Triangular Cooperation for Agricultural Development of the Tropical Savannah in Mozambique

SUPPORT OF AGRICULTURE DEVELOPMENT MASTER PLAN FOR THE NACALA CORRIDOR IN MOZAMBIQUE

(PROSAVANA-PD)

REPORT No.2

Quick Impact Projects

March 2013

For Mozambique: MINAG, DPAs
For Brazil: Getulio Vargas Foundation
For Japan: Oriental Consultants Co. Ltd.
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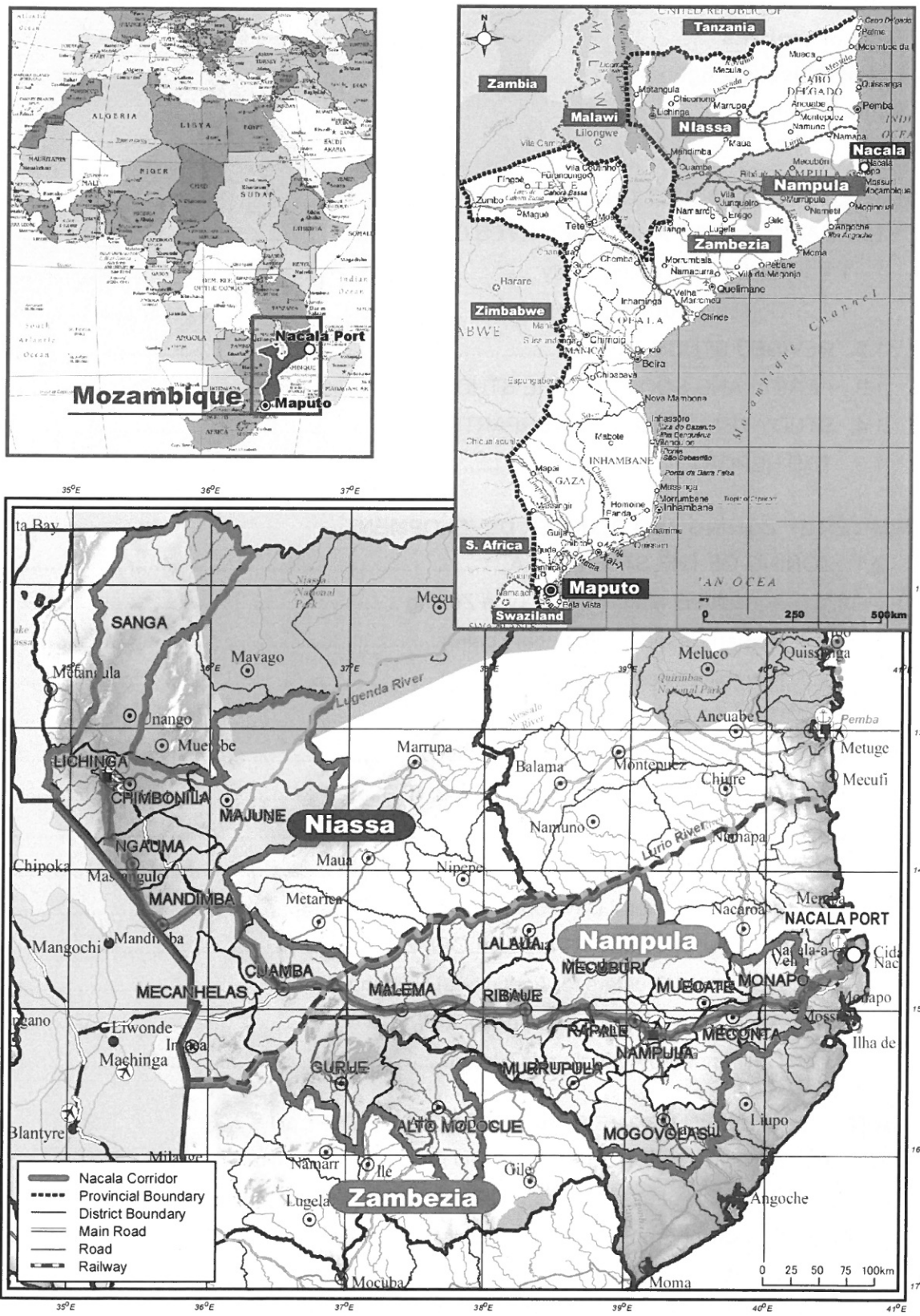


Location Map

Table of Contents

LIST OF TABLES AND FIGURES

LIST OF TABLES

LIST OF FIGURES

Page

Abbreviation

	English / Inglês	Portuguese / Português
ABC	Brazilian Cooperation Agency	Agência Brasileira de Cooperação
AIDS	Acquired Immune Deficiency Syndrome	Sindrome de Imuno Deficiência Adquirida
AIFM	Integrated Assessment of Forest in Mozambique	Avaliação Integrada das Florestas de Moçambique
ANE	National Agency of Roads	Administralção Nacional de Estradas
ARA	Basin Water Management Agency	Administração Regional de Águas
AU	African Union	União Africana
BAD	African Bank of Development	Banco Africano de Desenvolvimento
CAMPO	The company of Agricultural Promotion	Companhia de Promoção Agricola
CPAC	Cerrado Agricultural Research Center	Centro de Pesquisa Agropecuária dos Cerrados (EMBRAPA Cerrados)
CENACARTA	National Center of Cartography and Remote Sensing	Centro Nacional de Cartografia e Teledetecção
CEPAGRI	Center for the Promotion of Agriculture	Centro de Promoção da Agricultura
C/P	Counterpart	Contraparte
CPI	Investment Promotion Centre	Centro de Promoção de Investimentos
CSR	Company's Social Responsibility	Responsabilidade Social da Empresa
CTV	-	Centro Terra Viva
DAF	Directorate of Administration and Finance	Direcção de Administração e Finanças
DE	Economics Directorate	Direcção de Economia
DNA	National Directorate of Water	Direcção Nacional de Águas
DNAIA	National Directorate of Environmental Impact Assessment	Direcção Nacional de Avaliação do Impacto Ambiental
DNAPOT	National Directorate of Territorial Planning and Arrangement	Direcção Nacional de Planeamento e Ordenamento Territorial
DNEA	National Directorate of Agrarian Extension	Direcção Nacional de Extensão Agrária
DNTF	National Directorate of Land and Forestry	Direcção Nacional de Terras e Florestas
DPA	Provincial Directorate of Agriculture	Direcção Provincial da Agricultura
DPCA	Provincial Directorate for the Co-ordination of Enviromental Action	Direcção Provincial para Coordenação da Acção Ambiental
DPEC	Provincial Directorate of Education and Culture	Direcção Provincial de Educação e Cultura
DUAT	Land Use Rights	Direto de Uso e Aproveitamento da Terra
EIA	Environment Impact Assessment	Estudo de Impacto Ambiental
EMBRAPA	Brazilian Agricultural Research Corporation	Empresa Brasileira de Pesquisa Agropecuária
EPDA	Environmental Pre-viability Report and Scope Definition	Estudo de Pré-Viabilidade Ambiental e Definição do Âmbito
FAO	Food and Agriculture Organization	Organização para Agricultura e Alimento
FDD	Fund of District Development	Fundo de Desenvolvimento Distrital
FFS	Farmer Field School	Escola na Machamba do Camponês
FGV	Getulio Vargas Foundation	Fundacao Getulio Vargas
F/S	Feasibility Study	Estudo de Viabilidade
FUNAB	Environment Fund	Fundo do Ambiente
GAP	Good Agricultural Practice	Boas Práticas Agrícolas
GAPI	Office to Support Small Scale Industries	Gabinete de Consultoria e Apoio à Pequena Indústria
GAZEDA	Cabinet of Accelerated Economic Development Zones	Gabinete das Zonas Económicas de Desenvolvimento Acelerado
GDP	Gross Domestic Product	Produto Interno Bruto
GIS	Geographic Information System	Sistema de Informação Geográfica
GOM	Government of Mozambique	Governo de Moçambique
GPS	Global Positioning System	Sistema de Posicionamento Global
ICM	Cereals Insitute of Mozambique	Instituto de Cereais de Moçambique
ICT	Information and Communication Technology	Tecnologías da Informação e da Comunicação
IDA	International Development Association	Associação Internacional para o Desenvolvimento
IFAD	International Fund for Agricultural Development	Fundo Internacional para o Desenvolvimento Agrícola

IAM	Cotton Institute of Mozambique	Instituto do Algodão de Moçambique
IIAM	Agriculture Research Institute of Mozambique	Instituto de Investigação Agrária de Moçambique
IIED	International Institute for Environment and Development	Institute Internacional para o Meio Ambiente e Desenvolvimento
INAM	National Institute of Meteorology of Mozambique	Instituto National de Meteorologia de Moçqmbique
INCAJU	Institute of Promotion of Caju	Instituto de Fomento do Caju
INE	National Statistic Institute	Instituto National de Estatistica
INIA	National Institute of Agriculture Research	Instituto Nacional de Investigação Agronómica
ISRIC	International Soil Reference and Information Centre	Referência Internacional de Solo e Centro de Informação
IUCN	International Union for Conservation of Nature	União Internacional para a Conservação da Natureza
JCC	Joint Coordinating Committee	Comitê de Coordenação Conjunta
JICA	Japan International Cooperation Agency	Agência de Cooperação Internacional do Japao
JIRCAS	Japan International Research Centre for Agricultural Sciences	Centro de Pesquisa Internacional do Japão para as Ciências Agrárias
MAE	Ministry of the State Administration	Ministério da Administração Estatal
MEC	Ministry of Education and Culture	Ministério da Educação e Cultura
MF	Ministry of Finance	Ministério das Finanças
MICOA	Ministry for Coordination of Environment Action	Ministério para Coordenação da Acção Ambiental
MINAG	Ministry of Agriculture	Ministério da Agricultura
MITUR	Ministry of Tourism	Ministério de Turismo
MOPH	Ministry of Public Works and Housing	Ministério das Obras Públicas e Habitação
NGO (ONG)	Non Government Organisation	Organização Não Governamental
PAPA	Action Plan for Food Production	Plano de Acão para a Producão de Alimentos
PARPA	The Action Program for Reduction of Absolute Poverty	Programa de Ação para Redução de Pobreza Absoluta
PCM	Project Cycle Management	Gestão de Ciclo de Projeto
PD	Master Plan	Plano Director
PDUT	District Land-Use Plan	Plano Distrital de Uso da Terra
PEDSA	The Strategic Plan for the Agricultural Sector Development	Plano Estratégico para o Desenvolvimento do Sector Agrário
PROAGRI	National Program for the Agrarian Development	Programa Nacional de Desenvolvimento Agrário
PRONEA	National Program for Agrarian Extension	Programa Nacional de Extensão Agrária
ProSAVANA-JBM	Triangular Cooperation Program for Agriculture Development of the African Tropical Savannah among Japan, Brazil, and Mozambique	Programa de Cooperação Triangular para o Desenvolvimento Agrícola da Savana Tropical de Moçambique – Japão, Brasil e Moçambique
QIP	Quick Impact Project	Projetos de Rápido Impacto
RAI	Responsible Agricultural Investment	Investimento Agrícola Responsável
RAP	Resettlement Action Plan	Plano de Ação de Reassentamento
RAS	Simplified Environment Report	Relatório Ambiental Simplificado
R/D	Record of Discussion	Registro da Discussão
SADC	Southern African Development Community	Comunidade de Desenvolvimento da África Austra
SDAE	District Services of Economic Activities	Serviços Distritais de Actividades Económicas
SDPI	District Service of Planning and Infrastructure	Serviço Distrital de Planeamento e Infraestrturas
SEACAM	Secretariat for Eastern Africa Coastal Area Management	Agência de Gestão Costeira e Marina da África Oriental
SER	Simplified Environmental Report	Estudo Ambiental Simplificado
SEZ	Special Economic Zone	Zona Económica Especial
SOTER	Soil and Terrain Database	Banco de Dados de Terras e Solo
SPFFB	Provincial Service of Forest and Wildlife	Serviço Provincial de Floresta e Fauna Bravia
SPGC	Provincial Service of Geography and Cadastre	Serviço Provincial de Geografia e Cadastro
TAC	Technical Assessment Commission	Comissão Técnica de Avaliação
TICAD	Tokyo International Conference on African Development	Conferência Internacional de Tokyo para o Desenvolvimento Africano
TOR	Term of Reference	Termo de Referência
UN	United Nations	Nações Unidas

UNCTAD	United Nations Conference on Trade and Development	Conferência das Nações Unidas sobre Comércio e Desenvolvimento
UNCDF	United Nations Capital Development Fund	Fundo de Desenvolvimento de Capital das Nações Unidas
UNEP	United Nations Environment Programme	Programa das Nações Unidas para o meio Ambiente
WB-OP	World Bank Operational Policy	Política Operacional do Banco Mundial
WRB	World Reference Base	Base de Referência Mundial

CHAPTER 1 INTRODUCTION

1.1 Background and Objectives of the Study

1.1.1 Background of the Study

The basic framework for the Program on Triangular Cooperation for Tropical Savannah Agricultural Development in Mozambique (ProSAVANA-JBM) was signed by Japan International Cooperation Agency (JICA), Brazilian Cooperation Agency (ABC) and the Ministry of Agriculture (MINAG) on 17th September 2009, aiming to create new models of sustainable agricultural development in the tropical savannah region of Mozambique with due considerations of human security, food security, and poverty reduction for local population, as well as protection of wildlife and preservation of the environment. The program of ProSAVANA-JBM was formulated in March 2010.

Based on the Minutes of Meeting on ProSAVANA signed on 26th April 2011, the mission of JICA, ABC and MINAG jointly visited the Nacala Corridor area for the second ProSAVANA program of "Support of Agriculture Development Master Plan in the Nacala Corridor" (hereinafter referred to as the Study) and discussed the scope of work for the Study. As a result, three parties signed the Minutes of Meeting on 28th July 2011. This Minutes of Meeting was approved at the first Joint Coordination Committee (JCC) of ProSAVANA held on 29th August 2011. In addition, the Triangular Agreement, Record Discussion and Supplementary Agreement were signed on 24th November and 2nd December2011.

Based on these agreements, JICA dispatched a Japanese Study Team led by Mr. Keiji Matsumoto of Oriental Consultants from 3rd March 2012 and ABC dispatched a Brazilian Study Team led by Mr. Giuliano Senatore of FGV Projetos from 15th July 2012.

1.1.2 Objectives of the Study

Goal of the Proposed Plan is "to promote economic and social development through agricultural development in the Nacala Corridor".

Objective of the Study is "to formulate an Agricultural Development Master Plan that contributes to social and economic development by engaging private investment to promote a sustainable production system and poverty reduction in the Nacala Corridor".

1.2 Revised Study Area

At the third Joint Coordination Committee (JCC) held on December 3, 2012, the ProSAVANA-JBM area was reconfirmed that the region between the latitude 13°S to 17°S covering the Provinces of Cabo Delgado, Nampula, Zambezia, Niassa and Tete.

At the second JCC held on June 18 2012, two districts in Niassa Province were added to the original 14 districts in the Nacala Corridor area. At the third JCC, two districts in Nampula District and one district in Niassa Province are added as target districts of the Study Area. Finally, the Study Area of ProSAVANA-PD is composed of 19 districts as follows;

Province of Nampula:	Monapo, Meconta, Muecate, Mogovolas, Nampula, Murrupula, Mecuburi, Ribáuè, Lalaua and Malema
Province of Niassa:	Lichinga, N'Gauma, Mandimba, Cuamba, Sanga, Majune and Mecanhelas
Province of Zambezia:	Gurue and Alto Molocue.

(note: under lined districts are added)

The total area of the Study Area is about 106,600 km^2 and the population is estimated about 4,300,000 (2011).

1.3 Period and Scope of the Study

Originally, the Study has started the beginning of March 2012 and completed by the end of August 2013 for eighteen months. After adding 5 districts, the duration of the Study became 20 months up to October 2013. The scope of the Study is summarized as follows.

Table 1.3.1 Scope of the Study

Outputs	Major Activities	Submission of Report
【Output 1】 Data collection and information analysis	1-1 Analysis of the current invest environment in the agricultural sector in Mozambique (legislation and framework on labor, land tenure, environmental regulation and taxes) 1-2 Review of socioeconomic census, existing overall economic development plans and agricultural development plans for Nacala Corridor • Supporting the stakeholder meeting 1-3 Study on social, gender and environment aspects 1-4 Information gathering for functions and interventions of the governments, NGOs, donors and private sector (including financing institutions) for agricultural development 1-5 Zoning of Nacala Corridor area based on the agricultural environment 1-6 Study on current agricultural value chains and overall infrastructures in Nacala Corridor 1-7 Survey on current situation of land use in Nacala Corridor	Report No.1* Overall Picture of Development Plan May 2013*
【Output 2】 Drawing of an Overall Picture	2-1 Drawing an overall plan (blueprint) of agricultural development in Nacala Corridor • Supporting the 2nd stakeholder meeting	

【Output 3】 Quick Impact Projects (QIPs) planning	3-1 Characterization of selected areas which have agricultural development potential based on basic survey 3-2 Formulation of QIPs and expected immediate effects for target areas 3-3 Prioritization of QIPs 3-4 Beginning of the actions to attract investors for the implementation of prioritized QIPs	Report No. 2 Quick Impact Projects Middle of March 2013
【Output 4】 Engagement stimulation of stakeholders focusing on investment promotion	• Environmental impact assessment for the development projects. Supporting the formulation of resettlement plan if required for QIPs • Supporting the 3rd stakeholder meeting 4-1 Elaboration and presentation of Data Book to private investors 4-2 Holding seminars and workshops for stakeholders	Report No.3: Draft Final Report and Investment Data Book Middle of August 2013
Preparation of draft final report and Investment data book	Finalization of Agricultural Development Master Plan for the Nacala Corridor	
Preparation of final report	Preparation of Final Master Plan Report and Data Book for Investors	Final Report October 2013

Note: Underlined activities are additional scope of study for JICA Study Team.
*Report No.1 (draft) was prepared in 2012, the final version will be prepared by May 2013.

1.4 Study Team and Counterparts

The Study is conducted through triangular cooperation among the study teams of Japanese (JICA), Brazilian (ABC), and Mozambican counterparts of the Ministry of Agriculture (MINAG), Provincial Directorate of Agriculture of Nampula, Niassa and Zambezia.

1.5 The Report

Based on the definitions of outputs mentioned Table 1.3.1, this Report No. 2 is prepared as the output of "Quick Impact Projects (QIPs) Planning".

Chapter 2 of this Report shows the results of review of agricultural zoning the Draft Master Plan shown in draft Report No.1. Also the study of agricultural cluster development with value chain is added after determination of zoning and zonal agricultural development plan.

In Chapter 3, the review and rearrangement of proposed Master Plan component projects shown in the draft Report No.1 and their prioritizations were confirmed.

Main contents of the Report No.2: Quick Impact Projects (QIPs) Planning is shown in Chapter 4 together with environmental and social consideration of QIPs.

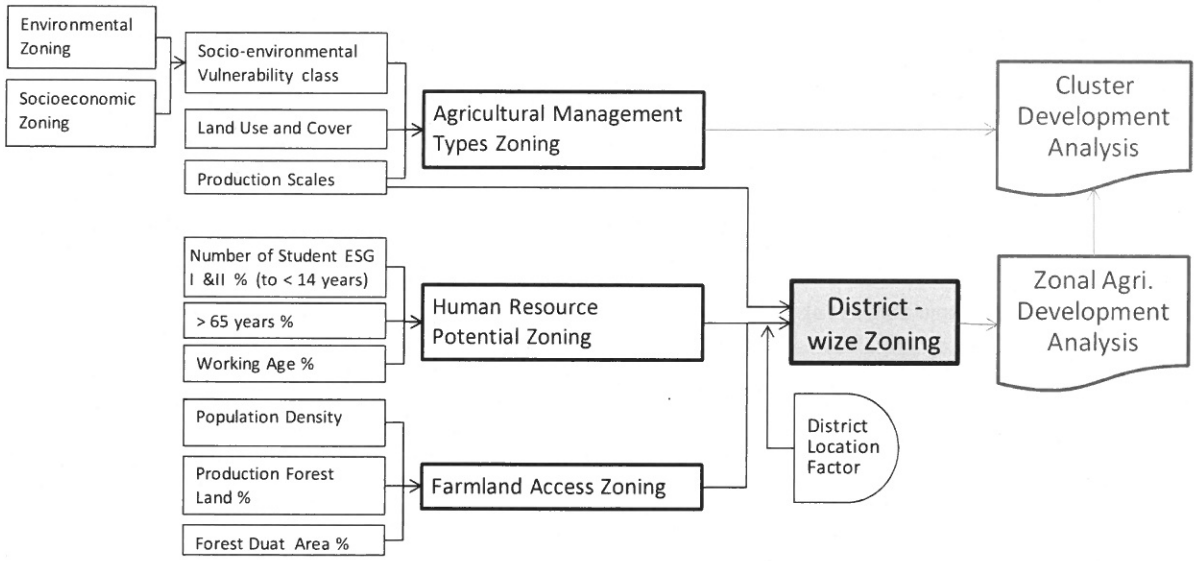
Preparation of the ProSAVANA guideline on Principle of Responsible Agricultural Investment is described in Chapter 5 of the Report.

CHAPTER 2 ZONING AND CLUSTER DEVELOPMENT

2.1. Zoning of the Study Area

Figure 2.1.1 shows an overall sequence for identifying district-wise zoning. District-wise zoning is produced from analysis of three factors, namely production scales, human resource potential zoning, and farmland access zoning.

Development analysis, such as district development goals and strategies, would be carried out based on the district-wise zoning.



Source: Study Team

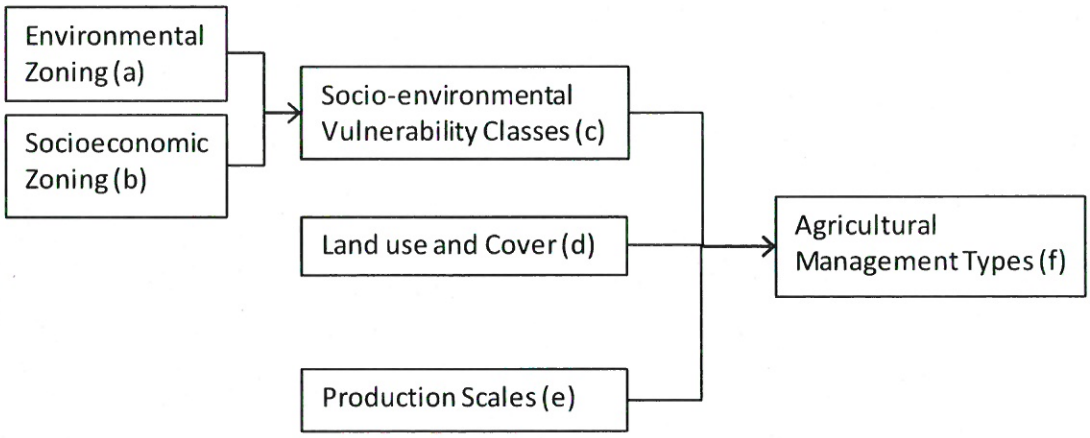
Figure 2.1.1 Sequence for Identifying District-wise Zoning

2.1.1. Agricultural Management Type Zoning

Agricultural management type zoning has as its central objective the identification of possible arrangements and production scales in each district in order to support future recommendations. Figure 2.1.2 shows the flow of the analysis for identifying agricultural management types. In order to identify agricultural management types (f), 5 elements (see Table 2.1.1) and the following 2 analyzing steps are adopted.

1st step: Environmental zoning (a) and socioeconomic zoning (b) was analyzed to identify the management zone (c).

2nd step: In addition to the identified management zone (c), land use and cover (d) and production scales (e) resulted in identifying agricultural management types (f).



Source: Study Team

Figure 2.1.2 Approach to Identify Agricultural Management Types

Table 2.1.1 Five Elements to Identify Agricultural Management Types

Factors	Contents
Environmental zoning (a)	Environmental Vulnerability by district Balance between firewood supply and consumption (FAO's WISDOM methodology)
Socioeconomic zoning (b)	Socioeconomic Vulnerability by district (Ranking districts by the indicators of Rural population, Road density, Railway density, Total cultivated area %, and Literate population %)
Socio-environmental Vulnerability Classes (c)	Classification of districts by Environmental Vulnerability and Socioeconomic Vulnerability
Land use and cover (d)	Land cover and land use map at the scale of 1 : 1,000,000 from AIFM by DNTF
Production Scales (e)	Distribution of suitable areas to corporate production (large-scale), entrepreneurial production (medium-scale) , or family farming (small-scale) by referring to Crop Suitability Maps

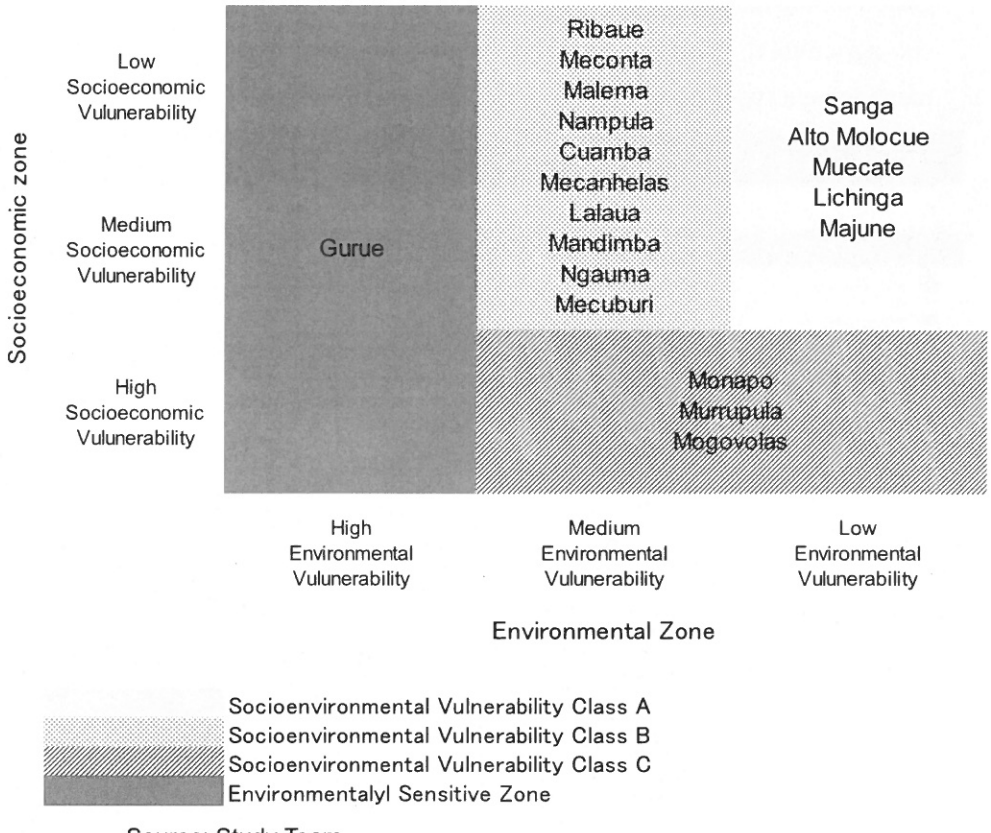
For the district-wise zoning, only the information of production scales (e) is used.

(1) Socio-environmental Vulnerability Classes

The 19 districts are classified into 4 Socio-environmental Vulnerability Classes, based on the difference in environmental and socioeconomic vulnerability, as shown in Figure 2.1.3. Muecate, Alto Molocue, Majune, Lichinga and Sanga are classified as Socio-environmental Vulnerability Class A, in which serious environmental and socioeconomic considerations are not required. Mecuburi, Meconta, Nampula, Lalaua, Ribaue, Malema, Cuamba, Mecanhelas, Mandimba and Ngauma are categorized Socio-environmental Vulnerability Class B, which allows low socioeconomic consideration, but needs high environmental consideration. Monapo, Murrupula and Mogovolas are classified as Socio-environmental Vulnerability Class C, which requires high socioeconomic consideration. Gurue is categorized in an environmentally sensitive zone at any socioeconomic vulnerability level, where large-scale land development is not recommended.

1) Socio-economic Vulnerability

2) Environmental Vulnerability



Source: Study Team

Figure 2.1.3 Socio-environmental Vulnerability Classes

(2) Land Use and Cover

A land use/ land cover map was referred to for identifying the land use situation in the Study Area. Field surveys were conducted to verify the quality and reliability of the information presented on the official map. With this activity, inconsistencies were resolved in a GIS environment.

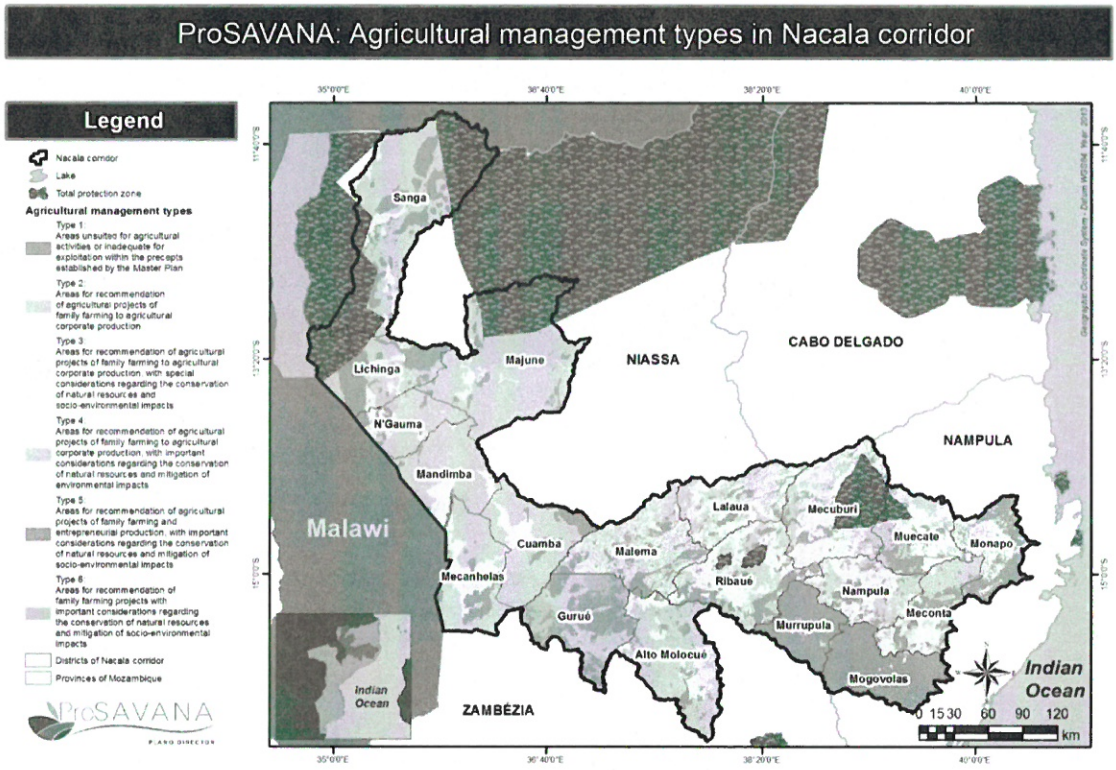
(3) Production Scales

Crop suitability maps were prepared for banana, cashew, cassava, castor oil, coffee, cotton, nhemba beans, elephant grass, eucalyptus, groundnut, maize, off-season maize, potato, paddy and upland rice, sesame, soybean, sugarcane, sunflower, sweet potato, tobacco, and wheat. Those maps were built based on the condition of crop suitability to annual rainfall, water balance, annual average temperature, and soil type. Simultaneously, applicable production scales, namely family farming (small-scale), entrepreneurial production (medium-scale) and corporate production (large-scale) were analyzed for those crops. Then, the distribution of areas by the applicable production scales was identified on a map.

Percentage of suitable land area for corporate farming by districts was referred to for the district-wise zoning.

(4) Agriculture Management Type Zoning

Based on the management zones, the land use/land cover map and the production scale map, six agricultural management types were identified, and put on the map of agricultural management types (see Figure 2.1.4). Descriptions of each type are shown in Table 2.1.2.



Source: Study Team

Figure 2.1.4 Distribution of Agricultural Management Types

Table 2.1.2 Description of Agricultural Management Types

Management Type	Description	Production Scale		
		Family farming	Entrepre-neurial	Corpo-rate
Management Type 1	Areas unsuited for agricultural activities or inadequate for exploitation within the precepts established by the Master Plan	No	No	No
Management Type 2	Areas recommended for agricultural projects by family, entrepreneurial and corporate farming	Yes	Yes	Yes
Management Type 3	Areas recommended for agricultural projects by ffamily, entrepreneurial and corporate farming, with **special considerations** regarding the conservation of natural resources and socio-environmental impacts	Yes*	Yes*	Yes*
Management Type 4	Areas recommended for agricultural projects by family, entrepreneurial and corporate farming, with **important considerations** regarding the conservation of natural resources and mitigation of environmental impacts	Yes**	Yes**	Yes**
Management Type 5	Areas recommended for agricultural projects by family and entrepreneurial farming, with **important considerations** about the conservation of natural resources and mitigation of socio-environmental impacts	Yes**	Yes**	No

Management Type 6	Areas recommended for family farming with **important considerations** regarding the conservation of natural resources and mitigation of socio-environmental impacts	Yes	No	No

Source: Study Team

2.1.2. Human Resource Potential Zoning

Human resource potential zoning can show richness in human resource by district as a certain level of quality workforce for future development. The following three parameters were used to measure the level of human resource potential.

- Percentage of students of ESG I&II in the population between 10 years and 14 years by district (human capacity).
- Percentage of seniors (above 65 years) in the total population by district (health).
- Percentage of working age population by district (the population of the workforce)

2.1.3. Farmland Access Zoning

Farmland access zoning shows the level of future farmland availability by changing land use practice keeping the proportion of the present forest area. The following three parameters were used to measure the accessibility to farmland without serious environmental impacts.

- Population density by district (land availability)
- Percentage of forest area in the entire area by district (limitation of new land development 1)
- Percentage of forest DUAT in the entire area by district (limitation of new land development 2)

2.1.4. District-wise Zoning

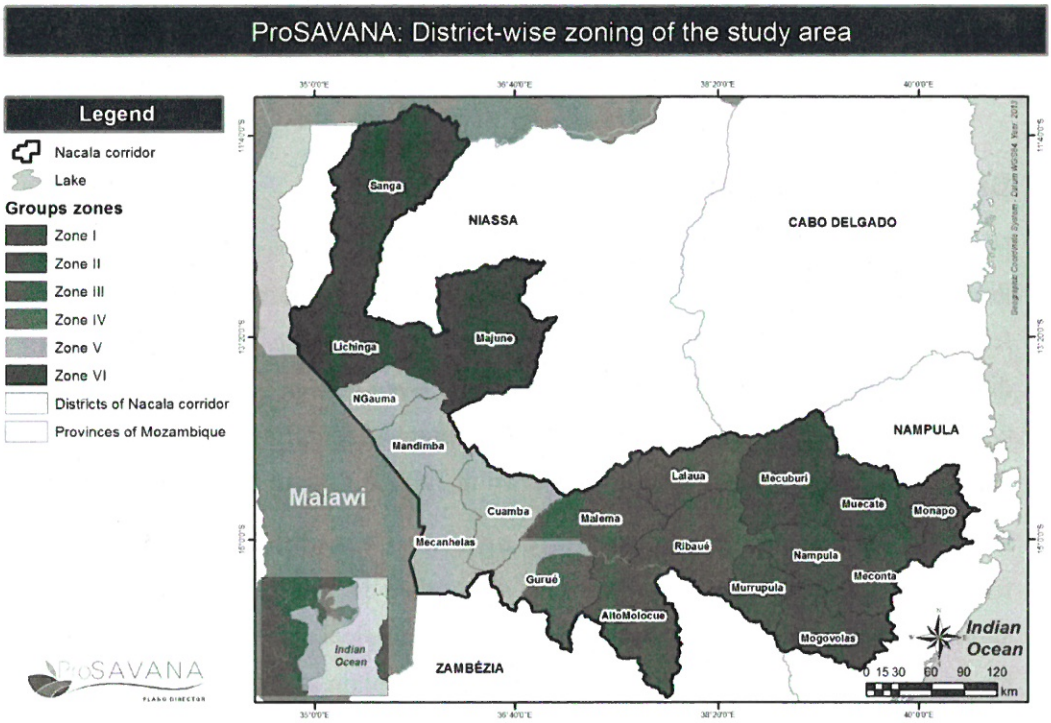
In order to identify district-wise zoning, each district was scored by their characteristics through the three factors as shown in Figure 2.1.1. Districts were classified into types varied from "a" to "d" by its total score. Furthermore, topographic condition (location) of each district was considered for zoning identification. Even though being classified into the same type, a different zone was adopted by the topographic condition of each district. The Study Area is finally divided into 6 zones as shown in Table 2.1.3 and Figure 2.1.5 below.

Regarding Gurue, the district is clearly divided in two different areas by its geological formation. One is the plain area and the other is the mountainous area. Since an administration boundary is drawn reflecting the geological difference, it is set as a boundary for zoning. Consequently, the mountainous area and plain area belong to Zone IV and Zone V respectively.

Unless otherwise noted, "zone" shall be represented by the "district-wise zone" hereafter.

Table 2.1.3 Identified Zone of Each District

Districts	Zoning			Total	Type	District-wise zoning
	Management type	Human resource potential	Farmland access			
Monapo	0	0	1	1	c	I
Muecate	1	0	1	2	c	I
Mecuburi	1	0	1	0	c	I
Meconta	1	1	1	3	b	II
Mogovolas	0	3	3	6	a	II
Nampula	3	1	0	4	b	II
Murrupula	0	1	3	4	b	II
Ribàué	1	0	1	2	c	III
Lalaua	1	0	1	0	c	III
Malema	1	1	0	2	c	III
Alto Molocue	3	0	1	4	b	III
Gurué	0	0	0	0	d	IV
Cuamba	3	1	1	5	a	V
Mecanhelas	3	0	3	0	a	V
Mandimba	3	1	1	5	a	V
N'Gauma	3	1	1	5	a	V
Majune	3	0	1	0	b	VI
Lichinga	0	0	1	1	c	VI
Sanga	1	0	3	0	b	VI
	High=3	High=3	High=3	5 – 6	a	
	Med=1	Med=1	Med=1	3 – 4	b	
	Low=0	Low=0	Low=0	1 – 2	c	
				0	d	



Source: Study Team

Figure 2.1.5 District-wise Zoning of the Study Area

2.1.5. Agricultural Development Potential

Based on primary and secondary data collection, the agricultural development potential by zone is summarized in Table 2.1.4.

Table 2.1.4 Agricultural Development Potential by Zone

Zones	I	II	III	IV	V	VI
Districts & area	Monapo, Muecate, Mecuburi	Meconta, Mogovolas, Nampula, Murrupula	Ribaue, Lalaua, Malema, Alto-Molocue	Gurue (excluded Lioma Administrative Post)	Gurue (Lioma Administrative Post), Cuamba, Mecanhelas, Mandimba, Ngauma	Majune, Lichinga, Sanga
Area (km^2)	14,865	15,528	23,257	5,664	18,106	29,581
Population	620,935	1,461,633	804,261	350,830	663,004	386,753
Population density (habit/km^2)	42	94	35	62	37	13
Average Temperature	23 - 25°C	Meconta, Nampula, Murrupula: 24 - 25°C Mogovolas: 25 - 26 °C	23 - 24 °C Around the boundary of Gurue: 22 - 23°C	22 - 23°C	Cuamba: 23 - 24 °C Mandimba: 21 - 23°C Ngauma: 20 - 22 °C	Lichinga: Less than 20°C Majuen: 20 - 23°C Sanga: 20 - 26°C
Annual Precipitation	1,000 - 1,200 mm	1,000 - 1,200 mm	Ribaue: 1,000 - 1200 mm Malema: 800 - 1,000 mm Alto Molocue: 1,200 - 1,600 mm	1,000 - above 1,600 mm	800 - 1,200 mm	1,000 - 1,400 mm
Soil fertility (area %) **In preparation now.**	High: % Medium: % Low: %	High: % Medium: % Low: %	High: % Medium: % Low: %	High: % Medium: % Low: %	High: % Medium: % Low: %	High: % Medium: % Low: %
Water resources (Specific runoff in mm)	154	226	323	648	281	262
Irrigated area (ha)	In operation: 160 Out of operation: 803	In operation: 267 Out of operation: 1,133	In operation: 732 Out of operation: 1,116	In operation: - Out of operation: -	In operation: 172 Out of operation: 164	In operation: 469 Out of operation: 133
Priority staple food crops	Maize, Cassava	Maize, Cassava	Maize, Cassava, Sorghum	NA	Maize, Sorghum	Maize
Priority cash crops	Groundnuts, Cowpea, Pigeon pea, Sesame, Vegetables, Cashew, Cotton	Groundnuts, Cowpea, Pigeon pea, Sesame, Vegetables, Cashew, Cotton	Groundnuts, Haricot beans, Cowpea, Sesame, Soybean, sunflower, Vegetables, Cotton, Tobacco	Haricot beans, Pigeon pea, Vegetables, Potato, Tea	Haricot beans, Pigeon pea, Soybean, Sunflower, Potato, Sesame, Cotton, Tobacco	Haricot beans, Soybean, Sunflower, Vegetables, Potato, Tobacco
Land use (area % of cultivated area, forest, and others)	Cultivated land: 50% Forest: 41% Others: 9%	Cultivated land: 60% Forest: 25% Others: 15%	Cultivated land: 43% Forest: 46% Others: 10%	Cultivated land: 49% Forest: 42% Others: 9%	Cultivated land: 29% Forest: 62% Others: 9%	Cultivated land: 13% Forest: 77% Others: 10%
Road density (road length m/km^2)	52	66	52	42	50	32
Railway density (railway length m/km^2)	5	10	9	0	18	2

Table 2.1.4 Agricultural Development Potential by Zone (continued)

Zones	I	II	III	IV	V	VI
Human resource potential	Low	Medium to high	Low to medium	Low	Low to Medium	Low
Socioeconomic consideration	1.High social vulnability in Monapo disrtrict 2. Large-scale mining concession in Monapo district	High socioeconomic vulnability in Mogovolas and Murrupula district	Large-scale mining concession in Lalaua and Alto-Molocue district		Large-scale mining concession in Ngauma districts	Large-scale mining concession in Lichinga, Majune, and Sanga districts
Farmland accessibility without reducing the present forest area %	Medium	Low to high (Low in Nampula)	Low to medium	Low	Medium to high	Medium to high
Land scape (area % of slope above 12%)	Monapo: 1 % Muecate: 4 % Mecuburi:6 %	Meconta: 2 % Mogovolas: 2 % Namupula: 8 % Murrupula: 5 %	Ribaue: 12% Malema: 18% Alto Molocue: 8%	Gurue: 32 %	Cuamba: 5 % Mecanhelas: 7% Mandimba: 2 % Ngauma: 11 %,	Lichinga: 20 %
Environmental consideration	<Normal Attention> High alart area: Forest conservation area in Muecate and Mecuburi. Alart area: Existing forest area in the western part of Muecate district. Very low % of forest area in Monapo district	<Normal Attention> Alart area: Existing forest area in the southern part of Meconta district. Very low % of forest area in the all districts	<Medium Attention> High alart area: Forest conservation area in Ribaue district, and river courses in the area Alear area: Existing forest area in Malema Distrrict and in the south-eastern part of Alto-Molocue district.	<High Attention> High alart area: Concentrated river cources in the area and steep-slopes of Mt. Namuli.	<Normal Attention> Alart area: Existing forest area in Cuamba area	<High Attention> High alart area: Forest conservation area in Lichinga, Majune, and Sanga district and river cources in the area. Alart area: Existing forest area in Majune and Sanga districts

Source: Study Team

2.2. Zonal Agricultural Development Goals

2.2.1 SWOT Analysis by Zone

SWOT analysis was made for each zone based on the potential of each zone as summarized in Table 2.1.4. The result of the SWOT analysis is enclosed at the end of this chapter as Tables 2.2.1 - 2.2.6.

2.2.2 Development Strategy of Zones

An agricultural development strategy for each zone, as described below, is developed in accordance with the SWOT analysis.

