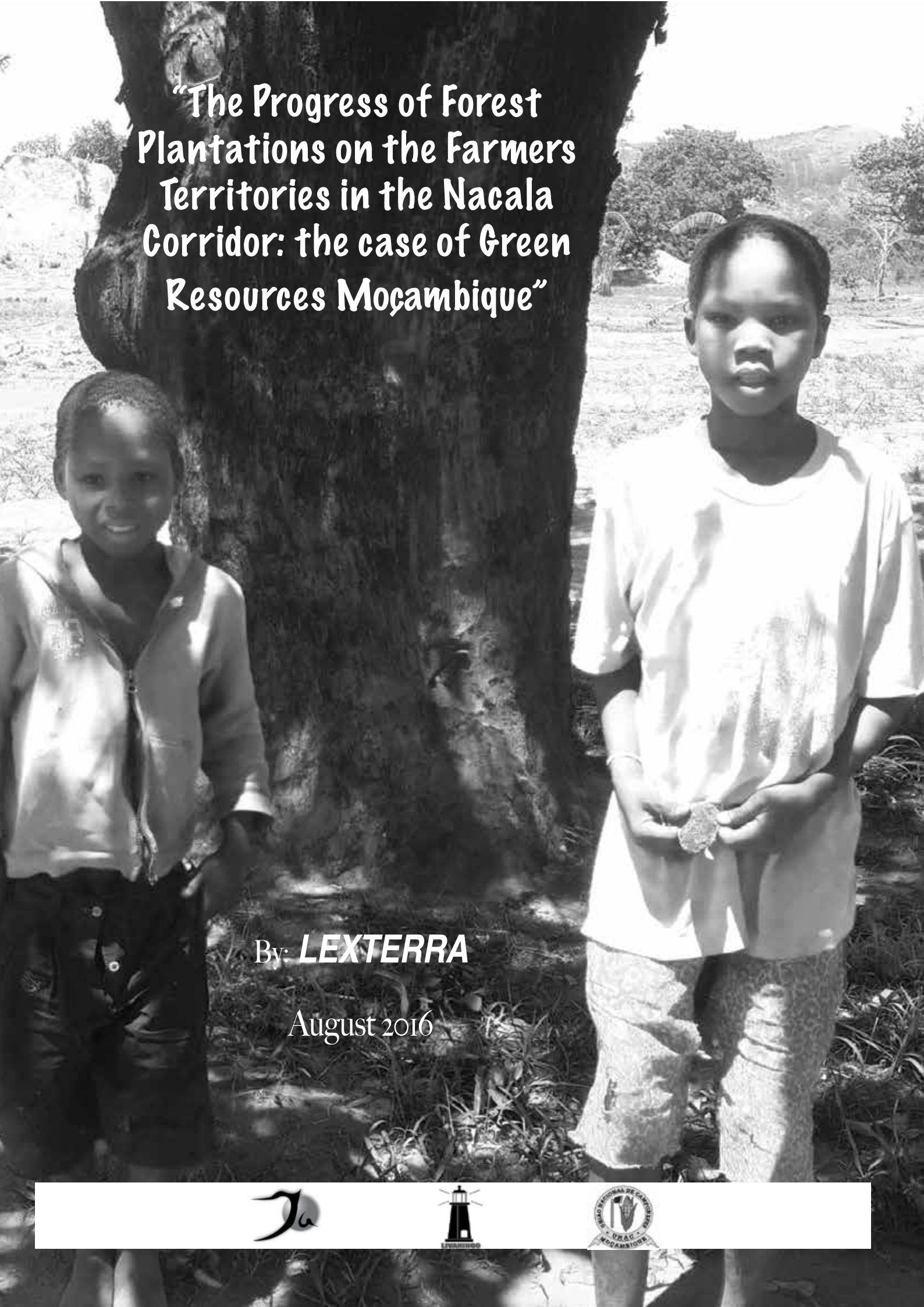

"The Progress of Forest Plantations on the Farmers Territories in the Nacala Corridor: the case of Green Resources Moçambique"

By: ***LEXTERRA***

August 2016

"And from a long sleep, one day we wake up to find that we were surrounded by trees ... trees no longer useful for us ..."
Nduna of Mbandeze-Sede (Lago-Niassa District)

Credits

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Note

The opinions expressed in this report do not necessarily represent the views of União Nacional dos Camponeses (UNAC), Justiça Ambiental or Livaningo but only of the Consultant (Lexterra)

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Abbreviations

AFN – National Forestry Authority
AIA – Environmental Impact Evaluation
BM – Mozambique Bank
CCL – Local Advisory Councils
CENACARTA – National Centre for Cartography and Remote Sensing
CEsA – Africa, Asia and Latin America Study Centers
CES – Coastal & Environmental Services
CGRN – Committee for Natural Resource Management
CPI – Investment Promotion Center
CRM – Constitution of the Republic of Mozambique
DPPF – Provincial Directorate of Planning and Finance
DUATs – Right of Use and Land Utilization
FAO – Food and Agriculture Organization of the United Nations
FDCs – Community Development Funds
IMF – International Monetary Fund
FSC – Forest Stewardship Council
GRM – Green Resources Moçambique
GSFF – Global Solidarity Forest Fund
GSFI – Global Solidarity Forest Investment
FDI – Foreign Investment Law
JA! – Justiça Ambiental
LGR – Lúrio Green Resources
MF – Ministry of Finance
MPD – Ministry of Planning and Development
NGR – Niassa Green Resources
CSO – Civil Society Organizations
NGO – Non-Governmental Organization
PEDFFB – Politics and Forestry and Wildlife Development Strategy
NWP – National Land Policy
UNDP – United Nations Development Programme
ROADS – Help Organizations Network for Development
SDAEs – District Services of Economic Activities
AIDS – Embassy of Sweden in Mozambique
SPGCs – Provincial Services of Geography and Cadaster
SPFFBs – Provincial Services for Forestry and Wildlife
UNAC – National Farmers Union of Mozambique
UNICEF – United Nations Children's Fund

Executive Summary

The study "The Advance of Forrest Plantations on Farmers' Territories in the Nacala Corridor: the case of Green Resources Moçambique" was commissioned by three national Civil Society organizations (Livaningo, Justiça Ambiental and UNAC) and conducted by Lexterra Lda, as an independent consultant, between November 2015 and August 2016.

The overall goal of the study was to present and discuss, based on evidence, the impacts of the pine and eucalyptus monocultures on the communal territories of Mozambique, as well as to bring clear and effective actionable advocacy proposals which could be pursued by the affected communities, civil society organizations committed towards the safeguard of the rights of those communities, and other interest groups

To this end we took as an example the "Green Resources Moçambique" corporation, which accumulates extensive lands throughout Nampula, Niassa and Zambezia. These provinces are part of the Nacala Development Corridor that focuses on the infrastructure usage created by the Nacala Port and railway lines and roads that it departs from covering not only these provinces but also Tete with links to several Southern Africa countries specifically Malawi, Zambia and Botswana.

As a documental research complemented by interviews and direct field observations, it mostly dealt with qualitative information, even if complemented by quantitative data. The notion of impact is understood to mean "results", foreseen or unforeseen, which translate themselves into "changes reached" in terms of perceptions by the main actors and land agents over the studied process or phenomenon; in the changes occurring in the social relationships between these actors and agents; in the variation of living conditions of the local communities; the variation of the status of certain local physical elements such as land use, the soil conditions, air, etc.; in the variation of the availability of natural resources needed for the survival of local communities in the variation in production yields; the variation of local production systems, etc. Therefore, interviews were held with key actors and informants in the provincial capitals (Lichinga, Niassa and Nampula City, Nampula), and field visits were held in order to interview and directly observe the communities and selected districts. In total, 14 local communities were visited in 7 districts: Lago, Sanga and Chimbonila (Niassa), Ribàué, Mecuburi and Rapale (Nampula) and Alto-Molocué (Zambezia).

The main findings of the study were:

1. Approximately 74 DUATs titles are in GRM's possession representing more than 264.898 hectares of land accumulated over the Nacala Corridor territories aimed at pine and eucalyptus monoculture practice. This count includes the land initially acquired by Chikweti and other companies that GRM absorbed in Niassa and Zambezia. Over the course of 10 years, the company only planted 24.585 ha of this area (9.2%). The reasons for this are simple: lack of a concrete operating plan and financial resources for large areas like these. There is no doubt, that we have here a clear example of what in Mozambique is already a reality: land grabbing and dispossession by the accumulation process of local communiteis of this important capital that is land, by so-called investors and always with the help of the Mozambican government.

2. Part of the areas assigned to GRM by the Mozambican Government coincide, in many cases, with areas occupied by families and local communities, raising immediately a juridical-legal problem: the Land Law forbids the government from assigning to newcomers lands already occupied unless with the express and informed consent of the current occupants and accompanied by corresponding compensation and damages. Now, generally in DUAT processes held by the GRM, community consultations were not made with scrupulous observance of the law as is expected from a company that is both socially and environmentally responsible; there was a process of negotiations between local communities and families on the one hand, and investors, on

the other; compensation to local communities, when they happened, were derisory and paid through processes that were not dignifying for the people and families affected, among other incidents and irregularities raised by community leaders and local citizens interviewed by the consultants.

3. When the DUATs were first assigned to GRM and in the years immediately afterwards the discussion on this process, both at the level of communities and CSOs, focused more on legal issues in the sense of rights overlap or dispossession of lands suffered by local communities and families. But as time went on and as the forest plantations by GRM advanced on the territories currently occupied by local communities and families (houses, farms, water supplies for consumption, etc.) that is, as the effective use of land by GRM is growing, we begin to see emerging the real problems that the Constitution, and land, environmental and other relevant legislation on the matter seek to avoid: the deprivation of local communities and families of natural resources and basic means of survival and viability for their lives today and tomorrow (land, forests, small species of game animals for their own consumption, water, site and places of historical and cultural interest, medicinal plants, etc.). Similarly, there is a decrease in income levels in agricultural production. This scenario is compounded when we consider that families have not been presented with other income alternatives or even adaptation of agricultural production systems still based on extensive agriculture in conflict with intensive agriculture or even to the so-called green agriculture.

4. It was also found that the distances between the areas occupied by local family communities for housing and agricultural production and the areas destined to monoculture plantations are very tiny which means that the environmental precautionary principle was not observed. It also raises the question regarding the distances to the roads and local paths.

5. A common problem reported in many of the communities visited is drought and the recurring presence of various pests. While this situation may be associated with the current global scenario of climate change, it is possible that other factors contribute to these occurrences, such as the presence of monoculture plantations by GRM.

6. GRM promised so much to the local communities and families: jobs, community funds, roads, bridges, schools, etc. Little or nothing was fulfilled, which presents itself as an element of the current climate of social conflict installed along the territories where it operates. Moreover, there is increasingly a discredit by local communities both in relation to the company and in relation to government authorities regarding the current process and the future of forest plantations.

7. Both government authorities and the GRM leaders recognized that "some" irregularities and errors were committed in the allocation of DUATs to GRM in particular, and to forestry companies in general. But even in the face of such huge irregularities and injustices, local communities and families not only did they not have the support of the Government, but also they have found themselves with no means or capacity (knowledge) to pursue possible legal remedies, such as resorting to the courts.

8. GRM has managed to obtain international certifications for some of its plantations (Niassa Green Resources, Lúrio Green Resources). There are other ongoing processes for the same purpose. But it would be interesting to "dig" into how it would have been possible given such great irregularities reported in several studies, including on key social and environmental aspects.

The study's main recommendations are:

1. There is a need for the Government to proceed with amending the errors made in the allocation of DUATs to forest companies, such as the GRM. CSOs can contribute to this goal by articulating an advocacy campaign and using other means of pressure.

2. CSOs could advocate for legal reform, specifically at the level of the Land Law, so that a minimum distance between DUATs intended for monoculture plantations and residential and agricultural areas of local communities be established.

3. Further studies at the micro level of specific communities, including the level of groups of families would be advisable to assess the direct and precise impact of plantations of pine and eucalyptus monocultures on soils and local noon environments.

4. Another type of equal size and level studies would also be advisable and in order to assess, in a more precise and concrete, the level of economic and social impact of the presence of forestry companies in the Nacala Corridor on families and family groups sites.

5. Once everything indicates that for families and local communities there is no other way than the courts for the restoration of violated rights and interests, including on land, damages, compensation and benefits agreed with GRM (EU funds, roads, bridges, schools, etc.) CSOs could help those affected in the preparation, submission and the overall process of the corresponding legal proceedings.

6. CSOs could also question the FSC certification achieved by GRM for some of its plantations, including through an independent audit and pressure from international bodies responsible for the certification process.

INTRODUCTION

The study "The Advance of Forrest Plantations on Farmers' Territories in the Nacala Corridor: the case of Green Resources Moçambique" was commissioned by three national Civil Society organizations (UNAC, Justiça Ambiental and Livaningo). These three organizations are leaders in the struggle for the promotion and defense of farmers' rights over their lands and natural resources in the country, including the sustainable use thereof for an inclusive local development. The Nacala Corridor represents a region encompassing the territories of the country's three Northernmost provinces (Nampula, Cabo Delgado and Niassa) and part of the central province of Zambezia. It is one of the three foremost development corridors in the country[1], which are geared towards putting to good use the range of infrastructures surrounding the port, and the connecting road and railways.

In this case, it is the Port of Nacala and the roads and railway lines which run from the port and across these provinces (as well as the central provinces of Tete and Zambezia), through the neighboring countries of Malawi and Zambia, and from then on the direct connections to other countries in the Austral African region, such as Zimbabwe, Botswana and Tanzania.

The overall goal of the study was to present and discuss, based on evidence, the impacts of the pine and eucalyptus monocultures on the communal territories of Mozambique, as well as to bring clear and effective actionable advocacy proposals which could be pursued by the affected communities, civil society organizations committed towards the safeguard of the rights of those communities, and other interest groups. With this in mind we should build on the experience hitherto gathered on the implementation of the project by forest company Green Resources Moçambique (GRM). Note the branching of this company through its various subsidiaries in Mozambique and Uganda and Tanzania, the two African countries where it already operates. In fact, these subsidiaries are judicially autonomous entities. As such, GRM operates in Niassa under the Niassa Green Resources (NGR) companies, as well as other formerly independent companies which have since been absorbed or controlled by NGR, such as the well-known *Chikweti Forest of Niassa*. In Nampula we find Lúrio Gree Resources (LGR) and in Zambezia, *Tectona Forest of Zambezia*, and Ntacua. Lastly, note that the GRM umbrella is under the control of the multinational Green Resources SA (GR SA), headquartered in Oslo (Norway). We call your attention for the following abbreviations, which will be commonly used throughout this document: GR SA (Green Resources[2]), GRM (Green Resources Moçambique), NGR (Niassa Green Resources) and LGR (Lúrio Green Resources).

According to their respective statements of reference (TdR), the study should specifically strive to i) survey and map the areas explored by GRM, the affected communities and the process of land occupation in Mozambique; ii) analyze the truthfulness and the level of transparency throughout DUAT's acquisition by GRM, and to relate the licensed areas with the areas in use, so as to ascertain the level of utilization of the lands awarded to this company; iii) track the changes in the structure and composition of the ecosystem as a whole, considering the periods before and after the establishment of forest plantations; To predict the probable future impacts of establishing forest plantations in the ecosystems, agricultural production systems and in the whole socioeconomic and cultural fabric of the affected communities; iv) map GRM's sources of financing and the mechanisms and institutions involved in the resolution of conflicts with the communities; and v) draw a matrix of advocacy actions, as recommendations.

As a documental research complemented by interviews and direct field observations, it mostly dealt with qualitative information, even if complemented by quantitative data. The notion of impact is understood to mean "results", foreseen or unforeseen, which translate themselves into "changes reached" in terms of perceptions by the main actors and land agents over the studied process or phenomenon; in the changes occurring in the social relationships between these actors and agents; in the variation of living conditions of the local populations; in the variation of the preservation of certain local physical elements, such as spatial planning, the condition of the soils, air, etc.; in the variation of the availability of natural resources needed for the survival of local populations;

1 The others being the Maputo and the Beira Corridors, in the south and centre of the country, respectively

2 Parent company headquartered in Oslo, Norway

in the variation of the level of local income and production, etc. Therefore, interviews were held with key actors and informants in the provincial capitals (Lichinga, Niassa and Nampula City, Nampula[3]), and field visits were held in order to interview and directly observe the communities and selected districts. In total, 14 local communities were visited in 7 districts: Lago, Sanga and Chimbonila (Niassa), Ribàué, Mecuburi and Rapale (Nampula) and Alto-Molocué (Zambezia).

The field survey was undertaken in December 2015 and January 2016 by a multidimensional team including specialists in legal and social issues related to land and human resources, local development, agriculture and forestry, the environment and geography. The team also included a specialist in geographical information systems (SIG) management. In general, work was carried out in an environment of collaboration and cordiality, on the part of state institutions and the heads of LGR (at the headquarters and in the provinces), as well as of the local players in the visited communities. Unfortunately, such a cordiality environment wouldn't always result in data and information being made available: either because these were not at all available (as is the usually the case with state institutions), or because the channels authorizing the release of such data would not function, or due to the policy of information secrecy put in place particularly by GRM. Another roadblock faced by the Consultants was the untimely period for the development of the study (December and January), which is the peak of agricultural activity and therefore saw the interlocutors more focused on the production and less able to discuss with the Consultants. It was also a period when State officials and employees also find themselves unavailable due to yearly holidays or due to yearly balance procedures.

Especially difficult to obtain was information pertaining to the environment and spatial planning: we would have required a larger scope and depth in terms of elements of observation, and therefore to dig deeper until a micro level of study (sub-communities, groups of families and individual families). This would have meant further time and resources would have been required for the study. Similarly, it was nearly impossible to gather information on the involvement of national partners (corporations or individual persons) in the forest companies, specifically GRM and its associates (Chikweti, LGR, Tectona, etc.) due to the shrouds of secrecy surrounding the issue. We understand it is typical of Mozambican entities not to want to expose themselves before the public about matters and businesses they hold with large foreign corporations.

Over the course of this study we have interviewed a total of 153 people, of which 115 resided in the 14 communities visited in the three provinces, and 38 were members and technicians of local governments (at province and district level), GRM managers and representatives of local CSO *(as per Appendix 1: Chronogram of field trips and agents contacted)*. Due to the particulars of the situations in which they found themselves involved, the names of some interviewees have been omitted.

3 Logistic and time reasons prevented us from visiting Zambezia's capital, Quelimane.

1. CONTEXT

1.1. The economic, social and forest investment contexts of Mozambique

The economy of Mozambique has recorded a striking growth over the past decade: GDP has seen a real growth rate around 6-8% annually. Agriculture now accounts for 32% of the GDP and 80% of the national workforce, most of which currently working in family and low-scale subsistence agriculture. GDP *per capita* is estimated at around $700, for a 2015 population of around 25.7 million (growing at an average annual rate of 2.5%, *(as per Table 1).*

Table 1: Major macroeconomic development indicators for Mozambique

	2013	2014		2015
	Real	Plan	Prevision	Plan
Nominal GDP (Million MT)	*470,472*	*534 998*	*526,495*	*595,649*
Real growth rate (%)	*7,4*	*8,0*	*7,5*	*7,5*
GDP Per Capita (MT / Person)	*19,309*	*21 400*	*21,025*	*23,151*
GDP Per Capita (USD / Person)	*646*	*680*	*703*	*774*
Inflation Average Annual Rate (%)	*4,2*	*5,6*	*2,6*	*5,1*
Population (million of habitants)	*24.366*	*25,042*	*25.042*	*25.728*

Source: INE. Projections Table Macro-MPS-MF-BM, 2015. In: Economic and Social Plan 2015, approved by the Assembly of the Republic through the Resolution 15/2015, of 30 of April.

Countering this climate of economic growth, we have seen in recent years (2003-2009) diminishing levels of poverty reduction, which is going against the gains and efforts recorded in the period of 1997 through 2003.

Indeed, the 2010 Report on the Third Assessment of Poverty in Mozambique (by DNEAP/MPD and INE) has on one hand witnessed a sharp reduction in the incidence of poverty from 69% in 1997 to 54% in 2003, but has seen this indicator remain stable in the period of 2003 through 2009 (54.1% - 54.7%)[4]. On the other hand, the country has seen a drop in its Human Development Index rating: from a rank of 118 with a 0.44 HDI score (INE, 2012: 38) it moved down to a rank of 180 with a 0.41 HDI score, out of 188 countries surveyed (UNDP, 2015: 232).

The strategy of development adopted by the Mozambican government since the 1990s has been cemented, among others, on the development of large infrastructure projects, on socioeconomic (roads, bridges, power grids, etc.) and economic-productive (mining of natural resources, the processing industries, agricultural production, plantation of tree monocultures, etc.) levels. For both, funding is grounded on foreign capital, specifically the so-called Foreign Direct Investment (FDI). The country therefore faces the challenge of balancing the interests and needs of their citizens and those of the investors, in regards to access to land and other natural resources. This challenge is compounded when we consider that 70% of Mozambicans depend on the land.

The Center for Promotion of Investment reported in 2013 that Mozambique was the third African country with the highest FDI influx, totaling $5 billion, a figure that reached $7 billion[5] in 2014. Experience throughout this process shows that the increase in FDI has been followed on par by an increase in the number of cases regarding land conflicts, especially in regions such as Nacala Corridor. In a recent report, UNAC and GRAIN stated that around 1.5 million hectares in land in Nacala Corridor have been taken from farmers and handed over to

4 Sources: National Directorate of Studies and Policy Analysis (DNEAP) & National Statistics Institute (INE). "Poverty and Welfare in Mozambique: Third National Poverty Assessment." Maputo: 2010. Or Boom Bart van den. Analysis of poverty in Mozambique. Poverty situation of households, child malnutrition and other indicators 1997, 2003, 2009. Amsterdam: Centre for World Food Studies, VU University. 2011.

5 http://www.cpi.co.mz/index.php/PT/

investors, which means that land formerly destined to family food production (corn, beans, sorghum, cassava, etc.) is now being used for cash crops geared towards exporting or other goals (soy, sesame, corn, banana, etc.)[6].

It is well known that the land grabbing undertaken by multinational companies has intensified in Africa over the last decade and other countries of the global South. The World Bank reported in 2010[7] that over the past decade over 70% of agricultural land acquisitions by multinational corporations for large scale investments have occurred in Sub-Saharan Africa, particularly in Ethiopia, Sudan and Mozambique. This phenomenon has occurred as a response to a growing demand of wood arising from the Asian countries' difficulties in supplying raw materials for the panels and paper industries.

It is this context that justifies the presence in Mozambique of large investments in forest plantations by companies such as Portucel, IFLOMA, Moflor, Chikweti, New Forest, Foresta do Niassa, Floresta do Planalto, Sociedade/Fundação Malonda, Companhia Florestal de Massangulo and Green Resources. According to official MINAG[8] data, lands granted for eucalyptus and pine plantations in the provinces of Niassa, Nampula, Zambezia and Manica totaled in 2014 over 700 thousand hectres, of which 38% are occupied by Green Resources Moçambique, which places GRM as the largest forest company in terms of area controlled.

FAO (2014: 12) data reveals that Mozambique would have by 2015 a total of 75.383 ha of industrial monocultral plantations (up from 12.000 ha in 2010 and 14.329 ha in 2011). FAO projects a scenario considering annual growth rates of 30%, which would mean 11.778 ha were planted in 2013, 15.311 ha in 2014 and 19.905 ha in 2015). Such a large evolution in terms of planted area over the past 5 years can be tied down to the arrival of LGR in 2009 and the development of Chikweti plantations from 2005, both at Niassa.

