and improve their standard of living – in some cases also investing in higher education of their children.
- Among the poor, households headed by men seem to have the best options for securing basic necessities through hard work in agriculture and fisheries – albeit with very few having been able to diversify their employment and income and hence reduce their vulnerability.
- Female-headed households continue to be among the poorest, and suffer the most from structural constraints in agriculture, fisheries and alternative employment. Small incidents (such as minimal increases in the price of flour and the death of chickens) tend to worsen their situation and further capture them in destitution.

### 5.2 Challenges for Fisheries, Agriculture and Employment

- In fisheries, public institutions (IDPPE and IIP) struggle against inadequate funding and poor levels of human resources (particularly extension officers). 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 quantity and availability of fish, leading them to take considerable risks by pushing the capacity of their boats and gear to the limit. The number of people dying on the Lake is increasing.
- 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. While the *ussipa* always has a ready market, larger demersal fish are more difficult to sell because of the low local purchasing power and inadequate methods of preservation.
- For fishermen (*marinheiros*), the main challenge is low and unpredictable incomes due to the system of being paid in part of the catch (in other parts of Mozambique *marinheiros* receive fixed salaries). Accumulating enough funds to invest in own boats and gear is very difficult.

- For women, the main challenge is strong cultural prohibitions against women being involved in fisheries. 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.
- In agriculture the main public institution (SDAE) has not been able to develop close relations with farmers in Meluluca, primarily due to the dearth of extension officers. For other services (improved farming tools, seeds etc.), people have to come to the District capital which few farmers do – partly due to transportation costs, but also related to perceptions that the input factors offered are expensive and unsuitable.
- Farmers themselves complain about changes in climate (rain and temperature), making it increasingly difficult to plan for the agricultural season. Access to rainfed land is no constraint, but access to wetland or *baixas* is restricted to families with customary rights.
- People realise that their agricultural techniques are simple and inadequate for more effective production, but are uncertain about what the alternatives are – or outright sceptical due to what they argue are negative experiences of improved input factors from Malawi.
- There are hardly any farmers in Meluluca who ‘lead by example’ in the form of improved technologies and more efficient production. Also, for the few farmers who do produce for surpluses and sales access to labour is a constraint – both for cultural and economic reasons.
- The market for food crops is limited, with prices in Meluluca being around half of what they are in Metangula, and with few people producing sufficient to render transportation to larger markets profitable.
- The production of vegetables on wetlands seem to be on the increase, albeit restricted by inadequate systems of irrigation and labour constraints. The market for these products seem to be on the rise, but still with higher prices in the main population centres than in the more rural villages.
- Alternative employment is widespread and has potential for diversifying income for both men and women. There is no formal employment available outside education and health, but various trades (tailors, carpenters, masons) are relatively widespread although remuneration is low.
- Handicraft (doors, windows, agricultural tools, pottery etc.) is another potential area of expansion for the poor, with low investment requirements. At present, however, tools and techniques are too rudimentary, and the local market too restricted.

### 5.3 Policy Implications and Development Interventions

- Government institutions in agriculture, fisheries and employment work with limited 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.
- The Lago Community Radio should be supported financially as well as in basic journalism (while maintaining their independence), as a key channel for communication

with local communities throughout the District. Separate programs should be developed for agriculture, fisheries and rural employment.

- In fisheries, one key policy implications is to strengthen fisheries research in Lake Lago and the communication of research findings to fishermen, who depend on updated knowledge about the 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.
- In agriculture, a main policy implication is to significantly enhance focus on improved and more efficient technologies and seeds through an expansion of the network of agricultural extension officers.
- 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.
- 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 alternative employment/handicraft, efforts should be made to systematically map existing activities and invite NGOs or other stakeholders to focus their efforts on developing the sector.
- Key interventions should be related to 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 than in 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 fisheries and agriculture. Roads and bridges should continue to be improved, both in order to include the entire Administrative Post (to Timba) and to ease accessibility to the main population centres and markets in the District.
- With electricity not coming for the foreseeable future, solar panel should not only be made available for households in a position to pay for them but also to 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 expanded to Lago/Meluluka.
- The lack of potable water remains the main concern of people in Meluluka, and increased efforts must be made to secure accessibility also for the more marginal communities.

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