(1) Zone I Strategy

"Food supply to Nacala port area, and production of high value crops"

1) Major crop promotion
   - Maize to fulfill the inter-zonal demand
   - Cassava, groundnuts and vegetables to fulfill the inter-zonal demand, and to Nacala port area and coastal districts
   - Cowpeas, pigeon pea and sesame to fulfill the inter-zonal demand, as well as for exporting
2) Development of small-scale maize and cassava processing mills
3) Replacement of old cashew trees and revitalization of the cashew industry
4) Promotion of cotton production and the related processing facilities
5) Supporting small scale pump irrigation for vegetable production
6) Rehabilitation of defunct irrigation facilities for producing vegetables and other high value crops
7) Fostering leading farmers to become a core of farmers' associations/cooperatives
8) Development of farm commodity logistics connecting to Nacala port area and coastal districts
9) Careful control over new farmland expansion in Monapo
10) Reforestation in order to provide biomass as a substitute for native forests

(2) Zone II Strategy

"Agribusiness center of the eastern Nacala Corridor"

1) Major crop promotion
   - Maize to fulfill the inter-zonal demand
   - Cassava, groundnuts and vegetables to fulfill the inter-zonal demand and for processing
   - Cowpeas, pigeon pea and sesame to fulfill the inter-zonal demand, as well as for exporting
2) Development of small-scale maize, cassava and rice processing mills

3) Development of medium to large-scale agro-processing industries
4) Replacement of old cashew trees and revitalization of the cashew industry
5) Promotion of cotton production and the related processing facilities
6) Supporting small scale pump irrigation for vegetable production
7) Rehabilitation of defunct irrigation facilities for producing vegetables and other high value crops
8) Fostering leading farmers to become a core of farmers' associations/cooperatives
9) Development of inter-zonal farm commodity logistics
10) Careful management over new farmland expansion (Effective use of fallow farmland and existing agricultural DUAT area)
11) Reforestation in order to provide biomass as a substitute for native forests
12) Rehabilitation of the road between Nampula and Mogovolas

(3) Zone III Strategy

"Granary development in the Nacala Corridor"

1) Major crop promotion to cover all Nacala Corridor, mainly Nampula and Cuamba
2) Promotion of vegetable production, especially onion and garlic
3) Promotion of soybean production for processing (edible oil & animal feed)
4) Development of small-scale maize, sorghum and cassava processing mills
5) Development of medium to large-scale agro-processing industries
6) Promotion of cotton production and the related processing facilities
7) Promotion of tobacco production
8) Development of poultry industry
9) Supporting small scale pump irrigation for vegetable production
10) Rehabilitation of defunct irrigation facilities in order to produce vegetables and other high value crops
11) Fostering leading farmers to become a core of farmers' associations/cooperatives
12) Development of corporate farms, and promotion of contract farming
13) Effective use of fallow farmland and the existing agricultural DUAT area
14) Development of farm commodity logistics connecting to Nacala, Nampula and Cuamba
15) Rehabilitation of rural road networks

(4) Zone IV Strategy

"Production of special high value crops"

1) Promoting vegetables and potato production taking advantage of cool climate
2) Replacement of old tea plants and revitalization of the tea industry
3) Development of small-scale maize, sorghum and cassava processing mills
4) Fostering leading farmers to become a core of farmers' associations/cooperatives
5) Careful control over new farmland expansion
6) Rehabilitation and development of rural road networks
7) Reforestation in order to provide biomass as a substitute for native forests

(5) Zone V Strategy

"Strategic logistics hub and processing center of farm commodities"

1) Major crop promotion
   - Maize and beans to fulfill the inter-zonal demand and for processing
   - Production of soybeans for processing (edible oil and animal feeds) and for export
   - Vegetables to fulfill the inter-zonal demand and for exporting to Malawi
2) Development of small-scale maize, sorghum and rice processing mills
3) Development of medium to large-scale agro-processing industries
4) Promotion of cotton production and the related processing facilities
5) Promotion of tobacco production
6) Development of poultry industry
7) Development of pump irrigation system for producing vegetables and other high value crops
8) Fostering leading farmers to become a core of farmers' associations/cooperatives
9) Development of corporate farms, and promotion of contract farming
10) Effective use of fallow farmland and the existing agricultural DUAT area
11) Development of farm commodity logistics connecting to the whole country and Malawi
12) Development of supporting industries for agriculture production and processing

(6) Zone VI Strategy

"Development of new farm commodity value-chain"

1) Major crop promotion
   - Maize to fulfill the inter-zonal demand and for processing
   - Production of soybeans for processing (edible oil and animal feeds) and for export
2) Promoting vegetables, haricot beans and potato production taking advantage of cool climate
3) Development of small-scale maize processing mills
4) Development of medium to large-scale agro-processing industries
5) Promotion of tobacco production
6) Development of poultry industry
7) Rehabilitation of defunct irrigation facilities in order to produce vegetables, haricot beans, potato and other high value crops in Lichinga
8) Fostering leading farmers to become a core of farmers' associations/cooperatives
9) Development of corporate farms, and promotion of contract farming
10) Development of farm commodity logistics connecting to Cuamba, Pemba and Malawi
11) Harmonized management over new farmland expansion with socio-environmental interest
12) Rehabilitation and development of rural road networks

2.2.3 Zonal Agricultural Development Goals by Phases

(1) Overall Master Plan Goals

Overall master plan goals are defined in accordance with the basic concepts of the master plan as shown in Table 2.2.7.

Table 2.2.7 Overall Master Plan Goals by Phase

	Phase I (2014-20)	Phase II (2021-25)	Phase III (2026-30)
Individual Farmers (Small to Medium-Scale)	Unit yield of major crops increases through transformation of small to medium scale farmers' practice into fixed farming	The unit yield further increases through accelerated improvement in farming technology of small to medium farmers. The farmers also start to diversify their crop production	Small to medium scale farmers are well-empowered to improve their farming by their self-reliant efforts. Diversification of agriculture has expanded, and some of the farmers specialize in specific crop production
Farmers Organization	Involvement of small and medium scale farmers in agribusiness starts	Participation of small and medium scale farmers in agribusiness is strengthened by fostering a sound farmers' organization	The development of agribusiness makes considerable progress, and many agricultural clusters are established and in operation
Agribusi-ness	Private investment in agribusiness (production, processing and marketing) starts in consistency with PRAI	Private investment in agribusiness starts expanding, and the development of agricultural cluster starts	

(2) Zonal Agricultural Development Goals

Zonal agricultural development goals for each zone by phase are determined in accordance with the overall goals and the zonal development strategy. The zonal goals are shown in Table 2.2.8.

Table 2.2.8 Zonal Agricultural Development Goals by Phase

Area	Phase I (2014-20)	Phase II (2021-25)	Phase III (2026-30)
All Zones (Common Goals)	(A) Majority of small to medium scale farmers shift to fixed farming, and production of major food crops (maize, cassava and beans) increases	(A) Surplus of major food crops considerably increases, and amount of marketed crops also increases.	(A) Surplus of major food crops fulfills the demand from processing and livestock industries, as well the exported amount of the crops increases
Zone I	(1) Production of vegetables to be marketed to Nacala area increases	(1) A vegetable production center is developed	
	(2) Production of beans and sesame increases	(2) A substantial amount of beans and sesame is exported	(2) Processing factories for beans and sesame are established
	(3) Production of cotton increases	(3) Cotton industry is further developed	(3) A cotton cluster is developed
	(4) The number of renewed cashew trees increases	(4) Cashew production increases	(4) Cashew industry is reactivated
	(5) Reforestation targeting the production of biomass starts	(5) Planted forests start to provide biomass to local communities	(5) Planted forests become a major biomass source as a substitute for native forests

Area	Phase I (2014-20)	Phase II (2021-25)	Phase III (2026-30)
Zone II	(1) Production of vegetables to be marketed to Nampula area increases	(1) A vegetable production center is developed	(1) Vegetable clusters are developed
	(2) Production of beans and sesame increases	(2) A substantial amount of beans and sesame is exported	(2) Processing factories for beans and sesame are established
	(3) Production of cotton increases	(3) Cotton industry is further developed	(3) A cotton cluster is developed
	(4) The number of renewed cashew trees increases	(4) Cashew production increases	(4) Cashew industry is reactivated
	(5) Reforestation targeting the production of biomass starts	(5) Planted forests start to provide biomass to local communities	(5) Planted forests become a major biomass source as a substitute for native forests
	(6) Processing factories for cassava, maize, etc. start their operation	(6) The accumulation of similar processing factories and their supporting industries progresses	(6) Agricultural clusters centered on the processing factories are established
Zone III	(1) Production of vegetables to be marketed to Nampula and Nacala area increases	(1) A vegetable production center is developed	(1) Vegetable clusters are developed
	(2) Corporate farms to produce mainly soybeans and sesame start the cultivation	(2) A partnership business model between a farmers' organization and a corporate farm prevails	(2) A substantial amount of soybeans and sesame is exported
	(3) Production of cotton and tobacco increases	(3) Cotton and tobacco industries are further developed	(3) A cotton cluster is developed
	(4) Processing factories for cassava, maize, etc. start their operation	(4) The accumulation of similar processing factories and their supporting industries progresses	(4) Agricultural clusters centered on the processing factories are established
	(5) Modernized poultry industry starts expanding	(5) The accumulation of poultry industry and their supporting industries (processing, storage, distribution, etc.) progresses	(5) A cold chain network with Nacala port is well established, and the exportation increases by introducing a certification system to access international markets (Halal, Kosher, EU, etc.)
	(6) Commercial seed growers provide quality seeds to local markets	(6) Commercial seed growers expand business to cover the eastern to the central parts of Nacala corridor area	(6) Commercial seed growers expand business to outside of the Nacala corridor area
Zone IV	(1) Production of vegetables suitable to cool-highland climate condition and potato increases	(1) Vegetables and potato production centers are developed	(1) Vegetable and potato clusters are developed
	(2) The number of renewed tea plants increases	(2) Tea production increases	(2) Tea industry is reactivated
	(3) Reforestation targeting the production of biomass starts	(3) Planted forests start to provide biomass to local communities	(3) Planted forests become a major biomass source as a substitute for native forests
Zone V	(1) Corporate farms to produce mainly soybeans start the full-scale cultivation	(1) A partnership business model between a farmers' organization and a corporate farm prevails	(1) A substantial amount of soybeans is exported
	(2) Processing factories for soybeans, maize, etc. start their operation	(2) The accumulation of similar processing factories and their supporting industries progresses	(2) Agricultural clusters centered on the processing industries and chicken industry are established
	(3) Production of cotton and tobacco increases	(3) Cotton and tobacco industries are further developed	(3) A cotton cluster is developed
	(4) Modernized poultry industry starts expanding	(4) The accumulation of poultry industry and their supporting industries (processing, storage, distribution, etc.) progresses	(4) Cold chain networks with Nacala port and other domestic destinations are well established, and the exportation increases by introducing a certification system to access international markets (Halal, Kosher, EU, etc.)
	(5) Commercial seed growers provide quality seeds to local markets	(5) Commercial seed growers expand business to cover the central parts of Nacala corridor area	(5) Commercial seed growers expand business to outside of the Nacala corridor area

Area	Phase I (2014-20)	Phase II (2021-25)	Phase III (2026-30)
Zone VI	(1) Production of vegetables suitable to cool-highland climate condition and potato increases	(1) Vegetable and potato production centers are developed	(1) Vegetable and potato clusters are developed
	(2) Corporate farms to produce mainly soybeans, haricot beans and sesame start the cultivation	(2) A partnership business model between a farmers' organization and a corporate farm prevails	(2) A substantial amount of soybeans, haricot beans and sesame is exported
	(3) Production of tobacco increases	(3) Tobacco industry is further developed	
	(4) Processing factories for soybeans, maize, etc. start their operation	(4) The accumulation of similar processing factories and their supporting industries progresses	(4) Agricultural clusters centered on the processing industries and chicken industry are established
	(5) Modernized poultry industry starts expanding	(5) The accumulation of poultry industry and their supporting industries (processing, storage, distribution, etc.) progresses	(5) Cold chain networks with Nacala & Pemba ports are well established, and the exportation increases by introducing a certification system to access international markets (Halal, Kosher, EU, etc.)
	(6) Commercial seed growers provide quality seeds to local markets	(6) Commercial seed growers expand business to cover the northern to the central parts of the Nacala corridor area	(6) Commercial seed growers expand business to outside of the Nacala corridor area

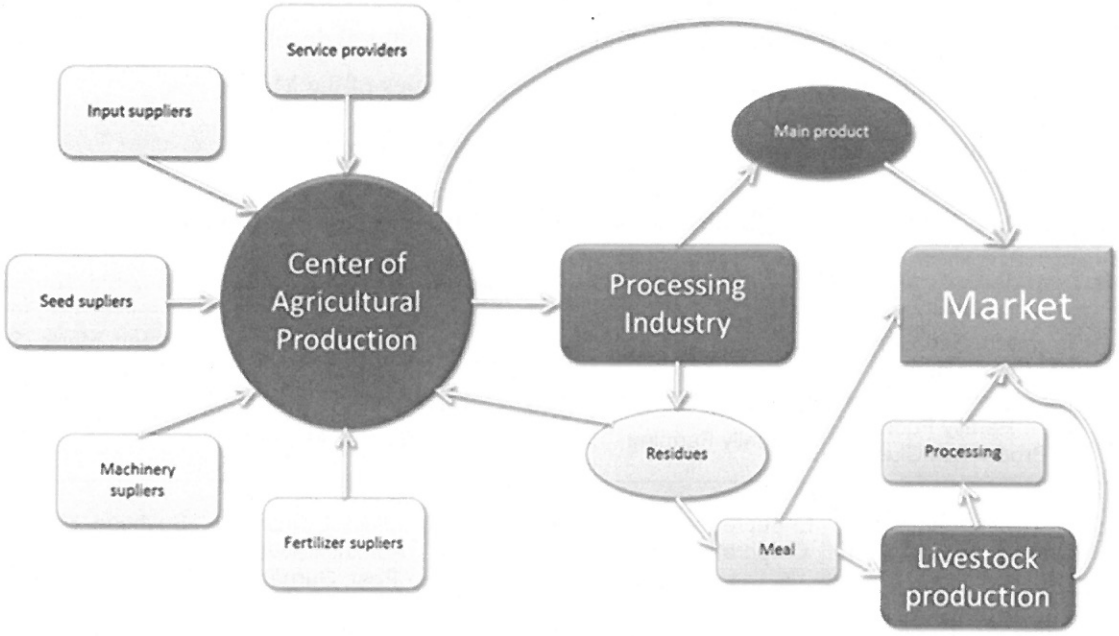
2.3. Agricultural Cluster Development

2.3.1. Concept of Clusters for Agricultural Development

Clusters are strategic approaches to accelerate development within a specified territory. The central line of development of these strategies is to design one or more value chains, with synergic potential and in appropriate context regarding the territory, in order to channel efforts for its realization within a period lower than that which could be achieved without integrated and specific actions. All producers, companies and institutions that are correlated with the central value chain, such as input suppliers, machinery suppliers, specialized infrastructure or competing entities, represent the constitutional elements of a Cluster.

Clusters also involve marketing channels and consumers as well as producers of complementary products and companies of related sectors. Finally, many clusters include governmental institutions, universities, training centers and commerce, which provide training, education, information, research and specialized technical support. Figure 1 below is an exemplification of an agricultural production cluster.

The production clusters present themselves as the basis for the political, social and especially economic development of Nacala Corridor. Each cluster will encompass a variety of agricultural, industrial and service provider companies, which will involve corporate domestic and foreign producers up to the Mozambican smallholders working together in synergy between components.



Source: Study Team, 2013.

Figure 2.3.1 Example of an Agricultural Cluster

The installation location of the clusters was defined according to the previously presented zoning, where the distribution of Districts in Zones and Agricultural Management Types identified the most appropriate management strategy to be recommended.

The areas with higher social and environmental vulnerability were recommended clusters that would enable the development of small-scale family agriculture and production of staple foods, enabling the involvement of a greater number of farmers with high value-added products, such as vegetables and poultry.

Prior regional assessments were performed so that the recommended crops in each cluster were based on feasibility and productive potential of each region, thus ensuring the correct selection of activities for each cluster.

The clusters, besides having internal synergies for regional socioeconomic development, should also work seamlessly to generate synergy between themselves, allowing the rationalization of investments, operations, products and services obtained in each macro-region. Activities related to grain production demand seeds, so seed production must be recommended within the clusters, and one cluster may produce a significant portion of necessary seeds for other clusters during the first phase of development, for example, while a cluster may receive initial investments in processing units to ensure value addition on the grain produced in the other clusters in the first phase of development. With the advancement of the process of development in the Corridor as a whole, local enterprises should be promoted to supply local needs, reducing generalist interdependencies among clusters and strengthening those interdependencies linked to expertise and strategic differentials.

2.3.2. Agricultural Clusters Developed in ProSAVANA

As part of the strategic recommendations for agricultural development in the Nacala Corridor, seven clusters are recommended to start the activities of the Master Plan.

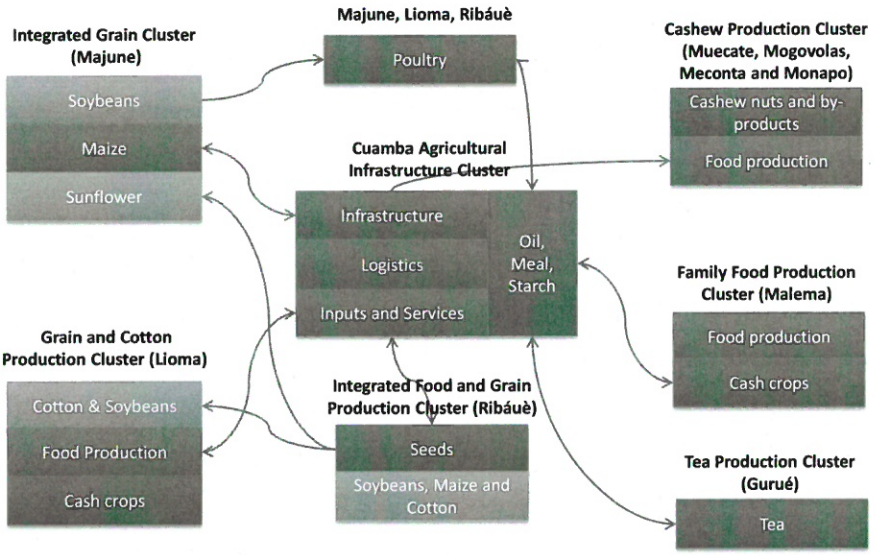
Table 2.3.1 below presents the main features of these clusters.

Table 2.3.1 Outline of Agricultural Clusters and Suggested Initial Location

Nº	Name of Cluster	Main Production category	Concept	Suggested Initial Location	Possible Components
1	Integrated Grain Cluster	Corporate Farming	Greenfield[1]	Zone VI: Majune, expansible to Zone V: N'Gauma	Soybean, Maize, Sunflower, Elephant grass and Poultry
2	Family Food Production Cluster	Family Farming	Greenfield & Brownfield	Zone III: Malema	Maize, Cassava, Cotton, Vegetables and Groundnuts
3	Grain and Cotton Production Cluster	Entrepreneurial and Corporate Farming	Brownfield[2]	Zone V: Lioma plain (Lioma Administrative Post, Gurué)	Soybean, Maize, Cotton and Poultry
4	Cashew Production Cluster	Entrepreneurial and Family Farming	Brownfield	Zones I and II: Monapo, Mogovolas, Meconta, Muecate	Cashew nuts, Maize, Beans, Cassava, Groundnuts, Sesame, Vegetables and Eucalyptus
5	Integrated Food and Grain Production Cluster	All category	Greenfield & Brownfield	Zone III: Ribáuè	Soybean, Maize, Cotton, Seed Farm, Vegetable and Poultry
6	Tea Production Cluster	Entrepreneurial and Family Farming	Brownfield	Zone IV: Gurué	Tea
7	Cuamba Agricultural Infrastructure Cluster	(non-agricultural activities)	Brownfield	Zone V: Cuamba	Infrastructure, logistics, inputs & services

Note: Greenfield: Intended to develop a new value-chain and/or area as major driving force
Brownfield: Intended to develop existing value-chain and/or area as major driving force

The Figure 2.3.2 below illustrates the possible synergy by the implementation of proposed clusters for agricultural and socioeconomic development of the Nacala Corridor.



Source: Study Team (BST), 2013.

Figure 2.3.2 Possible Synergies between Proposed Agricultural Clusters

It is recommended that the platform projects are implemented with priority in the areas of the clusters, whenever possible. The specific strategies and goals recommended for each cluster will be presented below.

2.3.3. Outline of the Agricultural Clusters

(1) Integrated Grain Cluster (Cluster-1)

The objective of the grain cluster would be to enhance the local economy with the cultivation and processing of grains, specifically soya-beans, maize and sunflower, that jointly with the establishment of other complementary activities such as poultry, and one thermal plant will act in an integrated way to generate benefits. The productive arrangement for the initial development of the cluster shall be based on private corporative capital investment. At first, a single corporation shall be responsible for managing all operation of the cluster, acting in a vertical way, with activities that involve the acquisition of necessary inputs and include all steps up to the production and processing of raw material.

The grain cluster was recommended to be primarily located in Majune district due to its low environmental and social vulnerability and its excellent soil and climate conditions for the total usage of the crop productive potential. Meanwhile, the cluster can be replicated in the remaining Zones VI, III and V, with some considerations. In the district PDUT report, an interest for the development of agricultural activities is observed in the southwest region of the district, an area with appropriate climate and soil conditions for grain production. The district is strategically located near N'Gauma, a site where agriculture production can grow, and Cuamba districts, which has high potentiality for the development of support and logistic services, planned in Cluster 7 – Cuamba Agricultural Infrastructure Cluster. It is expected this cluster will be also integrated with Cluster 5 – Integrated Food and Grain Production Cluster, through the seed acquisition chain.

Table 2.3.2 Targets for Cluster - 1 related to all Phases of the Master Plan

Components	Phase 1 (2014-2020)	Phase II (2021-2025)	Phase III (2026-2030)
Agricultural production	Implantation of areas and beginning of soya bean, maize and sunflower production	Increase of grain production	Grain production will be established
Industrial processing	Beginning of operation of industry and beginning of grain processing	Development of a grain processing and marketing chain	Stabilization of the grain processing industry
Poultry production	Establishment and beginning of operations of the chicken production complex	Increase of the number of poultry production modules. Strengthening of the infrastructure necessary for the establishment of a cold chain	Chicken production process will have achieved high quality and traceability levels
Marketing	Integrate local production processing to be developed in Cluster-7 Cuamba district region	Internal grain processing and export of oil, bran and starch	Traceability and access to special markets (Halal, Kosher and European Union)

Supplementary activities	Beginning of production of Elephant grass biomass	Development of local biomass and electricity production	Incorporation of other sectors such as cattle, goats, dairy and food products.
Partnership with family sector farmers	Identification and establishment of contracts with local producers to boost production	Stabilization of family level grain production, provision of techniques to local farmers and labor capacity building.	Technical and financial independence of local farmers with the boosting of cooperation

(2) Family Food Production Cluster (Cluster -2)

The objective of the family cluster is the training and strengthening of family level farmers based on the production of food and cash crops. The continuous cultivation of cassava for industrial purposes intercropped with maize, groundnuts and cotton crops is planned. The organization and structure of the 1,000 farmers involved will be based on public investment, through the support of public extension provided by IIAM and SDAE. The industrial facility for cassava processing will be provided by private initiative, which will be responsible for the boosting of family production.

The region initially recommended for this cluster was Malema district. Most of the district was defined as being of low social and environmental vulnerability, along with being identified as possessing good water resources and good soil condition for the development of irrigated agriculture. Its location is privileged due to its closeness to Cuamba, where support and logistic services will be developed, according to Cluster 7. The cluster can also be developed in all zones, if maize processing is considered as an alternate option to cassava processing.

Table 2.3.3 Targets for Cluster - 2 related to all Phases of the Master Plan

Components	Phase 1 (2014-2020)	Phase II (2021-2025)	Phase III (2026-2030)
Establishment of Associations	Promotion of farmers' associations, improvement of rural extension workers and strengthening of governmental rural extension bodies	Stabilization of associations and farmers' groups.	Strengthening of established associations
Cassava agricultural production	Implantation of recommended crops	Stabilization of production centers for cash and food crops	Raw material supply for industries will be established
Industrial production	Begin the establishment and expansion of the cassava processing agro industry	Processing stabilization	Processing stability and business diversification
Agricultural production of cash and food crops	To increase cotton, maize and vegetable production and improve the quality of the products	Increase of the marketing of cash crops	The first value chain of the cluster will be developed.
Partnership with family sector farmers	Identification and establishment of contracts to boost the production and for labor capacity building for the industry	Stabilization of the production and provision of techniques to farmers	Stability of established contracts

(3) Grain and Cotton Production Cluster (Cluster -3)

The objective of the cluster will be the consolidation of a region that already presents an initial process of agricultural production development, boosting the economy and

strengthening local farmers. A series of initiatives shall be structured with the purpose of attracting investments, focusing on the development of potentialities and to overcome current limitations. The investments shall be public-private, with actions to improve local infrastructures. The public sector shall be involved through partnerships and fiscal incentives.

The establishment of the cluster in Gurué district is recommended, specifically in Lioma Plains. The region also has areas subject to major environmental vulnerability. Support initiatives for the development of a sustainable production model must support the grouping of these ambiguities. The character and positioning of the corridor have excellent features for integration with clusters 5 and 7.

Table 2.3.4 Targets for Cluster - 3 related to all Phases of the Master Plan

Components	Phase 1 (2014-2020)	Phase II (2021-2025)	Phase III (2026-2030)
Agricultural chain improvement actions	To encourage the development of model contracts and of agricultural relationships between different classes of farmers and an integrated agricultural planning and management system.	To strengthen the establishment of Modern Farmers' Cooperatives.	Consolidation of the integration of local production with the export chain and inter-regional trade.
Marketing and trade	To integrate local production with processing initiatives to be developed in the Corridor, strengthening of funding services	Establishment of a production chain between the clusters in the Corridor	Supply to the internal market and export of possible surplus
Logistic infrastructure	Establishment of Public-Private Partnerships to accelerate rehabilitation and expansion works and to create necessary infrastructures.	Consolidation and expansion of local benefiting units of agricultural products	Consolidation of the Agricultural Production Complex and its integration in a distribution and export value chain.
Partnership with Local Farmers	Inclusion of local labor through technical capacity building actions in partnership with local investors.	Stabilization of the production and provision of techniques to farmers.	Stability of established contracts
Other	Evaluation of the current concession system for agricultural crops exploitation with the aim of cotton and tobacco production chains	Inclusion of cotton and tobacco production chains in development actions.	Consolidation of the development of cotton and tobacco productive chains.

(4) Cashew Production Cluster (Cluster - 4)

The objective of the cashew production cluster is to structure the cashew production chain through the formalization of trade, increase of cashew nut production and value aggregation on the product and the creation of public and private initiatives to boost the production, thus strengthening the local economy and improving the livelihoods of family farmers in the region. Initiatives will be conducted to improve production techniques and to strengthen solidarity economy organizations, based on a participatory methodology, aiming at a sustainable cashew tree productive chain. Simultaneously to these activities, the existing cashew units that benefit from support in the region will be reactivated and modernized. The project also plans to encourage mixed plantation of cashew trees with other agricultural crops, apart from the allocation of 50% of the plots to food crops production.

In principle, the recommended districts for the establishment of cashew clusters are Monapo, Magovolas, Meconta and Muecate. These districts are INCAJU's priority districts for the development of this crop, and currently the region already has many producers who cultivate cashews as an income source. The region also offers an excellent logistic advantage because it is located near Nampula city, a large consumer center and close to Nacala Port.

Table 2.3.5 Targets for Cluster - 4 related to all Phases of the Master Plan

Components	Phase 1 (2014-2020)	Phase II (2021-2025)	Phase III (2026-2030)
Associations development	Promotion of farmers' associations, improvement of rural extension workers. Strengthening of government bodies of rural extension.	Stabilization of farmers' associations and groups.	Strengthening of established associations. Itinerant agriculture and conflicts for natural resources would have been considerably reduced.
Cashew agriculture production	To support and encourage the plantation and renovation of cashew trees	Increase of cashew production	The supply of raw material and of cashew nuts for the industry will be established.
Industrial production	To invest in and encourage the establishment and expansion of cashew processing agro-industry. Develop a study on the use of cashew pulp in industrial processes.	Stabilization of agro-industry. Cashew pulp value chain development.	Stability of industrial production and business diversification. Units that benefited from cashew pulp will be integrated into the production chain.
Agricultural production of cash and food crops	To encourage the diversification of agricultural crops as well as production intensification in place of itinerant agriculture.	Development and increase of crops yields	The cluster will have its first value chain developed
Partnership with family sector farmers	Identification and establishment of contracts with associations for production boost and labor capacity building for the industry.	Stabilization of production and provision of techniques to farmers.	Stability of established contracts
Marketing and trade	To develop solidarity economy organizations	Improvement in marketing networks, strengthening of solidarity economy organizations and increase cashew marketing and export.	Export and marketing of a considerable amount of products to other regions. New economic activities linked to agriculture should be developed due to benefits from the Cluster. Increase cashew nuts marketing and exports.

(5) Integrated Food and Grain Production Cluster (Cluster-5)

This cluster plans social and economic development through the structuring of quality seeds and food production chains, working both with industrial production and with family sector farmers for the development of the new value chain which shall be comprised by quality seed production, food production and social and economic strengthening of family sector farmers through encouragement for the establishment of associations. The production of quality seeds will be a core activity for the goals of increase of productivity established in the Master Plan to be achieved. In its initial phase, the cluster will be established by a single

pioneer company for seed production that will include family sector producers through contract farming. Soya beans, cotton, sunflower (cultivated by the pioneer company), maize, cowpea, groundnuts and sesame (cultivated by family sector farmers) will be produced. Besides the production, the company will be responsible for the acquisition of inputs and necessary machinery for the production.

According to development strategies for each zone, this cluster can be developed in Zones I, II, III, V and VI. Initially, the cluster will be developed in Zone III, specifically in Ribaué district due to the availability of land for the development of a corporate seed processing unit, water resources to promote irrigation, family sector farmers for the development of contract farming, besides the average social and environmental vulnerability and the low socioeconomic vulnerability. Besides these factors, one can highlight the good climate and soil conditions for the development of the selected crops and the good infrastructure to ensure the outlet of the production to Nampula and Cuamba consumer markets, thus allowing seed distribution for all the Nacala Corridor.

Table 2.3.6 Targets for Cluster - 5 related to all Phases of the Master Plan

Components	Phase I (2014-2020)	Phase II (2021-2025)	Phase III (2026-2030)
Corporate Crop Production	Establishment of the areas and beginning of soya-bean, sunflower and cotton production. Establishment of the Seed Benefiting Unit.	Increase of the seed production area	Stabilization of production. Stabilization of the Seed Benefiting Unit.
Partnership with Local Farmers	Promote farmers' associations and begin contract farming cultivation including 1,000 farmers. To improve and provide techniques to partner farmers.	Farmers' associations strengthening and increase of the number of households involved.	
Marketing	Seed and food marketing in the internal/ domestic market with focus on the Nacala Corridor region.	Strengthening of the supply to the internal/ domestic markets.	Stabilization of the supply to the internal/ domestic markets and possible start of surplus export.
Supplementary Activities	Promote the rehabilitation of existing irrigation schemes. Promote funding of inputs and technologies to local farmers.	Production and marketing chains will be developed. Improvement in outlet infrastructures to the main consuming centers.	Improving of the outlet infrastructure to Nacala Port.
Other	Evaluation of the current system of concessions for the exploitation of agricultural crops with the productive chains of cotton and tobacco.	Incorporation of lines for production of cotton and tobacco in development actions.	Consolidating the development of productive chains of cotton and tobacco.

(6) Tea Production Cluster (Cluster-6)

This Cluster is specialized for Gurue (Zone IV), since tea production and processing is a unique and important local industry. Gurue tea is an established brand name in the country, and about 85% of the total product is exported to the international market. Due to limited

frontier area for new farmland development in Zone IV, the tea industry must play a vital role in the development of the local economy.

In order to revitalize the tea industry, tea plants older than 70 years old shall be replaced by new seedlings of an improved variety, which may be imported from Malawi. Then, cuttings from the new seedlings shall be propagated to completely cover the available plantation areas. Also, an out-growers scheme will be promoted by an association of the tea industry companies, named "the Tea Producer's Association of Gurue". A reforestation package shall be integrated in the cluster, since the tea industry needs a large amount of wood for the drying process of tea leaves, and the people in the area face a problem of low firewood availability.

Table 2.3.7 Targets for Cluster-6 related to all Phases of the Master Plan

Components	Phase I (2014-2020)	Phase II (2021-2025)	Phase III (2026-2030)
Tea Production	Old tea plants are replaced by new seedlings	Productivity of tea increases	Stabilization of tea production at high level by systematic replacement of old plants
Partnership with Local Farmers	Promotion of out-grower scheme under a fair and transparent agreement with producers	Strengthening of producer associations, and disseminating improved technologies for tea garden management	
Marketing & Processing	Quality improvement through introducing quality standards	Promotion of joint processing and marketing	Promotion of echo-tourism in connection with the tea production

(7) Cuamba Agricultural Infrastructure Cluster (Cluster-7)

This cluster aims at the development of the agricultural sector of the Nacala Corridor through developing basic infrastructure necessary that includes the distribution of products and services geared to general agricultural development and agribusiness. The attraction of investments will be promoted based on the establishment of a Special Economic Zone (SEZ), which will generate tax incentives to encourage the private sector to invest resources in infrastructure in an enclosed area.

The Cuamba district, inserted in Zone V, is the site expected to receive the pioneer cluster. The region is strategically positioned in the center of the Nacala Corridor and currently has a slightly developed infrastructure. According to the development strategy, the cluster can also be developed in Zones I, II, III and VI. It is expected that a range of private initiatives of agro-processing facilities, as well as suppliers of machinery, inputs and services are installed in Cuamba after the establishment of the SEZ. Government intakes are also expected on the development of social infrastructure.

Table 2.3.8 Targets for Cluster-7 related to all Phases of the Master Plan

Components	Phase I (2014-2020)	Phase II (2021-2025)	Phase III (2026-2030)
Special Economic Zone (SEZ) (ZEE)	Development of an SEZ with incentives and tax benefits for investments aimed at agribusiness.	Stabilization of SEZ	SEZ is stabilized
Railroad infrastructure	Access and operation improvement of the Cuamba – Nacala Port line.	Access and operation improvement of the line Cuamba - Lichinga, currently underutilized.	Expansion of rail transport and full operation of Lichinga – Nacala Port line.
Road infrastructure	Road paving of the main interconnection access between Cuamba and other districts. Improvements of existing local roads and construction of other necessary ones.	Improvement and maintenance of the infrastructure of primary and secondary roads.	Expansion of road transport linking the main production centers.
Products and services distribution center	Creation of specific incentives to investments in machinery, inputs and service distribution centers related to agricultural activity.	Stabilization of Cuamba in reference to products and services distribution related to agriculture.	Stability in distribution in the central portion of the Nacala Corridor.
Storage capacity	- Public warehouse revitalization. - Creation of specific incentives to attract private investments for installing storage and dryers.	Creation of specific incentives to attract private investments in warehouses and dryers.	The warehouse storage capacity is stabilized.
Electricity infrastructure	Improvements in the conditions of electricity distribution and subsidies to industries operating in the cluster.	Power grid availability and distribution stabilization.	Power grid stability.
Social infrastructure	Construction of schools, hospitals, adequacy of sanitation among other social infrastructure.	Stabilization of the infrastructure improvements.	

Table 2.2.1 SWOT Analysis for Zone I (Monapo, Muecate, and Mecuburi)

	Helpful	Harmful
Internal Origin	**<Strengths>** **Balance of staple food production** Surplus of Maize and Cassava production **Local special farm products** Cashew, Cotton (Monapo & Mecuburi), Sesame (Monapo) **Irrigation** High potential for small pump irrigation **Location** Close to Nacala Port, Developing Nacala Port (opportunities to export) **Transportation** Along Road N1, N12, and railway (good access to markets of Nacala and Nampula)	**<Weaknesses>** **Socioeconomic** - Low human resource potential - Land conflict among local farmers, and between local farmers and corporate farms in Monapo **Land cover & land use** - Low farmland accessibility in Monapo (high population) - Land conflict among local farmers, as well as between local farmers and corporate farms - Limited area to be developed for farmland in Monapo (planned by PDUT) - Very low % of forest area in Monapo - Large mining concession in Monapo - Large forest conservation area and forest concession area on both sides of the border between Muecate and Mecuburi **Irrigation** Many defunct irrigation facilities **Transportation** Not good access to National road from Mecuburi **Specific problems** Old cashew trees (need to replace with new trees)
External Origin	**<Opportunities>** **Market** - High demand for food from Nacala port area - High demand for food from Nampula	**<Threats>** **Land cover & land use** Reducing farmland by development of industry and population increase

Table 2.2.2 SWOT Analysis for Zone II (Meconta, Mogovolas, Nampula, and Murrupula)

	Helpful	Harmful
Internal Origin	**<Strengths>** **Socioeconomic** Medium to high human resource potential **Land cover & Land use** - Large cultivated area at present - High farmland accessibility in Mogovolas and Murrupula (much fallow farmland) - Large forest area in Meconta **Balance of staple food production** Surplus of Cassava production **Local special farm products** Cashew, Groundnuts, Paddy, Cotton (Meconta), Sesame (Meconta), **Irrigation** High potential for small pump irrigation **Transportation** Good access to market (Road N1, railway, highest road density) **Market** - High population of Nampula (High demand for food) - High population growth of Mogovolas (High demand for food in future) - High demand for feed for poultry industry	**<Weaknesses>** **Socioeconomic** High socioeconomic vulnerability in Mogovolas and Murrupula **Land cover & land use** - Limited area to be developed for farmland in Murrupula (planned by PDUT) - Very low % of forest area **Irrigation** Many defunct irrigation facilities **Transportation** Poor condition of road between Nampula and Mogovolas **Specific problems** Old cashew trees (need to replace with new trees)
External Origin	**<Opportunities>** **Transportation** Improving access between Nampula and Cuamba (Road N13)	**<Threats>** **Land cover & land use** - PDUT is not stated yet in Meconta and Nampula (Unclear district government initiative to control the land use at present) - Reducing farmland by development of industry and the population increase

Table 2.2.3 SWOT Analysis for Zone III (Ribaue, Lalaua, Malema, and Alto Molocue)

	Helpful	Harmful
Internal Origin	**<Strengths>** **Land cover & land use** - Large cultivated area at present - Large forest area in Malema and Lalaua **Balance of staple food production** Surplus of Maize, Cassava and Sorghum production **Local special farm products** Onion and Garlic (Malema), Cotton (Lalaua and Malema), Tobacco (Ribaue & Malema) **Water resources and irrigation** - High water resource capacity - Many river courses - High potential for small/medium pump irrigation and gravity irrigation - Many irrigation facilities are in operation **Location** - Close to high population area (Nampula) - Close to Cuamba (strategic logistics hub) **Transportation** - Route N1 (To Nampula, To Mocuba) - Railway (Between Nampula and Cuamba through Ribaue, Lalaua and Malema)	**<Weaknesses>** **Socioeconomic** Low to medium human resource potential **Land cover & land use** - Large mining concession area in Lalaua and Alto Molocue - Forest conservation area in Ribaue - Large forest concession and Duat area in Ribaue, Malema, and Lalaua - Land conflict between local farmers and corporate farms in Alto Molocue **Irrigation** Many defunct irrigation facilities **Transportation** Poor rural road condition
External Origin	**<Opportunities>** **Land cover & land use** Large agriculture area is planned in PDUT in Alto Molocue **Transportation** Improving access between Nampula and Cuamba (Road N13)	**<Threats>** **Land cover & land use** PDUT is not stated yet in Ribaue Lalaua and Malema (Unclear district government initiative to control the land use at present)

Table 2.2.4 SWOT Analysis for Zone IV (Gurué excluding Lioma Administrative Post)

	Helpful	Harmful
Internal Origin	<Strengths> **Climate** Cool climate and high precipitation **Local special farm products** Tea of Gurué **Water resources** - High water resource capacity - Many river courses **Location** Close to Cuamba (transportation strategic stop) **Transportation** Good road access to Mocuba and southern provinces	<Weaknesses> **Landscape** Mountainous area (unsuitable for large scale crop production) **Socioeconomic** Low human resource potential **Land cover & land use** Low farmland accessibility **Location** Long distance to Nampula and Nacala **Transportation** Low rural road density **Specific problems** Necessary to replace old tea plants and old tea processing facilities **Environmental consideration** High environmental vulnerability (high concentration of rivers) and low firewood availability
External Origin	<Opportunities> **Market** High demand for tea from Europe, India, etc.	<Threats> **Land cover & land use** PDUT is not stated yet in Gurué (Unclear district government initiative to control the land use at present) **Market** Change of commodity distribution route by improved road N13 between Cuamba and Nampula

Table 2.2.5 SWOT Analysis for Zone V (Lioma Administrative Post in Gurue, Cuamba, Mecanhelas, Mandimba, N'Gauma)

	Helpful	Harmful
Internal Origin	**<Strengths>** **Land cover & land use** - Medium to high farmland accessibility - Large forest area **Balance of crop production** Surplus of Maize and Sorghum production **Local special farm products** Soybean (Lioma plain), Tobacco, Cotton (Cuamba) **Water resource and irrigation** - River water resources from Lurio river and Lugenda river (perennial river) - High potential for pumping irrigation system along Lurio River **Location** Near the border of Malawi **Transportation** Strategic stop (Gateway to Nampula, Gurue, Lichinga, Marupa, Tete, and Malawi by primary roads and/or railway) **Market** Close linkage with Malawi market	**<Weaknesses>** **Socioeconomic** - Low to medium human resource potential - Serious land conflict between local farmers and corporate farms (Lioma administration post and Mandimba), and among local farmers in Cuamba **Land cover & land use** - Large forest Duat area in Mandimba - Large mining concession area in N'Gauma **Irrigation** Small irrigation area
External Origin	**<Opportunities>** **Agricultural Production** High investment to soybean production in Lioma plain **Transportation** Road rehabilitation between Cuamba and Nampula, Cuamba and Lichinga, Cuamba and Gurue through Lioma plain, Cuamba and Pemba (Pemba corridor)	**<Threats>** **Land cover & land use** PDUT is not stated yet in all districts (Unclear district government initiative to control the land use at present) **Other industries** Mining industry in Tete and in Zone VI absorbs human resources **Market** Competition with vegetables and other farm products from Malawi

Table 2.2.6 SWOT Analysis for ZoneVI (Majune, Lichinga and Sanga)

	Helpful	Harmful
Internal Origin	**<Strengths>** **Climate** Cool climate and much precipitation **Land cover and land use** - Large forest area in Majune and Sanga - Medium to high farmland accessibility **Balance of staple food crop production** Surplus of Maize production **Local special farm products** Potato and haricot bean in Lichinga and Sanga, Tobacco **Water resource and irrigation** - Many river courses - High rate of irrigation facilities' utilization **Transportation** - Railway to Cuamba - Gateway to the Pemba corridor **Market** Feed demand for poultry	**<Weaknesses>** **Socioeconomic** Low human resource potential **Land cover and land use** - Large mining concession areas in all districts - Large forest concession and Duat areas in Majune and Lichinga - Large forest conservation areas in all districts - Relatively high % of slope area - Serious land conflict between local farmers and corporate farms in all districts **Irrigation** Small irrigation area **Location** Long distance to major domestic marketing centers **Transportation** - Low rural road density - Low frequency of train transportation between Cuamba and Lichinga **Market** Low population density (small internal demand)
External Origin	**<Opportunities>** **Demand from farmers** Demand for good quality seed potato from the other areas **Transportation** Improvement of road to Cuamba and Pemba	**<Threats>** **Land cover & land use** PDUT is not stated yet in Lichinga (Unclear district government initiative to control the land use at present) **Market** Competition with vegetables and other farm products from Malawi **Other industries** Large scale investment to forestry and mining

CHAPTER 3 REVIEW OF THE DRAFT DEVELOPMENT PLAN

3.1 Rearrangement of Proposed Projects in Draft Development Plan

3.1.1 Review of Proposed Projects in Draft Development Plan

Thirty-five projects were proposed for the Master Plan component in the Draft Development Plan (Overall Picture). Those projects were reviewed from the viewpoints described below, and the contents of some projects were modified as well as new components added:

i) The contents of activities, major actors and beneficiaries of the component projects as well as the major target areas were examined carefully from the viewpoint of smooth implementation and generating direct effects conductive to achieving the development goals. As a result, some projects were rearranged and integrated into another project.

ii) Due to the characteristic of the activity, which is directly connected to national level institutions or organizations, some projects were to be included in the proposal of the institutional framework for the master plan implementation or the Conclusions and Recommendations, instead of formulating the component project.

iii) From the viewpoints of the concept of cluster development, necessary activities were modified and added in order to lead the development of agricultural clusters. Some special projects for promoting the initial stage of certain cluster developments were newly formulated, which are called Pioneer Projects or Model Projects for Cluster Development.

As a result of these reviews and rearrangements, 33 component projects in total are proposed for the Master Plan. The result of the reviews and rearrangements is summarized in Table 3.1.1.

Table 3.1.1 Rearrangement of Proposed Projects in the Draft Development Plan

Project in Draft Development Plan		Modified in This Report		Remarks
Original No.	Project Title	New No.	Project Title	
1	Project for Strengthening of Agricultural Research	6	Project for Strengthening of Agricultural Research	
2	Project for Strengthening of Agricultural Extension Service	7	Project for Strengthening of Agricultural Extension Service	
3	Project for Land Registration of the Small and Medium Scale Farmer	1	Project for Land Registration of the Small and Medium Scale Farmer	This project should focus on those farmers that, although the majority in the Corridor, currently lack the technical and financial resources to acquire DUAT.
4	Project for Establishment of Financial System for Agriculture			Because the financial system itself is to be established in the national level, this project was cancelled and is to be described in the Recommendations of the Report.