1.2. Legal framework and public policies on land and natural resources

Policy and legislation on land and other natural resources build on a constitutional understanding that land is owned by the State *(Art. 109, No. 1 of the CRM)* and intended for benefit of the citizens. (*Art. 109 No. 3 and Art. 110 No. 2 of the CRM)*, from which comes the need for its sustainable use to observe environmental and social care (*Art. 117 No. 2 Paragraphs a and d of the CRM)*. Based on this understanding, the Constitution and ordinary legislation hold important dispositions with a view to safeguard, first and foremost, acquired rights over the land, including those acquired by occupation through customs and practices or through the so-called good-faith occupation or direct land grab and its effective use through own initiative, as long as it is performed without violence and in plain sight *(Art. 111 of the CRM and Art. 12 of the Law of Lands)*.

The following list includes the main laws, regulations and policy documentation approved over the last 25 years in order to materialize and enlarge these constitutional norms.

Lands

- Resolution No. 10/95 of 17 October - approves the National Land Policy (NWP).
- Law No. 19/97 of 1 October - Land Law - establishes the terms on which operates the establishment, exercise, modification, transfer and termination of DUATs. Regulated by Decree No. 66/98 of 8 December
- Resolution 70/2008, of 30 December – approves the rules for granting large areas (over 10,000 ha) for large projects
- Ministerial Decree No 158/2011 of 15 June - fixing the Community consultation procedures.

6 UNAC and GRAIN. The Land Stealers of Nacala Corridor UNAC and GRAIN: A new era of struggle against colonial plantations in northern Mozambique. 2015.

7 Vide: World Bank. Rising global interest in farmland: can it yield sustainable and equitable benefits? Washington DC: 2010. http://reliefweb.int/sites/reliefweb.int/files/resources/88BA6FBA8CDE34E649257798000CAB2B-wb-sep2010.pdf.

8 Ministry of Agriculture and Food Security. Forest plantations in Mozambique: Challenges. Brazil: 2015.

Forests

– Resolution No. 8/97 of 1 April - approves the Policy and Forestry Development Strategy and Wildlife (PEDFFB).
– Law No. 10/99 of July 7 - Law of Forestry and Wildlife - promotes the sustainable use of forest and wildlife resources. Regulated by Decree No. 12/2002 of 6 June which suffered successive changes through Decrees 11/2003, 76/2011 and 30/2012.
– Decree No. 30/2012 of 1 August - defines the rules of promotion, guidance and establishment of forest plantations for conservation, trade, industrial and energy.
– National Strategy for Reforestation: For a Sustainable Development of Forest Plantations - created in 2006 by the Ministry of Agriculture.

Environment

– Resolution No. 5/95 of 3 August - approves the National Environmental Policy.
– Law No. 20/97 of 1 October - Environmental Law - establishes the legal basis of proper use and management of the environment.
– Decree No. 45/2004 of 29 September - approves the Regulation on the Evaluation Process of Environmental Impact.
– Decree No. 25/2008 of July 1st - approves the Regulation for the Control Species Invasive Alien.
– Decree No. 70/2013 of 20 December - approves the Regulation of Procedures for Emission Reduction Project Approval from Deforestation and Forest Degradation.
– Decree No. 71/2014 of 28 November - Approves the Regulation on Biosafety Concerning the Genetically Modified Organisms Management.

Resettlement

– Decree No. 31/2012 of 8 August - approves the Regulations on the Resettlement Process as a Result of Economic Activities.
– Ministerial Decree No 155/2014 of 29 September - adopted the Directive for the functioning of the technical committee for monitoring and resettlement supervision.
– Ministerial Decree No 156/2014 of 29 September - approve the technical directive of the drafting and implementation of resettlement plans.

1.3. Global context of free monocultures

According to the FAO[9] the total forest area (natural and plantation) in the planet has gone down from 4.12 billion hectares in 1990 to 3.99 billion hectares in 2015. The area currently occupied by forest plantations represents 31% of the planet's total land territory, and amounts to 0.6 ha per inhabitant[10]. A similar trend is pointed out by Payn et al. (2015), who found the global percentage of land covered by forest to have diminished in the abovementioned period from 31.85% to 30.85%.

However, while the regions of Central America, East Africa, North Africa, Oceania, South America, South and Southeast Asia, Western Africa and Central Africa have witnessed a reduction in forest area, the regions of the Caribbean, East Asia, Europe, North America, Western Asia and Central Asia have recorded an increase.

In regards to the total area of tree monocultures planted, data from FAO (2015) indicate that it has risen in the 1990-2015 period, from 167.5 million hectares to 277.9 million hectares, with this growth contingent on the region and climate. Out of these 277.9 million hectares, 56% are temperate forests, 15% are Taiga forests, 20% are tropical forests and 9% are subtropical forests (Payn *et al,* 2015). These authors single out East Asia and

9 Food and Agriculture Organization of the United Nations (FAO). Global Forest Resources Assessment 2015: Rome: 2015.
10 KEENAN, Rodney et al. "Dynamics of global forest area: Results from the FAO Global Forest Resources Assessment 2015".

Europe as the regions with the largest amount of monoculture plantations, followed by North America, Central America and Southeast Asia, which in total account for 18-19% of the total area.

Worldwide, Indonesia is considered to be the country with the highest number of conflicts arising from forest monoculture plantations, which account for around 4.9 million hectares (about 5.4% of the nation's total forest area)[11]. A report by the *Environmental Justice Organizations*, *Liabilities and Trade* (EJOLT) indicates that social conflicts related to plantations represent more than a third of all land conflicts in the country. The same report goes on to mention that in 2010, over 663 communities were at conflict with over 172 forest companies, which resulted in 106 arrests. The National Department for Land (Badan Pertanahan Nasional) recorded over 3500 land conflicts related to forest plantations in 2009 (Overbeek, Kröger and Gerber, 2012). One such example of land conflicts in Indonesia was illustrated by the Open *Civil Letter* addressed by Indonesia's Civil Society Organizations to the President in order to protest against the eviction of farmers from their agricultural lands. This letter, dated April 1st 2016, argues that in the village of Cawang Gumilir Bumi Makmur, Vila Musi Rawas in the southern region of Sumatra, the Japanese company PT Musi Hutan Persada (PT MHP) took control of about 188 homes and farmers' lands, an action facilitated by the local police and military forces. In this context, about 909 farmers and their families were forcefully evicted and made to find refuge in mosques and tents.[12]

In Brazil, the expansion by Suzano Papel e Celulose in the past few years has led to conflicts with traditional communities in the region of Lower Parnaíba. The communities have been defended their territories, where they extract bacuri and other products. Notwithstanding, Suzano and other companies have been expelling the communities from their lands and contributed toward the reduction of available lands for food production by the local families (Overbeek, 2015).

1.4. Plantations by Green Resources in Africa

The Green Resources Moçambique can be seen as a subsidiary of Green Resources, SA (GR), the mother company funded mostly by Norwegian capital and with over 80 shareholders, today operating in three African countries: Mozambique, Tanzania and Uganda. Green Resources, SA was founded in 1995, having begun its operations in Africa in 1996[13].

In these three countries GR has ten tree plantations: Bukaleba and Kachung (Uganda); Lindi, Idete and Mnyera (Tanzania); Niassa Green Resources, Chikweti, Lúrio Green Resources, Tectona and Ntacua (Mozambique). The following tables summarises GR's plantations in Africa, including the year they were created, area occupied and planted, and species planted:

11 Sustained information based on the FAO report (2015: 36)

12 Source: WALHI - Wahana Lingkungan Hidup Indonesia, Friends of the Earth Indonesia. In addtional: www.walhi.or.id. Access to April 28, 2016.

13 Green Resources AS. Annual Report 2013-2014. 2015.

Table 2: Summary of the Green Resources monoculture plantations in Africa

Plantation		Years	Hectare by Species			Total ha planted	Total ha occupied
			Pine	Eucalyptus	Others		
Bukaleba (Uganda)		1996-2015	3,447	1,062	102	4,611	9,165
Kachung (Uganda)		1996-2015	1,736	183	13	1,931	2,669
Lindi (Tanzânia)		<2008-2013	0	721	637	1,358	2,043
Idete (Tanzânia)		1997-2015	3,169	1,833	24	5,026	15,966
Mnyera (Tanzânia)		1997-2015	2,814	2,483	24	5,321	42,656
Niassa (Moçambique)	NGR	2007-2014				2,400	10,083
	Chikweti	2005-2014				17,086	106,938
	Massangulo					3,322	9,740
LGR (Moçambique)		<2009-2015	0	4,381	39	4,420	126,000
Tectona e Ntacua (Moçambique)		2005-2015				679	23,935
Total Global						**46,154**	**349,195**

Source: adapted by the reporting team based on various sources (provincial governments, GR SA and GRM).

In this context, we can argue that the *Bukaleba*[14] *plantation* is the oldest plantation and has become the second forest plantation in Uganda to be certified by the *Forest Stewardship Council* (FSC) in 2011. Out of the 9.165 ha occupied, 4.611 ha are monocultural plantations, 46% of which "*Pinus carribaea"* and 21% "*Eucalyptus spp".* In Tanzania, the *Mnyera plantation*[15] (which includes Uchindile) totals 42.656 ha, around 19.000 of which are arable land.

As noted, Green Resources operates in Mozambique in the following provinces and with the following subsidiaries: Niassa: NGR and Chikweti and Massangulo; Nampula: LGR; Zambezia: Tectona and Ntacua. Note that the *plantation at Niassa* is considered to be one of the largest current monoculture plantation centres of pine and eucalyptus in the country, accumulating the areas owned by NGR, Chikweti and Massangulo, totals 126.471 ha in area, of which 23.864 ha have been planted, resulting in an actual utilization rate of 19%. At the same time, LGR has acquired a provisional DUAT for around 126.000 ha, having planted only approximately 4.500 ha (3.6%). The *plantations by Tectona Forest of Zambezia and Ntacua* are small in size, sparsely distributed and have been recently acquired by Green Resources.[16]

A study conducted in 2012 by the *National Association of Professional Environmentalists* (FoE-Uganda) gives us a general idea of the social conflict scenario arriving from GR's presence in Africa. This study notes that this multinational, through its subsidiary Busoga Forestry Co Ltd has cleared 8.000 – 10.000 ha of native forest in Bukalega in order to replace it with pine and eucalyptus plantations. The study further mentions that around 8.000 people of 13 villages in that region have been evicted, allegedly having illegally occupied the region during the political turmoil of 1975-1985 (FoE-Uganda, 2012).

A more recent study on GR's presence in Uganda, authored by The Oakland Institute, has tied the company's activities with the emergence of a series of social disturbances and negative economical and environmental impacts affecting the communities next to, which it operates. For instance, it pointed out that the evictions

14 Source: Green Resources, with the following link: http://www.greenresources.no/Plantations/Uganda/Bukaleba.aspx.

15 Information available at: http://www.greenresources.no/Plantations/Tanzania/Mnyera.aspx

16 It is therefore a further crop without much activity.

have negatively affected the local communities in regards to their ability to ensure their own food and nutritional security, and the local environmental sustainability. Additionally, the social and ecological impacts of the implementation of such carbon trading projects by GR are noted to contribute toward the increase in the level of poverty of the affected populations (Lyons, Richards & Westoby, 2014).

In Mozambique, numerous studies already report situations of land conflicts arising from the presence of GR in the country's northern region. For instance, Overbeek (2015) asserted that communities in the Mecuburi district have complained about GRM having occupied lands suited for the practice of agriculture; that is to say, the plantations stand in the areas where the farmers plant their cultures. «These are lands where families have done, do, and would do their tillage to grow foods, which they call machambas. People say that, in the last few years, hand in hand with the introduction in the community of the eucalyptus plantations, the production of food has seen a decrease» (Overbeek, 2015: 20). In this context, local community leaders have complained about their inability to question land concessions granted by the central level.

1.5. Social and economic context of the communities affected by GRM

Looking at the social and economic context of the communities affected by the forest monocultures of GRM, we can note this is a mostly rural population, dependent of agriculture and other natural resources. In Niassa, where the major ethno linguistic groups are the *macuas*, the *lómwès*, the *nyanjas* and the *yaos*, it is estimated that 58% of the population is illiterate, only 4.3% have Portuguese as a mother language and only 5.9% speak Portuguese at home (INE, 2014: 15). In Nampula, about 56% of the population is illiterate and in Zambezia this figure stands at 53.9%[17]. Data from the Family Budget Survey (INE/IOF 2014-2015) indicate that, on average, about 60% of the population in these three provinces drinks unsafe water (unprotected springs, unprotected open wells, lakes, rivers, lagoons and rainwater) and over 80% takes 30 minutes to reach a water supply[18].

Generally speaking, agriculture is the prevailing activity for all communities affected by GRM at Nacala Corridor. Agriculture is an activity mainly performed in small family explorations, ranging from 1 to 5 ha, rain fed and intercropping local food cultures (corn, mapira, cassava, peanut, beans, etc.). Some families still use traditional soil fertilization methods, such as fallowing the lands, or incorporating the soil with plant rubble, manure and ashes.

A commonly reported problem across many of the visited communities is the drought and the recurring presence of plagues. While this situation may be related to the current scenario of global climatic changes, there may well be other contributing factors, such as GRM's monoculture plantations. Further studies, more in depth and localized (at the level of communities and groups of families) would be required in order to evaluate the effect of these plantations on the issues raised.

Another constraint noted was the inability local population feel in being able to preserve their crops, the lack of improved seeds and the difficulty to control pests.

When it comes to social organization, we could point out the intervention of various players: *traditional leaders, community leaders, community committees, community forums*, etc.

Among all of these the most dominating figure at a rural local community level (i.e. after the governmental figure of Locality Chief) is perhaps the *traditional leader* (traditional authority), which is called by a different name in different regions: *mfumo, muene, rainha*, etc., and which colonial Portuguese have called régulo[19]. Its

17 INE (2015). IOF Report 2014-2015.

18 The consultants team witnessed this situation in places successively visited during the fieldwork.

19 The kinglet is, in turn, aided by "ndunas", "mbumba", "tug-of-land", etc.

hereditary designation follows the matrilineal line adopted in this northern region (clashing with the patrilineal lines adopted in the center and south of the country).

And while the Constitution only recognizes the figure of "traditional authority" (Art. 118 of the CRM), FRELIMO, through the Government and apparently with the twin goals of reducing the influence of these base authorities and ensuring their own influence and control over the local communities[20], have imposed the presence of the so-called "township chiefs", "neighborhood secretaries", "quarter chiefs" to act side by side of these traditional authorities. Therefore, and in order to provide a legal smokescreen for these goals, both types of authority (traditional and partisan) work under the figure of "community leaders", instituted by legislation[21] on Local State Bodies *(See Law on Local State Bodies and Regulations. See also Decree 15/2000 of 20 June).* The legitimacy of the former's power is the traditional hereditary power, which must always be confirmed by the respective populations in order for the State to give its formal assent. As for the latter, legitimacy comes from partisan indication on the part of FRELIMO. Therefore, while in the first case we can find some element of democracy and popular legitimacy based on history and local values, and on the fact that legitimation by their respective populations is required before a traditional leader is recognized by the Government *(Article 1 of Decree 15/2000 of 20th of June. See also the Ministerial Decree no. 107-A / 2000 of 25th of August)* the same cannot be said about the figureheads appointed by the ruling party[22].

An important actor which could perhaps counterbalance this community-level democratic deficit is represented by the figure of the community committees, established by some legislation on natural resources, namely the Community Committees for the Management of Natural Resources (CCGRN), provided for by the Regulation for the Law for Forest and Wildlife (Decree…[23]). The members of these committees are selected by popular election, which allows for gender equality, at base and leadership levels.

Lastly, and something which might make the local scenario murkier, come the so-called "community consultation forums", also established by the Law on Local State Bodies, specifically its Regulation *(Decree 15/2000)*. It is predicted that these actors are present at the various local territorial levels: Locality (that is, above the community authority), Administrative Post and District. They are defined as a space for the representatives of state authority (Chief of Locality, Chief of Post and District Administrator) to consult the local populations in matters of interest to them. The composition of these bodies reflects the various local social sensibilities (traditional leaders, local partisan leaders, CSO and representatives of government authority). However, the democratic potential for these forums is slim, as they are run by the local state authority and due to the strong presence of representatives of the partisan structures and other elements ingratiated with the ruling party.

20 Faced with the impossibility of state authority to be present at these levels because it ends at the level of the City through the figure of the Chief Town (an appointed official and paid by the state).

21 Law No. 8/2003 of 19 May and Decree 11/2005 of 10 June.

22 Although the law apparently looking to understand that these structures (neighborhood secretaries) must also be legitimated by the local population, which is doubtful. On a side note, after the municipality governed by the opposition as Beira, Nampula and Quelimane in which case the party MDM- Democratic Movement of Mozambique, this replaced the district secretaries of FRELIMO by their own secretaries are resorting to the same expedient (imposition) used by FRELIMO. In the case of municipalities the corresponding regulation for the said Decree 15/2000, of the Ministerial Decree no. 80/2004 of 14 May.

23 The Forest and Wildlife Law is the Law no. 10/99 of 7 July.

2. GREEN RESOURCES PLANTATIONS ON NACALA CORRIDOR

2.1. Goals and scope of Green Resources on Nacala Corridor

GRM has set up the following guiding objectives for their monoculture plantations: i) to establish and sustainably manage its commercial forest plantations, in order to deliver forest products for domestic use and exportation (energy production, particle particles and pulp, lumber and transmission pylons); ii) carbon sequestration; iii) conservation of natural forests and biodiversity; iv) social and economic development of the covered areas and communities[24]. These goals will be analyzed in the following chapters, but in general their reach is utopic.

The company set out its strategic guidelines as the delivery of profits for its shareholders, to provide an excellent workplace for its workers, to protect the environment and to help develop the local communities in the areas of intervention. This in addition to committing to convert low-yield soils and degraded forests into suitable tree plantations[25].

But having visited the communities and interviewed representatives and members of the local communities, what immediately springs to attention is the pursuit of their profit-generation goal and of a great working opportunity for a select group of their employees, given that most of their workforce is hired locally and they complain of abuses and excesses perpetrated by their superiors. The Consultants found it obvious that their goals of protecting the environment and helping the development of the communities haven't hit the ground yet.

According to Eng. Arlito Cuco, Director-General of GRM[26], the company is looking to expand the natural forest and other valued vegetation within its areas of operation, and obtain FSC certification for all its forests. The company is hoping to establish in the local communities a program of promotion of forest plantations – with emphasis in the district of Ribaué and Mecuburi in Nampula – and hopes to establish commercial partnerships with the local communities of where it operates, with the Government, international trading partners and financial institutions. As this high-ranking manager put it,

> *"…the project in Mozambique was thought out as an initiative to promote sustainable development, incorporating the sustainability of the environment, the ecosystem and the climate, as well as a significant increase of social benefits, and was designed for the creation and management of forest plantations in areas of degraded lands in order to attend to the growing demand of wood products affecting the country, Africa and the world as a whole, especially considering the shortage of wood supply from Asia…"*[27]

However, our Consultants noticed that most of GRM's plantations are located in areas previously occupied by native forests and machambas. While that may be understood from their discourse, the idea of planting in degraded areas has never been the company's true goal. For how can one explain such a large planted area in former communal machambas or around residences and across rivers and roads?

24 Green Resources. Forestry operations in Mozambique. Presentation of the Director-General of GRM - Arlito Cuco on 22/12/2016.
25 Statements Eng. Arlito Cuco, Managing Director of the company in Mozambique.
26 Interviewed in Maputo 22/12/2015.
27 Interviewed in Maputo 22/12/2015.

"These plantations were established in our lands, were we would produce our food and sustenance. Today we cannot yield enough to eat."[28].

According to the Consultants, there seems to be a disconnect between the goals set out by GRM and their actual practical implementation. So far this has been a project geared towards its commercial goals and with little concern and investment in the areas of conservation the natural forests and biodiversity, or the development of local communities.

2.2. Mapping and the process of land occupation by GRM

2.2.1. Mapping of the occupied areas

The GRM operates essentially in three provinces in Northern and Central Mozambique:

Niassa (companies):
- NGR (Sanga, Lichinga, Chimbonila and Muembe)
- Chikweti (Lichinga, Chimbonila and Lago)

Nampula (companies):
- Lúrio Green Resources (Ribaué, Mecuburi and Rapale)

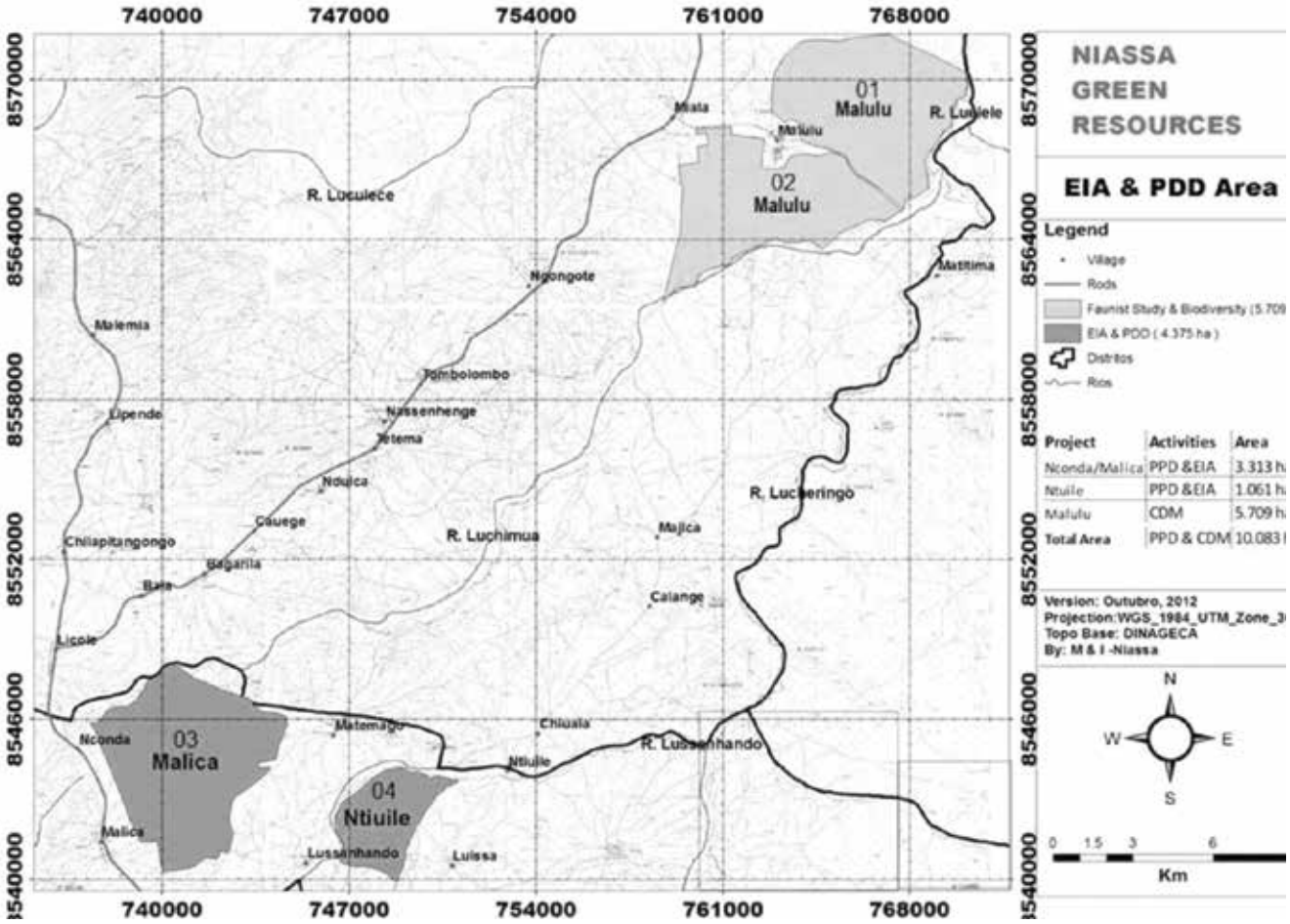
Zambezia (companies):
- Ntacua (Alto Molocué and Ile)
- Tectone (Gurue, Milange, Namarroi and Mocuba)

As for Niassa, according to the Social and Environmental Impact Report prepared by CES (2014) for Green Resources to be presented to MICOA and for public consultation, NGR's plantation totals an area of 10.083 ha, located in the districts of Sanga, Muembe and Lichinga. NGR, through the Malonda Foundation, has acquired a permit to make use of the 5.709 ha[29] parcel, encompassing the parcel of Malulu (areas 01 and 02 in *Figure 1*). NGR has also been able to obtain a total area of 4.374 ha, shared between the zones of Malica (3.313 ha) and Ntiuile (1.061 ha), noted as areas 03 and 04 respectively. According to data from MINAG (2015) and based on information's from the Niassa Government, NGR has already planted 2.400 ha of pine and eucalyptus monocultures in the Malulu Block. But the company hasn't been able to plant any area in Malica as they maintain less than favorable relationships with the local communities, especially in the northernmost are of Ngongote.

