GLOBAL POLICIES: DISCREPANCY BETWEEN GLOBAL DESIRES AND LOCAL CONDITIONS?

THE SUITABILITY OF GLOBAL POLICIES TO RAISE LOCAL AGRICULTURAL PRODUCTIVITY RATES AND FOOD SECURITY IN LAGO DISTRICT, MOZAMBIQUE.

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Abstract
The majority of the rural population in developing countries sustains their livelihoods through small-scale family farming on subsistence level. However, agricultural productivity is far from its potential and food insecurity and high absolute poverty rates are widespread challenges in Sub Saharan Africa (SSA), including Mozambique. Global actors, such as the World Bank (WB), frequently publish policy guidelines, strategy papers and reports, all aiming at tackling the focal problem of low agricultural productivity and claiming to be dedicated to the overall goal of economic, social, inclusive and sustainable development.

But as agricultural productivity rates in many developing countries remain low, and food insecurity rates have been high for several decades, the adequacy of global policy guidelines for local structures, conditions and needs is questionable. The aim of this study is therefore to analyze the suitability of and identify possible discrepancies between global strategies – that claim to raise agricultural productivity and food security – and the local level. A strong emphasis is placed on a people-centered, local grassroots perspective.

To gather data, a five-week field study in Lago District, Mozambique, was carried out, following an abductive approach and using semi-structured interviews on household level, and with a variety of other stakeholders from the public and private sector. The Logical Framework Approach was applied to structure the findings from the WB report and from the field work, with the aim to create a basis for the analysis and comparison of that data, which provides an answer to the research problem of the suitability of global policies on local level. Additional analytical guidance is provided by the concept of human security and a gender perspective.

Conclusions from the study demonstrate that the neoliberal point of departure and the different understandings of small-scale farming underlying the problem and objective of (low) agricultural productivity rates identified by the WB, are not coherent in comparison to the local situation identified in Lago District. The development interventions suggested by the WB rather tend to be an obstacle for sustainable rural and agricultural development, as well as local food security/sovereignty, poverty alleviation and inclusive economic growth in the context of Lago District.

Key Words: subsistence farming, development, agricultural productivity, poverty, food security, Mozambique, Niassa Province, Lago District, global policies, World Bank, World Development Report 2008, Logical Framework Approach
Acknowledgement

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<tbody>
<tr>
<td>AfDB</td>
<td>African Development Bank</td>
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<tr>
<td>AIDS</td>
<td>Acquired Immunodeficiency Syndrome</td>
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<tr>
<td>ARI</td>
<td>Africa Research Institute</td>
</tr>
<tr>
<td>BCI</td>
<td>Banco Comercial e de Investimentos (Bank of Trade and Investment)</td>
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<tr>
<td>CAADP</td>
<td>Comprehensive Africa Agriculture Development Program</td>
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<tr>
<td>CC</td>
<td>Climate Change</td>
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<tr>
<td>CSIW</td>
<td>Church of Sweden’s International Work</td>
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<tr>
<td>CSR</td>
<td>Corporate Social Responsibility</td>
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<tr>
<td>DUAT</td>
<td>Direito de Uso e Aproveitamento da Terra (Right and benefit to use land)</td>
</tr>
<tr>
<td>ESAN</td>
<td>The Food and Nutrition Security Strategy and Plan of Action</td>
</tr>
<tr>
<td>EU</td>
<td>European Union</td>
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<tr>
<td>FAO</td>
<td>Food and Agriculture Organization of the United Nations</td>
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<tr>
<td>FDI</td>
<td>Foreign Direct Investment</td>
</tr>
<tr>
<td>FEWS NET</td>
<td>Famine Early Warning System Network Mozambique</td>
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<tr>
<td>FHH</td>
<td>Female-headed household</td>
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<tr>
<td>FIAN</td>
<td>Food First Information and Action Network</td>
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<tr>
<td>GDP</td>
<td>Gross Domestic Product</td>
</tr>
<tr>
<td>GIZ</td>
<td>Deutsche Gesellschaft für Internationale Zusammenarbeit</td>
</tr>
<tr>
<td>HIV</td>
<td>Human Immunodeficiency Virus</td>
</tr>
<tr>
<td>IBRD</td>
<td>International Bank for Reconstruction and Development</td>
</tr>
<tr>
<td>ICJ</td>
<td>International Consortium of Investigative Journalists</td>
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<tr>
<td>IDA</td>
<td>International Development Assistance</td>
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<tr>
<td>IDRC</td>
<td>International Development Research Centre</td>
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<tr>
<td>IFAD</td>
<td>International Fund for Agricultural Development</td>
</tr>
<tr>
<td>IFPRI</td>
<td>International Food Policy Research Institute</td>
</tr>
<tr>
<td>IMF</td>
<td>International Monetary Fund</td>
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<tr>
<td>IYFF</td>
<td>International Year of Family Farming</td>
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<tr>
<td>LFA</td>
<td>Logical Framework Approach</td>
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<tr>
<td>MDG</td>
<td>Millennium Development Goals</td>
</tr>
<tr>
<td>MFAF</td>
<td>Ministry of Foreign Affairs of Finland</td>
</tr>
<tr>
<td>MNC</td>
<td>Multinational Corporation</td>
</tr>
<tr>
<td>MT</td>
<td>Metical (Mozambican currency)</td>
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<tr>
<td>Abbreviation</td>
<td>Full Form</td>
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<tr>
<td>NAI</td>
<td>Nordic African Institute</td>
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<tr>
<td>NR</td>
<td>Natural Resources</td>
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<tr>
<td>PARP</td>
<td>Action Plan for the Reduction of Poverty</td>
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<tr>
<td>PEDSA</td>
<td>Strategic Plan for the Development of the Agricultural Sector</td>
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<tr>
<td>PQG</td>
<td>The Five year Government Plan</td>
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<tr>
<td>R&amp;D</td>
<td>Research and Development</td>
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<tr>
<td>SAP</td>
<td>Structural Adjustment Programs</td>
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<tr>
<td>SARDC</td>
<td>Southern African Research and Documentation Centre</td>
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<tr>
<td>SCC</td>
<td>Swedish Cooperative Centre</td>
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<tr>
<td>SDG</td>
<td>Sustainable Development Goals</td>
</tr>
<tr>
<td>SETSAN</td>
<td>Technical Secretariat for Food and Nutrition Security</td>
</tr>
<tr>
<td>SIDA</td>
<td>Swedish International Development Cooperation Agency</td>
</tr>
<tr>
<td>SSA</td>
<td>Sub-Saharan Africa</td>
</tr>
<tr>
<td>UCA</td>
<td>Union of Associations and Cooperatives of Lichinga</td>
</tr>
<tr>
<td>UN</td>
<td>United Nations</td>
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<tr>
<td>UNAC</td>
<td>União Nacional de Camponeses (National Peasants’ Union of Mozambique)</td>
</tr>
<tr>
<td>UNDP</td>
<td>United Nations Development Program</td>
</tr>
<tr>
<td>UNESCO</td>
<td>United Nations Educational, Scientific and Cultural Organization</td>
</tr>
<tr>
<td>UNICEF</td>
<td>United Nations International Children’s Emergency Fund</td>
</tr>
<tr>
<td>UNISDR</td>
<td>United Nations Office for Disaster Risk Reduction</td>
</tr>
<tr>
<td>UNSCN</td>
<td>United Nations standing Committee on Nutrition</td>
</tr>
<tr>
<td>UPCN</td>
<td>União Provincial dos Camponeses de Niassa (Provincial Peasants’ Union of Niassa)</td>
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<tr>
<td>USAID</td>
<td>United States Agency for International Development</td>
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<tr>
<td>WB</td>
<td>World Bank</td>
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<tr>
<td>WDR</td>
<td>World Development Report</td>
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<tr>
<td>WFP</td>
<td>World Food Program</td>
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<td>WHO</td>
<td>World Health Organization</td>
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Currency equivalents:
Currency Unit: Metical (MT), plural: Meticais
USD 1 = 39,1500 MZN
EUR 1 = 43,4957 MZN
SEK 1 = 4,59847 MZN
(exchange rate effective August 15th 2015; Source: XE, 2015).

Weights and Measures
Metric System

Words in Portugues, Nhanha and Yáo
Baixa wetland
Bairro quarter/neighborhood
Capulana piece of fabric used as wrap-around-clothing or to carry babies
Corral small stable to keep livestock
Curandeiro traditional doctor/healer
Ganho-ganho day labor, working another person’s land
Machamba arable land, referring to a piece of land for family small-scale farming
Nduna traditional leader position, subordinated to the regulo
Regulo male traditional leader
Rhaina female traditional leader/’queen’
Sequeiro dry land
1. Introduction

1.1 Research Topic

Every year global institutions publish policy guidelines, strategy papers and reports, all dedicated to crucial and current topics for economic, social, inclusive and sustainable development with the overall goal to lift people out of poverty. Thousands of projects are aimed to alleviate poverty and raise national GDPs (Ika et al., 2013:106). However, statistics from various developing countries indicate a contradicting trend: increasing income distribution gaps (see Annex 1), low employment rates (WB, 2015), social exclusion and still high poverty rates – despite successes in lowering extreme poverty – (UNDP, 2015), as well as low agricultural productivity and food insecurity (Havnevik et al., 2007) are only some of many challenges people in developing countries face every day.

A multiplicity of actors within the international development arena frequently release strategy papers on agriculture and effective tools to boost agricultural productivity rates, as especially in agriculture-based countries the sector can effectively contribute to lower absolute poverty. The World Bank (WB) is one of the fundamental players when it comes to loans and is the main agenda setter in international development cooperation, promoting development strategies based on neoliberal thinking in order to secure food supply and decrease poverty rates (Wolff, 2013). Even though, global policies that address and try to tackle this focal problem exist, the African agricultural productivity is still far from its potential and food insecurity trends, particularly in rural areas, continuously increase (Havnevik et al., 2007:10ff., 37ff.; Mabiso et al., 2014:649).

Especially in African countries, a reversed development of agricultural production is exemplary: Compared to other regions of the world, cereal yields (measured in tons per hectare) are the lowest in SSA (see Annex 7). While two-thirds of the African population depend on agriculture to sustain their livelihoods and while 80 percent live in rural areas and the largest percentage of total labor force are active in the agricultural sector (ARI, 2009:1; see Annex 13), governments, for instance, were rather increasingly discouraged to subsidize the agricultural sector than to support it – amongst others by the WB (Havnevik et al., 2007:10; Stein, 2011:80). Instead of hoped progress in agricultural output and higher competitiveness in the global market, global policies did not contribute to real improvements in agricultural production so far, but rather lead to rising food imports of a continent that used to be a net exporter of agricultural products (ARI, 2009:1). Although, the agricultural sector is especially crucial for a sustainable safeguarding of food security – that is based on food
availability\(^1\), food access\(^2\) and food use\(^3\) – and is furthermore relevant for sustainable development in general through its linkages to economic, trade, environmental and health issues (WHO, 2015). Hence, the topic of this research can briefly be described as an analysis of the potential discrepancy between global policies and local conditions.

1.2 Literature Review
The academic community has not reached consensus about the (non-) effectiveness of global policies released by major global players – like the WB – in regards to development progress and in particular to poverty reduction, the improvement of livelihoods on different levels as well as agricultural productivity.

The main debate about development policies and the impact of neoliberalism has two opponent point of views: On the one side are those who believe in the economic integration and trade promotion as a tool for growth and in turn the precondition for development (e.g. Rodrik, 2014; De Moura Castro, 2002). On the other side are those who argue that liberalization policies, including trade and capital flows as well as market inclusion are non – or only to a very limited extent – effective for the overall progress of developing countries (e.g. Stein, 2011; Grabel, 2007; Sanford, 1988; Payer, 1979,). In this context, many authors state that neoliberal policies even worsen rather than improve conditions for large parts of the population in poor countries and actually harm human rights (e.g. Stein, 2011; Sarfaty, 2009; Havnevik et al., 2007; Arestis et al., 2011:3f., Payer, 1979).

The WB is one prominent example of this main debate about neoliberal development policies, being the object of an own debate around WB policy effectiveness, which is not a new one but reaching back several decades. Payer (1979:295) stresses, even before countries launched the WB’s SAPs in the 1980s, that bi- and multilateral development agencies – in particular referring to the WB – do neither follow poverty abolition and livelihood improvement as a major concern, nor do they intend to reach the “’poorest of the poor’” but rather prosecute the establishment of a hegemony and “monopoly of development wisdom” in

\(^1\) Food availability is defined as „sufficient quantities of food available on a consistent basis“ (WHO, 2015). This refers on the micro level to the physical availability of food to a household, on the macro level to the physical availability in a specific area of concern. Food availability includes domestic production, commercial imports, reserves as well as food aid (WFP, 2010:23).

\(^2\) Food access means „sufficient resources to obtain appropriate foods for a nutritious diet“ (WHO, 2015). This includes the physical access and economic access of a household to adequate amounts of food. The former through roads, networks and markets and the latter through own production, exchange or purchase (WFP, 2010:23).

\(^3\) Food use is the „appropriate use based on knowledge of basic nutrition and care, as well as adequate water and sanitation“ (WHO, 2015). The particular importance of health status is linked to a person’s ability to absorb and use nutrients in a household (WFP, 2010:23).
favor of the rich markets⁴. She adds in regard to the WB that “[i]f the Bank is not the most innovative and original of development agencies, it is unquestionably the most powerful” (ibid., 295). Also Sanford (1988:257) criticizes the WB’s prioritization of economic reforms, debt and structural adjustment as “a modern anti-poverty program”, however, concluding that there is a general fundamental disagreement about positive or negative impacts on the poor.

Stein (2011) argues that increasing poverty and income inequality trends in African countries are logical outcomes of WB policy strategies (see Annex 1). He considers this as a result of the WB’s prevention of state intervention and the WB’s misconceived assumptions about the agricultural sector as an obstacle for growth. Fortin (2005:147) identifies a difficulty that “agricultural policies have been prescribed by the World Bank as conditionalities of multilateral loans […]” which have driven the integration of Southern African countries in the world economy that is “played out on an increasingly unequal global playing field”. In addition, Stein (2011:80) criticizes in particular the WB’s adjustment strategies in terms of a lacking focus on poor farmers and points out an alternative approach to the WB’s approach, focusing on the raise of rural incomes with the aim of poverty and inequality reduction. The suffering of small peasants as a consequence of these dictated policies by the WB and its affiliates, in the name of development, is also pointed out by Prayer (1979, 293f.). Havnevik et al. (2007:10) – following a micro-centered point of departure – have a special focus on small-scale farmers by emphasizing their importance and arguing that “agriculture is key to poverty alleviation, especially for African smallholder farmers”. Nobel laureate Joseph Stiglitz (2001) highlights the combination of the local with the global level in order to reach development: He argues that the importance of the inclusion of the local conditions “including knowledge of local political and social structures” combined with “learning derived from global experiences, provides the best prospects for deriving policies which are both effective and engender broad-based support” (ibid., 196f.).

Sarfaty (2009) accuses the WB of broadly marginalizing human rights in their operational practice and despite internal and external pressure, does not take the impact of its lending on human rights into consideration (reviewed by Craig, 2014). Munarriz (2008:431) gives the example of “Indigenous Communities in Latin America” and argues that the WB’s policy-based lending programs and market-oriented legal frameworks have contributed to expanding mining activities in that region, but at the same time “caused not only forced displacement and further impoverishment of numerous indigenous communities but have also

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⁴ Rich markets in this context refer to “North America, Western Europe, Japan, and the elites of their own capital cities” (Payer, 1979:293).
directly contributed to the destruction of their cultures and the environment they inhabit”. This is also emphasized by a currently on-going discussion/publications about WB programs and “the broken promise to the poor” headed by investigative journalists from all over the world accusing the WB because it “pledges to ‘do no harm.’ But over the past decade it has regularly failed to protect the world’s most vulnerable people [from losing their land or their livelihoods]” (ICIJ, 2015).

Grabel (2007) emphasizes in her argumentation that the Bretton Woods Institutions confuse the concept of coherence with conformance of development policies. She does not question the idea of coherence itself but the understanding of it in terms of neoliberal policies as a one-fits-all idea for development. She stresses the need and right of countries to develop in a heterogeneous and autonomous way in accordance to their specific national context (ibid., 339f.). Fortin (2005:147) presents similar arguments, claiming that the WB’s proposals are just not suitable for the region of Southern Africa and rather reaffirm and reproduce inequality.

De Moura Castro⁵ (2002) rather takes a mixed point of view. He represents a position of many economists, associating liberalization with growth and further growth with poverty reduction (Harrison, 2007:2). While de Moura Castro (2002) agrees with Grabel (2007) concerning the fact that the WB needs to consider the country’s unique context, he refers mainly to the problem of WB policy implementation. He states that it is often the countries themselves that do not want to pay the political price of a reform – that comes in form of conditionality from the WB – which then limits the long-run benefits for a country. From his perspective, this is a proof that the WB is even not able to influence a country’s policies or even impose any conditionality but only supports “the good guys at the right moment” (De Moura Castro, 2002:396). Similar to de Moura Castro (2002), also other authors see a hold back of the WB’s promoted neoliberal policies’ potential in the country-specific obstacles. Rodrik (2014), e.g., refers to the distinction of unconditional and conditional convergences in growth theory. Conditional convergences, he names as relevant ones, are for example weak institutions, poor geography, lousy policies or poverty traps. Related to this, he doubts – compared to Stein (2011) and Havnevik et al. (2007) – an agriculture-led growth scenario in African countries because of a “poor business climate”, limited governmental capabilities to

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⁵ De Moura Castro is a former employee of the WB as well as the Inter-American Development Bank. He was also „a civil servant and consultant at the receiving end of the loans”, which has the potential of a biased view on the topic (de Moura Castro, 2002:387).
solve the issues of “extension, land rights, standard setting and input provision” and the general non-existence of historical examples for such a strategy (Rodrik, 2014:12).

Our research problem arises out of the above presented research debates between researchers and authors supporting the WB, seeing poverty as well as causes and effects of low agricultural productivity from an economic based perspective and rooted in countries’ internal malfunctioning and their specific conditions, while others rather focus on the WB approach as a problem as such and the consequences that imperfect neoliberal policies provoke in different sectors of developing countries and by that for the population. Hence, the question appears – also in regards with non-rising agricultural productivity rates in the past four decades – how the local conditions for development fits into the global policy framework.

Furthermore, this debate displays that many researchers have found evidence that WB policies do not achieve what they claim, and even harm people because of different reasons. However, only a small part of the existing research has actually studied in the field of applicability and suitability of WB policies with a special focus on the local, rural level in SSA. Hence, this study aims at contributing to that research gap and gain knowledge on discrepancies between global desires and local conditions.

1.3 Research Problem and Relevance
Even though policies to change the focal problem of low agricultural productivity are prescribed by different actors, such as the WB, and exist on all political levels for more than 50 years, agricultural productivity rates in SSA do not increase, or only increase at a very low pace. Rural agricultural based areas differ very much from each other, for instance, in terms of geography, weather conditions, crop types and agricultural cultivation practices (ARI, 2009:3), while (global) policies – aiming at increasing productivity with the objective of poverty alleviation – are formulated broad and sometimes vague, even though their overall objective is highly relevant. Therefore, it is questionable if policies from major institutions like the WB, IMF or other bi- and multilateral institutions are harmonized with local structures, conditions and needs to a satisfying extent.

Hanlon (2000), in this respect, exemplifies the WB’s action on a policy for the Mozambican cashew nut industry, calling it “a textbook free market policy” that was based on a sectoral study commissioned by the WB and highly questioned by Hanlon (2000:34ff.) in terms of consideration of real conditions, context and potential problems. He argues that the policy was imposed on the government, regardless the objecting parliament and civil society.
He summarizes his critique by stating “that the World Bank staff sometimes have unchecked power to impose policies on poor countries, with no need to justify their actions” (ibid., 29).

In Mozambique, where 70-80 percent of the population lives in the countryside and practices small-scale farming, however, only 20-50 percent of the agricultural potential is claimed to be utilized and agricultural contribution to GDP is far from its potential (see Annex 6; Johansson/Nhampossa, 2012:35). The rate of absolute poverty (2009) indicates that almost 10 million Mozambicans live in absolute poverty (IMF, 2011). The Mozambican Ministry of Agriculture (2010:6) states that rural poverty is especially high because of low agricultural productivity. “Agriculture also plays an essential role in food and nutritional security. For the majority of people in rural areas it is their main source of both food and income” (ibid.). Poverty, low agricultural productivity and food insecurity remain the biggest challenge for Mozambique, even though the country recorded high economic growth rates in the past decade (Mabiso et al., 2014; WB, 2015a). The province, Niassa, and the district of investigation, Lago (see Annex 21-23), is endowed with large areas of fertile soils and forests, heavy rainfalls and suitable temperatures, providing a perfect environment and ideal conditions for agriculture. However, poverty rates are at an alarming level and agricultural productivity, which is mainly based on small-scale family farming, is very low (Johansson/Nhampossa, 2012:37).

Based on the previous description, the problem unfolds to what degree the WB policies, and for this study the WB policy of the annual WDR 2008 *Agriculture for Development*, suits the local level and conditions, in which Lago District serves as an example to particularly gain deeper knowledge about deeper insight into the various (potential) impacts of global-level policy recommendations on the grassroots, i.e. the local population and their livelihoods. This is highly relevant as suitable policies are the precondition to lift many people out of poverty and provide the long-term basis for a sustainable livelihood, which is not only a MDG and SDG, but also a basic security issue in the *Human Security* debate. Agricultural productivity in general, and as an outcome of this also food security, is broadly considered as a crucial tool for poverty reduction and sustainable development. On the basis of this major idea, this study aims to take a rather seldom applied perspective by including a local and people-centered perspective in relation with global policies.

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6 Very good agricultural prerequisites and 70-80 percent of the population engaging in agriculture are very promising conditions to feed the own population, still Mozambique is a net importer of basic food staples like rice, wheat and potatoes (Granheim, 2014:22; Smart/Hanlon, 2014:2)

7 More recent data is not available as for now.
1.4 Research Purpose
With respect to the above formulated research problem that global policies and WB policies in specific, are based on a paradigm that does not comply with real conditions for local implementation and are accused to create more harm than good, the purpose of this study is to find a deeper understanding of how global policies operate on a local level and therewith analyze the relation between the local settings and the global perspectives. By investigating the suitability of the WB policy for Agriculture for Development on the local level in Lago District, Mozambique, this study tries to contribute to a specific field of development studies. By carrying out a multilevel analysis this study aims to identify potential discrepancies between global policies and local level conditions and to possibly raise awareness and influence future policy-making to a more rural-sensitive and community-centered approach.

1.5 Research Questions
The following research questions serve as a guiding framework in order to be able to find answers to the research problem. The research questions are divided into three parts, the first one helping to understand the WB’s perspective on low agricultural productivity in SSA, presented in their WDR 2008 on Agriculture for Development (WB, 2007). The second set of questions navigates the researchers’ inquiry of data collection in the field. The structure of the questions is aligned to the Logical Framework Approach (LFA) (which will be outlined and explained in more detail in chapter 3) as this structure will help to disambiguate the findings and thus also the comparative nature of the third question answered in the analysis of this research.

Q1: In which way does the WB define their policy and policy recommendations for agricultural development?
   Q1.1. What are the causes identified by the WB for low agricultural productivity?
   Q1.2. What are the effects identified by the WB of low agricultural productivity?
   Q1.3. What kind of potential solutions/activities does the WB suggests to raise agricultural productivity?

Q2: What situation can be detected in Lago District regarding low agricultural productivity?
   Q2.1. What are causes for low agricultural productivity identified in Lago District?
Q2.2. What are effects of low agricultural productivity identified in Lago District?

Q2.3. What kind of solutions/activities are desirable to tackle identified causes of low agricultural productivity in Lago District?

Q3: What kind of differences/discrepancies can be detected when comparing the WB policy and policy recommendations (Q1) with the situation identified in Lago District (Q2)?

1.6 Research Methods
In order to understand the meaning that individuals within a local setting ascribe towards the agricultural conditions that they pursue and that sustain their livelihoods, a qualitative research method, ethnographically inspired, has been chosen (Cresswell, 2009:4). Data was collected during a five-week field research in Lago District, Niassa Province, Mozambique, using semi-structured interviews, open-ended question guides and participatory observations, supported by comprehensive secondary literature provided amongst others by the local government bodies.