Project in Draft Development Plan		Modified in This Report		Remarks
Original No.	Project Title	New No.	Project Title	
5	Project for Financial Supporting System for Large Investors	18	*Formulation of the Nacala Corridor Agriculture Investment Fund for Large-scale Agriculture Development Projects (the Nacala Fund)*	To be filled after confirming the contents of the Nacala Fund.
6	Project for Establishment of Financial Support System for Small and Medium Scale Agribusiness Enterprises and Farmers' Organizations (ProSAVANA Development Initiative Fund)	17	Project for Establishment of Financial Support System for Small And Medium Sized Agribusiness Enterprises, Farmers' Organizations and Individual Farmers	Integrated into one project in order to establish an efficient institution for this purpose.
7	Project for Establishment of Financial Support System for Individual Farmers			
8	Project for Capacity Development of Business Development Services	20	Project for Capacity Development of Business Development Services	
9	Irrigation System Rehabilitation Project	14	Irrigation System Rehabilitation Project	Integrated into one project in order to implement efficiently and effectively.
10	Project for Enhancement of Water Users Organizations			
11	Project for Improvement of Irrigation Technology and Construction Quality	15	Project for Improvement of Irrigation Technology and Construction Quality	
12	Project for Improvement of Access Road for Agricultural Activities	25	Project for Improvement of Access Road for Agricultural Activities	
13	Project for Establishment of Preferential Credit to Support Agricultural Mechanization Service Provider	13	Project for Promotion of Tractor Hire Services	Changing project title
14	Project for Capacity Building of Seed Growers	12	Project for Promotion of Quality Seed Production at the Regional Level	Changing project title
15	Project for Improvement of Accessibility to Fertilizer	11	Project for Improvement of Accessibility to Fertilizers	
16	Model Villages Project	9	*Model for Development of Leading Farmers in the Community*	No.16 was merged into No.17. The concept of new settlement was canceled. Fostering leading farmers is set as a key activity to establish the model of expanding intensive cultivation.
17	Pilot Project for Improvement of small-scale Farmers			
18	Project for Vegetable Production Model	16	Project for Vegetable Production Model	
19	Project for Renewal of Cashew Trees and Improvement of Inter-cropping System			Integrated into Model Project for Cashew Production Cluster Development
20	Tea Industry Revitalization Project	32	Tea Industry Revitalization Project	Included in Cluster Development Project
21	Modern Agriculture Cooperatives Formulation and Development Project	21	Project for Formulation and Development of Modern Agriculture Cooperatives	Changing project title
22	Establishment of a Support Organization for the Investment and Value Chain Development	19	Establishment of a Support Organization for the Investment and Value Chain Development	
23	Project for Land Reserve for Investment and Territorial Planning	2	Project for Planning of Availability of Land for Investment	Changing project title

Project in Draft Development Plan		Modified in This Report		Remarks
Original No.	Project Title	New No.	Project Title	
24	Project for Strengthening of Supervision Mechanism on Land and Environmental Law Enforcement	3	*Project for Strengthening of Supervision Mechanism on Land and Environmental Law Enforcement*	No.24 and No.30 were integrated for efficient and effective implementation of activities.
25	ProSAVANA Agriculture Special Economic Zone Project	26	ProSAVANA Agriculture Special Economic Zone Project	New candidate project sites (Lioma and Majune) are added further to Cuamba and Ribaue.
26	Project for Rehabilitation of Agriculture Storage Facilities	24	Project for Rehabilitation of Agriculture Storage Facilities	
27	Project for Standardization of Agricultural Products	23	Project for Standardization of Agricultural Products	
28	Market Information Access Improvement Project	22	Market Information Access Improvement Project	
29	Soybean Cluster Development Project			Merged into Pioneer/Model Cluster Development Project
30	Program of Assistance for Elaboration, Dissemination and Enforcement of PDUT (District Land-Use Planning)			Merged into No.24 for efficient and effective implementation of activities.
31	Basic Study for Water Resource Management	4	Basic Study for Water Resource Management	
32	Project for Training for Distributor of Agricultural Inputs	10	Project for Training for Distributor of Agricultural Inputs	
33	ProSAVANA Agricultural Academy (Agricultural Development Center) Project	8	ProSAVANA Agricultural Academy (Agricultural Development Center) Project	
34	Project for Human Capacity Development for Farmers' Organizations			Merged into No.2
35	Project for Capacity Development of District Governments			The enforcement and capacity development of district governments for implementing the M/P is included in the Implementation Plan.
		5	Forest Initiatives Project	Newly proposed.
		27	Pioneer Project for Integrated Grain Cluster Development	In order to promote development of leading clusters in certain areas, some pioneer/model projects for cluster development are proposed.
		28	Model Project for Family Food Production Cluster Development	
		29	Pioneer Project for Grain and Cotton Production Cluster Development	
		30	Model Project for Cashew Production Cluster Development	
		31	Pioneer Project for Integrated Food and Grain Production Cluster Development	
		32	Project for Tea Industry Revitalization	

3.1.2 Components of Agricultural Development Master Plan

(1) Types of Component Projects

The Master Plan is composed of 32 component projects, which aim to achieve the zonal goals described in 2.2.2 and to realize the objectives of the Master Plan. The proposed component projects are categorized into 2 types according to characteristics of their

activities and expected output, i.e., Platform Project and Pioneer/Model Project for Cluster Development.

Platform Projects are considered as base projects of regional agricultural development aiming to develop the environment for activating agricultural production and agribusinesses in the region as well as promoting private investment. These projects are mostly cross-zone projects, which are implemented all over each zone. In addition, some commodity-oriented projects, which aim to promote a specialty agricultural value chain in certain areas according to the zonal development strategy, are included in the platform projects. Commodity-oriented projects are formulated taking into account full use of regional potential and generating added value to the commodities, and it is expected to give impact to the regional economy or farmers' economy in the region.

Pioneer/Model Project for Cluster Development is the project which initiates and leads the development of an agricultural cluster which consists of promising crops for the area. An agricultural cluster itself is established and developed by private economic activity fundamentally. The pioneer/model project will prepare the initial point of formulating a cluster and lead growth through increasing motivation for private investment. Even though this type of project will be implemented in a certain zone due to its character as an initiation activity, the cluster is expected to grow widely beyond the zone in some cases, and those projects should be characterized as experiences to be absorbed and reproduced.

(2) Agricultural Development Master Plan

The master plan component project and related basic approaches and strategies are listed in Table 3.1.2. The Project Sheets which describe the contents of each project are shown in Table 3.1.5 attached at the close of the chapter.

Table 3.1.2 Projects of Agricultural Development Master Plan in Nacala Corridor

1) Platform Project

Basic Approach	Strategy		No.	Master Plan Project
	Category	Development Strategy		
Sustainable Use of Natural Resources	Strategy for Land Administration	DUAT acquisition among small and medium scale farmers	1	Project for Land Registration (DUAT) of Small and Medium Scale Farmers
		Land reserve for investment	2	Project for Planning of Availability of Land for Investment
	Compliance with PRAI	Land and environmental law enforcement	3	Project for Strengthening of Supervision Mechanism on Land and Environment Law Enforcement
	Resource Management	Water resources management	4	Basic Study for Water Resource Management
		Forest resources management	5	Forest Initiatives Project
Increase of Agricultural Production	Strategy for Agricultural Production	Improvement of technical supporting service	6	Project for Strengthening of Agricultural Research
			7	Project for Strengthening of Agricultural Extension Service

	Increase		8	ProSAVANA Agricultural Academy (Agricultural Development Centre) Project
			9	Model Project for Development of Leading Farmers in Community
			10	Project for Training for Distributors of Agricultural Inputs
		Improvement of access to agricultural inputs	11	Project for Improvement of Accessibility to Fertilizers
			12	Project for Promotion of Quality Seed Production at the Regional Level
			13	Project for Promotion of Tractor Hire Services
	Strategy for Irrigation Development	Development of irrigation infrastructure	14	Irrigation System Rehabilitation Project
			15	Project for Improvement of Irrigation Technology and Construction Quality
			16	Project for Vegetable Production Model
	Strategy for Agricultural Production Increase	Improvement of access to agricultural financing/credit	17	Project for Establishment of Financial Support System for Small And Medium Sized Agribusiness Enterprises, Farmers' Organizations and Individual Farmers
		Partnerships between local farmers and agribusiness	18	Formulation of the Nacala Corridor Agriculture Investment Fund for Large-scale Agriculture Development Project (the Nacala Fund)
Development of Agribusiness	Strategy for Promotion of Value Adding Agricultural Products	Support for business development	19	Establishment of a Support Organization for the Investment and Value Chain Development
			20	Project for Capacity Development of Business Development Services
	Strategy for Establishment of Farmers' Organization		21	Project for Formulation and Development of Modern Agricultural Cooperatives
	Strategy for Promotion of Value Adding Agricultural Products	Formulation of value chain	22	Market Information Access Improvement Project
			23	Project for Standardization of Agricultural Products
	Strategy for Development of Agricultural Logistics	Improvement of infrastructure of agricultural logistics	24	Project for Rehabilitation of Agricultural Storage Facilities
	Strategy for Improvement of Roads and Social Infrastructure		25	Project for Improvement of Access Roads for Agricultural Activities
	Preparing comprehensive infrastructure for developing agribusinesses and clusters		26	ProSAVANA Agricultural Special Economic Zone Project
	Improvement of access to agricultural financing/credit		*17*	*Project for Establishment of Financial Support System for Small And Medium Sized Agribusiness Enterprises, Farmers' Organizations and Individual Farmers*
			18	*Formulation of the Nacala Corridor Agricultural Investment Fund for Large-scale Agriculture Development Projects (the Nacala Fund)*

2) Pioneer/Model Project for Cluster Development

No	Master Plan Project
27	Pioneer Project for Integrated Grain Cluster Development
28	Model Project for Family Food Production Cluster Development
29	Pioneer Project for Grain and Cotton Production Cluster Development
30	Model Project for Cashew Production Cluster Development
31	Pioneer Project for Integrated Food and Grain Production Cluster Development
32	Project for Tea Industry Revitalization

3.1.3 Prioritization of Projects

(1) Definition and Criteria for Selecting Priority Projects

Thirty-two component projects of the Master Plan have been summarized in Table 3.1.2 based on project type and related basic approach/development strategy. The priority projects, among the master plan component projects, are defined as the projects to be implemented in Phase I of the Master Plan. They are expected to achieve the development goals of the Phase I, taking into consideration the development strategy for Phase I - transition to fixed cultivation phase and rising private investment in the agricultural sector - as well as the agricultural development strategy of each zone set in Section 2.2.2. Another important premise for a Priority Project is to showcase the development potential of the Corridor and attract investments, of both private and public (donations) natures.

The component projects are evaluated in each zone by conformity with the development strategy of Phase I of the Master Plan, that is in concrete terms the necessity for achieving the Phase I development goals of each zone which are set in Section 2.2.3. Besides the conformity with the development strategy, other specific criteria are also considered in order to evaluate the characteristics of each project type, i.e., "impact on developing clusters" for Pioneer/Model Projects for Cluster Development. The Criteria for selecting priority projects are summarized below:

Table 3.1.3 Criteria for Selecting Priority Projects

Project Type	Criteria	Contents of Criteria
Platform Project	Conformity with the development strategy	Necessity or importance for achieving the development goals of Phase I in each zone
Pioneer/Model Project for Cluster Development	Conformity with the development strategy	Necessity or importance for achieving the development goals of Phase I in each zone
	Impact on developing clusters	Importance on initiating the cluster development by private investment

(2) Prioritization of Projects

Based on the analysis of contribution of projects to zonal goals, the master plan component projects were evaluated with the criteria mentioned above by zone and by project type. The results of the evaluation are shown in Table 3.1.4. The projects which were evaluated as "A" in any zone are selected to be a priority project of the Master Plan. As a result, 27 priority projects were selected.

Table 3.1.4 Prioritization of Projects

1) Prioritization of Platform Project

No.	Master Plan Project	Zone						Priority Project
		I	II	III	IV	V	VI	
1	Project for Land Registration (DUAT) of Small and Medium Scale Farmers	A	A	A	A	A	A	X
2	Project for Planning of Availability of Land for Investment	A	A	A	-	A	A	X
3	Project for Strengthening of Supervision Mechanism on Land and Environmental Law Enforcement	A	A	A	A	A	A	X
4	Basic Study for Water Resource Management	A	A	A	A	A	A	X
5	Forest Initiatives Project	A	A	A	A	A	A	X
6	Project for Strengthening of Agricultural Research	A	A	A	A	A	A	X
7	Project for Strengthening of Agricultural Extension Service	A	A	A	A	A	A	X
8	ProSAVANA Agricultural Academy (Agricultural Development Center) Project	A	A	A	A	A	A	X
9	Model Project for Development of Leading Farmers in the Community	A	A	A	A	A	A	X
10	Project for Training for Distributors of Agricultural Inputs	A	A	A	A	A	A	X
11	Project for Improvement of Accessibility to Fertilizers	A	A	A	A	A	A	X
12	Project for Promotion of Quality Seed Production at the Regional Level	A	A	A	A	A	A	X
13	Project for Promotion of Tractor Hire Services	B	B	B	B	B	B	
14	Irrigation System Rehabilitation Project	B	B	B	-	B	B	
15	Project for Improvement of Irrigation Technology and Construction Quality	B	B	B	-	B	B	
16	Project for Vegetable Production Model	A	A	A	A	-	A	X
17	Project for Establishment of Financial Support System for Small And Medium Sized Agribusiness Enterprises, Farmers' Organizations and Individual Farmers	A	A	A	A	A	A	X
18	Formulation of the Nacala Corridor Agriculture Investment Fund for Large-scale Agriculture Development Projects (the Nacala Fund)	A	A	A	A	A	A	X
19	Establishment of a Support Organization for the Investment and Value Chain Development	A	A	A	A	A	A	X
20	Project for Capacity Development of Business Development Services	A	A	A	A	A	B	X
21	Project for Formulation and Development of Modern Agricultural Cooperatives	B	B	B	B	B	B	
22	Market Information Access Improvement Project	A	A	A	A	A	A	X
23	Project for Standardization of Agricultural Products	B	B	B	B	B	B	
24	Project for Rehabilitation of Agricultural Storage Facilities	B	B	B	B	B	B	
25	Project for Improvement of Access Roads for Agricultural Activities	B	A	A	B	A	A	X
26	ProSAVANA Agricultural Special Economic Zone Project	-	-	-	A	A	A	X

(Note) A: Very necessary to achieve the zonal goals of Phase I,
B: Very necessary to achieve the zonal goals of Phase II & III

2) Prioritization of Pioneer/Model Projects for Cluster Development

No.	Master Plan Project	Zone						Priority Project
		I	II	III	IV	V	VI	
27	Pioneer Project for Integrated Grain Cluster Development	-	C	C	-	C	A	X
28	Model Project for Family Food Production Cluster Development	-	-	A	C	-	C	X
29	Pioneer Project for Grain and Cotton Production Cluster Development	-	C	B	-	A	-	X
30	Model Project for Cashew Production Cluster Development	A	B	-	C	-	C	X
31	Pioneer Project for Integrated Food and Grain Production Cluster Development	C	C	A	-	B	B	X
32	Project for Tea Industry Revitalization	-	-	-	A	-	-	X

(Note) A: Very necessary to achieve the zonal goals of Phase I / High impact on initiating cluster development,
B: Very necessary to achieve the zonal goals of Phases II & III,
C: Cluster could be developed, but may face several constraints.

3.1.4 Project Implementation Plan (Schedule)

The implementation of the Master Plan component projects is defined with consideration of the development stage of the phase and allocation of limited resources such as local manpower and budget. The summary of the implementation schedule of the 32 component projects of the Master Plan have been summarized in Table 3.1.6 attached at the end of this chapter.

3.2 Progress of Pilot Projects under ProSAVANA Development Initiative Fund (PDIF)

3.2.1 Introduction of ProSAVANA Development Initiative Fund (PDIF)

Under the tri-party agreement between the Ministry of Agriculture, JICA and GAPI, the ProSAVANA Development Initiative Fund (PDIF) was launched in September 2012 with an initial capital of 750,000 USD to finance selected agribusinesses in the Nacala Corridor on a pilot basis. The source of the funds was the Ministry of Agriculture's Counterpart Fund formed with the proceeds from the Food Aid ("Kennedy Round") provided by the Japanese Government, in which several million US dollars had been set aside for use in agricultural development.

An official call for proposals was announced in September and October for the 2nd round after the conducting of a public briefing. Fourteen proposals from agribusiness companies were submitted, and an official screening of the proposals was conducted by a joint evaluation team, formed by GAPI, DPA and ProSAVANA-PD, referencing the criteria set by the team with considerations taken in relation to social impacts on small-scale farmers and local communities, the commercial viability of the business and the sustainability of the proposed business model. The Steering Committee selected 5 companies to provide the PDIF, as listed in Table 3.2.1, during meetings held in October and November 2012. Since then, the selected agribusiness companies have been carrying out crop and vegetable production, such

as maize, soybean, beans and sesame, as well as seed multiplication involving small-scale farmers with different contract-farming arrangements. The project sites for each company are illustrated in Figure 3.2.1.

Table 3.2.1 PDIF Project Information regarding 5 Selected Agribusiness Companies

No.	Name of the Company	Project Site		Project Overview	Products	Amount (MT)
		Prov.	District			
1	Lozane Farm	ZA	Alto Molocue	1) Contract farming providing inputs and intensive training on agriculture practice and organizational management, 2) Involvement of more local women (22% of participants), 3) Production of basic seeds (maize and soybean) and vegetables at its own farm	Seed (maize, soybean), Soybean, Vegetables (tomato, carrot, cabbage, onion)	2,500,000
2	IKURU	NA	Monapo, Mogovolas	Full-package of contract farming with written agreement (including the provision of quality seed, tractor service for land preparation, fertilizer, technical extension)	Sesame (Monapo), Groundnuts (Mogovolas)	2,860,000
3	Oruwera Seed Company	NA	Murrupula, Mogovolas	1) Seed production on contract farming with intensive technical extension services, 2) Basic seed production at the own farm	Seeds: maize, groundnut, sesame	2,800,000
4	Matharia Empreendimentos	NA	Ribaue	1) Seed (soybean) production at its own farm (5 Ha), 2) Promotion of soybean production with smallholders 3) Vegetable production with smallholders providing technical support	Soybean, Vegetables (tomato)	1,640,000
5	Santos Agricola	NA	Meconta	1) Contract farming for vegetable production (10 Ha), 2) Vegetable production at the own farm with irrigation system (20 Ha)	Vegetables (tomato, onion, garlic, cabbage, carrot)	1,680,000

NA: Nampula, ZA: Zambesia

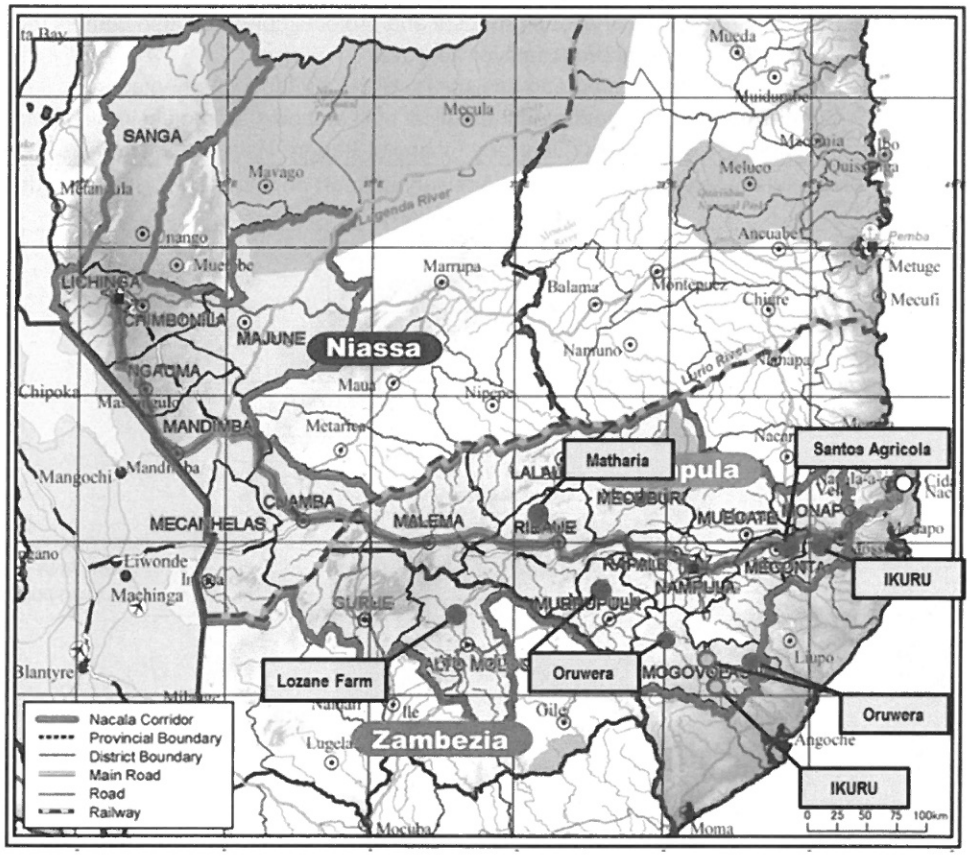


Figure 3.2.1 PDIF Project Sites

3.2.2 Progress in the Implementation of the Pilot Projects

(1) Project management structure

Since the primary goal in implementing the pilot projects is to test different approaches to contract-farming involving both private businesses and small-scale farmers so as to gather information on potential commercial farming arrangements, it is critical that a proper management unit for the pilot projects be established in order to provide monitoring and advisory support to the agribusinesses in the implementing of activities. The Project Operation Unit (POU) comprised of representatives from the GAPI Nampula office, DPA Nampula and ProSAVANA-PD was formed with the specific tasks summarized in Table 3.2.2. POU reports periodically to both GAPI and ProSAVANA Headquarters in Maputo on the progress of project implementation as well as the status of the fund's operations, which are presented to the Steering Committee, as shown in Figure 3.2.2.

Table 3.2.2 Project Operation Unit in Nampula

	GAPI Nampula Office	ProSAVANA-PD	DPA Nampula
	- Branch Manager (1) - Task Manager (1) - Technical Staff (3)	- Task Manager (1) - Technical Staff (2) (work at GAPI Nampula office)	- CEPAGRI (1) - DPA SPER (1)
Overall Tasks	- Identify potential private sector partners (pre-consultation on project ideas) - Support preparation of a loan proposal and project implementation plan as necessary - Conduct screening of proposals for approval - Provide technical support and advisory services during implementation - Conduct regular monitoring and technical backstopping for project implementation - Prepare periodic reports (Quarterly Financial Report, Half-yearly Progress Report)		
Specific Tasks	- Financial management	- Advisory support on technical aspects (production, extension)	

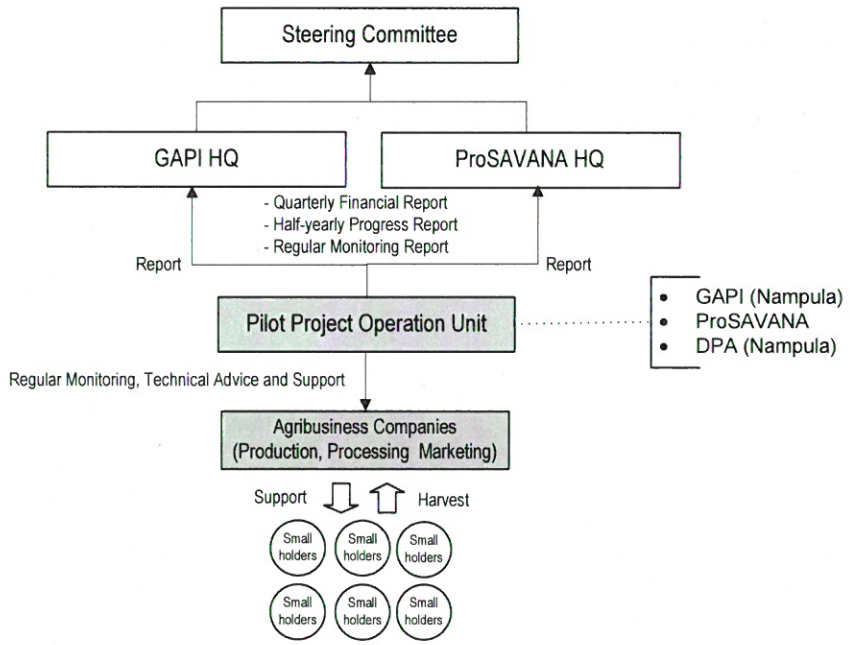


Figure 3.2.2 Management Structure of the ProSAVANA Development Initiative Fund

(2) Baseline data collection

The primary objective in implementing the pilot projects under PDIF is to test the potential arrangements for involving both private sector partners and small-scale farmers in the production of crops through the provision of necessary agriculture inputs and extension services. As such, it is essential to collect baseline data from selected farmers involved in contract farming with the companies in order to measure the impacts/outcomes from the pilot project with a focus on changes in farming methods, productivity and the incomes of farmers involved in the project. Lessons learned from the pilot projects will then be reflected in the Master Plan, making the implementation scheme for the agricultural loan more feasible.

Baseline data collection, using the questionnaire shown on the next page, was conducted in December 2012 targeting 24 out-growers in 4 associations, as listed in Table 3.2.3, working with the Loane Farm for soybean production in Alto Molocue District, Zambezia Province. Another data collection exercise will be conducted on the same 24 out-growers after the harvest in order to obtain production data for this crop season, which will be compared with the baseline data to evaluate the results of the project.

Table 3.2.3 Respondents of the Baseline Survey

	Name of Association	Location		No. of Out-growers	No. of respondents
		Post Administration	Locality		
1	Namilepe	Nauela	Namilepe	37	6
2	Soares	Nauela	Soares	22	6
3	Namicucune	Nauela	Namicucune	40	6
4	Mutxalacone	Molocue	Chapala	31	6

Baseline Questionnaire : Project/Company Name _____

1. Basic Information					
Code-No.	Name	Head of a Family : Yes If No (Relation :)		Age	Gender
District :	Post Administration :	Locality :	Povoacao :	Povoado :	
Association :	Experience in Farming (yrs.) :	Experience in contract-farming (yrs.) :			

2. Information on Farmland		
Total Area of Farmland (Ha) :	Cultivated Area (Ha) :	Fallow (Ha) :
Distance from Main Road (Km or H) :	Distance from Home (Km or H) :	Soil Fertility (Productivity) :

3. Questions to farmers who participated in contract-farming in the previous year		
Farmland used for contract-farming LAST YEAR (Ha) :	Crops : Amount of Harvest (Kg or Bags/50kg) :	Total Income (MT) :
Whether hired labor in production for contract-farming (if Yes, specify)	Farm Activity (seeding, weeding, harvest, etc.)- Number, Days, Cost	
Use of income gained from contract-farming :		
Farmland for contract-farming THIS YEAR (Ha):	Crops :	
Other Information (e.g. requests/opinions to the company or for the arrangement of contract-farming based on the past experience) :		

4. Questions to farmers newly participating in contract-farming this year		
Farmland used for contract-farming THIS YEAR (Ha):	Crops :	
What Crops cultivated on the above farmland LAST YEAR:	Amount of Harvest (Kg or Bags/50kg) :	Gross Income (MT) :
Total cost of the production (if any, specify, such as labor, seeds, fertilizer, chemicals, etc.) (MT) :		Net Income (MT) :
Reasons for joining contract-farming :		
Other Information :		

(3) Progress of pilot projects

As shown in Table 3.2.4 on the following page, 932 local farmers have been involved in contract-farming with 5 agribusiness companies producing crops, seed and vegetables. The Project Operation Unit of PDIF has observed that the progresses of the farming activities are going fairly well, except for Santos Agricola, which has recently exchanged its loan contract with GAPI. The current progress of the farming activities are summarized as follows:

Lozane Farm
- The Lozane Farm provided soybean seed and inoculant to the out-growers from mid-December to early January while also holding a series of technical trainings for seeding.
- The growth of soybean plants is fairly good, however, improper seeding methods were observed at some out-grower farms, which could have resulted from insufficient extension services by the company due to a lack of extension staff.
- The expansion of vegetable production at the company's own farm has not been carried out due to shortages in the operating budget due to a delay in disbursements from the fund.

IKURU
- The proposed IKURU business model is to conduct contract-farming with middle-scale farmers who have more than 10 Ha of land by providing extensive services for credit that include high quality seed, mechanized land preparation and planting services, necessary fertilizer and chemicals, and regular technical extensions.
- Due to a delay in disbursements from the fund, IKURU could not procure tractors, which were to be ordered by November 2012 for the crop planting period. As a result, the mechanized services to the out-growers have not been provided. As a result, the out-growers contracted with IKURU have started land preparation and seeding for groundnuts and sesame by hiring labor, which will result in a reduction in the production area due to the limited capacity of manual cultivation.

Oruwera
- Seed production with small-scale farmers has been progressing well, especially at the Mabukos Association in Mogovolas District where 41 farmers have conducted maize seed production on 70 Ha of land.
- Oruwera has been facilitating the acquisition of a certificate, issued by the government, for the crop seed produced by the out-growers.

Matharia
- Matharia has worked with 230 small-scale farmers in the production of soybeans and 20 farmers for cultivating tomato. A demo plot has been established, managed by one of the out-growers, to test the different production methods, by applying: i) proper spacing; ii) proper spacing and inoculant; iii) proper spacing, inoculant, and fertilizer; and iv) seeding delayed for 1 month.
- The growth of soybean plants are different from location to location, which could be caused by poor soil conditions at some localities

Santos Agricola
- The proposed vegetable production has not been started due to a delay in the contract process. However, 50 small-scale farmers have already been identified to work as out-growers with Santos Agricola for vegetable production under the contract-farming arrangement.

Table 3.2.4 Details of Pilot Projects

	Name of the Company	Project Site			Target Group (Smallholders)			Products
		Prov.	District	Post Admin.	Organization	No.	Area (Ha)	
1	Lozane Farm	ZA	Alto Molocue	Nauela	Own Farm		50	Seed : Soybean, Maize
					Association (16)	**473**	**389**	Soybean
					Own Farm		5	Vegetable (tomato, onion, cabbage)
					Sub-Total	473	444	
2	IKURU	NA	Monapo	Nacalolo, Netia	Individual farmers	19	200	Sesame
			Mogovolas		ditto	11	110	
			(Moma)		ditto	5	50	
			(Angoche)		ditto	2	40	
					Sub-Total	**37**	**400**	
		NA	Mogovolas	Namitile	Individual farmer	7	70	Groundnuts
				Nhucurio	ditto	2	20	
				Matua	ditto	2	20	
				Calippus	ditto	4	50	
			(Moma)		ditto	6	18.5	
			(Angoche)		ditto	2	15	
					Sub-Total	**23**	**193.5**	
3	Oruwera Seed Company	NA	Mogovolas	Rique	A. Josina Machel	6	6	Groundnuts
				Muatua	A. Murezene	37	30	Groundnuts
				Muatua	A. Naihava	11	46	Groundnuts (28Ha), Cowpea (18Ha)
				Mabukos	A. Mabukos	41	70	Meize
				Calipo	A. Jose Artur Maliha	2	8	Groundnuts
					Sub-Total	**97**	**160**	
		NA	Murrupula		Individual farmer	1	25	Meize
					ditto	1	3	Maize
					Sub-Total	**2**	**28**	
4	Matharia Empreendimentos	NA	Ribaue/Lapala	Matharia	Individual farmers	**230**	**100**	Soybean
					ditto	**20**	**10**	Tomato
					Own Farm	-	5	Soybean seed
					Sub-Total	**250**	**115**	
5	Santos Agricola	NA	Meconta	Namialo	Individual farmers	**50**	**10**	Vegetable
					Own Farm	-	20	Vegetable
					Sub-Total	**50**	**30**	
					Total	**932**	**1370.5**	

(4) Major constraints hampering the smooth implementation of the projects

Although it took around 2 months to complete the loan contract between GAPI and the companies, more time has been spent on the registration of the mortgages at the notary office. No company has completed this process as of yet, except Matharia Enterprise that offered GAPI the term deposit as collateral for the loan. Since submission of a mortgage paper issued by the notary office is required for the disbursement of funds regulated by GAPI, only Matharia Enterprise has received the funds as of the end of February 2013, at which time more than 4 months have already passed since the above companies were selected as recipients of PDIF at the Steering Committee held in October 2012.

IKURU and Lozane Farm have found it necessary to modify their production plans due to the delay in disbursements from the fund as summarized in the previous section. It is critical to find a solution in order to smoothly complete the mortgage registration process at the notary office.

Table 3.1.5 Master Plan Projects

(1) Platform Project

1. Project for Land Registration of the Medium and Small Scale Farmer

Project Title	Project for Land Registration of the Medium and Small Scale Farmer
Background	The lands are treated, from the standpoint of the Strategic Plan for the Development of the Agricultural Sector (PEDSA, 2010/2019), as a natural resource with potential to develop the agricultural sector in Mozambique for the long-term. The same PEDSA quantifies that there are 36 million hectares of arable land in the country, of which 10% is currently cultivated. Meanwhile, the National Investment Plan for the Agricultural Sector (PNISA) considers that there are 3.9 million hectares in use, with 90% of the area used by the household sector. The PNISA estimates further that 3.6 million farms exist in the country, of which about 98% are small scale farms and 96.9% of the occupied area does not have the title of use and enjoyment of land (DUAT). This means that, nationally, there are 3.4 million farms without DUAT. By applying these percentages to the area of the Regional Development Plan of the Nacala Corridor it is estimated that there are approximately 1.06 million small farms without proper DUAT. This reality, which arises from the legal regime of Mozambican land, (where the request for title for occupations that occur through customary practices and by usufruct is voluntary) added to the increasing demand for land, have contributed to increase the uncertainty about land tenure (since it is not mapped or delineated, even without DUAT) and the increase in land conflicts, especially in some areas called "hotspots". The issue of land titling is understood as a constraint to be addressed before other actions for assisting the farmer and requires long-term actions (during the period up to 2030) and quick impact ones in the short term.
Objectives	To create an environment for mitigating the conflicts regarding the land use right between neighboring farmers and between farmers and investors
Project Goals	• Mitigate the insecurity and fragility of small farms (small scale farmer) and ensure the right related to the use of the land and possession of the properties on the land; • Dissemination of intensive cultivation to small scale farmers • Create an environment of cooperation and integration between the small scale farmers and new investors; • Facilitate the identification of areas for the promotion of agriculture by large farmers, private companies and medium scale farmers with leading experience (initial phase of the transition to an intensive agriculture).
Expected Output	1: Providing land title (DUAT) to small and medium scale farmers 2: Create an environment of cooperation and integration between the small scale farmers and new investors 3: Create basic condition for dissemination of intensive cultivation to small farmers
Main Activities	1: Preparatory Survey (Reviewing the past projects, Coordination with relevant agencies, Preparatory field survey, Making activity plan) 2: Provision of land titles (issue of DUATs) to small scale farms for transition to a fixed agriculture or intensive cultivation - Making inventory and distribution maps of farmland users (It is recommended that the target area will be selected around area of Project No.2 and No.9) - Community consultations, formation processes and consolidation of each DUAT - No cost for land registration for small farms (up to 5 ha) 3: Strengthen the implementation bodies (SPGC in each DPA, SDAE of each district) 4: Monitoring of land use by SPGC of each province
Implementation period	2014 '15 '16 '17 '18 '19 '20 '21 '22 '23 '24 '25 '26 '27 '28 '29 2030
Prioritized Area (candidate)	All zones. The activities in Zone I and Zone V are to start implementation first.
Implementing Agency/ related organization	DNTF (supervising the progress and technical support), SPGC of each province (Main implementer of this project), MCA projects (Providing their experience in Monapo and Malema)

Relevant plan/ projects	Land Tenure Service Project by Millennium Challenge Account - Mozambique
Remarks	Dissemination of intensive cultivation to small farmers will be covered by Projects 9, 11, and 12

2. Project for Planning of Availability of Land for Investment

Project Title	Project for Planning of Availability of Land for Investment
Background	The difficulties in the search for available land and after this obtaining DUAT (Right of Land Use and Reclamation) by investors are the main constraints to implementation of agro forestry projects in the country, since it requires a long time to obtain (searching and conducting) in a process that is quite complex. In the last 5 years (2008-2012) only 20 projects were approved by CEPAGRI and are under implementation. These 5 projects total 740,700 hectares, with 60.2% of this area for reforestation projects, mainly in Niassa. In this context, the provinces, to attract large-scale investments for development, could adopt practical measures to facilitate access to available land, as well as provide information about the potential of these areas through agronomic and socio-environmental zonings. By formation of a bank / stock of land, managed by the respective provinces according to their public policies, and the provision of those areas to investors with basic plans of subdivision already prepared, the provincial governments can become the main protagonists of the development process. This protagonist role in inducing the development and targeting of investments in accordance with provincial policies should be exercised with CEPAGRI through joint work on the formulation of productive projects.
Objectives	Making the provinces the main protagonists in the process of investment for agricultural development
Project Goals	Creating government offices in each province for the promotion of investment by management of land availability, formation of a database to support the interested investors and direction of investments in accordance with provincial public policies.
Expected Output	1: Government offices are created in each province 2: Availability of land for agricultural projects is found in each district 3: Basic plan of subdivision of available lands is prepared 4: Government office has database of availability of land
Main Activities	1: Creation of government offices to promote large scale investment in each province; 2: Survey of available lands for agricultural projects; 3: Community consultations, formation of processes and consolidation of DUAT for small farmers whose properties lie within or in border of areas of available land 4: Preparation of basic plans for subdivision and land management based on agronomic and socio-environmental zoning in the provinces; 5: Data bank of available and parceled land, with agrarian, socioeconomic and environmental information; 6: To elaborate criteria based on the socioeconomic and environmental characteristics of the area for the selection of projects, for all who request land, ensuring the selection of those capable to generate higher benefits to the region. 7: To monitor the use of the required area and the benefits created.
Implementation period	2014 '15 '16 '17 '18 '19 '20 '21 '22 '23 '24 '25 '26 '27 '28 '29 2030
Prioritized Area (candidate)	Zone I, II, III, V and VI
Implementing Agency/ related organization	Provincial government, DPA/SPGC's, CEPAGRI
Relevant plan/ projects	PNDA - Agribusiness National Development Plan
Remarks	

3. Project for Strengthening of Supervision Mechanism on Land and Environmental Law Enforcement

Project Title	Project for Strengthening of Supervision Mechanism on Land and Environmental Law Enforcement
Background	Despite the many well-structured legal instruments to supervise private investment projects in Mozambique, the weak law enforcement is resulting in environmental degradation as well as threatened livelihood of the communities in many cases. Serious lack of budget, equipment and trained staff is the underlying problem. MICOA has been promoting the elaboration of PDUT (District Land-Use Plan) since 2008 in view of the current tendency of disordered land-use and unsustainable exploitation of natural resources which threaten the ecosystem and the community's livelihood. However, some of the 19 districts do not yet possess PDUT.
Objectives	To harmonize the agribusiness investment and the development of local communities as well as environmental conservation through compliance with the RAI (Responsible Agricultural Investment) principles, a large part of which can be achieved by proper enforcement of the existing supervision mechanism. To provide the 19 districts with legal instruments for spatial planning which restrict indiscriminate development activities and maintains equilibrium with environmental conservation, in the earliest stage of M/P implementation.
Project Goals	All the agricultural investment projects in the Nacala Corridor (especially large-scale projects over 1,000ha or of Category A and B) are taking place in conformity with PDUTs under proper supervision and corrective guidance by competent authorities, thus contributing to avoid conflict with local communities and serious negative impacts on the environment.
Expected Output	1: PDUTs are elaborated, ratified and properly revised in the 19 districts; 2: Government officials are trained, equipped and funded to provide improved services of supervision for law enforcement, using partial support by the private sector; 3: All the documented information including PDUT is accessible for the general public; 4: Avenues of grievance redress in relation to RAI are understood by local people.
Main Activities	1. Assistance for accelerated elaboration, harmonization and revision of PDUTs - Provision of equipment such as GPS, motorbikes, cameras, computers and GIS software together with technical training (for the priority districts); - Budget support for contracting engineers and field operation costs (for the priority districts); - Technical meetings to harmonize PDUTs with the agro-ecological zoning results as well as inter-district planning (mainly between DPCA, DPA and neighboring districts); - Assistance for revision of PDUTs after the first 10 years. 2. Training of the Government officials and improvement of the basic conditions - Seminars, OJTs and training courses on the lawful and effective means of supervision of the agricultural investment projects, in accordance with PRAI; - Provision of vehicles and ICT equipment for the exclusive use of inspectors and auditors; - Budget support for field operation costs, either through direct funding by donors or fund channelization from FUNAB; - Partial outsourcing of the supervision services through contracting authorized consultants or promoting certification of the private environmental auditors. 3.Improvement of information disclosure system - Creation of websites or public access points for PDUTs, investment project documents, EIA reports, consultation records and supervision reports; - Distribution of printed PDUTs together with explanation for relevant actors. 4.Dissemination of PRAI among local people - A series of dialogues with local people to explain the essence of "ProSAVANA Guidelines on RAI" and raise awareness on their rights of appeal.

Implementation period	Initial Intensive Intervention: 2014 – 2015, Revision of PDUTs: 2022 – 2025 2014 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 2030
Prioritized Area (candidate)	All zones. As for the elaboration of PDUT, priority will be given to: Malema, Gurue, Cuamba, Mandimba and Ngauma districts.
Implementing Agency/ related organization	MICOA = DNAPOT, DNAIA, General Inspection MINAG = DNTF, CEPAGRI Provincial Government = DPA (SPGC, SPFFB), DPCA District Government = SDAE, SDPI Other institutions competent for authorization and supervision = CPI, ARA, etc.
Relevant plan/ projects	Nation-wide Agro-ecological Zonings at 1:250,000 are prepared by MINAG, and the final report will be published in 2013.
Remarks	The proposed "ProSAVANA Implementing Body" may be able to play a complementary role in this project.

4. Basic Study for Water Resource Management

Project Title	Basic Study for Water Resource Management
Background	Management of the water resources is essential of sustainable use of natural resources and water distribution in an appropriate and fair manner. At present, the development of water resources stays at a far lower level than the potential, except for some of the rivers running through high population density areas. Thus, even though accurate water resource management is not applied, no serious conflict or trouble has occurred. Considering the future development of industry and agriculture as well as population increase of the Nacala Corridor area, the establishment of appropriate water resources management is considered a primary task.
Objectives	The project aims to contribute to manage natural resources for the regional economy and irrigation development through providing the basic condition of well-ordered water resources development and use. Through the activity of the project, the accurate situation of water use and development potential will be grasped and shared among concerned actors of development.
Project Goals	To arrange necessary information for development and management of water resources to be shared among concerned actors of development including private investors, To realize well-ordered water use and development in the basins through appropriate water resources management.
Expected Output	1: River observation network is re-built and hydrological information will be accumulated. Data and assessment result will be built into a database and be shared among concerned actors of development including private investors. 2: Well-ordered development and sustainable use of water resources is implemented through enhancing the monitoring of water use and strengthening of the water license system. 3: A water management plan is formulated and the order of water use is established in the development concentrated basin.
Main Activities	1. Steady implementation of development and re-construction of the river observation network, which is planned by ARA-CN and ARA-N. 2. Building up of a database of water resources development potential. 3. Selection of possible dam sites 4. Investigation and preparation of inventory of small and medium scale water users and their water use such as irrigation systems less than 500ha, who are not included in the current water license system 5. Formulation of water management plans including water distribution plans for the rivers around which intensive development is expected such as the Monapo river.
Implementation period	2014 | '15 | '16 | '17 | '18 | '19 | '20 | '21 | '22 | '23 | '24 | '25 | '26 | '27 | '28 | '29 | 2030
Prioritized Area (candidate)	All zones, including basins of Rio Monapo, Rio Mecuburi, Rio Meluli/Namaita, Rio Ligonha, RioLurio and tributaries, Rio Lugenda and tributaries, Rio Lucheringo, and Lago Chiuta The Monapo river basins of Zone I and Zone II shall be given priority for establishing water management and distribution plans.

Implementing Agency/ related organization	ARA-CN and ARA-N in close cooperation with DPA in Nampula, Niassa and Zambezia
Relevant plan/ projects	
Remarks	

5. Forest Initiative Project

Project Title	Forest Initiative Project
Background	The exploitation of forest resources in the Nacala corridor is characterized by a process of extraction and/or removal of native forests, without care or management related to forest replacement essential to guarantee future supplies. Some regions, such as the Districts that make up the zones I, II and IV, feature high population density compared to the other districts of the Nacala corridor, which combined with the medium or high environmental vulnerability, due to the negative relationship between supply and demand of wood, require attention in relation to the management of natural resources and the availability of woody biomass. The forestry sector has developed in some areas of the corridor, but focusing on forest plantations aimed at industrial consumption, not on the local supply of biomass. It is necessary to stimulate the forest replacement and reforestation initiatives aiming to increase the availability of biomass for energy purposes, thus ensuring the continuous supply of the population and reducing the pressure on the native forest fragments.
Objectives	The project consists of extending the income-generating options for the small and medium producers through initiatives related to the forest sector. The establishment of forestry nurseries and training for delivery of quality seedling production comprises a fundamental factor for the implementation of ecological corridors, and energy and forestry recovery of degraded areas. The key objective of this project is to create a fund consisting of resources from activities that generate impacts on forest resources (firewood and charcoal consumption, deforestation for alternative use of the soil and others). This fund would be channeled to the development of forest activities, creating public and private forest nurseries (small scale), creation of ecological corridors, implementation of energy supplying forests and other compatible activities, such as training and capacity-building in forest management and exploitation, training on efficient use of forest resources, incentives for small business development and related forest activities.
Project Goals	- Creation of a fund to support Forest Initiatives - Creation of small-scale private forest nurseries at the Administration Post level. - Training of local personnel for industry activities - Incentives for afforestation for conservation purposes and for biomass generation
Expected Products	- Forest nurseries are established. - Reversal in medium-long term wood production deficit in the areas - Improvement of income of small-and medium producers through diversification of economic activities - Diffusion of the use of firewood and charcoal that come from planted forests
Main Activities	1. Submission of proposals for obtaining financial support 2. Development of forestry nursery 3. Training for management of nurseries, seed collection and seedling production 4. Survey of distressed areas of recovery and potential for energy supplying forests and ecological corridors 5. Training for the planting and management of reforestation 6. Empowerment of communities benefited by energy supplying forests for community forest management 7. Capacity-building for the collection, processing and storage of wood for energy purposes 8. Training for use and exploitation of forest residues 9. Monitoring (qualities of seedlings, and evaluation of reforestation and community management)

Implementation period	2014 ‘15 ‘16 ‘17 ‘18 ‘19 ‘20 ‘21 ‘22 ‘23 ‘24 ‘25 ‘26 ‘27 ‘28 ‘29 2030
Priority area (candidate)	All zones, with priority for the District of Gurué.
Implementing Agency/Related Organizations	- Environmental Fund (FUNAB) and Global Environmental Fund (GEF) as important partners for channeling financial resources - Support of NGOs in technical and operational aspects - District Planning and infrastructure Service (SDPI) with operations in regional planning and in promoting activities of maintenance, protection and restoration of the environment. - SDAE and administrative posts.
Relevant Projects/Plans	Project for Strengthening of Supervision Mechanism on Land and Environmental Law Enforcement
Comments	- The organization of communities is a factor of importance for implementation of the project - Important to consider factors such as genetic diversity of seeds, and care in the introduction of invasive alien species in ZPP (Zone for Partial Protection), and ecological corridors

6. Project for Strengthening of Agricultural Research

Project Title	Project for Strengthening of Agricultural Research
Background	Transition from shifting cultivation to settled farming is an urgent need, in view of the rapid population growth and limitation in available farmland in the Nacala Corridor. Increase in land productivity through fertilization, improved production techniques of traditional crops, introduction of new crops or cultivars and reactivation of livestock farming is a key to this end. The role of agricultural research is becoming more important than ever to develop adequate technologies to respond to these needs.
Objectives	To enhance the research capacity of IIAM and improve enabling conditions toward advanced technology development of the priority crops, cultivars and livestock species under ProSAVANA, in terms of quantity and quality.
Project Goals	Appropriate agricultural technology is developed and transferred in Nacala Corridor (*same as the project purpose of ProSAVANA-PI)
Expected Output	1:IIAM branch stations in Nacala Corridor are rehabilitated and equipped; 2:IIAM field operators are trained on research support activities; 3: Research programs are expanded to strategic themes for Agricultural Development in Nacala Corridor.
Main Activities	1) Infrastructure rehabilitation of IIAM branch stations - Provide basic infrastructure and equipment such as electricity, water supply, office and warehouses - Provide specialized infrastructure and equipment for specific crops and animals of each region 2) Training of IIAM field operators on research support activities - Operation and maintenance of machinery and equipment - Maintenance of experimental fields, crops and animals - Financial support to contract skilled operators 3) Expansion of research programs on strategic themes for Agricultural Development in Nacala Corridor - Utilization of farm inputs for settled farming - Introduction and adaptation of non-traditional crops and cultivars
Implementation period	ProSAVANA-PI: till 2016 Infrastructure rehabilitation and training of field operators: 2017 – 2018 Expansion of research programs: 2019 – 2030 2014 '15 '16 '17 '18 '19 '20 '21 '22 '23 '24 '25 '26 '27 '28 '29 2030
Prioritized Area (candidate)	All zones. Coverage of IIAM Northeast Zonal Center: Nampula, Mapupulo, Namapa, Nacaca, Namialo, Nassuruma, Nametil, Ribaue Coverage of IIAM Northwest Zonal Center: Lichinga, Mutuali, Gurue, Mutequelesse, Matama
Implementing Agency/related organization	IIAM (Northeast and Northwest Zonal Centers), INCAJU, IAM Plus, ABC-EMBRAPA and JICA-NTCI/JIRCAS as ProSAVANA-PI actors
Relevant plan/ projects	PEDSA 2011 – 2020 Strategic Plan of IIAM 2011 – 2015 (Headquarter; Northeast Zonal Center; Northwest Zonal Center) ProSAVANA-PI from 2011 to 2016
Remarks	ProSAVANA-PI has the following 5 components: 1. Strengthening of research capacity of IIAM Northeast / Northwest Zonal Centers; 2. Evaluation of natural resources and socio-economic conditions in Nacala Corridor; 3. Development of soil improvement technology for Nacala Corridor; 4. Development of appropriate cultivation technology for Nacala Corridor; 5. Implementation and validation of new agricultural technology in the demonstration units.