28 According to statements by a member of Namina-Mutapua community.

29 DUATs No. 881, which was treated by the Malonda Foundation Malulu unit, covering a total area of 7,880 ha, of which 5,710 have been demarcated for plantations. An environmental assessment study for NGR in 2013, makes reference to another DUATs 4, 374 hectares (covering the areas 3:04). However, the official data of Niassa government does not refer to these blocks, a situation that contributes to the definition of the total area of 7,880 ha.

Figure 1: Niassa Green Resources Mapping



Source: Coastal & Environmental Services – CES (2014:43).

Still on Niassa, after a lengthy negotiation process with the *Global Solidarity Forest Fund* (GSFF), Green Resources signed an agreement in June 2014 with this entity of the Swedish Church, which allowed it to acquire *ChikwetiForest*. This company had started to invest in pine and eucalyptus plantations in 2005 by the Lichinga plateau and its immediate environs (Lago and Sanga). Out of the 140.000 ha solicited, 106.939 ha were granted, and by 2015 about 17.000 ha of pine and eucalyptus had been planted (MINAG, 2015: 16). This matches information delivered by Green Resources (2015), as they indicate they had planted 16.445 ha. Chikweti operates in the following districts: Lichinga, Chimbonila, Sanga and Lago and comprises the communities described in *Table 6*.

Table 3: Mapping of the occupied areas and planted by Chikweti

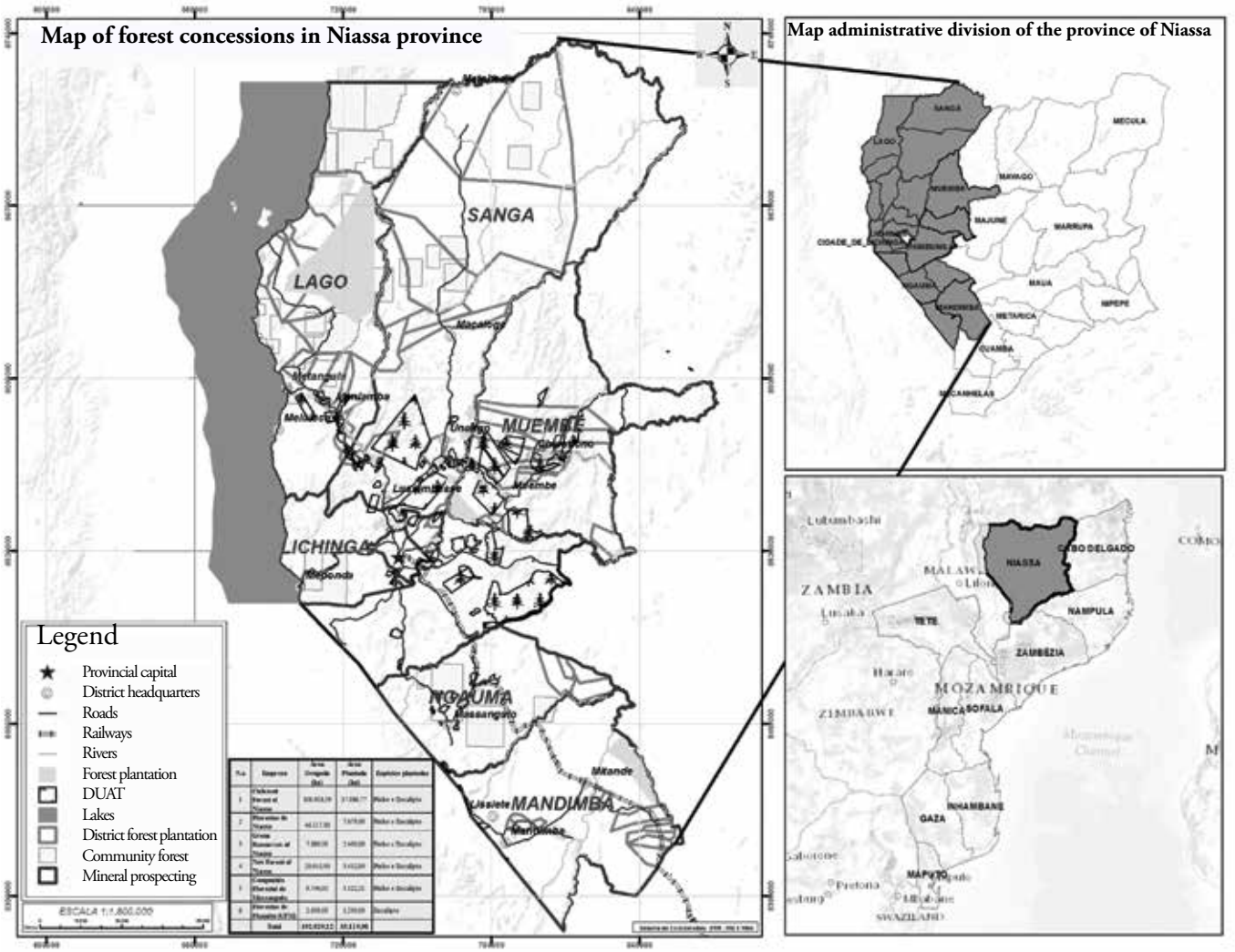
District	Community	Process Number	Area Granted	Area Planted
Lichinga/Chimbonila	*Luambala*	*S/I*	*435*	*172.4*
	Choulue	*1171*	*1000*	*725.8*
	Lipapa	*S/I*	*1976*	*148.8*
	Micoco	*1251*	*650*	*297.7*
	Naicuanha	*S/I*	*1000*	*134*
	Lumbi	*1308*	*3000*	*415.2*
	Lulemile			*490.2*
	Chimbonila 1	*S/I*	*4000*	*700.4*
	Chimbonila 2	*S/I*	*2000*	*752.1*
	Chimbonila 3	*S/I*	*320*	*220*
	Lione	*1172*	*1000*	*706.9*
	Mapalilo			*178.7*
	Camalise			*105.9*
Sanga	*Mapudge*	*1309*	*2400*	*180*
	Cazizi e Miala	*1232*	*950*	*336*
	Micaela	*S/I*	*427*	*153.6*
	Chitula	*S/I*	*880*	*140.2*
	Djawala	*S/I*	*278*	*153.5*
	Licole	*1231*	*20144.6*	*258.4*
	Lipende	*S/I*		*187.9*
Lago	*Bandezi*	*902*	*2629.12*	*1908.5*
	Liconhile	*903*	*1306.27*	*630.8*
	Mazogo	*904*	*1813.84*	*682.9*
	Maniamba-sede	*905*	*1185.16*	*447.7*
	Mecucue	*906*	*1673.02*	*515.6*
Total			**49,068.01**	**10,643.2**

Source: DNTF (2010).

On the other hand, the Massangulo Forest Company, a subsidiary of the *Global Solidarity Forest Fund* (GSFF), has occupied a total area of 9.740 ha, out of which 3.322 ha are planted with pine and eucalyptus in the Ngaúma district.

Figure 2 illustrates all forest concessions in Niassa, and it can be noted that almost all of them are found alongside roads, railways and rivers, as well as populated areas. We can also note that all of the districts selected by the company in Niassa are alongside the Lake. Figures 3, 4 and 5 map the planted areas by district.

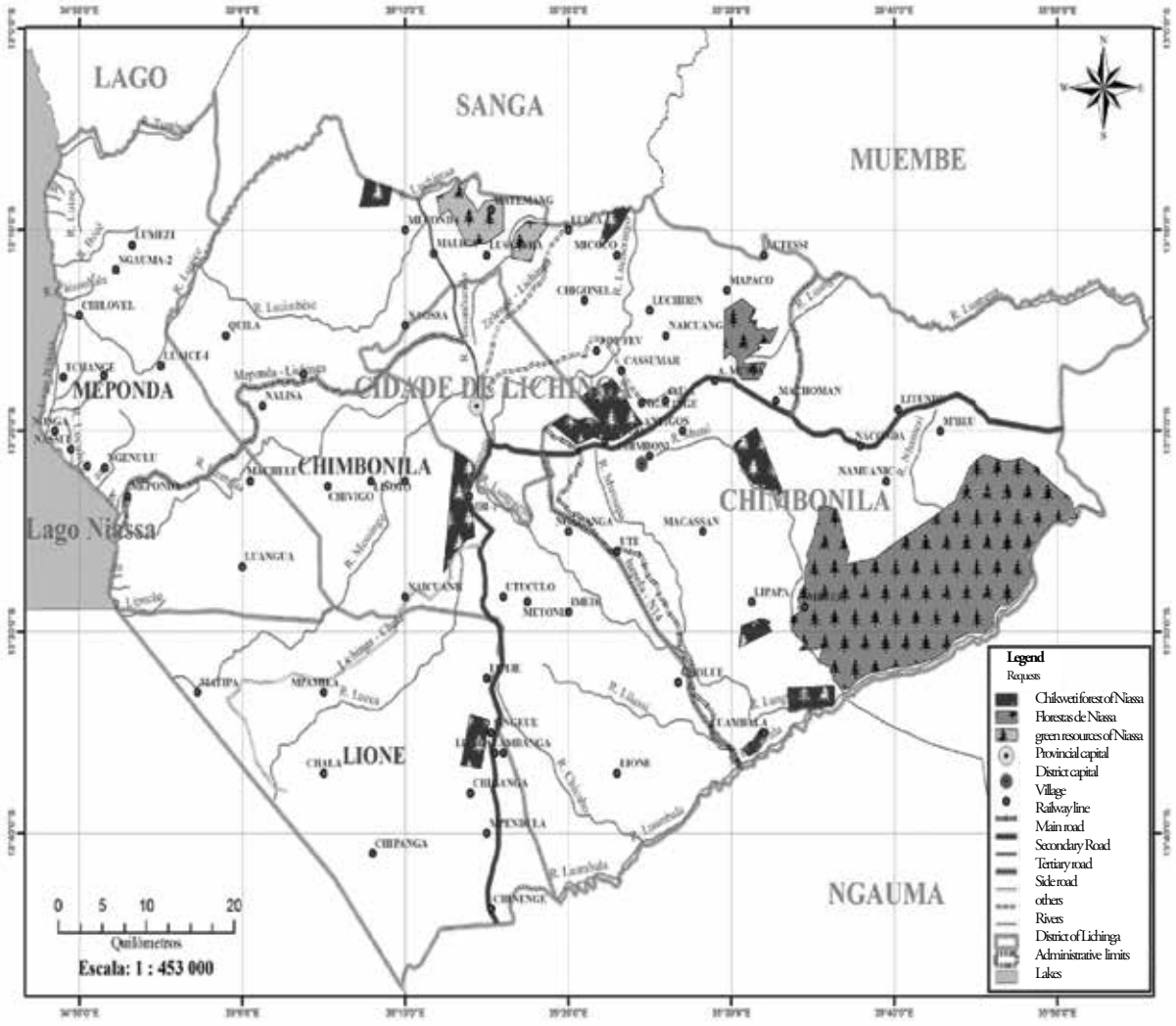
Figure 2: General map of forest concessions in Niassa



Source: Ministry of Agriculture and DPA Niassa (2015).

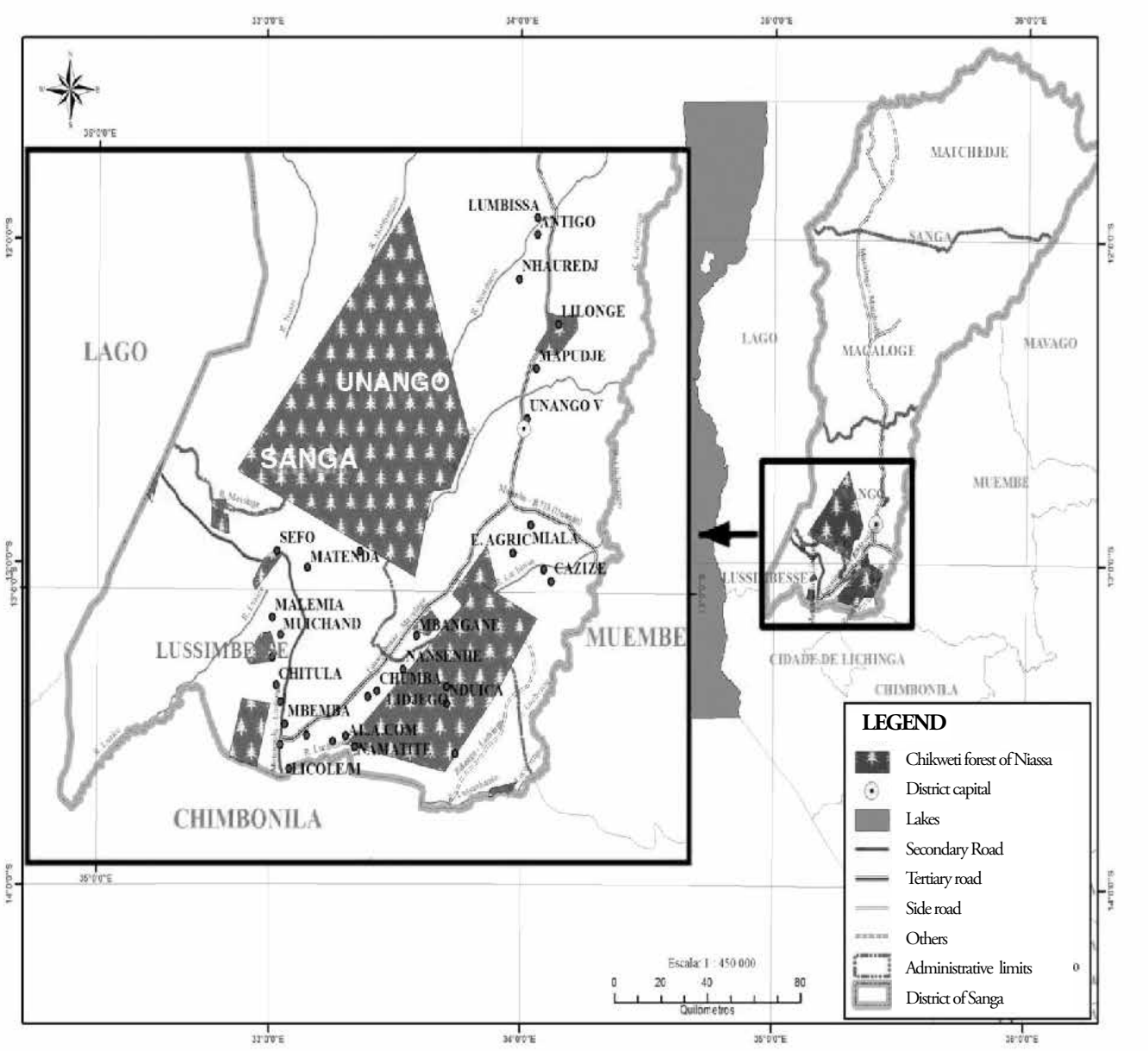
Then the chart representation of GM crops in the three districts.

Figure 3: Plantations in District Chimbonila



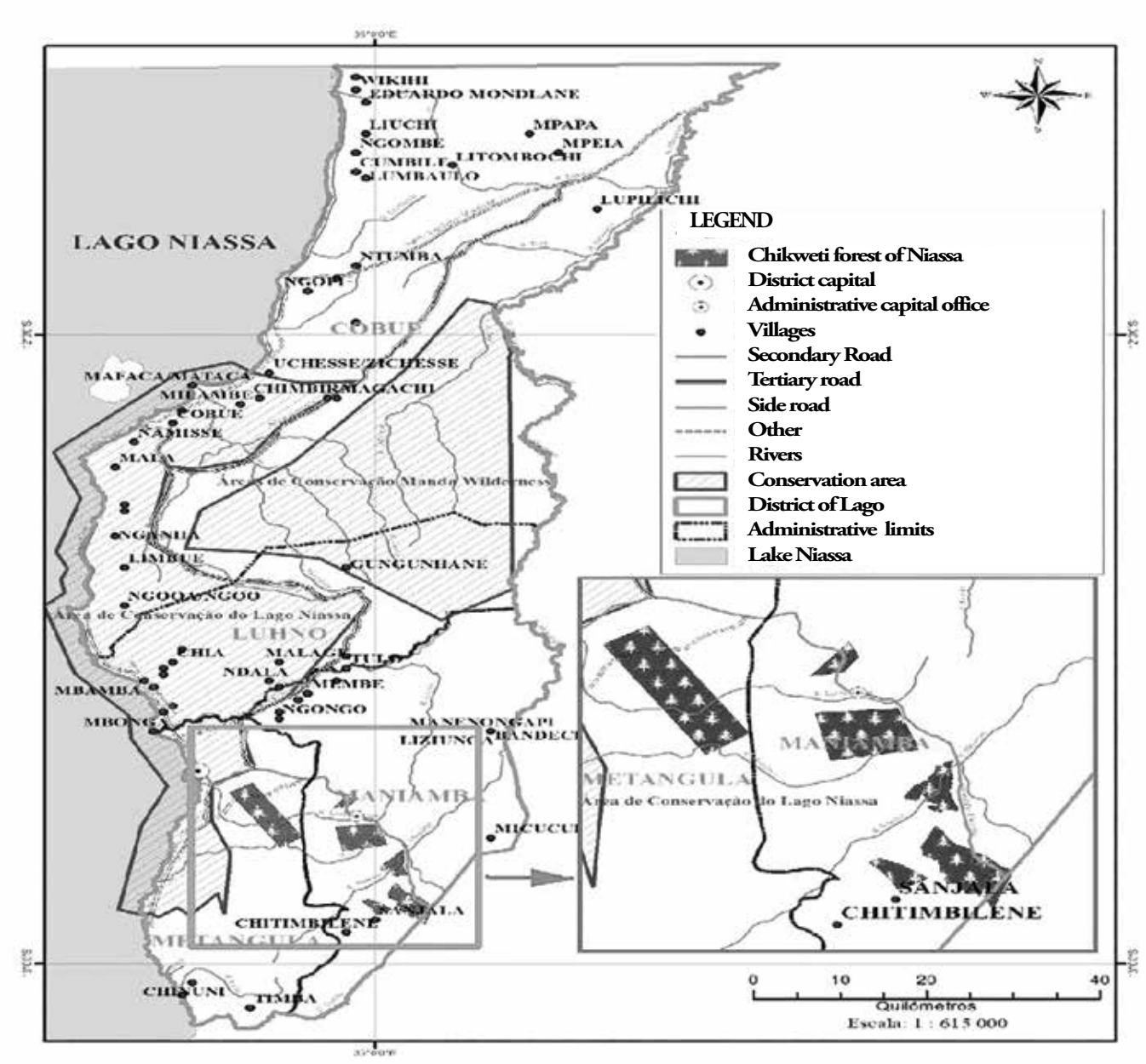
Source: Ministry of Agriculture and DPA Niassa (2015).

Figure 4: Map of forest plantations in the district of Sanga



Source: Ministry of Agriculture and DPA Niassa (2015).

Figure 5: Map of forest plantations in the Lago District



Source: Ministry of Agriculture and DPA Niassa (2015).

Generally speaking, we have found an overlap between the forest plantations and the community areas in all districts, with greater emphasis on the Sanga and Chimbonila districts. Moreover, note that almost all plantations not only stand alongside roads and rivers, but also very near those. Local communities also have their settlements very close to roads and rivers, and so overlaps with the forest companies' DUAT are a recurring theme. Indeed, the Consultants noted that in all of the visited plantations, part of their areas are near or around the residences of local families, some of which standing less than 5 meters away from the roads. The Government of Niassa and GRM are aware of this misjudgment and the need for it to be corrected. Curiously enough, though, no timeline exists for such correction. The Government has further pressed the issue it being difficult to find an appropriate procedure to alter an already-granted DUAT. But the Consultants dismiss such arguments, as clear solutions already exist in current land legislation. A murkier truth may be the unwillingness in bringing the proposals to practice.

In Nampula, *Lúrio Green Resources* (LGR) has acquired in late (December) 2009 from the Mozambique Government a 126.000 ha DUAT valid for 50 years. Until 2012, their operations were experimental plantations,

and in 2013 the first commercial plantations reached an area of 946 ha. In this context, by December 2015, only 4.420 ha of eucalyptus (a hybrid species obtained by crossing *Eucalyptus grandis* and *Eucalyptus urophylla)*[30] have been planted. Table 4 surmises the areas occupied and planted by LGR by 2015.

Table 4: Busy area mapping and planted by LGR

ID	Authorization Year	Proc. No.	District	P.A/Location	DUAT Area (ha)	Cultivated Area (ha)	DUAT Situation
1	22/12/2009	11707/2965	Ribaué	Ribaué	6.016	0	Temporary
2	22/12/2009	11708/2966	Ribaué	Iapala	2.5	0	Temporary
3	22/12/2009	11709/2967	Ribaué	Cunle	10.667	465.06	Temporary
4	22/12/2009	11710/2968	Ribaué	Ribaué	10.895	314.56	Temporary
5	22/12/2009	11711/2969	Ribaué	Iapala	2.734	0	Temporary
6	22/12/2009	11712/2970	Ribaué	Iapala	2.9	0	Temporary
7	22/12/2009	11713/2971	Mecuburi	Mecuburi	8.362	0	Temporary
8	22/12/2009	11714/2972	Mecuburi	Mecuburi	9.212	428.08	Temporary
9	22/12/2009	11715/2973	Mecuburi	Mecuburi	9.8	0	Temporary
10	22/12/2009	11716/2974	Mecuburi	Mecuburi	20.026	0	Temporary
11	22/12/2009	11717/2975	Mecuburi	Namina	28.406	331.47	Temporary
12	22/12/2009	11718/2976	Mecuburi	Mecuburi	5.378	2.256.18	Temporary
13	22/04/2013	3732	Mecuburi	Namina	311	0	Temporary
14		4231	Mecuburi	Namina	75	0	Temporary
15	22/12/2009	11719/2977	Rapale	Rapale	6.56	625.31	Temporary
16	22/12/2010	11720/2978	Rapale	Nampula	2.604	0	Temporary
17	19/08/2010	3131	Rapale	Namaita	34	0	Temporary
Total					**126480**	**4.420,66**	

Source: SPGC and SPFFB of Nampula

The data above were prepared and made available by SPGC and SPFFB technicians, coordinating with Lúrio Green Resources. However, these are presented according to the administrative post or locality where the company holds its DUAT, but not according to the community. In order to complement this information, the Consultants contacted the District Services for Economic Activity and the Locality Chiefs, where we could identify the communities affected by LGR plantations, per district:

- Ribáuè: Kurime, Mucocola, Tapata, Nachipalapa, Lancheque, Meparara, Namacuco.
- Mecuburi: Mutapua-Namina, Nicala, Melola, Nachipala, Ratane, Nhatuco, Intatapila, Cupela, Naculue, Nanrele, Tcaveliua.
- Rapale: Muthita, Namaita, Minicua.