The analytical framework applied – with an abductive mode of inference – is the LFA. The LFA provides a useful structure for the findings, both from the field and from the WB report that will enable the researchers to carry out the analysis. Additionally to the LFA and as a general guidance this study is using a gender perspective and the concept of Human Security, in particular food security, developed by the UN and further explained in chapter 2.

1.7 Thesis Structure
This paper is divided into nine chapters. Chapter one presented the research topic, problem, relevance, purpose and the research questions that will guide the researchers throughout the paper. The second chapter comprises an overview of the methods that are used to collect the data. In chapter three the analytical framework and general guiding approaches are introduced, that will structure the findings and support the analysis. The findings of the WDR 2008 are found in chapter four, followed by chapter five which contains the findings from the field research. The analysis and comparison of the WB’s policy objectives with the local reality in Lago is presented in chapter six. To complete the analysis the researchers own objectives are outlined in chapter seven, while the concluding results and the answer of the research problem are put forward in the last chapter. A comprehensive annex provides the reader with additional
material, i.e. brief background information about the WB as well as a context about Mozambique and Lago District, general information about smallholder agriculture, an exemplary case of private investment, graphs, maps, terms of references and a list of interviews.
2. Methodology
This chapter outlines the methods as well as the underlying ontological and epistemological approaches applied in order to collect and use the data and materials. Potential limitations and necessary ethical considerations are furthermore pointed out.

2.1 Type of Research
This study comprises two types of research. The first type is a desk study to collect information from the WDR 2008 to establish the basis – the WB’s view on agricultural productivity – for the later comparison in the analysis chapter.

With the second type of research – collecting data in the field – this study tries to understand and conceptualize a complex social phenomenon and therefore a qualitative research method has been chosen. This part of the study is carried out as a five weeks field study during April and May 2015, focusing on Lago District in Niassa Province, Mozambique. Mikkelsen (2005:48f.) defines field studies as systematic investigations of social situations and social change, which is used to generate increased understanding of that social situation or change.

Lago – the district of investigation – is located in Niassa, which still is the most isolated province in Mozambique, recording very high poverty rates and a low level of agricultural productivity (Åkesson/Nilsson, 2006:12f.; ORGUT, 2014:5ff.). These conditions are exemplary to investigate the research problem of global policy suitability in the local agricultural sector. Taking the research problem as a point of departure, answers and explanations will be sought by collecting data from various contexts, like the economic, social, political, historical, gender and cultural context and by using various methods (observation and interviews with local people and peasants, with local and international civil society actors as well as political representatives on local and provincial level) in order to establish a holistic view of the local situation in Lago District.

2.2 Ethnographic Approach
This qualitative field study follows an ethnographic approach in terms of how knowledge and data was collected. Ethnography within this research study is characterized by the researchers participation and observation within the context of the respondents mainly in Lago District. The focus hereby laid on gaining accurate first hand understandings of the respondents’ perspective on agricultural development and how they think it is shaped by their environment. A variety of methods has been used – open-ended questions, participatory observations, individual and group interviews – in order to allow respondents’ engagement and hence to
understand the respondents’ “vision of his world” (O’Reilly, 2005:9) to the greatest extent possible (ibid., 3,183).

The interpretation and re-contextualization of collected data (with the help of the LFA) guided the researchers to understand the situation in Lago District in regards to agricultural productivity and food security and therewith to be able to give new meanings to the social phenomenon under study (Danermark et al., 2002:80f.).

Using an ethnographic style approach provides for the needed flexibility in the field, in terms of being able to go back and forth between research design, data collection and analysis, in case that the open-ended questions lead into another direction than anticipated (O’Reilly, 2005: 178f.).

2.3 Epistemological Approach
The application of the LFA as the main analytical framework for the process of data collection and reconceptualization – used as a mean to understand the phenomenon of low agricultural productivity and food insecurity as followed by the WB and as experienced in Lago District – allows for a new conceptualization and hence the creation of new knowledge in the field of policy application on local realities.

The described approach is embedded in an abductive mode of inference and in the ontological and epistemological view of critical realism, and hence the obtained outcome of this research is seen as one possible truth about the agricultural situation in Lago and the suitability of the WB policy to it (O’Reilly, 2005:3). Another analytical framework would likely present other results, as it would be based on different concepts and structures (Danermark et al., 2002:39). The reason critical realism is applied, is that this study does not seek to establish an “absolute truth” about the social phenomenon of global policy suitability for local levels, but rather tries to explain issues “revealing the causal mechanisms which produce them” (Danermark et al., 2002:1), in this case trying to better understand to what extent a lack of coherence between global desires and local conditions may hamper productivity improvement.

2.4 Data Collection
Primary data was mainly collected in Lago Districts within the communities of Bandese, Maniamba, Meluluca, Mechumwa, Messumba and Metangula city. This data was complemented with interviews held in the Province capital Lichinga and the country’s capital Maputo, hence, having a collection of data from three levels, local, provincial and national.
Therefore it was possible to get a complex picture about the agricultural situation in Lago including opinions, ideas and influences from different political and civil society levels (see Annex 31).

In total 61 interviews with a variety of stakeholders were conducted (see Annex 32). The core area of interviews (more than 1/3) was held with small-scale peasants and fishermen as well as local farming families, coming from different socio-economic backgrounds (2see Annex 26, Table 2). For a more holistic understanding of the object under study, methodological triangulation was used and interviews with respondents and individuals from different governmental levels (district and provincial) and various departments, local NGOs, small-scale traders, the private sector, traditional leaders and peasant unions were conducted. Interviews were held with male and female respondents, trying to create a gender balance. However, often women’s voices were represented by male respondents, e.g. their husbands or other male participants of interviews.

Interviews followed semi-structured interview guides with open-ended questions. The former and the latter allowed for needed flexibility for the respondent to answer more in depth and also express their point of views and different perspectives openly. Furthermore, these methods enabled the researchers to adjust to the respondents’ narratives and receive more in-depth views and information. Participatory observations during informal conversations and visits complement the primary data set.

Collected data was supplemented with a variety of secondary literature. Documents consulted reach from governmental publications like policies, action plans or statistics, research articles about agricultural productivity and international policy implications to publications of intergovernmental organizations on agriculture, small-scale farming and gender, to name the most important ones.

**Sampling Technique**

The interviewee sample was compounded via snowball sampling (O’Reilly, 2012:44). Contacts established in the beginning of the field research have helped to reveal other possible persons to contact. Moreover, during the data collection process and the more understanding the researchers gained about the agricultural situation and important links towards it, new contacts have been established on the ground. The sample of interviewees was intentionally guided by the researchers – which Mikkelsen (2005:193) calls *purposive sampling* – in order to control for type of interviews needed conducive to receive the information needed for answering the research questions.
2.5 Limitations and Delimitations

Limitations

Possible biases and certain predisposition of the researchers arising before and during the data collection process in the field have to be pointed out.

First of all, none of the researchers speaks either Portuguese or any of the local languages of Lago District – Nhanha or Yao. Even though translators were provided, the translation process from the local language to Portuguese and then to English might sometimes have led to misunderstandings on both, participants’ and researchers’ sides of the posed questions and answers, as well as deficits of the real content of what the participants would like to express, as even little nuances in a language can be relevant and respondents sometimes used to speak in metaphors. The use of probing by the researchers is supposed to minimize this limitation (Mikkelsen, 2005:193ff.).

Another limitation occurs out of the cultural background of the researchers (Mikkelsen, 2005:326ff.). Both researchers’ European origin, precisely from Germany, might have confined the comprehension of particular social phenomenon because of their culturally different socialization. Moreover, the researchers were not familiar with the cultural and/or religious habits of Mozambique and the district per se, which increased the potential of accidental inappropriate behavior, which could have impeded the validity of the data to some extent. In addition, the gender of the researchers (female) and translators could have affected the interview data obtained because of gender related social hierarchies and a different view on the role of the women in society, even though this was not actively noticed (Mikkelsen, 2005:330ff.).

Also, potential wrong expectations and a certain mindset from the interviewees’ side regarding the researchers’ origin, and purpose of the research, could have evoked biases reflected in the data (Mikkelsen, 2005:340). Even so the researchers themselves tried their best to make their research intentions clear and build a basis of trust through the introduction to the local/traditional leaders (see also 2.6).

Furthermore, none of the researchers is a trained expert on agriculture, and in particular not on the special conditions in rural SSA’s agriculture, which is the main focus of inquiry. However, contact persons have advanced experience and knowledge within that field. Also, extensive preparation before and during the field research shall minimize this limitation.
Delimitations

A delimitation is that this study only looks into the sector of agriculture and the suitability of one specific global agricultural policy, here the WDR 2008. Being aware that the agricultural sector is a very dynamic one and strategies, innovations and new methods arise frequently, the authors despite and consciously chose the WDR of 2008, as it remains one of the most influential global policy guideline from a major player in development cooperation up to this date.

Moreover, the data collection is focused on one district and hence can only draw conclusions on this basis, as agricultural conditions can vary already within one district, letting alone areas and region with other geographical compositions.

2.6 Ethical Considerations

Ethical problems may arise during collecting, analyzing and writing down the results of data. The researchers ascertained at all times that the research purpose was clear for every participant and that the respondents are aware of that data is collected in the frameworks of a field study. The respondents’ anonymity is provided for, if they wished for it. Respondents are not put at any risk and were treated respectfully to all intents and purposes⁸ (Creswell, 2009:88,89).

⁸ The researchers want to point out that the photos used as illustrations in this thesis are taken by one of the authors (Daria Hasse) during the data collection in Lago District. All photos presented here were taken with the oral agreements of the people and not showing them in extreme situations. Furthermore, the photos are carefully chosen under the same ethical considerations pointed out above, ensuring respect, integrity and dignity for the people displayed and providing that the publication of these photos does not put any of the persons in a vulnerable situation.
3. Analytical Framework
For this research one analytical framework, the LFA, and two guiding approaches, the *Human Security* and a gender approach are presented and explained in this chapter.

3.1 The Logical Framework Approach
The LFA is originally a framework and instrument for the planning of projects, used by many development cooperation institutions like USAID, SIDA and the GIZ, but has also been applied to other context, for example analyzing, assessing or evaluating projects (Örtengren, 2004:1). The method, which contains nine different steps, serves the purpose of improving the quality of development interventions, by thoroughly investigating the (1) context, (2) affected stakeholder, (3) the problems/the situation analysis, (4) objectives analysis, (5) plan of activities, (6) essential resources, (7) indicators/measurements of the objectives, (8) risks and risk management, (9) analysis of assumptions (ibid., 7).

For the purpose of this study, the LFA is taken out of its original application and is reused for the investigation of the WB’s view of problems and objectives for agricultural productivity in SSA, and secondly, for the investigation of the situation of agricultural productivity in Lago District. Therefore only two particular parts of the LFA – namely the problem and objective analysis (step 3 and 4) will be applied. How exactly the LFA will be used is explained further below.

A problem analysis serves the function to find out what the causes for a situation/a focal problem are and what the effects are that result out of that prevailing situation. The problem analysis aims at creating a comprehensive picture of the situation and answers the questions why a focal problem exists, why a change of that situation is needed and why it is important to solve it (ibid., 9f.). The problem analysis can be graphically accounted in the shape of a tree, whereas the roots of the tree display the causes, the trunk symbolizes the focal problem and the branches of the tree represent the effects. The tree is read from the bottom up, involving that the tackling of the root causes will eliminate the problem and hence its effects (ibid., 10).

A deep and exhaustive analysis of the problem is furthermore necessary in order to be able to find effective and sustainable measures that are needed to eliminate it. Therefore, an objective analysis is carried out. In principle, “the objective analysis is the positive reverse image of the problem analysis” (ibid., 11; see Figure 1). Objectives are divided into three levels corresponding to short, medium and long-term objectives. Short-term objectives stand at the bottom of the objective tree, tackling the root causes of the focal problem. The medium term objective corresponds to the focal problem and hence establishes the purpose of the
project. The top of the objective tree, mirroring the effects of the problem tree, represent the overall development objective and constitute the long-term aim of the intervention (ibid., 12f.).

Within this research paper the two parts of the LFA are used in three different steps. The first step within the findings chapter is an analysis of the WB (2007) policy paper *Agriculture for Development*, resulting in a visualization of two trees, one tree displaying the WB’s view of the focal problem, its causes and its effects, and a second tree depicting the WB’s means and objectives to solve the problem. A second step is the application of the problem analysis to the findings of the data collected in the field, resulting in a problem tree that presents the local reality in Lago district as perceived by the researchers. These three trees establish the basis for the multilevel comparison of the WB’s policy and the observed reality on the local level carried out in chapter 6. A last application of the LFA will be within the elaboration of an ‘own’ objective tree resulting out of the analysis and based on the problem tree developed for Lago District. This objective tree serves as a portrayal of lessons learned and own recommendations drawn from the experiences gained and analytical processes performed during this research study.

The LFA has specifically been chosen as an analytical framework for this study’s context as it helps a clear and specific thinking of each step, which improves the general structure of the identification of a problem in its details and establishes causal links between causes, the focal problem and its effects as well as possible sustainable solutions towards it (BOND, 2003:1). This enables the researchers to capture the complexity of this social phenomenon.
Figure 1: The Relationship between the Problem and the Objective Analysis

3.2 General Guidance
The following presented approach of human security as well as the focus on gender, will be used by the authors as general thoughts to be kept in mind and function as a general guidance and motivation throughout this paper and the topic as such. This is also due to the reason that the research topic, specifically looking at agricultural productivity on a local level, suggests the consideration of human security, in particular food security as a basic human need and right. The use of a gender perspective arises out of the context of the research subject for which the division of labor as well as traditional gender roles are crucial issues to be taken into account to understand agricultural processes and therefore also productivity and development. Both approaches are not to be confused with analytical frameworks as such.

3.2.1 Human Security
*Human security*\(^9\) emphasizes „[…] that all individuals, in particular vulnerable people, are entitled to freedom from fear and freedom from want, with an equal opportunity to enjoy all

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\(^9\) The post-Cold War era was characterized by a so called *Widening and Deepening Debate* which moved away from the realist assumption of a military, state-centered, national territorial and threat-based understanding of security towards the inclusion of intrastate, cross-border, i.e. global, humanitarian and risk-based security threats, as well as a deepening of the referent object beyond the state towards the individual (Buzan/Hansen, 2009:188f.; Daase, 2013:13). On the one hand, this new understanding of security refers back to the *Universal Declaration of Human Rights*, stating in article 25, paragraph 1: „Everyone has the right to a standard of living adequate for the health and well-being of himself and of his family, including food, clothing, housing and medical care and necessary social services, and the right to security in the event of unemployment, sickness, disability, widowhood, old age or other lack of livelihood in circumstances beyond his control“ (UN, 1949). On the other hand, it refers to the contemporary concept of *human security*, firstly coined by the UNDP (1994) report *New Dimensions of Human Security.*
their rights and fully develop their human potential“ (UN, 2005:31). There are seven interconnected categories\textsuperscript{10} of \textit{human security} – of which one is food security. In the context of this paper, food security on a household level holds a crucial position while looking at agricultural productivity and local level conditions. Food insecurity as a threat to \textit{human security} is supposed to be kept in mind while analyzing the findings. It gives the opportunity to look upon the findings with a special focus on the individual and emphasizes the importance of food security as a major condition and basic need for a livelihood in dignity. The used multidimensional definition of food security in this thesis is the one from the WHO (2015), referring to \textit{food availability}, \textit{access} and \textit{use} (see definitions in 1.), requiring a fourth dimension of \textit{stability} of the other three components, as added by the FAO (2008:1).

Based on the major need to strengthen the security and well-being of individuals and communities, the \textit{Human Security Approach} is an UN policy framework based on the concept of \textit{human security} and addressing complex and multidimensional threats to governments and people. The approach includes the combination of \textit{protection} (top-down) and \textit{empowerment} (bottom-up), which is supposed to strengthen \textit{human security}. Its key principles are the promotion of “people-centered, comprehensive, context-specific and prevention-oriented

\footnote{\textsuperscript{10} The other six interconnected categories, additional to \textit{food security}, are \textit{economic security}, \textit{health security}, \textit{environmental security}, \textit{personal security}, \textit{community security} and \textit{political security} (UNDP, 1994:24f.)
}
measures that seek to reduce the likelihood of conflicts, help overcome the obstacles to development and promote human rights for all“ (UN, 2012:5). These will be considered as such in this paper.11

3.2.2 Gender
Defined gender12 roles, activities and responsibilities are embedded in agricultural as well as non-agricultural production systems (Quisumbing/Pandolfelli, 2009:1). Gender disparities in access13 and control14 over resources and benefits are considered as an important aspect negatively influencing agricultural productivity and household well-being (Parpart et al., 2000:142f.). In many developing countries women do not have equal access to resources and opportunities to be more productive (FAO, 2011:3).

The division of labor between women and men often differs in the nature of work and the given value. The three areas women and men are involved in are productive, reproductive and community work (Parpart et al., 2000:142). Changes in one of these sectors mutually affect the others.

Gender has practical needs and strategic interest. The former refer to short-term needs such as food, water and shelter and enable to improve women and/or men’s living conditions while involving women and/or men as beneficiaries and participants (Parpart et al., 2000:142f.). The improvement of conditions of one person in the household can mean an improvement for all household members and their survival in general (Chant/Gutmann, 2000:14). The satisfaction of practical needs is a requirement for further addressing interests in strategic terms. The latter refers to long-term interests that make improvements possible in gender positions and lead to empowerment and transformation of gender relations while women and/or men act as agents (Parpart et al., 2000:142f.) The goal is to reach an

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11 The authors want to stress that there are also critical voices about the concept of human security as for example Mark Duffield sees human security as one mean to spread neoliberal western thinking and interests into the developing world and „it also functions as a way of mobilizing the aid industry [...]“ (Tschirhart, 2011:6). However, the debate around human security will not be further considered within this research.

12 Gender Definition: “Gender refers to the roles and responsibilities of men and women that are created in our families, our societies and our cultures. The concept of gender also includes the expectations held about the characteristics, attitudes and likely behaviors of both women and men (femininity and masculinity). Gender roles and expectations are learned. They can change over time and they vary within and between cultures. Systems of social differentiation such as political status, class, ethnicity, physical and mental disability, age and more, modify gender roles. The concept of gender is vital because, applied to social analysis, it reveals how women’s subordination (or men’s domination) is socially constructed. As such, the subordination can be changed or ended. It is not biologically predetermined nor is it fixed forever” (UNESCO, 2003).

13 Defined as „the opportunity to make use of something“ (Parpart et al., 2000:142).

14 Defined as „the ability to define its [resources and benefits] use and impose that definition on others“ (Parpart et al., 2000:142).
improvement in status and to challenge gender inequality within the society in terms of a change in the existing role allocation of women and men (Chant/Gutmann, 2000:14).

Due to the importance of women and men’s access and control over resources for agricultural productivity, this paper puts special regards towards gender relations and opportunities as well as practical needs and strategic interest.
4. Findings I - The WB’s View on Agricultural Development

The following chapter presents the policy position of the WB outlined in the WDR 2008, in which the WB presents the agriculture-for-development agenda that is supposed to be the key to broad-based economic growth and poverty reduction in the three rural worlds where agriculture operates: (1) agriculture-based, (2) transforming and (3) urbanized countries (WB, 2007:4). The findings are organized according to the problem and objective identification proposed by the LFA (Örtengren, 2004) and will answer research question Q1.1, Q1.2, Q1.3. Both analysis, problem and objective, are visualized by a corresponding tree, that shall help the reader to understand the links between problem, causes, effects and the corresponding objectives. Further information about the WB as intergovernmental (financial) organization and its strategies can be found in Annex 24.

4.1 Problem Identification

The following paragraphs present the focal problem, underlying causes and effects of agricultural productivity identified by the researchers in the WB’s WDR 2008. A special regard lies on one of the three rural worlds – agriculture-based countries\(^{15}\) – out of the reason that Mozambique can be considered as such a country\(^{16}\).

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\(^{15}\) The contribution of agriculture is different in the three rural worlds that follow evolutionary paths from the agriculture-based country type towards the urbanized one. Agriculture-based countries are characterized by a major source of overall growth originating in the agricultural sector, accounting for a high share of the GDP (around one third of the GDP growth on average). Another characteristic of this country type is furthermore that around three quarter of the poor are concentrated in rural areas. In SSA, 82 percent of the population lives in agriculture-based countries, however, it needs to be considered that a country can show intra-national disparities in its country-type by geographical region (WB, 2007:4).

\(^{16}\) In Mozambique, the contribution of the agricultural sector to the GDP is 32, 9 percent in 2012 (Almeida-Santos et al., 2014:5). Furthermore, 80 percent of the population lives in rural areas while 56,9 percent of them live below the poverty line (Seufert, 2012:10).
Figure 3: WB Problem Tree
4.1.1 Focal Problem
The WB sees “agriculture and its associated industries [...] as essential to growth and to reduce mass poverty and food insecurity” focusing on economic growth as the WB identifies GDP growth, originating in agriculture, as more effective for poverty reduction compared to non-agricultural growth because poverty is concentrated in agricultural and rural areas (WB, 2007:1ff.). Therefore the researchers’ interpretation of the focal problem, identified in the WDR 2008 and that impedes successful development and poverty reduction in agriculture-based countries, is low agricultural productivity and profitability of the primary smallholder sector, condemning overall economic growth because of agricultures’ large share in poorer economies.

4.1.2 Causes
Identified root causes for low agricultural productivity, as put forward by the WB, can be based on two main factors: Inefficient state performance and the general unsustainability of smallholder farming as such.

Smallholder Farming Sector
Starting with causes that the WB relates to the smallholder-farming sector, which is the dominant source of livelihood in rural areas of agriculture-based developing countries but by the WB seen as largely unsustainable in terms of economic gains and growth because of low agricultural productivity. For the WB though, small-scale farming is seen as an economic activity not a livelihood strategy, which it is for a majority of rural people. The sector is, by the WB, characterized by non-tradable staple food production due to predominantly local (roots, tubers, local cereals) instead of international diet demands and structural constraints of high transport and marketing costs, as well as resource endowment and low investment-attractiveness for manufactures that evoke that agricultural based countries’ comparative advantage remains in limited tradable subsectors of primary activities (ibid., 32ff.). This more or less indicates that the WB does not consider agriculture-based countries to have a comparative advantage when practicing small-scale farming.

Furthermore, the WB argues that high transaction and transport costs and thus limited tradability and price volatility are particularly accelerated by inefficient and non-modernized market infrastructure, institutions and support services, e.g. market information systems (ibid., 118ff.). This is also triggered by poor access to inputs and tools of small-scale farmers as well as inefficient trade finance and weak producer organizations that base upon the WB’s
determination that the currently detectable form of smallholder farming in agriculture-based countries is economically unsustainable, as it does not produce the wished profitability in a modernized understanding that the WB has (ibid., 55, 153ff.).

The WB is moreover concerned about resource scarcity and resource competition between smallholder farmers, in particular for water and land, which are causes for the sectors’ low agricultural productivity rates. In connection to small farm sizes of 1-2 hectare, which already do not have the potential to reach very high productivity and profitability, the WB claims that a cause for low agricultural productivity is non mechanization or no use of high yielding technologies (ibid., 92). Declining farm sizes and resource competitions are further threatened by increasing demographic pressure (ibid., 21). The WB mentions reactions of land scarcity often lead to agricultural encroachment in form of deforestation as well as poorly managed intensification that has the effect of environmental degradation and falling soil fertility with the consequence of reducing potential yields. Also climate change and the frequency and intensity of extreme weather events have devastating impacts on agriculture-relying areas and demand adaptation of crops to temperatures and availability of water and in worst case for redistribution of agricultural production (ibid., 63ff.). Furthermore the WB explains that access to land is deteriorated through increasing demand for biofuel and distress sales in case of shocks because access to credit and safety nets and thus financial capital are lacking (ibid., 70, 142). This makes the loss of current livelihood likely, so that the WB suggests to pursue alternative livelihood strategies in modernized agricultural sectors, e.g. employees in high-value/export production agriculture (see 4.2.2).

As the WB is using a national economic perspective, rather than applying a local one, low agricultural productivity, caused by unproductive small-scale farming, leads to a lack of food availability, which has to be substituted with (staple) food imports. However, a high level of dependency on food imports, reinforced by low foreign exchange availability and international price fluctuations lead to limited import capacities in many agriculture-based countries (ibid., 95), creating a high vulnerability to national food insecurity.