7. Project for Strengthening of Agricultural Extension Service

Project Title	Project for Strengthening of Agricultural Extension Service
Background	One of major challenges to the implementation of competitive market-oriented agriculture in the Project area, as well as the rest of the country, is the transformation of today's farmers shifting cultivation to settled cultivation by introducing intensive farming systems. For this to be possible, it is necessary to adopt a series of measures to enable farmers conditions to achieve the transformation, such as, juridical ensuring of land use, access to inputs and especially access to production technology through agile and efficient agricultural extension service. Agricultural extension in Mozambique was historically focused on commercial and export cash crops, such as cotton, tobacco and sugarcane, mainly financed by the corresponding crop sectors before independence. In 1987 when the country's economic system was liberalized, the public agricultural extension system was finally established. The extension services in Mozambique, therefore, are highly dependent on the non-governmental sector, such as NGOs and service providers mainly associated with concession holder groups of specific cash crops. In 2012, only 32.1% of extension agents were from the public sector (MINAG/DNEA). The PRONEA (2012-16), as the operational program of the Agricultural Extension Master Plan, is being implemented to consolidate the agricultural extension service involving the private sector in 42 selected districts distributed throughout all the provinces in the country. The PRONEA, as a matter of strategy implementation, is going to cover only 11 districts out of the 19 districts in the Project area.
Objectives	To enhance productivity and market access of small-scale and emerging farmers in 8 districts which are not covered by the PRONEA
Project Goals	Strengthen the agricultural extension service to expedite the transformation of extensive farming to intensive and market-oriented farming in the Project area
Expected Output	1. Allocation of able extension agents in all target districts in the Project area 2. Empowerment of extension agents and farmers
Main Activities	1. Empowerment of extension agents not only in the public sector but also in the NGO/private sector through trainings and workshops including equipment supply necessary for the services (1) Public sector reorientation and support (2) NGO/Private sector promotion and support in extension activities 2. Empowerment of individual farmers and farmer organizations through trainings and workshops (1) Grouping and empowerment of farmer organizations (2) Farm enterprise development 3. Provision of better extension service at the provincial and district/local-level through public, private and NGO agents (1) Provincial level-service provision (2) District/Local-level service provision 4. Restart of agricultural extension program on radio or TV (1) Provision of farming technology (2) Provision of farm management know-how and marketing information
Implementation period	2014 '15 '16 '17 '18 '19 '20 '21 '22 '23 '24 '25 '26 '27 '28 '29 2030 PRONEA
Prioritized Area (candidate)	All 8 districts which are not covered by the PRONEA , i.e., Mecuburi, Muecate, Mogovolas, Murrupula, Lalaua, Majune, Lichinga and Sanga
Implementing Agency/related organization	MINAG/DNAE, SPEA, SDAE, NGO's and private companies who provide technical support to farmers
Relevant plan/ projects	• PDEA, PRONEA • Project for Strengthening Agricultural Research (No.6) • ProSAVANA Agricultural Academy (Agricultural Development Centre) Project (No.8)
Remarks	This project aims at strengthening agricultural extension services in all 19 districts in the Project area with complementing actions to PRONEA.

8. ProSAVANA Agricultural Academy (Agricultural Development Center) Project

Project Title	ProSAVANA Agricultural Academy (Agricultural Development Center) Project
Background	The government of Mozambique has recognized that empowerment of human resources at the grass-roots level can become a major driving force for the agricultural development. The PRONEA (National Extension Program), which is the operational program of the Agricultural Extension Master Plan in compliance with PEDSA, focuses on small-scale and emerging farmers in order to enhance their productivity and market access. PRONEA, then, has 2 components of human development out of its 3 major components. One is the supply-side development of agricultural extension services (empowerment of extension agents) and the other is the demand-side development of agricultural extension services (empowerment of farmers). Even though the government recognizes the importance of human resources, the small number of leading farmers in communities and able agricultural extension agents is a serious problem for the agricultural development in the Project area. In order to accelerate the development, able human resources on the both sides, the supply-side and the demand-side, at district level should be systematically secured with a long-term strategy. There is an existing formal education system in agriculture, i.e. Agricultural Universities, Agricultural Institutes and Agricultural Basic Schools in Mozambique. The system cannot fully respond to the demand for the able human resources dedicated to the agricultural development at the grass-roots level. It is recommended that the government pay serious attention to find capable personnel and to forester them to be grass-roots leaders to bear responsibility for the agricultural development.
Objectives	To promote the agricultural development in the Project area
Project Goals	To foster able personnel who play a leading role in agricultural development in the Project area
Expected Output	1. The number of able and dedicated farmers for agricultural/rural development is increased in the Project area 2. The number of able and dedicated public agricultural extension agents for agricultural/rural development is increased in the Project area
Main Activities	<Training of Leading Farmers & Public Agricultural Extension Agents> 1. To train selected capable young personnel (high school graduates) who have a strong will to bear responsibility for the development of regional agriculture. The selected 25 personnel/year shall be given 2-years intensive training mainly focusing on farming practice 2. To focus will be on training subjects regarding farm management, group organizing and management, etc. in addition to the practice, so that the trainees will be able to develop the qualities and skills needed to be a community leader in the future 3. To provide the following 2 options for incentives to the qualified trainees after 2-years (1) DUAT of farmland for about 5 ha and soft-loans to cover initial capital cost to start farming (2) Employment as a public extension agent of the intended SDAE 4. To train rookie public extension agents (6 months training at the time of recruitment, except for the graduates of the academy) 5. To provide refresher training for veteran public extension agents (1-month training every 5-years of the career of the agents) <Other supplementary trainings> 1. Community leader training (Ad-hoc trainings based on requests from the extension side) 2. Agricultural Inputs Supplier Training (2-weeks training, once a year) 3. Other trainings based on request <Trainers> 1. Full-time instructors 2. Invited specialists/lecturers Professors/instructors of agricultural universities, IIAM researchers, Senior staff of DPA, NGOs & Private sector and Foreign experts, such as from Brazil and Japan
Implementation period	2014 '15 '16 '17 '18 '19 '20 '21 '22 '23 '24 '25 '26 '27 '28 '29 2030

Prioritized Area (candidate)	All zones (candidate place for the Academy: Cuamba)
Implementing Agency/ related organization	MINAG, DPA in Nampula, Niassa and Zambezia, SDAE in 19 districts, IIAM (North East Centre & North West Centre)
Relevant plan/ projects	• Project for Strengthening of Agricultural Extension Service (No.7) • Model Project for Development of Leading Farmers in the Community (No.9) • Project for Training for Distributors of Agricultural Inputs (No.10)
Remarks	

9. Model Project for Development of Leading Farmers in the Community

Project Title	Model Project for Development of Leading Farmers in the Community
Background	Transformation from the prevailing shifting cultivation to settled farming with intensive agricultural technology is crucial to attain increased agricultural production and sustainable use of natural resources in the Project Area. However, many farmers do not have a concrete image of the new farming system and continue the shifting cultivation. Considering farmers' behavior in general, they will not transfer to a new farming system before they are able to recognize the actual benefit of the new system by themselves. "A picture is worth a thousand words" is very true to convince farmers of the benefit of new things. Through demonstrating a model of intensive farming in the community by emerging leading farmers, it is expected that many farmers in the Project Area will be motivated to convert their farming system. On the other hand, organization is an essential element for development of the small scale farmer, and a core person or group is required to establish a robust organization. Therefore, the leading farmers should be cultivated in the local community and they shall lead to diffusion of new settled farming and cooperative activities among the farmers aiming at the increase of crop production and their income with intensive agricultural technology.
Objectives	To establish the model to develop leading farmers who disseminate the cultivation technology and its effect on intensive farming and elicit motivation for introducing intensive farming and for entering joint works implemented by an association of surrounding small scale farmers.
Project Goals	The leading farmers in the community are trained through implementation of several practical intensive farming and modern management methods. The surrounding small scale farmers are organized into a farmers' organization. Through it, production increase and income generation of small-scale farmers are achieved.
Expected Output	1. Leading farmers (core farmers) are defined in the community 2. Individual DUAT is registered in pilot communities. 3. The farming program aiming to increase their incomes is prepared by the lead farmer and announced in the community. 4. Core farmers increase their capacity for farming. 5. Small-scale farmers around the core farmers are organized into a legal group and find good partners for their businesses. 6. Capacity of extension workers in SDAE is developed.
Main Activities	1. To select project communities based on voluntary initiatives under a transparent process. 1) Socialization of pilot projects, and explanation to representatives of communities. 2) Selection of pilot communities and farmers taking part in the project 3) Selection of capable young farmers to form core groups to participate the project 2. To survey all farmland of individual farmers in the pilot community and register their DUAT. 3. To prepare farming programs of core farmers in consultation with extension workers. 1) Studying present farming methods of each farmer, to identify details of growing crops, varieties, management practice, marketing methods, household income etc. 2) Preparation of draft farming programs, aiming at income generation based on settled

<table>
<tr><td></td><td>cultivation with the farmers, including farm management, marketing and financial management.
3) Public announcement of the farming program in the community.
4. To support the farming of the core farmers
1) Supporting their procurement of necessary inputs by introducing reliable input dealers/stores and an available loan scheme, if necessary.
2) Providing intensive technical suggestions and training to core farmers based on the farming plan.
3) Support the establishment of contact between farmers and their market, according to the marketing plan.
4) Monitoring their activities throughout the farming period which is to be evaluated by the farmers themselves and evaluating the project after selling the major crops. The following year's program is to be prepared based on the evaluation.
5. To provide training to promote farmers into associations and joint activities
1) Providing training and technical support for group activities and marketing to the core farmers.
2) Supporting expansion activities such as formulating legal farmers' associations and matching with private companies, who look for good partners.
6. Capacity development of SDAE and its extension workers
1) To share the knowledge and experience of the project with local government staff such as extension workers and SDAE.
2) Development of a model for small-scale farmers is formulated based on the lessons learned in the last stage of the pilot project, including compiling a project operation manual for extension workers and SDAE staff.</td></tr>
<tr><td>Implementation Period</td><td>2014 '15 '16 '17 '18 '19 '20 '21 '22 '23 '24 '25 '26 '27 '28 '29 2030</td></tr>
<tr><td>Prioritized Area (candidate)</td><td>9 communities in Monapo, Rapale (Nampula), Meconta, Mogovolas, Mutuali (Malema), Alto Molocue, Gurue, Cuamba and Lichinga. (high population areas highly require transition to settled cultivation)</td></tr>
<tr><td>Implementing Agency/Related Organization</td><td>Extension Service in MINAG, IIAM, SDAEs, NGOs,</td></tr>
<tr><td>Relevant Plan/ Projects</td><td>• PRONEA
• ProSAVANA Agricultural Academy (Agricultural Development Centre) Project
• Project for Strengthening of Agricultural Extension Service</td></tr>
<tr><td>Remarks</td><td>• The model project is carried out by experienced NGOs or specialists on a contract basis.
• In the future, graduates from ProSAVANA academy, ideally originating from pilot communities, can be assigned as core leading farmers.</td></tr>
</table>

10. Project for Training for Distributors of Agricultural Inputs

Project Title	Project for Training for Distributors of Agricultural Inputs
Background	It is necessary to promote transition of the farming system from shifting cultivation into intensive cultivation. Dissemination of the use of fertilizers, certified seeds and agrochemicals is crucial to promote intensive cultivation. However, public extension service is still weak due to the small number of extension workers. Therefore, many channels to transfer knowledge of the intensive agriculture to farmers are required. Here, stores or distributors handling agricultural inputs meet farmers frequently, so that they could be a consultation source regarding proper agricultural inputs use On the other hand, proper knowledge of fertilizers and agrochemicals like pesticides and herbicides should be understood by farmers for environmental conservation and for their own and other people's good health. The distributors or stores handling them should know these things and they have to transfer the knowledge to their customer farmers to avoid unexpected accidents. If agricultural inputs distributors are motivated to provide the consulting services, farmers will have easy access to basic farming technology at the grass-roots level. The weak public agricultural extension services can be compensated for by the consultation services. Moreover, the inputs distributors can get the trust of customers (farmers), if they could continue to provide appropriate information about farming technology. The trust is a priceless treasure for them to run their business in competition with others.
Objectives	Farmers have good access to basic knowledge about proper use of agricultural inputs
Project Goals	Qualified agricultural distributors provide agricultural consultation services on farming technology to farmers as a supplementary service of their business
Expected Output	1. A training course for agricultural inputs distributors or stores is organized regularly (once/year). 2. Number of qualified agricultural distributors is increased at district level 3. Number of entities handling agricultural inputs is increased.
Main Activities	1. To organize a training course regarding major crop management and proper use of agricultural inputs including safety standards of agrochemicals designed for voluntary agricultural inputs distributors or stores (about 20 participants). The certificate is issued for trainees who finished the course. 2. In order to provide an incentive for distributors to take the training, favorable treatments are to be given to the certificate holders, such as priority in governmental procurement, tax incentive, priority for low-interest credit, honor system, etc. 3. SDAE and DPA announce the favorable treatment of agricultural inputs distributors and stores.
Implementation period	2014 '15 '16 '17 '18 '19 '20 '21 '22 '23 '24 '25 '26 '27 '28 '29 2030
Prioritized Area (candidate)	All zones.
Implementing Agency/ related organization	MINAG, DPAs, SDAEs
Relevant plan/ projects	• Project for Strengthening of Agricultural Extension Service (No.7) • ProSAVANA Agricultural Academy (Agricultural Development Centre) Project (No.8) • Project for Establishment of Financial Support System for Small and Medium Scale Agribusiness Enterprises and Farmers' Organizations (ProSAVANA Development Initiative Fund) (No.16)
Remarks	

11. Project for Improvement of Accessibility to Fertilizers

Project Title	Project for Improvement of Accessibility to Fertilizers
Background	Most farmers depend on an extensive farming practice and rarely use agricultural inputs, i.e. quality seeds, chemical fertilizers, pesticides or farm mechanization at present. The low use of inputs must be a main reason for the low productivity of crops. While reasons for the low use are complicated, high price must be a major subject to be addressed to stimulate farmers' demand for the inputs. Chemical fertilizers are indispensable and the most effective inputs for increasing crop productivity. However, the present market price is too high to use for major crops in Mozambique, especially for maize. Maize is a major staple of the people and is grown by most farmers in Mozambique. The country, however, imports a substantial amount of maize every year. According to a simulation in the Study, farmers can find an economic feasibility for using chemical fertilizers for maize only after the price drops to almost half of the present level, even though they could attain double the present production per ha. It seems that only market-principle oriented measures to address the high price cannot generate a demand for chemical fertilizers at present. The present situation may allow the government to have a good reason to establish a pump-priming subsidy system for chemical fertilizers for a certain limited period as many neighboring countries do, considering the economic impact of the fertilizers to the national economy and equity. If the farmers' demand is stimulated by the subsidy, the increased demand would pave the way for reducing the costs of the supply chain in the future.
Objectives	To improve agricultural productivity through transformation to intensive farming
Project Goals	To improve accessibility to chemical fertilizers for general farmers
Expected Output	1. Price of chemical fertilizers decreases to an economically feasible level to use for major crops, especially for maize 2. Farmers' demand for chemical fertilizers is firmly stimulated
Main Activities	1. To grant a subsidy to fertilizer traders to cover 50% of FOB price of imported chemical fertilizers for 5 years. Then, the subsidy % shall be gradually reduced by 10%/year for the next 4 years (the upper limit FOB price shall be set and periodically reviewed based on the international market price) 2. To allocate a fund (budget) of US$10 million for the subsidy every year. This amount is the upper limit of the annual subsidy (the amount shall be gradually reduced by 20%/year from the 6th year to the end) 3. To grant the subsidy for only Urea and NPK (12-24-12). They are relatively popular fertilizers among general farmers for use on major crops. The subsidized fertilizers must be prohibited to re-export, even after blending by traders/blending companies 4. To introduce a registration system for fertilizer traders, so that only the registered traders can be granted the subsidy. However, corporate farms to produce crops by themselves or by out-growers, such as tobacco, sugar cane, cotton, banana, rice etc. or their affiliated companies are not allowed to be a registered trader 5. To establish an independent monitoring system in the government
Implementation period	2014 '15 '16 '17 '18 '19 '20 '21 '22 '23 '24 '25 '26 '27 '28 '29 2030
Prioritized Area (candidate)	Whole country
Implementing Agency/ related organization	MINAG, MIC
Relevant plan/ projects	Project for Training for Distributors of Agricultural Inputs (No.10)
Remarks	

12. Project for Promotion of Quality Seed Production at the Regional Level

Project Title	Project for Promotion of Quality Seed Production at the Regional Level
Background	Only a few farmers use quality seeds in Mozambique, as well as in the Project area. They usually use their own produced seeds or exchanged/purchased seeds from neighbors. Quality of the seeds is inferior to the standard in general due to lack of proper management during crop growing and post-harvest treatments. Since quality seeds are fundamental inputs to increase productivity of crops, the accessibility of farmers should be improved in order to promote intensive farming systems. Basic seeds of major crops produced by USEBA (Basic Seed Production Unit) of IIAM are multiplied by seed growers (companies) and it is sold as certified seed. There are, however, only 18 companies producing the seeds out of 35 registered seed companies in Mozambique, according to World Bank's report in 2012. In the Project area, there are, however, not a small number of small-scale seed companies that have newly started their business at the province/district level in recent years. While many of them get financial and/or technical assistance from NGOs or donor agencies, they don't get systematic support to address the following constraints in a wide and protected manner. (1) Lack of reliable basic seeds (2) Lack of technical staff to manage quality seed production (3) Lack of funds (capital & operation) In order to improve accessibility of farmers to quality seeds, the government should foster the small-scale local seed companies with necessary assistance, so that the companies will be able to produce and distribute quality seeds of major crops at affordable prices to the farmers.
Objectives	To improve agricultural productivity through transformation to intensive farming
Project Goals	To improve accessibility of farmers to quality seeds at affordable prices at the district level.
Expected Output	1. Number of able seed growers is increased in the Project area 2. Production of quality seeds of major crops is increased in the Project area
Main Activities	1. To train technical staff of seed companies and agricultural extension agents on how to produce quality seeds (by IIAM). While the target crops in the initial stage shall be maize and beans/pulses, other crops, such as potato and vegetables shall be covered from the mid stage of the project 2. To provide priority to the seed companies who send their technical staff to the training for receiving breeder seeds (by IIAM) 3. To introduce a capable farmer group to the seed companies as candidates as out-growers at the request of the companies. Agricultural extension agents shall provide intensive technical support to the farmer group, if necessary (by SDAE/DPA) 4. To introduce an appropriate financial system to the seed companies at the request of the companies (by SDAE/DPA)
Implementation period	2014 '15 '16 '17 '18 '19 '20 '21 '22 '23 '24 '25 '26 '27 '28 '29 2030
Prioritized Area (candidate)	All zones
Implementing Agency/ related organization	IIAM (North East Centre & North West Centre), SDAE in 19 districts, DPA in Nampula, Niassa and Zambezia
Relevant plan/ projects	• Project for Strengthening of Agricultural Research (No.6) • Project for Strengthening of Agricultural Extension Service (No.7) • Project for Establishment of Financial Support System for Small and Medium Scale Agribusiness Enterprises and Farmers' Organizations (ProSAVANA Development Initiative Fund) (No.16)
Remarks	

13. Project for Promotion of Tractor Hire Services

Project Title	Project for Promotion of Tractor Hire Services
Background	Most of the farmers cultivate farmland by simple manual tools and this is one of the limiting factors to keep farmers in small scale and low productivity. In order to improve their land preparation practice, so that they can plant crops in well-prepared land at the right time, it is necessary to popularize agricultural mechanization, especially mechanized plowing, because animal traction is not common in this region by tradition. The Project area is, unfortunately, not blessed with high potential of cattle breeding. In order to promote mechanized agriculture among small-scale farmers, it is necessary to vitalize agricultural mechanization service with tractors. Because of annual rainfall patterns, the optimum cultivated period is short and not so flexible in the most of the Project area. This condition doesn't allow the mechanization service providers to use their tractors at maximum level. Due to such inefficient tractor operation, most service providers cannot expect enough profit from the service at the present service fee. It is desirable that public supportive measures to promote the agricultural mechanization service be taken during the period when the service is still in its infancy.
Objectives	Improvement of agricultural productivity through transforming to intensive farming
Project Goals	To increase the number of agricultural mechanization service providers in order to create an environment in which farmers can use the mechanization service at an affordable cost.
Expected Output	1. Tractor price is decreased. 2. Tractors can be purchased in favorable condition. 3. Potential farmers or entities can get an idea of agricultural mechanization service through extension workers or tractor dealers. 4. Number of capable tractor operators is increased.
Main Activities	1. To take measures to reduce the price of agricultural tractors such as revision of tariffs and VAT, simplifying importing procedures, etc. 2. To establish preferential credit systems to purchase tractors to create an incentive for potential farmers/entrepreneurs to purchase them (can consider a tie-up with ProSAVANA Development Initiative Fund) 3. To train extension agents so that they can introduce a business model of the agricultural mechanization service to potential farmers/entrepreneurs, including calculation of income and expenditure and maintenance services. The extension agents also introduce potential customers to the service providers. 4. To provide short-term training to tractor operators of the service providers by the government (DPA/SDAEs) in cooperation with private tractor dealers
Implementation period	2014 '15 '16 '17 '18 '19 '20 '21 '22 '23 '24 '25 '26 '27 '28 '29 2030
Prioritized Area (candidate)	All zones
Implementing Agency/ related organization	MINAG, DPAs, SDAEs
Relevant plan/ projects	• PNISA - Mechanization Support Program • Plano Estratégico de Mecanização Agrária (PEMA) • Project for Strengthening of Agricultural Extension Service (No.7) • Project for Establishment of Financial Support System for Small and Medium Scale Agribusiness Enterprises and Farmers' Organizations (ProSAVANA Development Initiative Fund) (No.16)
Remarks	

14. Irrigation System Rehabilitation Project

Project Title	Irrigation System Rehabilitation Project
Background	Irrigation development is expected to improve the basic condition of agricultural production and to contribute to the increase of agricultural production and the revitalization of the regional economy. More than 55% of irrigation land once developed and equipped with irrigation systems is not in use due to damage and malfunctioning of the system. The defunct irrigation area has a potential for recovery of irrigation farming by rehabilitation of the facilities. In order to increase the effectiveness and efficiency of the irrigation systems, it is necessary to rearrange the plots and reconstruct systematic canal systems as well as rehabilitation of the systems.
Objectives	To increase actual irrigation area and agricultural production through rehabilitation of existing irrigation systems.
Project Goals	Malfunctioning and damaged irrigation systems recover their function and the systems are used appropriately and effectively. Good practice of construction of irrigation facilities, management of irrigation systems, irrigation technology in the field and farm management of irrigation farming will be demonstrated in the pilot area.
Expected Output	1: Existing irrigation systems are rehabilitated and their function is recovered. 2: Pilot irrigation area is established and utilized for technical extension of irrigation development. 3: The organizational operation of irrigation users is enhanced in managing irrigation systems, managing water fees, and managing members' labor/material contribution for O/M work. 4: The skill and technology of members of water users' organizations are improved and appropriate operation and maintenance of the system is implemented by the users.
Main Activities	1. Rehabilitation of irrigation systems 1-1 Investigation of irrigation development potential, improving inventory of irrigation systems, and building and maintaining a database 1-2 Formulating rehabilitation and development plan for irrigation systems 1-3 Implementation of rehabilitation work for the irrigation system, re-construction of the canal network and re-arrangement of irrigation land through land consolidation 2. Establishing pilot areas for irrigation development 2-1 Selection of pilot areas for irrigation development 2-2 Establishing pilot areas for irrigation development 2-3 Preferential implementation of rehabilitation/construction work, improvement of users' capability for operation and maintenance, improvement of irrigation technology of farmers 2-4 Utilizing pilot areas for extension activities through demonstrating good practice of irrigation development 3. Enhancement of water users' organizations 3-1 Organizing water users' groups into legalized farmers' associations in order to strengthening their financial status 3-2 Organizing water users' associations which will be set up among the associations where the system covers multiple associations 3-3 Enhancement of the activities of the associations including collection of water/membership fees, account control and arrangement of members' participation in O/M 3-4 Training of farmers' groups on construction and repair of simple structures 3-5 Enhancement of technical guidance and inspection on operation and maintenance of the system of SDAE extension officers 3-6 Sensitization of community members and users on the necessity of appropriate operation and maintenance

Implementation period	2014	'15	'16	'17	'18	'19	'20	'21	'22	'23	'24	'25	'26	'27	'28	'29	2030

<table>
<tr><td>Prioritized Area (candidate)</td><td>All zones.
Priority of rehabilitation of irrigation system is given to Zone II, Zone III, and the second priority is given to Zone I, Zone V and Lichinga of Zone VI.
Priority of establishing pilot areas for irrigation development is tentatively given to Malema of Zone III, and afterward pilot areas will be established in each district of the above priority Zones of rehabilitation.
Target area of rehabilitation
<table>
<tr><th>Zone</th><th>I</th><th>II</th><th>III</th><th>V</th><th>VI</th><th>Total</th></tr>
<tr><td>No. of systems</td><td>14</td><td>27</td><td>22</td><td>13</td><td>11</td><td>87</td></tr>
<tr><td>Target area (ha)</td><td>778</td><td>1,290</td><td>1,697</td><td>305</td><td>152</td><td>4,222</td></tr>
<tr><td>Of which are currently in operation (ha)</td><td>148</td><td>255</td><td>672</td><td>162</td><td>69</td><td>1,306</td></tr>
</table></td></tr>
<tr><td>Implementing Agency/ related organization</td><td>DPA in Nampula, Niassa and Zambezia、SDAEs, MINAG and INIR</td></tr>
<tr><td>Relevant plan/ projects</td><td>Provincial Strategic Plan Nampula '2010-2020', Niassa '2017', Zambezia '2011-2020'</td></tr>
<tr><td>Remarks</td><td></td></tr>
</table>

15. Project for Improvement of Irrigation Technology and Construction Quality

Project Title	Project for Improvement of Irrigation Technology and Construction Quality
Background	In order to fully use the effect of introducing irrigation, it is essential to adopt appropriate technology in irrigation farming such as irrigation management and crop management in the field as well as water management among the users in the system. On the other hand, one of the major reasons of malfunctioning of the hydraulic structures is the lack of adequate skill and technology for construction and repair work in each level, i.e., administrative level, local construction companies, and local community and famers. It is required to bring up the skill and technology of above actors in each level.
Objectives	To strengthen the technical extension service of SDAE on irrigation farming in order to enable farmers to practice appropriate irrigation farming with effective and efficient water use. To increase the capability of construction companies as well as enhancing the technical management of DPA, in order to improve the quality of irrigation facilities.
Project Goals	Farmers' skill and technology on irrigation farming and water management are improved. The quality of construction work of irrigation facilities is improved and the function of the facility can be maintained in the long term.
Expected Output	1: Farmers implement appropriate water management and irrigation technology in the field and their productivity increases. 2: Skill and technology of construction companies is improved and the quality of construction work is improved.
Main Activities	1. Improvement of irrigation technology of famers 1-1 Enhancing technical extension to small scale irrigation farmers on water management, irrigation and cultivation technology of irrigation crops. Technical extension will be implemented by SDAE extension officers through water users' organizations such as farmers' associations. 1-2 Sensitization of the community and users on the necessity of land and water management 2. Improvement of skill and technology of construction companies 2-1 Introducing a qualification system into procurement of construction of hydraulic structures 2-2 Enhancement of technical guidance and inspection of DPA 2-3 Enhancement of technical support of MINAG to DPA through developing technical guidelines and standard designs of hydraulic structures, preferential setting up of regional branches of INIR
Implementation period	2014 | '15 | '16 | '17 | '18 | '19 | '20 | '21 | '22 | '23 | '24 | '25 | '26 | '27 | '28 | '29 | 2030
Prioritized Area (candidate)	All zones.
Implementing Agency/ related organization	DPA in Nampula, Niassa and Zambezia、SDAEs, MINAG and INIR
Relevant plan/ projects	Provincial Strategic Plan Nampula '2010-2020', Niassa '2017', Zambezia '2011-2020'
Remarks	

16. Project for Vegetable Production Model

Project Title	Project for Vegetable Production Model
Background	The demand for vegetables is expected to increase due to the increase of laborers working in urban areas such as Nampula and the SEZ of Nacala as well as a planned fertilizer factory in Monapo. Vegetables are considered to be a promising product both for vitalization of special local products in the area, which has good access to the market, as well as generating cash income for small and medium scale farmers. Vegetables are produced by small farmers along rivers, streams and reservoirs with manual conveying and applying of irrigation water. The huge amount of manpower required for this irrigation practice is a limiting factor for farmers to carry out and expand irrigation plots. Thus, introduction of small pumps or simple irrigation systems is anticipated to expand the irrigation of vegetables. Because irrigation farming of vegetable crops requires initial and running cost for pump equipment, fuel, seeds, fertilizer, etc. as well as appropriate technology, it is necessary to develop proper support systems for expanding.
Objectives	To promote vegetable production by small pump and simple irrigation systems aiming at increasing the cash income of small and medium scale farmers
Project Goals	- To increase irrigation area and production of vegetable crops - To increase farmers' income through producing vegetable crops by irrigation in consideration of market demand - To organize small scale vegetable farmers into associations and to implement procurement and development of irrigation equipment, improvement of irrigation and cultivation techniques and development of market and sales channels by the associations - To bring up leading farmers from small and medium scale farms in the area through production of vegetable crops
Expected Output	1: Farmers who intend to practice irrigation farming obtain necessary pump equipment and/or simple irrigation systems. 2: Farmers who intend to practice irrigation farming are organized into associations and start procurement of equipment and construction of facilities as well as developing marketing by the associations. 3: Cultivation and irrigation technique of vegetable farmers is improved by receiving adequate technical extension service. 4: Farmers' groups/associations will develop marketing and sales channels by receiving necessary support for their marketing activities.
Main Activities	1. Establishment of a support systems for introducing small pump and developing simple irrigation systems by farmers and/or farmers' groups 1-1 Support for introducing small pumps (for individual small farmers) • Preparation and selection of model groups • Providing preferential loans for individual farmers for procuring pump equipment or Lending pump equipment through farmers' associations 1-2 Support for developing simple irrigation systems (for farmer's groups or mid-scale farmers) • Preparation and selection of model groups • Providing preferential loans for farmers' associations for constructing simple hydraulic structures, canal systems and farm ponds as well as procuring pump equipment and storage tanks • Technical support for planning, designing and training of members of associations on construction of simple hydraulic structures 1-3 Preparing preferential budget in FDA of SDAE and FDD of the District for procurement of pump equipment and development of simple irrigation systems 2. Enhancement of farmers' groups 2-1 Organizing small scale irrigation farmers into groups and promoting formation of farmers' associations as well as legalization 2-2 Application of loans for irrigation equipment and facility development by the associations 2-3 Operation and management of irrigation equipment and facilities by the associations 2-4 Enhancement of activities of associations on irrigation management including collection of water/membership fees, account control and arrangement of members'

	participation in O/M 3. Establishing technical extension system for vegetable cultivation with irrigation 3-1 Preferential implementation of technical extension by SDAE extension officers and NGOs on water management, irrigation practice and cultivation of vegetable crops 3-2 Steady supply of seed, which shall be linked with the Capacity Building of Seed Growers Project of the Master Plan 4. Development of marketing and sales channels for vegetables 4-1 Support to develop collection and handling facilities for vegetables which will be operated by an association or forum of associations 4-2 Support of farmers' associations and medium scale farmers to connect sales channels to large scale consumers
Implementation period	2014 '15 '16 '17 '18 '19 '20 '21 '22 '23 '24 '25 '26 '27 '28 '29 2030
Prioritized Area (candidate)	Priority of vegetable production with small pump irrigation is given to Zone I , II, III, V and VI, while priority of developing simple irrigation systems is given to Zone III and V.
Implementing Agency/ related organization	DPA in Nampula, Niassa and Zambezia、SDAE、District Governor's Office
Relevant plan/ projects	Provincial Strategic Plan Nampula '2010-2020', Niassa '2017', Zambezia '2011-2020'
Remarks	

17. Project for Establishment of Financial Support System for Small and Medium Sized Agribusiness Enterprises, Farmers' Organizations and Individual Farmers

Project Title	Project for Establishment of Financial Support System for Small and Medium Sized Agribusiness enterprises, Farmers' Organizations and Individual Farmers.
Background	The ProSAVANA Development Initiative Fund (PDIF) was launched in September 2012 as a pilot project, aiming to involve small-scale farmers in the commercial agricultural value chain through contract farming with agribusiness companies, which would result in increased productivity and better market access for small-scale farmers. A soft loan scheme, with an annual interest rate of 10%, has been introduced to support the efforts of small-medium sized agribusiness enterprises to expand their businesses, and which can be used to acquire necessary machinery or facilities as well as purchase crops from farmers. 1) Agricultural loans for small-medium sized agribusiness enterprises Reflecting the lessons from the PDIF pilot projects, PDIF will be transformed into a formal funding scheme to support local agribusinesses/agro-industries in promoting contract farming, involving small-scale farmers in commercial agriculture activities as well as accelerating investment in agro-processing industries. In order to formalize PDIF, the capital amount should be increased by mobilizing the Counterpart Fund[1] managed by the Ministry of Agriculture or grant assistance from donors. 2) Agricultural loans for farmers' organizations Concerning the impacts from improved agriculture productivity as well as transitioning to intensive fixed cultivation across wider areas in the Nacala Corridor, it is recommended that a modality be created under an agricultural loan scheme to allow farmers' organizations (farmers' associations or cooperatives) to access low-interest loans with reasonable conditions. Using the soft loans, farmers' organizations will invest in small-scale irrigation systems, agricultural machinery, and processing facilities so as to introduce improved agricultural production systems. The soft loans will also ease the financial burdens on farmers' organizations for purchasing crops from group members during the harvest.

[1] A part of the payment from the sale of agriculture machinery or inputs granted by the Government of Japan through Food Assistance and Food Production Grants is accumulated in an account for the recipient country (the Ministry of Agriculture).

	3) Agricultural loans for individual farmers Concerning the current agricultural practices by small-scale farmers, promoting the transformation of the current cultivation system from extensive shifting cultivation to intensive fixed cultivation is the key strategy proposed in the Master Plan for the improvement of agricultural production through the introduction of improved farming techniques together with agricultural inputs and services. However, it has been observed that the critical barrier limiting access to such inputs and services is a lack of affordable and accessible credit facilities for individual farmers. Therefore, the project proposes the introduction of short-term soft loans with conditions adapted to the agricultural production cycle in order for individual farmers to access the financial services necessary to improve agriculture productivity. Soft loans will also be utilized to promote small-scale agribusiness activities by individual farmers in their efforts to start businesses.
Objectives	1) To formalize the PDIF mechanism for small-medium sized agribusiness enterprises to promote agribusiness investments involving small-scale farmers. 2) To establish an affordable financial mechanism for farmers' organizations that allows them to invest in improving the production system. 3) To establish an affordable and accessible financing mechanism for individual farmers that allows them to invest in agricultural services so as to improve the production system.
Project Goals	1) Agribusiness initiatives/investments through the involvement of groups of small-scale farmers in commercial production are expanded via the efforts of agribusiness enterprises. 2) Capacity of farmers' organizations to improve agriculture productivity and marketing is strengthened by accessing an affordable finance system. 3) Agricultural productivity and household income of individual farmers is improved through the introduction of agricultural inputs and services in production, which in turn results in the promotion of the fixed cultivation system.
Expected Output	1: PDIF is transformed into a formal financial system for agricultural development in the Nacala Corridor. 2: A modality to support farmers' organizations is established under PDIF and is operational. 3: A financial mechanism (soft loan scheme) to support individual farmers is established and operational.
Main Activities	1. Establish the structure of the financial support system (accessible agricultural loans) for the agricultural development in the Nacala Corridor. 2. Mobilize additional capital for agricultural loans. 3. Select potential financial institutions that would operate the agricultural loans. 4. Develop criteria and conditions for the agricultural loans for specific agribusiness enterprises, farmers' organizations, and individual farmers (e.g. the criteria to be applicable for the loans, the maximum amount of the loans, the interest rates, and the conditions for the provision of collateral). 5. Begin operations of the agricultural loans. 6. Conduct regular monitoring and evaluation of the fund's operations.
Implementation period	2014 '15 '16 '17 '18 '19 '20 '21 '22 '23 '24 '25 '26 '27 '28 '29 2030
Prioritized Area (candidate)	All zones. This should be further discussed with the concerned government authorities regarding the coverage of areas (whether the coverage could be extended to other districts along the Nacala Corridor), and the source and amount of funds available for PDIF.
Implementing Agency/ related organization	MINAG, DPA in Nampula, Niassa and Zambezia, Private financial institutions, ProSAVANA Development Initiative Fund Operation Unit, ABC, JICA, Donors
Relevant plan/ projects	PNISA
Remarks	

18. Formulation of the Nacala Corridor Agricultural Investment Fund for Large-scale Agricultural Development Projects (the Nacala Fund)

The project sheet will be completed after confirming the situation of the Nacala Fund.

19. Establishment of a Support Organization for the Investment and Value Chain Development

Project Title	Establishment of a Support Organization for the Investment and Value Chain Development
Background	Information on agriculture/agribusiness investment, as well as the export and import of agricultural products, has been separately dealt with by different organizations established under each of the ministries concerned, such as CEPAGRI (the Ministry of Agriculture), CPI and GAZEDA (the Ministry of Planning and Development), and IPEX (the Ministry of Commerce and Industry). As a result, investors have faced difficulties in acquiring necessary information on investment promotion and market opportunities in a timely manner. In addition to this, the agricultural value chain remains underdeveloped in the Nacala Corridor due to limited information sharing mechanisms between large consumers and producers, which has resulted in mismatching in the agricultural product market. In order to improve these issues, it is essential to establish a consolidated platform for providing necessary information on investment and marketing in the agricultural sector through a collaborative effort by all of the different agencies. The established support organization will also provide advisory and consulting services to potential investors and local entrepreneurs for business planning and marketing.
Objectives	To establish a support organization for promoting agriculture/agribusiness investment and value chain development in the Nacala Corridor
Project Goals	The business environment for promoting agriculture/agribusiness investments and agricultural value chain development is improved through the establishment of a comprehensive platform for providing investment and marketing information.
Expected Output	1: A support organization for investment and value chain development is established and functional. 2: Business and investment opportunities in the agricultural sector are expanded as a result of enhanced information provision service.
Main Activities	1: Form a consultative committee comprised of CEPAGRI/DPA, CPI, GAZEDA, IPEX, Chambers of Commerce, and other related agencies and donors in order to develop a plan for establishing the support organization for investment and value chain development. 2: Set up a support organization based on the plan. 3: Provide information on investment promotion and consulting services to potential investors. 4: Accumulate information on potential demand by major costumers and product volumes of producer groups in order to facilitate matching services. 5: Provide advisory services (support in preparing business plans, introduction of available financial schemes for agriculture investment, etc.) to small-medium enterprises for business start-ups.
Implementation period	2014 '15 '16 '17 '18 '19 '20 '21 '22 '23 '24 '25 '26 '27 '28 '29 2030
Prioritized Area (candidate)	All zones. The main office will be located in Nampula, while also establishing branch offices in core areas (e.g. Cuamba, Lichinga, etc.).
Implementing Agency/ related organization	CEPAGRI, CPI, GAZEDA, IPEX, IPEME, MINAG/DPA, ProSAVANA Coordination Office, Donors
Relevant plan/ projects	
Remarks	From the viewpoints of both efficiency of business operation in this organization and easy accessibility to the advisory service for customers, quality and quantity of advisory service staff, who will intermediate between this organization and customers are quite important for

	smooth implementation of this investment project. They are required to know well their operation schemes, to support business start-ups, and to advise operation management to their customers, through knowledge and experience of business administration. Since donors and NGO already have developed capacity as business development service providers in this area, refreshing and utilization of these human resources should be considered for establishing a quality advisory service. IPEME (Institute of Promotion of Small and Medium Enterprises) as a trainer of training is suitable for providing technical service on capacity building of the business development service. IPEME plans to establish their branch office in this year.

20. Project for Capacity Development of Business Development Service

Project Title	Capacity Development of Business Development Service
Background	Performance of small and medium enterprises (SMEs) is a driving force for value chain development in rural areas. In order to facilitate entering business and scaling up of existing business, various credit lines are provided. However, lack of business planning capacity and business management skills as well as high interest rates make access to credit services difficult. Business support services, called Business Development Service (BDS), which provides advice on business planning, company finance, and business management to private companies are necessary as both a public and a private services. The Institute of Promotion of Small and Medium Enterprises (IPEME) is an institution under the Ministry of Industry and Trade that has a role to advise entrepreneurs on how to materialize a specific business from business ideas, and for existing SMEs how to improve their business management. But, since IPEME has limited human resources, nationwide service deployment cannot be expected in a short period. Therefore, quality BDS involving private sector human resources has to be developed utilizing IPEME as a trainer of potential service providers. Functions of BDS are to advise on business planning and management, to analyze financial status, to provide business related information, to introduce credit sources for individual companies, to organize business related seminars and trainings, and to provide information to value chain support organizations for matching stakeholders in the supply chain.
Objectives	To contribute to rural and regional socioeconomic development through the fostering of small and medium enterprises.
Project Goals	Quality business development service for SME is provided by private service providers.
Expected Output	1: Capacity of staff in business development service of IPEME as a trainer of training on business development service is strengthened. 2: Quality business development service is provided by numbers of private service providers. 3: Related organizations/ institutions for business development are functioning well in coordination with each other.
Main Activities	1-1 To prepare a training plan for potential trainers on business administration and ProSAVANA support schemes for SMEs. 1-2 To prepare training material and equipment. 1-3 To conduct a series of trainings. 2-1 To prepare a training plan for private business development service providers on business administration and ProSAVANA support schemes for SMEs. 2-2 To prepare training material and equipment. 2-3 To recruit and select potential participants for the training. 2-4 To conduct a series of trainings. 3-1 To facilitate the Chamber of Commerce (CoC) in three provinces for enhancement of their functions. 3-2 To conduct a series of business seminars for member of CoC and other business people. 3-3 To facilitate related organizations/ institutions, such as BDS, CEPAGRI, CPI, GAPI, IPEX, and provincial CoC.
Implementation period	2014 '15 '16 '17 '18 '19 '20 '21 '22 '23 '24 '25 '26 '27 '28 '29 2030
Prioritized Area	All zones
Implementing Agency/ related organization	IPEME, CEPAGRI, CPI, GAPI, IPEX, and provincial CoC
Relevant plan/ projects	One village one product project (JICA)
Remarks	Trained BDS providers can be hired by ProSAVANA coordinating organization for facilitation of small and medium business development.