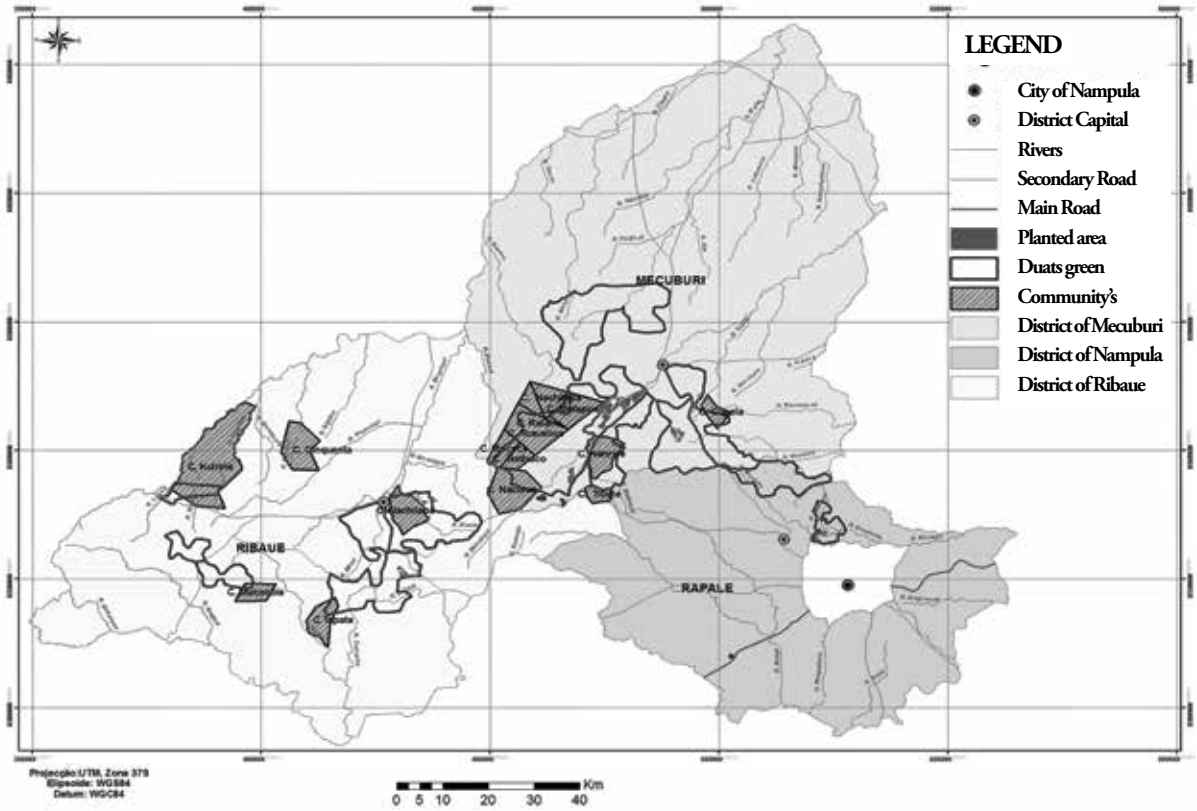
Just like in Niassa, plantations are being made around the railways and the major road in the Nacala Corridor, which flows inland from the Nacala Port. These are heavily inhabited areas, which are home to agricultural activity by the local communities, and are therefore their main source of sustenance and income, as well as dry

30 Source: http://www.greenresources.no/Plantations/Mozambique/Lurio.aspx.

wood, water, small game, medicinal plants, etc. So contrarily to their discourse on occupying degraded lands, this is another example of occupying areas of interest already inhabited by the local communities.

The following map illustrates this overlap between the areas planted and areas occupied by the local communities.

Figure 6: Mapping of communities covered by Lúrio Green Resources



Source: SPGC and SPFFB of Nampula.

In Zambezia, we find the plantations of Tectona and Ntacua. However, GRM informed us that they have not yet begun planting in this province (they only maintain security personnel), as these lands have been acquired only very recently, and other issues are still at play at the moment.

> *"… all of the plantations in the Zambezia province (Ntacua e Tectona) result from GR's acquisition of GSFF in 2014, and were therefore under Chikweti's management. Due to this recent acquisition and the dispersion of small plantation sites, GR needs to define and find management strategies and mechanisms which wouldn´t cause losses for the firm…"*[31]

Tectona Forest of Zambezia, over the districts of Gurué, Namarrói, Milange and Morrumbala, was founded in 2007 and requested an area of 66.000 ha[32] for plantations, of which 13.935 ha[33] were granted in 2011, and by

31 The statement made by the Manager of Lúrio Green Resources in Nampula – Gracindo Sayal interviewed on 16/12/2016 was supported by the General Director of GRM – Arlito Cuco, interviewed on 22/12/2015.

32 Source: Bloomberg. Company Overview of Tectona Forests of Zambezia Ltda. Paper and Forest Products. http://www.bloomberg.com/research/Stocks/private/snapshot.asp?privcapId=184327294. Access to April 28, 2016.

33 Data presented by MOA in February 2015.

2015 4.228 ha[34] had been planted.

Tectona Forest of Zambezia's plantations can be found in the districts of Milange, Namarrói and Gurué. These are very small plantations, and widely dispersed affecting 36 communities *(Vide Appendix 2: Mapping of the Teak Forest of Zambezia plantations)*. No doubt this is a clear example of the *land grabbing* phenomenon and the so-called *«accumulation by dispossession»* that Bjergene (2014:5) referred to in his recent study about Niassa forest plantations (2014) by exploring this concept suggested by David Harvey in 2013, which is in itself based on Marx's concept of «primitive accumulation of capital» occurring in the context of neoliberalism and its influence in capitalism's historical geography (Bjergene, 2014:5). Now, how can one explain that a company requests 66.000 ha and years later only 4.000 ha have been planted? It mustn't have had the plans or the financial capability to go through them when the request was put forward. The Government was aware of that fact, and therefore only 15.000 ha of land were granted. Still, the Government was an accessory to this case, as is indeed the case throughout many similar cases up and down the country.

Ntacua Florestas da Zambezia holds a DUAT for 9.500 ha[35] in a region encompassing part of the districts of Ile, Alto Mulocué and Lugela. GRM-level data collected indicated that the area that has so far been planted stands at about 200 ha[36], which represents 2.1% of the total granted land.

Based on the information provided by GRM and collected through other sources (SPGC and SPFFB) it was possible to match the granted areas with the planted areas in the three provinces where operations are taking place. We can therefore note that only about 10% of the lands granted have been made use of (planted) by 2015.

Table 5: Relationship between the concession and planted areas

Province	Concession area (ha)	Area planted (ha)
Niassa	*114,418*	*19,486*
Nampula	*126,480*	*4,420*
Zambézia	*24,000*	*679*
Total	*264,898*	*24,585*
%	*100*	*9.3*

Source: Adapted by the consultants' team based on the information gathered.

Three major interpretations may be drawn from here: i) the company occupies large areas and leaves the communities without their lands as a common strategy between the big corporations, which consists in maintaining a large land bank to be used in the medium and long terms; ii) the company requests the occupation of large sites for monoculture tree plantations, but is unable (from a financial and personnel point of view) to fully implement the project; iii) a large multinational like Green Resources needs to be very careful in his investments in a country like Mozambique, which it doesn't yet know and which is a still emerging market when it comes to the wood, paper and derivatives industries. Clearly this last explanation is preferred by GRM. Still, the scenarios of land grabbing and accumulation by dispossession cannot be ruled out, from which come many downsides to the communities and local families. The main problem isn't therefore the availability of the lands, but them being occupied by the company instead of providing sustenance to the communities and local populations.

Appendix 3 generally presents the graphic mapping of the areas occupied by GRM in the provinces of Niassa and Nampula, and we again note the overlap between the areas occupied (planted and not yet planted) and the

34 According to MOA data 2015. On the other, the data provided by the company indicate that in Zambezia (Tectona and Ntacua) were planted by 2015 only 679 ha

35 According to 2015 data of MINAG.

36 The consultants team did not work in Zambezia because local authorities did not find it appropriate considering that the rights of way process on the land concerned the former holders for Green Resources is not yet complete.

lands inhabited and planted by the communities. Further note how the plantations are located alongside rivers, roads and populated areas.

2.2.2. Process of land occupation: legal and social aspects

According to Mozambique's land legislation, there are three ways to acquire a DUAT: i) occupation according the usual norms and practices; ii) occupation through good faith, and iii) authorization from the State based on a request *(Art. 12 of the Land Law and Arts. 9, 10 and 11 of the Regulation of the Land Law)*. It must be said that not all options are available to all interest parties or land subjects, given that only Mozambican subjects may acquire a DUAT through usual norms and practices or good-faith occupation. Acquiring a DUAT through a request is the only possible way for companies, both national and foreign.

Therefore, private investment projects geared towards obtaining a DUAT must previously identify the terrain area, involving the SPGC, local administrative authorities and the local communities. This process must be documented in a terrain sketch and descriptive memory *(Article 25 of the Land Law Regulation)*. It is also important to present an exploration or investment plan *(Article 19 of the Land Law)* a social development plan, Environmental Impact Evaluation Studies, cartographical and topographical maps, to proceed with the due compensations and reparations to any possible affected, should they have accepted to cede their lands, and finally to line out and register the land and the respective DUAT *(Article 30 of the Regulation of the Land Law)*. According to the Nampula SPGC chief[37],

> *"…once the investor identifies the requested land area, they must submit a request to the suitable authority through the competent authorities through the SPGC. Afterwards, the SPGC, together with the local authorities and local communities will perform a preliminary identification of the requested land, in order to assess its availability and conditions, which includes such relevant aspects as information about the project's localization, the population affected by the project, the relocation of the affected population, or how the requested area fits the framework for the agro-e-cologic zoning...".*

The community consultations are mandated by law in order to assess if the land is free and vacant; otherwise the land may only be occupied if the requester reaches an agreement for the sharing of economic benefits with the affected communities and families *(Vide no. 3 of Article 13 of the Land and Law no. 3 of Article 27 of the Regulation of the Land Law[38])*. That is to say, the law determines that no investment project may be put into practice without such agreements. Both in Niassa and in Nampula, however, interviewed community members mentioned that not always have these communal consultations been fully in-depth, nor transparent, have been influenced by phony promises, and have not resulted in written agreements between the communities and GRM or its subsidiaries, which begs us to question the legality of the process through which GRM's DUAT were granted. For example, in Namaita-Rapale, where LGR owns a vivarium, some interviewees told us that they did not receive any information about the communal consultation, they merely saw the company establishing its presence; others held that LGR merely distributed leaflets in neighboring communities promising employment, and these communities supported the encounter on the back of these opportunities for jobs and improvements in life conditions. Others still denounced the GRM consultations, as they involved only the local community chiefs and members of the consultive councils[39] .

37 Eng. Cristiano Macario, interviewed on 12.14.2016 on the premises of the DPA / SPGC Nampula.

38 Approved by Decree. 66/98 of 8 December.

39 As you know kinglet entities are easily manipulated by the state authority or by companies. In what regards the Advisory Council these are in fact controlled by local governments.

"…When the company arrive to Namaita, it didn't consult with the community members on the availability of the land; what the company did was to promise jobs to lots of people, and promised to rent machambas and improve the life conditions for the local populations, to build better houses which are yet to be built…"

The families of the communities of Meparara, Lancheque and Namacuco in the Ribáuè district have lamented about the land occupation process. The families feel the process was not transparent, and have only noticed LGR's presence when its machines were already operating in the terrain, and so they could not prevent the company from occupying their lands.

Meeting held in Ribáuè district - province of Nampula between members of Lancheque communities Meparara and Namacuco and the research team that worked in Nampula.

Picture by: Judite Vendo

In their report on the land occupation process undertaken by forest companies in Niassa, Gunilla and Calengo (2009) questioned a strategy employed by many companies, such as Chikweti and Malonda. This strategy, of subdividing the desired area in small parcels (DUAT) below 10.000 ha in size, means the process will end at the level of the Ministry for Agriculture, instead of the Council of Ministers. As per Resolution 70/2008, land requests of over 10.000 ha for large economic projects are subject to greater scrutiny, which must include more qualified proof of the claimant's financial capabilities, and a «partnership agreement» signed with the local communities. It would seem that LGR has learned from Chikweti and Malonda's experiences in Niassa, judging from the data in Table 4, which shows a tendency for DUAT with areas below 10.000 ha (out of LGR's 17 DUAT, only 4 went through the Council of Ministers).

At the time LGR put forward their land requests in Nampula (2009), these demands had just been entered into force, and the subject clearly could not have gone unnoticed by LGR's consultants or even the company [40]heads.

In Niassa, problems with the community consultations have also been recorded. For instance, the consultations regarding the areas of Luambala, Lipapa and Choulue were all held in Choulue, as according to Chikweti they became part of the same process. However, these communities have separate needs, which caused conflicts between the communities and the company, and between the communities themselves. The families residing in

40 Another also questionable expedient used by LGR, and in this particular case from the public probity point of view, it has to do with the fact that the company had recruited to direct your DUATs application process with the Government, a person who had recently in height and senior Ministry of Agriculture official, having precisely the busy National Director function of lands and forests, that is the highest official of the land sector and forests after the Minister. And certainly the same person would occupy one of the leading positions in the company's management structure.

the other two communities have since considered this process to be illegal and void.

The legal process of land occupation by GRM is characterized by situations of land conflicts between the company and the local population. For instance, there have been reports of land conflicts between LGR and farmers in Namina-Mecuburi, resulting from the aggressive occupation and toppling of machambas belonging to the farmers – this case was brought to a court, and the company forced to compensate the farmers. Another conflict brought to court, and one, which still endures today, occurred in Namaita-Rapale, where LGR occupied the lands of a farmer, booted out his workers, gave out its goods and products (as allegedly they had bought the lands from the owner), and proceeded to pollute the water irrigating these lands. The company was made to pay compensation in this case as well.

Aspects which cause land conflicts between the communities and GRM: i) granting and occupying lands already belonging to the communities, and where these develop their agricultural and sustenance activities; the fact that while communities' lands are delimited, such limits are not marked in the terrain (due to its high cost), which allows the company to violate these limits; iii) broken promises; iv) lack of preparation and knowledge of the communities about the real goals and impacts of plantations.

The question of marking leads to the violation of land limits in the communities. For example, in the community of Maniamba (district of Lago), after consultations some areas were granted by the community to Chikweti, yet the company did not respect the limits that placed the markings further afield, occupying lands outside of the agreed limits. To make matters worse, the company later recognized its mistake, but claimed nothing could be done as the plantations had already begun, and the costs would be unbearable to the communities. Members of the community brought us some episodes about this topic[41]:

> *"… We agreed to cede part of our lands, believing that the company would help develop our community, but when we learned that they do not respect us, and have only used us to get to their goals (…), stealing the lands where we had our activities and when we question anything they are unresponsive, clamming that they have started their plantations and so they cannot leave, as the community would be unable to repay what the company has already spent on the plantations (…), one of the company's representative said at the time "we have already planted, so how can we leave? You can´t even pay back what we have spent on the plantation"…".*

When GRM was questioned on the process of land occupation and its implication for the local communities, the General Director and the Provincial Manager of LGR steered away from Chikweti's problems until June 2014, and reaffirmed that LGR and NGR have always followed the national and international legal standards for land acquisition[42], a stance which goes against what has been found in the communities.

The main takeaway from this discussion is that the legal process of land occupation was certainly unclear and not transparent, and it did not fully protect or embrace the members of the communities. Moreover, some agreements were made only verbally, and only with the local leaders, many of which gave away the lands enticed by the promises made by the company of permanent jobs, for them and their relatives. In some cases, there were reports of undue influence carried out by high-ranking State officials, in order to facilitate the concession process of GRM's current DUAT.

This study has established, for the Consultants, that although the country has an extensive legal framework able to protect the rights and interests of the communities and local families, the institutional framework is still fragile and lends itself to accts of corruption and other irregularities, perpetrated or facilitated by unscrupulous

41 Statements of a Maniamba community member interviewed on 14 December.

42 Interviews on 22/12/20116 with the Director-General and the Provincial Coordinator of LGR on 15/12/2016.

officials uncommitted to the public cause. GRM, as is the case with most of investments in land and natural resources in Mozambique, is effectively occupying lands of the local communities, which have been obtained without their proper consent and without paying the due and fair compensations, or sharing the economic benefits. We must therefore question how could GRM obtain the FSC certification, or is this process also lacking in credibility and responsibility?

3. LOCAL ECOSYSTEMS STRUCTURE AND COMPOSITION

3.1. Before the plantations' arrival

An open forest of miombo characterizes most of the land where GRM of plantations are established. Miombo is the main forest type of Mozambique and occupies approximately 2/3 of the national territory surface (Sitoe & Ribeiro, 1995). It is an ecosystem of great social relevance, both economic and environmental, as approximately 90% of the rural population and about 50% of Mozambique's urban population depend on it to meet their food, health, energy and housing needs (Maquia *et al.,* 2012).

Regarding the topographic and physiographic variations, the structure (and composition) of Miombo is modified by climate, soil and altitude, and can be distinguished from one region to another. In much of the land occupied by Green Resources, the Miombo is of dry type and average density. Only in Gurué can find the wet, thick Miombo. It is estimated that we can find in Miombo about 8,500 species of higher plants, of which more than 54% are endemic (Rodgers *et al.*, 1996), which configure a variety of *habitats* for a high diversity of species, fungi, microorganisms, etc. It is important to stress that the Miombo forest has much greater biodiversity than exotic forests.

The climate is humid tropical. The rainy season starts in November and ends in April with an annual average of 1,100 mm of rainfall in Niassa and 800-1,000 mm in Nampula. However, during the dry season (May--October) it can reach up to 190 mm. The annual rainfall is used as a delineation factor that distinguishes between Forest humid Miombo (+1.000 mm / year) and dry Miombo (-1.000mm / year)[43]. So in the humid period plantations may not be constitute a threat to the ground in terms of moisture, but in the dry season, the situation may complicate. Most farmers report that before the implementation of plantation projects they knew when to prepare their fields because the rains were regular, and also report that the rivers flowing through these regions had no water shortage problems as in the present[44].

In relation to the types of soils, the region covered by Green Resources has a diversity of soils in different categories, namely: alluvial, sandy, loamy, brown, colluviums, Mananga, lithic, shallow soils and red textured soils. Note that there is in general a predominance of red soil texture throughout the area targeted by Green Resources. Clay soils also have a relevant weight, especially in the provinces of Niassa and Zambezia, however the Lake District registers large weight shallow soils and Mecuburi District and a predominance of brown soil, as can be seen in *Figure 7*.

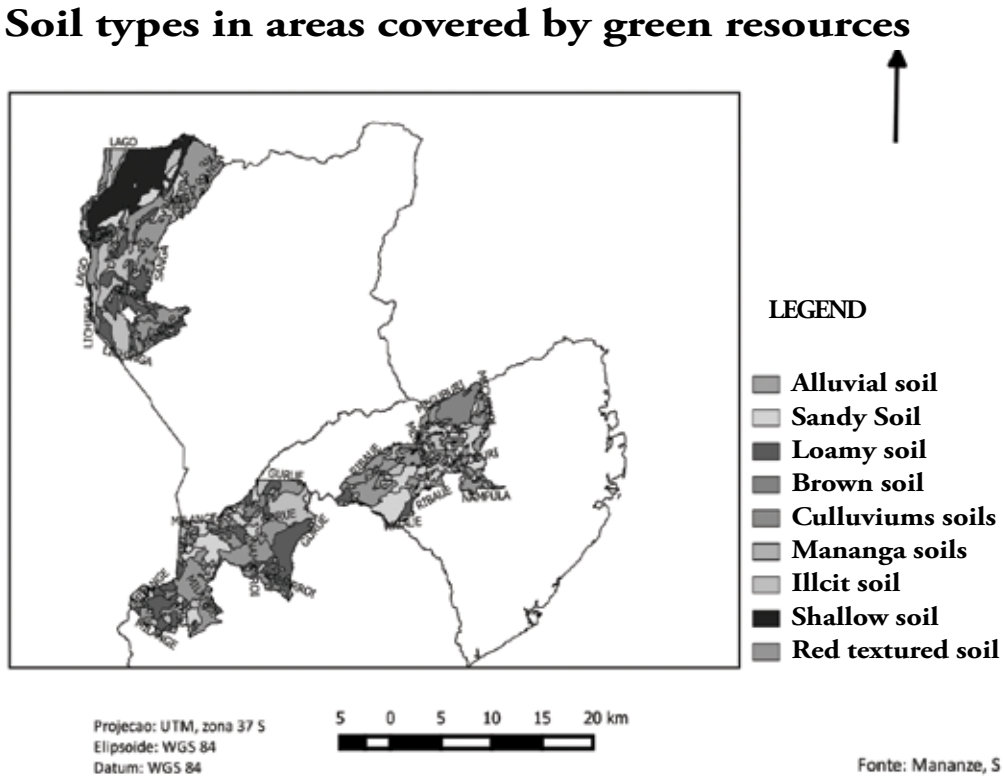
It is also important to understand that in the lowlands, which extend towards the coast, there are soils with basic acid reaction, where farming is limited to some cultures adapted to these conditions. However, in other higher areas from Nampula towards Malema (including Ribaué and Mecuburi) we find forest soils more appropriate for agriculture, with low acidity and developed in a moister environment. In plateaux, mostly found in the province of Niassa, we see vast areas with less busy reliefs, but always with the presence of residual steep elevations[45].

43 www.worldclimateguide.co.uk.

44 These findings are reported in other regions of the country and the world, where there are no plantations. Therefore, you cannot place the blame solely and exclusively on plantations, meanwhile they have their contribution.

45 BOLFE, Édson L. et al. (2011). "Corredor de Nacala" geographic database, Mozambique. Anais XV SBSR, Curitiba: EMBRAPA/CNPM e Mozambique Institute of Agricultural Research. April 30th to May 05th, INPE. 3995pgs.

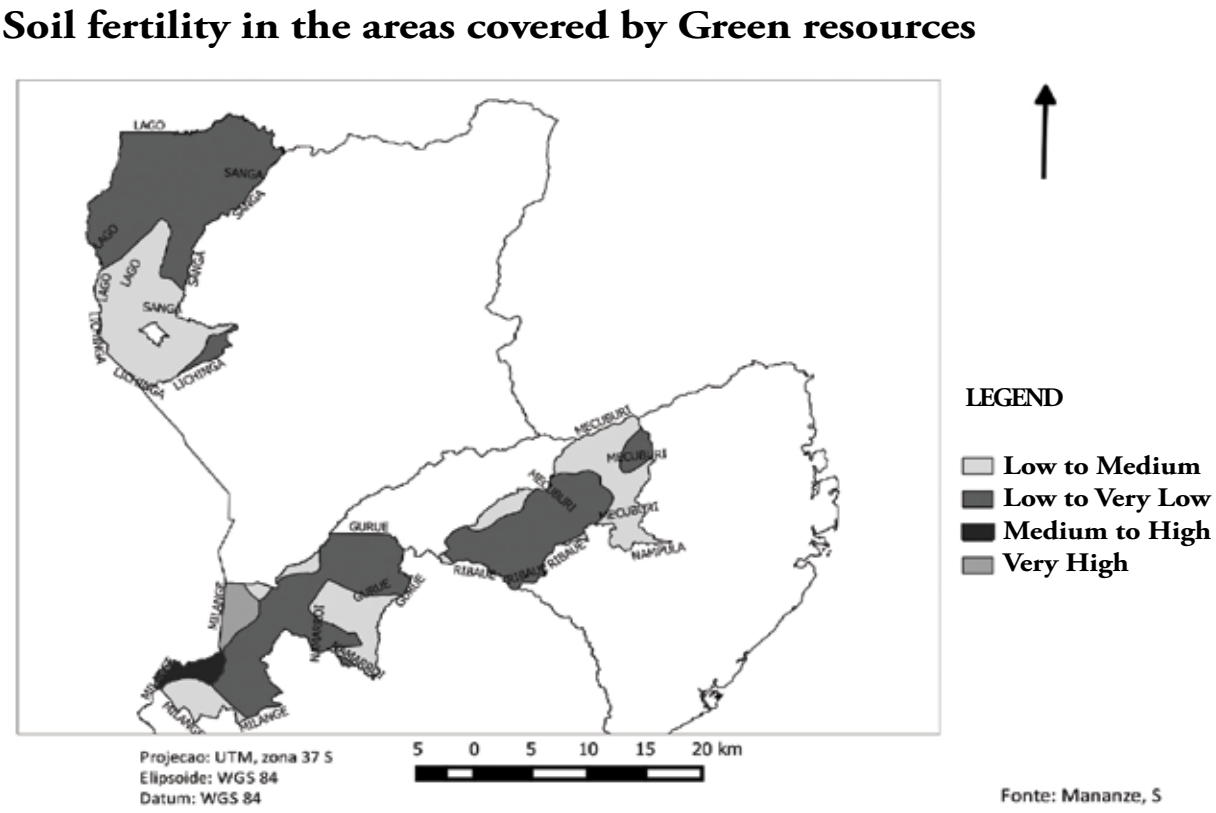
Figure 7: Areas of soil categories covered by GR



Source: Made by Consultants based on data of CENACARTA.