**State Performance**

The second point of departure of root causes for low agricultural productivity, argued by the WB, is inefficient state performance that contributes to the general unsustainability of current small-scale farming. The WB argues that governance scores of many developing countries are low (see Annex 14), which has an impact on policy implementation as well as a close connection to under- and misinvestment in the agricultural sector (WB, 2007:22, 44, 265). The
WB states that public investment in physical infrastructure, markets, electrification and irrigation is neglected – especially in SSA countries – even so, for instance „[a]ccess to water and irrigation is a major determinant of land productivity and the stability of yield“ that could also increase profitability (ibid., 9, 128). Subsidies are often considered as mistargeted or rather political expedient than economical efficient (ibid., 115). As agriculture is a dominant sector in most of the developing countries, its contribution to governmental revenues is said to be crucial. Nevertheless, fiscal capacity in general is weak and reinvestment rates in agriculture remain low compared to other sectors (ibid., 7, 113).

Furthermore, public and private investment in agricultural R&D remains low, partly because agricultural research and investment does not return short-term but rather long-term pay-offs, which are risky and disfavored public expenditure decisions. This is, according to the WB, emphasized by missing incentive-setting for R&D by the state and the avoidance of smaller countries to invest already scarce resources and rather benefit from spillover effects from better performing countries who’s R&D might not be suitable for SSA conditions (ibid., 166ff.).

The WB identifies health and nutrition status as affecting people’s agricultural productivity, while a lack of education might impede learning about new technologies, e.g. provided by R&D, to increase productivity. The WB identifies availability and quality of education as low, while opportunity costs to send children to school remain high. Both negatively influences households’ asset endowment and in general the choice of alternative livelihood strategies to small-scale farming (ibid., 84).

The WB refers further to inefficient state capacity because of insecure property/land rights and weak contract enforcement that deteriorates existing inequalities in access to land – especially a disadvantage for disfavored groups (e.g. women, minorities). These causes, in combination with previously named land scarcity and limited financial capital access, evoke poor land-related investment by smallholders resulting in low productivity rates (ibid., 139ff.). In the context of productivity, the WB also sees a general problem in the inefficient distribution of land and labor in terms of smallholder farming, using too much land and labor for too low yields in comparison with other – more economically profitable – forms of agriculture as suggested by the WB, e.g. commercial farming, contract farming, high value agriculture and agroindustry (ibid., 9; see 4.2.2, *Productivity Revolution of Smallholder Farming*).
4.1.3 Effects
In accordance to the – by the researchers – identified causes, also the effects of low agricultural productivity that the WB exposes, are closely related to an economic understanding. Low agricultural productivity in the current widespread smallholder sector negatively affects the economic growth of nations and thereby limits successes in mass poverty reduction and food security (ibid., 19, 28). Especially poor people are vulnerable to food price fluctuations or price shocks of staple foods – net buying as well as net selling farmers, so the WB (2007:109, 121), as their food security through food availability and economic food access is dependent on it. The causes undermining the basis of agricultural productivity also increase the general vulnerability to risks like weather shocks and climate change that can easily lead to crop failure, livestock loss and thus to economic losses and food insecurity (ibid., 16, 230).

According to the WB (2007:3), agricultural production is crucial for food security as it is considered as a source of cash income for the majority of rural poor, selling their production and buying their own consumption, reflecting the major understanding of food security by the WB. Therefore, malnutrition has through its impact on the individual productivity of a person, highly economic consequences in terms of lifetime earnings and GDP. The WB (2007:95) refers especially to SSA countries with high population rates, variable domestic production, low tradability of staple food and meeting their food needs through imports that are in case of food emergencies highly dependent on uncertainties of food aid – neglecting the reality of subsistence farmers and the potential of many agriculture-based countries to be food sovereign.

Furthermore, the WB (2007:7) states that agricultural productivity is related to the determination of food prices and trade competitiveness. Low productivity rates lead to rising food prices. Decreasing wage costs thereby influences the competitiveness of the relatively small tradable subsector in a negative way. As the WB (2007:22, 44) identifies the agricultural performance in many countries to be far from its potential (shown in its low productivity and profitability), this has the effect of dis-favorable agricultural policy biases and underinvestment, which is a cause as well as effect of the focal problem.

Since the SSA agriculture is still based on – by the WB characterized – unsustainable subsistence farming in terms of economic gains and growth, rural areas are characterized by a slow expansion in agricultural employment, as well as missing employment opportunities in the non-farming sector (ibid., 77ff.). Migration, or more specifically urbanization, is seen as a chance in cases of skilled workers, but it also risks marginalization of the lower educated
population – women in particular – and “a simple displacement of poverty to the urban environment” when small-scale farmers lose their subsistence livelihood (to more productive units and farms) (ibid., 18). A disfavored outcome of urban migration can be continued poverty and slumization, so the WB (ibid., 6), actually referring to a worsening of an already vulnerable situation of the people.

4.2 Objective Identification
As determined by the LFA, the objective identification constitutes the mirror of the problem identification (see 3.1, Figure 1). Hence, the objectives pointed out by the WB are divided into three parts: (1) the purpose of the development intervention, corresponding to the focal problem, (2) the immediate results/outputs, necessary to be able to address and tackle the identified causes and (3) the long-term objectives, reflecting the effects of the problem identification.

4.2.1 Purpose of Intervention
The focal problem established by the WB is low agricultural productivity and the strategy elaborated to tackle this is to raise agricultural productivity and its profitability. In order to achieve the wished overall development objectives (see below), economic outputs of the agricultural sector are strongly focused and a broad set of short-term objectives are put forward in the WDR 2008, which will be explained in the next paragraph.

4.2.2 Immediate Results/Short-term Objectives
The two major objectives for reaching the purpose of increased agricultural productivity and profitability correspond to the major causes identified in the problem tree: low state capacity shall be tackled by strengthening of the state capacity and so-called ‘unsustainability of smallholder farming’ shall be reversed by a “productivity revolution in smallholder farming”, according to the WB’s view (ibid., 1). Furthermore, both main objectives, as well as all further objectives are guided and influenced by the WB’s underlying approach of market and trade liberalization (ibid., 6).
Figure 4: WB Objective Tree

(own illustration)
Strengthening State Capacity

Starting with the objective of strengthening state capacity, it is essential to point out and look behind what exactly the WB means by state capacity and what roles are ascribed towards the state. In the WB’s view, align to the so-called *Washington Consensus*\(^\text{17}\), development must be market based, while the state provides the ground for it and only interferes when the market fails (Todaro/Smith, 2011:531f.). This function/capacity includes good governance and administrative capacities, decentralized and democratic institutions and an allowing and active participation of civil society. This intervention is based on problems identified before, including too much state interference that are not in line with liberal understanding of the state: State interventions should stay limited, as the liberalized market is supposed to do the rest (WB, 2007:245f.). In case the market fails, the state must be capable to correct these failures, as it is also supposed to regulate competition and competitiveness for the agricultural sector (ibid.). The WB calls for a competitive agricultural sector and at the same time degrading subsidies in that sector, while OECD subsidies remain high. As with many statements and objectives stated, the WB seems to have contradicting ideas, making it not clear to the reader how to achieve in this case competitiveness.

Furthermore the state is expected to fulfill basic distributive, allocative and coordinative functions, which includes the fair distribution of investments between various regions and decrease development biases between them, to distribute land *fair*\(^\text{18}\) to avoid local land conflicts or to coordinate policies among the different sectors and between different actors (ibid., 252f.).

An enabling environment for agricultural development also includes the allocation of different kinds of investments in the right quantity and quality. Especially investments in the agricultural sector need to be targeted correctly. The WB names investments in irrigation and water storage facilities and into R&D as crucial to raise agricultural productivity (ibid., 9, 35, 41). The provision of education and health facilities and services is another important public investment. Education allows the population to find jobs in skilled occupation in urban areas or to start an own business/find a job in the rural non-farm economy. According to the WB,

\(^\text{17}\) The *Washington Consensus* is a bundle of neoliberal macroeconomic policies that were supposed to boost economic growth. Both WB and IMF applied these policies (i.e. fiscal discipline, privatization, increased Foreign Direct Investment (FDI), trade liberalization, just to name a few) in their SAPs from the 1980’s onwards. Today these policies are controversial, and were replaced by the post-*Washington Consensus* which focuses on poverty reduction and includes social indicators that shall boost economic development (WHO, 2015b).

\(^\text{18}\) How land is distributed fair according to the WB is not directly stated, however, reading between the lines indicated that taking the land from ‘unsustainable smallholder farmer’ and giving it to more productive units – medium and large-scale farms and agro-industries – growing cash crops for export that raise profitability seems to be a fair land distribution in the WB’s view.
more focus should lie on the provision of vocational and technical trainings, including extension services (ibid., 9,18). A good health of the populations and coordination between agriculture and health influences agricultural productivity positively as increased labor capacity contributes to a growing GDP when diseases are minimized or cured correctly and immediately (ibid., 9f.). For both, health and education it is crucial to decrease the gap between urban and rural levels (ibid., 84). Basic physical infrastructure investments are moreover crucial for agricultural development and productivity raise, as they enable better access to markets so that the produce can be commercialized and private sector investment is stimulated (ibid., 234). The creation of modern market chains when markets are liberalized will furthermore grant a growing share of the international trade (ibid., 20, 231).

**Productivity Revolution of Smallholder Farming**

Next to the outputs building upon a strengthened state capacity, the WB argues for a productivity revolution of ‘unsustainable’ smallholder farming as a necessary part of the solution to trigger economic growth: „Using agriculture as the basis for economic growth in the agriculture-based countries requires a productivity revolution in smallholder farming“ (WB, 2007:1). The classification of smallholder farming as unsustainable is to be understood in comparison to large-scale agriculture and high-value production. However, smallholder farming has kept and still does keep a large part of SSA population (amongst others) alive and cannot be devalued as such. The smallholder revolution proposed by the WB includes several specific measures, all with the aim to diversify the rural economy and rural incomes. Immediate objectives to be implemented in agricultural based countries are the creation of an efficient and fair labor market, strengthening of producer organizations, access to financial services and safety nets, and equal chances for both gender, and last but not least a land market reform. Starting with the latter, land shall be (re)-distributed in that way that it is used best to maximize productivity, which means to give land to those farmers who can produce more with less labor and land, hence medium to large-scale farmers or Multinational Corporations (MNCs) (ibid., 143). Access to credit/microcredit and safety nets is compulsory, so the WB, for a rural non-farming sector to develop. This sector shall then create rural jobs for the population not engaged in farming. That chances for both women and men shall be equal is a prerequisite for sustainable development and recognized by the WB (ibid., 18, 24, 20).

19 Again, the WB argues for a fair labor market without defining it.
20 That would incorporate all those who are not producing with new techniques on medium and/or large-scale farms, so basically all small-scale subsistence farmers.
78). The WB highlights a strong voice of producer organizations as joint action can reduce transaction costs, create market power, become competitive and influence policies in their favor (ibid., 14). It is further stressed that legal conditions should not work against the rights of these organizations (ibid., 22), in order for them to be success- and powerful.

In a diversified rural economy non-agricultural employment rises and purchasing power increases, contributing positively to agricultural productivity as demand will increase (ibid., 75). The focus of “today’s agriculture” (ibid., 1) in accordance with new land distributions shifts to commercial farming, contract farming, high value agriculture and agroindustry, while new techniques like conservation farming and climate proof systems shall conserve natural resources (NR) and mitigate contributions to climate change (ibid.16f.). A last WB objective for raising agricultural productivity is to increase the productivity of food staples while also proposing the liberalization of staple food imports which would in WB’s eyes add to food security and food availability for the rural poor (ibid.,10). Whether this is plausible is discussed in chapter 6.

4.2.3 Overall Development Objectives
Overall development objectives will result when the purpose of the development intervention, raised agricultural productivity and profitability, are achieved by tackling the problems from the bottom up. According to the WB, raised agricultural productivity will bring sustainable economic growth. Economic growth, built upon a fundamental base of a modernized agricultural sector will then transform agriculture into a sustainable and competitive system, as higher productivity rates will lower food prices and increase wages. Competitiveness would then be possible, so the WB (2007:122). This will influence the domestic production to increase and stabilize, while price fluctuations can be better handled (by the state who gained new capacities) and pose less of a threat towards the rural population. Also food security will be ensured when the domestic economy is stable and productivity level rise. Food aid is not needed as consumption is secured by own production and imports. In combinations with higher wages (from contract farming or non-agricultural rural employment) the rural population will be characterized by much lower poverty rates and will be able to purchase food, which will improve their work capacity and contribution to GDP will rise, while productivity levels increase even further (WB, 2007:95). The WB states that in order to reduce

21 How SSA countries are competitive when subsidies in OECD countries remain and state support for the agricultural sector in SSA is restricted by loan conditionality, is not addressed in the WDR 2008 and is therefore doubtful to believe.
poverty and achieve sustainable economic growth “the powers of agriculture must be unleashed“ (WB, 2007: 25).

The WB identified a multitude of problems of low agricultural productivity and a multitude of corresponding objectives necessary for tackling the problems and to reach the overall objectives of sustainable economic growth and eradicate poverty (as the main overall goals). Causes, focal problem and effects are coherent with short-, medium,- and long-term objectives and are based on a liberal market based view with a strong focus on economic-based causes, effects and corresponding measures. A deeper analysis of the WB ‘trees’ in comparison with the findings from Lago District – that are presented in the following chapter 5 – follows in chapter 6.
5. Findings II - The Agricultural Situation Identified in Lago District

This second findings chapter comprises the collected data from the field as well as secondary literature to complete and to back up information found\(^\text{22}\). Similar to the previous, this chapters’ structure follows the LFA and is divided into the three parts of a problem identification (focal problem, causes and effects). This chapter answers research questions Q2.1 and Q2.2. For further background information about Mozambique, Lago District, agricultural activities, family small-scale farming and peasants’ agricultural knowledge, please consult Annex 25-27.

5.1 Problem Identification

The following paragraphs present the focal problem, causes and effects of agricultural productivity identified by the researchers during the five-week data collection in Lago District.

5.1.1 The Focal Problem

The focal problem identified and experienced in Lago District is a low level of agricultural productivity, resulting in high rates of poverty and households’ food insecurity for large parts of the population. The research and observation of the situation in Lago disclosed a strong linkage between these three factors: (1) low agricultural productivity, (2) poverty\(^\text{23}\) and (3) food insecurity, creating a trap in which the three factors mutually reinforce each other. This trap creates the center of attention when looking at causes and effects. The relation between low agricultural productivity and food insecurity is outstanding. Producing not enough food to meet the calorie needs makes affected families vulnerable to low agricultural productivity, as health status and hence work capacity decline (Asenso-Okyere et al., 2011:9). Another reason for not being able to escape the trap is the high level of poverty, not allowing the small-scale peasants to invest in means that could raise productivity and increase the amount or allow for different types of food available for consumption in a household and hence boost well-being.

\(^{22}\) It shall be noted at this point that the identification of causes, focal problem and effects in Lago District are only relating to the nearer past and do not take into account deeper rooted societal structures – shaped by historical events, as this is not part of this research. However, it is important to understand that certain causes are rather failed attempts, as the deeper rooted structure of the country does not allow for certain changes, as current conditions are often related to cultural habits and local traditions.

\(^{23}\) There are many different definitions of poverty in the related literature. In this theses poverty is understood as a multidimensional phenomenon, which is next to its pure economic terms (if the income of a family fails to meet a threshold that is established for each country individually, for Mozambique it is 0.605 \text{ per day}) also concerned with broader quality of life (political, social and cultural structures), which shall be recognized for the purpose of this thesis. Hence, poverty can be further characterized by not being able to meet human needs like shelter, food, clothing and not having access to services or means of transport. These conditions are influenced by the specific physical and cultural context in which people live. Therefore, poverty is often connected with the denial of basic human rights, e.g. the right to adequate food or income (UNESCO, 2015; UNDP, 2006; see 3.2.1).
Figure 5: Lago District Problem Tree

(own illustration)
The link between food insecurity and poverty is that a peasant that does not have enough intakes of calories and is too weak to find other solutions for lifting himself and his family out of poverty is caught in this vicious circle. Thus, food insecurity and poverty are on the one hand effects of low agricultural productivity, but also, on the other hand, *in combination* with low agricultural productivity, establish a trap for small-scale peasants that is difficult to escape and which shall be emphasized in this problem identification.

**Figure 6: The Focal Problem in Lago District**

![Diagram showing the relationship between food insecurity, poverty, and low agricultural productivity](own illustration)

### 5.1.2 Causes

During the field research a number of root causes in five main areas of rural life have been identified that result in low agricultural productivity rates in Lago, namely: (1) political initiative and investment, (2) asymmetric relations within the society, (3) infrastructure, (4) relevant education and (5) health. Those five root causes are presented in the following part.

#### 5.1.2.1 Political Initiative and Investment in Small-scale Agriculture

The development of the agricultural sector including infrastructural requirements for better market access has been stated as a priority in Mozambican policies. The situation in Lago, however, creates an impression that the implementation of relevant policies is moving forward very slowly, while Lago District seems to be less prioritized compared to more urbanized provinces/areas. The following paragraphs will display a situational analysis of the level of political initiatives, interest and investments in regards to the predominating small-scale farming sector and its specific needs in Lago District.
Agricultural Investments and the Role of the Government

As the level of development in Lago is still low, the presence of the private sector is equally low and barely existing. A rural population of 80 percent, which is mainly engaged in small-scale farming and fishing, characterizes the district. In general, investments in agriculture are long-term investments, with rather small surplus margins and a long period until returns on investments create profits. Even though investment in agriculture and the role of small-scale farming and rural development are stated to be national priorities (see Annex 28), the investment situation displays a different reality. On the one hand, the allocation of the household budget for the district government in Lago is insufficient, limiting its capacity to invest in extension services or infrastructure, even if the local problems want to be addressed and potential solutions exist. On the other hand the government makes deals with and concessions to MNCs, giving away fertile land that belongs to the communities and family peasants, causing displacement and loss of livelihoods and decreasing agricultural productivity while increasing food insecurity in the district as seen in the case of investments in the agroforestry company Chikweti in Lago District by the Global Solidarity Forest Fund (read about the full case of Chikweti in Annex 30).

The enforcement of the land law that protects small-scale peasants becomes secondary, when the government wants to satisfy its own interests – as has been stated by peasant respondents. Respondents from the provincial and national peasant union in Mozambique (UPCN and UNAC) further state that the government’s interest is linked to what the WB and other international donors dictate them, being weak and acting not as a sovereign state. An economy that depends on MNC’s private investments is also volatile to international crises and economic instability. That means, a private company that would bring development but only pursues their own economic interests without taking local needs into account, has the potential to create even more damage, than if the region develops on its own with its own strength and means and investments.

The District Development Fund

An important initiative to provide small loans to poor households of the districts and to bring money into circulation is the District Development Fund (FDD) – also known as the "
Million Fund’ – started in 2006 as part of the countries decentralization process (ORGUT, 2012:10). The head of department for district planning pointed out that priority of funding is given to agriculture-based projects and commercialization of the produce. As the Permanent Secretary of Lago District specifies a solely investment in higher agricultural productivity cannot bring growth if there is not enough capacity to commercialize it. One of the root causes for low agricultural productivity so seems to be the poor possibility to commercialize rather than to produce food.

The FDD seems to be – at a first sight – a good attempt to trigger local development, but its implementation hampers and therefore its non-exhausted potential has indirect but negative effects on agricultural productivity. District government officials as well as local respondents named challenges in connection to the fund. In the past years, the FDD financed as many projects as possible, distributing smaller amounts than asked for, resulting in failure of the initial project idea. High levels of poverty and the failure of efficient distribution of the fund money is leading to failure of projects and hence in very low reimbursement rates. The Permanent Secretary of Lago District estimates that only about five percent are repaid, ORGUT (2014:22) refers to a three percent repayment rate only. That reimbursement is not enforced by the government and is also not connected to any sanctions is claimed to be mainly a political issue, as the government fears not being reelected if processes of reimbursement are handled too strict. The Permanent Secretary furthermore links incidences of reported corruption in the distribution of the projects to the high levels of poverty. People involved in decision-making are often living on very low standards themselves and see a chance of extra ‘income’ by using nepotism. This restricts the process of distributing the fund efficiently in order to raise agricultural productivity and therewith improve food security and livelihoods.

Another issue identified as a problematic fact in the context of the FDD and also indirectly affecting the focal problem described, is that the fund is not distributed to young people, who, to a large extent, are educated and seem to have great potential to successfully handle projects – especially in commercialization. Job opportunities for young people are in general rather low and many youngsters face unemployment. The fund could make a difference for them and their communities. Young respondents answered that they applied many times but always got rejected. Respondents claimed in this context that this leads to frustration and a lack of prospects.

24 The money distributed to each district is supposed to address the poorest of the poor households to stipulate local involvement and development. Its main objectives are employment creation and local investments that increase purchasing power and hence stimulate economic growth, which will lead to food security. The funds distribution is under the District government’s responsibility.
5.1.2.2 Asymmetric Relations
Unequal access to assets, such as credit, inputs and tools as well as unequal social power relations and gender disparities are social and/or political-based obstacles that undermine agricultural productivity and hinder inclusive development. Asset-poverty or asset-richness influences agricultural productivity and its implications for poverty while inequality triggers further inequality and keeps people stagnating (Sabates-Wheeler, 2008:66).

Access to Inputs and Tools
The use of fertilizers and pesticides among small-scale peasants in Lago District is very low, which is on the one hand related to limited accessibility, on the other hand to too high costs. The same applies for costs and access to tools25. Seed preservation is carried out traditionally, while no respondent referred to use improved seeds. Even so, in some years or after natural irregularities or disasters additional seeds are needed, respondents refer to the fact that inputs, including fertilizer, pesticides, seeds and tools are not available in remote areas, only at the markets in Metangula or Lichinga or local fares (see Annex 19). Only in a few villages local blacksmith businesses opened up where tools can be purchased and repaired.

Amongst others, extensionists have the task to sell inputs, i.e. seeds, fertilizer and pesticides to the peasants to subsidized prices, but often they do not have access to them either, or receive the inputs too late from higher agricultural administrative levels in relation to the moment of actual need – a crucial problem that interviewed farmers complained about. The purchase of inputs is also dependent on financial matters, and if small-scale peasants have some financial means at all, they are still not able to buy in big quantity, which results unfavorable prices, as the purchase of bigger quantities would be much cheaper. The government used to distribute improved seeds for free, until change of law in 2012 initiated that seeds are sold to peasant union (UPCN) members for 50 percent of the price while only half is subsidized by the government. These subventions remain the only ones in the agricultural sector.

25 Prices of tools by a local blacksmith were 150MT for a hoe, compared to circa 180MT in the city and 20MT for sharpening it, what is necessary once a year. A machete costs 100MT and a shovel also 100MT. These are high amounts for people that have little to no cash income but rely on these tools for hand-tilling agriculture.
Only very few interviewed peasants state to sometimes use fertilizer and pesticides and only for vegetable crops. Instead of using fertilizer, small-scale peasants follow rotating systems of land use to keep fertility high. But often the closest land to a village is not cultivatable anymore. This has the effect that the peasants’ machambas are located several walking hours\textsuperscript{26} away from their home, in conclusion lost working hours. By respondents, this situation is expected to become even denser in the future. Firstly, because of high population growth\textsuperscript{27} and secondly, because of investors seeking for fertile land for large-scale plantations displacing small-scale peasants from fertile land and hence diminishing productivity (Åkesson et al., 2009:2).

Access to Credit

Since 2014, Lago District has an agency of the BCI (Banco Comercial e de Investimentos) Bank in Metangula. This is the only bank in the entire district, which means a big geographical distance from remote areas to the location of the bank. Despite of the existence of the bank agency, none of the interviewed peasants stated to have a bank account. Even with the holding of a bank account, it is not possible to receive a credit without adequate securities, which precludes the majority of peasants from this accessibility of credit and thereby from the possibility to make investments in tools, inputs, transport means, entrepreneurship, trading etc. to increase agricultural productivity.

Micro-credit systems seem not to be put in action in Lago District and also traditional credit systems, e.g. family or friends as well as rotating credit systems, that were more common in past times, are rather weak according to the respondents. In this context traditional structures seem to have changed, which was described by one respondent by saying: “It is even not possible anymore to get an egg or borrow a chicken for breeding since people know what money is” (Female respondent in a family interview in Maniamba).