21. Project for Formulation and Development of Modern Agricultural Cooperatives

Project Title	Project for Formulation and Development of Modern Agricultural Cooperatives
Background	Promoting the establishment of agricultural cooperatives based on the General Law of Modern Cooperatives (Law 23/2009) which aims at market and business linkage. Although it is an important issue of development of individual and group small-scale farmers, the new law is not well known in the rural areas, and the number of cooperatives registered under the new legislation is still very limited. Therefore, in the Nacala Corridor area, for organizations of small-scale farmers, establishment of the modern agricultural cooperatives and an efficient and effective system of business-like management and operation based on the new cooperative law is required to achieve competitiveness and sustainability of farmers' organizations. MINAG/DNEA has emphasized the concept of agricultural cooperatives as a development of farmers' organizations based on the new law. However, currently they are focusing on the organization of farmers by PRONEA. Therefore, this project is effective to carry out the next step after the results of PRONEA are achieved.
Objectives	Bargaining powers of farmers' groups will be strengthened by sustainable management of modern agricultural cooperatives. Small-scale farmers' income would be increased and their living standards would be improved.
Project Goals	Through the activities of the modern agricultural cooperatives, the management of farmers' organizations will be improved.
Expected Output	1. New cooperative law and various support programs related to rural business incubation are widely recognized. 2. As a model project, new agricultural cooperatives will be established. 3. The model agricultural cooperatives will be managed sustainably. 4. Including the transformation from the existing farmers' associations, the formation of new agricultural cooperatives will expand extensively in the Pro-SAVANA area. 5. Management and business skills of the new agricultural cooperatives will be improved.
Main Activities	1-1 To conduct seminars for relevant organizations and stakeholders involved in the formation of agricultural cooperatives to acquaint them with the new cooperative law as well as to acquaint them with information regarding support programs related to rural business incubation. 2-1 To select the farmers' organizations that could form an agricultural cooperative. 2-2 To support the formation of the new agricultural cooperative including business incubation seminars. 3-1 To support the model cooperatives with soft loans through the financing system. 3-2 To conduct training on institutional strengthening of agricultural cooperatives for cooperative members. 3-3 To conduct monitoring and evaluation for the cooperative operation. 4-1 To select the farmers' organizations that wish to form an agricultural cooperative. 4-2 To conduct training on institutional strengthening of agricultural cooperatives for farmers' organizations including business incubation seminars. 4-3 To develop a business plan for farmers' organizations. 4-4 To support the formation of the new agricultural cooperatives. 5-1 To support the new cooperatives with soft loans through the financing system. 5-2 To conduct training on institutional strengthening of new agricultural cooperatives for cooperative members. 5-3 To conduct monitoring and evaluation for the cooperative operation.
Implementation Period	2014 '15 '16 '17 '18 '19 '20 '21 '22 '23 '24 '25 '26 '27 '28 '29 2030
Prioritized Area (candidate)	All zones
Implementing Agency/ Related Organization	DNEA, DPAs, AMPCM, NGOs
Relevant Plans/Projects	In Nampula and Niassa provinces, the cooperative development is actively supported by CLUSA.
Remarks	AMPCM is taking a lead role in implementing the new law through promoting and developing modern cooperatives as a sustainable form of wealth generation to target the multiple sectors.

22. Market Information Access Improvement Project

Project Title	Market Information Access Improvement Project
Background	It is important to collect and disseminate market information nationwide for actors in the value chain to access market opportunities. SIMA (Agriculture Market Information System) of MINAG plays a significant role in this issue. Nationwide market information is collected and updated every week on their WEB site. But, small-scale farmers can hardly access the information through internet service. Meanwhile, a new challenge, provision of on demand market information by SMS system was launched in Mozambique. Not only farmers, but also other actors in the private sector can make decisions for investment in facilities and storage, processing and transportation equipment, using market information. Suitable information source and system should be verified in consideration for stakeholders' various living and working conditions.
Objectives	To create a fairly competitive environment of agriculture product trade, and improve market efficiency
Project Goals	Producers and agribusiness operators have better access to market information
Expected Output	1: To collect lessons learned from present or past efforts on market information systems 2: To improve access to market information for farmers and agribusiness operators 3: To utilize market information for business management
Main Activities	1-1To collect and review past projects on improvement of market information networks. 1-2 To elaborate a work plan for improvement of information dissemination systems. 2-1 To prepare materials and equipment. 2-2 To conduct training for staff. 2-3 To announce initiation of information dissemination service in the pilot area. 2-4 To expand the service area in the project area. 3-1 To instruct farmers' groups and small-scale business operators on how to utilize information for their business management.

Implementation period	2014	'15	'16	'17	'18	'19	'20	'21	'22	'23	'24	'25	'26	'27	'28	'29	2030

Prioritized Area (candidate)	All zones. Priority will be assigned in the basic design study.
Implementing Agency/ related organization	MINAG, SIMA, DPA (Nampula, Niassa and Zambezia), DPIC (Provincial Department of Industry and Commerce)
Relevant plan/ projects	Information texting service for farmers and small businesses, IFC
Remarks	

23. Project for Standardization of Agricultural Products

Project Title	Project for Standardization of Agricultural Products
Background	No clear standards for agriculture products are used for trade or contracts of products in Mozambique. Capacity, called "tin", is dominant for the measuring unit of product volume in rural areas, but the unit of capacity varies from place to place. Measuring unit is changed to weight (kg) at the assembling point when it is put in a sack. Regarding quality, for instance, moisture content of grain is not a condition for price determination. This results in quality deterioration in the storage process led by a mixture of high moisture content grain. Traders determine the price of a product regardless of the level of moisture content considering the risk of losses. If price is determined based on agricultural product standards, the risk of losses for traders can be minimized. On the other hand, it can motivate farmers to produce quality products. Both the seller and the buyer are satisfied with pricing. Thus, agriculture product standards are necessary for transparent transactions, decrease of transaction cost and increase of quality product.
Objectives	To strengthen price competitiveness of Mozambican agriculture products by decreasing transaction cost and increasing quality of product
Project Goals	Trade price and contract price of products are fairly decided based on the standards
Expected Output	1: Standards for agricultural products are officially issued. 2: The standards are used nationwide.
Main Activities	1-1 To study agricultural product standards, which are currently being used in Mozambique and the neighboring countries. 1-2 To make a plan for standard determination by product 1-3 To select members of a working forum for agricultural product standardization (ex. concerned officials, farmer organizations, the private sector and academic institutions). 1-4 To discuss agricultural product standards in the forum product by product. 1-5 To publicize agricultural product standards countrywide. 2-1 To promote use of agricultural product standards 2-2 To maintain the standards depending on the needs of the market
Implementation period	2014 '15 '16 '17 '18 '19 '20 '21 '22 '23 '24 '25 '26 '27 '28 '29 2030
Prioritized Area (candidate)	Whole country
Implementing Agency/ related organization	MINAG, MIC, representatives of stakeholder groups involved in agricultural product production, trading, processing, and retailing, and research institutes including universities
Relevant plan/ projects	
Remarks	

24. Project for Rehabilitation of Agricultural Storage Facilities

Project Title	Project for Rehabilitation of Agricultural Storage Facilities
Background	In the study area, there is more than one public warehouse in each district which was built in the Portuguese colonial era. These warehouses are currently managed by ICM (Institute of Cereal Mozambique). Storage volume of these warehouses varies from 200 tons to 5000 tons. Of which, most are rented out to the private sector for storage of agricultural products. Since it has been more than 50 years since their construction, these warehouses are very old and need rehabilitation. In order to improve the efficiency of the supply chain and quality control of agricultural produce, the present public storage network should be rehabilitated. As they are currently doing, these public storage facilities will be utilized by the private sector in PPP. Among them, priority is given to small to medium volume customers, especially farmers' groups, who cannot afford to invest in their own commercial scale warehouses, in order to improve their access to commercial scale storage facilities. One storage facility should consist of small capacity warehouses, about 100 tons each, so that many small groups, individuals, and companies can utilize them. Meanwhile, medium to large-scale storage facilities including grain silos, will be invested in by the private sector. Post-harvest technology, especially appropriate storage techniques for quality control of the products has to be guided for the stakeholders involved in the supply chain of agricultural products.
Objectives	To improve the efficiency of the supply chain, and improve the quality control of agricultural produce and the present public storage network
Project Goals	The private sector can access public storage loss controlled facilities to manage the timing of sales
Expected Output	1: Strategic storage rehabilitation plan in Nacala corridor for agricultural development is prepared. 2: Public storage facilities are rehabilitated. 3: Storage facilities are properly utilized, and storage loss is decreased.
Main Activities	1-1 To clarify the necessary type and capacity of storage facilities in each district. 1-2 To identify present condition of storage facilities in each district. 1-3 To prepare storage facility rehabilitation plans (schedule, priority, phasing, cost estimation, FS). 2-1 To conduct detailed design work in accordance with the FS. 2-2 To implement rehabilitation work. 3-1 To train ICM staff on O&M of the facilities (rent management, loss control, periodical maintenance) 3-2 To train stakeholders on storage technology (postharvest loss due to insects, rodents, and fungi) 3-3 To set and apply temporary agricultural product standards in cooperation with stakeholders. (This is a pilot activity for efficient trading practice with certain grain standards.)
Implementation period	2014 '15 '16 '17 '18 '19 '20 '21 '22 '23 '24 '25 '26 '27 '28 '29 2030
Prioritized Area (candidate)	All zones. Priority will be given based on current condition and logistical importance of the location.
Implementing Agency/ related organization	MIC, Institute of cereal Mozambique, MINAG, DPA (Nampula, Niassa and Zambezia), IIAM
Relevant plan/ projects	Installation of Grain silos in central and northern regions, Portuguese Government
Remarks	

25. Project for Improvement of Access Roads for Agricultural Activities

Project Title	Project for Improvement of Access Roads for Agricultural Activities
Background	Rural roads are not developed well in the Project Area. Therefore, many farms face difficulty in transportation in the rainy season because of lack of bridges over seasonal rivers or become bogged down in muddy high slope roads. Moreover, rural roads are maintained by ANE and district governments supported by the road fund. However, the maintenance is carried out according to local demands and there is no strategy for its development. Therefore, for example, roads between districts or provinces are difficult to be improved, and paving roads between vegetable production sites and the market to mitigate transportation loss cannot obtain priority from the districts. In order to improve distribution and the efficiency of the production, it is necessary to prepare a strategic plan for road improvement based on the viewpoint of agricultural development and also its smooth implementation.
Objectives	To rehabilitate or improve roads which are used for agricultural activities such as distribution, and connection between production areas and the markets.
Project Goals	Agricultural roads are maintained so that they are accessible all year round to tie agricultural production places, markets, and processing or storehouses in each district or between districts and some production areas.
Expected Output	1: A strategic road improvement plan for agricultural development is prepared. 2: Rural roads are improved
Main Activities	1: To formulate an agricultural road improvement committee in each province that consists of DPA, DPTC, ANE, SDAEs and SDPIs in each province. 2: To prepare a strategic plan for agricultural road development by a committee based on ideas from each SDAE in cooperation with SDPI. SDAE examines its own plan from the viewpoint of agricultural promotion in the district and shows it to the committee. 3: To Improve rehabilitation works according to the plan.
Implementation period	2014 '15 '16 '17 '18 '19 '20 '21 '22 '23 '24 '25 '26 '27 '28 '29 2030
Prioritized Area (candidate)	All zones, Priority will be given by the committee.
Implementing Agency/ related organization	DPA in Nampula, Niassa and Zambezia, ANE in Nampula, Niassa and Zambezia/ MPD, MTC, MPOH
Relevant plan/ projects	Provincial Strategic Plan Nampula '2010-2020', Niassa '2017', Zambezia '2011-2020' PROMER – road component
Remarks	

26. ProSAVANA Agricultural Special Economic Zone Project

Project Title	ProSAVANA Agricultural Special Economic Zone Project
Background	In order to develop the agricultural cluster, it is necessary to bring in the private sector by several methods, for example, a preferential tax system for investment. Moreover, it also needs social infrastructure like electricity, water supply, telecommunication, etc. Establishment of an SEZ or IFZ confined to the agribusiness sector is one method to develop it with limited budget, because it allows favorable treatment for a limited area and to concentrate works for infrastructure. The Government of Mozambique has mechanisms (GAZEDA) to establish SEZ (Special Economic Zones) and IFZ (Industrial Free Zone) in specific places and thus create a preferable environment including efficient value chain operation for each crop, and increased productivity, for industries related to the production, processing, storage, and distribution, into a single complex and thereby attract investment.
Objectives	To establish areas of economic activity, geographically delimited and ruled by a special customs system, where all products that enter there, or are placed there, or pass through there are used as raw material in the production of other goods or leave the national territory, are entirely free of any customs' charges, taxes and para-fiscal taxes, and can also benefit from a free exchange rate system and an "off-shore" exchange system. (ZEE) To establish areas or units or series of units of industrial activity, geographically delimited and ruled by a specific custom procedure, where the products that are placed there or that pass through there, which will be used to produce goods for export, are exempt from all customs charges, taxes, para-fiscal taxes and can benefit from a specific exchange rate, fiscal and labor system (ZFI).
Project Goals	To create special economic zone (500 ha) to promote the establishment of a "*cluster*" with incentives (tax, financing, technical assistance, etc.).
Expected Output	1: Zones economically favorable to the implementation of the strategy of "Clusters" and Infrastructure; 2: Control and regulation of transactions; 3: Creation of a center offering services and infrastructure for agricultural development in a strategic location within the Nacala Corridor; 4: Establish a Processing Center and processing of agricultural products with great competitive advantages; 5: Competitive agricultural products, both for export and for import substitution; 6: New employment is generated;
Main Activities	1. To conduct zoning of areas (special economic zone) for each "cluster" of agricultural products; 2. To inform and start negotiation with the Government (GAZEDA) on the need to establish special areas of agriculture; 3. To prepare the Draft Constitution for the ZEE and ZFI in the Council of Ministers. 4. To offer for investment from the private sector, facilities related to the supply of agricultural inputs, production, processing and distribution; 5. To prepare basic infrastructure with the provision of electricity, water supply, roads and communication by government institutions (including railway access); 6. To conduct monitoring services for private companies.
Implementation period	2014 | '15 | '16 | '17 | '18 | '19 | '20 | '21 | '22 | '23 | '24 | '25 | '26 | '27 | '28 | '29 | 2030
Prioritized Area (candidate)	Areas zoned for ProSAVANA to promote the establishment of a "*cluster*" and potential Infrastructure: Cuamba Ribaue, Majune and Lioma (Gurue).
Implementing Agency/ related organization	The Ministry of Planning and Development through GAZEDA (Office for Accelerated Development Economic Zones) Nacala Corridor Development Agency
Relevant plan/ projects	PNDA - National Plan for Development of Agribusiness.
Remarks	

(2) Pioneer and Model Project for Cluster Development

27 Pioneer Project for Integrated Grain Cluster Development

Project Title:	Pioneer Project for Integrated Grain Cluster
Project Site	The proposed site for the installation of the cluster is Majune district and it can be expanded to N'Gauma, besides the installation of a poultry industrial complex.
Target Group/ Beneficiaries	- Local population. - Interested Investors. - Local poultry production sectors. - District Government.
Project Summary	- The installation of the cluster in the region referred to above aims to boost the local economy with the cultivation of large areas of grains, especially soybeans, maize and sunflower, and additionally a processing unit to produce oils, meal and corn starch. - The region indicated for the cluster has low environmental and social vulnerability, and presents excellent soil and climate conditions for the total realization of the production potential of the crops with good temperature and precipitation conditions. - The region is still strategically positioned near the Districts of Cuamba and Lichinga, where there is great potential for the installation of poultry industries and where there is a huge logistical potential. - It is foreseen that there will be investments in poultry production in the project aimed at adding value to meal products. The chain will have a huge competitive advantage regarding the cost of production, because, the feed will be produced domestically, the costs will be much lower, since most of the costs of operating a farm are linked to the feed. Investments and management of agricultural activities and industrial grain processing will be the responsibility of a single legal entity. - Such entity will be responsible to supply the feed for the chicken industry, whose investment may be from the entity itself or from other investors. - Feasibility indicators, at a discount rate of 10%, show that the project has a high profitability and the IRR was calculated at 20.3% and the payback is 9 years. - The projects of industrial poultry farming will have a separate cash flow as it is a venture of a different nature. The project presents a good economic profitability due to the low production costs. The estimated production of 1 million chickens per year should generate an IRR of 19.9%, to be deployed on 1000 chicken modules each. Thus, the speed of implementation of the poultry complex should follow the infrastructure availability and market demand. - It is expected that the project presents a high profitability, in addition to producing taxes and jobs opportunities. - There will be strategies to incorporate family farmers in the business through promotion, and contracts, including hand labor and the establishment of production villages when resettlement is needed.
Agricultural Technological Package	- The agricultural and industrial project recommended will follow a certain pace. The 45 thousand hectares will be divided into 5 modules, and the first planting of a module will be implemented one by one then installation of the project will be completed within the 5 years. - It is estimated that for the effective production in 45 thousand ha, about 60 thousand hectares are needed. This surplus is due to the efficiency index of land use adopted for this region of Mozambique, in addition to the presence of non-cultivable areas inside the properties. - The productive areas are rotated with crops of maize, soybeans and sunflower. In the year prior to planting it will require opening operations and preparation of new areas. - Each module should have 9 thousand hectares and operate as a farm independent from the others with a management team, employees and its own machinery. The areas for planting soybeans, sunflower and maize will be divided equally, and every year the planting should be rotated. - The processing industries of soybeans and sunflower, and the maize industry will start to operate from the 5th year, when 80% of the proposed area for the cultivation will be occupied. The beginning of the processing operations, before the agricultural production in the total area, will be important so that the industry will have more time for necessary adjustments and training required before operating with its maximum installed capacity

	- Industrial poultry farming will also start its operations after the beginning of operation of the grain processing industry, because its main raw material, the feed, depends on the processing of these grains. - The estimated production for the chicken industry is approximately one million birds per year, but each module will have the capacity of 1000 birds per year. - Each production module should have a storage complex for at least 600 thousand bags of grain, to guarantee that the industry is never under supplied. The Division of the complexes is recommended in order to reduce costs of the logistics of transportation.
Justification	- The Pioneer Project proposed should begin developing an Integrated Cluster of grain production in Majune, with potential for interaction with other districts in the Zone and with other Zones. - The aim of this cluster is to boost the economy and the region's development. - The pioneer project aims to establish a grain production chain interconnected with chicken production, creating a synergy in the process of transferring resources and adding value. - The implementation of the cluster will bring development to the region and will improve the living conditions of the local population, and will also accelerate the development, dissemination and adoption of new and modern agricultural practices. - The stabilization of the cluster in the region will increase tax collections of local governments, and will promote job creation.
Targets for phase I (2014-2020)	- Establishment of areas and start the production of soybeans, maize and sunflower. - Deployment and start of production of biomass from elephant grass - Establish the industry and start processing grains - Implement and start-up the poultry production facility
Targets for phase II (2021-2025)	- To increase grain production - Development of the processing chain and marketing of grain - Integration of the grain processing industry and poultry industry - Increase in the number of poultry production modules - Development of local production of biomass and electric power
Targets for phase III (2026-2030)	- The grain production will be established - Stabilization of the grain processing industry - Chicken production will have reached a level of at least 1 million chickens per year in the Cluster. - The production chain will have incorporated other sectors, such as production of cattle, goats, dairy and food products. - The process of producing chickens will have reached high level of quality and traceability, with potential access to special markets (Halal, Kosher and European Union)
Implementation Structure	The following is necessary for the development of the cluster: - Acquisition of seeds of high quality to be produced in Cluster N° 5, or seeds of high quality from other agents approved by the Mozambican institutions. - Access to equipment, machinery, supplies and services (technical, financial and other) required for the proposed agro-industrial activities. - Legal and regulatory support for the investment feasibility, including incentives for investment, import of inputs, equipment and machinery, identification of land for investment, support in the process for dialogue with local communities involved, among others.
Main Products or Services	- Production of oil and soybean meal, - Production of oil and sunflower meal, - Production of starch and corn meal - Poultry production - Generating jobs - Food production - Generation of taxes
Project Activities	1. Identification of the area for investment 2. Begin manpower training for agricultural activities 3. Start activities related to agricultural production 4. Begin the rehabilitation, expansion and installation of storage and logistics infrastructure as well as social and productive infrastructure (housing, energy, water, sanitation, basic health) 5. Begin the training of industrial manpower and poultry production 6. Begin the installation of industrial plants and poultry production

	7. Integration of industrial production with the poultry production and processing 8. Marketing of processed products and by-products.
Implementation Period	2014 '15 '16 '17 '18 '19 '20 '21 '22 '23 '24 '25 '26 '27 '28 '29 2030
1) Expected Impacts or Benefits 2) indicators	- Expected impacts: - Accelerated development of the local economy - Increase tax collection - Generation of direct and indirect jobs, with different levels of professional qualification - Increase in the volume of exports and reduction of food imports - Synergistic integration between districts and zones - Improvements in the social and economic infrastructure of the region - Local food production for food security - Adding value and creating opportunities for the development of other value chains in the medium and long terms. - Indicators: - Increase of indicators of production, productivity and the sown area - Increase in public revenue - Creating jobs - Increase family per capita income - Increase the local supply of food protein - Improvement of the country's trade balance
Environmental and Social Considerations	- Development of the project in accordance with the principles of *Responsible Agricultural Investments* - Carry out a prior environmental assessment with a view to mitigate environmental impacts, with particular attention to deforestation, soil conservation and pollution of water resources. - To mitigate possible impacts on full and partial protection areas (protected area in Majune). - Encourage community participation through public consultations - Mitigate environmental impacts of the grain industry, poultry processing and thermal power plant, with special attention to the generation of liquid and gaseous effluents.
Other Information	- Each module should operate as a farm independent from the other modules, with its own management team, employees and machinery. - The areas for soybeans, sunflower and maize crops will be divided equally, with an annual crop rotation. - The construction of a sea port in Nacala is planned. It should be ready for partial operation in 2016 and full operation in 2017. The Nacala port will be the main route of the cluster's production flow. - Grain processing industries should be installed over the first five years of the project, therefore, while the industries are not ready for operation, the grains will be exported. - Procedures for obtaining the investment license and DUAT will be carried out in 2014. - A SEZ will be established in Majune for the investments in infrastructure. - Priority of implementation will be given to projects recommended by the Master Plan in areas identified as Clusters of Development, according to identified needs.

28 Model Project for Family Food Production Cluster Development

Project title:	Model Project for Family Food Production Cluster
Project Site	- Malema district. Areas located close to Cuamba city - Total crop production area: 5,000 ha. - Total area of cassava production: 2,000 ha. - Area of industrial facilities: 20 ha. - In each association about 200 families will be gathered. The goal is to establish 5 associations
Target Group/ Beneficiaries	- Direct beneficiaries: Family farmers, small rural communities and local population organized into associations of producers, centers, collectives and other associative forms. - Indirect beneficiaries: Families currently experiencing food and nutritional insecurity
Project Summary	- In order to improve the living conditions in the District of Malema and promote the development of the region, improvements will be proposed on the conditions of local agricultural activities, with the consequent increase in production and income. The associations that produce food based on family farming will be strengthened and a cassava processing agroindustry will be built that will create jobs and will absorb local manpower and add value to production. In order to achieve that, it will be necessary to attract investors interested to finance the establishment of the industry. The Internal Rate of Return is 33.61% and a nine year Payback, if the investor uses 100% of its own capital. - Each producing association should have about 200 families. - Total crop production area: 5,000 ha. - Area of industrial facilities: 20 ha - The region is located near the town of Cuamba, which offers logistical advantages regarding the distribution of the production and transportation. - The region presents low social and environmental vulnerability, and has excellent conditions to receive a pioneer project which will require the opening of areas. It was verified that the District has good hydraulic conditions and soil types for the development of irrigated agriculture. - The first year, the Association number 1, is expected to be composed of 50 families, doubling that number in the second year and filling it out completely in the third year. The other associations will be included in the cluster one at a time in the subsequent years. - This initial model considers working directly with communities of rural family farmers; however it can also benefit resettled families or farmers in search of better opportunities and living conditions. - It will encourage the establishment of associations and the registration of producer organizations by means of technical assistance, monitoring and contractual links with companies of the region. - The establishment and strengthening of agricultural associations formed by small farmers increases their bargaining power, access to inputs, machinery and rural credits, enabling the socioeconomic development of those involved through the establishment of a management structure for the development of small-scale agricultural activity. - The relationship between the processing of cassava industry and agricultural producers will be through contract farming, preferably through one or more legal entities (associations).
Agricultural technological package	- Each family will be responsible for the cultivation of 5 ha, where cassava should be planted to supply the industry. - For the dwelling and common areas of the community, a 2,800 square meter area should be established per family, plus 0.5 ha for cultivation and another independent 0.5 ha of forest. So, each family will be responsible for an area of approximately 6.28 ha, to be assigned via DUAT. The communal areas should receive priority for social infrastructure, such as access to water and sanitary services. - The independent area of 0.5 ha could be used by the producers to cultivate crops of their choice, cash crops or staple food. - The plan for the first year is to plant cassava inter-cropped with maize, between the rows, and in the subsequent years, other crops should be planted in the rows, while

	maintaining the cassava; in the second year maize will be substituted by groundnuts, and in the third year the rotation culture would be cotton. - Areas likely to receive irrigation will be intended for the cultivation of vegetables more adapted to the region.
Justification	- The objective of the cluster establishment is in accordance with the Initiative to improve the productivity of Family Agriculture (Smallholder Agriculture) and Associations of Producers. - Projects of the cluster deployment are part of the Strategies to Extinguish the Shifting Agriculture - The project enables the creation of model associations - The cluster will bring development to the region and improve the living conditions of the local population - The project will combat poverty and promote socio-economic development of small scale farmers through the strengthening of family agriculture, encouraging the formation and structure of associations and ensure food and nutritional security. - The project will increase security and legal representation of associations
Targets for phase I (2014-2020)	- Promote the Association of producers and start the cultivation of crops recommended - Start the installation and expansion of cassava agro-processing - Increase cotton production and improve the quality of the product offered - Increase the production of vegetables to be sold in the Zones
Targets for phase II (2021-2025)	- The production center of cash crops and staple food will be developed - Better development and increase the production of crops - Increase the trade in cash crops
Targets for phase III (2026-2030)	- The supply of raw materials for the industry and the industrial processing of cassava will be established - Crop production will be stabilized - The Cluster will have its first chain of values developed.
Implementation Structure	- The cluster's development will depend on a series of actions of the public and private sectors, as well as partnerships between both: ➢ Private investors for the industry building and establishment of purchase contracts of cassava. ➢ Financial institutions to provide financing for acquisition of machinery and equipment. - Arrangements between public institutions (IIAM, SDAE and others), private and NGOs to provide and/or facilitate the access to inputs (seeds, fertilizers, cuttings and others). - Arrangements between public institutions (IIAM, SDAE and others), private and NGOs to provide extension services and promotion of training of local producers. - Arrangements between public institutions for the provision of basic social infrastructure services.
Main Products or Services	- Production of flour and cassava starch. - Job creation and increased family income. - Production of foods such as groundnuts, maize and vegetables - Cotton production - Establishment of new producers' associations and strengthening of existing ones - Facilitation of the local production flow
Project Activities	1) organizational System: a) Identification and evaluation of existing associations; b) Identification of priority producers to lead the process of forming new associations and/or participation in existing associations; c) Definition of practical actions for the strengthening of associations and development of management tools. d) To promote the Association of producing families. e) Training of registered producers for the management of agricultural production; f) Strengthening public systems of rural extension to support in the deployment and development of management structures in the associations, as well as on the dissemination and adoption of agricultural production management systems; g) involvement of the private sector for the acquisition of cash crops and surplus of produced food. h) Feasibility of model contracts for purchase and sale of products that include the supply

<table>
<tr><td></td><td>of private extension services and inputs.
-Implementation
a) The Project must be executed via an institution regularly registered to operate in Mozambique, with experience and proven ability, in partnership with the public assistance systems in order to transfer knowledge;
b) The hiring will be in accordance with the rules of the Mozambican Government and any partners involved
2) Processing and Marketing:
a) To provide training for the industry's manpower.
b) Providing inputs for cassava producers
c) Establishment of cassava processing industry</td></tr>
<tr><td>Implementation Period</td><td>2014 | '15 | '16 | '17 | '18 | '19 | '20 | '21 | '22 | '23 | '24 | '25 | '26 | '27 | '28 | '29 | 2030</td></tr>
<tr><td>1) Expected Impacts or Benefits
2) indicators</td><td>1) Expected impacts:
- Combating the practice of shifting agriculture, increase household income, and job creation.
- Bring development to the region and improve the living conditions of the local population.
- Food production for food security
- Start the development of the Family Production Cluster in Malema
- Develop a food producer center in the Nacala region
- Through associative systems, improve social relations between families.
2) Indicators:
- Increase the production of cassava flour and starch.
- Increase the production of cotton, groundnuts, maize and vegetables.
- Increase family income
- Increase the number and level of development of associations of agricultural producers</td></tr>
<tr><td>Environmental and Social Considerations</td><td>- Avoid interference in traditional social dynamics and ensure the strengthening of community ties through participation and consultation with the farmers.
- Perform a preliminary environmental assessment with a view to mitigate environmental impacts, such as deforestation, soil erosion and exhaustion. Pollution of water resources deserves special attention, due mostly to the toxicity of the effluent resulting from the processing of cassava;
- Encourage the adoption of good agricultural practices
- Encourage the attendance to RAI</td></tr>
<tr><td>Other Information</td><td>- The machines will be acquired by the producers ' associations and all are responsible for the maintenance and care of the equipment.
- Each organization registered in the program shall be responsible for organizing their associated farmers and control the quantity and quality of products to be marketed.
- The cultivation within the areas will be the responsibility of each family and the remuneration will be paid according to the volume of the production delivered.
- The cassava processing industry should be able to operate as soon as the first roots start to be collected in the field, 12 months after the first planting.
- Monitoring and evaluation of the program shall be carried out by extension workers of the District Services of Economic Activities (SDAE) to ensure its smooth progress and effectiveness.
- Models of contracts should be developed, to be used as a commitment between the farmers and the Associations' managers, as well as the elaboration of incentives for members to remain in the program, such as:
➢ Awards for productivity increase, depending on the accuracy of the production delivery and the correct use of inputs;
➢ Periodical surveys as a way to control and observe the income and quality of the production of each Member;
➢ Elaboration of rules related to the use of inputs and farm management practices, as well as rules about products and ways of marketing, as well as rules regarding coexistence among involved members;
➢ Organization of courses and field days to improve cultivation techniques;</td></tr>
</table>

29 Pioneer Project for Grain and Cotton Production Cluster Development

Project Title:	Pioneer Project for Grain and Cotton Cluster Development
Project Site	- Administrative post of Lioma, but with close integration to the area of the QIP "Special Economic Zone Project for Agricultural Development in Cuamba"
Target Group/ Beneficiaries	- Small and medium-sized producers already settled in the region - Communities affected by resettlements in the region of Lioma. - Local population. - Companies already established in the region. - Government of provinces, districts and administrative posts involved.
Project Summary	- The installation of the cluster in the referred region above aims to boost the local economy by strengthening the agriculture and local farmers, and consolidating the structures already present in the plain region of Lioma. - The region suitable for the cluster installation is now in the process to start modern agricultural production of grains and cotton, mainly with regard to soy bean and maize. The region also offers good environmental conditions for the development of these crops. - A number of initiatives will be structured in order to attract investments to the region focused on the development of its potentials and the overcoming of current limitations. - It is foreseen that there will be assistance and support to planning and implementing resettlement projects that have been implemented in the region. - The family farmers will be included in the project through corporate development with technical training and the incorporation of hand labor in the production process. - Initiatives will be carried out regarding forest compensation for areas where the land has been changed or the forest resources have been taken. - The project foresees the production and distribution of forest seedlings for biomass production to be used for energy consumption. - With the possibility of public-private partnerships, organizations that will invest in the structuring of the region will have guaranteed direct advantages and potentials, by means of incentives such as tax, trade and logistics, and promoting environmental and social initiatives. - There will be strategies to incorporate the family farmers in business through promotion, contracts, inclusion of hand labor and the formation of productive villages to resettled people. - Opening and maintaining roads that facilitate and improve logistics in the region will be carried out by means of public-private partnerships, improving the flow of local production. - The provision and facilitation of access to technology and inputs will be ensured, resulting in a gain in productivity and better efficiency in land use. - The investment in poultry production aimed at adding value to feed production. The chain will have a huge competitive advantage regarding the cost of production, because the feed will be produced domestically, their costs will be much lower, since most of the costs of operating a farm are linked to feed. - The projects of industrial poultry farming will have a separate cash flow due to the nature of the activity. Aviculture presents good economic profitability as a function of low production costs. The estimated production of 1 million chickens per year should generate an IRR of 19.9%, however to be deployed on 1000 chicken modules each. Thus, the speed of implementation of the poultry business should follow the infrastructure availability and market demand. - It is expected that the project has a high profitability, in addition to the generation of taxes and jobs.
Agricultural technological package	- Because of the scale of the agricultural project it will use the entire structure of all the companies already present in the region, and will incorporated new producers through business developments and incorporation of hand labor in the production process with the technical training. - Initiatives will be undertaken to improve the process of commercialization through the systematization of local marketing, vehicle financing and adoption of shared freight to local producers. The Government will be involved through partnerships and tax incentives. - A modern and sustainable system of production will be stimulated, with adoption of conservation practices such as crop rotation, tillage and other. - Currently, approximately 13 thousand ha have been cultivated in the region with the

	participation of about 8,500 families. - It is foreseen that there will be an annual growth of 7% as per the opening of new areas, and for the indexes of crop yields. - The new areas will be granted to local producers, resettled and inserted in the production chain through the promotion of corporate businesses and areas already opened by companies located in the region. An effort will be made for the identification and registration of areas currently occupied for DUAT, as well as the identification of areas available for expansion and new investments. - The fertilizer will be formulated based on information derived from soil analyses and followed by specialized technicians. - Access to inputs and pesticides for farmers will be encouraged and facilitated through the adoption of new technologies such as Inoculants for soybean production. - Initiatives such as consortium freight should be adopted for the improvement in the marketing conditions of products. - The integration of productive chains that can be easily implemented in the Special Economic Zone for Agricultural Development in Cuamba should be facilitated.
Justification	- The aim of this cluster will be to increase the economy and development of the region - Support for the development of agricultural activities in this region aims to combine the activities already carried out in the region with great potential as per marketing and soil and climate identified for the region through the analyses carried out in the Master Plan. - The implementation of pioneer projects aims to structure a grain production chain connected with chicken production, creating a synergy in the process of transferring resources between the districts. - The objective of cluster deployment is in accordance with the project for the Land Registry (DUAT) of small and medium-sized producers - Cluster deployment is in accordance with the Establishment of a Support Organization for Investment and Development of Value Chains in the Nacala Corridor - The projects of the cluster deployment are part of the Project to Strengthen and Empower Local Government Institutions - The project is in accordance with the project of Rehabilitation of Agricultural Storage Facilities - The project is in line with the projects for the improvement of agricultural logistics. - The cluster will bring development for the region and improve the living conditions of the local population - The stabilization of the cluster in the region will increase tax collections for local governments. - Gurue district has very specific characteristics, because its territory is home to both areas of great potential for intensive agricultural development and areas subject to great environmental vulnerability. The initiative to support the development of a sustainable model of production shall assist in overcoming such differences.
Targets for phase I (2014-2020)	- Encourage the development of model contracts and agricultural relations between the different scales of producers based on a proper technological platform, socially, economically and environmentally. - Encourage the adoption of an integrated planning and management of agricultural development for the region, gathering information on management of natural resources (soil, water and forests), production, storage, transportation, processing and marketing and production of necessary inputs. - Integrate the local production with the processing initiatives and the processing being developed and to be carried out in the Corridor, especially in Zones III, V and VI. - Implementation and start-up of production of chickens - Evaluation of the current system of concessions for the exploitation of agricultural crops, with a view to developing a Plan of Activities for strengthening the productive chains of cotton and tobacco in the region through new productive arrangements, improved agricultural practices, improved access and use of inputs, in addition to the creation and strengthening of financial services. - Establishment of public-private partnerships to accelerate works of rehabilitation, expansion and creation of necessary infrastructure, especially the logistics and storage, as well as basic social infrastructure. - Incorporation of local hand labor through technical training in partnership with local investors.

Targets for phase II (2021-2025)	- Strengthen the creation of Modern producer Cooperatives, both to strengthen their involvement in agricultural production and to participate in the expansion of poultry production. - Consolidation and expansion of local processing units of agricultural products, especially those aimed to the production of feed and supplements for animal production. - Strengthening the necessary infrastructure for the creation of a cold chain, dedicated to the processing and marketing of chickens in integration with the Special Economic Zone for the Agricultural Development in Cuamba - Incorporation of lines for production of cotton and tobacco in the Cluster`s development actions.
Targets for phase III (2026-2030)	- Consolidation of the integration of local production with the interregional trade and export of primary agricultural products and processed products. - Consolidation of Poultry Complex Production and its integration with the chain of distribution and export, with a minimum annual production of 1 million chickens. - Process of producing chickens will have reached a high level of quality and traceability, with potential access to special markets (Halal, Kosher and European Union) - Consolidating the development of productive chains of cotton and tobacco.
Implementation Structure	The following are necessary for the development of the project: - Tax incentive mechanisms and attracting investors - Development of basic infrastructures to consolidate clusters and value chains - Development of a nursery responsible for producing and providing forest seedlings of quality and in an ideal quantity to meet the local demand. - Involvement of the administrative post of Lioma for planning, execution, monitoring and control of the actions proposed. - Public private partnership with initiatives that promote the improvement of local logistics. - Local institutions (IIAM and SDAE) and private institutions that provide and facilitate the access to fertilizers, seeds and other inputs. - Regulatory and controlling agencies of the projects and the agreements settled. - Local institutions (IIAM and SDAE) providing extension services and promoting training of local producers. - The Council of Ministers and other necessary institutions to the process of evaluating the current system of concessions for the cotton and tobacco crops.
Main products or Services	- Production of tobacco, cotton, maize and soybeans. - Development of an integrated chain of production, logistics and trade. - Facilitation of investment in agricultural production through land property regularization and standardization of the process of establishing contracts. - Support to the process of resettlement of families, when necessary. - Wider integration and involvement of local people in the development of agriculture. - Reducing the dependence on native biomass to obtain direct forest resources, especially biomass for energy purposes. - Development of chicken production and by-products. - Development of a platform for management of agricultural development, generating indicators for the market for producers and for the Government.
Project activities	1. Survey and registration of agricultural activities currently carried out in the region, with identification of actors and institutions involved, and other information. 1.1. To develop an Integrated System of Intelligence regarding the local Agriculture, which updates and monitors the relevant data. The implementation of the system should be technically simple in order to be adopted by public institutions quickly and broadly. 1.2. Development of Standards, Models and Indicators for Agricultural Contracts, including contract farming models, funding schemes, contracts for permanent and temporary farm workers, and contracts for agricultural services that are outsourced, among others. 1.3. Adaptation of RAI principles of the master plan for the conditions observed in the region of the project. 1.4. Integrate the information generated with extension activities, training and technical assistance from the public service, as well as establish partnerships with the private sector to adopt this information in private actions of promotion, training and technical assistance. 1.5. Formulation of a Complementary Plan of Incentives for the adoption of agricultural

<table>
<tr><td></td><td>and socio-environmental management practices recommended, with special attention to the establishment of public-private partnerships
2. Integration of efforts for registration and issuance of DUAT for small and medium-sized local farmers, as well as search for areas available to start the productive activities expansion.
3. To begin the rehabilitation, expansion and implementation of storage and logistics infrastructure as well as social and productive infrastructure (housing, energy, water, sanitation, basic health)
4.To begin the training of agricultural hand labor and training for chicken production
4.1. Beginning the installation of chicken production facilities
5. Structuring a public nursery for forestry seedling production
5.1. Training and capacity building of local associations for implementation of local forests to generate energy
5.2. Distribution of forest seedlings and planting inputs for associations.
6. Hiring a consulting service for the evaluation of the current system of concessions for agricultural crops, and the development of a plan review, reformulation or extinction of the system.</td></tr>
<tr><td>Implementation Period</td><td>2014 | '15 | '16 | '17 | '18 | '19 | '20 | '21 | '22 | '23 | '24 | '25 | '26 | '27 | '28 | '29 | 2030</td></tr>
<tr><td>1) Expected Impacts or Benefits
2) indicators</td><td>- Expected impacts:
- Development of a production chain and logistics in the region.
- Increased availability of grains to be traded.
- Strengthening communities and producing families
- Consolidation of companies operating in the region.
- Reduction of deforestation by forest compensation.
- Improvement of the social and productive infrastructures available.
- Indicators:
- Increase in the volume of grain produced in the region.
- Increase in the processing capacity and storage of grain.
- Increasing family income and improvement of marketing and logistics systems of household production.
- Quality and quantity of agricultural products marketed</td></tr>
<tr><td>Environmental and Social Considerations (Summary of pre-screening EIA)</td><td>- Compensation for environmental damage by means of shared planting of forests for energy purposes.
- Pressure reduction of agricultural expansion on the territory
- Training of family producers to produce a low-impact agriculture
- Development of soil conservation practices, training organizations and producers regarding the characteristics of soil of the region.
- Development of the project in accordance with the principles of Responsible Agricultural Investments</td></tr>
<tr><td>Other Information (Preconditions such as public infrastructure required, etc.)</td><td>- Monitoring and evaluation of the program by extension workers of the District Services of Economic Activities to ensure its smooth progress and effectiveness.
- The settlement of Nacala sea port facilities is planned, which should be ready for partial operation in 2016 and full operation in 2017. The port of Nacala will be the main route of the clusters' product flow.
- Priority of implementation will be given to projects recommended by the Master Plan in areas identified as Clusters of Development, according to identified needs.</td></tr>
</table>

30 Model Project for Cashew Production Cluster Development

Project Title:	Model Project for Cashew Production Cluster
Project Site	- Initial suggestions are the districts of Muecate, Meconta Monapo and Mogovolas
Target Group/ Beneficiaries	- Local producers of cashew nuts. - Local population. - Interested investors. - District government.
Project Summary	- The region already has many producers who use cashew nuts as a source of income and although currently the production is below its potential, the familiarity of the producers with the crop is an advantage. - During the field visits it was possible to notice the existence of a corporate production area, but working well below its capacity. There is also a nursery for seedling production that belongs to the Government. - The volume of cashew production in the region has been reduced, mainly because of the age of the existing cashew trees and the phytosanitary vulnerabilities. ➢ Another advantage is its proximity to Nampula city, a great consumer center, and to Nacala port. ➢ In the proposed model 50% of the area of each family will be planted with cashew trees, and the other 50% will be planted with food staples and cash crops. The project foresees the support to activities related to the renovation of trees, as well as technical and financial support to access necessary inputs to strength the cultivation of the other agriculture crops. - The cashew producers, in the form of associations or groups, should supply nuts to industrial processing units that are already located in the region. - The stimulus to the production of cashew will emphasize the development of rural communities through a more effective production technique and by strengthening organizations of solidarity economy, based on a participative methodology, aiming at the sustainable production chain of cashew trees. - The structure aims to promote the increase of production, productivity, quality, profitability and income of all family farmers involved in the cluster, based on the adoption of innovative technologies of cultivation, production, processing, marketing, organization and management of the sector. - The project's priority is to encourage the planting of cashew trees intercropping with other crops, besides encouraging the organization of associations between small family farmers to interact with agents of various segments of the rural sector. - The planting of eucalyptus in common areas as a source of biomass supply to produce energy to the involved communities will also be encouraged, thus promoting activities related to the forest sector.
Agricultural Technological Package	- The family unit will be up to 2 ha, to guarantee the food supply of farmers involved and to increase the family income. The project foresees the maintenance of 50% of the land of each family for the production of staple food and cash crops. - The participation of 600 families in the project is expected, totaling to 1,200 ha cultivated, being 600 ha for cashew production and 600 ha for other crops. - The module of 1,200 ha can be set in one or more districts among those suggested, according to the arrangements for the implementation of suggested projects. - In order not to jeopardize part of the income of the producers, the renovation of the cashew trees will be divided into two stages. So when the first half of the cashew trees' production stabilizes (three years after the completion of this operation) the renewal of the remaining 50% will be done. - In the first year, 50 families will be involved, this number will be doubled year after year, until the fourth year of the project, reaching a total of 400 families. By adding the 200 families of the fifth year, the project will involve 600 families. - Year after year, new cashew areas will be planted, and during the first years, the lines between the trees will be planted with annual crops, until the cashew trees reach a size that prevent the entry of light between the lines. - Cashew production will start three years after planting, during that time the processing industry will be reactivated, modernized, and manpower will receive training. - Cashew trees will be pruned periodically. The heating power of the wood from the pruning will be used as power supply to the nuts' processing process. - A study to identify and explore the economic potential of cashew pulp shall be carried out,

	in parallel with the stabilization of the cashew production. - Upon the results of such study, a business model related to the processing and marketing of cashew pulp shall be presented to associations and groups of producers. Planning tools and training should be provided, besides the financing services to the ventures.
Justification	- The goal of this project is to structure the cashew production chain through the formalization of trade, increase productivity of nuts and adding value to the product and the establishment of public and private initiatives to encourage production, and thus strengthen the local economy and improve the quality of life of family farmers in the region. - The project is expected to create a suitable model for the development of the Cluster of Cashew Nuts Production in Zones I and II of the Nacala corridor. - The objective of the implementation of the project is in compliance with the project for the Renovation of the cashew trees and improvement of the intercropping system. - The objective of the implementation of the project is in compliance with the Initiative for the Improvement of the Productivity of Family Agriculture and Association of Producers. - The project is part of the Strategies to Eradicate the Shifting Agriculture - To development of the Cluster will bring development to the region and will improve the living conditions of the local population through modern agricultural activities. - Encouraging diversification of agricultural activities should reduce economic risks for producers, as well as reduce risks related to food insecurity.
Targets for phase I (2014-2020)	- Assist and stimulate the renewal of cashew trees - Encourage the diversification of agricultural crops as well as the intensification of production in place of shifting agriculture - Increase the availability and quality of cashew nuts, with a view to strengthen the local processing chain - Identification of the local economic potential of the cashew pulp and begin the organization of this value chain. - Encourage the diffusion of fast-growing forest crops as a sustainable source of biomass for energy purposes, substituting the exploitation of natural forest resources.
Targets for phase II (2021-2025)	- Increased production of cashew - Development and increase in crop yields ➢ Increase the marketing and export of cashews ➢ Development of the cashew pulp value chain - Replacement of native forest biomass utilization in agricultural and agro-industrial projects by planted biomass - Improvement in marketing networks
Targets for phase III (2026-2030)	- The supply of cashew to the industry and industrial processing of cashew nuts will be established. - Processing units of cashew pulp will be integrated into the production chain. - Consolidation of a diversified agricultural production system. - New economic activities linked to agriculture should be initiated due to the benefits arising out of the Cluster. - Export and marketing of a substantial amount of products to other regions - Shifting agriculture and conflicts over natural resources will have been eliminated or reduced considerably
Implementation Structure	- Economic agents linked to cashew chain should be involved so as to ensure that there will be customers to purchase the production offered by the project, and that the quality standards to be developed will be in accordance with the market demand. - Local institutions (INCAJU, IIAM and SDAE) providing and facilitating the access of producers to inputs. - Local institutions (INCAJU, IIAM and SDAE) providing extension services and promoting training of local producers. - Structuring of the local forest nursery for the suitable supply of eucalyptus seedlings (SDAE)
Main products or Services	- Increase in the supply and quality of cashew production. - Job creation and increase in family income. - Production of foods such as ground nuts, maize, beans, cassava and vegetables. - Production of cotton and sesame - Forest biomass production for energy purposes.
Project Activities	- Executive planning, selecting areas for the project implementation and potential producers