After presenting the soil categories it is important to understand their fertility level. According to the classification of the map below, one can argue that there is a predominance of low and intermediate fertility soils. This combination is mainly seen in the Lago, Sanga, Mecuburi, Ribaué, Gurué, and Namoroi districts. However, the Milanje district has soils with high and very high levels of fertility.

Figure 8: Soil fertility level in the areas of GR



Source: Made by Consultants based on data of CENACARTA.

Residents of these communities say they have always obtained many benefits from the wealth provided by nature ranging from food (food crops, domestic and wild animals, berries, etc.), energy (firewood and charcoal), water resources (rivers, lakes, ponds, etc.), raw material for domestic use and for family industry (stakes, bamboo and grass to build houses, wood, cotton, etc.). The most highlighted aspects by the communities are those of food resources, energy sources such as firewood and charcoal, and finally the water, but they said are beginning to feel the difference.

3.2. Current Situation

GRM has always said on their websites, in their presentations, their reports and other communications, that they are out to develop a sustainable activity, are concerned with the conservation of the environment, and adopt national and international standards of environmental sustainability as well as being linked to the national AIA[46], FSC[47] certification by CCBA and the CDM.

However, it is worth noting that the species being planted by Green Resources Moçambique are pine and eucalyptus. As for pine this includes the following species: *Pinus caribaea, Pinus elliottii, Pinus kesiya, Pinus oocarpa, Pinus patula, Pinus taeda, Pinus tecunumanii. In terms of eucalyptus we the following species Eucalyptus camaldulensis, Eucalyptus grandis, Eucalyptus saligna, Eucalyptus tereticornis, Eucalyptus urograndis e Eucalyptus grandis x Eucalyptus Camaldulensis* (hybrid), Eucalyptus grandis x Eucalyptus urophylla (hybrid). According to

46 For example, in EIA done in 2014 by the NGR, in particular NGR plantation they were not raised major problems that limit their investment.

47 FSC principles: 1) obedience to the laws and principles of FSC; 2) responsibilities and rights of ownership and use of land; 3) the rights of indigenous peoples; 4) community relations and workers' rights; 5) benefits of the forest; 6) environmental impact; 7) management plan; 8) monitoring and evaluation; 9) maintenance of high value forests; 10) plantations (Zerbini, 2011).

the company these species were selected from a global database of invasive and non-invasive species in Mozambique *(Global Invasive Species Database)*.

GRM maintains that all these species are not invasive and therefore do not affect biodiversity. However, this argument is unconvincing because you cannot reduce the impact of plantations only to their invasiveness or lack thereof, since there are other elements such as planting conditions, the influence it has on the water bodies, the proximity to the basin river, reduction of wild *habitat*, the use of pesticides and chemical fertilizers, etc.

There is an extensive positivism and negativism literature on the impacts of monoculture tree plantations for the environment. For example, authors such as Rezende *et al.* (2011: 7), adopt a positivist perspective that argues that "eucalyptus is a plant that, like others, needs to capture CO2 and O2 from the air, for photosynthesis and breathing, and need water withdrawn from the soil for photosynthesis. After precipitation is on the ground, the water is sucked by roots, evaporated back to the atmosphere, and is precipitated again on the ground. This consumption of water does not mean that the eucalyptus dries the soil and impairs the water table in the region where it operates, as many say. The soil dryness in eucalypt forests depends not only on water consumption by plants, but also the precipitation on the growing region."

An oppositional perspective is followed by several authors who raise a number of negative impacts of eucalyptus, namely: i) desertification of climate and soil, whereas the large eucalyptus forests require a huge amount of water, and according to *Ecol News* (2008), each eucalyptus foot needs, in order to grow satisfactorily, about 30 litres of water per day; ii) soil dryness and increased exposure to erosion, since the eucalyptus is planted and after a few years is cut, leaving the soil poor and exposed to erosion; iii) reduction of biodiversity, given that eucalyptus is not grown together with other plant species, which decreases the forest plant diversity in the region, since it also prevents small shrubs and grasses from growing and developing; and in that context the lack of fauna diversity, because the only animals that can survive these types of forests are ants and predatory birds using eucalyptus trees as shelter (Agência Brasil de Fato, 2006); and iv) transformation of the landscape, where some areas of eucalyptus plantation ecosystem reach regions at risk, which ultimately transforms the local landscape, making it lose these particular characteristics (Cardoso, 2008: 5-7). There is also a discussion of absence or little diversity of animal species in eucalypt plantations, some authors argue that is the most unquestionable negative impact. Some authors say that, other the European bee and the koala, which lives in Australia and feeds on eucalyptus, no other form of life survives in these homogenous forests. It is indubitable that a monoculture of eucalyptus or any other species is admittedly less capable of supporting a high diversity of flora, due to unavailability of appropriate niches (Viana 2004: 10).

Some aspects were raised by Vital (2007: 237-239) on the elements that influence the current impact of monoculture plantations, namely: pre-planting conditions, the water regime of the region, biome insertion of forestry, and the revolving techniques used. In addition to these five aspects the analysis will take into account the certification FSC principles.

Regarding *plantations preconditions,* this study explores the quality and importance of the land (soil) where the plantations were established, whether it is arable land, pastures, degraded or erosive. The map above *(figure 8)* shows that almost all of the Nacala Corridor has low to mid-fertility soils, but that does not mean that these lands are degraded or erosive, as it is in them that communities develop their agricultural activities. In addition, most crops (cassava, corn, peanut, bean, sesame, etc.) grown in this region are developed normally and ensure the survival of the population.

In almost every community we visited we found that plantations are around or near the farms, or circumscribe the homes of local families (Figure 9). One of the negative impacts of this is that in addition to being deployed in the lands where the population lives, they advance towards the houses and force residents to move to remote areas.

Figure 9: Example plantation near farms and homes

This is an example of a plantation that is nearby houses (in this background is the Kinglet's house of this community) and fields. This community complains that they once used this land to practice agriculture, but are now forced to travel long distances to the mountains to cultivate fields that earn them almost nothing.

Mutapua-Namina Community, Mecuburi District.

Picture by: Fernando Machava

Based on the picture above you can confirm that this land does not show signs of erosion and is not a grazing land, but a land where one could normally practice agriculture (fallow system or otherwise). There are several other examples of plantations around houses and fields that can be seen with the "naked eye" for anyone who transits by rail or major roads along the Nacala Corridor.

Regarding the *water regime of the region* – according to Poore & Fries (1985), the faster the growth of a tree, the higher its water consumption. According to Foelkel (2005) it is estimated that the evapotranspiration range of a eucalyptus plantation is equivalent to rainfall of around 800-1,200 mm / year. Vital (2007) states that only in regions of low rainfall below 400 mm medium / annual, eucalyptus could cause dryness of the soil, that is, bring impacts on groundwater, small streams and watersheds, and all ranges from region to region. Thus, there are three elements involved in this process: the precipitation level, the distances of plantations of watersheds and water table depth.

Regarding the rainfall level it is important to note that with the exception of Rapale, particularly in Muthitha community, the plantations are located in areas with an average annual rate above 400 mm (less in dry periods). No wonder why the above community has complained of water scarcity and drought of local rivers. Here we can point that plantations even follow the course of the Monapo and Muethasse rivers that are the source of drinking water and natural irrigation of the fields. The team visited one of these rivers and found that it is drier precisely in the area where the crops are closer, and the local population claims that this did not happen before the plantations and the local collective consciousness all this has to do with the presence of plantation GRM. For certain, water is scarce in this community and this, compounded by unfulfilled promises by the company, causes discontentment in local communities and provides an environment of a certain social tension.

Regarding the distance from the plantations to the river basin and the depth to the water table, we find that most of the plantations (mainly Lúrio Green Resources) are located near rivers, a situation that is seen by communities as an act of cruelty on the part of company because in their perception, the company came to take away everything (earth, water, wood, etc.).

"…They came get us all fooled and took our land, cleared our forests, planted near our rivers and we will be with the one (…), we help those rights because we do not respect…".

Figure 10: Current situation of Monapo River next to Muthita plantations at Rapale

Current image of Monapo River second members Muthita community lately is under these conditions, whereas before it was the source of water. The same applies to the Muetchace river that is located even closer to the plantations. The people of this community go about 10 km to reach water.

Picture by: Fernando Machava

The impact on groundwater, still according to Vital (2007), depends on the location of the plantations in relation to the watershed. If the plantations are located in higher altitudes, the roots of the eucalyptus trees, since they do not exceed 2.5 m, do not reach the groundwater. If, however, forests are planted near the river basins, eucalyptus start to consume more water, grow faster and can have negative impacts on groundwater. More precise studies are needed to examine the relationship between the depth of the water table and forest plantations by GRM, but what was observed in the communities visited, was that most of the plantations were established over river basins, which runs counter to several studies' recommendations on the matter. Here we specifically recommend an action by CSOs in order to bring the state to establish by law a minimum distance between the plantations and the courses of the river basins, say, for example, 50 meters.

Regarding the *biome insertion forestry*, the impact on local biodiversity also depends on the biome and the prerequisites of the region where the plant is located. When they are deployed in areas where there were native forests already, plantations entail reduction of biodiversity. According to the communities interviewed the company tames the forests to plant exotic trees. It must be emphasized that the overthrow itself, even if it is a forest that seems minor, may not have serious environmental effects, but will have negative effects on the inhabitants of the ecosystem because it can remove an endemic vegetation occurring only in that place or in fragile or sensitive ecosystems. Thus, it would be advisable that the company avoids deforestation to plant new areas because it adversely affects the ecosystem.

As for usage techniques, we highlight the importance of branches, leaves and bark that can be utilized as nutrients when returned to the soil, and planting geometry. In fact, crops with low density of trees per hectare favour the development of other species including crops. The intercalation of exotic and native forest plantations in the form of mosaics (known as "ecological corridors" or "biological corridors") can help in environmental sustainability and protect biodiversity. These plantations can allow the passage of wild animals and will therefore widen the available *habitat* for local wildlife. GRM, in the voice of its Director General in Mozambique, said that the company uses a number of positive ways of management of their plantations.

> "…In the case of eucalyptus, there are several ways that the company adopts to integrate the plantations to the natural environment. Trying to maintain or increase biodiversity in the planted areas through technical planning (selection of suitable soil for planting, conservation of native forest patches), the establishment of natural vegetation corridors for the wildlife drive, and adoption practices to ensure the system's sustainability. Everything is subject to independent audits already carried out five years.".

Clashing with these company statements, the Consultants found another reality on the ground, i.e. the observed reality is different. For example, the company states that it seeks to maintain biodiversity in the areas planted but they forget that exotic species can misrepresent the *habitat* of some species and for that reason they cannot adapt and consequently may migrate or become extinct from their original location. As for the selection of suitable soil for planting, we find on the ground that almost all plantations are around the fields, some are even surrounding dwellings. So even with low fertility lands, it is in them where communities develop their agricultural activities. Furthermore, and perhaps most importantly, we must consider that crops such as cassava, widely grown in the study areas, are tolerant of low soil fertility. The Director-General goes on conducting independent environmental audits promoted by GRM, but when they were asked, the answer given is that it was not possible to share such reports because they are sensitive company information.

For the consultants, and in a preliminary analysis, it can be concluded that the company so far is not out to develop a sustainable activity, given the facts raised here. However, it is important to note that our assessment and conclusion is based on reports, quick observation on the ground of the facts and the ecosystem, therefore it needs more thorough means of verification and more qualified scientific and technical resources. This study does not intend to bring absolutes; there are some situations that could be taken as a mere coincidence, but the company needs to take these into consideration. It is that in almost all the communities we observed it was reported to us that the company plant stood near or along rivers, the wells no longer took water in the same way, that farmers' incomes fell, cassava cuttings no longer develop, the distances to reach logs are increasing, the company breaks down native trees to plant fast growing exotic plantations, and that the company uses toxic chemicals that harm the soil and water. These facts all contribute to see that there are conflicts between the communities and the company.

Another aspect that is certainly not very visible to the families of the communities visited, given its non-tangible nature, is the importance of ecosystems for coastal protection services, air purification, soil fertilization, climate modelling, decomposition of pollutants, sequestration of atmospheric carbon, water cycle, among others. No community member mentioned these aspects when asked about the impacts of plantations in the ecosystem.

One of the main questions that this study brings has to do with the Environmental Impact Assessment Studies: why are they even approved by the competent authorities with so many concerns and problems reported by local communities. Why do subsequent study reports conducted at a time when we already have some experience on the social and environmental impacts of monoculture plantations of pine and eucalyptus devalue all those facts? For example, recently (2014) we have seen an AIA study of Niassa Green Resources[48]. It is a study in the establishment of plantations blocks on Malica and Ntiuile in the Sanga district in Niassa but the same report does not present the limitations of the project, nor does it raise situations that hurt the affected communities or the local ecosystem.

48 Study is called "Forest Project Proposed in Niassa – Preliminary Report of Environmental Impact and Social Report". For presentation in MICOA and Public Consultation. Made by: CES - Coastal & Environmental Services. Copyright Niassa Green Resources. 2014.

3.3. Perspectives for the following years

Plantations are being established in miombo areas, the most important forest type of the country, source of the main wood species and habitat of tourist-interest fauna species. The introduction of exotic species' plantations at the expense of the overthrow of native forests, as we have reported, will result in a profound change in the composition and structure of the plant component of the ecosystem in the affected areas. This change may contribute to many wildlife species (birds, reptiles, mammals, insects, amphibians, etc.) migrating to other places or simply cease to exist since that the amount and diversity of animal species that can be found in a given forest ecosystem depends on the number of available niches in the *habitat* and monocultures curb these niches.

It is important to understand that plantations cover only 10% of the area available for GRM to implement its projected monocultures. It should be stressed that if this pace remains and no one intervenes, in 10-20 years the Nacala Corridor will become a "green desert" through landscape homogenization, with consequences for the quality and quantity of wildlife species' *habitats*, of services ecosystem, as well as the benefits of these services to local communities.

The company's prospects for growth are great, and these include establishing new plantations, carbon sequestration and biomass production projects, which aim to create an energy production plant from biomass and gasification process, using as raw material sawdust and slabs, waste poles, chips, etc. From 2020 it is projected they will process wood for plywood (chipboard) and particleboards.

Another aspect that could pose a risk to environmental and social sustainability at the local level is that almost all of the company's plantations in a given area are of the same age, are made in blocks and with very small spacing. Which means they do not allow the development of other activities and the crops will be practically removed at the same time, while leaving the land bare and vulnerable to erosion. But the company, because it has a lot of land, can plant in other areas abandoning the land that they eroded. One of the justifications brought by the company is that these plants will be used for carbon offset. But we must understand that this advantage does not have a significant environmental value (only commercial) in that it will always be for long.

It is important to consider another aspect, that GRM is not a reforestation company, but of forest plantations for commercial purposes (they will plant, tear down, process and sell). So the monitoring of their activity should be tighter.

4. IMPACT OF GRM PLANTATIONS FOR LOCAL COMMUNITIES

4.1. Initial perceptions of the communities on the impact of the GRM plantations

Initially and in general the plantations of pine and eucalyptus monocultures were seen, and rightly so, for many social sectors as an opportunity to leverage the national socio-economic development and to improve the welfare of local communities and families. Especially because the communities welcomed the forestry companies (Chikweti, Malonda, Niassa Green Resources, etc.) with much enthusiasm, believing that these would be the solution for the eternal economic and social problems and the development finally had knocked on their door. And the main argument used by companies to convince communities to surrender their land or not to put many questions about the methods used by companies to get the land was the availability of new land, virgin and more fertile, the payment of fair compensation, a durable supply of well-paid jobs, the allocation of houses with improved conditions, the construction of schools, health clinics, bridges, etc.

But the dream soon became a nightmare and conflicts arose. Communities complain of general failure to fulfil promises made by companies or when they do compliance is impartial and outside the agreed deadlines. Taking the example of the Bandeze locality, communities are worn down because Chikweti had promised to build a "bridge" that allows the connection with the new production areas where they were forced to transfer their agricultural activities given the company's presence in their usual areas. Because with the arrival of the company families no longer had machamba farms because their lands were occupied and they had to look for other land for cultivation. The company promised permanent jobs but after the season for the clearing and seedling of plantations, these people were dismissed.

The members of these communities blame themselves for their "ignorance" on the subject that allowed companies to manipulate them.

> *"The blind when it promises an eye and is not given, first it is considered dumb on the other revolts."*
> Imedi Aissa - Nduna de Mazogo Issa

In Muthitha, Rapale district, the company promised better living conditions, opening water holes, employ all men and women of working age, support for agricultural seeds, build hospitals, schools, etc. But none of that exists today. The population is unhappy and promises revolt.

In Ribaué, in the scope of the community consultations, the company promised to rehabilitate a hospital that was in ruins but the hospital is still the same today. They have also promised to compensate communities both for its food crops (cassava auctions) and for the mango and cashew trees, distribute new land to practice agriculture, open water holes (two holes were made but no longer work), etc.

It seems that companies have taken advantage of the ingenuity of local communities and then received little to almost no support from the government in their interaction with the company for such a complex process like this.

4.2. Impact on production systems

The provinces where the GRM plantations are, in spite of its low to intermediate fertility soils, have abundant water resources and have a high agricultural potential. The agriculture practiced by families is subsistence farming and the system is basically traveling. Areas subject to this type of agriculture generally form cropland mosaics and fallow areas at different stages of development. Cultivation is usually done in intercropping, including cereals (maize, sorghum, millet), tubers (cassava, sweet potato, taro), legumes (peanuts, beans) and vegetables and most of the volume of these crops is consumed within the household family; any surplus can be sold.

Thus, most of the visited families of the communities use the traveling production system. According to the communities, production systems have been completely changed with the establishment of plantations. Most of the farmers had to move from the land where they grow food crops to make way for plantations and this significantly affected their way to develop agricultural activity and generate income.

It should be noted that the eucalyptus plant does not prevent the site where it is implanted from the possibility of other consociated forms of production with greater spacing between the trees, as is the case with the consociation of legumes, corn, etc. This factor would help in maintaining the production systems used by local communities. However, we must remember the allopathic effect of Eucalyptus[49], since even if that intercropping were currently possible, in the future families would resent this effect should the germination of food crops be affected.

In the beginning, in some communities the company gave producers the possibility of intercropping with food crops, which has not been possible in practice due to the small bar between the trees that does not allow the normal development of crops and also due to the application of herbicides, which has lead the idea to be abandoned. Some members of the local communities maintain that the process had no positive results.

> *In the first year of the arrival of the company (2009 – Mecuburi), we tried to produce from plantations, but did not have good results and our willingness decided to give up and look for their lands. We actually had no idea of the consequences of these plants*[50].

This situation causes the farmers to produce the consociated cultures without rotating them to the improvement of soil fertility and nutrient recovery. Therefore, the production system was negatively affected mainly by the unavailability of land which could be used for the practice of agriculture or because families had to move to other regions in search of land that has the bare minimum conditions for agricultural production.

The farmers are required to produce in small areas, usually far from everything (markets, schools, hospitals, transportation, etc.) and their normal habitat, which negatively affects their way of life, their survival, their income, and their socio-economic and cultural well-being.

49 Research in allelopathy, show that the species Eucalyptus globulus Labill and Eucalyptus grandis, Eucalyptus citriodora are synthesising of allelochemicals. soluble phenolic compounds in water, volatile terpenoids and other inhibitors are found in its leaves. Some of these compounds can be quickly eliminated, but others can remain in the soil for long periods compromising its use in subsequent crops. The eucalyptus may lead to a reduction in the germination, growth and development of vegetable crops (Souza and Cardoso, 2013).

50 Statements of a member of Mutapa-Namina community identified by UNDAF Andrade, interviewed on 15/12/2015.

4.3. Impact on food security and nutrition

It is important to stress that in Mozambique the family or subsistence agriculture occupies much of the population (about 75%)[51]. Therefore, we still find subsistence production for feeding and often no storage capacity of the production surplus, a factor that contributes to food insecurity. In this context, the impact of forest plantations on agricultural land, water resources, flora and fauna have influenced the infeasibility of family farming in the communities involved. In all provinces where GRM intervenes monoculture plantations have destroyed large areas where these families cultivated their subsistence crops.

Agricultural production base of these communities' reveals predominance over 90% of face food crops for subsistence, such as corn, beans (butter and cowpeas), groundnuts, cassava, sweet potato, sorghum, millet and rice (this at least scale). The vegetables also highlighted. Most respondents (most notably Lancheque, Meparara and Namacuco in Ribaué; Namaita and Muthitha in Rapale, Bandeze headquarters, Liconhile on Lake; Micoco and Lione in Chimbonila) argue that before the establishment of plantations, families produced enough for food and trading, which helped to improve their conditions.

In general, the families in the community hold that they have already begun to feel the negative effects of plantations in their agricultural income, which forms the basis of their livelihood. They consider that with the expansion of GRM there will be fewer areas to produce food, to search for firewood, water, etc. The production of food crops is considered around the region as the main way to ensure food security and fight hunger in communities. So they consider the planting of eucalyptus and pine came only to hinder their lives because they do not favour them at all.

For example, in Ribáuè, before implantation of eucalyptus monoculture plantations, the most cultivated agricultural products were beans, corn, tomatoes and cabbage, peanuts, etc. The farmers of Namacuco, Lancheque and Meparara argue that with the implementation of the project of planting eucalyptus trees, their income fell sharply, and they currently survive only by growing and selling cassava. Many farmers report that their diet is made based on cassava, which certainly is contributing to malnutrition.

> *"…Before we had the drought or other natural elements as opponents, now in addition to these we have the Green as an added problem in our struggle for survival. Before we produced corn, beans, cassava, vegetables, but now only remains for us to cassava because the land no longer has conditions for the cultivation of other crops. Our children are showing signs of malnutrition because they eat cassava three times a day, if we cannot sell cassava to buy corn…"*[52]

Also in Ribáuè district, for example a farmer[53] reported that they have now got a very productive area of about 3 ha, which produces cassava, corn, peanuts, and other crops, amidst claims that could it yield about 1-1.5 tonnes / ha of maize (about 30-50 bags of maize sold on average per 750 meticais each bag). So we are talking about an average yield 22.500 to 37.500 meticais per season only with corn. As for the peanut crop, it yielded about 20-24 bags per season, and therefore a minimum income of 50,000 meticais.

In Mecuburi communities reported food insecurity caused by quality and size of the land where they grow today. Previously they owned land of up two hectares (2ha), but now use at most half a hectare (0.5ha), which in their perception greatly limits their income and cause famines.