\textsuperscript{26} Interviewed peasants referred to up to four walking-hours. One walking hour equals approximately six kilometers.

\textsuperscript{27} Population growth rate was 2,5 percent for the years 2010-2015 (UNdata, 2015)
The FDD is a well-known possibility for credit accessibility in the district with lower interest rates than banks, but several respondents state to not have been successful to receive credit through the fund as accepted applicants are limited (see 5.1.2.1, The District Development Fund). Peasants, traders and business men that have done some investments, e.g. in improved tools, transport means, the opening of a business, mainly saved small amounts of money over a long period at home.

Social Power

The degree of influence an individual peasant has on the market and in the broader society is very low, as seen in Lago District. This is reflected in the limited bargaining power of peasants with traders, in regard to price negotiations, but also in political terms. The work of the national peasants’ union (UNAC), that is the umbrella organization of provincial, district and local associations in Mozambique, highly promotes the organization of peasants into association to give them a voice28. Nevertheless, the organization of peasants in peasants’ associations in Lago District remains low. Those respondents who were organized gave throughout positive feedback and referred to easier service provision to grouped peasants/fishers, collective growing of crops/fishing to share work and gain additional cash income, collective selling of higher quantities and thus increase of bargaining power towards traders, as well as sharing of transport costs to access markets.

A relatively low level of social power of small-scale peasants incorporates the danger of displacement and thus the loss of peasants’ livelihoods, as well as exploitation through incoming large-scale investors, introducing plantations or contract farming and neither eradicating poverty amongst small-scale peasants (Hanlon, 2015:3), nor supporting food security through creating food sovereignty or development. Respondents working in the agricultural private sector, for instance refer to temporary contracts and small salaries that do not provide any form of (social) security or possibility for long-term planning.

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28 The main objective of the union, which has its focus on the family farming sector, is to fight for peasants political, economical and cultural rights and to shape „governmental public policies and development strategy, in order, to guarantee food sovereignty“ (UNAC, 2012).
**Gender Balance**

Women and men have different productive, reproductive and community-participatory roles within the society as well as different tasks within the household. Even so, in Lago women and men carry out the cultivation of *machambas* together to a big extent, they also have many divided tasks, listed in the table below.

**Table 1: Division of Labor by Women and Men**

<table>
<thead>
<tr>
<th>Tasks</th>
<th>Women</th>
<th>Men</th>
<th>Women and Men</th>
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</thead>
<tbody>
<tr>
<td>Work on <em>machambas</em></td>
<td>Planting of certain crops</td>
<td>Opening and cleaning of new <em>machambas</em></td>
<td>Sowing/planting</td>
</tr>
<tr>
<td></td>
<td>(pumpkin, potatoes, peanuts, sesame)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Transport of the crops</td>
<td>Harvesting</td>
</tr>
<tr>
<td>Small business activities</td>
<td></td>
<td>Trading</td>
<td>Selling of commodities (type of commodity depends on gender again)</td>
</tr>
<tr>
<td>Household tasks</td>
<td>Fetching water</td>
<td>only in case the women is absent or sick</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Cooking, preparing food</td>
<td>only in case the women is absent or sick</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Collecting firewood</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Milling maize/cassava</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Childcare</td>
<td>Main care-taker for the children</td>
<td></td>
<td>Watching the children</td>
</tr>
<tr>
<td>House building and reparation</td>
<td>Plastering the house</td>
<td>Fixing the house and roof</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Cutting the grass for the house roof</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Building the veranda</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Others</td>
<td></td>
<td>Begging for money/food/seeds from others if necessary</td>
<td></td>
</tr>
</tbody>
</table>

(own illustration based on own data)
The table especially reflects the double burden of women by their daily responsibility for household and childcare, additionally to the agricultural duties on the machambas, while during interviews, male respondents often showed little recognition for women’s (extra) work. The high workload of women leads to a reduction in time and in their work capacity on the machambas. Although this obvious gender disparity in labor division, female and male respondents referred to the fact that the fulfillment of tasks is less strict divided between gender than in the past, but still men are only allowed to carry out certain ‘female’ tasks in case the women of the household is not able to take care of them herself because of absence or illness. Observations and interviews in Lago District showed that especially female-headed households (FHH) (single, widowed, divorced or separated women) tend to be more vulnerable to be poor (see Annex 15) and to face household food insecurity, as women cannot work the machamba alone and often do neither have access nor financial means for resources.

Some female respondents stated to work in the agricultural private sector (see Annex 30), which enables them to manage the household’s cash income more in favor of their practical gender needs (see 3.2.2), e.g. cooking tools, buckets etc. An interviewed actor of the private sector particularly supports equal opportunities by specific employment of women. Nevertheless, an employment parallel to running a household and the work on the machambas to secure food supply in case of insecure employments or low salaries, also means a double or, including household tasks, even triple burden for women.

In regard to strategic gender needs (see 3.2.2), in general, gender mainstreaming is reflected in national policies (de Oliveira Granheim, 2013:10). Nevertheless, the public sector in Lago District is clearly men dominated and also amongst traditional leaders only very few women act as representatives for the community. During interviews, despite of women’s presence, usually men took the role as spokesperson. Also the distribution of opportunities is still often unequal as visible in education (see 5.1.2.4). Women have the same right as men to own or inherit machambas but women are for instance not expected to apply as individuals for credit at the FDD what is reflected in statistics about applications and acceptances of projects (Governo do Distrito do Lago, 2014).
5.1.2.3 Infrastructure
The availability as well as the quality of rural infrastructure has a significant impact on agricultural productivity as it has the potential to reduce transportation costs for peasants and traders and facilitates the highly important connection to market places for commercialization of surplus produce and accessibility to inputs and tools. Road networks as well as the availability of transportation also influences peasants’ price margins (Gajigo/Lukoma, 2011:2ff.). Furthermore, poor infrastructure exacerbates an unequal accessibility to finance and credit institutions as well as health posts, schools and provision of extension services.

Infrastructure and Transport

The infrastructural situation in Lago District is still low developed and many regions are only reachable by gravel roads or cut off completely in the rainy season\(^{29}\). This situation influences low agricultural productivity levels in various perspectives: The peasants’ produce is difficult to become commercialized as traders do not reach remote peasants, and peasants have difficulties transporting their produce to markets/traders themselves. Bad infrastructure and lacking public transport – which is moreover very expensive and prices are arbitrary by those providing some services – put people’s life at risk if they cannot reach health centers in time (this is especially a problem in the rainy season, when diseases like diarrhea, cholera and malaria spread rapidly and easily (see Annex 27). Another restriction of insufficient rural infrastructure occurs for the work of extensionists to spread new research, knowledge, techniques and inputs that could influence agricultural production positively. They are either less mobile if they have to share a motorcycle with other colleagues, or limited by non-existing roads to reach remote located peasants.

Smaller roads, e.g. from Metangula to Meluluca, have been constructed recently and being a great improvement to connect the administrative post of Meluluca to Metangula and Lichinga, where the main market places are situated (see Annex 22). As Mabiso et al.

\(^{29}\) Respondents in Messumba stated that they regularly lose relatives to crocodile attacks when passing the seasonal river *Rio Lunho*. 
(2014:650) point out, the investment in roads can significantly lower transaction cost for marketing of agricultural produce.

Commercialization and Market Accessibility

In close connection to poor infrastructure and transport means a reason for low agricultural productivity are low levels of commercialization, including proper access to markets. Peasants responded that if they had the opportunity to commercialize their produce, knowing there is and they can reach the market, they had an incentive to raise production and to sell surpluses. But due to the reason that these opportunities are so limited, surpluses often rot on the fields and peasants get discouraged to produce more than they need for self-consumption.

A strategy to deal with the problem of low commercialization opportunities is to organize in associations that collect surpluses produced and sell them together, in order to be able to sell larger quantities and demand higher prices (see 5.1.2.2.). The production of higher quantities of one crop by one small-scale peasant would be too risky in case the prices for that crop fall or the harvest gets destroyed. That is why specialization on one crop production is difficult to introduce, as food security has to be sustained. The level of organized peasants is very infant, and the possible value of peasant organizations in Lago has not reached its full potential.

The situation of low commercialization and poor market access in Lago is further reinforced by limited storage possibilities, which is a major cause for post-harvest losses and low levels of agricultural productivity. Availability of adequate storage possibilities for small-scale peasants is especially important to have an incentive to produce more and also to generate higher prices by selling larger quantities. The prices for basic foodstuff rise during the agricultural year (see Annex 8, 27) when the demand for food gets higher before the next harvest (see Annex 9). However, as storage opportunities in Lago are rare and peasants often referred to have accumulated basic needs right after the harvest, they tend to sell their surplus immediately and little by little. Having no storage and being forced to sell small amounts, due to accumulated needs and often limited means of transport makes the peasants unable to escape the poverty
The lack of electricity in rural areas of Lago also poses problems for example to shop owners, who cannot store fresh products, or to an improvement of the fishing industry. As for now, fishers stated that they have to either sell the fish locally or use drying techniques to preserve it, as there are no possibilities to keep the fish fresh/cooled. However, the profit margin for dried fish is much smaller than for fresh fish\(^{30}\), hence, incomes for fishers could rise and livelihoods improve, if necessary electricity would be provided. Most areas still have no access to (permanent) electricity.

5.1.2.4 Relevant Education for Agriculture

The peasants in Lago District hold a broad knowledge about all kinds of agricultural activities (see Annex 26, 27), however agricultural and rural extension services offer a knowledge transfer for new agricultural technologies and relevant information that is supposed to facilitate peasants’ production and raise productivity. Furthermore, formal education is widely seen as a key to poverty eradication as well as a link to sustainability (UNESCO, 2014). Schools are a crucial transmission point of relevant information for households in terms of hygiene, prevention of diseases and other ways of livelihood improvement that are transferred from students to other household members. This is one aspect making education so important for agricultural productivity.

**Agricultural and Rural Extension**

The Provincial government provides the districts with 168 employees for advisory services in agricultural extension\(^{31}\) specialized on (1) agriculture, (2) wildlife, (3) land issues, (4) agricultural mapping and topography and (5) fishery, to assist peasants with information about new agricultural technologies as well as access to inputs, both to increase agricultural productivity. Lago District is provided with eight extensionists – all male – four of them trained in agriculture and working in each administrative post, and 4 based in Metangula.

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\(^{30}\) The price margin for dried fish is 100MT, while for fresh fish its 300MT.

\(^{31}\) In the context of agricultural extension OECD refers to an „Agricultural Knowledge System while FAO and WB call it „Agricultural Knowledge and Information Systems for Rural Development” which can be identified as a knowledge triangle of research, extension and agricultural education. In the middle of this triangle stands the peasant as the aimed recipient of this knowledge (see Annex 10). The function of agricultural extension is pursuing different purposes: „livestock development, forest use and conservation, fisheries engineering and capture, food and nutrition education, as well as well as [sic.] crop development. Even in programs designed to foster agricultural crop production, extension may be concerned with providing information on other crucial issues such as food storage development, processing, farm management, and marketing” (FAO, 2013a).
which have a special focus and provide assistance to the whole district. A problem remains the amount of extensionists as such in relation to the amount of peasants. One extensionist, can be responsible for a maximum of 200 peasants. In Lago are 18,978 households and 16,773 peasants (2010) (Instituto Nacional de Estatística, 2012:14, 26), meaning that each of the eight extensionist would need to assist ten times the amount of peasants they currently do to reach all peasants. This is reflected by many respondents claiming to never have been assisted or contacted by an extensionist. Furthermore, the eight extensionists in Lago are not able to reach all farmers due to limited accessibility and restricted means of transport, here motorbikes, as well as a lack of local infrastructure, e.g. roads and bridges.

As the FAO (2014:71) states, “[a]dequate, clearly targeted and stable public funding is necessary to ensure advisory services for small family farms and to address environmental and sustainability concerns“, this very much applies for the situation in Lago District. The District Government has in theory the right to employ more extensionists but the actual budget limits this possibility.

For their practical work, extensionists usually have a demonstration plot where they can invite farmers – often in cooperation with contemporary but also traditional leaders promoting the service – to show new techniques. As claimed by respondents, this facilitates the acceptance and conviction of peasants that usually have rather critical positions towards new techniques. Small-scale peasants’ risk-aversion can be explained by the threat of food insecurity due to the loss of main crops in case of failure with these new techniques (Kahan, 2008:16).

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32 Extensionists use a communication chain approach by doing focus work with approximately ten ‘contact peasants’ of their region of responsibility, which then in turn transmit the information received to other peasants in their surroundings. The farmer-to-farmer transmission is supposed to turn into a group-based learning process (FAO, 2014:68).

33 Uncertainty, i.e. the chance of the outcome is unknown in advance, of factors such as weather, diseases, pests, but also new technologies can affect the quality and quantity of farm produce, i.e. these factors stand for a so called production risk (Kahan, 2008:5, 32). Farmers consider costs and benefits in their decision-making of farming operations and their attitude towards risks is often linked to their financial ability and the acceptance of small gains or losses (ibid., 3). Subsistence farmers tend to be the most risk-averse as their food security is an overriding priority while monetary rewarding activities are put after the objective of own food supply (ibid., :16).
**Formal Education**

Educational levels of responding peasants were often limited to primary education (1-7 grade) or dropouts in secondary school before graduating. Especially female respondents tend to drop out in primary school, or do not have any school education at all. Especially female enrolment rates are still lower than male ones\(^\text{34}\), while female drop out rates still remain high (see Annex 16) nowadays, which is related to early marriage and pregnancy and also to some parents that seem more keen to send boys to school before girls.

With regards to the younger generation, most parents seem aware of the need and the special importance of education for their children with the idea to enable them to have better opportunities in life. Even though, the quality of education is highly criticized from respondents, due to lack of material, including books, computers but also furniture\(^\text{35}\), availability of libraries, non-adequate teacher training, access to clean water and electricity in schools as well as a general shortage of classrooms, which is coped with double shift teaching in morning and afternoon in many schools in Lago District. These are all facts that negatively influence the learning outcome of students. The problems of educational quality are also related to the mandatory fulfillment of graduation numbers and wage bill ceilings for teacher numbers that serve the satisfaction of conditionality set by, e.g. the IMF (Marphatia et al., 2007:20ff.).

Since 2005, primary school education is for free (Lemoyne, n.d.). Nevertheless, many parents have trouble to finance school material and school uniforms. The level of socio-economic wealth is also a reason for discontinue at secondary school, where school uniform and annual fees are a requirement (see Annex 17, 18). Parents’ motivation to send children to school or keep them at home is often influenced by the need of labor force. Furthermore, the physical access to schools is a problem in rural areas. This is mainly related to long distances, bad infrastructure and lack of transport, and reflected in the tremendous differences in urban and rural enrolment rates of primary school students (see Annex 16).

\(^{34}\) National comparison shows that the province of Niassa has the highest percentage of non-enrolment of girls (18 percent) in the entire country.

\(^{35}\) At several locations in Lago District a common observation was to see students carrying small stools to school – often logs of wood or hard-plastic boxes channeled into seats.
Recently, relevant disciplines such as agriculture, animal breeding and entrepreneurship were introduced in secondary schools to prepare students for self-employment opportunities in the agricultural sector. There are different training possibilities in agriculture, such as technical agricultural schools and institutes that can be entered with the termination of grade 10 or 12 as well as university programs focusing on agriculture and rural development, e.g. at Universidade Lúrio. Job opportunities after graduation are considered better than with regular secondary schooling, even so increasing enrolment rates – including female – might decrease actual employment in the future, due to very limited availability of jobs in the public and private sector in Lago.

5.1.2.5 Health and Work Capacity
Agricultural small-scale activities require a lot of body strength and good health of all family labor, which is why they deserve special attention (SARDC, 2006:26). A person’s health status as well as nutrition affects the work capacity and therefore the agricultural production and thus the well-being of the whole household and the development of children (Asenso-Okyere et al., 2011:3). Labor productivity is particularly critical in countries, which are based on agriculture, as their major source of employment and livelihood strategy (ibid, 9). Both health and work capacity are identified to be weak in Lago, which is influenced by different external and internal causes, developed in the following paragraphs.

Health Infrastructure and Frequent Diseases
Lago District has three health centers and ten health posts, including maternity health care (Instituto Nacional de Estatísticas, 2012:24), which provide free primary health care, but are not accessible for all inhabitants of the district due to lacking infrastructure and availability of transport. Especially during the rainy season some areas are completely isolated from health institutions. Treatment of long-term patients, e.g. HIV patients, has to be adapted to these outer conditions – often in highly
disfavor of the patient. Impeded access to health centers/posts reduces the possibility to adequately monitor people’s health status, which often leads to a worsening of the situation.

Besides the public health infrastructure, there also exist so-called curandeiros (traditional doctors/healers) of which only some in the district work together with the official health institutions. Curandeiros have a high reputation within the society, which makes the cooperation between traditional and official health authorities crucial, but also risks to impede correct treatment when the means and knowledge of curandeiros are not sufficient and patients reach the hospital too late.

Diseases are a major obstacles for physical performance needed to be productive. Frequently occurring diseases during the rainy season are diarrhea (October to March) and malaria (November to March) (see Annex 27). The distribution of mosquito nets by several health actors is a mean of malaria prevention, even though far from all respondents had or used mosquito nets at home. During the colder season from June to August bronchitis and lung infections are common diseases (see Annex 27). In case the main livelihood earner of a household becomes affected by a disease this can have a severe impact on work capacity by limiting people’s ability to work productively and is thus directly linked to household food insecurity. Also the affection of other household members – e.g. children and elderly – influences the amount of time that can be dedicated to agricultural production. Small-scale farming is based on labor rather than machinery, i.e. the absence, or even the death, of a person can lead to a reduced-labor adapted cultivation of the machamba and also to reduced diversification, according to respondents (see also 5.1.2.2, Gender Balance and FHH).

Another widespread disease affecting people’s livelihood is HIV/AIDS36. In March, 1857 people were registered at Metangula health center for ARV therapy (Ministério da Saúde, 2015). Even so the treatment is for free, far from all HIV patients receive it, mainly because of infrastructural and transport problems as described earlier (see 5.1.2.3). Additional to the HIV-treatment, patients are also informed about nutrition and food preparation; as in particular people with an deficient immune system require a vital nutrition, making food security even more important. Respondents in general (e.g. peasants, health staff) refer to the fact that often malnutrition is not only due to a lack of availability/accessibility of food as such, but food utilization, i.e. vague knowledge of processing and preparing it in a way to make it more nutritious in terms of energy. This is a subject that also local NGOs actively address in Lago District.

Clean Water, Sanitation and Hygiene

The WHO states that clean drinking water, adequate sanitation and hygiene have an effect on other sectors such as the eradication of poverty, hunger, reduction of child mortality, prevention and combating of infectious diseases, health and environmental sustainability (WHO, 2015a). Poor access to clean water, sanitation and hygiene is also an urgent (health) problem in many parts of Lago District. The majority of total households in Lago (18,978) does not have latrines at all (22.9 percent) or use traditional (65.7 percent) or improved traditional latrines (9.8 percent) (see Annex 5). Only 33.1 percent of the households have access to protected wells while 26.2 percent fetch water from unprotected wells and 35.8 percent use the water from Lake Niassa. Only 1.9 percent have a type of pipe system (see Annex 4). This situation, in connection with heavy rainfalls, increases the risk for disease outbreaks, such as the Cholera outbreak 2014/2015. Respondents consider the outbreak to be handled well because of preventive work, fast reactions and good communication. However, infrastructural problems to reach hospitals as well as culturally based fears and a lack of relevant knowledge among few people regarding e.g. treatment, hygiene and the use of chloric to clean the water, hinders the effectiveness of responses and further puts people at risk.

5.1.3 Effects

The various and complex causes of the focal problem of low agricultural productivity, food insecurity and poverty, that have been identified and displayed in the previous paragraphs are interconnected to a causal chain triggering the focal problem and further leading to a number of effects. Several identified causes can at the same time be detected as effects, as the focal problem backfires causes into effects and vice versa. This and other effects will be displayed in the following paragraphs.

5.1.3.1 Malnutrition

Referring to the definition of food security of the WHO (2015), given in 1., – food availability, food access and food use – all three components were observed to be weak in
Lago District, which leads to malnutrition of large parts of the population – especially children. As identified previously, many peasants in Lago District suffer from food shortages (*food availability*) during the lean season of the agricultural year because of e.g. low storage opportunities, losses due to weather abnormalities, limited working capacity due to health problems etc.. The dimension of food shortage is often dependent on people’s level of well-being (see Annex 26, Table 2) as they lack resources to increase agricultural productivity as well as energy to apply coping strategies to exit the trap, described in the focal problem, in the long-run. Short-term coping strategies to get access to food are e.g. asking neighbors or family for help from, selling livestock (which is out of this reason seen as an insurance), or selling of public goods, e.g. firewood, bamboo or fruits. The peasant families are often dependent on a few staple foods, such as maize, cassava, rice and potatoes, which do not provide adequate nutrients (SARDC, 2006). There is a need for a more diversified diet, but lacking financial means and physical access to markets as well as missing information and knowledge limit *food access* and *food use*.

Malnutrition in general has a negative impact on people’s health and immune resistance against diseases and hence their work capacity (Asenso-Okyere et al., 2011:5). Low work capacity forces the peasant to adapt the cultivated farm size, which then reduces the crop output and further food for own consumption as well as cash-income from surpluses. An adequate nutrition is also crucial for people fighting infectious diseases like HIV/AIDS. In case of children, their body condition can affect their learning ability to a great extent. All these factors are likely to lead back to the three components of the focal problem and furthermore limit people’s ability to escape such.

### 5.1.3.2 Investment Attractiveness

Due to structural conditions of low agricultural productivity connected to high rates of poverty the level of attractiveness for private investments and private sector activities in Lago District is low. These conditions, also connected to infrastructure and education level of the population, are not very favorable for investments, as any project would need many extra investments in general infrastructure like roads, piped and drinkable water, electricity, just to name a few, to be attractive for investment. Being a less developed district also means that the government disposes a smaller budget per capita than for more developed districts\(^3\), and

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\(^3\) The Permanent Secretary of Lago District has explained this approach that followed by the national government for distributing the budget. It does not seem logical at the first place and when asking for reasons behind it he added that poorer districts receive other help, e.g. more money for the FDD, to get a push for development.
hence the district government has less room to maneuver to invest in suitable conditions for potential investments itself. This situation, as also described in more detail in the previous paragraphs, has the effect that among those people, who do not farm or find employment in the public sector, unemployment rates are high. This is especially the case for young educated people, who do not want to become farmers but also lack other prospects. Being unemployed leads to frustrations, as sustaining the livelihood becomes a daily struggle. This can lead to migration to more urban areas, like the district capital Metangula, or the provincial capital Lichinga. But since competition for jobs is very high, respondents explained that many people eventually return to their home villages, sometimes ending up in becoming violent, criminal or attracted to alcohol. Being in this situation, poverty is prevalent and another vicious circle is established.

5.1.3.3 Commercialization and Power Positions

A low level of commercialization linked to poor infrastructure, extension services and access to inputs and tools has already been established as a causal chain as they all influence the situation of low productivity levels. However, as a result of low levels of agricultural produce (surplus), households’ food insecurity and acute poverty is high especially before the new harvest, when food is lacking due to a previously bad harvest or because it was not able to be stored efficiently since the last harvest. During this lean period, families’ needs accumulate and the peasant is forced to satisfy these directly after the new harvest and commercialize small amounts of it, in order to buy basic stuff like cooking oil, salt, clothes, maybe schoolbooks or notebooks. As the peasant has to sell right after harvesting, the prices are low, as supply is high and demand low (see Annex 8, 9). The peasant further finds himself in a weak bargaining positions with traders, who know about their power position and will only pay very little amounts for the small quantity the peasant can offer. This is closely related to inadequate planning possibilities, i.e. how much to grow and how much to sell, because peasants do not know if traders will buy it in the end and if not the crop rots due to lacking storage opportunities and market accessibility. This negatively influences peasants’ planning ability for the future. More often peasants tend to sell too much
of their produce right away, ending up in a shortage of food during the time up to the next harvest. The linkage between low agricultural productivity, poverty, low commercialization and weak social power establishes therefore a sort of vicious circle.