<table>
<tr><td></td><td>to be part of the first groups.
- Promote the organization of associations that will receive training activities and capacity building to manage cashew trees; integrated agriculture production; and planting and harvesting of forest essences
- Distribution of inputs, such as cashew seedlings, fertilizers and agricultural seeds of good quality.
- Identification of agents of the cashew value chain interested in buying the production and in establishing partnerships
- Identification of technical constraints related to the cashew handling after harvesting and storage, in order to organize trainings
- Identification and use of strategies to promote the food production flow, with the participation of public and private institutions.
- Structuring of a public nursery for the production of forestry seedlings.
- Distribution of forest seedlings and inputs for associations
- Feasibility study to use the cashew pulp through associative processing units
- Elaborate a Business Plan for the cashew pulp value chain.
- Implementation of a model plant to process cashew pulp.
- Introduce incentives and technical and financial support services for initiatives to introduce and expand cashew pulp processing facilities.</td></tr>
<tr><td>Implementation Period</td><td>2014 | '15 | '16 | '17 | '18 | '19 | '20 | '21 | '22 | '23 | '24 | '25 | '26 | '27 | '28 | '29 | 2030</td></tr>
<tr><td>1) Expected Impacts or Benefits
2) indicators</td><td>- <u>Expected impacts</u>:
- Reduction of shifting agricultural practices
- Increase in the production, productivity and quality of the cashew production
- Increase in diversity, productivity and production of staple food crops
- Strengthening and expansion of the cashew processing industry in the region
- Reduce the exploitation of forests for energy purposes
- <u>Indicators:</u>
- Increase the production and productivity of cashew.
- Increase the production of cashew nuts and other value-added products from the cashew activity.
- Increase the production and productivity of promoted agricultural crops
- Reduction in the rates of deforestation
- Increase the family income per capita</td></tr>
<tr><td>Environmental and Social Considerations</td><td>- Development of the project in accordance with the principles of Responsible Agricultural Investments
- Carry out a prior environmental assessment with a view to mitigate environmental impacts, with particular attention to deforestation, soil conservation and pollution of water resources.
- To mitigate possible impacts on full and partial protection areas (protected area in Eastern Mozambique).
- Encourage community participation through public consultations
- Mitigate environmental impacts of processing units, with special attention to the production of waste.</td></tr>
<tr><td>Other Information</td><td>- The machines will be acquired by the producers' associations and all are responsible for the maintenance and care of the equipment.
➢ The cultivation within the areas will be the responsibility of each family and the remuneration shall be established in accordance with contracts to be signed with agents of the chain.
- Contracts should be designed with a view to creating incentives for members to remain in the program such as:
➢ Awards due to productivity increase, depending on the accuracy of the production delivery and the correct use of inputs;
➢ Periodical visits as a way to control and analyze the income and quality of the production of each Member;
➢ Elaboration of rules related to the use of inputs and farm management practices, as well as rules about the product and marketing options, and rules regarding coexistence among members involved;
➢ Organization of courses and field days to improve cultivation techniques;</td></tr>
</table>

31 Pioneer Project for Integrated Food and Grain Production Cluster Development

Project Title:	Pioneer Project for Integrated Food and Grain Production Cluster Development
Project Site	- Ribáuè district.
Target Group/ Beneficiaries	- Small and medium-sized producers. - Local population. - Investors interested. - District Government.
Project Summary	- The integrated production of cash crops and staple food crops, such as soybeans, corn, cotton, sunflower, ground nuts, cowpea and sesame at the family and corporate scale will be proposed. - Installation of a Seed Processing Unit (UBS) for the commercial production of seeds of soybeans, sunflower and cotton is proposed. And also the establishment of contracts involving the promotion and supply of raw materials, inputs and technical assistance connected to the compulsory purchase of production, with agricultural family farmers, and the production of improved seeds of maize and other crops. - The goal of the cluster is the supply of seeds of quality that provide greater productivity and consequently a higher income for farmers and corporations operating in the Nacala Corridor. The seed produced in Ribáuè can be used to raise the recommended productive crops. - With these actions, the goal is to include 1000 families of small farmers in the production chain, enabling the transfer of technology to them and a significant increase in productivity and, consequently, the household income. - This business model will generate contracts that will help, in the medium term, the strengthening of the producers' associations that are currently present in the region, as well as the development of other associations that will strengthen the activities carried out by small-scale farmers. - Each farmer will receive aid for the production of 1 ha of improved seeds of maize, beans, ground nuts and sesame enabling those involved to cultivate staple food for their own consumption and other cash crops of preference. - The chain will be developed through the interaction between various actors, and may generate a great synergy in the transference of processes. - It is hoped that the local government will establish a partnership with the new businesses that will be part of the cluster through tax incentives. - It is expected that the project presents a high profitability, besides generating taxes and jobs.
Agricultural technological package	- The region chosen to house the project has excellent productive potential soils and water availability and is near to a major distributor and consumer center. - The Seed Processing Unit (UBS) was conceived to process and store 20 thousand tons of seeds per year. To guarantee the supply of at least half of the unit`s processing capacity, it is recommended that the unit itself has an area of 10 thousand hectares for agriculture. - Of these, 8,000 ha are intended for the production of improved soybean seeds, 1.33 thousand ha destined for cotton, 100 ha for sunflower and 667 ha for maize. - The use of full irrigation is foreseen to continue production outside of the rainy season. Due to high solar incidence throughout the year, it is expected to be possible to carry out at least two harvests each year with the help of irrigation. In order to dilute the costs of investments in machinery and equipment for the cultivation of soybean seeds, as well as to empower the seed producers, it is recommended that the implementation of the 8 thousand hectares are distributed over the first 4 years, and in each year a new module of 2,000 ha be cultivated with the crop. - Soybean is highly responsive to photoperiod, presenting, thus, a lower seed productivity per hectare, and due to its high demand, soybean will be cultivated in the rainy period. Cotton and sunflower have a higher seed production per area and, because they present a lower demand, they will be cultivated as a second crop, under full irrigation. - In the end, an area of 8,000 ha will be necessary for the production of soybean seeds in rain-fed conditions, 1,400 ha for cotton and 100 ha of irrigated sunflower for a corporate agriculture. - It is expected that the improved seed produced will be sufficient for the 180,000 ha of soybean planting, 15,000 ha of cotton, 15,000 ha of sunflower and 40,000 ha of maize. - If the seed supply is higher than the Mozambique demand, the product can be exported or processed as grains. However, the main objective is to supply the domestic market.

	- The sunflower produced can be fully employed in the development of greenfield for the proposed grain production in Majune. - The production is also foreseen, in an associative way, of 48 ha of seeds of beans, 10 ha for sesame and 109 ha for ground nuts - The soybean and the other seeds can also supply other productive clusters using the improved infrastructure and market flow planned for the cluster of logistics development of Cuamba.
Justification	- The aim of this cluster is to increase the economy and development of the region - The objective of this cluster is in accordance with the project for the Entrepreneurial Training and Business Development - The installation of the cluster is in accordance with the project for the Rehabilitation of the Irrigation Systems - The installation of the cluster is in accordance with the project for the Improvement of Agricultural Logistics - The installation of the cluster is in accordance with the project for the Improvement of productivity in the Family Agriculture and Association of Producers - Project initiatives are in accordance with the Project for Rehabilitation of Agricultural Storage Facilities - Project initiatives are in accordance with the Project for Standardization of Agricultural Products - Project initiatives are in accordance with the Project for Improving access to Market Information. - Project initiatives are in accordance with the Project to Prioritize the Infrastructure and Supply of Energy - The installation of the cluster is in accordance with the Agricultural Academy Project ProSAVANA (Agricultural Development Center). - The Project initiatives are in accordance with the Establishment of Financial Support Systems for Small and Medium Scale Agribusiness Companies and Farmers' Organizations (6) - The installation of the cluster is in accordance with the Establishment of Preferential Credit to Support Agricultural Mechanization Service Providers (13). - The installation of the cluster is in accordance with the Project for the strengthening of Agricultural Extension and Model Farms - Project initiatives are in line with the Establishment of a Support Organization for Investments and for the Development of Value Chains in Nacala Corridor - The projects of the cluster implementation are part of the Project for the Strengthening and Training of Local Government institutions - The cluster implementation will promote the development of the region and improve the living conditions of the local population
Targets for phase I (2014-2020)	- Establishment of areas and start the production of seeds of soybean, maize and cotton. - Construction of the Seed Processing Unit (UBS) - Promote the installation or rehabilitation of irrigation systems. - Promote the association of local producers and start the cultivation of crops such as ground nuts, beans and sesame. - Financing and supply of inputs and technologies to local producers
Targets for phase II (2021-2025)	- Increase the area and the seed production - The production and marketing chains of seeds are developed - Start to export the surplus production of seeds
Targets for phase III (2026-2030)	- The production of seeds will be established - Stabilization of the Seed Processing Unit (UBS). - Consolidation of seed exports
Implementation Structure	The following are necessary for the development of the cluster: - Investors interested to finance the implementation of the Seed Processing Unit (UBS). - Financing agricultural machinery, inputs and technology for local producers. - Local institutions (IIAM and SDAE) providing and facilitating the access of producers to inputs. - Local institutions (IIAM and SDAE) providing extension services and promoting training to local producers. - Public-private partnership between IIAM and investors, for the joint development of commercial varieties adapted locally.

Main products or services	- Seed production - Generating jobs. - Generating taxes
Project activities	- Promote the seed producers association - Provide access to inputs and technology for producers - Recommend training programs and training of farmers and technical assistance on issues of interest to productive arrangements and other activities developed in the region; - Promoting interaction between the seed production chain and consumer centers
Implementation Period	2014 '15 '16 '17 '18 '19 '20 '21 '22 '23 '24 '25 '26 '27 '28 '29 2030
1) Expected Impacts or Benefits 2) indicators	- Expected impacts: - Improve the local economy - Increase tax collections - Generating jobs - Increase the volume of exports of seeds - Generate a synergy between the seed producer center and consumers' Districts - Generate development for the region and improve the living conditions of the local population. - Generate development in the region of the cluster - Generate a seed producer center for the Nacala region - Through associative systems, improve the social relations between families. - Indicators: - Increase in the production of soy beans, maize, cotton and sunflower. - Increase the volume of exports - Increase the family income in relation to the minimum wage paid in Mozambique for the sector of agriculture, livestock and forestry activities.
Environmental and Social Considerations (Summary of pre-screening EIA)	- Development of the project in accordance with the principles of Responsible Agricultural Investments - To mitigate possible impacts on full and partial protection zones (protected areas in Ribaue) - Carry out prior environmental assessment with a view to mitigate environmental impacts, with particular attention to deforestation, soil conservation and pollution of water resources. - Encourage the development of forests for energy and ecological corridors as a counterpart to the environmental impacts of the activities - Encourage community participation through public consultations - Mitigate environmental impacts of the seed processing unit, with special attention to waste generation.
Other Information (Preconditions such as public infrastructure required, etc.)	- For the associative model proposed, model contracts should be prepared to be signed in order to formalize the commitment of family farmers with their leadership, who could be a representative of the association of producers. Also, incentives for members to remain in the program should be offered, such as: ▪ Awards for productivity increase, depending on the accuracy of production delivery and the correct use of inputs; ▪ Periodical visits as a mean to control and observe the income and quality of the production of each Member; ▪ Establish rules related to using inputs and agriculture management practices, as well as rules on product and marketing forms, and additionally rules regarding coexistence among involved members; ▪ Organization of courses and field days to improve cultivation techniques; ▪ REDD +: carbon credits as an alternative means of income;

32 Project for Tea Industry Revitalization

Project Title: Project for Tea Industry Revitalization	
Project Site	- Gurue, Zambezia Province (Zone IV)
Target Group and Beneficiaries	- Tea Producers' Association in Gurue (consists of 5 private tea companies) - Out-growers (small-scale farmers) in Gurue
Project Summary	- There are over 8,000 Ha of potential tea garden land in Gurue District, but only

	65% is operational due to destruction during the civil war, insufficient replanting of plants older than 70 years old, and declining government support after the privatization of the state plantations. In order to revitalize the tea industry in Gurue, this project aims to increase productivity and the production area through the promotion of an out-grower scheme involving more local farmers in tea production. The Tea Producer's Association in Gurue will take a leading role in facilitating the promotion of the out-grower scheme. - In order to accelerate the replanting of old tea plants, an improved variety of tea seedlings will be imported from Malawi, which will then be planted in a new production area allocated within a corporate farm as a trial with out-growers taking responsibility for the management of the new tea garden. Cuttings taken from improved tea plants will then be used for the propagation of seedlings at the company's nursery.
Justification	- Tea production and processing is a unique and important local industry found only in the highlands of Zambezia Province, amounting to 7,000 tons per year and creating 4,000 jobs in Gurue District alone. - Gurue tea, "*Cha de Gurue,*" is an established brand name, and around 85% of the total production is exported to the international market. - The revitalization and promotion of the tea industry is one of the priority areas Zambesia Province referred to in its development plan.
Main Products or Services	- An out-grower model for the tea production is established. - Technical know-how on the management of tea farms is transferred to out-growers. - Seedlings of the improved variety of tea plants are produced for the replacement of old plants.
Project Goals	Tea industry around Gurue district is gaining higher competitiveness in national and international markets, without accelerating environmental degradation or enlarging socio-economic disparity.
Expected Output	1: Accessible financing mechanism is established; 2: Aged tea plants are being replaced by quality seedlings; 3: Tea out-grower scheme is operational and expanding;
Main Activities	1) Establishment of an accessible financing mechanism for tea companies - Application of "ProSAVANA Development Initiative Fund" - Provision of fiscal incentives for investment in processing facilities 2) Support for tea replanting - Introduction of improved foreign varieties (as seed ,seedling or clone) through collective purchase - Financial support for replanting costs (either subsidy or loan) 3) Promotion of tea out-grower scheme - Initial trial using part of the abandoned tea gardens of the companies - Development of contract farming supported by technical assistance and provision of seedlings and inputs by the companies -
Implementation Period	2014 '15 '16 '17 '18 '19 '20 '21 '22 '23 '24 '25 '26 '27 '28 '29 2030
Required Infrastructure	- Major infrastructure is not required for implementing the project. - The company owns a tea processing factory and storage facilities.
Economic and Social Impacts to Local Community	- It will increase the incomes of small-scale farmers engaged in tea production as out-growers as well as the profitability of the company, which would contribute to the growth of the regional economy in Gurue. - It will contribute to the revitalizing of the tea industry, which has declined over the years.
Environmental and Social Consideration	
Other Information	- As the tea industry needs a large amount of wood for the drying process of green leaves, it is necessary to carefully monitor for illegal logging. - The Tea Research Foundation in Malawi is expected to provide high quality tea seedlings.

Table 3.1.6 Implementation Schedule of Master Plan Projects

(1) Platform Project

1. Project for Land Registration of Medium and Small Scale Farmers

	Priority Site	Phase-1: Transitional phase of fixed cultivation 2014 2015 2016 2017 2018 2019 2020	Phase-2: Growth phase of agricultural 2021 2022 2023 2024 2025	Phase-3: Expansion phase of agribusiness 2026 2027 2028 2029 2030
1. Preparatory Survey and planning				
2. Provision of land titles (issue of DUATs) for transition to a fixed agriculture or intensive cultivation				
2-1. Making inventory and distributoins of farmland 2-2. Community consultations, formation processes and consolidation of each DUAT 2-3. Support for application of DUAT by farmers	Nampula: Zone I		2-1 and 2-2 are implemented by SDAE	
	Nampula: Zone II		2-1 and 2-2 are implemented by SDAE	
	Nampula: Zone III		2-1 and 2-3 are implemented by SDAE	
	Zambezia: Zone III			
	Zambezia: Zone IV			
	Niassa: Zone V			
	Niassa: Zone VI		2-1 and 2-3 are implemented by SDAE	
3. To support farmers in the target area in order to the transiton to intensive cultivation				
4. Monitoring of land use by SPGC of each province				

2. Project for Planning of Availability of Land for Investment

	Priority Site	Phase-1: Transitional phase of fixed cultivation 2014 2015 2016 2017 2018 2019 2020	Phase-2: Growth phase of agricultural 2021 2022 2023 2024 2025	Phase-3: Expansion phase of agribusiness 2026 2027 2028 2029 2030
1. Planning the delimitation of availability of land, observing overlapping demarcation of reserves, forestry, DUATs and other;				
2. To perform soil studies (classification and definition of the agrarian use);				
3. Elaboration of the Basic Project Planning of occupation of availability of land				
4. Create a Land and Information Data Bank to support interested investors.				
5. Selection of investment capable to generate higher benefits to the region.				
6. To monitor the use of required area and the benefits created.				

3. Project for Strengthening of Supervision Mechanism on Land and Environment Law Enforcement

	Priority Site	Phase-1: Transitional phase of fixed cultivation 2014 2015 2016 2017 2018 2019 2020	Phase-2: Growth phase of agricultural 2021 2022 2023 2024 2025	Phase-3: Expansion phase of agribusiness 2026 2027 2028 2029 2030
1. Assistance for accelerated elaboration, harmonization and revision of PDUTs	Malema, Gurue, Cuamba, Mandimba, Ngauma			
2. Training of the Government officials and improvement of the basic conditions				
3. Improvement of information disclosure system				
4. Dissemination of PRAI among local people				

4. Basic Study for Water Resource Management

	Priority Site	Phase-1: Transitional phase of fixed cultivation 2014 2015 2016 2017 2018 2019 2020	Phase-2: Growth phase of agricultural 2021 2022 2023 2024 2025	Phase-3: Expansion phase of agribusiness 2026 2027 2028 2029 2030
Basic Study for Water Resource Management	Preparation of budget			

5. Forest Initiative Project

	Priority Site	Phase-1: Transitional phase of fixed cultivation 2014 2015 2016 2017 2018 2019 2020	Phase-2: Growth phase of agricultural 2021 2022 2023 2024 2025	Phase-3: Expansion phase of agribusiness 2026 2027 2028 2029 2030
1.Proposal presentation for obtaining of financial support	Gurue			
2. Establishment of Nursery of Forest Seedling	Gurue			
3. Rising of lacking areas of recovery and potentials for formation of energy forests and ecological corridors	Gurue			
4. Training for the planting and handling of the reforestations	Gurue			
5. The communities' training for the community forest handling of the energy forests	Gurue			
6. Monitoring	Gurue			
7. Service to other areas	Ribaue and Malema priorly			

6. Project for Strengthening of Agricultural Research

	Priority Site	Phase-1: Transitional phase of fixed cultivation 2014 2015 2016 2017 2018 2019 2020	Phase-2: Growth phase of agricultural 2021 2022 2023 2024 2025	Phase-3: Expansion phase of agribusiness 2026 2027 2028 2029 2030
1. Empowerment of IIAM research centers in Northeast and Northwest	Nampula and Lichinga zonal center	ProSAVANA-PI		
	Branch stations			
2. Developing an appropriate farming technologies and system Selection of varieties				
Group1 (First priority crops): Maize and Soy bean			Monitoring	
Group 2 (Second priority crops): Northwest: Cowpea, Groundnut, vegetables, cashew, and sesame			Repeating the activities done for Group 1	
Group 3 (Third priority crops) : Northwest: Cotton, Northwest: tobacco and tea				Repeating the activities
3. Demonstration of newly developed farming technologies and system				
Group 1			Monitoring	
Group 2			Repeating the activities done for Group 1	
Group 3				Repeating the activities

7. Project for Strengthen of Agricultural Extension Services

	Priority Site	Phase-1: Transitional phase of fixed cultivation 2014 2015 2016 2017 2018 2019 2020	Phase-2: Growth phase of agricultural 2021 2022 2023 2024 2025	Phase-3: Expansion phase of agribusiness 2026 2027 2028 2029 2030
1 Continuing PRONEA Plan in the selected 11 districts	11 districts	Continue of Agricultural Service		
2. Implementation in the remained districts	8 districts not covered by PRONEA		Continue of Extension Service	
3 Broadcasting program of agricultural extension on radio or TV in 3 target provinces			Continue of Program	

8. ProSAVANA Agricultural Academy (Agricultural Development Centre) Project

	Priority Site	Phase-1: Transitional phase of fixed cultivation 2014 2015 2016 2017 2018 2019 2020	Phase-2: Growth phase of agricultural 2021 2022 2023 2024 2025	Phase-3: Expansion phase of agribusiness 2026 2027 2028 2029 2030
1 Formulating a total implementation plan				
2 Facility development				
3 Training		Continous Training		

9. Model Project for Development of Leading Farmers in Community

	Priority Site	Phase-1: Transitional phase of fixed cultivation 2014 2015 2016 2017 2018 2019 2020	Phase-2: Growth phase of agricultural 2021 2022 2023 2024 2025	Phase-3: Expansion phase of agribusiness 2026 2027 2028 2029 2030
1. To establish the project design and formulation of its implementation structure	establish office in Nampula, Lichinga and			
2. To select pilot project communities based on voluntary initiatives under transparent process.	1st term: 9 communities, 2nd term	1st Group / 2nd Grou		
3. To survey all farmland of individual farmers in the pilot community and register their DUAT.				
4. To prepare farming program of core farmers in consultation with extension workers	1st group			
	2nd group			
5. To support farming of core farmers	1st group			
	2nd group			
6. To provide training to promote farmers into association and joint activities	1st group			
	2nd group			
7. Capacity development of SDAE and its extension workers		1st group / 2nd group		

10. Project for Training for Distributors of Agricultural Inputs

	Priority Site	Phase-1: Transitional phase of fixed cultivation 2014 2015 2016 2017 2018 2019 2020	Phase-2: Growth phase of agricultural 2021 2022 2023 2024 2025	Phase-3: Expansion phase of agribusiness 2026 2027 2028 2029 2030
1 Formulating a total implementation plan				
2 Training distributors (short-term)				
3 Incentives to trained distributors				

11. Project for Improvement of Accessibility to Fertilizers

	Priority Site	Phase-1: Transitional phase of fixed cultivation 2014 2015 2016 2017 2018 2019 2020	Phase-2: Growth phase of agricultural 2021 2022 2023 2024 2025	Phase-3: Expansion phase of agribusiness 2026 2027 2028 2029 2030
1 Formulating the fertilizer subsidy scheme	Whole Country			
2 Legal and financial arrangements for the implementation				
3 Registration of fertilizer traders				
4 Implementation of the fertilizer subsidy scheme			Phasedown from 2020	
5 Monitoring the disbursement of subsidy				

12. Project for Promotion of Quality Seed Production at Regional Level

	Priority Site	Phase-1: Transitional phase of fixed cultivation 2014 2015 2016 2017 2018 2019 2020	Phase-2: Growth phase of agricultural 2021 2022 2023 2024 2025	Phase-3: Expansion phase of agribusiness 2026 2027 2028 2029 2030
1 Formulating a total implementation plan				
2. Training seed growers and agricultural extension agents	IIAM Nampula, Lichinga	Training on maize and beans/pulses	Training on potato and vegetables	
3 Priority distribution of basic seeds to trained seed growers				
4 Promotion of seed out-growers (farmer groups)				
5 Introducing an appropriate financial system to seed growers				

13. Project for Promotion of Tractor Hire Services

	Priority Site	Phase-1: Transitional phase of fixed cultivation 2014 2015 2016 2017 2018 2019 2020	Phase-2: Growth phase of agricultural 2021 2022 2023 2024 2025	Phase-3: Expansion phase of agribusiness 2026 2027 2028 2029 2030
1 Formulating the total implementation plan				
2 Preferential loan arrangement				
3 Supporting arrangements				

14. Irrigation System Rehabilitation Project

		Priority Site	Phase-1: Transitional phase of fixed cultivation 2014 2015 2016 2017 2018 2019 2020	Phase-2: Growth phase of agricultural 2021 2022 2023 2024 2025	Phase-3: Expansion phase of agribusiness 2026 2027 2028 2029 2030
1. Rehabilitation of irrigation system			Maintenance of DB and monitoring activity will be continued as a regular work of DPA.		
Implementation of rehabilitation work	Zone I			11 Systen 650 ha	
	Zone II			27 Systen 1,290 ha	
	Zone III			20 Systen 1,577 ha	
	Zone V			10 Systen 239 ha	
	Zone VI			11 Systen 117 ha	
2. Establishing pilot area of irrigation development					
implementation of rehabilitation/construction work	Zone I		2 Sites Monapo, Muecate		
	Zone II		4 Sites Meconta, Mogovolas, Nampula, Murrupula		
	Zone III		3 Sites Ribaue, Malema, A. Molocue		
	Zone V		2 Sites Cuamba, Gurue-Lioma Plain		
	Zone VI		1 Sites Lichinga		
3. Enhancement of water user's organization			Continued in rehabilitation project sites		

15. Project for Improvement of Irrigation Technology and Construction Quality

	Priority Site	Phase-1: Transitional phase of fixed cultivation 2014 2015 2016 2017 2018 2019 2020	Phase-2: Growth phase of agricultural 2021 2022 2023 2024 2025	Phase-3: Expansion phase of agribusiness 2026 2027 2028 2029 2030
1. Improvement of irrigation technology of famers		Together with setting-up of Pilot Irrigation Site (PR9 AC2)		
2. Improvement of skill and technology of construction company				

16. Project for Vegetable Production Model

	Priority Site	Phase-1: Transitional phase of fixed cultivation 2014 2015 2016 2017 2018 2019 2020	Phase-2: Growth phase of agricultural 2021 2022 2023 2024 2025	Phase-3: Expansion phase of agribusiness 2026 2027 2028 2029 2030
1. Establishment of a support system for introducing small pump and developing simple irrigation system by farmers and/or farmer'	I, II, III, V, VI			
1-1 Support for introducing small pump (for individual small farmers)	I, II, III, V, VI			
1-2 Support for developing simple irrigation system (for farmer's group or mid-scale farmer)				
1-3 Preparing preferential budget in FDA of SDAE and FDD of District for procurement of pump equipment and		Arrangement by related agencies		
2. Enhancement of farmer's group				
3. Establishing technical extension system of vegetable cultivation with irrigation				
4. Development of market and sales channel of vegetable				

17. Project for Establishment of Financial Support System for Small And Medium Sized Agribusiness Enterprises, Farmers' Organizations and Individual Farmers

	Priority Site	Phase-1: Transitional phase of fixed cultivation 2014 2015 2016 2017 2018 2019 2020	Phase-2: Growth phase of agricultural 2021 2022 2023 2024 2025	Phase-3: Expansion phase of agribusiness 2026 2027 2028 2029 2030
0. Implementation of the pilot projects (2nd round of PDIF)	All Districts	(PDIF (pilot fund) will be formalized as a permanent financing scheme for the ProSAVANA agriculture development.)		
1. Establish the structure of the financial support system				
2. Mobilize additional capital for an agricultural loan.				
3. Select potential financial institutions that would operate the agricultural loan.				
4. Develop criteria and conditions for the agriculture loan specific agribusiness enterprises, farmers' organizations, and individual				
5. Begin operations of the agriculture loan				
6. Conduct regular monitoring and evaluation for the fund's operations.				

18. Formulation of the Nacala Corridor Agriculture Investment Fund for Large-scale Agriculture Development Project (the Nacala Fund)

19. Establishment of a Support Organization for the Investment and Value Chain Development

	Priority Site	Phase-1: Transitional phase of fixed cultivation 2014 2015 2016 2017 2018 2019 2020	Phase-2: Growth phase of agricultural 2021 2022 2023 2024 2025	Phase-3: Expansion phase of agribusiness 2026 2027 2028 2029 2030
1.Establishment of a Support Organization in Nampula	Nampula			
2.Establishment of a Support Organization in Niassa (Cuamba)	Niassa (Cuamba)			

20. Project for Capacity Development of Business Development Service

	Priority Site	Phase-1: Transitional phase of fixed cultivation 2014 2015 2016 2017 2018 2019 2020	Phase-2: Growth phase of agricultural 2021 2022 2023 2024 2025	Phase-3: Expansion phase of agribusiness 2026 2027 2028 2029 2030
1: Capacity of IPEME staff as a trainer of training on business development service is strengthen.				
2: Quality business development service is provided by numbers of private service providers.				
3: Related organizations/ institutions for business development are well functioned in coordination with each other.				

21. Project for Formulation and Development of Modern Agriculture Cooperatives

	Priority Site	Phase-1: Transitional phase of fixed cultivation 2014 2015 2016 2017 2018 2019 2020	Phase-2: Growth phase of agricultural 2021 2022 2023 2024 2025	Phase-3: Expansion phase of agribusiness 2026 2027 2028 2029 2030
1. New law is widely recognized.				
2. As a model projects new agricultural cooperatives will be established.				
3. The model agricultural cooperatives will be managed sustainably.		Implement in Model project		
4. Including the transformation from the existing farmers' associations, the formation of new agricultural cooperatives to			Expand in other districts.	
5. Management and business skills of the new agricultural cooperatives will be improved.			Expand in other districts.	

22. Market Information Access Improvement Project

	Priority Site	Phase-1: Transitional phase of fixed cultivation 2014 2015 2016 2017 2018 2019 2020	Phase-2: Growth phase of agricultural 2021 2022 2023 2024 2025	Phase-3: Expansion phase of agribusiness 2026 2027 2028 2029 2030
1: Lessons learnt from past efforts on market information system establishment.				
2: Access to market information for farmers and agribusiness operators is improved.				
3: Market information is utilized for production and business management.				

23. Project for Standardization of Agriculture Products

	Priority Site	Phase-1: Transitional phase of fixed cultivation 2014 2015 2016 2017 2018 2019 2020	Phase-2: Growth phase of agricultural 2021 2022 2023 2024 2025	Phase-3: Expansion phase of agribusiness 2026 2027 2028 2029 2030
1: Standard for agriculture products is officially established and publicized.				
2: Agriculture products standard is used nationwide.				

24. Project for Rehabilitation of Agriculture Storage Facility

	Priority Site	Phase-1: Transitional phase of fixed cultivation 2014 2015 2016 2017 2018 2019 2020	Phase-2: Growth phase of agricultural 2021 2022 2023 2024 2025	Phase-3: Expansion phase of agribusiness 2026 2027 2028 2029 2030
1: Strategic storage rehabilitation plan in Nacala corridor for agriculture development is prepared.				
2: Storage facilities in Nacala corridor are rehabilitated.		Phase I	Phase II	
3: Rehabilitated storage facilities are properly utilized, and storage loss is decreased.				

25. Project for Improvement of Access Roads for Agricultural Activities

	Priority Site	Phase-1: Transitional phase of fixed cultivation 2014 2015 2016 2017 2018 2019 2020	Phase-2: Growth phase of agricultural 2021 2022 2023 2024 2025	Phase-3: Expansion phase of agribusiness 2026 2027 2028 2029 2030
1. To formulate agricultural road improvement committee				
2. To prepare a 5 year strategic plan for agricultural road development by the committee				
3: To improve rehabilitation works according to the plan.				

26. ProSAVANA Agriculture Special Economic Zone Project

	Priority Site	Phase-1: Transitional phase of fixed cultivation 2014 2015 2016 2017 2018 2019 2020	Phase-2: Growth phase of agricultural 2021 2022 2023 2024 2025	Phase-3: Expansion phase of agribusiness 2026 2027 2028 2029 2030
1. Formulating a plan of implantation zones				
2. Support the Gazette in Preparation of the Project of Constitution of ZEE or ZFI				
3. Formalize the creation of the ZEE or ZFI (Decree of creation)				

2) Prioritization of Pioneer/Model Project for Cluster Development

27. Pioneer Project for Integrated Grain Cluster Development

Priority Site	Phase-1: Transitional phase of fixed cultivation 2014 2015 2016 2017 2018 2019 2020	Phase-2: Growth phase of agricultural 2021 2022 2023 2024 2025	Phase-3: Expansion phase of agribusiness 2026 2027 2028 2029 2030
1.Identification and settlement of the investment			
2.Training of manpower for agricultural activities			
3.Installation of agricultural production activites			
4.Rehabilitation, expansion and installation of storage and logistics infrastructure as well as social and productive infrastructure (housing, energy, water, sanitation, basic health)			
5.Training of industrial manpower and poultry production			
6.Installation of industrial plants and poultry production			
7.Integration of industrial production with the production and processing			
8.Marketing of processed products and by-products			

28. Model Project for Family Food Production Cluster Development

Priority Site	Phase-1: Transitional phase of fixed cultivation 2014 2015 2016 2017 2018 2019 2020	Phase-2: Growth phase of agricultural 2021 2022 2023 2024 2025	Phase-3: Expansion phase of agribusiness 2026 2027 2028 2029 2030
1. Organization Phase			
2. Installation of Agricbusiness -Processing			
3. Processing			
4. Implantation of the town 1			
5. Implantation of the town 2			
6. Implantation of the town 3			
7. Implantation of the town 4			
8. Implantation of the town 5			

29. Pioneer Project for Grain and Cotton Production Cluster Development

Priority Site	Phase-1: Transitional phase of fixed cultivation 2014 2015 2016 2017 2018 2019 2020	Phase-2: Growth phase of agricultural 2021 2022 2023 2024 2025	Phase-3: Expansion phase of agribusiness 2026 2027 2028 2029 2030
1. Study for extention activities and formulate supplementary plan, socio-environmental management practices recommended, with special attention to the establishment of public-private partnerships			
2. Integration of efforts for registration of the DUAT			
3. The rehabilitation and installation of storage and logistics infrastructure, as well as social infrastructure			
4. Training and implementation of chicken production			
5. Training and planting forest seedlings for local energy forests.			
6. Evaluation of the system, reformulation or extinction of the system.			

30. Model Project for Cashew Production Cluster Development

Priority Site	Phase-1: Transitional phase of fixed cultivation 2014 2015 2016 2017 2018 2019 2020	Phase-2: Growth phase of agricultural 2021 2022 2023 2024 2025	Phase-3: Expansion phase of agribusiness 2026 2027 2028 2029 2030
1. Executive planning, selecting areas to implement the project and potential producers to be part of the first groups.			
2. Promote the establishment of associations to receive training activities and capacity building on management of cashew trees, integrated agricultural production and planting and harvesting of forest essences.			
3. Distribution of inputs, such as cashew seedlings, fertilizers and agricultural seeds of quality			
4. Identification of agents from the cashew value chain interested in buying the production and establishing partnerships			
5. Identification of technical constraints related to the cashew handling after harvesting and storage, in order to organize trainings			
6. Identification and use of strategies to promote the food production flow, with the participation of public and private institutions.			
7. Structuring of public nursery for the production of forestry seedlings.			
8. Distribution of forest seedlings and inputs for associations			
9. Feasibility study to use the cashew pulp through associative processing units			
10. Elaborate a Business Plan for the cashew pulp value chain.			
11. Implementation of a model plant to process cashew pulp.			
12. Introduce incentives and technical and finance support services to initiatives to introduce and expand cashew pulp processing facilities.			

31. Pioneer Project for Integrated Food and Grain Production Cluster Development

Priority Site	Phase-1: Transitional phase of fixed cultivation							Phase-2: Growth phase of agricultural					Phase-3: Expansion phase of agribusiness				
	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
1.Installation of UBS																	
2. Seed production																	
3. Identification of producers and establishment of contracts																	
4. Support to local producers																	

32. Project for Tea Industry Revitalization

Priority Site	Phase-1: Transitional phase of fixed cultivation							Phase-2: Growth phase of agricultural					Phase-3: Expansion phase of agribusiness				
	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
1: Accessible financing mechanism is established. Gurue																	
2: Aged tea trees are being replaced by quality seedlings.																	
3: Tea out-grower scheme is operational and expanding.																	
4: Research results and extension services are available for out-growers.																	

CHAPTER 4 PLANNING QUICK IMPACT PROJECTS

4.1 Formulation of Quick Impact Projects (QIPs) for the Target Area

4.1.1 Definition and Types of QIPs

Quick Impact Projects are defined as projects that will produce visible impacts/outcomes in the short-term, [1] for which impacts and outcomes include improved productivity and increased income of beneficiaries, introduction and promotion of improved agricultural technologies such as quality seed, fertilizers, agricultural machinery, and post-harvest technologies, and the construction or rehabilitation of rural infrastructure related to agricultural development. It is expected that QIPs will showcase the potential for agricultural development in the Nacala Corridor, which will attract donors to finance the projects proposed in the Master Plan, and attract local and foreign companies to invest in agricultural and agribusiness projects in the Nacala Corridor. In addition, QIPs will also be formulated to kick-start preparatory activities for cluster development at the specific localities proposed in Chapter 2.3.

(1) QIPs to be carried out through public funding (Public Sector Projects)

As discussed in Section 3.1.3, the priority projects were selected from the list of the master plan component projects, taking into consideration conformity with the development strategy of Phase I of the master plan implementation, the impacts on the regional economy, and the necessity for initiating cluster development in designated areas. Potential QIPs were identified from priority projects in view of the definition for QIPs, as explained above, and the specific criteria discussed in the following section. The QIPs selected from the master plan components will be carried out through public funding due to the nature of those projects, which aim to facilitate agricultural development for local farmers.

(2) QIPs to be carried out as private investment by agribusiness companies (Private Sector Projects)

Although the potential QIPs will be chosen from priority projects proposed in the Master Plan, on-going or planned private initiatives for commercial agricultural/agribusiness investments will be identified as QIP candidates. Those projects are expected to generate impacts on the local economy in the short-term since the foundation of their business operations would have already been established through ongoing private initiatives. Potential private initiatives applicable to QIPs are the agro-processing industry, poultry industry, corporate farms for crop production together with contract-farming arrangements with local farmers, and other agribusiness investments operated or planned in the Nacala Corridor.

[1] It is expected that the QIPs will be completed within 3 years. However, the project period for some QIPs relating to cluster development will be extended to 6 years.

4.1.2 Selection Criteria for QIPs

Even though QIPs will be selected from the list of priority projects as well as on-going private initiatives, there may be projects that will seek to achieve institutional reforms or extensive agricultural infrastructural development, from which a visible direct impact would not be produced in the short-term. Based on the definition of QIP, those projects would not be regarded as QIPs. Taking into consideration these points, the principle criteria for selecting QIPs are set out in Table 4.1.1. Two specific criteria are set for the selection of QIPs in private investments, taking into account the availability of potential financing to start up the project as well as consideration for applying an inclusive approach for the involvement of local farmers in production as business partners. Figure 4.1.1 illustrates the overall procedures for the identification of QIPs.

Table 4.1.1 Selection Criteria for the QIPs

No.	Criteria
1	Producing visible and attractive impacts in the short-term (1~6 years)
2	Simplicity in the formation of the project implementation structure (can easily and quickly be carried out without extensive preparatory work)
3	Level of impact on achieving the development goals in conformity with the zonal development strategy
4	Level of impact on achieving the development goals in conformity with the cluster development strategy
5	Showcases the potential of agricultural/agribusiness development in the Nacala Corridor
6	Availability of financial options for implementing the project (especially for private investments)
7	Level of involvement of small-scale farmers (i.e. introduction of a contract-farming approach in production, especially for private investments)

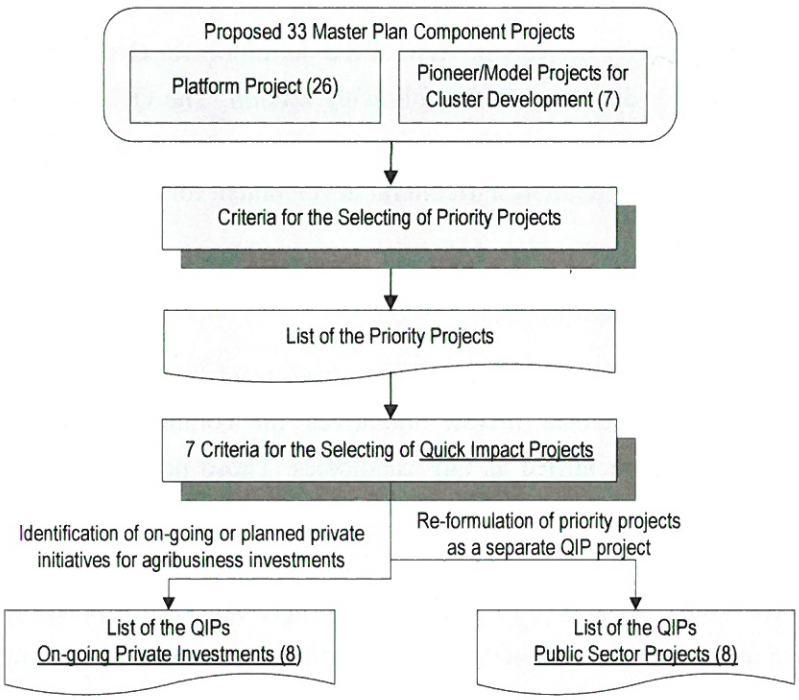


Figure 4.1.1 Procedures for the Selection of the QIPs

4.1.3 Formulation of QIPs

(1) Formulation of QIPs from master plan components (Public Sector Projects)

Following the selection criteria for QIPs presented in Table 4.1.1, priority projects of the Master Plan are further examined to nominate candidates for QIPs, and then re-formulated as separate QIP projects as listed in Table 4.1.2, in consideration of the implementation framework and activity schedule, which could enable them to generate specific visible impacts in the short-term. The potential target sites and beneficiary groups for QIPs are identified according to the zonal and cluster development strategy as well as through a series of consultations with government counterparts at the provincial and district levels.

Detailed project information on each QIP is summarized in the separate Project Information Sheet, shown at end of this sub chapter, including: i) a summary of the project; ii) the project site and target groups/beneficiaries; iii) the main outputs (products or services); iv) an activity schedule and its implementation structure; v) estimated project costs; and vi) the expected impacts or benefits for the target groups as well as the local economy/communities. In addition, the results of the pre-screening for environmental and social aspects are presented in each sheet in view of the application of the strategic environmental assessment.

Table 4.1.2 List of the QIPs (Public Sector Projects)

No.	Project Name	Project Site	Zone
1	Land registration for small scale and medium scale farmers	- Meplacha and Macoropa in Cuamba - Chimbonila in Lichinga District - Nintulo in Gurue District - Luelele in Mandimba District	V VI V V
2	Road improvements for marketing	- Gurue and Ngauma Districts	V
3	Promotion of quality seed production at the regional level	- IIAM North East Centre in Nampula (venue of the training) - Seed farms of the leading local seed growers (seed production site)	III V VI
4	Promotion of vegetable production with small pump irrigation	- i) Monapo, ii) Meconta, iii) Ribaue or Malema and iv) Mandimba	I/II/ III/V
5	Renewal of cashew trees	- Meconta, Monapo, Muecate, Nampula	I/II
6	Planning of land reserves for medium and large scale investment	- Iapala, Ribaue District	III
7	Model project for family food production cluster development	- Malema District	III
8	Development of agricultural special economic zone (SEZ)	- Cuamba District	V

(2) Identification of QIPs from On-going and Planned Private Initiatives (Private Sector Projects)

As explained in Chapter 4.1.1, on-going or planned commercial agricultural/agribusiness investments by existing private companies in the Nacala Corridor are also considered candidates for QIPs. Through interviews with several agribusinesses as well as the revisiting of the proposals submitted to the ProSAVANA Development Initiative Fund in October 2012, a number of specific fast-track business opportunities have been identified, each one of them could be initiated in the next few years if affordable financing is available. The proposed

projects could be operated on a commercially sustainable basis with significant benefits for local farmers as well as the local economy since most projects plan to adopt contract farming arrangements with small-scale farmers in the production of crops. Table 4.1.3 summarizes the identified QIPs to be carried out through private investment. Detailed information for each project is presented in the Project Information Sheet shown in the following pages, while a summary and evaluation of the business models of the proposed QIPs by private businesses are compiled in Table 4.1.4.