51 According to João Mosca. Family Agriculture in Mozambique: Ideologies and Policies. CEsA-ISEG. 2014.
52 A community member Lancheque, identified by Mr. Victorino, interviewed on 17.12.2015.
53 A community member Lancheque, identified by Mr. José Momula, interviewed on 17.12.2015.

"…We had large farms, some reached or passed two hectares, but now hardly find someone with half a hectare. In addition to these farms are away from our homes and we are forced to travel long distances, so the yield dropped a lot and some spend up hungry…)[54].

Some families reported famine, in that the fields already do not yield in the same way, in some cases we have reports of families that have no land to produce because their fields went to the company, which promised a redistribution, but in many cases did not make any such distribution, or when it did happen these were wastelands without conditions for the practice of agriculture.

Another farmer in Ribáuè - Meparara reports that their income has dropped dramatically with the implementation of forest plantations in the region. He argues that the only support he and his family have today is cassava, both for consumption, and both for sale. He points out that over the last few years his food situation became worse because the land that currently has is shrinking and does not serve to produce other crops other than cassava.

"…Really went wrong for ignoring the things when they came here in our community, trust them and leave our lands with them, full of promise, but really did not know what we were doing. Our land no longer has conditions for the cultivation of other crops, except cassava and that worries us because we do not know how to live, hunger is taking care of us…"[55].

ROADs[56] reported food insecurity resulting from forest plantations in Niassa. According to them, most of the districts (Chimbonila - maize) and (Muende - beans) covered were major producers of corn and beans, but now residents of those districts have to move to buy these cereals. For example, a can of corn in Chimbonila costs about 150 meticais, but now local people have to move to other districts.

GRM develops an agricultural development program that started in 2011 with the aim of improving food security in local communities. The company claims that more than 1,500 farmers are involved in the program. As we saw in Mecuburi, the company provides corn seeds, beans, soybeans and peanuts and the community has *focal points* trained to guide farmers. As payback, 10% of production goes to the company, who is the one on the lookout for the market and negotiating the purchase price.

According to the Director General of GRM, the project arose because it had transpired that food security is a problem in that region of the country, therefore they are currently implementing programs in support of food security and income generation whose objective is to increasing income by improving the productivity of this activity. Around 1597 families have been assisted by this program in Niassa and Nampula. Soybean and sesame are the most distributed crops by the company. However, communities complain that the seed is sent out of the time and the company defends itself saying that communities have no culture of saving seeds. Some consider that the prices are fair and market-dependent (Mecuburi), others believe that the company dictated the prices and harms communities (Ribaué).

54 Statements of Alberto Munkela, president and chairman of the CGRN location, interviewed on 15.12.2015.
55 Identified by Mr. Antonio Community Biscuit Meparara, interviewed on 17.12.2015.
56 For its provincial coordinator, Emilio Mon, interviewed on 07.12.2016.

Table 6: Production of communities, families and schools

Culture (ha)	NGR	LGR
Soy	250	135
Sesame		125
Cowpe Bean		101
Soroco Bean		64
Corn		42
Total	250	467
Nº of families	500	1097

Source: Green Resources Moçambique (2015: 27).

Another program developed by GR for food security is fostering community eucalyptus monoculture plantations designated by the company for *"auto-growers"*. It is an agro-forestry program, the company provide seedlings to farmers who are geared towards planting eucalyptus trees in their fields, and the company promised that after five years would pay 750.00 MT per plant and the minimum required was a plantation of a hectare per person.

Figure 11: Example draft of an "auto-grower" plantation

The farmers challenge the program because after a while the company reported that the farmers could do what they please with plantations. After five years, the company says nothing about it. One of the incentives for adherence to the program was the provision of solar panels *(Figure 12)* to farmers to plant one hectare of land. However, these panels serve only, according to our respondents, to gear small radios and do not compensate the wood that many families lose to tear down forests to develop community plantations.

Figure 12: Solar panel offered under the forest development program

This figure illustrates one of the incentive mechanisms that LGR used in Nampula, specifically in Ribáue, Lancheque community to mobilize the peasants to join the development program of eucalyptus monocultures in their fields. Therefore, the peasant had to tame their land and received eucalyptus seedlings to plant a plot of a minimum size of 1 hectare, and the promise was later sell the wood to the company, although currently the company has no responsibility, are free to do what they please.

Picture by Fernando Machava.

The main finding to be drawn from this discussion is that despite some "initiatives and efforts" developed by the company to ensure the food security of households covered, the covered communities are increasingly resenting this phenomenon and some "pockets" of affected areas by hunger are emerging and spreading the logo of the Nacala Corridor. Therefore, directly or indirectly the company may be influencing to food insecurity along the covered communities.

4.4. Socio-economic impact

The analysis of socio-economic impact focuses on the following indicators: improvement of housing conditions, transportation, communication, education, health, employment and local development initiatives.

Making a superficial analysis, but based on observation and the reports of the communities, we maintain that some indicators improved in some areas, particularly in relation to housing, transport, communication, etc. Of course this was not only given the presence of GRM but also mainly due to the global dynamics in the development of the districts visited in the context of growth and overall development of the country and the Nacala Corridor provinces. However, one should not ignore the contribution of GRM in this scenario. Several examples support our assertion that have been checked and / or reported in the course of visits to the communities. For example, in Bandeze, Lake District (it was even underlined by respondents) that the housing conditions of some families improved with the arrival of Chiweti. Many of the members of the communities surveyed noted the greatly improved houses and motorcycles bought with the money they earned working in the company. The same was reported in Mecuburi (Nampula) where over 50% of respondents were owners of motorized bicycles and said that this is a result of the establishment of LGR. They also noted that they have brick houses, built with blocks and cement, and about 95% of them having mobile phones.

One of the initiatives developed in Niassa by Chikweti inserted in the economic and social development is the implementation of social funds for community development. In the table below we summarize the main elements of data and background:

Social Community Development Fund

- Promoted by Chikweti (now a subsidiary of Green Resources Moçambique) in the context of its "Social Fund" program;
- It aims to contribute to improving the living conditions of local communities covered by the project, improve infrastructure, ensure community participation in the management and sharing of benefits, promote community initiatives and increase their self-esteem;
- Communities receive a fixed monetary amount (USD 2 / year per ha);
- The community must fulfill certain obligations laid down by the company: do not burn the crops, not to invade the land, not develop hunting activities, etc..
- If you comply with the obligations, the value increases to $ 5 / year) per hectare planted on their land;
- Communities should use the value to finance specific projects managed by its Committee on Natural Resource Management (committee members are elected by the communities). Community projects can be for investment or renovation of infrastructure (bridges, mosques, hospitals, wells);
- In 2013 the communities of Mbandeze (Niassa) about 47 projects were approved by the respective CCGRN, of which 25 are being implemented.

Source: Elaborated by the Consultants from data collected in Niassa

In reality this is a program that only happens in the Niassa province and Chikweti developed it. However, as the GRM has not even appeared in the communities that formerly dealt with the former management of Chikweti, they are unsure whether the community funding will continue or not. But it was a process that ran away with many irregularities.

Associated with Community funds Committees of Natural Resource Management (CGRN) sites were created, responsible for managing these funds. The Community Fund receives annual grants from Chikweti depending on the area and community performance. In three communities in Bandeze location (which will provide data to the Consultants) it has been registered a total of 645,000 MT for the 2012-2014 period.

Table 7: FSDCs in some communities of the Lake District, Bandeze

Community	Assigned Value/Year				Observations
	2012	2013	2014	Total	
Nkape	77,000	47,000	77,000	201,000	*In the first year it was distributed in four mosques for their rehabilitation;* *Within two years it was used for the construction of small bridge.* *Liconhile*
Liconhile	106,000	94,000	0	200,000	*In the first year it was for the rehabilitation of mosques; Construction of the bridge.*
Mazogo-Issa	167,000*	77,000	0	244,000	*Allocated in the rehabilitation of the mosque; Construction of the bridge.*
Total	**350,000**	**218,000**	**77,000**	**645,000**	

Source: Made by Consultants team based on data provided by communities

** Received in three tranches: 77,000; 40,000 and 50,000 meticais.*

However, members of these communities are unanimous regarding the lack of transparency in the channelling of funds: the use of unclear criteria in the calculation of values and values that never arrive at all. A group of beneficiary communities of the Community funds has used all the money received from Chikweti to build a precarious bridge so that families can be carried over to the new growing areas. This is the same bridge that Chikweti promised to build. Still in Niassa, situations have been reported of families that travel long distances to find firewood, water and medicinal plants after the arrival of forestry companies. The families of Muthitha community in Rapale also reported these situations.

> *We have to travel long distances to collect firewood, water and other sources of our survival. The area where we are, no one lived, had to survive. For example, to catch him water have to cross the river Muethasse which is far from the community (...), this region is far from hospitals and medicinal plants as well as being a source of survival for many, serve to cure many diseases…"*[57]

The issue of employment is another concern that was much discussed in the course of our visits. The problem is that the jobs offered were in fact seasonal jobs: plenty in clearing and planting periods but less so in the plantation maintenance period. But this circumstance had not been made clear to the farmers.

It is important to understand that the period of plantations in many cases coincides with the ploughing period and farmers leave their farms to go work in the plantations, but the money they earn is little and they cannot be kept for long. This has negative impacts on their income and wellbeing. The main problem lies in the misleading way information is passed on during community consultations as part of the grooming strategy for communities to give up their land.

> *The company arrived when promised employment for all and for life, but after a while began laying people off claiming it had no money to pay many people. We were without a job and had not grown, but still, when it comes time the plantations continue to compete.*[58]

GRM reported currently having a total of 789 workers (Table 12) in all of its subsidiaries, of which 600 are permanent. In the communities visited, according to information collected, there is an average of around 20 permanent workers.

Table 8: GR Mozambique Human Resources

Human Resources	**Niassa (NGR, Chikweti, Luambala)**			**LGR**			**Total**		
	H	M	Total	H	M	Total	H	M	**Total**
Permanents	367	25	392	173	35	208	540	60	**600**
Seasonal	55	5	60	116	13	129	171	18	**189**
Total	**422**	**30**	**452**	**289**	**60**	**337**	**711**	**78**	**789**

Source: Green Resources (2015).

With a gender perspective approach, a study in 2013 holds that in Niassa Province, "about 31 per cent of farm households are headed by women" (Nhantumbo et al., 2013). And trying to analyse the integration of women in the activities of GRM, the data lead us to think that the company has not invested in the integration of women in employment opportunities to communities as one of its corporate policies: in the total of permanent workers only 10% are women and in seasonal positions only 9.5% are held by women.

57 Said one of the interviewee of the Muthita community on 15.12.2015.

58 Statements of peasants/ "seazonal" workers of LGR. They were interviewed in Mutuapa-Namina on 16/12/2015.

Education is a major concern of the visited local communities. Most respondents maintain that plantations are affecting the education of their children. Due to distances to find farms or even the need for relocation to other regions in search of fertile land, children end up losing access to school. The company promised to build schools but so far has done little in many communities. But it is also true that the company has built and rehabilitated schools, as is the case of six elementary schools in Massangulo, Sanga, and Chimbonila in Niassa province.

In the field of health GRM also promised to rehabilitate and build hospitals for some of the communities visited but still has done little so far. And communities complain of the distances that are required to go to find a facility after the removal of their usual lands (that they were forced to do after the implementation of this project). In Ribáue, for example, in the village of Lancheque LGR promised to rehabilitate a hospital that is still in ruins and did nothing until today. But on the plus side we can present the example of the construction of Maternity Centre in Chimbonila, in Niassa province.

Figure 13: Hospital in ruin the company promises to rehabilitate

This image was taken in the meeting had with the villages of Lancheque, Meparara and Namacuco and is an example of unfulfilled promises by the LGR since 2009. Hospital is one of the major concerns of this population and when it came the promise of his rehabilitation population is excited.

Picture by: Fernando Machava

4.4.1. Issues of compensation to affected families

Another indicator of great importance in the activities of GRM and very controversial in most communities relates to the payment of compensation to the affected families. This issue is generating much conflict particularly in Ribáuè (Nampula) where community members accuse the company of being dishonest, and of humiliating them by paying compensations below one metical.

On the subject it is necessary to point out that in section b), paragraph 1 of article 18, the Land Law brings two seemingly figures with similar meaning but very different reality, "compensation" and "reparation" (also check number 3 do article 19 of the RLT).

While scholars in the field do not understand about the interpretation of these two legal concepts in the context of Mozambican law of land, the dominant opinion the idea is as follows (Calengo, 2006; Chiziane 2007 and 2015; Bernadino, 2007; Comoane, 2003; Alfredo, 2009):

– Compensation would cover the payment for the existing cultures and permanent fruit on the ground, deli-

very of a similar area (e.g.: tilled, size, distance from the housing site, soil fertility, etc.) or simply in supporting the preparation of this new area, support for transportation for resettlement in the new area or even in the delivery of a new house and other similar payments;

– Reparation would be paid for the income that the affected fails to enjoy today and will in the future for ceding their land, including the value of the seasonal harvest not yet made, the additional costs that the affected will have to incur because of going to work in another land or reside in a new location (e.g.: changing the extensive agriculture production system for and intensive one, changing the type of usual crop, public transport to reach the workplace or public service such as health centre and school, etc. .).

In this context what has been practiced so far in Mozambique ends at the level of compensation which, of course, is where the investor incurs less spending and little work. Therefore, the Government of Nampula, as has happened all over the country, produced an indicative compensation table based on the various seasonal (cassava, maize, sorghum, peanuts, etc.) and permanent (fruit trees) crops, and so the amounts payable are negligible in many cases. An effective return for the affected would be worth the loss of the land itself, and that should happen by way of reparation. Then Mozambique might give an example in the context of the rule of law. But even with all the facilities (receiving land without paying almost anything to the current occupants), as the consultants noted (statements of affected families) and saw (documentation), it can be concluded that GRM had, in general, a practice that deserves attention in terms of inclusive, responsible and fair business. For example, the company displays in its reports allegedly high levels of payments to local communities as compensation (none as reparation, noticeably). It claims to have paid so far about 18 million meticais (17,754,492.23 MTS[59]) to the communities within Nampula (vide table 9):

Table 9: Overall values of compensation in Nampula

District	Production Centre	Paid Value (MZN)	Total (MZN)
Rapale	Namaita-Viveiro	1,228,576.06	**3,287,726.06**
	Rapale	2,059,150.00	
Mecuburi	Nicala-Melola	7,354,632.21	**10,574,790,64**
	Intatapila	2,100,000.00	
	Namina-Mutapua	1,120,158.43	
Ribaue	Lancheque-Meparara-Namacuco	3,456,573.93	**3,891,975.53**
	Messa	435,401.60	
		17,754,492.23	

59 Data provided by Eng. Arlito Cuco, General Manager of GRM on the 23rd December 2015.

The consultants took as an example three of the communities of this table (the Ribáuè district) and found the following: Meparara, Lancheque and Namauco.

Firstly, to these three communities GRM provided the following compensation table (Table 10):

Table 10: Compensations of Meparara, Lancheque and Namacuco

Community	Total Due	ALREADY PAYD				
		1ª Provision (16/04/2015)	2ª Provision (04/06/2015)	Uniformity Correction	Set Value Cassava	Total Paid
Meparara	*761,539.83*	*232,155.39*	*738,687.00*	*196,823.19*	*725,233.21*	*1,892,898.79*
Lancheque	*797,407.34*	*240,444.16*	*300,197.00*	*389,212.74*	*379,400.20*	*1,309,254.10*
Namacuco	*82,190.91*	*24,657.24*	*121,428.00*	*2,294.38*	*95,499.05*	*243,878.67*
Total (MZN)	*1,641,138.08*	*497,256.79*	*1,160,312.00*	*588,330.32*	*1,200,132.46*	*3,446,031.56*
Total (USD)	*44,355.08*	*13,439.37*	*31,359.78*	*15,900.82*	*32,436.01*	*93,135.99*

Source: Green Resources (2015).

On these same communities, the Consultants, based on the compensation payment records for the first and third instalments provided, have produced the following table:

Table 11: Some of Ribáué compensations' summaries

Community	1º Provision		3º Provision (adjust the cassava)	
	Families (person)	Paid Value (MZN)	Person	Value Paid
Meparara	221	235.356,11	154	**725.233,21**
Lancheque	89	239.814,93	72	**379.400,20**
Namacuco	36	24.657,27	23	**95.499,05**

Source: Adapted by the consultants based on payment records of compensation provided by members of the three communities.

On the whole, we found that between the information provided by GRM and the one calculated by consultants there is not much of a noticeable difference. But let's see what these values mean in relative terms, that is, into the pockets of affected through the following table:

Table 12: Variation of compensation payments

Community	Payment variations (MZN)	Nº of families (1st Provision)	Nº of Families (3rd Provision)
Meparara	0,75-100	3	4
	+100-500	91	7
	+500-1.000	72	10
	+1.000-2.000	24	25
	+2000-3.000	13	17
	+ 3,000-5000	10	30
	+5000-10.000	6	50
	+10.000-15.000	2	8
	+15.000-20.000		1
	+20.000		2
	Total	**221**	**154**
Lancheque	0-100	1	0
	+100-500	31	4
	+500-1.000	21	9
	+1.000-2.000	13	12
	+2000-3.000	3	11
	+ 3,000-5000	6	11
	+5000-10.000	6	20
	+10.000-15.000	5	3
	+15.000-20.000	1	0
	+20.000	2	2
	Total	**89**	**72**
Namacuco	0-100	0	0
	+100-500	16	2
	+500-1.000	9	3
	+1.000-2.000	10	3
	+2000-3.000	1	3
	+ 3,000-5000	0	3
	+5000-10.000	0	8
	+10.000-15.000	0	1
	+15.000-20.000	0	0
	+20.000		0
	Total	**36**	**23**

Source: Adapted by the consultants based on payment records of compensation provided by members of the three communities.

From the above data one can highlight the following:

– There is a family that received less than 1 MT in Meparara;
– Most affected families received less than 500 MT (+ 100-500 MT);
– More than 90% of the compensation paid to each family does not exceed 2 000 MT (0.75 to 2000 MT);
– A small minority of families (two families in Lacheque) received 20.000 MT.

It should be noted, based on this reading, that the compensation paid by GRM to these communities is far from being fair, first because they are based only on crops and do not take into account the land that these communities have lost, especially its value in terms of fertility, proximity to water, firewood, schools, hospitals, housing, and other aspects relevant to the survival of these families. On the other hand payments are based on unit values provided by the provincial government, and as we said, we do not know on what criteria these values are based, and moreover, there is no prior consultation or information given to beneficiaries (see Appendix: food

crops costs table and income for compensation for loss of crops in meticais - DPA Nampula, 2014).

Another curious thing is that the survey done by LGR does not include other crops such as: rice, corn, peanuts, sesame, beans, sorghum, sweet potatoes, Reno beans, tomatoes, cabbages, etc. But several respondents stated that they lost farms with various food crops that served for their sustenance. LGR argues that it did not pay for the other crops due to a change in the crop costs table by DPA, but that argument was unconvincing to the Consultants.

There have also been reports in Nampula of situations of some people affected by plantations of GRM not being included in compensation lists.

Here are some of the facts that demonstrate how serious the issue of compensation and damages is:

- Meeting between the Head of Namigonha Locality, LGR and representative of communities Commission, held on November 26, 2014, for auscultation of the company on the status of payment of appropriate compensation and setting payment terms. At this meeting payment deadlines have been set and it was also stressed the supervisory role of local government and the rectification of the survey lists the fruit and cassava.

- Meeting on March 26, 2015 in the offices of Lúrio Green Resources in Nampula involving representatives of the company and members of the Compensation Negotiation Committee for Lancheque communities of Meparara and Namacucuo, with the following agenda points: Request general nominal lists of the affected, with their respective areas; clarification on the point of compensation payment status; visit to the facilities of LGR and a communal statement regarding the situation of compensation.

- Meeting between community members, district government and representatives of LGR held in Namiconha on May 13, 2015 with the following agenda items: compensation payment negotiation and negotiation to resume work activities.

- Statement by the communities of Lancheque, Meparara and Namacucuo on June 30, 2015 addressed to LGR via the Provincial Directorate of Agriculture and Nampula Food Security and answered by LGR on 17 July 2015 with the aim of pressing the company to pay the appropriate compensation.

5. SOURCES OF FUNDING AND PARTNERSHIPS OF GRM

Green Resources SA (currently considered as the main actor of monoculture tree plantations in the Nacala Corridor) was founded in 1995 with the name "Fjordgløtt" and later came to be called "Tree Farms", a name used until 2007 when it was changed to Green Resources. This company is linked to several financial institutions in forestry. The company has 80 shareholders, among which are the following:

Table 13: Green Resources main shareholders

Registered Share Capital 31st October 2015

	Beneficial owner	Shares	%
Diversified International Finance		17,264,050	21%
Phaunos Norge AS		11,642,645	14%
NewAfrica/Asprem	Asprem	8,930,601	11%
Macama AS	Bohler	5,470,688	7%
Steinerud AS	Rygh	5,176,927	6%
The Resource Group TRG AS	Røkke	4,501,557	5%
SBL Direct Investments Ltd	Storebrand	2,653,485	3%
Rybø AS	Bohler/Rygh	2,414,230	3%
Capricorn/IWC		2,352,406	3%
Høgset Holding AS	Høgset	2,095,139	3%
Alden AS		1,974,994	2%
Lynch		1,917,154	2%
Verbena Investment Holding	Marangu	1,709,640	2%
Allinvest Unternehmens	Groller	1,699,890	2%
Vesteras Stift/ GSFI		1,668,424	2%
Wilhelmsen		1,566,703	2%
Jotunfjell	Olsen	1,271,963	2%
Gluteus Medius AS	Bergesen	1,055,372	1%
Nordic Discovery AS		987,497	1%
Niemelä		834,956	1%
Opplysningsvesenets Fond		792,549	1%
9 owners 250,000-549,999		3,152,350	4%
63 owners < 250,000		2,254,035	3%
Total		83,387,255	100%

NB: Fully diluted number of shares = 83,756,499

Source: http://www.greenresources.no/Company/Shareholders.aspx.

Other funders include global banking corporations such as:

- World Bank's International Finance Corporation;
- Norwegian fund named "Investment Fund for Developing Countries" – Norfund, who provided Green Resources a US 7 million loan;
- Finnish Development Finance Institution – Finnish organization that contributed $ 25 million[60].

Green Resources is the largest company in forestry plantation, carbon sequestration, forest products and renewable energy (outside South Africa) operating on the African continent. The company launched 17.8 million new shares in May 2014, together with the acquisition of Global Solidarity Forest Fund (GSFF) - Global Soli-

60 Bondevik, S. *Carbon Forestry and Trading: A Case Study of Green Resources in Uganda*. Tese de mestrado submetida a BI Norwegian Business School. October 2, 2013. Disponível em: http://brage.bibsys.no/bi/bitstream/URN:NBN:nobibsys_brage_50069/1/Oppgave15.pdf.

darity Forest Fund, which further consolidated its dominant position in the sector of forests in Africa (Lyons, Richards & Westoby, 2014). GSFF was founded in 2005 by the Diocese of Västerås in Sweden, the Lutheran Church of Sweden and the Lutheran Church of Norway. The Dutch pension fund ABP and other institutions have also invested in this Fund.

Green Resources acquired the Global Solidarity Forest Fund (GSFF) on June 4, 2014 for a value of 103.9 million dollars. GSFF holds 83% of Chikweti (including credits), the remaining 17% belong to other national owners and inactive companies[61]. According to the Ministry of Agriculture (2014), these owners stand out from the Anglican Communion in Mozambique "Diocese of Lichinga and Malonda Foundation both Chikweti as to Niassa Green Resources.