5.2 Summary
The presented findings from interviews and observations in Lago District show that there are five main areas of causes – (1) poor political initiative and investment, (2) asymmetric relations, (3) insufficient infrastructure, (4) inadequate relevant education for agriculture and (5) low level of health and work capacity. All of them have underlying causal chains, mutually interlinked with each other and eventually all directly or indirectly leading to the focal problem of low agricultural productivity. A net of interconnected causes-relations emerges, which makes the focal problem very complex and also demands multi-faceted solutions to address the problem from its various roots. The effects of the focal problem, mainly seen in malnutrition, low investment attractiveness and limited commercialization and power positions of small-scale peasants are not only effects, but also causes in the sense that they lead back to the focal problem itself. Causes as well as effects of the focal problem are seen from an individual-centered perspective and focus on small-scale peasants and their situation. Findings from both chapter 4 and 5 will now be analyzed in the upcoming chapter.
6. Analysis
Within this chapter the main research problem, whether WB policies are suitable on local level, is discussed and analyzed. In a first step the two problem identifications are compared with each other, in order to uncover already striking discrepancies that impact on the suitability of the WB objectives on local level, which constitutes in the second part of this chapter. This analysis relates back and tries to give an answer to research question Q3.

6.1 Comparison of Problem Identifications
Both problem trees – WB and Lago – are based on the same focal problem of ‘low agricultural productivity’, even so the WB, related to their economic point of departure, draws a direct line to low profitability, while the observations made in Lago District show a direct interconnection of low agricultural productivity to poverty and food insecurity, turning into a trap for individuals that is difficult to escape. This emphasizes the WB’s economic approach of the focal problem in comparison with the situation identified in Lago District that underlines rather a mutually reinforcing trap for individuals and the focus on food security as this is the level at which people in Lago District suffer and struggle to lift themselves out of poverty.

The main difference between the trees is the point of departure in identifying the root causes for the focal problem. While the WB tree identifies a straightforward amount of root causes that lead to the focal problem of low productivity and profitability, the Lago District problem tree is rather complex and takes multiple perspectives in terms of root causes – pointed out in the five headlines of causes that accumulate various cause chains/circles that are mutually interconnected.

The WB has a crucial focus on the economic situation and hence sees the main causes of low agricultural productivity in economic terms such as the state incapacity to provide a favorable environment for trade, i.e. market accessibility, infrastructure etc., and the general unsustainability of the small-scale farming sector related to limited tradability, high transaction and transport costs and increasing resource competition. Subsistence farming as such is regarded as disadvantageous compared to large-scale commercial and high-value farming. Subsistence farming equals more or less low income, which is alone – from a WB’s view – not able to lift the population out of poverty (WB, 2007:8).

The situation identified in Lago District sees the causes of low agricultural productivity in the conditions and the unfavorable environment for small-scale peasants, i.e. low level of health and work capacity, inadequate relevant education for agriculture, insufficient
infrastructure, asymmetric relations as well as poor political initiative and investment, but not in the small-scale farming sector as such.

In this context it needs to be pointed out that the concept of small-scale farming used by the WB does not go hand in hand with the idea of small-scale farming identified in Lago District. The WB’s understanding of small-scale farming is based on business and a profit-making economic performance and hence has to be replaced as it is characterized as unsustainable, while small-scale farming as seen in Lago District is a livelihood strategy for the majority of the population. Based on this understanding causes and effects identified as such in Lago District have a main focus on the individual and their involvement in agricultural productivity to secure livelihoods.

Nevertheless, there are also a number of similar causes identified in both, the WB and the Lago District problem identification, but often the context in which these are seen remains different. The WB lifts causes as well as effects on a higher level of abstraction and presents it in a wider national economic context, away from the very local causes and effects of low agricultural productivity which are mainly emphasized in the Lago District problem tree and the reality for major parts of the population as their livelihood is based on small-scale agriculture. The Lago District problem tree is more focused on the people and the problems they face and sees the social harm that low productivity and hence poverty and food insecurity creates.

Moreover, a difference between the Lago District and the WB problem identification lies in their varying views of the role of the state. The WB sees the state rather incapable of creating and promoting the preconditions needed for a productivity revolution in the smallholder sector because of under- and misinvestments, social biases and weak contract enforcement and policy implementation capacities. The situation detected in Lago District suggests that the state faces decisive weaknesses, but is furthermore restraint by conditionality and external budget allocations that undermine ownership. A careful statement could raise the idea that the state would be more capable if conditionality would not have imposed on it.

In accordance to the identified causes of the WB, it can be observed that also effects of the focal problem are related to the economic sector. The effects show similarities in certain points such as malnutrition and poor employment opportunities, even though the WB has its focus on economic poverty and clearly tends to add an economic component, e.g. malnutrition leads to loss of individual productivity and hence to economic losses.

Overall, it can be identified that the WB and the Lago District problem trees are not coherent in their root causes of the focal problem and that even the focal problem itself is seen
from different perspectives. The Lago District problem analysis tries to provide a holistic picture of people’s situation, taking up more perspectives and trying to seek understanding for the complex relationship between various causes, e.g. infrastructure, extension services and commercialization. The WB identifies the main root causes in inefficient state performance and the unsustainability of subsistence farming. This leads to a different understanding of local conditions by the WB, based on, for Lago District speaking, to a large extent unsuitable assumptions of the causes of low agricultural productivity. This has the consequence that also the WB’s objective tree, which creation is based on the previously identified problem tree, lacks coherence in comparison with the main remarks of the situation in terms of causes and effects of low agricultural productivity identified in Lago and pointed out more detailed in the following paragraph.

6.2 Comparison of WB Objectives with the Problem Reality in Lago
This part of the study will analyze the suitability and applicability of WB objectives (see part 4.2 and part 5.1, Figure 5) to raise agricultural productivity and to trigger overall goals of economic growth and prosperity.

6.2.1 Market and Trade Liberalization
The first focus area that establishes the basic understanding and a point of departure for other objectives to tackle the focal problem of low agricultural productivity is the liberalization of markets and trade in general, as explained in 4.2. How these strategy and proposed objectives suit the local reality in Lago is analyzed below.

Create Market Infrastructure and Improve Investment Climate
The WB sets the objective to establish market infrastructure in order to improve investment climate. Market infrastructure for the WB means to connect rural areas to international markets that would require the construction of highways and main railroads to connect production areas to ports and airports for export. The same applies for the construction of warehouses and modern market systems. In principle, storage opportunities for small-scale peasants’ produce in Lago District is a very urgent and necessary investment to boost production and increase the households’ food security. However, warehouse constructions in WB terms aims at storing mass production from agribusiness and high value agriculture mainly. Rural peasants in Lago would neither benefit from highways and railroads, nor from large warehouses for export crops. Rural roads and bridges that connects them to local markets and encourages local trade should rather be a priority and supporter of local food
security. Moreover, modern market information systems seem not suitable for Lago, as rather local prices from main markets in the district and the province capital are relevant and can be transmitted via mobile phones or radio.

That development is likely to occur with private sector investment is not only believed by the WB, but also by respondents in Lago District (peasants, private and public sector, and civil society). Private investment in connection with strengthened and capable institutions to make right decisions on who can and cannot invest in order to bring inclusive development and do not harm the rural population is however a challenge. Private investments interests should not dominate local interests and needs. Transparency of contracts between state and private investors needs to be guaranteed in order to increase social accountability. Even though the decentralization process has started in Mozambique and the district government holds more and more responsibilities, decisions on private investment remains with the central government. Ensuring local rural needs and social responsible investments, as well as fair working conditions from the faraway capital, seems challenging and as previous investment in agroforestry (see Annex 30) has shown can be both a curse and a blessing for local people and their livelihoods.

Develop Modern Market Chains
The development of modern market chains stands in connection with diversifying the rural economy and move away from an unsustainable smallholder farming sector towards more productive agribusiness and production for export, according to the WB. It has already been established that this does not seem to be an inclusive solution for Lago’s population. Additionally, the objective of modern market chains is very difficult to establish, as conditions concerning electricity, water and infrastructure are so low that not even adequate local market chains can be established. This proposal by the WB shows that the WB does not think locally and seems to base its thinking at a much higher development level, than the one identified in Lago District.

6.2.2 Productivity Revolution of Smallholder Farming
Several interventions and objectives proposed by the WB build upon the idea of a productivity revolution of smallholder farming, a transformation process from small-scale to medium and large-scale agriculture, from traditional to modern production processes, a diversified economy and incentives for non-agricultural employment seeking and urbanization. In the following the possible positive and/or negative impacts for Lago District will be assessed.
Strengthening of Producer Organizations

The idea to strengthen producer, or peasants, has been identified to be relevant for small-scale farmer living in Lago District. But before talking about strengthening organizations it is rather necessary to start and raise awareness about the benefits peasants can have from being part of an association, due to the fact that the level of organization of farmers in Lago is very low. Organization can give peasants a better bargaining position towards traders and also decrease transport and transaction costs for commercializing their surpluses at first hand but also give them a platform to influence national policies and their implementation.

However, looking closer at the WB’s idea of so-called producer organizations uncovers that the WB has another level of organization in mind. The wording ‘producer’ already indicates that it is not the individual small-scale peasant producing for their own subsistence that is in the center of attention, but the producer, who produces for commercialization and export, as a contract farmer or employee on large-scale farms. This emphasizes, again, the WB’s understanding of agriculture as a profit-making business in comparison with agriculture as a livelihood strategy.

Furthermore, the question arises whether it makes sense, in terms of overall objectives of inclusive development and poverty eradication, to transform small-scale farming into large-scale production that produces for export. Particularly because “[…] the greatest potential for market growth for smallholders in the developing world lies in domestic markets […]” (SCC, 2007:8). In general, the area of Lago District has the main conditions (e.g. climate, fertile soil, labor) to be food sovereign in staple foods, but this implies also that local food needs, which are not fully met yet, should be secured first.

When talking about food security in this respect, it is also striking that the WB has a solely economic understanding of food security. Even so, the WB points out the three components of food security (WB, 2007:94f.), as defined by the WHO (2015), their main focus seems to be on economic food access, based on sufficient resources to obtain appropriate food, rather than food availability of staple foods through small-scale peasants’ own production.38 Cash income to be a net buyer of food is far from the reality in Lago, where people secure their families’ lives through subsistence farming, self-consumption and small surplus selling. Therefore, the WB’s objective to strengthen producer organizations seems to be departing from an assumption of quite a higher development level than has been identified

38 This reflects a different understanding of food security as such: While the WB focuses on societal, or national food security, the point of departure for this study is community based, household food security, which seems a perspective that is neglected by the WB.
in Lago District, where peasant organizations make sense to foster local trade at first hand, and is therefore not suitable as it is for now.

**Access to Financial Services and Safety Nets**

That access to financial means and services can improve the agricultural productivity is not much challengeable. Credits could be used to buy improved seeds, tools and machinery that provide time and/or labor-saving improvements to facilitate the work on the field. Bigger areas could be cultivated or newly gained time could be used for rural non-agricultural activities what is also crucial in regards to practical gender needs. Especially credits for traders could achieve a substantial change in production habits if surpluses do not rot on the fields and peasants get the chance to plan their production.

Access to banks can encourage further savings and a savings mentality (in a bank account rather than at home) can be established and strengthened, also in favor for bigger investments in a long-run. But the majority of the population in Lago does neither have access to a bank nor have any collateral to be granted a bank credit. The chances to receive a loan via the FDD are rather limited. Therefore the success of the implementation of banking systems seems rather small looking at the current development level. The WB’s suggestions of increasing the role of microcredit institutions, which are not present in Lago District yet, however, could possibly be an option to stimulate local investments by local people.

The establishment of modern safety nets to secure the local population from external risks seems reasonable at the first sight. However, introducing modern safety nets, meaning insurance schemes and cash transfers, may undermine traditional and informal systems that people use(d), like for example help from the community, relatives and neighbors in case the rain destroyed part of the crops. Modern safety net systems would amplify the already ongoing process of individualization, neglecting local people and communities’ way of living, and thereby destroy important and over long time developed social structures. Apart from that it seems further challenging how to implement modern safety nets. Money flows and banks do not exists, how would money reach affected people or how would they pay their fee? Lastly, most people in Lago do not even have (enough) cash/money to afford or pay for insurances. The idea of modern safety nets through insurance schemes is an idea that is used mainly in developed countries, but is maybe not context-sensitive as solution to secure rural people in Lago from external risks.
Land Market Reform

A land market reform as proposed by the WB – a distribution according to productivity level – can shatter livelihoods of many small-scale peasants in Lago District. If land would be free to buy (which would require a major change in the Mozambican land law (see Annex 29) most peasants would lose their land and their livelihood strategy of subsistence farming, as they do not have competitive financial means to buy (their) land. They would be forced to work on those people’s/companies’ farms, who were able to buy land. This would be comprehensive in the thinking of the WB to raise efficiency and hence profitability rates but not in the sense of solving the root causes identified in Lago District. Even if productivity may rise, food insecurity and poverty levels of the majority of people are likely to remain high under these conditions.

An introduction of land titles is also questionable, as it would limit peasants to a small piece of land only, which will lose fertility if no inputs are provided or to purchase for an affordable price. Being tied to one piece of land would further prohibit the local peasants traditionally used rotation system of fields that keeps the soil fertile.

Another important aspect to consider is that a land reform can create even longer distances for peasants to reach their fields, which causes a waste of valuable working hours. Peasants, who lose their land further face the risk to me marginalized from society if they cannot find employment in the considerably small private or public sector and feed their families. The WB does not seem to consider consequences of proposed reforms apart from possible economic gains and profits, putting many poor people at higher risk and even more severe impoverishment.

Equalize Chances for both Gender

Gender issues do not seem to be a focus of the WB, but rather a prominent clause that is added here and there. The necessity of gender equality to raise agricultural productivity and increase food security to lower poverty is from major importance as pointed out in 3.2.2. As observed and identified in Lago, women do face more challenges and duties in life. Especially FHH are in disfavor. Within the social structures women do not have the same opportunities and access to different means of life yet as their male counterparts, e.g. in education. Even so changes in gender roles seem slowly in progress in Lago, women do most of the reproductive work and additionally productive and community work. Especially the unequal division of labor, its given value and the factor of time going with it reflects that a reduction of gender disparities is a crucial aspect of development in general and for individual agricultural productivity in
particular. As seen in Lago practical gender needs are not met everywhere yet, which in turn hinders also the addressing of strategic gender interests. The WB leaves open though how gender equality and the role of women can be strengthened. As for most objectives the WB stays at a very low level of operationalization but formulates broad strategies and guidelines.

**Diversification of Rural Economy**

The objective to diversify the rural economies of agriculture-based countries as such is relevant also for a rural region like Lago District. Other and additional cash income sources have the potential to improve people’s financial situation, which would in turn have positive effects on poverty level and economic *food access*.

The WB, however, follows the objective of diversifying the economy by migration/urbanization, large scale commercial farming and leaving no room for prosecution of small-scale subsistence farming as seen in Lago. This whole idea is based on development as modernization, and includes that smallholder farming will be replaced with larger production units. This implies a new distribution of land so that land will be used more efficient – according to the WB’s understanding of efficiency in output – and people, who were less productive shall seek jobs in the rural non-agricultural sector or migrate to urban areas, where the WB assumes available jobs, which provide frequent and sufficient cash income to replace a subsistence livelihood. Unintended consequences could be that people from rural areas do not have sufficient education to find a decent job to sustain a (family’s) life, as well as that too many people in too short time try to enter the formal labor market, which can both support the creation of slum areas and employment in the unprotected and risky informal sector (Todaro/Smith, 2011:315ff.), which is even considered a “holding ground for people awaiting entry into the formal sector” (ibid., 330).

Rural non-agricultural employment, created by private investment is difficult to neglect to be necessary for the development of Lago District. However, as previous investment in Lago has shown communities lose their fertile lands to large-scale investors, as the peasant communities are the weaker part in negotiations. Investments should take place in a clear framework of rules and regulations and be accompanied by social responsibility. Wages have to be high enough for employees to sustain their lives to avoid double burdens of being employed and working the field. Contracts need to be secured and long-term, and labor rights have to be respected. Unfortunately, these aspects are not to be found in the WB’s policy paper, neither are objectives that would enable the state to protect communities from being exploited.
Furthermore it becomes evident that the WB – even though arguing that they need to strengthen the smallholder farming sector – sees the solution of raised agricultural productivity and economic growth in a modernized context using those living strategies that reflect the ones of the industrialized world, rather than adapting to and using the knowledge, cultural structures and strategies that people have developed in their environment over centuries and building up on those.

**Contract Farming and Agribusiness**

Contract farming and agribusiness are two examples of specific suggestions the WB raises in the context of a productivity revolution of smallholder farming to raise agricultural productivity in a diversified rural economy. Contract farming has been present in Lago District several years back. A tobacco company sold tobacco seeds and inputs needed for successful production on credit, and contracted farmer in return sold their complete produce to the input providing company. In principle, and as one respondent farmer has confirmed, this can improve a peasants’ life. However, contract farming, in which a peasant is bound to sell to the company he received his order from, goes against the principles of a free market economy as a contracted farmer would be restricted to sell his produce to the best achievable price, a monopsony situation. Furthermore, the extremely large profit margin for the companies is not in any relation to the price paid to the peasants. These unequal relations of power would create a dependency of the peasants, while the big benefit remains with the contracting company.

Cash crop production does furthermore not contribute to food security in terms of availability or further food sovereignty, especially when the prices paid for the cash crop produce are not sufficient for purchasing sufficient (staple) food. Moreover, the introduction of agribusiness/cash-crop production serves mainly international market demands (including fodder for animals as meat consumption is rising or for instance increased demand for biofuels (WB, 2007: 60ff.)) rather than addressing local food needs to secure food security and especially food sovereignty.

Why should a country like Mozambique and the District of Lago, in which conditions for agricultural production are favorable and the population could be food sovereign, if conditions for their small-scale production would be improved, be a net importer of highly subsidized food/staple foods and become dependent on international food market and prices, making itself even more vulnerable to price volatilities and international crisis? The immense consequences of price fluctuations for the weakest link of a chain, that the vulnerable poor cannot afford enough food and face malnutrition and death, is not enough emphasized within
the WB report. The suitability of the objective of agribusiness and production of export is not given for the conditions and structures identified in Lago District.

Conservation of Natural Resources and Climate Proof Farming
The introduction of climate proof farming systems only becomes necessary when local traditional farming techniques would be replaced with agribusiness, high value agriculture, hence large scale production for export, as these production processes require increased use of (natural) resources like fertilizer, pesticides, water, but also machinery. The production system proposed by the WB would need climate change mitigating technologies not to further contribute to global warming.

Nevertheless, people in Lago have lived without these techniques throughout history and their active contribution to climate change and degradation of NR is minimal. However, when it comes to cut and burn down trees to create new fields more awareness of conservation of natural forest should be addressed in Lago as agriculture relies on the ecosystem.

6.2.3 Strengthening State Capacity
Strengthening the capacity of the state in the WB’s liberal understanding includes objectives that enable the state to fulfill its framework setting and guiding functions. Main objectives include the area of distributive, allocative and coordinative functions as well as to correct market failures (a liberalized market is precondition), and to provide and invest in basic public goods. To what extent these objectives are suitable for a local setting like Lago District will be analyzed in the following paragraphs.

Fulfill Distributive, Coordinative and Allocative Function and Ensure Equality of Regions
Niassa has been one of the most neglected provinces in Mozambique (Nilsson/Åkesson, 2006) and special attention in regards to investments in various sectors (health, infrastructure, education, agricultural inputs and extension services) has been identified to be necessary in order to raise agricultural productivity and local food security levels. However, if framework-setting functions in the agricultural sector will be sufficient in order for Lago to develop is rather questionable.

In the context of food security as a human right, stated in the Universal Declaration of Human Rights (UN, 1949) and adopted by Mozambique, the government holds a certain responsibility to respect, protect against third actors, e.g. against land grabbing, and satisfy the right of food for its citizens. This implies the recognition of small-scale farming as a form of
agricultural subsistence (Lutherhjälpen, 2005:5f.). Furthermore, in case of food insecurity as a multidimensional threat against the *Human Security* of a state’s population (see 3.2.1), the state should take up proactive and preventive actions to protect its population from any form of food insecurity and in the context of Lago meaning to empower the small-scale farming sector. Even though strengthened institutions and a better allocation and distributive system could bring betterment for the peasants and fishermen in the region of Lago (e.g. if improved seeds or emergency seeds would arrive in time for planting seasons or are available at all via extensionists) a country at a development level such as Mozambique might require more proactive and preventive state action, like e.g. that the state enrolls in incentive settings to make use of comparative advantage of smallholder farming in Lago. Also a certain level of protectionism at the nascent level of a countries development could help in order to sustainably improve the agricultural sector development, though liberalization was/is pushed by WB and IMF as loan conditionality. The market in Lago is not able to bring wished results of raised agricultural productivity alone; it needs an assertive push from a strong state, strengthened on every political level, from local to national, including a strong civil society, a free press and strengthened decentralized structures. However, internal structural problems from various kinds, e.g. vertical communication, distribution of power, corruption and horizontal, vertical and social accountabilities are an obstacle and have to be addressed as well in order to strengthen state performance.

*Agricultural Subsidies and Inputs*

Subsidies are regarded as conflicting by the WB. It does not neglect the need for subsidies, however, emphasize the need for targeted subsidies, of which the agricultural sector is not part of the target. However, highly subsidized agricultural markets in OECD countries beat down the world market prices, so that local peasants in Lago cannot compete without support by their own government, which is however prohibited since the WB and IMF influence national policies. A subsidized agricultural sector in Mozambique (and other agricultural based developing countries) could change the whole world market, not in favor for the industrialized countries. The other way around, that OECD countries for example remove their high subsidies in agriculture seems politically impossible, even though the OECD countries claimed to have reduced their support, it still reaches an average of more than 30 percent (OECD, 2014). These are unfair points of departure, enforced by loan conditionality of the WB and IMF, which officially aim at improving developing countries’ conditions.
When agricultural inputs are addressed in order to boost agricultural productivity, peasants in Lago referred to the need for tools that ease their daily work on the field, e.g., tractors or irrigation pumps (which would enable them to grow main crops in two water-fed seasons), while respondents from several levels (peasants, civil servants, extensionists) see benefits from use of organic fertilizer. The WB promotes the provision of inputs, however, they talk about high technology and biotechnology, whose introduction on a small-scale farming level, as predominant in Lago, is not suitable. Who would be able to use these technologies and especially who affords it? This discrepancy shows again that the WB does not take local conditions into account, or neglect the reality of local level farming.

Furthermore, the WDR 2008 is contradictitious whether organic or chemical (or both) fertilizer should be promoted. The negative impact of chemical fertilizer on people and environment is prevalent and there are means for sustainably raising agricultural productivity that is rather based on local knowledge that peasants already have, e.g., by manure, compost, fertilizing crop. One concession identified from the WB are governmental subsidies for inputs, but these shall remain the only “smart subsidies” (WB, 2007:138f.) that seem useful to the WB. Whether chemical fertilizers are included is not stated and remains concealed.

**Quality and Quantity Investments**

The WB’s objective of quality and quantity of investment includes a strong focus on R&D, extension services and public goods like telecommunication, irrigation and power. Starting with R&D, the WB stresses the need for research in biotechnology. This however does not reflect at all what fits local level agricultural productivity improvements. Quality of R&D would be high-class, which firstly might not be suitable for SSA and Lago. Secondly, local peasants in Lago would not benefit from high quality R&D as they could neither afford nor use it. Real needs that should be covered by R&D are improved seeds that can be reused several years, production and distribution of organic fertilizer, which are both not addressed within the WDR 2008. Extension services then should be used to spread the high technologies on high-value crops. Production of export crops does not primarily serve the need in Lago for increased production for local food security/sovereignty, but as mentioned before, satisfies international market demands. More appropriate would be an approach that increases extension services so that more peasants and families are reached to spread relevant
agricultural information about a sustainably and risk-averse diversification of production and knowledge about preparation of food to make it most nutritious and fight hidden hunger\(^\text{39}\).

Investments in public goods like irrigation schemes, power, and telecommunication are necessary in Lago. As stated by respondents in Lago the revolution of telecommunication during the previous decade brought many positive changes and triggered development on local level, e.g. market information via mobile phone. However, corresponding to the WB’s objectives identified and analyzed within the section of a smallholder farming revolution (5.3.1) those investments are desired to be large scale, serving modernized production systems, e.g. agribusiness and large scale plantations, not though the smallholder peasants in Lago.

**Investment in Education and Health**

Investment in education and health is an objective the WB stresses and which is suitable to conditions in Lago. However, the motivations of those investments differ between the WB and the reality in Lago. For the WB investment in education and health equals investment in human capital, e.g. a healthy population brings higher productivity with the main aim to prevent economic losses. General economic – rather than people-centered – arguments come to the forefront and local food security, in this thesis understood as a part of Human Security, simply becomes economized and further neoliberalized. Education especially should be harmonized with local requirements. For example, vocational training on agricultural is highly relevant as there is a potential market for this to initiate sustainable and environmentally friendly solution for raised agricultural productivity. The relevance of education and health should be the individual safeguarding of food security of the rural poor, before pure economic growth theory. Education is a foundation for an improved quality of life for every individual as a higher educational level contributes not only to better value and efficiency of labor but further to the capability to empower oneself, e.g. in becoming more creative in finding surviving strategies, amongst others opening up small businesses and becoming local entrepreneurs.

In terms of education, the WB’s objective is to create skilled labor, not seeing the challenges of where these skilled people in a rural environment like Lago could find employment under unchanged economic and labor market conditions.

\(^{39}\) Hidden hunger refers to a scarcity of micronutrients such as minerals and vitamins even so access and availability of sufficient food is given (Lutherhjälpen, 2005:9).
The gap of opportunities in education for women and men remains high in Lago. This is an unfavorable societal phenomenon as especially women’s level of education are assumed to be closely related to a household’s wealth, what makes it even more important to actively address women’s inequality (Marphatia et al., 2007:3; Todaro, 2011:359ff.). Education and health are a human right and part of human security and should not be exploited to generate economic growth in the first place. The focus of education should further be on quality, not simply on quantity.

6.2.4 General Discrepancies between WB Objectives and Lago
Analyzing the suitability of WB objectives on a local level now allows for some general statements about discrepancies arising between the WB’s ideas to raise agricultural productivity and the observed and investigated reality in Lago District. A main observation of this analysis uncovers a quite interesting concept applied by the WB. Starting its report by stressing and claiming that “agriculture continues to be a fundamental instrument for sustainable development and poverty reduction” (WB, 2007:1), and that “pathways out of poverty […] include smallholder farming […]” (ibid.), it becomes clearer and clearer that smallholder farming, especially as a livelihood strategy, is not seen as the basis to build on development, but in the name of modernization and liberalization has to leave and make room for more productive and profit making large scale export production. The claim of smallholder farming to be important for development is misleading and not what the WB aims at and sees potential in, in order to raise agricultural productivity and profitability – when reading between the lines of the WDR 2008. One could assume that the WB is rather interested in a country's profitability because the country could then pay back the credits and loans received from WB and/or IMF. A careful statement about the WB strategy is that the WB acts in its own interest rather than in the interest of the local poor, who will, as identified above, most likely not benefit from development interventions proposed by the WB, also emphasized by e.g. Sarfaty (2009) and Munarriz (2008) (see 1.2).

It furthermore becomes striking that the WB, when formulating ideas of interventions, assumes a development level that is much more advanced than the one identified in Lago. Hence, the WB’s objectives are majorly not applicable and suitable, as they seem to leave out important development steps of the specific environment that Lago District has not gone through yet, or does not want or need to pass. A slowly depeasantization and sustainable economic diversification process, i.e. a gradually liberalization to translate agriculture-led growth into national economic growth as suggested by Hazell (2005:2), seems more
promising than a radical move away from very small-scale traditional farming towards high value large scale production. Maybe for some more objectives the WB’s proposals would be applicable, however, this would need thorough investigation and cannot be answered within the framework of this thesis.

As identified before (see 5.1) the WB’s purely economic approach within its problem identification, i.e. causes and effects, but also in its objectives, does not reflect the reality as identified in Lago District. In Lago, raised agricultural productivity is needed to empower people, to raise levels of local food security and sovereignty and to decrease poverty, while the WB’s priority behind raised agricultural productivity seems to be profitability and economic growth. The WB’s approach is not people-centered and does not take local structures, cultures, traditions and lifestyles into account. The imposition of modernization – modernization to be understood equally to development – as experienced in industrialized countries has been the WB’s approach for several decades – since the 1980’s (Havnevik et al., 2007:7) A business as usual policy might not bring much improvement to agriculture-based countries, as proved by the past decades of liberalization, democratization and modernization in SSA, imposing a liberal world view as the only way for successful development, disregarding local contexts and environments, habits and customs.

Another major problem of the suitability of the WB objectives can be found in a different understanding of main concepts, like for example the definition of poverty, which is only economically defined by the WB, but multidimensional when looking at the local reality. It is similar when looking at the understanding of small-scale farming, which is a way of life for Lago’s population, but an unsustainable obstacle that has to be replaced with more productive medium/large-scale farming in order to be profitable in the eyes of the WB. For the WB, food security seems – compared to other aims – just a minor matter and food sovereignty is neglected as such. Nevertheless, for Lago, where even local food sovereignty seems possible, local food security is absolutely essential. It is the matter that makes people suffer and the possibility to secure food security or even better reach it through food sovereignty is one key to secure Human Security, peace and development.

In general, consequences of development intervention for the purpose of raising agricultural productivity are not linked to what it would mean for the most vulnerable part of the (rural) population and only economic outcomes are highlighted. Apart from that local conditions – as found in Lago District – do not even allow for many objectives to be applied. However just thinking in theoretical terms, the implementation of modernized structures as desired by the WB would probably lift only very few local people out of poverty, while the
main population most likely will suffer more poverty – e.g. also brought up by Stein (2011), Havnevik et al. (2007) and Arestis et al. (2011) –, if they cannot sustain their lives through small-scale farming, like they have done hundreds of years, any longer. Also, modernized systems need a lot of reinvestments (new technologies, maintenance of machines to name a few), which is costly and money is rare. Small-scale farming though does not require much investments and the suitability of modernized technology to replace traditional farming systems is challenged another time. The risk of creating a gap, blocking an inclusive and sustainable development seems larger with the WB’s objectives rather than without.

6.3 Summary
The comparison of the problem identification between the WB and the reality identified in Lago already established the different focus, perspectives and approach applied by WB and seen in Lago District. Major differences lie (1) in the economic centered approach by the WB, especially visible in its focus on profitability, versus a people/human-centered and local needs based reality with a focus on local food security, (2) in the exclusiveness of the WB in terms of historical and external causes towards the focal problem, while the focal problem in Lago is based a multidimensional factors and (3) by a fundamental different understanding and approach towards the concept of small-scale/smallholder farming and definitions and ideas of main concepts like poverty or the role of the state. Out of those established contradictions the objectives proposed by the WB, which arise out of the problems identified, are not applicable to the reality in Lago District and cannot suit to tackle the focal problem of low agricultural productivity. The approach of modernizing societies at all costs, neglecting local structures, lifestyles and conditions are analyzed to not bring the wished inclusive and sustainable development for Lago District and possibly neither for other regions with similar conditions. It seems that the WB does not even consider solutions around small-scale farming, especially regarding improvements for commercialization and market access that could alter the focal problem of low agricultural productivity significantly and makes precipitated steps of forced modernization unnecessary and unsustainable.

More suitable development intervention to effectively and sustainably achieve the wished results of food security, poverty eradication and inclusive growth are laid out and proposed in the following chapter.
7. Lessons Learned: Objective Identification for Lago District

The comparison of the WB problem and objective tree with the problem tree of the situation in Lago District has shown that a business as usual economic and modernization based approach is not suitable. Therefore the authors want to present an own objective tree based on the problem identification in Lago District as well as on the outcomes of the previously executed analysis of the suitability of the WB policy strategy for agricultural development in Lago District. This chapter will answer research question Q2.3.

As suggested by the identification of the focal problem in Lago District, the immediate objective and the main purpose are to sustainably increase agricultural productivity rates with a direct linkage to poverty reduction and food security as well as food sovereignty. This is supposed to lead to the overall development objectives identified as (1) increasing local trade and hence higher planning reliability for small-scale peasants, (2) improved investment attractiveness that triggers employment opportunities and hence leads to a sustainable and inclusive economic growth and (3) good nutrition going together with a good health status and high work capacity and learning ability. These objectives are divided into three circles, all leading back to the intervention purpose and thereby foster agricultural productivity, food security and sovereignty and poverty reduction (see Annex).

The following presented development interventions are supposed to address the focal problem of low agricultural productivity and hence contribute to the fight for the immediate and the overall objectives mentioned above. One of the main keys to reach these objectives is to respect the small-scale peasants’ livelihood and use their broad agricultural knowledge as the basis for development what makes a sustainable and inclusive development more likely. The authors want to suggest the following development interventions as it seems promising to start on a level adjusted to the context of Lago District as well as to address several assets simultaneously, coherently within the five main areas: (1) increased political initiative and investment, (2) symmetric relations, (3) sufficient infrastructure, (4) adequate relevant education for agriculture and (5) increased level of health and work capacity.

For increased political initiative and investment to support sustainably increasing agricultural productivity the authors propose to:

40 The authors are aware of the fact that the following statements might not eradicate the focal problem of low agricultural productivity, food insecurity and poverty immediately as the elimination of the focal problem is very complex and multilayered and the implementation of the interventions takes time. However, we are convinced that only a bottom up approach as laid out above will eventually bring positive improvements.
• create an environment for sustainable private sector investment to stimulate growth in the non-farm economy but with clear rules and regulations, e.g. in terms of land, to protect small-scale peasants’ livelihoods and set fair conditions for labor.
• raise quality and quantity of public and private investment in the agricultural sector, e.g. in form of targeted subsidies to support small-scale production and adequate R&D, irrigation systems that benefit small-scale peasants.
• restore the balance between rural and urban areas.
• foster administrative capacities and thereby guarantee a fair, sustainable and efficient allocation and use of the FDD in favor of small-scale peasants.
• promote ownership on all political and administrative levels to guarantee sustainable development.

For symmetric relations to support sustainable increasing agricultural productivity we encourage to:

• ensure equal opportunities for gender as a crosscutting issue in form of access and control over resources and benefits.
• address practical gender needs and thereby the division of labor, and hence living conditions and well-being of households.
• focus further on strategic gender interests to empower both gender and promote gender equality in the long-run.
• enhance social power of small-scale peasants, especially women, i.e. bargaining and political power, through increased organization of peasants.
• improve access to finance, especially credit (in form of meso/microcredits) to encourage local trade, investments and savings.
• foster the maintenance of traditional safety nets to make small-scale farmers less vulnerable.
• increase access to inputs like organic fertilizer (prevent the misuse of harmful agrochemical inputs), improved seeds as well as tools to facilitate and ease agricultural processes for small-scale peasants.

For sufficient infrastructure to support sustainably increasing agricultural productivity the authors call for:

• creating adequate rural transport opportunities and infrastructure to facilitate local commercialization and market accessibility and in turn reduce food imports.
establishing sufficient storage opportunities for food preservation to support local trade and commercialization.

For an adequate and relevant education for agriculture to support sustainably increasing agricultural productivity we want to highlight to:

- consider the important value and benefit of small-scale peasants’ knowledge of agriculture and fishery for sustainable development in this sector.
- increase the quantity of agricultural extension services to promote sustainable use of NR and to provide relevant agricultural information to a broader part of small-scale peasants, women and men equally.
- ensure equal access and opportunities of education for both gender.
- affirm the quality of formal education for women and men to absorb knowledge and transfer it to the household, e.g. food use, disease prevention etc..
- promote agricultural training opportunities and vocational training to increase job opportunities and entrepreneurship.

For an increased level of health and work capacity to support sustainably increasing agricultural productivity, the authors promote to:

- strengthen health infrastructure to ensure the accessibility to health posts and hence support better treatment opportunities for frequent diseases that risk/limit smallholders’ agricultural production.
- promote more sustainable and efficient use of the lake and increase clean water access and sufficient sanitation and hygiene to prevent frequent diseases decreasing peasants’ individual work capacity.
- foster cooperation between traditional health systems (curandeiros) and official health authorities to respect traditional structures but ensure simultaneously adequate treatment for patients.

The authors interventions are based on an inclusive, people centered, multi-sector and context specific approach that uses the knowledge peasants have developed and transmitted for hundreds of years, that respect culture and lifestyles to enable the population to become empowered and to trigger bottom-up development that is sustainable and suitable. Nevertheless, the authors acknowledge that the realization of these proposed interventions
requires immense commitment of all stakeholder and a restructuring of internal and external strategies.
Figure 7: Lago District Objective Tree
8. Conclusion
Reflecting now on the findings from the WDR 2008 and from the fieldwork in Lago District, together with the application of the LFA and a comparison of the WB’s policy recommendations with the local reality, a number of conclusions can be drawn from this study. Referring back to the initial research problem – the global policy suitability on local level, exemplified in this study by the WB’s WDR 2008 and Lago District, Mozambique – this research claims that global policy suitability remains a global desire rather than a local reality. The reason for this is multi-causal and starts off with two different problem identifications from WB and Lago District, which lead to non-coherent development interventions that cannot satisfy local needs. The LFA structure helped to point out evidently and demonstratively that discrepancies already in problem identification are taken on to objectives identification and that the WB’s approach – based on (neo)-liberal modernization, universal and economic-centered – turns out to be an obstacles for sustainable rural agricultural development rather than a supporter of poverty alleviation, local food security and sovereignty and inclusive economic growth. An overwhelming amount of identified objectives proposed by the WB cannot tackle the focal problem of low agricultural productivity, food insecurity and poverty in Lago, especially because the context of rural livelihoods and the main occupation of the majority of the population in small-scale family farming is neglected as such by the WB in the WDR 2008. Even though the WB launched assessment studies on household level, outcomes and objectives are always anchored in a neoliberal paradigm. Hence, it seems that the WB is more based on neoliberal ideology rather than what has been identified in a local context – even though recognizing that a WDR cannot be very detailed and context specific as such, but the local perspective is not represented to an extent that the proposed development objectives could be successfully implemented – establishing a gap between global policy desires and local reality. Nevertheless, the influence of global and/or national policies do not remain the only factor determining agricultural performances, as there are many other impacts, e.g. climate conditions or change, that were not particularly part of this study.

With the obtained results this research can be placed in the academic debate with authors like e.g. Stein, 2011; Sarfaty, 2009; Havnevik et al., 2007; Arestis et al., 2011 and Payer, 1979, questioning and criticizing the effectiveness of liberalization policies for development. The application of neoliberal policies in a context such as Lago District rather risks worsening livelihood conditions and the human right to adequate food for a major part of the population than improving it. Furthermore, the researchers see the same difficulty as
Grabel (2007) that a one-fits-all solution is inadequate, especially in regard to the identified incomprehensiveness of root causes and WB development interventions, which might not lead to an increased agricultural productivity in the context of Lago, but also in a more general context, that all one-fits-all solutions cannot bring the claimed results if not – as emphasized by Stiglitz (2001) – based on bottom level conditions and not deeply rooted and intertwined with local structures and using local knowledge as a point of departure.

Therefore, in the researchers’ own objective identification a multi-sectoral, context-specific and particularly people-centered approach with a special focus on small-scale peasants – such as Havnevik et al. (2007) and the Human Security Approach suggest as well – is plead for. Even though, as within the limits of this study only one district in one country was analyzed, the researchers do believe that the results from this study, outlined above, are effective in other local regions with similar characteristics of the agricultural sector and rural life, especially in SSA. Looking upon the suitability of a global policy from a rather exceptional but highly important grassroots perspective, the researchers draw the conclusion that policy guidelines from different kind of actors, especially bi- and multilateral institutions, should also hold social responsibility besides own political and economic interests, and need to have a major focus on the strategies’ impact on local structures, conditions and need-satisfaction also in order to contribute to a successful implementation of the this year released SDGs. For example, raised agricultural productivity on local level has the potential to directly contribute to 6 of 17 SDGs (goal 1,2,3,5,8 and 10, see Annex 33) and therefore makes the impact of this study paramount for current and future work in the context of the 2030 agenda for sustainable development. Assuming that the findings from this study can be generalized, one could even conclude that no global (policy) desire that does not apply a local grassroots perspective can set off successful development and therefore this work aims to contribute to raise more awareness for this significance.

Further research could be horizontally expanded and look into the research problem in more than one district, in Mozambique and in other SSA countries. Vertically, future research could also investigate how deeper-rooted structures within the Mozambican society are possible obstacles for the suitability and applicability of global and/or national strategies rather than short-term context bound causes, and how these can be overcome with adequate development interventions. Last but not least an option to contribute to new knowledge within this research topic is to consider the problem of lack of coherence between global or bilateral donors/funding. One actor for instance can have valuable ideas to raise agricultural development, but contradictive recommendations provided by another actor can prevent those
ideas again from being actually implemented. The question of donor harmonization is highly relevant for successful long-term development and could therefore be an interesting topic for further research which would go beyond the scope of this research but is a very current and crucial topic to look into, not least in the name of fair, inclusive and sustainable development.
Bibliography

A


B


C


G


L


M


ORGUT (In cooperation with Chr. Michselsen Institute and COWI) (2011): *1st Reality Check in Mozambique*. Stockholm: ORGUT Consulting AB.


Annex

Annex 1: Income Distribution Patterns in a Selection of SSA Countries

Table 1. Income distribution patterns in a selection of SSA countries

<table>
<thead>
<tr>
<th>Country</th>
<th>Gini (year in parentheses)</th>
<th>Gini</th>
</tr>
</thead>
<tbody>
<tr>
<td>Botswana</td>
<td>47.7 (1986)</td>
<td>41.4 (1994)</td>
</tr>
<tr>
<td>Burundi</td>
<td>33.3 (1992)</td>
<td>41.82 (1998)</td>
</tr>
<tr>
<td>Cote D’Ivoire</td>
<td>41.2 (1985)</td>
<td>44 (1998)</td>
</tr>
<tr>
<td>Lesotho</td>
<td>55.9 (1986)</td>
<td>60 (1999)</td>
</tr>
<tr>
<td>Madagascar</td>
<td>46.3 (1980)</td>
<td>47.4 (2001)</td>
</tr>
<tr>
<td>Malawi</td>
<td>57.3 (1983)</td>
<td>49.3 (1997)</td>
</tr>
<tr>
<td>Zimbabwe</td>
<td>56.6 (1990)</td>
<td>73.1 (1999)</td>
</tr>
<tr>
<td>Mean</td>
<td>43.6</td>
<td>49.8</td>
</tr>
</tbody>
</table>

(Source: Stein, 2011:80, cited after WIDER, 2007)

Annex 2: Common Commodities and their Prices

<table>
<thead>
<tr>
<th>Commodities</th>
<th>Price in Metecal (MT)</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>Capulana</em> (piece of fabric used as wrap-around-clothing or to carry babies)</td>
<td>150-200 MT</td>
</tr>
<tr>
<td>Hoe</td>
<td>120 MT</td>
</tr>
<tr>
<td>Brown sugar</td>
<td>45MT/kg</td>
</tr>
<tr>
<td>Salt</td>
<td>15-20MT/kg</td>
</tr>
<tr>
<td>Box of matches</td>
<td>1.5MT</td>
</tr>
<tr>
<td>Battery (R20)</td>
<td>7MT</td>
</tr>
<tr>
<td>Soap for clothing</td>
<td>20MT</td>
</tr>
<tr>
<td>Notebook</td>
<td>5MT</td>
</tr>
<tr>
<td>Blanket</td>
<td>250-1000MT</td>
</tr>
<tr>
<td>Bicycle</td>
<td>3000MT (minimum)</td>
</tr>
</tbody>
</table>

(own illustration)
Annex 3: Matrix of Crop Ranking

<table>
<thead>
<tr>
<th></th>
<th>Farmers</th>
<th>Extensionists in Metangula</th>
<th>Extensionists in Maniamba</th>
</tr>
</thead>
<tbody>
<tr>
<td>more durable in terms of storage</td>
<td>rice, ground nuts, cassava</td>
<td></td>
<td>maize, beans</td>
</tr>
<tr>
<td>less durable in terms of storage</td>
<td>rice</td>
<td></td>
<td>vegetables</td>
</tr>
<tr>
<td>more cash yielding</td>
<td>rice</td>
<td>potatoes, soya beans</td>
<td>beans, maize, cassava, sorghum, rice</td>
</tr>
<tr>
<td>more energy giving</td>
<td>cassava, maize (xima, made out of maize or cassava meal and water), rice</td>
<td>potatoes, soya beans</td>
<td>beans, maize, cassava, sorghum, rice</td>
</tr>
<tr>
<td>consumed most</td>
<td>cassava, maize</td>
<td></td>
<td>first season: beans, maize second season: cabbage, salad, tomatoes</td>
</tr>
<tr>
<td>more marketable</td>
<td>sweet potatoes</td>
<td></td>
<td>tomatoes, salad, cabbage, maize, beans</td>
</tr>
<tr>
<td>less water requirement</td>
<td>cassava</td>
<td>maize, beans</td>
<td>beans, tomatoes</td>
</tr>
<tr>
<td>most water requirement</td>
<td>rice</td>
<td>cabbage, tomatoes, carrots, salad</td>
<td>cabbage, salad</td>
</tr>
<tr>
<td>less resistant to pest/diseases/animals</td>
<td>vegetables, cereals</td>
<td>cabbage, tomatoes (diseases), maize (monkeys)</td>
<td></td>
</tr>
<tr>
<td>most resistant to pest/diseases/animals</td>
<td>fruits</td>
<td>salad, beans</td>
<td></td>
</tr>
<tr>
<td>most labor requirement</td>
<td>rice</td>
<td>rice</td>
<td>cabbage, tomatoes</td>
</tr>
<tr>
<td>less labor requirement</td>
<td></td>
<td>maize, salad</td>
<td></td>
</tr>
<tr>
<td>easy cooking process</td>
<td>maize (xima)</td>
<td></td>
<td>salad, cabbage (does not need a lot of cooking, i.e. firewood)</td>
</tr>
<tr>
<td>palatability</td>
<td>cassava, rice</td>
<td></td>
<td>vegetables</td>
</tr>
</tbody>
</table>

(own illustration based on data collection, inspired by an example given by Mikkelsen, 2005:101ff.)
Annex 4: Distribution of Sources of Water of Family Households in Lago District

<table>
<thead>
<tr>
<th>Source of Water</th>
<th>Number</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Canalized water to the inside of the house</td>
<td>37</td>
<td>0,2</td>
</tr>
<tr>
<td>Canalized water to the outside of the house</td>
<td>326</td>
<td>1,7</td>
</tr>
<tr>
<td>Fountain</td>
<td>563</td>
<td>3,0</td>
</tr>
<tr>
<td>Protected well</td>
<td>6.288</td>
<td>33,1</td>
</tr>
<tr>
<td>Well without pump (open)</td>
<td>4.969</td>
<td>26,2</td>
</tr>
<tr>
<td>River/ Lake/ Laguna</td>
<td>6.790</td>
<td>35,8</td>
</tr>
<tr>
<td>Rain water</td>
<td>2</td>
<td>0,0</td>
</tr>
<tr>
<td>Mineral water</td>
<td>3</td>
<td>0,0</td>
</tr>
<tr>
<td>Others</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td><strong>Total number of family households</strong></td>
<td>18.978</td>
<td>100,0</td>
</tr>
</tbody>
</table>

(Source of numbers: Instituto Nacional de Estatística, 2012:15)

Annex 5: Distribution of Type of Sanitation by Family Household's Habitation in Lago District

<table>
<thead>
<tr>
<th>Type of Sanitation Service</th>
<th>Numbers</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Toilet attached to a septic cesspool</td>
<td>103</td>
<td>0,5</td>
</tr>
<tr>
<td>Improved latrine</td>
<td>219</td>
<td>1,2</td>
</tr>
<tr>
<td>Improved traditional latrine</td>
<td>1.855</td>
<td>9,8</td>
</tr>
<tr>
<td>Non-improved traditional latrine</td>
<td>12.464</td>
<td>65,7</td>
</tr>
<tr>
<td>Without latrine</td>
<td>4.337</td>
<td>22,9</td>
</tr>
<tr>
<td><strong>Total number of family households</strong></td>
<td>18.978</td>
<td>100,0</td>
</tr>
</tbody>
</table>

(Source of numbers: Instituto Nacional de Estatística, 2012:15)
Annex 6: Growth Rate of Agriculture Value Added and GDP in Mozambique (1990-2011)

(Source: Mabiso et al., 2014:650)

Annex 7: Cereal Yield by Region

(Source: ARI, 2009:1, cited after FAO, 2008)
Annex 8: Price Behavior of Maize in MT per Bucket (equals 20l/18kg) during the Year

(own illustration based on data collection)