Table 14: GSFF main shareholders

Shareholders' names	Shares %
PLT: Prästlönetillgångar – Income return on donations made to the Church of Sweden	**5**
GSFI: Global Solidarity Forest Investment	**4**
ABP: Stitching Pensioenfonds ABP – Fundo de Pensões Holandês	**57**
OVF – Opplysningvesenets Fund of Norwegian Church	**5**
CAPRICORN FUND: Capricorn Africa ApS – Danish Forest Fund	**20**
Pension Fund of Harvard via DITH – Diversified International Timber Holdings LLC;	**8**
IGTH: Investitions GmbH – German Fund (1%).	**1**
Total	**100**

Source: Church of Sweden's. Assessment visit to Chikweti, Niassa report from the joint delegation visit 15-23 October 2013. 2014.

Green Resources has secured a financing loan Nederlandse Maatschappij voor Financierings-Ontwikkelingslanden (FMO) of around USD 15 million under similar terms of loans secured in previous years (USD 25 million with FINNFUND and Norfund). The loan is valid until December 31, 2018, with interest payable until 2016[62].

The ToRs highlighted as one of the important points to be collected in this study the information regarding the involvement of interested nationals (companies or individuals) in the shareholder structure of GRM. However, such information could not be obtained because of all the secrecy surrounding the subject from the people involved in the management of the company (who refused vehemently in releasing it, claiming they had no powers to do so). It is certainly characteristic of Mozambican entities not to want to expose to the public the businesses they engage in with the large foreign companies. Consultants tried other ways (such as searching for company information in the Bulletin of the Republic, which published the establishment of the company), and nothing worked; they sought to contact research institutions such as the CIP, also fruitlessly, and tried to contact some people speculated to be involved, but with no results because they were not available or because they were unaware of the said engagement.

The three organizations that commissioned the study (UNAC, Livaningo and JA) could intervene with the shareholders or the Chief Executive Officer of the company, presenting a summary of the main concerns raised by the study, including concrete suggestions on how to correct the errors found on the ground. The company needs to understand that a business based on socially responsible principles is not just to comply with legal obligations but also requires establishing ethical and transparent relationships with communities and affected

61 Church of Sweden's. *Assessment visit to Chikweti, Niassa report from the joint delegation visit 15-23 October 2013*. Report 7. 2014.Church of Sweden's. Op. Cit., p. 9

62 Ibidem. Op. Cit.

populations.

But if the complaining strategy and appeals to common sense does not work then one might think, as a last resort, of court actions. This might be to challenge the administrative act of awarding DUATs at the Administrative Court (TA), where the defendant would be the State through the central or provincial government (as is the competent authority depending on the area[63]). Courts may also be used to challenge not only DUATs but also to seek paybacks for the economic damage incurred by local families and for which are jointly responsible the state and the corporations. Judicial remedy may also be used to seek the compensations agreed upon on community consultation or for damages unforeseen at the time but that the company knew or could reasonably foresee (and for which were at fault) or about which it simply acted with some negligence. Even without fault or negligence the company may still be responsible for some damages via the principle of strict liability. This remedy is available from the courts. Another land conflict featured in the study has to do with situations in which the company occupied land outside the law, without consultation and without government intervention but only later sought to legalize their occupation.

This is a usurpation of rights act (land grabbing) as in the case reported in Niassa with the land occupied by now a subsidiary of GRM, Chikweti. There exists a legal remedy in a court of law that is the "right claims legally enshrined and protected by the Constitution and the Land Act."

With regard to partnerships, Green Resources launched in June 2014 a partnership with UNICEF and the Embassy of Sweden in Mozambique (AIDS) through a program called "right to have rights", which aims to benefit over half a million Mozambicans with ID cards and birth registration. This is a project worth $ 5.3 million for three years where the Swedish Embassy in Mozambique provides most of the funding, along with UNICEF and Green Resources (Green Resources, 2015).

The company has also partnered with the European Union in a project for the sustainable production of wood and charcoal. This is the project called Auto Grower that has been described and is the promotion of community plantations, where communities receive seedlings to plant in their fields, in a space not less than one hectare and later buy the company.

63 Article 22 of the Land Law.

6. DISPUTE RESOLUTION MECHANISMS WITH COMMUNITIES

Before presenting some reflections on mechanisms of conflict resolution, we considered relevant to survey some communities where there are or were potential conflicts under the assistance of GRM, with particular emphasis on the communities where the Chikweti and Lúrio Green Resources plantations are established.

In Niassa, we highlight some communities where there are conflicts over land and others related to the implementation of tree plantations: Micoco, Lipapa, Luambala in Chimbonila District; Lipende, Licole and Chilapitangongo in Sanga district; Bandeze headquarters, Mazogo and Liconhile in Lago District (Appendix 4 and 5 are graphical presentation of these communities), but Table 14 is a description of them, the actors, the causes and mitigation measures.

Table 15: Summary of major conflicts involving the GRM and communities

District	Community	Conflict agents	Conflict Cause	Mitigation Measures
Chimbonila	*Micoco*	*Chikweti and the community*	*– Lack of coordination among the leaders causing disagreement within the community;* *– Community of land near Occupation;* *– Existence of old and abandoned farms.*	*– 640 ha area of 297.7 há Reduction in favor of the Company*
Lago	*Bandeze-Sede, Liconhile, Mazogo-Issa, Nkapi*	*Chikweti and the farmer*	*– Occupation of producer farm.*	*– Identify a new area of the same and preparation equivalent to 10, 00 Ha*
		Chikweti and the community	*– Broken promises;* *– Lack of a crossing bridge for communities to go to the fields.*	*– None at the moment*
Sanga	*Lipende, Licole e Chilapitangongo*	*Chikweti and the community*	*– Withdrawal of a plot of 950 ha belonging to the community;*	*– The community asked the company not to continue to plant an extension of 20 hectares.*
		Niassa Green Resources and the community	*– Occupation of an area of the community without the community consultations and without authorization of the community.*	*– The district government instructed the company to stop its activities*
Rapale	*Namaita*	*Lúrio Green Resources e Mr Evaristo*	*– Occupation of land of this product;* *– Dismissal of employees;* *– Limitation on use of water resources for this product;* *– Delay on the agreed compensation*	*– The local government and the provincial court ordered the payment of compensation of 900,000 meticais, which has not been paid in full*
Ribàué	*Meparara, Lanchequ e Namacuco*	*Lúrio Green Resources and the communities*	*– Occupation of land of farmers;* *– Promises in Community consultations far from being fulfilled;* *– Unfair compensations based on unrealistic calculations that result in absurd values as 0.75 MT;* *– Delay in compensation payments; - Standardization of the payment of compensation, (all receive the same value independent of the improvements that have or the size of the land);* *– Complaint of the amount paid for each auction cassava; etc.*	*– The local government guides the company to pay the compensation due;* *– The company undertakes correction of the uniform payment;* *– The company adjusts the value of cassava cutting 8 to 20 meticais;* *NB: There are still a lot of money to pay communities that still raises conflict situations*

Source: adapted by the team of consultants based on data collected in the field.

The above describes some conflicts reported by the actors involved, some already solved (particularly in Niassa), others still unresolved. However, it serves to demonstrate that communities are very unhappy with the actions of the company and seek recourse to various bodies to claim their rights. In our perception, the company needs to draw a clear policy on land conflict management and other matters associated with plantations in its area of operation which takes into account the following elements: engagement, dialogue and mediation.

The Director General of the company argues that it promoted the creation of Natural Resource Management Committees and Local Advisory Councils that through their conflicts are managed at the level of engagement. They also provide regular meetings with these members as a way to assess the situation of the communities. But as is reported by the communities, some of these players are considered the company's accomplices and in some cases their intervention is not seen as impartial so their legitimacy is in doubt, which leads some communities to act in a confrontational way with these entities.

Regarding Civil Society Organizations (CSOs) it is necessary to maintain that there are at the local level, and even some at the national level, who are concerned in helping communities, however, many consulted complain about the lack of financial and technical resources (strategies intervention, action plans, organizational structure, etc.), including approaches that can help local communities to meet the challenges that investments in land (especially in plantations) place.

Hence we maintain that most CSOs are more reactive than proactive, i.e. they are always promoting debate and discussion on the subject, but do not present concrete actions to address the issues raised. In our view, they compete to create environments of polarized approaches and criticism, and not to correct or solve issues.

So to help communities in practical terms CSOs should design and implement concrete and engaging action plans, based on a survey of the real problems of the communities. Approaching the communities with practical actions such as training, training, guidance, and a direct and participatory (rather than critical and aggressive) advocacy should be key.

In general, they should strengthen their strategic intervention capacity based on plans designed through real and achievable situations, and create a forum for national CSOs related to land and forests issues to meet. These actions should serve to seek funding to help improve the sustainable development of local communities.

7. SUMMARY OF FINDINGS OF THE STUDY

Throughout the study we found that GRM, including Chikweti and other subsidiaries of the company, were granted by the Mozambican state extensive land areas of over 200 hectares in total. But only about 10% of these lands have planted.

The company is pursuing in these lands monocultures of eucalyptus and pine.

We are talking about, in broad terms, land that already belonged to the communities, that is, over which they had acquired rights under Art. 111 of the Constitution and Art. 12 a) and b) of the Land Law (Law No. 19/97). And this happened without the informed consent of the communities or even without sufficient information on what would happen, including in terms to an extension of the lands occupied the company and on the economic, social and environmental risks with the affected communities. It happened even without payment by the company of due compensation and damages under the law.

Mapping of the occupied areas and planted by GRM was found that plantations are being made along the roads, rivers, railways, human settlements and along the fields of local families. Therefore, the company seeks to occupy the areas already used by communities. This is another violation of the law.

The presence of forestry companies consequently brought the loss of room for local communities to develop their agriculture based on the use of large areas. It also brought the reduction of income from agriculture and hence the fall in local food security systems. But even given that, GRM has not implemented the measures or productive and social schemes that offered an alternative for communities to survive. So there are families that are migrating to areas located far from their customary lands and thus suffer increased difficulties in access to basic public services such as water, hospitals, schools and commerce.

It is known that communities have not been successful in their attempts to see restored the rights that were violated by the government and businesses, including the ones caused by irregularities in the allocation of land to companies and the lack of payment of fair compensation by the companies.

The environment in the communities visited is tense, even those who have other lenses and other objectives in mind cannot see it.

GRM made several promises to communities, including schools, bridges, roads, hospitals, employment, community compensation funds, individual compensation for affected families, etc. These promises were decisive in order to acquisition lands. Unfortunately, these promises and the respective agreements between companies and GRM have not been set in writing. They were essentially oral agreements or referenced in passing in the draft documents or company business plans which may or may not have been shared with the Government and which the Government may or may not have endorsed, depending on the context and circumstances. It is true that the Council of Ministers approved in 2008 a major policy instrument (Resolution 70/2008) through which all land concessions for economic investments in areas above 10 hectares should include written agreements between communities and investors. But this document is still rather vague and, as with all policy documents in Mozambique, can be easily overshadowed by legal documents (laws and regulations). Therefore, it is suggested that what is written in this resolution is transposed to the Land Law, or at least to its rules. On the other GRM (as many forest companies do) sought to circumvent this legal requirement by subdividing the area in small DUATs, which is not such a good business practice.

In any case the problem is not the existence of a written agreement or lack thereof. The agreements, even in oral form, exist and both GRM and the government recognize this fact. The problem is the lack of fulfilment of the promises and agreements by GRM, which sharpens the conflict environment between them and local

communities.

In the evaluation of consultants here GRM is producing more negative impacts than positive for the communities at both social, economic and environmental levels: reducing levels of agricultural production and income, lack of payment of compensation and compensation, employment promises permanent that are not met, the prevalence of seasonal and precarious jobs, low wages paid to local workers, the shortage of firewood and medicinal plants, the withdrawal of children from school farmers, the increasing infertility of local soils and negative changes hydrological framework to which the peasants (rightly or wrongly) associate the presence of GRM with their land.

The following table presents a summary of the main promises made in the community consultations that according to community members compliance is negligible or almost nil.

Table 16: Summary of key findings per district on the basis of promises

District	Community	Promises made in community consultations	Degree of compliance
Chimbonila	*Micoco, Chala, Macassangilo and Chimbonila-Headquarters*	*– Construction of health centres and hospitals;*	*– Buying a home for health post in Chala* *– A maternity hospital was built in Chimbunila-Sede*
		– Schools construction and rehabilitation	*– No report*
		– Lifetime employment	*– Many in the drop period, tillage, planting. But they are laid off last mass time.*
		– Establishment of water sources	*– Opening a pit Macassangilo water and the other in Lione*
Lago	*Nkapi, Bandeze-sede, Mazogo-Issa, Liconhile*	*– Construction of a bridge for the movement of the local population and to transport goods and products from farm*	*– Nothing done so far*
		– Lifetime employment	*– Many in the drop period, tillage, planting. But they are laid off last mass time.*
		– Rehabilitation and construction of mosques and churches;	*– Rehabilitated a mosque and a church*
		– Schools construction and rehabilitation	*– None were reported*
		– Annual payment of a local development fund	*– Payment made to delays and reductions in values put in perspective, but it was done by 2013*
		– Establishment of water sources	*– A water well in Bandeze-Sede*
Sanga	*Licole, Miala, Chitula and Lipende*	*– Sanitation Improvement of the environment*	*– Construction of an Improved Latrine in the Health Office in Chitula*
		– Rehabilitation of infrastructure (church, schools, health centres, etc.).	*– It was rehabilitated in a mosque and a church in Lipende Licole;* *– They were also bought rugs to a mosque.*
		– Lifetime employments	*– Many in the drop period, tillage, planting. But they are laid off last mass time*

District	Community	Promises made in community consultations	Degree of compliance
Mecuburi	*Namina*	*– New land for agriculture;*	*– The communities had to seek new lands which they say are too far from their residential areas.*
		– People registration process and ID acquisition facilitation	*– The company has helped many people to register and acquire IDs.*
		– Lifetime employment for locals	*– At least 30 people are still working in the company, but at the beginning there were many.*
		– Compensation and damages	*– No registration problems, many fruit trees seedlings were assigned (1 cashew seedlings = 3) and paid compensation cassava, sorghum, etc.* *– Complaint of the late distribution of seedlings and improper periods;* *– Compensation in cash (1250 meticais for large cashew and mango 750) paid, but there are some situations that were not paid properly.*
		– Construction and rehabilitation of infrastructures (health centres, schools, markets, etc.);	*– No construction or rehabilitation made to date*
		– Establishment of water sources	*– Two wells were built, but only one is operational*
Rapale	*Namaita, Muthita*	*– New land for agriculture;*	*No land was assigned families who had move away to other lands, but still near the plantation*
		– People registration process and ID acquisition facilitation *– Lifetime employments*	*– The company has helped many people to register and acquire IDs.*
		– Construction and rehabilitation of infrastructure (health centres, schools, markets, etc.);	*– No construction or rehabilitation made so far.*
		– Establishment of water sources	*– No water source established. The company confirms and maintains that it is a difficult area to open wells.*
Ribàué	*Meparara, Lanchequ e Namacuco*	*– New land for agriculture;*	*– No land has been allocated to local families.*
		– People registration process and ID acquisition facilitation	*– The company has helped many people to register and acquire IDs.*
		– Lifetime employments	*– Few continue the work in the company; they were laid off in droves.*
		– Construction and rehabilitation of infrastructures (health centres, schools, markets, etc.);	*– No construction or rehabilitation made so far and the community calls for the construction of hospital in Lancheque because it is an urgent necessity.*
		– Establishment of water sources	*– Two wells were established and are operational.*
		– Benefactors compensation payments	*– Compensations are paid on the basis of improvements (cashews, mango, cassava cuttings, etc., but this district has the greatest conflict between the company and the communities.*

8. LESSONS TAUGHT AND RECOMMENDATIONS

8.1. Lessons taught

The land occupation by forestry companies without complying with legal, social and environmental requirements as the main explanation of the current land disputes along the Nacala Corridor

As reported previously this study noted the existence of land conflicts between forestry companies, in this case, GRM, and local communities. These conflicts result from the presence of forestry companies in the lands occupied by the communities. Within the community territory, which generally coincides with the regulations, there are lands that by law are reserved for the use and benefit of communities and families that comprise it. This use relates to residential areas, agricultural areas (cultivated or fallow), forests, pastures, water sources and expansion areas (Art. 1 of the Land Law).

But it turns out that it is precisely these same lands that are delivered to forest companies, in this case, GRM. This act in itself constitutes a violation of the law, namely the Constitution (Art. 111) and the Law of Land [Art. 12, paragraph a) and b); and Art. 27, number 5)].

Indeed, in almost all the communities visited, it was found that plantations by Green Resources Moçambique are located on land where communities practice agriculture and near houses. Lands conducive to the practice of farming were previously used by local communities to produce food for subsistence and marketable based on shifting cultivation. With the implementation of the project, local families are forced to stay confined to the few remaining areas or immigrate to remote areas but at the risk of losing access to basic public services such as water, health and transport.

Thus, the way to avoid such conflicts would have been avoiding forestry companies to occupy the land of the communities. It was also observed that even when Green Resources Moçambique struggled not to occupy the lands occupied by the communities, the concept of "occupation" did not consider that the areas of housing and agricultural expansion and areas of reserves in local water resources are also land occupied by communities under the aforementioned Article 1 of the Land Law. That is to say, they always turned out to occupy the lands occupied by the communities. And as the term "occupation" is sacred before the Constitution and Land Law then both the Government and GRM eventually clearly hurt the law. Strictly speaking, GRM could only have been permitted to occupy such lands after negotiation and prior compensation to the affected families and communities, which was not the case.

On the social level issues arose regarding the promises made in terms of compensation and reparation to affected families, jobs and the implementation of a number of social balance measures to ensure alternative survival of affected families, including EU funds and the support the emergence of new agricultural production systems. All this was nothing more than a mirage. And it affected their own families' feel deceived by GRM.

The environmental issue was also not respected as it relates to prevention. "And even with doubts about the possible effects of the introduced species (eucalyptus and pine) on local ecosystems, GRM still moved forward with its deployment on land of interest to communities. The righteous would have been planting these monocultures in remote parts of the areas occupied by communities. Still in the environmental front we noted how local communities and families are concerned with what is being planted on their land. They are worried about the presence of pine and eucalyptus trees, which are strange for them and for their traditional economy.

The minimum distance separating the plantations of the areas occupied by communities is something that should be regulated to avoid any misunderstanding. And the lack of such regulation can be an intervention opportunity for CSOs in the advocacy plan.

Parcels of idle land in the hands of Green Resources Moçambique

Green Resources Moçambique directly or through the companies that it inherited acquired between the years 2005-2009 vast areas of land, about 210.480 hectares. But after nearly 10 years it actually only used about 10% of these areas. The planted areas are located roughly along human settlements, communication routes (roads and railways) and by the main water resources of interest to communities. Now, this puts a certain question. Was it even necessary to require so many lands knowing that their use would always be slow and time consuming? Would this show a penchant for hoarding land of farmers with the mere intention of presenting decoys for future investors?

It has been shown that current applicants and holders of DUATs are not the immediate investors. They then look for proper investors, who have money. In practice this means that communities are not negotiating with the real owners of companies, but with intermediaries who in turn are dependent on the decisions of other actors (investors).

It is true that from GRM's perspective this distance between the decision-makers (company owners) and implementation levels (forestry operator) and between the communities is not as sharp as with Chikweti and other companies it acquired. But still the situation remains to a certain extent as in GRM's structure we still find faceless investors and with some ability to influence the final decisions impact to communities.

Lack of social community preparation before and during the implementation of projects

Local communities were not sufficiently prepared for these processes. The situation is so alarming that one can come to think that this was done deliberately as today many people and community leaders think and say. Evidence in this regard is that the government and the companies have not considered it an unacceptable practice to establish verbal agreements between companies and communities. These agreements announced job promises and huge sums in compensation and damages, as well as the provision of social infrastructure. Many of these promises have proved unsustainable and apparently made in order to entice farmers to cede the lands they occupy or not to oppose or question the occupation even when made outside the law. It is expected that the very poor and poorly informed about such projects in other countries or elsewhere in the country be more concerned with the immediate benefits (jobs, schools, hospitals, water wells, cash compensation, etc.) before thinking on the medium and long term in the environmental, food safety, unsafe jobs (seasonal), etc. issues.

It is expected that the community consultations are supervised by representatives of the Government and that they seek to ensure that the agreements made are written and attached to the consultation proceedings, a copy of which is to be held by the local community. But this does not always happen.

Deficiency in monitoring by local governments in the implementation process of forestry projects

Local governments have a sufficiently clear framework to carry out and follow more closely the process of implementation of forestry projects, including in terms of social and environmental implications for local communities and families. But they do not do it properly. It is true that you can raise the issue of training of local human resources and availability of resources, both material and financial. But behind this justification there is one thing that cannot be hidden: decisions or proactive attitudes of letting communities at the whim of the judgment and will of the companies that come to replace or have more authority than local governments.

For example, we heard of local heads lamenting not only the lack of knowledge of what happened between companies and local communities in the territories under their jurisdiction but also noting that they actually knew little about the current situation of the company, which actions they are developing at the project imple-

mentation level, the real problems facing communities, the level of relationship between the company and the communities, etc.

A land conveyance process for the non-transparent GM and with some doubts as to its legality

GRM acquired (indirectly through the State) vast tracts of land in Niassa, Nampula and Zambezia. This process poses two levels of problems. The first has to do with the fact that the communities were not adequately informed of the process. Sometimes they only heard about it through third parties (media or NGOs). In many places companies that originally "occupied" lands just disappeared without saying anything and the new owners have not yet appeared. In others their local productive activity was paralyzed (Tectona and Ntacua).

The land law does not clarify if by purchasing a company that holds a DUAT the purchasing company automatically acquires such DUATs. If no such clarification and regulation exists then the solution most consistent with the law would be to conduct a special authorization process that involves consultation of affected communities, in particular to protect the interests of these in relation to agreements with the former company and the usage of space, and the purposes for which it is intended now belonging to a new owner considering the purposes that had originally been agreed upon community consultation. It was found that this was not observed which puts questions from the legal point of view on the legality of the whole process of acquisition by GRM of land previously in the hands of Chikweti.

***Economic and social situation of the communities affected by the forestry projects in breaking and frank* deterioration**

It was visible, as the situation of the communities affected by plantations of Green Resources Moçambique has changed for the worse compared to what could be observed before the presence of forestry companies. While this may be considered applicable to the majority of rural communities in Mozambique two points must be retained. The first has to do with the general feeling at the level of local communities that Green Resources Moçambique has worsened the economic and social situation of local families. The second point is more objective: GRM cannot make a difference in the areas where it operates, making families more prosperous or placing them in a safer route of social sustainability for the rest of the communities around these and where no economic investment similar occurs.

Government with many reservations about the remedial measures and restore legality

Both the government and GRM coincide with CSOs in identifying irregularities in land allocation processes for farmers and investors in their own procedures for implementing forestry projects. But they do not agree on what should be done to solve this. For the government these processes should be a lesson so that the same mistakes will not be made in future cases. For GRM the strategy has been to bring ad hoc solutions, an attitude of extinguishing fires like a fireman on permanent alert. CSOs adopt the strategy of pressing directly both the government and GRM in order to become more just and bring about sustainable corrective measures such as reparations. But there is a legal side that can be exploited if the dialogue does not work out.

8.2. Conclusions and recommendations

The main conclusions of this study are as follows:

1. The main conclusion in this report is that at the time the DUATs were assigned to GRM and in the first years the discussion on this process both at the level of communities and CSOs focused more on legal issues: Overlapping rights and the dispossession of lands suffered by local communities and families. But with time and as the GRM plantations of tree monocultures are taking over the positions currently occupied by local communities and families (houses, farms, water supplies for consumption, etc.) that is, as the effective use land by GRM is happening, it begins to emerge as the real problem something that the Constitution, land law, environmental and other relevant legislation on the matter, try to avoid: drops in agricultural production systems and income within local communities and depriving local communities and families of natural resources and basic means of survival and viability of their lives and the future of future generations (land, forests, small species of game animals for their own consumption, water, site and places of historical and cultural interest, medicinal plants, preservation of ecosystems, etc.). This scenario is compounded, as families are not presented with alternate ways of income or adaptation to other agricultural production systems as they are still based on extensive agriculture, which is in conflict with intensive agriculture or even to the so-called green agriculture.