Annex 9: Demand and Supply during the Year

(own illustration)
Annex 10: Agricultural Extension as a Knowledge System

(own illustration inspired by FAO, 2013a)
Annex 11: Main Agro-climatic Regions in Mozambique

(Source: WB, 2006:99 after Instituto Nacional de Investigação Agronómica)
Annex 12: Main Agro-ecological Zones and Farming Systems in Mozambique, relevant Zones for Lago District

<table>
<thead>
<tr>
<th>Zone</th>
<th>Zone description</th>
<th>Farming system description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Region (R7) — Medium Altitude Region of Zambézia, Nampula, Tete, Niassa and Cabo Delgado</td>
<td>The medium altitude region of Zambézia, Nampula, Tete, Niassa and Cabo Delgado is vast and includes the land between 200 and 1,000 meters in altitude (sub-planaltic, low planaltic, and mid-planaltic) in the Interior of Zambézia, Nampula and southern Cabo Delgado and Niassa. The annual rainfall and potential evapo-transpiration of the region ranges from areas above 25 °C (classified as warm region) and others with temperatures of 20-25 °C (moderately warm). The texture of the soils varies from sandy to clay, consistent with the topography.</td>
<td>Basically there are two types of cropping systems that differ by being dominated by maize or sorghum. Cassava is widely cultivated, cowpeas and groundnuts are other important crops. In the easternmost part of the region cashew is very important, in almost the entire region there is high potential for cotton production that has been practiced over several decades. This is an agricultural area with important human and agroecological potential. Typical maize yields average 1,000 kg/ha, while sorghum production averages 750 kg/ha.</td>
</tr>
</tbody>
</table>

| Region (R10) — high altitude region of Zambézia, Niassa, Angonía, Maravía includes land above 1,000 meters, notably in the planaltic regions of Lichinga, Angonía, Maravía, high Zambézia, Serra Choa, Manica and Espungabera. The annual rainfall is greater that 1,200 mm and average temperature during the period is 15-22.5 °C. The soils are principally ferralsols. |

Annex 13: Agricultural Labor Force as Percentage of Total Labor Force in SSA

Agricultural labour force as percentage of total labour force in sub-Saharan Africa

(Source: WB, 2006:100ff. after IFAD, 2005)

(Source: Africa Research Institute, 2009b:2, cited after FAO, Earth Trends)
Annex 14: Low Scores for Governance in Agriculture-based and Transforming Countries

(Source: WB, 2007:245)

Annex 15: Percentage of Families in Absolute Poverty by Gender of the Head of the Family in Mozambique, 1997-2009

(Source: Ministry of Planning and Development, 2010:11)
Annex 16: Net Primary Enrolment Rates for School-age Children by Area of Residence and by Sex in Mozambique, 2008

(Source: Ministry of Planning and Development, 2010:34)

Annex 17: Net Primary Education Enrolment Rates for 6-12 Year-old Children by Wealth-quintile of their Families in Mozambique, 2008

(Source: Ministry of Planning and Development, 2010:35)
Annex 18: Children's Educational Status by Province (North)

(Source: WFP, 2010:28)

Annex 19: Source of Seeds of Main Crops

(Source: WFP, 2010:52)
Annex 20: Food Security Groups by Province in Mozambique

(Source: WFP, 2010:85)
Annex 21: Political Map of Mozambique

(Source: EzilonMaps, 2014)
Annex 22: Map of the Districts in Niassa Province

(Source: ORGUT, 2014:2)
Annex 23: Map of Lago District

(Source: Mbuna Bay, n.d.)
The WB is the leading intergovernmental (financial) Organization concerned with development and poverty alleviation. The WB was established as a result of the Bretton Woods Conference\(^{41}\) in 1944 and comprises two institutions, the International Bank for Reconstruction and Development (IBRD) and the International Development Assistance (IDA)\(^{42}\), of which 188 countries worldwide are members (Heywood, 2014:380).

The WB started with an initial focus on post-war reconstruction to reconstruct war-torn Europe after the Second World War, over the years, however, the WB shifted focus towards the promotion of (economic) development. Its main task is to provide long-term, low interest loans and credits, financial and technical assistance to developing countries around the world, with a strong emphasis on reducing extreme poverty and boost prosperity by stimulating income growth. So far, the WB launched more than 12,000 projects in 173 countries in areas like education, health, infrastructure, financial and private sector development and agriculture amongst others (WB, 2015b). Voting within the WB is weighted according to the financial contributions paid by its member states, implying that wealthier states have the upper hand about decisions taken (Heywood, 2014:380).

Moreover, every year, since 1978 the WB publishes a WDR, providing main trends and issues about development economics, also including policy recommendations. Every year, another relevant topic, chosen by the WB, is in depth analyzed and establishes a guiding framework for worldwide international development cooperation. The conceptualization of the WB reflects discussions within developmental politics and policies. Their publications have a major influence on the political discourse of development and serve as orientation for many main donor countries. However, the WB and its strategies have not least been criticized for its unbalanced voting scheme and insufficient financing, but particularly, and even more crucial, for a poor record of poverty reduction and a continuous neoliberal bias that remains in place even after abolishing so-called Structural Adjustment Programs\(^{43}\) (SAPs), and that does not seem to challenge the world economic structure in favor of less developed countries (Wolff, 2013:73, 86f.; see also 1.2).

\(^{41}\) During this meeting of 44 allied nations in Bretton Woods, New Hampshire, the WB and the IMF were created in order to regulate the international monetary system and reconstruct the international relations (Wolff, 2013:72).

\(^{42}\) When further referring to the WB those two institutions IBRD and IDA are meant.

\(^{43}\) Structural Adjustment Programs linked loans from WB and IMF to a number of conditions in terms of market reforms and political changes in order to impose neoliberalism on developing countries (Heywood, 2014:380; Wolff, 2013:93).
Annex 25: About Mozambique and the District of Lago

Mozambique

Mozambique is located at the east coast of SSA, bordering South Africa, Zimbabwe, Zambia, Malawi and Tanzania (see Annex 21). The country has a size of 799,380 square kilometers and estimated 24.366.112\textsuperscript{44} inhabitants (2013) living in 11 Provinces and 128 Districts (Oliveira Granheim, 2013:16, Ministry of Agriculture, 2010:13). The population density is accordingly low (30 inhabitants per square kilometer), causing major challenges for the provision of basic and adequate infrastructure and to connect people to necessary facilities (National Statistics Institute, 2014:22; Oliveira Granheim, 2013:16).

A peace agreement, signed in 1992, ended an almost 20 year long violent civil war that followed the country’s independence from Portuguese colonial rule in 1975. After 1992, the country entered an economical recovering process that is still ongoing. Comparatively high growth rates of seven percent per year during the past years are however not reflected in the country’s human development and poverty situation\textsuperscript{45} and mainly tied to the large-scale industry (coal, gas, aluminum and heavy sands) (Nhantumbo et al., 2013:15). 80 percent of the Mozambican population lives in rural areas and about 55 percent (2008) still live below the poverty line of $0.60 per day employed in Mozambique, reflecting a high level of vulnerability of the majority of the population\textsuperscript{46}.

The countries development is strongly connected to the agricultural sector, as it is the main contributor to the national GDP (32.9 percent in 2012) (Almeida-Santos et al., 2014:5). Budget spending on agriculture of about 8,14 percent (2013/14), seems quite large, as most agricultural based countries’ budget for the agricultural sector is only half the size (FAO, 2015). Nevertheless, production is mainly on subsistence level with traditional farming techniques and inputs resulting in low productivity levels and high numbers of transitory\textsuperscript{47} and chronically\textsuperscript{48} food insecure households\textsuperscript{49} (Oliveira Granheim, 2013:8; Seufert, 2012:10, see Annex 20).

\textsuperscript{44}The last official number for population size is from 2007 (22.397.00 inhabitants) when the last census took place. The indicated number for 2013 is an estimation by the Mozambican government, published in the Statistical Yearbook (National Institute for Statistics, 2013).

\textsuperscript{45}Mozambique’s HDI is one of the lowest in the world, ranking 178 out of 187 evaluated countries in 2012 (UNDP, 2014). Poverty rates are stagnant since 2003 (Almeida-Santos et al., 2014:12).

\textsuperscript{46}The number increases up to 82 percent of the population living under the poverty line when the international poverty line threshold is applied (Almeida-Santos et al., 2014:1).

\textsuperscript{47}“Transitory food insecurity is a short-term or temporary inability to meet minimum food consumption requirements, indicating a capacity to recover. As a rule of thumb, short periods of food insecurity related to sporadic crises can be considered transitory” (WFP, 2009:2).

\textsuperscript{48}Chronic food insecurity is a long-term or persistent inability to meet minimum food consumption requirements. As a rule of thumb, food security lasting for at least six month of the year can be considered chronic” (WFP, 2009:2).

\textsuperscript{49}In Niassa, 44 percent of households are chronically food insecure. Niassa is the province with the third highest percentage of chronically food insecurity in Mozambique (FAO, 2010:32; see Annex 20).
District of Lago

The district of investigation, Lago, is one of 16 districts in Niassa Province, located in the north-western corner of the country (see Annex 21-23). Niassa has historically been the most sparsely populated and isolated province. Main occupation of the population is subsistence agriculture as soil and climate conditions (mainly rainy and tropical) are very favorable. However, almost 70 percent of the people living in Niassa cannot meet their nutritional needs to a satisfactory extent and are vulnerable to food insecurity (see Annex 20). Only few private investors have so far found their way to Niassa – and Lago (see Annex 30).

Lago District is located at the coast of Lake Niassa. It has a population of 83,099 (estimation 2012), mainly dependent on subsistence agriculture and fishing (ORGUT, 2014:2, 6). Lake Niassa\(^{50}\) is a live-line for many inhabitants of the district as it gives many possibilities from washing dishes to fishing (ORGUT, 2012:8). The option of fishery is a unique feature as it increases the diversification for subsistence peasants and functions as an additional cash income.

Lago District is “part of the five-tier structure of Provincial and District Government, Administrative Posts, Localities and Villages” (ORGUT, 2011). Additionally to these administrative institutions exist consultative councils on district, administrative post and locality level. The councils consist of traditional authorities, such as regulos and rhainas, territorial structures and social leaders, which are proposed by the community. A 30 percent quota of women is obligatory (Åkesson/Nilsson, 2006:38ff.). The councils function as a bridge between local cooperations and official governance structures.

International Influences

A remarking year of Mozambique’s developmental history was the year 1987, when the Mozambican government launched WB and IMF’s SAPs and the first loans linked to a great deal of conditionality promoting liberal policies entered the country. The SAPs, obligatory to be implemented in order to receive the loans, introduced economical and trade reforms. Mozambique had to privatize all sectors; interventions into the economy were drastically reduced as well as public expenditure (including credits) to keep inflation down (In Motion Magazine, 2009).

The Mozambican government – unable, or prohibited – to invest in agriculture itself\(^{51}\), made many concessions to foreign large-scale projects, with severe outcome for the population,

\(^{50}\) Lake Niassa is also known as Lake Malawi.

\(^{51}\) Agricultural investments are dominated by donor funding (Abbas, 2014:8).
e.g. replacements, loss of land/livelihood or contract farming with unfavorable conditions (seasonal contracts and low wages) for employed peasants (Åkesson et al., 2009:54f.).

Since the agricultural sector has been left to the barely existing private sector, while subsidies to the agricultural sector are also restricted through imposed conditionalities, its development has stagnated. Because access to inputs like seeds, markets and technical assistance is at a very low level and prices are too high to compete internationally (Johansson/Nhampossa, 2012:35).

Annex 26: Agricultural Activities in Lago District

Mozambique encompasses 10 broad agro-ecological zones based on different conditions. Lago District incorporates two of them, the medium-altitude region that is mainly dominated by cassava, maize and sorghum and the high-altitude region, including the planaltic regions that are dominated by maize, millet, beans and potatoes (see Annex 11, 12). Agro-ecological conditions – rainfall, soil, temperature and climate – in the Northern part of Mozambique are considered as favorable for agricultural production. Agriculture in Lago District is rain dependent and has two seasons: (1) a rainy season and (2) a dry season of crops (see Annex 27). Main staple crops – e.g. maize, beans, potatoes – are rain-fed what has the consequence that unpredictable irregularities in rainfall can be a main reason for wide variations in food production and hence cause vulnerability amongst the self-sufficient population through the risk of unstable food supply.

Main food crops of the first season are maize, cassava, rice, beans, sweet and Irish potatoes, sugarcane, sorghum, finger millet, bananas, groundnuts, sesame as well as in the second season cabbage, salad, tomatoes, onions, peppers, pumpkin, pineapple and inhame. Also fruits like peaches, pears, guavas, oranges and lemons are common to grow. Diversification of crops is a crucial proceeding to reduce vulnerability and food insecurity in case of crop failure. Cash crop production is not common amongst the respondents interviewed.

There are two types of land used for agricultural cultivation – (1) baixa (wetland) and (2) sequeiro (dry land). The two differ in their location in the low- or upland and their favorability for certain crops because of the different soil water amounts in the rain and dry season. Some

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52 Soils are fertile, climate is sub-humid and the precipitation is with 1,000-1,400 mm mainly between October and April among the highest in whole Mozambique (FEWS NET, 2014:8ff.).
53 „The importance of wetlands is related to their potential to regain large volumes of water, which can be used for system maintenance and for dry season agriculture“ (FAO, 2013). A crucial problem of these areas is that due to the rainy season flooding and excessive soil water can cause yield losses (ibid.).
54 Dry land is compared to the wetland located in the upland areas and often characterized by soil water deficits which is balanced through seasonal rainfall (FAO, 2013).
first season crops, such as beans and Irish potatoes, can also be grown on wetland in a second circle during the dry season (see Annex 27). The agricultural production in Lago District is characterized by very low input applications and no irrigation systems.

**Small-Scale Family Farming in Lago District**

There is no universal definition of the concept of *family farming*, as it is hard to capture the diversity that is incorporated under this term. Most definitions refer to management and ownership, labor supply and physical or economic size of a farm\(^{55}\) (FAO, 2014:8). The definition of small-scale farming is closely related to a family-based form of farming and mostly associated with size/surface area of farmland of two hectares or less (Salm/van Steenbergen, 2010:21ff.).

In Lago District, approximately 16,773 (2010) peasants sustain their livelihood with agricultural activities on a small-scale level (Instituto Nacional de Estatística, 2012:26), including land cultivation – mainly done through hand tilling – livestock, fishery and to a small extent also hunting. Almost all peasants interviewed refer to have a *machamba*\(^{56}\) of one to two hectares, corresponding to the average Mozambican farm size of 1.2 hectares per household (Ölund Wingqist, 2013:3). A few respondents, rather exceptional, referred to up to five hectares. Some households also own more than one *machamba*\(^{57}\). The *machambas* are not legally owned by their operators, what is related to the Mozambican land law stating that the land belongs to the state (Johansson/Nhampossa, 2012:35f.; see Annex 29). However, people in a community know and usually respect which land ‘belongs’ to whom even without any type of written agreements or official land title, which are really rare according to responding peasants and even risk to limit the peasants from using their rotation system to keep soil fertility.

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\(^{55}\) The International Steering Committee for the International Year of Family Farming (IYFF) 2014 provides the following definition: “Family farming includes all family-based agricultural activities, and it is linked to several areas of rural development. Family farming is a means of organizing agricultural, forestry, fisheries, pastoral and aquaculture production which is managed and operated by a family and predominantly reliant on family labor, including both women’s and men’s. [...] Family farming has an important socio-economic, environmental and cultural role” (FAO, 2014a). The high majority of the peasants’ situation in Lago District corresponds to the given definition.

\(^{56}\) *Machamba* – literally translated to English means ‘arable land’ – refers to „a family owned piece of land for subsistence and minimal ‘cash-crop’ agriculture“ (Thorpe, 2005:3).

\(^{57}\) This is often in the case of polygamous marriage because each wife owns her own *machamba* while the husband has to distribute his work contribution. As there are no official numbers about polygamous marriages in Mozambique, estimations suggest that 20 percent of all marriages are polygamous (Åkesson/Nilsson, 2006:78). The owning of several *machambas* seems also likely in the case of several generations living together in one household.
The division of labor is mainly between men and women, executing partly the same and to some extent different working tasks. But also children have to contribute, depending on their age and body strength. Respondents with bigger machambas and the socio-economic means referred to employ ganho-ganho\textsuperscript{58} at least for the main crop season, which is the most work intense period of the agricultural year (see Annex 27).

The diversification of agricultural activities identified in Lago District is mainly related to the cultivation of machambas and additional animal breeding and (seasonal) fishery, depending on the geographical location to the lake or seasonal rivers. A few peasants have created artificial fishponds for fish breeding. Animal breeding includes mainly chickens and goats, more rarely pigeons, pigs and cattle. However, livestock breeding in general is also related to the socio-economic situation of a family – the better off, the more likely that a household owns livestock and the higher the number of animals (FEWS NET, 2014:11). The possibility of slaughtering or selling livestock to get cash and thereby satisfy basic needs, functions as a type of insurance for more unpredictable happenings (funerals, periods of food shortage in the pre-harvest phase between December and February/March (see Annex 27).

The closeness of some villages to Lake Niassa makes it possible for the people living there to secure their subsistence mainly with agriculture and use the fishing as an additional source of food supply and cash income opportunity. Cash income from fishery – similar to animal breeding – can be a way to complement own production with additional staple food to overcome food shortages especially in the lean season.

\textsuperscript{58} Ganho-ganho refers to an informal employment of day labor at a peasant’s field. People working as ganho-ganho are often more vulnerable and in need for additional income (paid in cash, food or seeds), but also younger people, who do not have own machambas (yet). Both, men and women can work as ganho-ganho.
There are two main types of fishing, (1) fishing from the coast of the lake and (2) fishing on the lake either with canoes or small boats, only some of them motorized. Fishing is primarily done by men, because it is considered hard work to take in the full nets.

Other common livelihood activities, mainly aiming to obtain paper money but sometimes also paid in food or seeds are the work as ganho-ganho, selling of bamboo, firewood, charcoal and bananas, picked from trees that do not belong to anybody. These activities are often carried out by more vulnerable peasants, who are not able to sell surplus crops (FEWS NET, 2014:11). Paper money is mainly used to buy commodities like cooking oil, salt, soap as well as clothes and school material but also staple foods if needed (see Annex 2).

Self-sufficiency of peasants in Lago differs slightly in relation to peasants’ socio-economic situation. Their own household food security as well as the general potential to generate surplus for the local market is very occasional as it depends on several factors such as rainfall, seeds, animal or insect attacks, crop diseases or the family members’ work capacity, e.g. in terms of health. The following table strives to give an overview of households’ characterization of socio-economic well-being and household food security as already described above:

**Table 2: Household Division by Socio-economic and Food Security Factors**

<table>
<thead>
<tr>
<th>Category</th>
<th>Characteristics</th>
</tr>
</thead>
<tbody>
<tr>
<td>&quot;ultra poor&quot;</td>
<td>• households produce essentially for own consumption (often not even enough),</td>
</tr>
<tr>
<td></td>
<td>dependence on external support to survive (e.g. because of illness, death of</td>
</tr>
<tr>
<td></td>
<td>head of household), e.g. support by extended family, local systems of</td>
</tr>
<tr>
<td></td>
<td>redistribution (e.g. neighbors), public systems of social protection</td>
</tr>
<tr>
<td></td>
<td>• often employment as ganho-ganho or other additional activities to obtain</td>
</tr>
<tr>
<td></td>
<td>small cash income (e.g. selling of bamboo, charcoal, fruits etc.)</td>
</tr>
<tr>
<td></td>
<td>• no ability to produce/sell surplus, major problems of food insecurity, tend to</td>
</tr>
<tr>
<td></td>
<td>be chronic money insecure</td>
</tr>
<tr>
<td>&quot;transitional</td>
<td>• households usually produce sufficient crops to fulfill own basic needs</td>
</tr>
<tr>
<td>poor&quot;</td>
<td>• often also additional alternative sources of income (e.g. fishing, animal</td>
</tr>
<tr>
<td></td>
<td>breeding)</td>
</tr>
<tr>
<td></td>
<td>• but still vulnerable to shocks (e.g. loss of income, illness, weather</td>
</tr>
<tr>
<td></td>
<td>irregularities)</td>
</tr>
<tr>
<td></td>
<td>• households are occasionally able to sell surpluses, food security is unstable</td>
</tr>
<tr>
<td></td>
<td>because of externalities, tend to cyclical transitory food insecure during</td>
</tr>
<tr>
<td></td>
<td>lean season</td>
</tr>
<tr>
<td>&quot;better-off</td>
<td>• households do not depend on others and have economic means, e.g. in form of</td>
</tr>
<tr>
<td>households&quot;</td>
<td>access to more cultivatable land, livestock or fishing equipment, e.g. boats</td>
</tr>
<tr>
<td></td>
<td>(often because one family member has an employment or self-entrepreneurship to</td>
</tr>
<tr>
<td></td>
<td>support the whole family)</td>
</tr>
<tr>
<td></td>
<td>• ability to employ ganho-ganho</td>
</tr>
<tr>
<td></td>
<td>• less vulnerable to shocks</td>
</tr>
<tr>
<td></td>
<td>• households are regularly able to sell surpluses, food security is mostly</td>
</tr>
<tr>
<td></td>
<td>guaranteed</td>
</tr>
</tbody>
</table>

(own illustration, based on distinction of poverty and well-being in Lago District by ORGUT, 2011 and complemented with own data.)

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59 Some respondents also refer to pay a rental fee in form of money or cash to the owners of bigger boats and fishing equipment in return for the use.

60 Many peasant and extensionist respondents referred to problems with animals such as monkeys and wild pigs that risk destructing crops.
Knowledge about Agricultural Activities

Peasants use their very broad practical knowledge about agricultural activities, i.e. on soil fertility, field rotation systems, crops, animals and fishing. The way how to sustain their livelihoods is mostly transmitted from generation to generation.

Knowledge about crops reaches from requirements of water, resistance to pests, animals and insects as well as labor demand, prices and seed preservation (see Annex 3). Peasants follow their own agricultural calendar\textsuperscript{61} that is adjusted and adapted to the region’s agro-ecological conditions of rain and dry periods, distributing the essential work on the field to exact time periods (see Annex 27). Depending on the rainfall, peasants use as a coping strategy to move down- or upwards in the derogatory baixas, aiming suitable water supply for the crops, which enables them to grow in both seasons. Irregularities in rainfall – such as seen in 2014/2015 in Lago District – risks the entire course of action and hence also household food security.

Soil fertility, e.g., is ensured through rotation systems and slash and burn techniques. These risk to cause bush fires and thereby have a devastating impact on the environment, but are highly needed to keep soil fertility high.

Also, in other agricultural activities peasants showed valuable knowledge. For instance the fisher folk can track the shoals following traditional techniques as well peasants that have special techniques how to build corral, animal stables, to protect them from wild animals and at the same time make excrements available as natural fertilizer.

\textsuperscript{61} This wording refers to what the researchers would call an ‚agricultural calendar’ but it is not mentioned as such by the peasants.
Annex 28: Selection of National Policies, Mozambique

There are a number of national policies related to agricultural production that are also linked to poverty reduction strategies. The main policies – PQG, PARP, PEDSA and ESANII/ – will briefly be explained in the following table in order to give an overview of relevant policies for agricultural development and food security in Mozambique.

Table 3: Selection of National Policies

<table>
<thead>
<tr>
<th>Policy Name</th>
<th>Period</th>
<th>Main Objectives</th>
</tr>
</thead>
<tbody>
<tr>
<td>PQG(^{62}) (The Five year Government Plan)</td>
<td>2010-2014</td>
<td>PQG is the five-year program of the government to fight poverty. Its main objectives are the promotion of rapid, inclusive and sustainable growth, while the agricultural sector is set out as a priority for the development of the country. Therefore investments in infrastructure are emphasized, as well as employment opportunities and the creation of a favorable environment for private sector investments. The program is operationalized by PARP (see below).</td>
</tr>
<tr>
<td>PARP(^{63}) (Action Plan for the Reduction of Povery)</td>
<td>2011-2015*</td>
<td>PARP is a medium-term strategy focusing on combatting poverty and promoting a culture of work, by enabling an inclusive economic growth and reduce poverty and vulnerability. Poverty is regarded as a multidimensional phenomenon that has to be addressed by an intersectoral approach. Priority is given to increase output and productivity in agriculture and fishery, employment creation and human and social development.</td>
</tr>
<tr>
<td>PEDSA(^{64}) (Strategic Plan for the Development of the Agricultural Sector)</td>
<td>2010-2019</td>
<td>PEDSA is a sectoral strategy and incorporates a medium and long-term vision for seeking solutions for the problem of low agricultural productivity and food insecurity. It is based on national directions of agricultural development as well as on Africa’s joint guiding framework to improve agricultural performance (CAADP). Its vision is “an integrated, prosperous, competitive and sustainable agricultural sector” (PEDSA, 2010:vi). Its objectives include an increase of agricultural growth of 7 percent per year as a joint result from raised productivity and cultivated area. The aim is to reduce hunger through growth in small producer productivity. Means to reach this are composed of investments in infrastructure, services for markets, promotion of sustainable use of natural resources and modernization of the sector, including research and extension. PEDSA further commits itself to combine activities at national level with local conditions and priority needs.</td>
</tr>
<tr>
<td>ESANII(^{65}) (The Food and Nutrition Security Strategy and Plan of)</td>
<td>2008-2015</td>
<td>ESANII is a national cross-cutting strategy that functions as a guiding strategy, promoting the inclusion of food and nutritional security into multiple sector policies. It basically sets out a “right to food strategy”, recognizing access to adequate food as a basic human right. (FAO, 2012).</td>
</tr>
</tbody>
</table>

\(^{62}\) Source: Oliveira Granheim, 2013:30f.
\(^{63}\) Source: IMF, 2011
\(^{64}\) Source: Ministry of Agriculture, 2010; Seufert, 2012
ESANII is coordinated by SETSAN (Technical Secretariat for Food and Nutrition Security), a new independent body under the supervision of the ministry of agriculture. SETSAN in specific contributes to reduce the number of chronic food insecurity levels.

* The initial timeframe for PARP was set from 2011-2014, however, the strategy has been prolonged until 2015 (MFAF, 2014).

The agenda of all four policies are said to set poverty reduction as its priority action, while also agriculture as the main sector to contribute to fight poverty and raise living conditions is recognized. As for the setting of policy agendas it is important to note that several international organizations, including WB and IMF and other donors (the EU, USAID and UN agencies) play a critical role in elaborating and advising the national policy setting in order to coordinate needed funding (IMF, 2011).

Looking at the coherence of the different policies it is striking that ESANII has little links to the agricultural sector, while the agricultural policy (PEDSA) has a comparably low focus on food security, e.g. the production of cash crop and staple food as well as increasing yields prevails more than on the production of nutritious crops (UNSCN, 2013:25). Also, as the national strategy is based on the Strategy (PEDSA, 2010:1) promotion of fertilizer and pesticides and a general modernization of the sector, this clearly indicates the incentives set to move away from subsistence farming as such (PEDSA, 2010:39). However, as put forward by Seufert (2012:12), PEDSA shifts away from the stress on large-scale foreign investments (that it had before 2010) and encourages domestic investment for example in infrastructure, research and technical extension services (see Table 3, PEDSA) and the role of small-scale farming.

Annex 29: Land Rights

A special attention needs to be given to land rights in Mozambique, as land is the first priority for agricultural production. The Mozambican constitution stipulates that land belongs to the state – which means it belongs to the Mozambican citizens and is free for citizens to use for cultivation, hence, for sustaining their livelihoods. Land in Mozambique cannot be owned or mortgaged. However, after cultivating a piece of land for more than one decade, local peasants obtain the right for this land, which prohibits companies or the state to displace them from this land (UNAC/ GRAIN, 2015:6). The current law was legislated in 1997, with high participation and struggle from civil society organization, fighting for a law that protects the right of the small-scale peasants (Johansson/Nhampossa, 2012:36). Land occupied by a community can be
leased up to 50 years\textsuperscript{66} for long-term use to third persons, for example investors. Before the government can issue a so-called DUAT\textsuperscript{67} (Direito de Uso e Aproveitamento da Terra – Right of use and benefit of land (Seufert, 2012:4), the investor has to consult the local community, which has to agree in the first place. However, often due to weak bargaining power of the local people and contracts that are not written down, communities lose their land or are bound into contracts they never really agreed on.

The situation of community owned land is furthermore challenged through foreign investors seeking fertile land for large-scale projects, risking the displacement and hence the livelihoods of hundred thousand Mozambicans. Moreover, worsening terms of trade of international food and fuel prices put an additional pressure on available fertile land (Oliveira Granheim, 2013:17).

**Annex 30: The Case of Chikweti**

Exemplary for large-scale investments in Lago District is the case of Chikweti, a large-scale investment of the Swedish Global Solidarity Forestry in 2005, planting huge areas of pine and eucalyptus trees – also covering large parts of Lago District (CSIW, 2014:9). Chikweti planted on 15,000 hectares of fertile land so far.\textsuperscript{68} Land acquisitions have not always been carried out by law, resulting in hundreds of farmers being ‘in the way of the planation’ and hence losing their land, which they used for sustaining their families’ livelihood. Illegal occupation of land that belongs to communities in Lago has been discovered by assessments visits of a Swedish delegation in 2013 (CSIW, 2014): Instead of consulting affected communities first, as determined in the land law, Chikweti contacted regulos or rhainas directly – avoiding negotiations with the whole community – and the traditional leader often decided in the favor of the company (and their own), instead of the community (Åkesson et al., 2009:45). Compensations for land have often only been orally

\textsuperscript{66}The contract can be renewed for another 50 years after new negotiations with the government and the affected community.

\textsuperscript{67}The provincial government can grant DUATs up to 1000 hectare, while the Minister of Agriculture can grant areas up to 10,000 hectares; larger areas of land have to be permitted by the council of ministers in Maputo (Johansson/ Nhampossa, 2012:35).

\textsuperscript{68}Different sources state different amounts of hectares planted. Expansion of occupied land for tree plantations is planned up to 60,000 hectares within the next 5-6 years (CSIW, 2014:14).
negotiated, leaving no paper to the communities to demand it when promises were not held (Åkesson et al., 2009:49).

Nevertheless, some respondents that have worked for Chikweti and had long-term contracts (2005-2010) were able to use their salaries or the termination payment for improving their livelihoods, e.g. improving/building houses, buying transport means like bicycles, one respondents bought a car. A special attention is also paid to offer employment for women, which has conflicting opinions. Female respondents answered that they did have a double burden of working for Chikweti and doing their daily work (working their machambas and taking care of children and household), however, also appreciated their self-earned money, which they are able to manage themselves. As Findings from Åkesson et al. (2009:55) indicate, women often cannot manage to work both on plantations and their own fields (see 5.1.2.2, Gender Balance), creating a situation of insufficient food for the family.

In general a tendency of rather supporting large investments among respondents was observed, mainly for the sake of created employment, which is an opportunity to improve livelihood situations and lift out of poverty (Åkesson et al., 2009:54). Consequences of large-scale investment were either not aware or neglected. However, seasonal contracts, too low wages to replace employment with subsistence agriculture, sudden termination of contracts when fewer workforces were needed and land acquisition close to villages are the negative outcomes for Lagos population, decreasing the affected communities food security and causing increased vulnerability and poverty.

Also, Chikweti promised to be social responsible e.g. to build a Mosque and a health center for one affected community in Lago, but never did so (Åkesson et al., 2009:45f.). Overall, Chikweti’s initial attempt for corporate social responsibility (CSR) was never followed up or implemented (CSIW, 2014:10). On the other hand, the Mozambican government promised to renew the railway from Lichinga to Cuamba by 2010, to connect the plantations with the railway corridor that leads to the Nacala Port (see Annex 21). The constructions, however, only started this year (2015). This indicated a low capacity of the government to implement infrastructural projects but also that investments made are rather beneficial for large investors than useful for

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69 In 2010, when the main planting season was over, Chikweti initiated a huge wave of firing people and ending their contracts, giving different reasons. Many of the workers had – or still have to – fight for compensation payments.
70 This seems rather an exception as these respondents had higher positions.
71 The tendency of supporting private investment that creates employment might also stem from the time after independence (1975) when Mozambique followed socialist policies and the people were used to that ‘someone else’ will create and bring employment to them.
72 In 2014 Chikweti was taken over by the Norwegian company Green Resources that promised to handle things (land acquisition, CSR) better than its predecessor (CSIW, 2014:6).
small peasants and their communities who would benefit much more from roads connecting them with local cities.

Annex 31: Terms of References

Field studies in Lago District, Niassa Province, Mozambique, April 2015

Introduction
The department for Social Studies at Linnaeus University, Sweden, is running a one-year Master program in Peace and Development Work - for students, who aim at a future profession within developmental activities in organizations, institutions and social movements dealing with international peace and development issues.

The Master program comprises a training fieldwork to be carried out in Mozambique. A group of students will, together with their teacher, carry out field studies in the Lago district in Niassa province in April 2015. The work starts already in Sweden with an introduction to development and participatory methods, followed by fieldwork in Swedish rural and urban communities. The fieldwork in Sweden and Mozambique is an important part of the professional training, thus to make the students better prepared for their future tasks in the international development cooperation.

Background
The students will perform field studies by looking into different societal processes regarding social and economic activities. This is in order to develop skills to describe and understand the conditions under which people live, how people manage available resources in their efforts to improve their lives and how their striving for a more sustainable life is influenced by different activities in the development process.

Context
These Terms of Reference seek to contribute with inputs in terms of facts, ideas, visions and methods in the process of identifying, planning and implementing present and future We Effect activities in its development programs in the Niassa province.

Three different field studies will be carried out in Lago focusing on small-scale agriculture, secondary school education and development communication. Based on the local socio-economic situation, the studies will highlight the following topics:

1) One of the studies will focus on the process of agricultural development, by trying to identify, locate and create a deeper understanding of possibilities as well as obstacles hindering the development and transformation of small-scale manual agriculture. Important aspects to look into will be existing plans and strategies regarding for example access to infrastructures, credit systems, rural extension and commercialization.

2) A second study will concentrate on students in secondary school education. Important aspects to look at will be different groups of students’ motives, ambitions, visions and possibilities to continue their studies at secondary school level after they have concluded their primary education.
3) Another study will look at the role of communication in the development process. This study will focus on different means and ways of communication, customary as well as contemporary; how these means are used and by whom; and its role in different development occasions and activities at local and district level.

Scope of work and methodology
In terms of theoretical approaches, the studies will have a bottom-up perspective, for example the “Sustainable Rural Livelihood” approach, in which the actual developmental capacities in a community will be identified, described and analyzed.

The studies will be carried out by applying a multi-level analysis, looking at the interaction between different levels of the society considering different socio-economic groups and actors, and the analysis will look at both vertical and horizontal actions and interactions.

Tasks
- Describe relevant ongoing national and international developmental efforts regarding the different themes to be studied.
- Discuss the role of the public sector, civil society, private sector, and international aid organizations regarding the different directions of the studies.
- Literature review and desk study: analysis of existing project documentation (reports, studies, evaluations and policy documents); identification and analysis of ongoing or planned initiatives in Lago, identification and analysis of government and other relevant policies.
- Interview relevant stakeholders at different societal levels: Province, District, Municipality and Local community: in the local community among others, authorities, customary and contemporary local leaders, community based organizations, NGOs, key persons, private and public sector representatives, women and men in different age groups carrying out agriculture and other social, economic and cultural activities.
- Give a general description of the district and local communities in the area, for example existing infrastructure, public service, economic actors, civil society, residence patterns, demographic statistics, migration trends and natural resource issues.
- Describe the most important economic and social activities at individual, household, community and district level, and relate it to the prospects for poverty reduction in a gender perspective.
- Collect information, opinions, expectations and priorities expressed by different actors at different societal levels (women, men, socio-economic groups, age groups) about the different aspects and activities to be studied.
- Generate information and experiences, which can be used in future planning and implementation of projects and activities in regarded areas.
- Provide input and proposals, which can help to improve impact on poverty reduction in future efforts.

Team composition
Gunilla Åkesson and Kajsa Johansson (lecturers and team leaders)
Students: Dorrit Booij, Daria Hasse, Jennifer Schiebel, Linn Nygren, Daniel Al-Ayoubie
Julianne Lindner

Time schedule 2015
30/3 - 31/3 Preparation in Lichinga
Meetings in Lichinga with different authorities, institutions and organizations

Arrival to Metangula, Lago
Field work in Lago district
Meetings in Lichinga with different authorities, institutions and organizations
Departure for Maputo
Meetings in Maputo
Departure for Sweden

The final reports will be delivered to relevant partners in Mozambique; district, provincial and national authorities and our host partner WeEffect.

Annex 32: List of Interviewees
(In alphabetical order of places visited and by date)

**Bandese**

<table>
<thead>
<tr>
<th>Organization</th>
<th>Name/Position</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Farmer and Chikweti Worker</td>
<td>Albertina Damião (Peasant) ♀</td>
<td>18.04.15</td>
</tr>
<tr>
<td></td>
<td>Maria Jaoado (Peasant) ♀</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Alaina Adamo (Peasant) ♀</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Paulina Mussa (Peasant) ♀</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Sábado Amini Machemba (Peasant and Worker) ♂</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Daniel Issufo (Peasant and Worker) ♂</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Sondia Saíde (Worker) ♂</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Aissa Iassine (Extentionist) ♂</td>
<td></td>
</tr>
</tbody>
</table>

**Lichinga**

<table>
<thead>
<tr>
<th>Organization</th>
<th>Name/Position</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>We Effect</td>
<td>Edgar Basílio Ussene (Agricultural Officer/Acting Programme Coordinator) ♂</td>
<td>31.03.15</td>
</tr>
<tr>
<td></td>
<td>Cecília Sendele (Monitoring and Evaluation Officer) ♀</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Lasse Krantz (Land Law Researcher from University of Gothenburg) ♂</td>
<td></td>
</tr>
<tr>
<td>PROGRESSO</td>
<td>Felicitas Kaomba (Organization Coordinator) ♀</td>
<td>01.04.15</td>
</tr>
<tr>
<td></td>
<td>Saide Akimo (Responsible for Adult Education) ♂</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Maria Emba Miguel (Responsible for Education) ♀</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Rodriques Marco (Responsible for Agriculture) ♂</td>
<td></td>
</tr>
<tr>
<td>Anglican Church</td>
<td>Mark van Koevering (Bishop) ♂</td>
<td>01.04.15</td>
</tr>
</tbody>
</table>
Provincial Department
Jaulane Paulo Bendzane (Head of Agricultural Services, Province of Niassa) ♂ 01.04.15
Pedagogical Sector
Theodor de Assunção (Head of Department) ♂ 01.04.15
Leonardo Uarcorne (Secondary Education) ♂
Pedro Aisse (Special education) ♂
Antonio Francisco (Student health) ♂
Nequite Samo (Adult Education and Illiteracy Courses) ♂
UCA Farmers’ Union
Salimo Aide (President) ♂ 02.04.15
Elisa Asside (Vice President) ♂
Paulino Imede (Coordinator) ♂
Adamo Adame (Technical Adviser in the Field) ♂
Ventura Nunes Amisse (Program Officer) ♂
Benguane Hoje (Technical Adviser in the Field) ♂
Carlos Afane (Technical Adviser in the Field) ♂
Vontade Cassimo (Secretary General) ♂
ROADS (Rede de Organizações Ambientais e de Desenvolvimento Sustentável)
Felicidade Namagoa (Monitoring and Evaluation Officer) ♂ 02.04.15
Delco Mbota (Program Officer) ♂
Erica Maria Siqueio (Gender/HIV Officer) ♂
Jaime Namagoca (Financial Officer) ♂
Governor of Niassa Province
Arlindo Gonçalo Chilundo ♂ 02.04.15
Faisca Newspaper
Suizanne Rafael (Journalist) ♂ 02.04.15
Green Resources
Inocêncio Sotomane (Director Niassa) ♂ 24.04.15
UPCN Farmers’ Union
Safelina Adriana (Accountant) ♂ 25.04.15
Persico Julio Dosantos (Coordinator) ♂
Alifa Aide (Vice President) ♂
Agricultural Institute of Lichinga
Juão Saíde (Pedagogical Head) ♂ 27.04.15
Armando António (Depute Responsible for Production) ♂
Paulino Sabite (Pedagogical Responsible and Teacher) ♂
Jeremias Adisse (Director of Agricultural Institute) ♂
Agricultural Institute of Lichinga
Internship Students ♂ ♂ 27.04.15
Agricultural Institute of Lichinga
Students ♂ ♂ 27.04.15
### Lúrio

<table>
<thead>
<tr>
<th>Organization</th>
<th>Name/Position</th>
<th>Date</th>
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<tr>
<td>Universidade Lúrio</td>
<td>Domingos Madane (Director of the University)  ♂</td>
<td>24.04.15</td>
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<tr>
<td></td>
<td>Fatima Ismael (Deputy Head of Pedagogy)</td>
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<tr>
<td></td>
<td>João Tejas (Deputy Head of Science and Advisor of the Faculty) ♂</td>
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<td></td>
<td>Juan Tejas (Teacher and Member of Scientific Council of the Faculty) ♂</td>
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<td></td>
<td>Luis Pereira (Coordinator Forestry Engineering) ♂</td>
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<td>Dionísio Vele (Coordinator Rural Development Programme) ♂</td>
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### Maniamba

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<tr>
<td>Jaume Catungue</td>
<td>Chief of the administrative post</td>
<td>15.04.15</td>
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<tr>
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<tr>
<td></td>
<td>Sergio Gernando Metale (Extensionist)</td>
<td>16.04.15</td>
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<tr>
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<tr>
<td></td>
<td>Assunme Imede (Queen)</td>
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<tr>
<td></td>
<td>Samuel Cambuzi (Regulo)</td>
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<td></td>
<td>Isabel Musta (Nduna)</td>
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<td></td>
<td>Ernesto Antônio (Secretary)</td>
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<td>Jacinto Caisse (Nduna)</td>
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<td>Stambuli Loco (Secretary)</td>
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<td>Xavier Carlos (Secretary)</td>
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<td>Căssimo Bonomas (Secretary)</td>
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<td>Aurélio Aquimo Saïde (Secretary)</td>
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<td>Bernando Mmissa (Nduna)</td>
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<td>Denja Ali Nnufoate (Secretary)</td>
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<td>Chaibo Imede Ncunga (Secretary)</td>
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<tr>
<td>Peasant Association</td>
<td>Name/Position</td>
<td>Date</td>
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<tr>
<td>'16 Junhe'</td>
<td>Manuela Windo (Member)</td>
<td>16.04.15</td>
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<tr>
<td></td>
<td>Armando Nilete Matawele (Member)</td>
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<td>Mwamini Cassimo (Member)</td>
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<td></td>
<td>Marta Mpenda (Member)</td>
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<td>Akimo Saide Chiculupi (Member)</td>
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<td>Madalena Omás Capuche (Member)</td>
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<td>Dondawile Rachide (Member)</td>
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<th>Name/Position</th>
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<tbody>
<tr>
<td>Traditional Leader</td>
<td>Amisse Fazir (Regulo)</td>
<td>11.04.15</td>
</tr>
<tr>
<td></td>
<td>Ernesto Entuíalo (Secretary of the Bairro)</td>
<td>11.04.15</td>
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<tr>
<td>We Effect</td>
<td>Diamantinino Nhampossa (Country Representative)</td>
<td>29.04.15</td>
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<tr>
<td>Observatório do Meio Rural</td>
<td>Mariam Abbas (Researcher)</td>
<td>29.04.15</td>
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### Messumba

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<tr>
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<td><strong>Traditional Leader</strong></td>
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<tr>
<td></td>
<td>Baraca Imede (Chief of the Locality)</td>
<td>09.04.15</td>
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<tr>
<td></td>
<td>Nurse in General Medicine</td>
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<td>Nurse in Mother-Child Health Care</td>
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<td>Activist in Health Issues</td>
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<td>Bonifácio Finiassa (Priest)</td>
<td>09.04.15</td>
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<tr>
<td></td>
<td>Maurício Simão Souso (retired Priest)</td>
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<tr>
<td></td>
<td>Lukas Muhala (Extensionist)</td>
<td>09.04.15</td>
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<tr>
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<td><strong>Primary School</strong></td>
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<tr>
<td></td>
<td>Génesio Goimo (Coordinator of Zona de Influência Pedagógica and Primary School Director)</td>
<td>09.04.15</td>
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<tr>
<td></td>
<td>Mill Owner</td>
<td>10.04.15</td>
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<tr>
<td></td>
<td>Mill Owner</td>
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<tr>
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<td>Blacksmith</td>
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<tr>
<td></td>
<td>Markos Mselela</td>
<td>10.04.15</td>
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<td></td>
<td>Paulo Ndoca</td>
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<td></td>
<td>Matias Makuenda</td>
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<td>Tomas Chicuacuassa (Representative of the Regulo Massanse)</td>
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<td>Saratir Gabriel Zicoisse (Secretary of the Bairro Piri)</td>
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<td><strong>Peasant and Fisher Folk</strong></td>
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<tr>
<td></td>
<td>Christovo Soane (Fisher)</td>
<td>10.04.15</td>
</tr>
<tr>
<td></td>
<td>Felizardo Antonio Mandjane</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(Fishery technician for Instituto Distrital de Pesca de Pequenia Escala)</td>
<td></td>
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</table>
Meluluca

Organization | Name/Position | Date
---|---|---
Fisherfolk Association „Ualakwance Bitifundi“ | Dobi Aissa (President of the Association) ♂ | 04.04.15
| Mustafa Binare (Vice President) ♂ | 04.04.15
| Graça Aissa (Member) ♀ | 04.04.15
| Fatima Mulembwe (Member) ♀ | 04.04.15
| Issa Binar (Member) ♂ | 04.04.15
| Bunari Binar (Member) ♂ | 04.04.15
| Daima Ambali (Member) ♀ | 04.04.15
| John Aissa (Member) ♂ | 04.04.15
| Hawa Mussa (Member) ♂ | 04.04.15
| Baraea Binar (Member) ♂ | 04.04.15
| Macabeo Momade (Chief of the Administrative Post) ♂ | 21.04.15

Traditional Leader | Rhaina/Queen ♀ | 21.04.15
| Trader and shop owner ♂ | 21.04.15
| Group of Peasants and Fishermen ♂♀ | 21.04.15

Metangula

Organization | Name/Position | Date
---|---|---
District Government | Moura Jorge (Lago District Administrator) ♂ | 06.04.15

Community Radio | Dimião Silvestre (Coordinator) ♂ | 06.04.15
| Barnabe José (Editor in Chief) ♂ | 06.04.15
| Tomé Erneso (Technician) ♂ | 06.04.15
Department of Education, Youth and Science
Miguel Francisco (District Director) ♂ 08.04.15
Manuel Sirage M’Pemba (Head of Department for General Education) ♂

District Government
Castro Joaquim Roque (Director and Manager of District Services on Economic and Agricultural Extension Activities) ♂
06.04.15

Metangula Municipality
Sara Mustafa (President) ♀ 08.04.15
Paulo Ossikó (Representative for Financial Issues and Secondary School Teacher for Economic Geography) ♂

Traditional Leader
Pedro Matias Meze (Regulo Chilombe for Metangula Centrum) ♂ 08.04.15

District Government
Iassine Alabe (Permanent Secretary) ♂ 13.04.15

District Government, Department of District Planning
Àrabe Fernando Aualo (Head of Department) ♂ 13.04.15

District Government, Department for Fishery
Mário Rodrigues (Technician social development) ♂ 13.04.15
Mário António (Technician credits and business development) ♂
Annica (Extentionist for fishery) ♂

District Government
Lélito António Colasso (Extensionist animal breeding) ♂ 13.04.15
Cândido João (Extensionist agriculture) ♂
Emílio (Extensionist agriculture) ♂

Health Center
Abílio Sofiane (Medical Technician for community health) ♂ 14.04.15
Edgar Francisco Manuel Sinoe (Medical Technician, responsible for antiretroviral therapy and nutrition) ♂

Muslim Community
Saíde Salimo (Chee of the Mosque) ♂ 20.04.15
Xavier Assane Saíde (Chee) ♂
Yussufo Saíde (Chee) ♂
Iassine Aquimo (Chee) ♂

Catholic Church
Lourenço Niqueias (Padre/Priest) ♂ 20.04.15
Maria Celeste Paulo (Irmã/Nun) ♀

District Government
Franco Muluémbe (Head of Department for Commercialization) ♂ 22.04.15
Annex 33: Sustainable Development Goals

(Source: UNISDR, 2015)