2. In this scenario it follows that, from a legal point of view, there was a violation by the Government of a constitutionally protected right and clearly regulated in the current land legislation that assists farmers affected by plantations to maintain and use the lands they occupy unless given out by free will and in exchange for some benefit. And we also saw the government failing on its constitutional duty to protect such rights (Article 111 of the CRM).

3. The third conclusion of the findings in field visits is that communities are already beginning to feel surrounded everywhere, trapped by a dense formation of (exotic) trees strange to their environment and way of life, eucalyptus and pine. Forest plantations are already growing and reach a certain height. Shadows appear almost everywhere, at night the trees look like ghosts of other spirits. In addition to this psychological and emotional fact we find another objective fact: the soils are less fertile today, the rain begins to thin, access to medicinal plants, firewood and subsistence hunting is becoming increasingly difficult. This means that there are fewer crops; there is less access to other natural resources survival. Then we see a feeling of physical, emotional and spiritual insecurity.

This is the before and after the arrival of forest plantations. It is true that this scenario can be seen everywhere in the country and the world due to climate change. But local people associate this scenario directly to the presence of forest plantations in their territories.

Various scientific studies that deal with the link between the increasing poverty of soil and monocultures (pine and eucalyptus) may not be unanimous in its conclusions but here there is evidence that suggests these warning to be taken seriously: forest plantations of eucalyptus and pine monoculture may be contributing to the current degradation of local ecosystems. This study did not dig to the bottom of this issue and it is suggested that we see conducted more detailed and specific studies on the subject.

Also from the environmental point of view, there is a lack of compliance with the principle of prevention [Article 117, paragraph 2, points a) and d) of the Constitution].

4. In view of these findings the recommendation that comes in is as follows: the monoculture tree plantations should take place at a certain distance from human settlements, a sufficient distance as to prevent them from occupying the land already in the possession and use by people local (avoiding land conflicts and the violation of rights of local populations) as well as not to influence the way and living conditions of these

populations through the contribution in the degradation of local ecosystems (complying with the principle of environmental prevention). And it is necessary that this understanding be brought to the land law and not by any other law in order to avoid the question becoming diluted.

5. The study also concluded the promises made by companies to communities, including a range of social benefits (schools, hospitals, bridges, etc.), employment in quantity and quality, development funds, support in the implementation of alternative systems of agricultural production, supply means or alternative livelihood options, etc., are nothing more than a mirage.

It is true that something was done but that was at a very insignificant scale as to bring some positive change in the local population lives.

The commitments and promises from companies like LGR have not been translated into written agreements between them and the local communities. They appeared more intended on draft documents or business plans.

6. The study also found that the advance of plantations by Green Resources Moçambique on land from the communities located along the Nacala Corridor has a direct contribution to the current drop in local production systems and food and nutrition security of local populations and, with this, the aforementioned deterioration in the manner and conditions of life of these populations. This also contributes to the climate of conflict and distrust on the part of local communities and families in relation to local authorities and the direction of GRM.

7. So the question comes easily: So what should we do? In our view, first, we should proceed with repairing of damage caused to local communities and families by returning state land illegally granted to forestry companies. Especially because this measure does not constitute a serious problem or economic and financial burden for companies. It happens that most or almost the entire length of the earth has not yet been granted planted. This study found that by 2013/14 only 10% of the total concession area was in use and actual use by GRM. And it is known that after 2013 the forestry companies, including GRM, have not invested much in new planting areas but in the management of areas already planted.

8. But the land return would not be enough. It would be necessary to review the entire process of compensation and monetary reparation so that the affected families are effectively reintegrated and compensated at fair terms and under the law for the injuries suffered as the loss of land, reduced productive capacity and agricultural income, lack of access to hunting for consumption, lack of access to firewood and wood, etc.

9. The return of lands and fair compensation to communities could only take place with state intervention both at the government and the courts. Now it seems that dialogue and advocacy on the part of communities and CSOs with the Government in support of these objectives are not finding openness or positive responses. But the courts remain as one of the solutions also offered by the Constitution (and it has not been tested in this discussion) regarding issues around the forest plantations along the Nacala Corridor and the negative impact that their presence means to local communities and families.

And so, the following recommendations:

1. Influencing the Government to set clear policies and legislative measures to sanction companies for breaches of the law and agreements with communities. Such measures could include the provision of a minimum of implementation of monocultures in relation to rural human settlements and the requirement of written agreements between investors and communities, including mandatory clauses and legal guarantees of the parties and that even when the corresponding area does not pass the 10,000 ha limit.

2. Exploration by businesses and communities of intervention opportunities that can contribute to the sustainable development of agriculture and forestry and thus influence the actions to combat poverty in the Nacala corridor and around the country.

3. Put pressure on GRM to honor and fulfill the promises made in the community consultations.

4. Develop and implement ongoing training programs for local communities to strengthen relationship with companies of agro-industrial investments.

5. Production and distribution of a booklet of community rights and duties of the companies involved in land investment and forest plantations.

6. Advocating with GRM and other forestry companies so that they develop sustainable programs of community livelihood security, including through initiatives aimed at developing yield agriculture (beans, soybeans, cotton, etc.) and sustainable management of natural resources in general.

7. Promoting a participatory advocacy to strengthen the capacity for intervention and influence of CSOs along the agro-industrial companies and local governments. It should be based on evidence and clear actions for the defense of the rights of communities.

8. Similarly, CSOs must equip themselves with the necessary capabilities to influence local governments (at provincial and district level) in the decisions they make in the context of the process of community consultations, including the need to observe the ethical principles that guide Public administration and continuously monitor the actions of the company in the community post-consultation period.

9. Partner mobilization to support an organization (consortium, a forum of organizations, a board or committee, association, etc.) of national character that is responsible for the supervision and continuous monitoring of the activities of GRM and other crops in investment companies in the Nacala Corridor.

10. CSOs could promote a deeper study, lengthy and comprehensive, involving experts from environmental and other relevant areas that may be able to ascertain and assess the impacts of monoculture plantations on local ecosystems, meeting the concerns raised about the community's sites.

11. The parties involved in the debate (companies, local governments and CSOs alongside the local communities) could create a kind of tripartite forum for dialogue on plantations in the Nacala Corridor. This forum would have, among other functions, design and engagement consultancy missions, joint monitoring processes, information exchange, identification of answers and solutions to the challenges posed (production systems, food and nutrition security, fire control, funds Community, resize granted DUATs areas, payment of compensation, employment offered by the projects, etc.).

12. CSOs could defend by the national courts the rights and violated interests of local communities and families (access to land, fair compensation and reparation, employment security, etc.) provided they consider

exhausted all attempts of lobbying and advocacy with the Government and business. This report provides some starting data: communities where there are major land conflicts; the location of the idle land and without prospects for their immediate use by GRM; the list of promises made by GRM, etc.

13. CSOs could also question the FSC certification achieved by GRM for some of its plantations. It could, for example, promote independent audits and ongoing pressure from the international bodies responsible for such certification processes. In the future CSOs should be alerted to similar processes so that they can monitor and exert some influence on the decisions that are taken by bodies of the FSC and the like (CCBA, CDM, etc.).

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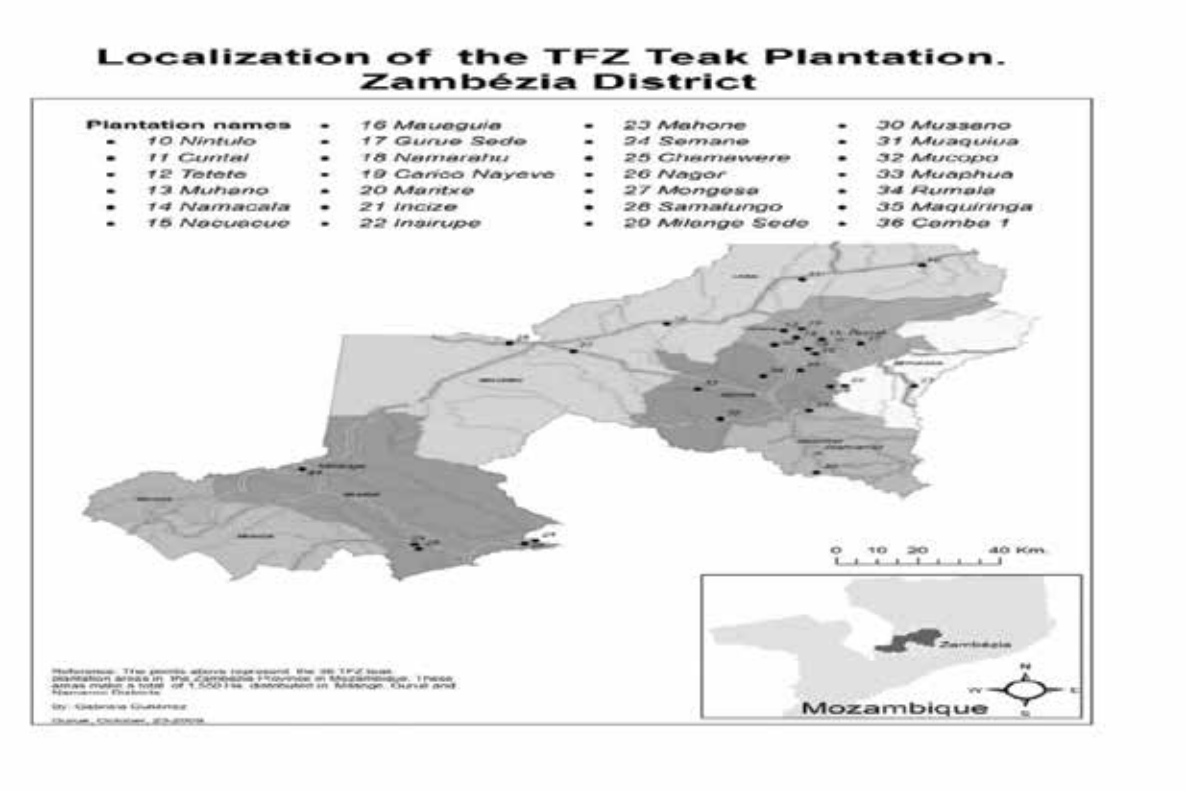
APPENDIX

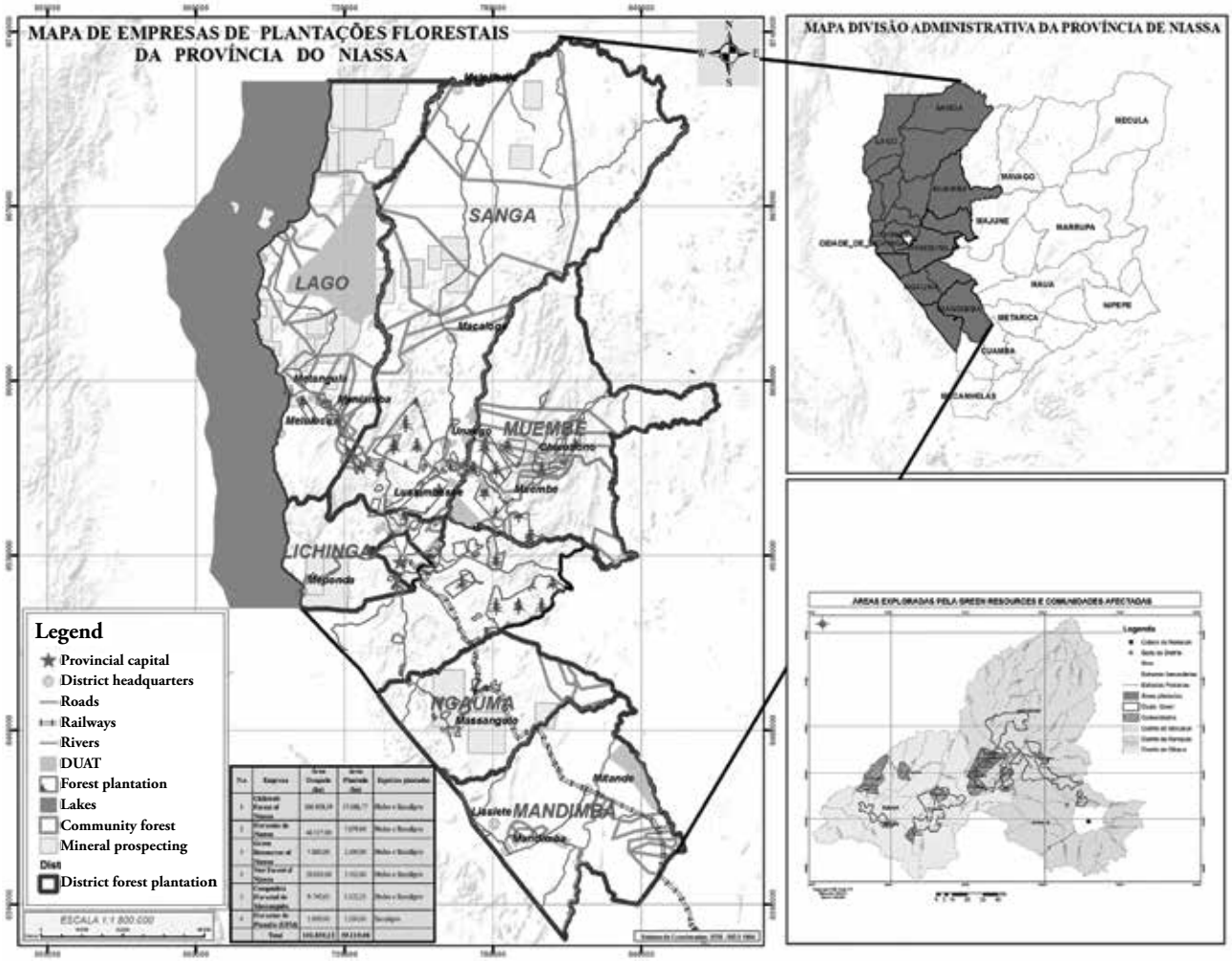
Appendix 1: Schedule of visits to the field and contacted agents

Province	District	Community	Interviewed agents	Dates	Team
Niassa	Chimbonila	Chimbonila-Sede and, Mucoco	- Government of Niassa Province; - Provincial Directorate of Agriculture; - Provincial Services of Geography and Cadastre; - Provincial Forestry and Wildlife Services; - Provincial Statistics Institute; - Provincial Directorate of Planning and Finance- District Governments and localities;- District of Economic Activities Services; - NGOs (UNAC, Oram, ROADS, ITC, Association of forest Niassa; - Niassa Green Resources; - Committees of Natural Resource Management; - Community Leadership (régulos, Ndunas, village chiefs, neighborhood secretaries, etc.); - Community representatives.	7-11 Dez. 2015 (1ª Round)	Calengo, Machava, Rajabo, Muchoco
	Lago	Bandeze-sede, Nkapi, Liconhile, Incapi, Maniamba, Mazogo-issa			
	Sanga	Lipende, Licole and Mpaco		14-15 Dez. 2015 (2ª round)	Rajabo e Kabura
Nampula	Ribáuè	Namacuco, Lanxeque, Meparara	- Government of Nampula Province; - Provincial Directorate of Agriculture; - Provincial Services of Geography and Cadastre; - Provincial Forestry and Wildlife Services; - District Governments and localities; - District of Economic Activities Services; - NGOs (Oram, iTC, etc .; - Lúrio Green Resources; - Committees of Natural Resource Management; - Local Advisory Councils - Community Leadership (chiefs, headmen, the district secretaries, etc.); - Community representatives.	14-22 Dez 2015	Calengo, Machava e Judite
	Mecuburi	Mutapa-Namina, Melola			
	Rapale	Muthita and Namaita			
Zambézia	Alto-Molócue	Alto-Molócue-sede	- District government; - District of Economic Activities Services.	18 Dez. 2015	Machava
Maputo	Maputo City		- Green Resources offices	22 Dez. 2015	Calengo e Machava

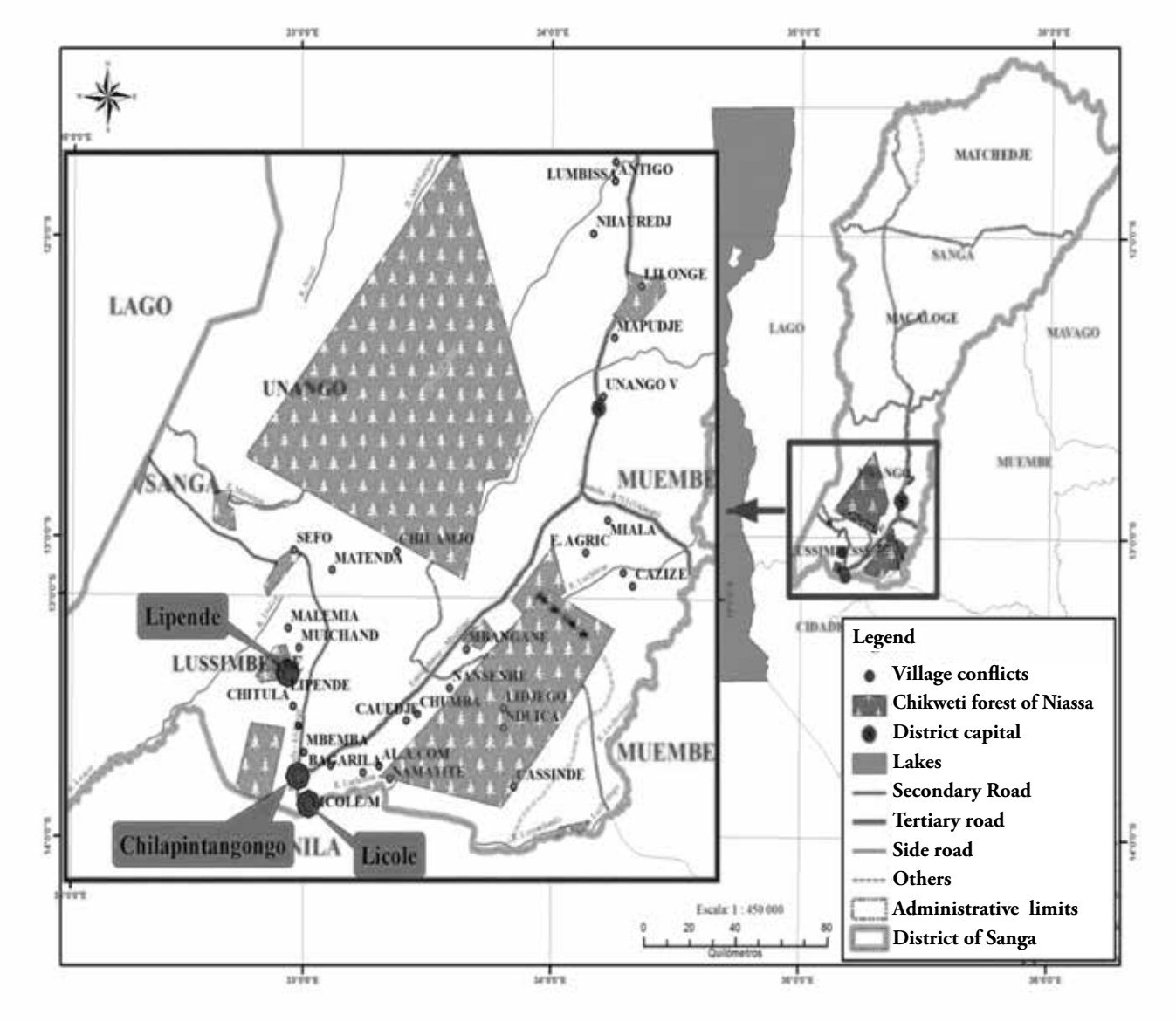
Appendix 2: Mapping of the Teak Forest of Zambezia plantations



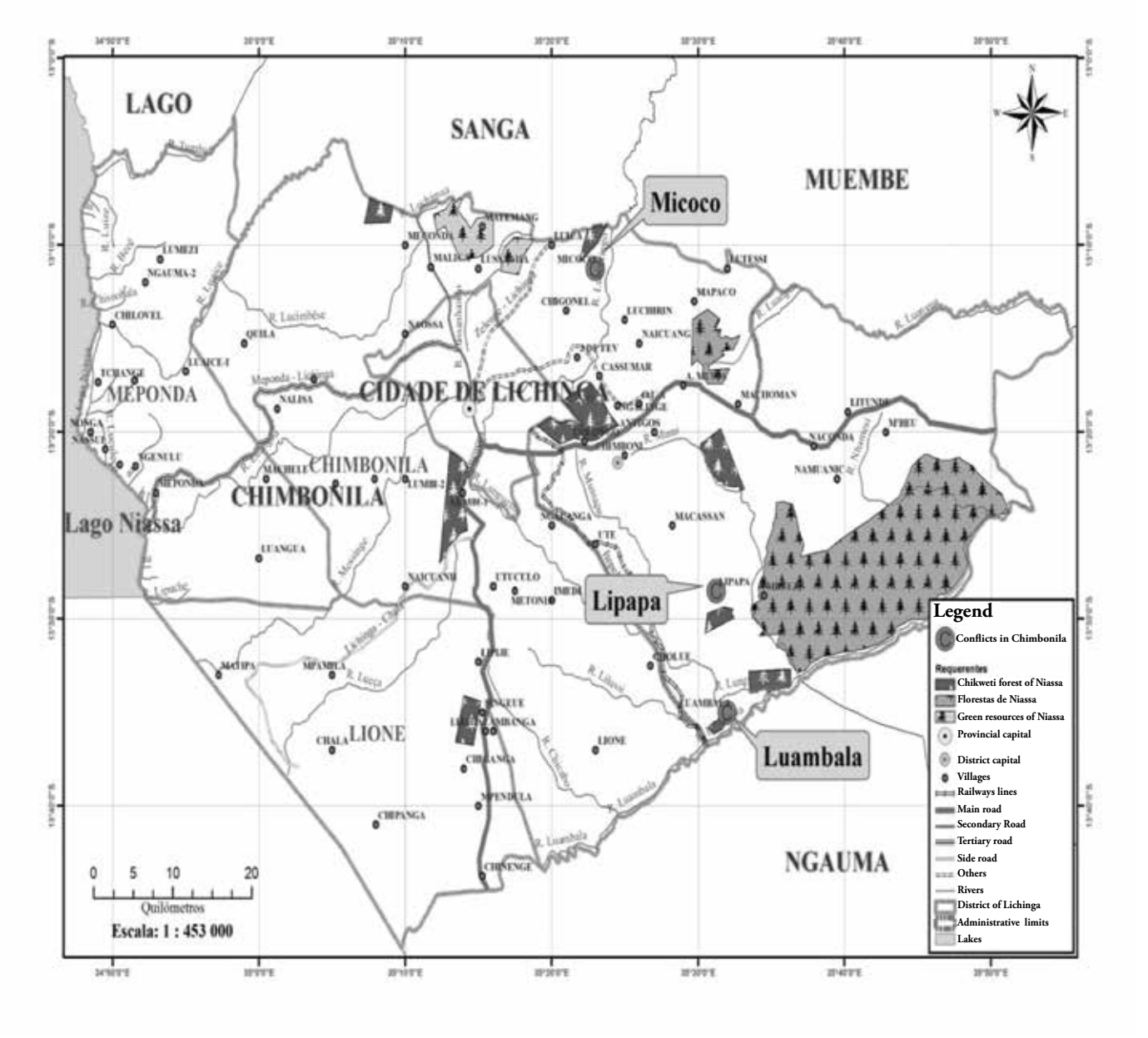
Appendix 3: General mapping of the areas occupied by GRM in Niassa and Nampula



Appendix 4: Communities where records land conflicts in Sanga district



Appendix 5: Communities that records conflicts in Chimbonila district



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