Table 4.1.3 List of the QIPs (Private Sector Projects)

No.	Project Name	Project Site	Zone
1	The expansion of poultry business	- Lichinga	VI
2	Promotion of the out-grower scheme for soybean production	- Lichinga	VI
3	Development of a cassava processing factory and promotion of contract-farming with small-scale farmers for the production of cassava and other crops	- Lioma Plain (either in Malema, Cuamba or Gurue districts).	III/V
4	Promotion of an out-grower scheme for soybean production	- Lioma, Gurue District	V
5	Promotion of seed production by out-growers under contract-farming arrangements	- Ribaue District - Mecubri Districts	III I
6	Tea industry revitalization project: promotion of the out-grower model for tea production	- Gurue District	IV
7	Promotion of contract-farming for crop production with smallholders	- Meconta (Namialo) District - Ribaue (Iapala) District	II III
8	Establishment of a mill for poultry feed and flour production (by the Cooperative)	- Cuamba District	V

1. QIP (Public Sector Projects) Project Information Sheet

Quick Impact Projects (Public Funding)

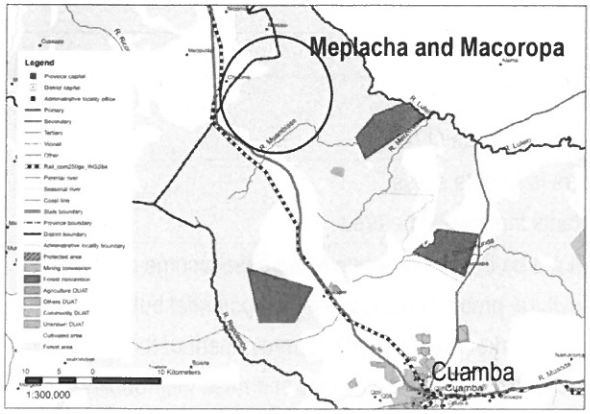
Project Title: (1) Land Registration of the Small Scale and Medium Scale Farmers	
1. Project Site	Selecting 4 locations in 4 districts based on the following 2 goals (20,000 ha in total) - Around Meplacha and Macoropa in Cuamba, and Chimbonila in Lichinga for mitigating land conflicts among farmers (The area of each site is supposed to be 5,000 ha) - Nintulo in Gurue and Luelele in Mandimba for mitigating land conflicts between farmers and investors (The area of each site will be around 5,000 ha) The area of each project site is decided by the experience of MCA project and a preparatory survey of the project.
2. Target Group/Beneficiaries	- Small and medium scale farmers who want to apply DUAT in the target area
3. Project Summary	Registration of the land title (DUAT) to small and medium scale farmers for the following purposes. - Mitigate the insecurity and fragility of small farms (small scale farmer) and ensure the rights related to the use of the land and possession of the properties on the land. - Promote intensive cultivation to small scale farmers. - Facilitate the identification of areas for the promotion of agriculture by large farmers, private companies and medium scale farmers with leading experience (initial phase of the transition to an intensive agriculture)
4. Justification (Conformity with the zoning/cluster development strategy, etc.)	- The purpose of the project conforms with the policy of phase I, expanding fixed cultivation. - The project contributes to mitigate land conflicts between farmers and investors and among farmers themselves. - The project for the registration of DUAT to small and medium scale farmers has been and will be implemented by MCA until August 2013. This QIP is expected to be implemented smoothly by using know how and human resources accumulated through the MCA project.
5. Implementation Structure (Partners, Project implementation arrangement, Staffing, etc.)	- Donor: 1 project manager - Counterpart agencies: SPGC in each DPA, SDAE of the target area - Partners: DNTF (Central Government), MCA and its consultant companies, FAO - Implementation arrangement: The preparatory survey is implemented by a project manager and local consultants with participation of SPGC of each province. Registration of land title is implemented by the local consultants in each province. The project manager supervises the progress of the project and has responsibility for the outcomes. SPGC of each province is well involved throughout of the process.
6. Main Products or Services	- Registration of land title (DUAT) to small and medium scale farmers in the target area. - Compiling methodologies to strengthen the implementation bodies to provide DUAT for small and medium scale farmers.
7. Project Activities	1. Preparatory survey and planning 1-1. Review of the relevant information (Outcomes of PD (Database of DUAT and master plan), PDUT, Land tenure activities by Millennium Challenge Account, etc.) 1-2. Consultation with DNTF and relevant donors (MCA, FAO, etc.) 1-3. Preparatory field survey of the target area 1-4. Making activity plan

	2. Provision of land title (DUAT) 2-1. Making an inventory and distribution map of land users (ProSAVANA-PD prepare the land cover and land use map with concession and DUAT information based on the map and information by DNTF and CENACARTA) 2-2. Community consultations, formation processes and consolidation for each DUAT 2-3. Support for application for DUAT by farmers 3. Strengthening the implementation bodies 3-1 Providing necessary software and tools for the activities 3-2. Update the know-how of registration of DUAT (making a kind of manual) 3-3. Strengthening the implementation bodies (SPGC of each DPA)
8. Project Cost	Total Project Cost (MT) : 13,248,900 MT 1) Operational cost (salaries, consumables, contract with partner organization, etc.): 12,618,000 MT 2) Other cost: 630,900 MT
9. 1) Expected Impacts or Benefits **2) Indicators**	1) Expected impacts: Dissemination of intensive cultivation to small and medium scale farmers 2) Indicators - Registration of DUAT for all of the small and medium scale farmers who want to apply in the target area - Updated know-how of registration of DUAT - The know-how is accumulated in SPGC of each DPA.
10. Environmental and Social Consideration (Summary of EIA pre-screening)	- Concerns related to Site selection: Yes; Beneficiary targeting: Yes - Supposed environmental category: C or less (Need for EIA: No need) - Mitigation measures: None - Recommendations for monitoring and/or compensation: None
11. Other Information (Preconditions such as required public infrastructure, etc.)	- The project for registration of land title for small and medium scale farmers funded by MCA will be terminated in August 2013. - DNTF is proposing FAO to succeed the project from MCA. MCA also plans that they will continue implementing the project, if they succeed in gaining the budget. - Fixed cultivation model is demonstrated through PR8 (Model project for development of leading farmers) - (As the reference information) The MCA consultant takes two months to provide DUAT to 627 farmers in 1300 ha (the whole process from making inventory of local farmers to the completion of the DUAT application (DUAT approved by the government))

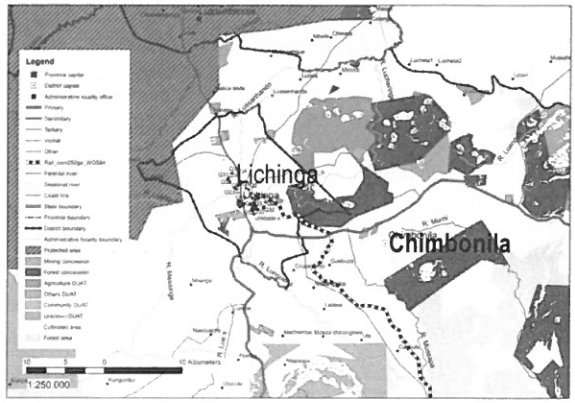
12. Project Implementation Plan (Plan of Operation)

- The first year: Preparatory survey (for 2 months)
- The second and third year: Registration of land title at 4 locations
- Strengthening the implementation bodies will be implemented for three years.

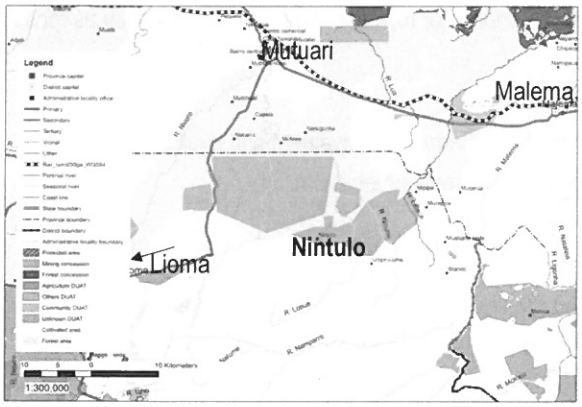
13. Map of the project site



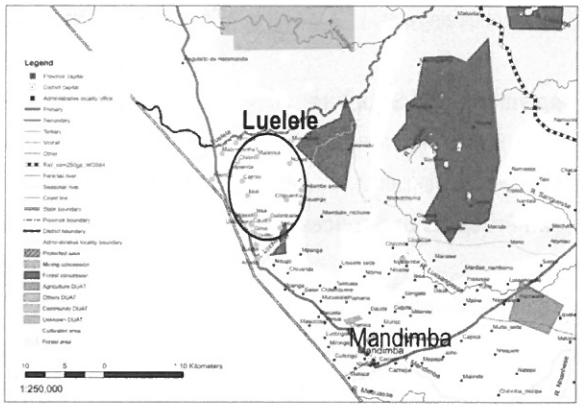
Meplacha and Macoropa



Chimbonila



Nintulo



Luelele

Quick Impact Projects (Public Funding)

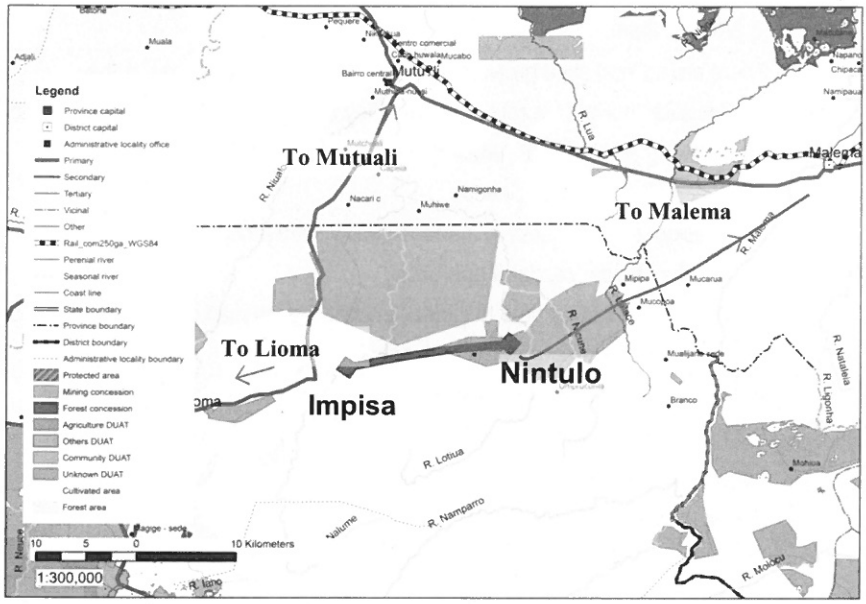
Project Title : (2) Road Improvement for Marketing	
1. Project Site	- Gurue district, Impisa to Nintulo (19km) - N'Guama districts, Matamanba to Tota (17km)
2. Target Group/Beneficiaries	- Direct Beneficiary : Farmers in remote areas - Beneficiary : Rural inhabitants that live in the area
3. Project Summary	- Road connected to market will be improved aiming to increase income of farmers. The project site is an agricultural production area with high potential but is not used efficiently due to lack of good market access. By the improvement of the roads, local inhabitants will also get good access to social services and raise their quality of life.
4. Justification (Conformity with the zoning/cluster development strategy, etc.)	- The aim of the project conforms with the strategy for vegetable production by increasing income for farmers. - The project corresponds to the priority for road improvement strategy such as roads to increase market access.
5. Implementation Structure (Partners, Project implementation arrangement, Staffing, etc.)	- Coordination Body : DPA - Implementation Unit: SDAE + NGO (farmers involvement and evaluation survey) - Support Structure : ANE (road design and supervision)
6. Main Products or Services	- Road Improvement of 36 km - Increasing of Farmer's income.
7. Project Activities	- To construct the paved road (36 km) to high agricultural production sites. - To organize several workshops (W/S) to involve farmers in the development +1st W/S to disseminate outline of road construction work and its purpose. +2nd W/S to discuss how to participate and contribute to the construction works. +3rd W/S to prepare PO to use the road effectively in order to improve their income. (Marketing, mass transporting, change of crop etc.) + 4th W/S to monitor the activities. + 5th W/S to evaluate their own activity by themselves. - To conduct baseline and evaluation surveys for impact estimation.
8. Project Cost	Total Project Cost (MT) : 16,415,400 MT 1) Construction, equipment and material cost: 15,174,900 MT 2) Operational cost (salaries, consumables, contract with partner organization, etc.): 1,240,500 MT 3) Other cost
9. 1) Expected Impacts or Benefits **2) Indicators**	- Increasing farmer's income by reducing cost for hauling, post harvesting and purchasing material, increasing selling price and type of crops with good market appeal.
10. Environmental and Social Consideration (Summary of EIA pre-screening)	- Concerns related to Site selection: Yes; Beneficiary targeting: None - Supposed environmental category: A (Need for EIA: Full environmental impact study) - Mitigation measures: Route planning, Road structural design, Work methods, Awareness campaign - Recommendations for monitoring and/or compensation: Yes
11. Other Information (Preconditions such as required public infrastructure, etc.)	-

12. Project Implementation Plan (Plan of Operation)

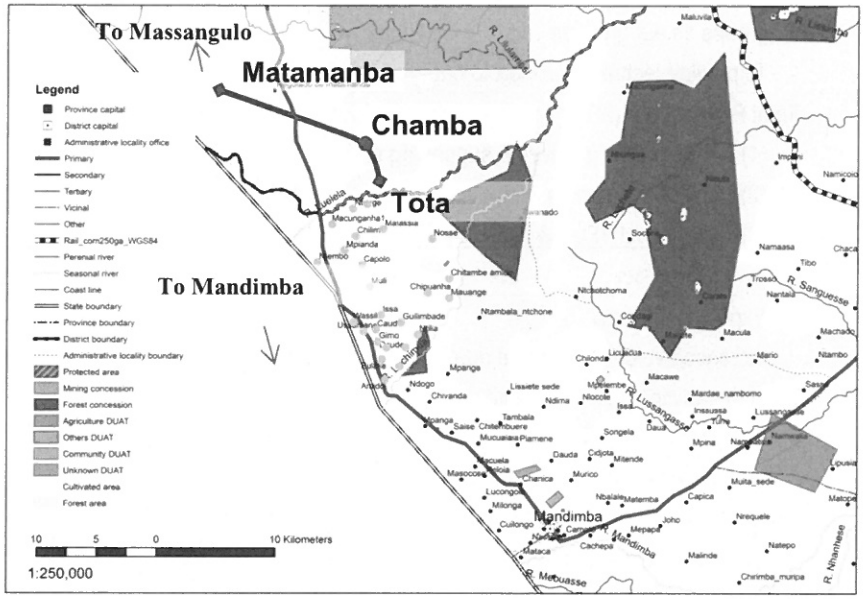
No	Project Activity	2014	2015	2016
1	Preparation of the design			
2	Tender for construction works			
3	Construction Works			
4	Farmers' Workshops			
5	Monitoring & Evaluation (including baseline survey)			

13. Map of the project site

1. Gurue : Impisa to Nintulo (19km)



2. N'Gauma: Matamanba to Tota (17km)



Quick Impact Project (Public Funding)

Project Title: (3) Promotion of quality seed production at the regional level	
1. Project Site	- IIAM North East Center in Nampula (training) - Seed farms of local seed growers mainly in Zone III, V and VI (seed production)
2. Target Group/Beneficiaries	- Direct beneficiaries: Local seed growers who have experience in the seed business. - Indirect beneficiaries: General farmers
3. Project Summary	- Only a few farmers use quality seeds in Mozambique, as well as in the ProSAVANA area. They usually use seeds that they have produced themselves or exchanged/purchased seeds from neighbors. In order to improve accessibility to quality seeds with affordable price to farmers, local seed growers shall be empowered to produce them.
4. Justification (Conformity with the zoning/cluster development strategy, etc.)	- There are several seed growers that have started their business at the provincial/district level in recent years. They don't get systematic support to address the following problems for running their business. (1) Lack of reliable basic seeds (2) Lack of technical staff to manage quality seed production (3) Lack of funds (capital & operation) This project shall contribute to increase quality seeds marketed at affordable prices to farmers through empowerment of the seed growers.
5. Implementation Structure (Partners, Project implementation arrangement, Staffing, etc.)	- IIAM North East Centre in Nampula (training and provision of basic seeds) - SDAEs (providing support services to seed growers and their out-growers) - Local seed growers and their out-growers (seed production)
6. Main Products or Services	- Seeds (maize and beans/pulses)
7. Project Activities	- To train technical staff of leading local seed growers and extension workers in SDAE - To implement priority distribution of basic seed at a reasonable cost to seed growers whose technical staff participated in the training - To introduce the seed growers to an available credit schemes to organize farmers' groups as out-growers - To provide technical support to out-growers
8. Project Cost	Total Project Cost (MT) : (1) Training fee (trainers & supporting staff): 746,400 (2) Training materials & inputs : 499,700 (3) Other cost: (Fuel & Basic seeds): 918,000 Total costs: 2,164,100
9. 1) Expected Impacts or Benefits **2) Indicators**	- Expected impacts Increased volume of market quality seeds produced by seed growers whose technical staff participated in the training - Indicators (1) Volume of seeds produced by the seed growers (2) Percentage of quality seeds in the total produced seeds
10. Environmental and Social Consideration	- Concerns related to Site selection: None; Beneficiary targeting: Yes - Supposed environmental category: C or less (Need for EIA: No need) - Mitigation measures: None

	- Recommendations for monitoring and/or compensation: None
11. Other Information (Preconditions such as required public infrastructure, etc.)	- ProSAVANA-PI has a research strategy to improve a basic seed production system for IIAM North East Centre in Nampula.

12. Project Implementation Plan (Plan of Operation)

No	Project Activity	2014	2015	2016
1	Preparation of the training	———		
2	Selection of trainees (technical staff of leading local seed growers and respective SDAE extension workers)	—		
3	Training (15 trainees, 3 days x 4 times)	-	- - -	
4	Production of seeds by seed growers			———

Quick Impact Project (Public Funding)

Project Title: (4) Promotion of Vegetable Production with Small Pump Irrigation	
1. Project Site	- Target districts will be set for Zone I, II, III and VI. A project site and target group will be selected in each target district. The candidate target districts are Monapo (Zone I), Meconta (Zone II), Ribaue or Malema (Zone III) and Mandimba (Zone VI).
2. Target Group/Beneficiaries	- Association or Producers' group who are cultivating vegetables and new entrants to irrigation farming are also expected as members of the association/group.
3. Project Summary	- In order to promote vegetable production by small scale farmers in the area nearby large consumption markets, small pump irrigation systems will be promoted to be introduced by farmers as well as improving cultivation technology through concentrative technical extension of vegetable irrigation. Small pumps will be leased to farmers through an association or producer's group and the refinement will be used for increasing the number of pumps in the association/producer's group.
4. Justification (Conformity with the zoning/cluster development strategy, etc.)	- Promotion of vegetable production with irrigation is classified as a priority activity of Zones I, II, III and VI in the Master Plan. - Manual irrigation using watering cans limits farmers' attempts to expand their irrigation plot due to the quantity of labor for watering and the difficulty to bring the water from a long distance away. - Small pump irrigation is considered as a quick and effective measure to expand irrigation area and production of vegetables.
5. Implementation Structure (Partners, Project implementation arrangement, Staffing, etc.)	- DPA to coordinate the implementation of the project, and to procure necessary equipment using the project budget - SDAE to manage leasing pump equipment to farmers, and to provide a subsidized seed distribution program, - Local Partners to support management of SDAE, to carry out field activities such as technical extension and enhancement of the associations as well as monitoring works.
6. Main Products or Services	- Vegetables
7. Project Activities	1. Selection of target associations/producers' groups - *Associations/producers' groups interested in participation in the project are required to submit applications which include a farming program and repayment program.* 2. Support for introducing pumps for small scale farmers - *To provide pump equipment to SDAE. SDAE/NGO will provide pumps to farmers through an association/group. Farmers will repay the expense within 2 years. Recovered expense will be used for purchasing another pump which will be provided to another member of the association/group.* - *There is an option to use a larger pump (4 inch) for shared use with a simple canal network instead of using a potable pump (2~3 inch) individually or by a small group, if the target group so aspires. In this case, the necessary simple canal network will be developed by the farmers.* - *10 pumps and accessories (pipes, joints, etc.) will be provided to each SDAE. (6 each 3 inch pumps and 4 each 4 inch pumps tentatively)* 3. Enhancement of activity of association - *To train leaders and members of the associations/producers' group on management of organization and corrective activity.*

	4. Technical extension on vegetable cultivation and irrigation - *To train farmers on farm management of vegetable and irrigation technology* - *To train farmers on operation and maintenance of pump equipment* 5. Support of marketing activity for association - *To support the associations/producers' group to organize collective marketing among members as well as connecting to market channels*
8. Project Cost	Total Project Cost (MT) : 11,200,112 MT (373,337 USD) 1) Construction, equipment and material cost - Pumps and accessories (24 each 3 inch pumps and 16 each 4 inch pumps including 50m of pipes, joints, etc.) 2,330,080 MT (77,669 USD) 2) Operational cost (salaries, consumables, contract with partner organization, etc.) - Local partners (1 project manager, 1 project officer, 1 monitoring and evaluation staff, 4 senior field staff (technicians) and 4 field staff (extension) for 3 years, including transportation cost) 7,851,840 MT (261,728 USD) 3) Other cost - Contingency cost (10% of total cost) 1,018,192 MT (33,940 USD)
9. 1) Expected Impacts or Benefits **2) Indicators**	1) Expected impacts - Expansion of irrigation farming and increase of vegetable production - Increase of farmers' income 2) Indicators - Increase in irrigated area of vegetables, Production of vegetables, farmer's income - Recovery of expense of pump equipment
10. Environmental and Social Consideration (Summary of EIA pre-screening)	- Concerns related to Site selection: Yes; Beneficiary targeting: None - Supposed environmental category: C or less (Need for EIA: No need) - Mitigation measures: None - Recommendations for monitoring and/or compensation: None
11. Other Information (Preconditions such as required public infrastructure, etc.)	Agricultural input: - Subsidized seed of SDAE is expected to be provided by SDAE-DPA. - Fertilizer and fuel for pumps is paid for by farmers.

12. Project Implementation Plan (Plan of Operation)

No.	Project Activity	2014	2015	2016
1.	Selection of target associations/producers' group			
2.	Support for introducing pumps for small scale farmers - Procurement of equipment and providing to SDAE - Lease contract with farmers - Distribution of pumps			
3.	Enhancement of activity of association - Training on management of organization			
4.	Technical extension on vegetable cultivation and irrigation - Training on operation and maintenance of pump equipment and canals - Training on vegetable cultivation and irrigation practice - Regular visits for technical extension and monitoring			
5.	Support of marketing activity for association - Support to organize collective marketing - Support on marketing activity			
*	Cultivation period of vegetables with small pump irrigation			

13. Map of the project site

14. Model Analysis and Scenario of Promotion of Vegetable Production with Small Pumps

(1) Farming model of vegetable production with small pumps

Acceding to the field survey and interviews with some associations and their members, the following three models were built for analyzing the farming model of vegetable production with small pumps.

Table 1 Farming Models for Vegetable Production with Pumps

Model-1: Individual Farm Management (0.5ha)	Model-2: Individual Farm Management (1ha)	Model-3: Collective Farm Management (6ha)
Association member, managing own vegetable plot individually	Association member, managing own vegetable plot individually	Association which produces vegetable by collective work
Member of association which produces vegetables (Monapo district), where each member manages his/her own vegetable plot individually while collective work in procurement of agricultural input and selling of product are organized by the association. The association was established in 2011.	Member of association which produces vegetables (Meconta District), where each member manages his/her own vegetable plot individually while collective work in procurement of agricultural input and selling of product are organized by the association. The association was established in 2007.	The association produces vegetables at its farming plot by collective work. The collective work of procurement of agricultural input and selling of product are organized by the association as well. (Monapo district) The association was established in 2010.
Cultivating 2~3 ha of subsistence crop (cassava and maize) and 0.2ha of cash crop (vegetables) with irrigation.	Cultivating 5~6 ha of subsistence crop (cassava and maize) and 0.4ha of cash crop (vegetables) with irrigation.	Collective farming by the association covers 2ha of vegetables, 2ha of maize and 1ha of rice. Apart from the collective farming, each member cultivates his/her own farmland individually, 4~6ha in average, and produces cassava, peanuts, beans, sorghum and sesame.
Family labor 2 persons	Family labor 3 persons and employ 2 seasonal workers	The number of members who participate in vegetable production is 21, of which 7 are women members.

Major commercial products are tomato, onion, cabbage, kale, carrot, garlic and pepper. Produced vegetables are sold in the field to a trader or sold at the local market of Namialo by the farmers. Transpiration means is bicycle.	Major commercial products are onion, tomato, cabbage, lettuce kale and carrot. Produced vegetables are sold in the local market of Namialo as well as contract sales with a health center. Transpiration means is bicycle.	Major commercial products are onion, cabbage, garlic, lettuce. Major parts of produced vegetables are sold in the field to a trader, while some of them are sold in the local market of Namialo.
Manual irrigation with watering can is applied to vegetable plot.	Manual irrigation with watering can is applied to vegetable plot.	Manual irrigation with watering can is applied to vegetable plot.
By introducing pump irrigation with 2 inch pump, it is expected to increase vegetable plot from 0.2ha to 0.5ha.	By introducing pump irrigation with 3 inch pump, it is expected to increase vegetable plot from 0.4ha to 1.0ha.	By introducing pump irrigation with one 4 inch pump and one 3 inch pump, it is expected to increase vegetable plot from 2ha to 6ha.
Expected water source is the Monapo river and there is enough water throughout the year.	Expected water source is small river and spring water, which can be used throughout the year. It may be necessary to improve the intake, which can be executed by the association.	Expected water source is small river which can be used throughout the year.
The pump will be used individually and possibly lent to neighboring farmers when the pump is available.	The pump will be used individually and possibly lent to neighboring farmers when the pump is available.	The pump will be used collectively for the collective farm of the association.

(2) Model analysis of vegetable production with small pumps

A cost-benefit calculation was made for vegetable production during the project period based on the Balance Sheet of Promising Crops described in the Report on Drawing of Overall Picture of Development Plan (Draft). As a result of the analysis, the annual net profit from vegetable production is expected to increase from 31,179MT at present to 195,012MT after the project for Model-1, from 62,358MT to 396,117MT for Model-2, and 311,788MT to 2,375,098MT for Model-3. While there is an increase in net profit, the necessary farming fund for a year is also to increase from 9,632 MT at present to 59,767 MT after the project for Model-1, from 19,264MT to 119,534MT for Model-2 and from 96,320 to 717,204MT for Model-3, due to expansion of the irrigation area and increase of agricultural input. The necessary farming fund shall be kept from the income from the previous crop season in the farm management, however, it shall be considered that FDD or any other funding scheme will help for the initial stage of the introduction and expansion of pump irrigation.

Table 2 Annual net profit from vegetable production of model farmer/association

(MTs for 2 crops)

Years	Present	Project Period			After Project (2017~2023)
		2014	2015	2016	
Model-1: Individual farm management (0.5ha)	31,179	36,879	119,445	179,777	195,012
Model-2: Individual farm management (1ha)	62,358	76,805	260,219	380,882	396,117
Model-3: Collective farm management (6ha)	311,788	380,175	1,475,250	2,279,673	2,375,098

Table 3 Annual farming fund for vegetable production of model farmer/association

(MTs for 2 crops)

Years	Present	Project Period			After Project (2017~2023)
		2014	2015	2016	
Model-1: Individual farm management (0.5ha)	9,632	16,769	41,837	59,767	59,767
Model-2: Individual farm management (1ha)	19,264	33,539	83,674	119,534	119,534
Model-3: Collective farm management (6ha)	96,320	167,694	478,136	717,204	717,204

(3) Scenario of Promotion of Vegetable Production with Small Pump Project

Major assumptions for the scenario of the Project are set as shown below:

- Taking into account the necessary period for selection of the target group/association, procurement of equipment and training of farmers, the pump equipment is scheduled to be deployed at the site before June and will start to be used for the 2nd crop of 2014.
- Participating farmers/associations are to repay the cost of equipment within 2 years after deployment of the pumps. The repayment fund is to be used for procuring new pumps for other participants of the same group/association.
- A 3" pump is able to cover 2 ha of vegetable plot in maximum (with the assumption of 5.5 PS of power, 20 m of vertical drop and 50m of conveyance length). The pump will be used individually, approximately 1 ha per family, and possibly lent to neighboring farmers when the pump is available. Thus, it is assumed to cover 1~2 ha per pump.
- A 4" pump is able to cover 4 ha of vegetable plot in maximum (with assumption of 7.5 PS of power, 20 m of vertical drop and 50m of conveyance length). The pump is expected to be used for collective farming of the association.

A total of 10 pumps are proposed to deploy at SDAE in each target district and be leased to farmers/associations at the beginning of the Project. The number of pumps is expected to increase to 15 at the end of project period (2016) and the increase in the number of pumps is expected to continue after the project period. After 10 years from starting the Project (2023), 50 pumps are expected to be in use, which will cover 110~140 ha, in each target district. Direct beneficiaries are expected to be 90 families for individual users as well as 20 collective irrigation groups, of which beneficiaries are 200 families under the assumption of 10 members for each group. Besides the above direct beneficiaries, though establishing a model vegetable producers' group with small pump irrigation, existing and potential vegetable producers in the district will receive indirect benefits such as obtaining improved cultivation technique and increasing motivation for vegetable production.

Table 4 Expected number of pumps, irrigation area and direct beneficiaries by district

Year	Project Period			After Project						
	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
No. of 3" pumps	6	6	9	12	15	18	21	24	27	30
No. of 4" pumps	4	4	6	8	10	12	14	16	18	20
Total number of pumps	10	10	15	20	25	30	35	40	45	50
Irrigation area in minimum (ha)	22	22	33	44	55	66	77	88	99	110
Irrigation area in maximum (ha)	28	28	42	56	70	84	98	112	126	140
Number of beneficiaries (families)										
Individual use in maximum (including borrowers of pump)	18	18	27	36	45	54	63	72	81	90
Collective use (number of groups/associations)	4	4	6	8	10	12	14	16	18	20

Quick Impact Project (Public Funding)

Project Title: (5) Renewal of Cashew Trees	
1. Project Site	- Monapo and Muecate Districts (Zone I), Meconta and Nampula District (Zone II)
2. Target Group/Beneficiaries	- Cashew farmers
3. Project Summary	- In Mozambique, cashew production recently has been decreased to 1/3 of the peak of 200,000 tons, and Nampula province alone has about 40 % of the production share. One of major reasons for the production decrease is disease infection. So, the replacement of infected cashew trees is an urgent issue to recover the cashew production. But, the replacement of the trees causes an income decrease until the new trees start full production. Replacement cost, such as cutting trees, land clearance, and transportation of seedlings is another burden to farmers. In some districts, NGO and the private sector support seedling distribution, but this is not a permanent activity, and coverage of support is limited. - A purpose of this QIP is to accelerate cashew tree replacement with proper timing in the priority areas of Zone I and II.
4. Justification (Conformity with the zoning/cluster development strategy, etc.)	- Conforms with QIP selection criteria "Promotion of special crops in certain areas or zones" - Cashew nut industry is an important industry in Nampula province. - Capacity of IIAM implementing this project has not been confirmed.
5. Implementation Structure (Partners, Project implementation arrangement, Staffing, etc.)	- INCAJU has the initiative to implement the project. - IIAM provides technical support on inter-cropping. - SDAE supports implementation of the project.
6. Main Products or Services	- Cashew tree with inter-cropping model is developed and demonstrated. - Replacement of cashew trees is promoted by the demonstration.
7. Project Activities	- To select priority farmer groups. - To train cashew farmers about inter-cropping and maintenance of cashew trees. - To distribute cashew seedlings.
8. Project Cost	Total Project Cost (MT) : 5,607,360 MT 1) Operational cost: 5,097,600 MT 2) Other cost: 509,760 MT
9. 1) Expected Impacts or Benefits **2) Indicators**	1) NPV of 30-year cash flow is estimated at 840,400,000MT. 2) Cashew tree seedlings are distributed in proper timing. Number of distributed cashew tree seedlings.
10. Environmental and Social Consideration (Summary of EIA pre-screening)	- Concerns related to Site selection: None; Beneficiary targeting: Yes - Supposed environmental category: C or less (Need for EIA: No need) - Mitigation measures: None - Recommendations for monitoring and/or compensation: None
11. Other Information (Preconditions such as required public infrastructure, etc.)	- According to INCAJU PO, 535,000 seedlings (to cover about 500 ha) will be distributed in ProSAVANA PD target area in 2013, and it will continue every year. - GIZ will support similar activity in 2013 and 2014. - Existing criteria for selection of producer groups, and distribution procedures are applied for this project.

12. Project Implementation Plan (Plan of Operation)

	2014												2015												2016												2017											
	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12
1 Formulating an implementation plan																																															
2Arrangement of transportation and disttribution equipment																																															
3 Distribution of cashew tree seedlings to the target farmer group																																															
4 Training and demonstration for disease control																																															

13. Map of the project site

Quick Impact Project (Public Funding)

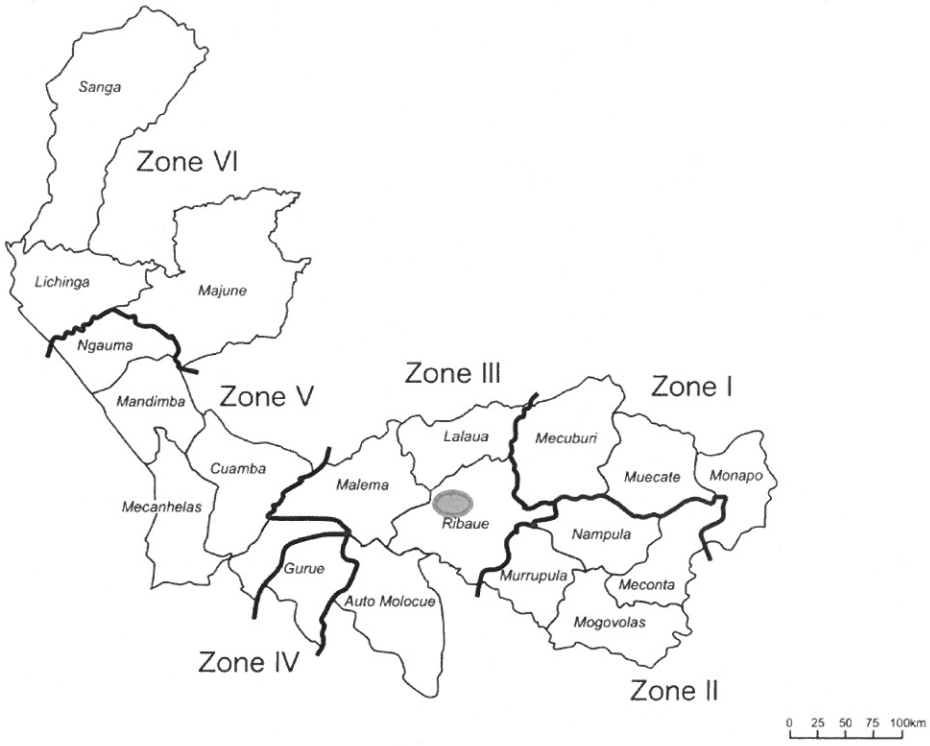
Project Title: (6) Planning of Land Reserve for Medium and Large Scale Investment	
1. Project Site	Iapala, Ribaue District (Zone III), (10,000 Ha of land for land reserve)
2. Target Group/Beneficiaries	- DPA/SPCG, Provincial Government, SDAE - Interested investors
3. Project Summary	- To develop sustainable land reserve planning for certain areas - indicated as available, as a result of a zoning map made by the Nampula Province SPCG, through: the concept of a basic project to divide the area (500~900 ha); and the development of a data base of land and information. The objective is to assist interested investors and to guide investments in accordance with public polices of the province and the central government
4. Justification (Conformity with the zoning/cluster development strategy, etc.)	- Provide basis for sustainable land reserve planning by companies and/or producers of medium and large scale, in accordance with the zoning of the area and suitability - Introduction of technologies, producing a positive impact on the local agriculture; - Ensure a mechanism for large scale production, aimed to guarantee food security; - Provide raw material in proper quantity and quality for the domestic and international agribusiness; - Promote a non-shifting cultivation system; - To facilitate and support the establishment of clusters.
5. Implementation Structure (Partners, Project implementation arrangement, Staffing, etc.)	1st year and 2nd year - **Local partner** to delimit available land, considering overlaps, demarcation of reserves, forestry and others; - **IIAM Laboratory** to perform soil studies (classification and information regarding the agrarian use); - **Local Accredited Consulting firm** to conduct the Environmental Impact Assessment, - **Consulting company** to create a database with information and available land; to propose land use plan in accordance with the RAI principles, including natural reservation areas and road system; 3rd year - **Consulting company** to develop a management tool for the sustainable land use of the areas; a mechanism that will be integrated into the activities of the Provincial Government /DPA.
6. Main Products or Services	- Map of the area available for medium and large scale investments, composed based on information regarding agriculture, soil and climate, and soil/relief suitability; - Data bank of land and information; - Management tool for the sustainable land use.
7. Project Activities	Fieldwork: a) Community consultations, delimitation and subdivision of the areas, and registration of the land title (DUAT) for local farmers living in the land reserve area (it takes 1 month for each 5,000 ha); b) Collection of soil samples for studies (classification and information regarding its use for agriculture); - Office Work: a) Environmental Impact Assessment of each area;

	b) Preparation of maps of land use and reserve: - Agriculture-soil-climate zoning; - Land use suitability, and - Environmental sustainability. c) Establish a criteria for the subdivision of areas; d) Create a Land and Information Data Bank to support interested investors.
8. Project Cost	Total Project Cost (MT) : 2,400,000 MT (USD 80,000) 1) Field work: Local consultant: 600,000 MT (8 months) (USD 20,000) 2) Office work: Local consultant: 900,000 MT (1 year) (USD 30,000) GIS expert: 900,000 MT (1 year) (USD 30,000)
9. 1) Expected Impacts or Benefits **2) Indicators**	1) Expected impacts and benefits - Increase sustainable and environmentally responsible production; - Increase the number of large and medium size investors in the region; - Consolidate the region as an important agricultural belt of the country; - Accelerate and monitor Investment Projects; - Introduction of intensive (mechanized) agriculture 2) Indicators - Areas used for agricultural production; - Number of investors and their using land - Planted area of each crop
10. Environmental and Social Consideration (Summary of EIA pre-screening)	- Concerns related to Site selection: Yes; Beneficiary targeting: None - Supposed environmental category: B (Need for EIA: Simplified environmental report) - Mitigation measures: Scrutiny of "availability" of lands, Environmental baseline survey at IEE level - Recommendations for monitoring and/or compensation: None
11. Other Information (Preconditions such as required public infrastructure, etc.)	

12. Project Implementation Plan

PR-23 Project of Planning of Occupation Land for Investment Medium and Large Scale		Phase-1: Transitional phase of fixws cultivation						
Related Project	Priority Site	2014	2015	2016	2017	2018	2019	2020
1. To delimit available land, considering overlaps demarcation of reserves, forestry and others;								
1-1. Community consultations, delimitation and subdivision of the areas	Province of Nampula (Mecuburi, Ribaue, Murrupula, Lalaua, Malema Districts)							
2. To perform soil studies (classification and definition of the agrarian use);								
2-1. Collection of soil samples for studies (classification and definition of its use for agriculture);	Same							
3- To develop the Project of the Planning of Land Occupation								
3-1. Environmental Impact Assessment	Same							
3-2. Preparation of maps of land occupation, harmonizing:	Same							
3-3-1. Agriculture-soil-climate zoning	Same							
3-3-2. Land use suitability	Same							
3-3-3. Environmental sustainability.	Same							
3-3. Establish a criteria for the subdivision of areas	Same							
4. Create a Land and Information Data Bank to support interested investors.								
4-1. Land and Information Data Bank	Same							
5. develop a management tool of the sustainable occupation of areas; a mechanism that will be integrated with activities of the Provincial Government / DPA.								
5-1. Management tool of the sustainable occupation	Same							

13. Map of the project site



Quick Impact Project (Public Funding)

Project title: Model Project for Family Food Production Cluster Development	
1. Project Site	- Malema district. Areas located close to Cuamba city - Total crop production area: 5,000 ha. - Total area of cassava production: 2,000 ha. - Area of industrial facilities: 20 ha. - In each association about 200 families will be gathered. The goal is to establish 5 associations
2. Target Group/ Beneficiaries	- Direct beneficiaries: Family farmers, small rural communities and local population organized into associations of producers, centers, collectives and other associative forms. - Indirect beneficiaries: Families in situation of food and nutritional insecurity
3. Project Summary	- In order to improve the living conditions in the District of Malema and promote the development of the region, improvements will be proposed on the conditions of local agricultural activities, with the consequent increase of production and income. The associations that produce food based on family farming will be strengthened and a cassava processing agroindustry will be built that will create jobs and will absorb local manpower and add value to production. In order to achieve that, it will be necessary for investors interested to finance the establishment of the industry. The Internal Rate of Return is 33.61% and it has a nine year Payback, if the investor uses 100% of its own capital. - Each producing association should be address about 200 families. - Total crop production area: 5,000 ha. - Area of industrial facilities: 20 ha - The region is located near the town of Cuamba, which offers logistical advantages regarding the distribution of the production and transportation. - The region presents low social and environmental vulnerability, and has excellent conditions to receive a pioneer project which will require the opening of areas. It was verified that the District has good hydric conditions and soil types for the development of irrigated agriculture. - The first year, the Association number 1, is expected to be composed of 50 families, doubling that number in the second year and filling it out completely in the third year. The other associations will be included in the cluster one at a time in the subsequent years. - This initial model considers working directly with communities of rural family farmers; however it can also benefit resettled families or farmers in search of better opportunities and living conditions. - It will encourage the establishment of associations and the registration of producer organizations by means of technical assistance, monitoring and contractual links with companies of the region. - The establishment and strengthening of agricultural associations formed by small farmers increases their bargaining power, access to inputs, machinery and rural credits, enabling the socioeconomic development of those involved through the establishment of a management structure for the development of small-scale agricultural activities. - The relationship between the processing of cassava industry and agricultural producers will be through contract farming, preferably through one or more legal entities (associations).
4. Agricultural technological package	- Each family will be responsible for the cultivation of 5 ha, where cassava should be planted to supply the industry. - For the dwelling and common areas of the community, a 2,800 square meter area should be established per family, plus 0.5 ha for cultivation and another independent 0.5 ha of forest. So, each family will be responsible for an area of approximately 6.28 ha, to be assigned via DUAT. The communal areas should receive priority for social infrastructure, such as access to water and sanitary services. - The independent area of 0.5 ha could be used by the producers to cultivate crops of

	their choice, cash crops or staple food. - The plan for the first year is to plant cassava inter-cropped with maize between the rows and in the subsequent years other crops should be planted in the rows while maintaining the cassava; in the second year maize will be substituted by ground nuts, and in the third year the rotation culture would be cotton. - Areas likely to receive irrigation will be intended for the cultivation of vegetables more adapted to the region.
5. Justification	- The objective of the cluster establishment is in accordance with the Initiative to improve the productivity of Family Agriculture (Smallholder Agriculture) and Associations of Producers. - Projects of the cluster deployment are part of the Strategies to Extinguish the Shifting Agriculture - The project enables the creation of model associations - The cluster will bring development to the region and improve the living conditions of the local population - To combat poverty and promote socio-economic development of small scale farmers through the strengthening of family agriculture will be implemented, thus encouraging the formation and structure of associations and ensure food and nutritional security. - To increase security and legal representation of associations
6. Targets for phase I (2014-2020)	- Promote the Association of producers and start the cultivation of the crops recommended - Start the installation and expansion of cassava agro-processing - Increase cotton production and improve the quality of the product offered - Increase the production of vegetables to be sold in the Zones
7. Targets for phase II (2021-2025)	- The production center for cash crops and staple food will be developed - Better development and increase in the production of crops - Increase the trade in cash crops
8. Targets for phase III (2026-2030)	- The supply of raw materials for the industry and the industrial processing of cassava will be established - Crop production will be stabilized - The Cluster will have its first chain of values developed.
9. Implementation Structure	- The cluster's development will depend on a series of actions of the public and private sectors, as well as the partnerships between both: - Private investors will be involved in the industry building and establishment of purchase contracts of cassava. - Financial institutions are to provide financing for acquisition of machinery and equipment. - Arrangements will be made between public institutions (IIAM, SDAE and others), private entities and NGOs to provide and/or facilitate the access to inputs (seeds, fertilizers, cuttings and others). - Arrangements will be made between public institutions (IIAM, SDAE and others), private and NGOs to provide extension services and promotion of training of local producers. - Arrangements will be made between public institutions for the provision of basic social infrastructure services.
10. Main Products or Services	- Production of flour and cassava starch. - Job creation and increased family income. - Production of foods such as ground-nuts, maize and vegetables - Cotton production - Establishment of producer´s associations and strengthening of existing ones - Facilitation of the local production flow
11. Project Activities	1)-organizational System: a) Identification and evaluation of existing associations; b) Identification of priority producers to lead the process of forming new associations and/or participation in existing associations; c) Identification of practical actions for the strengthening of associations and development of management tools. d) Promote the Association of producing families.

	e) Training of registered producers for the management of agricultural production; f) Strengthening public systems of rural extension to support in the deployment and development of management structures in the associations, as well as on the dissemination and adoption of agricultural production management systems; g)Involvement of the private sector for the acquisition of cash crops and a surplus of produced food. h) Feasibility of model contracts for purchase and sale of products that include the supply of private extension services and inputs. -Implementation a) the Project must be executed via an institution regularly registered to operate in Mozambique, with experience and proven ability, in partnership with the public assistance systems in order to transfer knowledge; b) The hiring will be in accordance with the rules of the Mozambican Government and all partners involved 2) Processing and Marketing: a) To provide training for the industry's manpower. b) Providing inputs for cassava producers c) Establishment of the cassava processing industry
12. Project Cost	Total cost to implement the project: 1) Producers' organization, training and capacity building of those involved: $ 1,166,400 (34,992,000 MT) over 6 years. 2) Construction, equipment and materials: the total cost for the installation of the industry is 7,840,500 MT, from this a total of MT 7,125,000 will be allocated to purchase machines and equipment, and the remaining 712,500 will be for the construction of improvements such as sheds and warehouses. (Investment by the private sector) The cost during the first six years with the purchase of agricultural machinery such as tractors with harrows will be 7,795,874 Mt. (Investment by associations) 3) Operating cost: the cost of inputs such as fertilizers, pesticides and seeds over six years of cultivation of cassava will be 70,561,471 Mt. (Production costs for 6 years for farmers/ associations) - The cost of hand labor for agricultural cassava activities over six years of cultivation will be 54,578,833 Mt. - The cost of inputs such as fertilizers, pesticides and seeds over six years of cultivation of maize will be 69,322,900 Mt. - The cost of labor for agricultural activities in the culture of maize over six years of cultivation will be of 11,911,458 MT - The cost of inputs such as fertilizers, pesticides and seeds over six years of ground-nut cultivation will be 41,122,838 MT - The cost of hand labor for ground nut agricultural activities over six years of cultivation will be of 22,888,844 MT - The cost of inputs such as fertilizers, pesticides and seeds over six years of cotton cultivation will be 36,450,319 MT - The cost of hand labor for agricultural activities in cotton culture over six years of cultivation will be of 27,793,597 MT - The operating cost of the industry like manpower, water, energy and materials over six years will be 18,255,262 Mt. 4) Total project cost: the total cost of the project over six years will be 374,981,530 MT (U$ 12,499,384).
13. 1) Expected Impacts or Benefits 2) indicators	- Expected impacts: - Combating the practice of shifting agriculture, increase household income, and job creation. - Bring development to the region and improve the living conditions of the local population. - Food production for food security - Start the development of the Family Production Cluster in Malema - Develop a food producer center in the Nacala region - Through associative systems, improve social relations between families. - Indicators:

	- Increase the production of cassava flour and starch production. - Increase the production of cotton, ground nuts, maize and vegetables. - Increase family income - Increase the number and the level of development of associations of agricultural producers
14. Environmental and Social Considerations (Summary of EIA pre-screening)	- Concerns related to Site selection: Yes; Beneficiary targeting: None - Supposed environmental category: A (Need for EIA: Full environmental impact study - Mitigation measures: Factory engineering design, Fair and lawful farming contracts - Recommendations for monitoring and/or compensation: Yes
15. Other Information (Preconditions such as required public infrastructure , etc.)	- The machines will be acquired by the producers' associations and all are responsible for the maintenance and care of the equipment. - Each organization registered in the program shall be responsible for organizing their associated farmers and control the quantity and quality of products to be marketed. - The cultivation within the areas will be the responsibility of each family and their remuneration will be paid according to the volume of the production delivered. - The cassava processing industry should be able to operate as soon as the first roots start to be collected in the field, 12 months after the first planting. - Monitoring and evaluation of the program shall be carried out by extension workers of the District Services of Economic Activities (SDAE) to ensure its smooth progress and effectiveness. - Models of contracts should be developed to be used as a commitment between farmers and the Associations' managers, as well as the elaboration of incentives for members to remain in the program, such as: ➢ Awards for productivity increase, depending on the accuracy of the production delivery and the correct use of inputs; ➢ Periodical surveys as a way to control and observe the income and quality of the production of each Member; ➢ Elaboration of rules related to the use of inputs and farm management practices, as well as rules about the products and ways of marketing, as well as rules regarding coexistence among involved members; ➢ Organization of courses and field days to improve cultivation techniques;

16. Project Implementation Plan (Plan of Operation)

Project Activity	2014	2015	2016	2017	2018	2019
Organizational phase						
Setting the agro-industry						
Cassava processing						
Implementation of Association 1						
Implementation of Association 2						
Implementation of Association 3						
Implementation of Association 4						
Implementation of Association 5						

17 Map of the project site

Quick Impact Project (Public Funding)

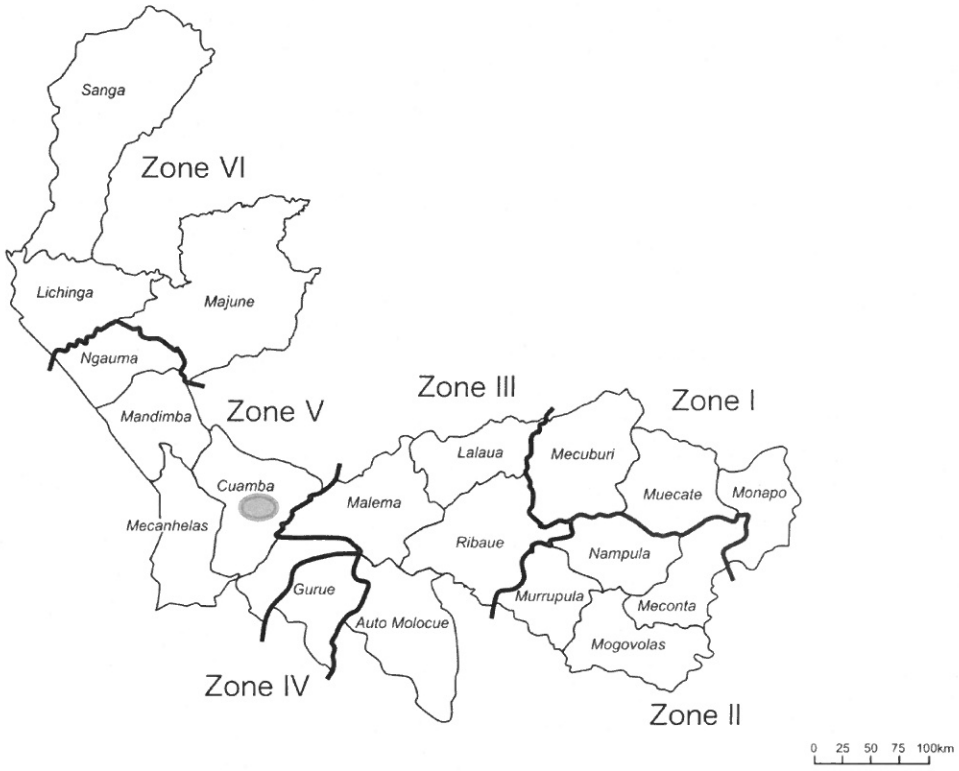
Project title: (8) Development of Agricultural Special Economic Zone	
1. Project Site	- Cuamba, Niassa, area of the development of the Cluster of Logistic and Agricultural Infrastructure of Cuamba
2. Target Group/ Beneficiaries	- Provincial and District Government - Interested investors - Local population - Producers and other parties involved in the agricultural production in the western part of the Nacala corridor
3. Project summary	- The Government of Mozambique has the GAZEDA institution with the objective to manage and if necessary to suggest the establishment of a ZEE (Special Economic Zones) and ZFI (Duty-free Zone of Industrialization) in specific locations, in order to create an environment for the efficiency of value chains. - This project aims to formulate studies: to establish areas or units or series of units of industrial activity, geographically delimited and ruled by a specific custom procedure, where the products that are placed there or that pass through there, which will be used to produce goods for export, are exempt from all customs charges, taxes, parafiscal taxes and can benefit from a specific exchange rate, fiscal and labor system (ZFI); and to establish areas of economic activity, geographically delimited and ruled by a special customs system, where all products that enter there, or are placed there, or pass through there are used as raw material in the production of other goods or leave the national territory, are entirely free of any customs' charges, taxes and parafiscal taxes, and can also benefit from a free exchange rate system and an "off-shore" exchange system. (ZEE) - The establishment of a zone (500 ha) with such benefits in Cuamba, in order to provide an environment to stimulate the attraction of investments in infrastructure and agricultural development support services.
4. Justification (Compliance with the zoning/cluster development strategy, etc.)	- Facilitate and support the establishment of a Cuamba Agricultural Infrastructure Cluster - To establish a specific site with conditions that promote the efficiency of value chains; - Increase the competitiveness of agricultural production, both for export and to substitute for imports; - Opening of new employment opportunities; - To have a secure trade channel for agricultural products to the agribusiness and services;
5. Implementation Structure (Partners, arrangements for project implementation, personnel, etc.)	- Survey of areas (special economic zone) for the suggested Cluster; - To inform and start negotiations with the Government (GAZEDA) on the necessity to establish special areas for the agricultural sector; - To elaborate the Project to Implement a ZEE and ZFI for the Council of Ministers. - Deals for the participation of the private sector regarding the establishment of PPPs (Public Private Partnerships); - Preparation by the Government or by a PPP of the basic infrastructure with the supply of electricity, water, roads and communication by a government institution (including railways); - Providing monitoring services to private companies.
6. Main products or services	- Economically favorable areas to implement the strategy of "Clusters" with infrastructure; - Control and regulation of transactions; - Creating a center to provide services and infrastructure for the development of the agriculture in a strategic location within the Nacala corridor
7. Project Activities	- Zoning areas (special economic zone) for the Cluster; - To elaborate the Project to Implement a ZEE and ZFI for the Council of Ministers. - To prepare the PPP project and support the Government in the bidding for the operationalization of the zone; - To support the Government on the monitoring of the operation of the zones. - Operationalization of the established Zones

8. Project Cost	- Phase of studies and support for the Project to Establish the Special Economic Zone; - Consulting cost of the Project (US $): 829, 440.00 - Stage of Implementation and Operation of the Special Economic Zone of Cuamba; - Cost of ZEE/IFZ (US): to be defined by the Consulting service 1) Improvement of existing infrastructures 2) Strengthening of the tax system 3) Training of technicians 4) Regulation of the commercialization 5) Operating costs (wages, consumable material, GAZEDA's headquarters lease, etc.)
9. 1) Expected Impacts or Benefits **2) Indicators**	1) Promote regional development; - Implementing the strategy of "Clusters"; - Develop an export market related to agribusiness; - Opening of new jobs; - A well developed agricultural-market-industry link. 2) Indicators GDP; export/import; volume of transactions; unemployment index; development of businesses in the region, reduction of cost of production, storage and distribution in agricultural chains.
10. Environmental and Social Considerations (Summary of pre-screening EIA)	- Concerns related to Site selection: Yes; Beneficiary targeting: None - Supposed environmental category: A (Need for EIA: Full environmental impact study - Mitigation measures: Zone delimitation, Infrastructure planning and design, Awareness campaign - Recommendations for monitoring and/or compensation: Yes
11. Other Information (Preconditions such as public infrastructure required, etc.)	- The basic requirements for the installation and operation of a special zone are conditioned to sources of energy and water. - To develop ZEE's in other regions based on the experience acquired with the first consolidated ZEEs.

12. Project Implementation Plan (Plan of Operation)

Project activities	2014	2015	2016	2017	2018
Consulting phase					
Governmental and regulatory arrangements					
Definition of the area and the Establishment of a Special Zone (Constitution and Benefits)					
Construction and Provision of Basic Infrastructure					
Attraction of Investments to the Special Zone					
Establishment of the Structure of Operation and Monitoring of the Special Zone					

13.Map of the project site



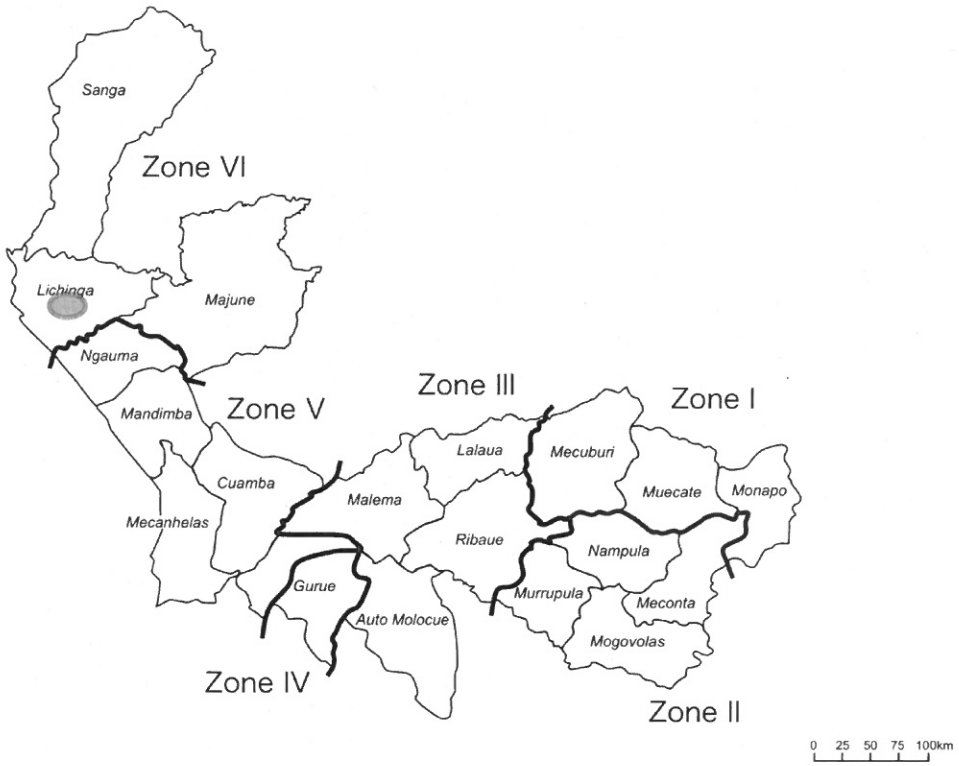
2. QIP (Private Sector Projects)

Quick Impact Project (Private Investment)

Project Title: (1) The Expansion of the Poultry Business	
1. Project Site	- Lichinga District, Niassa Province (Zone VI)
2. Project Summary	- The existing company has produced and sold broiler chickens within the local market in Lichinga. In order to expand the poultry business, the company has invested in the constructing of new broiler sheds and a hatchery installed within their feed mill with the aim of upgrading the broiler production system and establishing a chick and feed processing unit, the products of which will be sold to other small-scale broiler producers in Niassa province and the surrounding area. In addition, the company plans to expand with a macadamia nut farm in order to diversify their business, which will create additional cash flow. - The company is in the process of obtaining 1,000~1,500 Ha of land to grow soybeans for feed production for its own use. Concerning the increased production of soybeans, the company plans to construct a soybean warehouse and drying facility on the newly acquired land. - The company also plans to develop 400 Ha of land for a macadamia nut plantation on the new land.
3. Justification (Market promotion, comparative advantage, etc.)	- The domestic demand for chicken meat is expected to more than triple over the next 10 years, creating opportunities for local poultry industries to supply this demand. - It is necessary to develop vertically integrated production systems for the poultry industry from feed production, breeding, and broiler production to the marketing of products. - Macadamia nuts have a promising market in South Africa. - This integrated production system and the diversification of the poultry business will create more job opportunities for the local population.
4. Project Partners	- Local farmers for soybean production.
5. Main Products or Services	- Soybean for chicken feed: 1,500 tons per year (extra soybean will be sold on the commercial market); - Broiler chicken: 24,000~30,000 broilers per month; - Chicks: 25,000~40,000 chicks per month; - Macadamia nuts: 1,000 tons by 2022 (1,600 tons by 2025 with full production).
6. Project Schedule	(On the new farm land) - 2013: 1) Registration of the new farm land (acquiring of DUAT) for the production of soybean and macadamia nuts; 2) Clearing of 300 Ha of land for soybean production; and 3) Establishment of a nursery for producing macadamia nut tree seedlings; 4) Construction of a warehouse for the soybean. - 2014: 1) Clearing of the remaining land for the production of soybean and macadamia nuts; and 2) Installation of a soybean drying facility. - 2015~: Continuation of soybean and macadamia nut production at the farm. (On the broiler farm) - 2013: 1) Expansion of the broiler sheds and hatchery; 2) Construction of the breeder chicken sheds; and 3) Installation of a feed mill. - 2014~: Expanding of broilers and chick production.
7. Financial Requirements - Investment Value - Required Finance	- Clearing of new farm land (1,000~1,500 Ha) and planting of macadamia nut trees (400 Ha): USD 720,000 - Construction of the broiler sheds and drying facility: USD 400,000 - Procurement of farm equipment and operating costs : USD 180,000 - Procurement of a steam generator and installation costs: USD 180,000 • Total investment value: USD 1.48 million (44.4 million MT) - A mid/long-term loan with low interest rates will be required for this investment.
8. Financial Viability	- IRR 18%
9. Required Infrastructure	- Improvement of access road conditions for the farm. - Extension of electricity distribution lines to the farm.

10. Economic and Social Impacts to Local Economy	- The project will create employment opportunities for the local population. (Existing farm) • Poultry sector: 50 permanent workers • Macadamia nut farm: 50 workers (10 permanent workers, 40 seasonal workers) (New farm: 1,000~1,500 Ha) • Land preparation: 300 seasonal workers • Soybean production: 45 permanent workers • Macadamia farm: 350 workers (50 permanent workers, 300 seasonal workers) - Local farmers in the Lichinga area will be motivated to produce more grains such as maize and soybeans as a result of the secured market for the poultry industry.
11. Environmental and Social Consideration (Summary of EIA pre-screening)	- Concerns related to Site selection: Yes; Beneficiary targeting: None - Supposed environmental category: B (Need for EIA: Simplified environmental report) - Mitigation measures: Land-use planning, proper treatment of solid waste and effluent - Recommendations for monitoring and/or compensation: Yes
12. Other Information	- The Lichinga area is suitable for the production of macadamia nuts due to its climate and soil conditions. It will have great potential of becoming competitive with macadamia nuts produced in South Africa, Australia and other countries due to the relatively low production costs resulting from rain-fed cultivation. - Since a macadamia nut tree requires a longer period of time, around 7 to 10 years, to mature prior to producing a sufficient yield, it is necessary to find a long-term loan for the investment in order to provide an operating cash flow during the early stages of the project.

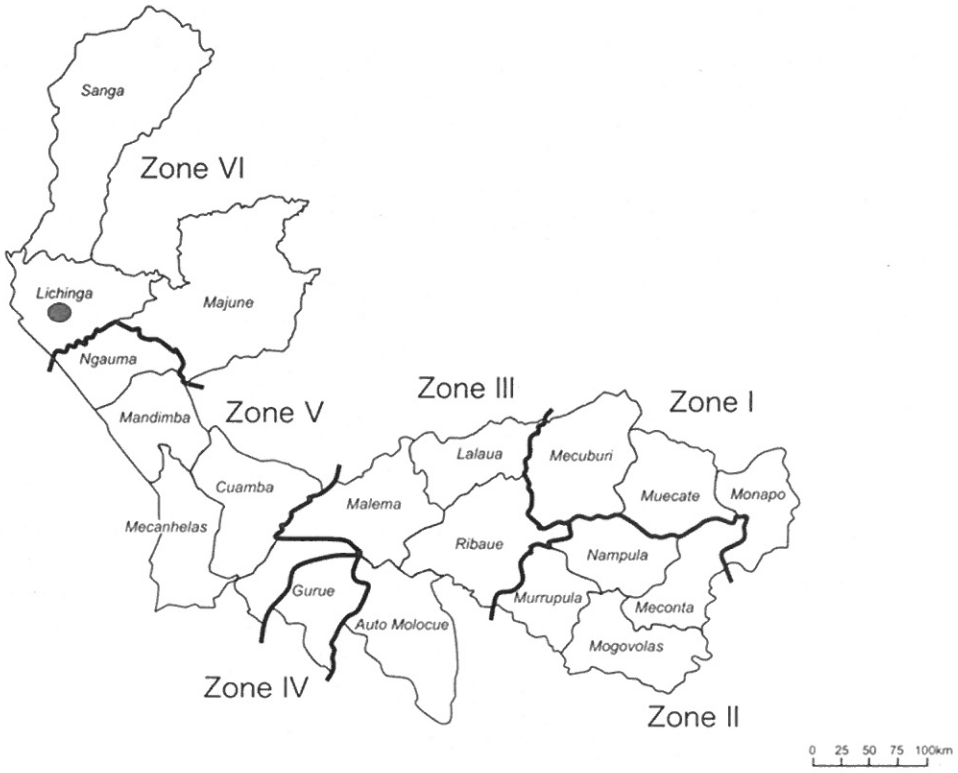
13. Map of the project site



Quick Impact Project (Private Investment)

Project Title: (2) Promotion of an out-grower scheme for soybean production	
1. Project Site	- Lichinga and the surrounding area, Niassa Province (Zone VI)
2. Project Summary	- The company began producing soybean and maize in 2012 on 470 Ha of its own farm. Though there is a plan to expand the cultivation area on its own farm up to 2,500 Ha by 2015, the company is planning to promote an out-grower scheme for producing soybean by contracting with around 1,000 small-scale farmers. The company will provide necessary inputs (quality seed, inoculants, fertilizer and chemicals) and mechanized cultivation services on credit together with technical assistance to out-growers. - Considering the increased amount of produce from its own farm and out-growers, the company plans to construct silos with a 5,000 ton storage capacity.
3. Justification (Market promotion, comparative advantage, etc.)	- There is a strong domestic demand for soybean, especially from the poultry industry, as well as the future opportunity to refine soy oil domestically. - Through the promoting of the out-grower scheme, this could accommodate local community's needs by engaging them in commercial production and gaining their trust, which would benefit both the local population and the company.
4. Project Partners (Implementation, Beneficiaries/ Target Groups)	- 1,000 local farmers who have more than 1 Ha of farm land as out-growers. - Malonda Foundation - The company's sister project operated in Lioma, which implemented the out-grower scheme in the 2012/13 crop season with 800 local farmers.
5. Main Products or Services	- Out-grower scheme (1,000 local farmers; 1,000 Ha~1,500 Ha) • Soybean: 1,500~1,800 tons per year
6. Project Schedule	- 2013: i) Submission of a proposal to the ProSAVANA Development Initiative Fund; ii) promotion of the out-grower scheme and organizing farmer groups for concluding contract agreements; iii) the procurement of necessary equipment (seed, fertilizer, inoculants); and iv) holding technical training for out-growers. - 2013-2014: 1st round production by out-growers (the same process will be applied every year for implementing the out-grower scheme over 5 years).
7. Financial Requirements - Investment Value - Required Finance	- Input costs (seed, fertilizer, other costs): 4,500,000 MT (USD 150,000) - Mechanized service costs: 3,600,000 MT (USD 120,000) - Operating costs: 2,250,000 MT (USD 75,000) - An affordable agricultural loan is required to cover 50% of the above cost of implementing the out-grower scheme.
8. Financial Viability	- It is expected to become a commercially viable operation within 5 years. - IRR 13 %
9. Required Infrastructure	- Major infrastructural development is not required to initiate the out-grower scheme. - A warehouse will be constructed to store the produce in proper conditions.
10. Economic and Social Impacts to Local Economy	- Local farmers can obtain agricultural inputs, technical guidance and a guaranteed buyer by participating in the out-grower scheme, which will improve their livelihoods through increased income. Out-growers engaged in the project will also acquire proper agricultural techniques and skills for farm management. - There could be the potential to further expand the out-grower scheme in other localities for the production of other crops in addition to soybean, which would benefit local populations.
11. Environmental and Social Considerations (Summary of EIA pre-screening)	- Concerns related to Site selection: None; Beneficiary targeting: None - Supposed environmental category: C or less (Need for EIA: No need) - Mitigation measures: None - Recommendations for monitoring and/or compensation: None
12. Other Information	- The company can apply the experiences and lessons learned from the sister project in Lioma, Gurue District to the implementing of this out-grower scheme.

13. Map of the project site

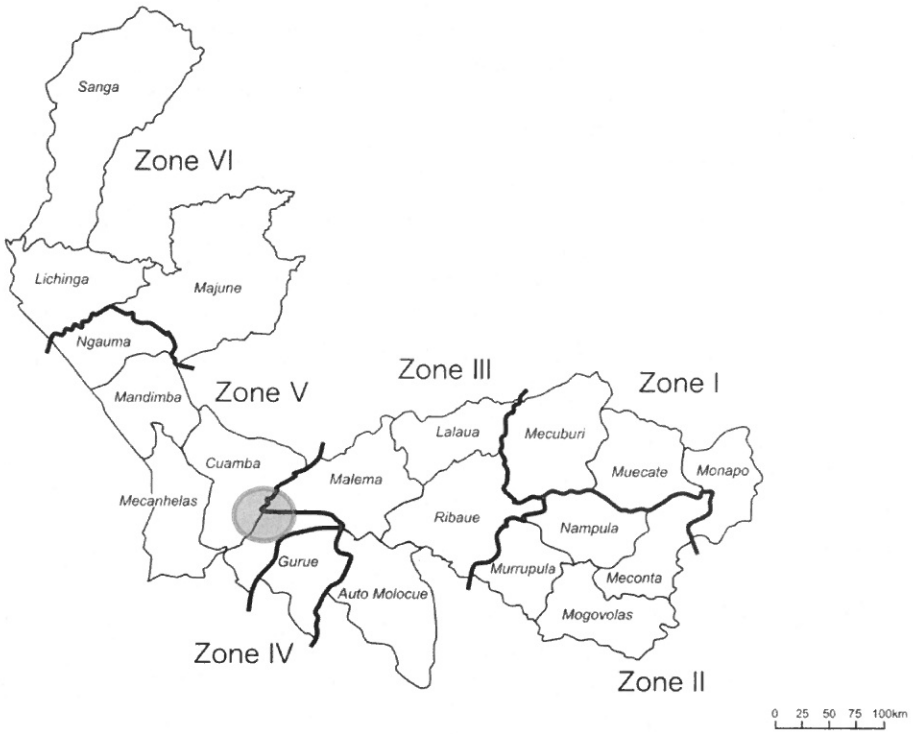


Quick Impact Project (Private Investment)

Project Title: (3) Development of a cassava processing factory and promotion of contract-farming with small-scale farmers for the production of cassava and other crops	
1. Project Site	- A project site will be found in/around the Lioma plain (either in the Malema, Cuamba or Gurue districts). (Zone V) - The necessary area for the project will be around 5,000 Ha on which a processing factory, storage facility, farmland, irrigation dam and other facilities will be located.
2. Project Summary	- A cassava processing factory will be established to produce: 1) cassava starch (for human consumption); 2) modified cassava starch (for industrial use); and 3) ethanol. Around 75% of the raw materials (raw cassava) to be used at the factory will be produced by small-scale farmers in the surrounding area under contract-farming arrangements with the company. It is planned that 200 tons of raw cassava will be processed daily at the factory in the early stages of the operation. Processing capacity will be increased up to 800 tons per day. It is expected that around 10,000~15,000 small-scale farmers will be engaged in cassava production as out-growers. - Along with cassava production, the company will promote production of other crops, such as maize and soybean, in order to promote crop rotation by out-growers.
3. Justification (Market promotion, comparative advantage, etc.)	- The project site has great potential for the production of cassava as well as maize and soybean due to the climate and soil conditions. - The Lioma plain and the surrounding area have potential for agro-industrial development since private agribusiness investment has accumulated within the region in recent years. - Demand for cassava starch (both for human consumption and industrial use) has been growing in the international market. - Small-scale farmers in this area have widely produced cassava, maize, and soybean so the company could easily find groups of out-growers for contract-farming.
4. Project Partners	- 10,000~15,000 out-growers in the Malema, Cuamba and Gurue Districts. - Agribusiness companies operating in the Liona Plain and surrounding areas.
5. Main Products or Services	- Raw cassava necessary for the factory: 200 tons per day (max: 800 tons per day) - Products (cassava starch, modified cassava starch and ethanol): 13,000~15,000 tons per year (max: 30,000 tons per year) - Maize and soybean sold to the local market.
6. Project Schedule	- 2014: Identification and registration of the project site for the obtaining of DUAT. - 2014-2016: Construction of factory/facilities and installation of equipment. - 2014-2015: Propagation of seedlings for an improved variety of cassava on the farm. - 2015-2016: Organization of farmer's group for contract-farming of cassava, maize and soybean. - 2017- : Start partial operation of cassava processing.
7. Financial Requirements - Investment Value	- Initial investment cost: 35 million USD - Final investment value will be around 50 million USD. - It is expected that an international investment fund will finance the project.
8. Financial Viability	- The company considers this project as a long-term investment that will generate financial returns over the long-term.
9. Required Infrastructure	- It is necessary to install a water supply system (well), electricity, a wastewater and treatment pond, and rehabilitate access roads to the factory site from the main road (depending on the location of the factory). - An irrigation system will be installed on the farm.
10. Economic and Social Impacts to Local Economy	- Increase in employment opportunities. - Increase in farmer's income through improved productivity as a result of participating in contract-farming. - Increase in crop production and improvement in out-grower's cultivation techniques.
11. Environmental and Social Consideration (Summary of EIA pre-screening)	- Concerns related to Site selection: Yes; Beneficiary targeting: None - Supposed environmental category: A (Need for EIA: Full environmental impact study) - Mitigation measures: Land-use planning, Factory engineering design, Fair and lawful farming contract - Recommendations for monitoring and/or compensation: Yes

12. Other Information	- In the Lioma Plain several agribusiness companies have conducted medium and large-scale farming operations for the production of crops such as soybean, maize, beans and cotton on corporate farms as well as through contract-farming with local farmers. This is expected to create synergies by establishing strategic partnerships with those agribusiness firms for creating the agribusiness cluster.

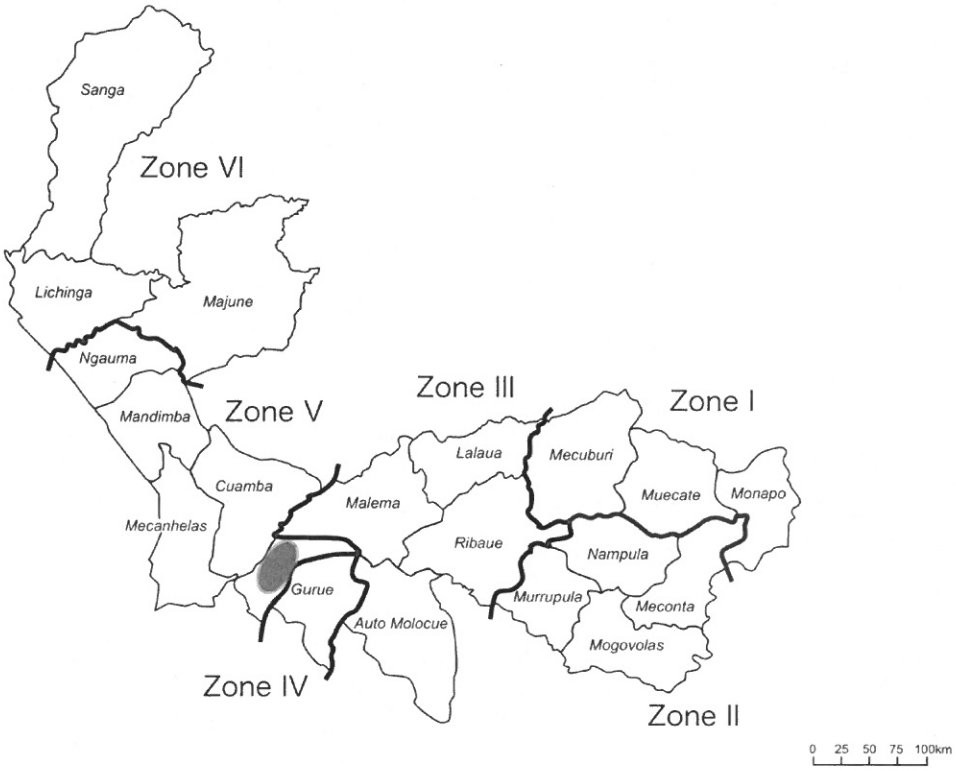
13. Map of the project site



Quick Impact Project (Private Investment)

Project Title: (4) Promotion of an out-grower scheme for soybean production	
1. Project Site	- Lioma, Gurue District, in Zambezia Province (Zone V)
2. Project Summary	- The existing company has implemented an out-grower scheme for soybean production in the 2012/2013 planting season with 62 farmers, for which the total land area was 330 Ha. This project intends to expand this scheme so as to involve more local farmers in production. The total number of out-growers is expected to reach 130 within a few years. - The company will create a full-service contract with out-growers, providing land preparation and planting services via tractors, high quality seed, fertilizer on credit, and the purchase of the produce at a better price. The company will procure 2 tractors to provide those services to the out-growers in a timely manner.
3. Justification (Market promotion, comparative advantage, etc.)	- The project site, Lioma plain, has great potential for producing soybean due to soil conditions and agro-ecological characteristics suitable to soybean production. - Since other agribusiness companies have been conducting medium to large scale mechanized farming of soybean in Lioma, it is expected to rapidly increase the total volume of production within the area, which could induce future investment in agro-processing industries.
4. Project Partners (Implementation, Target Groups)	- Local farmers as out-growers (around 130 out-growers)
5. Main Products or Services	- Soybeans • 1st year (with 100 out-growers): 600 tons • 2nd year~ (with 130 out-growers): 780 tons
6. Project Schedule	- 2013: Submission of proposal to the ProSAVANA Development Initiative Fund (a soft loan scheme for the agribusiness companies). - 2013: i) Promotion of the out-grower scheme and organizing farmer groups for concluding contract agreements; ii) the procurement of necessary equipment (high quality seeds, inoculant, etc.); and iii) the holding of a series of technical trainings for out-growers concerning farm management. - 2013-2014: The 1st round production by 100 out-growers (the same process will be applied every year of implementing the out-grower scheme). - 2014~: From the 2nd year, this will involve 130 out-growers for soybean production (total land area will be targeted at 650 Ha).
7. Financial Requirements - Investment Value - Required Finance	- Procurement of 2 tractors: USD 54,000 - Operating cost: USD 46,000 ✧ Total: USD 100,000 (3 million MT) - An affordable agricultural loan at a low interest rate will be required to widely promote the out-grower scheme.
8. Financial Viability	- IRR: 21%
9. Required Infrastructure	- The company wants to install electricity in the future; however the exorbitantly high cost for the installation is a hindering factor. The government quoted USD 1.2 million to extend electricity distribution lines from the nearest branch point.
10. Economic and Social Impacts to Local Economy	- Out-growers involved in the project will learn effective production systems, using agricultural machinery, which will result in increased production per unit of land. - It has the potential to further increase the number of out-growers, involving more small-scale farmers (who have land of less than 2 Ha) in the surrounding area if the company establishes an efficient extension mechanism, taking advantage of economies of scale.
11. Environmental and Social Consideration (Summary of EIA pre-screening)	- Concerns related to Site selection: None; Beneficiary targeting: None - Supposed environmental category: C or less (Need for EIA: No need) - Mitigation measures: None - Recommendations for monitoring and/or compensation: None
12. Other Information	- The company owns 2,500 Ha of land, and in the 2012/2013 planting season 800 Ha of land were used for producing mainly soybean. An increase in the production area up to 2,000 Ha is planned for the next crop season in 2013. - The average land area for each out-grower is around 5 ha with a range from 2 to 10 Ha.

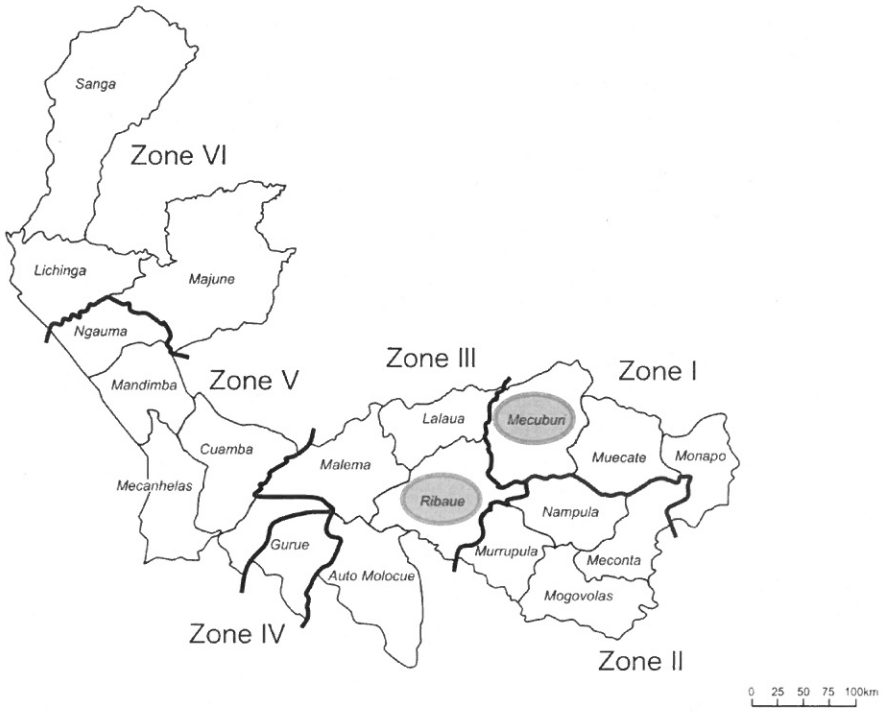
13. Map of the project site



Quick Impact Project (Private Investment)

Project Title: (5) Promotion of seed production by out-growers under contract-farming arrangements	
1. Project Site	- Ribaue (Zone III) and Mecuburi (Zone I) Districts, Nampula Province
2. Project Summary	- The existing company has initiated seed production since 2006 and is currently working with 20 out-growers for producing a variety of crop seed, such as maize, groundnut, sesame and beans. - In order to expand service coverage of the seed business, the company plans to work with more out-growers for seed production through contracting with 3 farmer's associations in Ribaue and Mecuburi Districts, involving around 80 farmers as out-growers. This is expected to result in the production of 500 Kg of crop seed within 3 years, which will result in an increase in the current production volume by 30%. - A warehouse equipped with a seed processing factory will be constructed in order to improve the host-harvest system for the increased volume of product.
3. Justification (Market promotion, comparative advantage, etc.)	- The increase in the production volume of high quality crop seed is one of the priority policy agendas of the government due to a shortage of quality seed at the local level that has resulted in low productivity. - The involvement of more private companies in seed production will be key to increasing production volume and improving distribution channels for high quality seed at the district level.
4. Project Partners (Implementation, Target groups)	- Seed producer's association in Ribaue District, Nampula Province - Two farmer's associations in Mecuburi District, Nampula Province ✧ Totaling around 80 out-growers with 600 Ha of land
5. Main Products or Services	- Crop seed (sesame, ground nut, soybean, maize, cowpea, sorghum) ✧ Totaling 400 ~500 tons per year
6. Project Schedule	- 2013: i) Organizing of farmers' groups as out-growers for seed production; and ii) submission of a proposal to ProSAVANA Development Initiative Fund. - 2014~2016: The supporting of seed production by out-growers through: (i) the procurement of necessary equipment (*basic seed*, fertilizer, etc.); ii) conducting technical trainings for out-growers; iii) regular monitoring and technical backstopping; and iv) processing and marketing of produced seed.
7. Financial Requirements - Investment Value - Required Finance	- Installation of processing facility: USD 80,000 (2.4 million MT) - Construction of warehouse: USD 100,000 (3 million MT) - Procurement of agricultural inputs and operating costs: USD 20,000 (600,000 MT) ✧ Total USD 200,000 (6 million MT) - A soft loan is required to promote the out-grower scheme for seed production.
8. Financial Viability	- IRR: 36%
9. Required Infrastructure	- Major infrastructure is not required for implementing this project.
10. Economic and Social Impacts to Local Economy	- As a result of the increased production of high quality crop seed, small-scale farmers can easily access that seed, which is expected to become available in local retail shops, thus resulting in improved crop productivity. - Out-growers involved in the project will acquire technical skills in proper farm management for seed production as well as be given opportunities for achieving more stable incomes since the price of seed is much higher than that of crops.
11. Environmental and Social Consideration (Summary of EIA pre-screening)	- Concerns related to Site selection: None; Beneficiary targeting: None - Supposed environmental category: C or less (Need for EIA: No need) - Mitigation measures: None - Recommendations for monitoring and/or compensation: None
12. Other Information	- Availability of quality *basic seed* at an affordable price is the main challenge to seed production/multiplication business in the Nacala Corridor due to the limited capacity of research institutes to produce *basic seed*.

13. Map of the project site



Quick Impact Project (Private Investment)

Project Title: (6) Tea industry revitalization project: promotion of the out-grower model for tea production	
1. Project Site	- Gurue, Zambezia Province (Zone IV)
2. Project Summary	- There are over 8,000 Ha of potential tea garden land in Gurue District, but only 65% is operational due to destruction during the civil war, insufficient replanting of plants older than 70 years old, and declining government support after the privatization of the state plantations. In order to revitalize the tea industry in Gurue, this project aims to increase productivity in the production area through the promotion of an out-grower scheme involving more local farmers in tea production. The Tea Producer's Association in Gurue will take a leading role in facilitating the promotion of the out-grower scheme. - In order to accelerate the replanting of old tea plants, an improved variety of tea seedlings will be imported from Malawi, which will then be planted in a new production area allocated within a corporate farm as a trial with out-growers taking responsibility for the management of the new tea garden. Cuttings taken from improved tea plants will then be used for the propagation of seedlings at the company's nursery.
3. Justification (Market promotion, comparative advantage, etc.)	- Tea production and processing is a unique and important local industry found only in the highlands of Zambezia Province, amounting to 7,000 tons per year and creating 4,000 jobs in Gurue District alone. - Gurue tea, "*Cha de Gurue,*" is an established brand name, and around 85% of the total production is exported to the international market. - The revitalization and promotion of the tea industry is one of the priority areas Zambezia Province referred to in its development plan.
4. Project Partners (Implementation, Beneficiaries/ Target Groups)	- Tea Producer's Association in Gurue (consists of 5 private tea companies) - Out-growers (small-scale farmers) in Gurue - Tea Research Foundation in Malawi (provision of high quality tea seedlings)
5. Main Products or Services	- An out-grower model for the tea production is established. - Technical know-how on the management of tea farms is transferred to out-growers. - Seedlings of the improved variety of a tea plant are produced for the replacement of old plants. - The amount of green leaves produced by the out-growers: ✧ At the designated tea garden (48 Ha): 290~300 tons per year (6 tons per Ha) ✧ At the new tea garden (5 Ha with improved variety): 15~75 tons per year (full-production will be attained at year 6~7: 15 tons per Ha at most)
6. Project Schedule	1) Out-grower scheme (trial phase: 4 years): A block of tea gardens (48 Ha) owned by the company will be allocated to 6 groups of out-growers (total 48 farmers). - 2013: Submission of a proposal to ProSAVANA Development Initiative Fund. - 2014: i) Promotion of the out-grower scheme and organizing of farmers' groups; ii) procurement of necessary equipment; and iii) the holding of a series of technical trainings for out-growers. - 2014~: Production of tea leaves by out-growers at the allocated tea garden. 2) The planting of an improved variety of tea seedlings for the establishment of a new tea garden in the company's own farm. - 2014: i) Procurement of seedlings from Malawi; ii) land preparation for the replanting; and iii) planting of seedlings. - 2014~: Management of the newly established tea garden by out-growers. - 2017~: Propagation of tea seedlings at the company's nursery.
7. Financial Requirements - Investment Value - Required Finance	- A soft loan is required to initiate the out-grower scheme for tea production. - Project cost of the out-grower scheme (area: 48 Ha): 2 million MT - Cost of the establishment of a new tea garden with an improved variety of tea seedlings (area: 5 Ha): 3.5 million MT
8. Financial Viability	- Out-grower scheme: IRR 13%
9. Required Infrastructure	- Major infrastructure is not required for implementing the project. - The company owns a tea processing factory and storage.
10. Economic and Social Impacts to Local Community	- It will increase the incomes of small-scale farmers engaged in tea production as out-growers as well as the profitability of the company, which would contribute to the growth of the regional economy in Gurue.

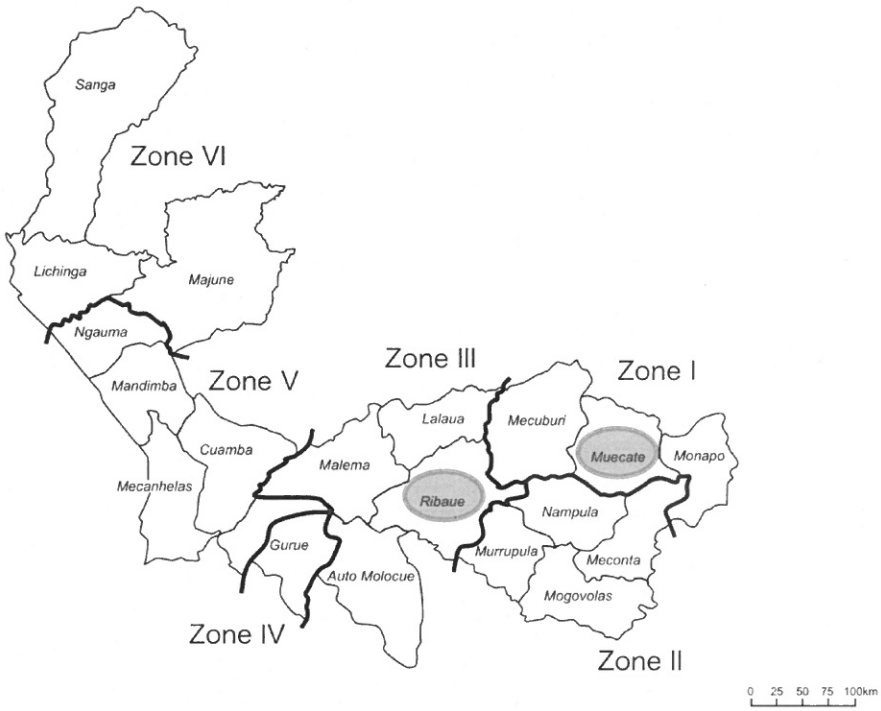
	- It will contribute to the revitalizing of the tea industry, which has declined over the years.
11. Environmental and Social Consideration (Summary of EIA pre-screening)	- Concerns related to Site selection: None; Beneficiary targeting: None - Supposed environmental category: C or less (Need for EIA: No need) - Mitigation measures: None - Recommendations for monitoring and/or compensation: None
12. Other Information	- As the tea industry needs a large amount of wood for the drying process of green leaves, it is necessary to carefully monitor for illegal logging.

13. Map of the project site

Quick Impact Project (Private Investment)

Project Title: (7) Promotion of contract-farming for crop production with small land holders	
1. Project Site	- Meconta (Namialo) District (Zone I), Ribaue (Iapala) District (Zone III) in Nampula Province
2. Project Summary	- The project covers 2 contract-farming operations with small-scale farmers at Namialo in Meconta District and Iapala in Ribaue District. The company regards these operations as core sources for its crop supply, and important components in its vision for improving the yields and quality of crops in the family sector. - Two types of contracts will be made with small-scale farmers for contract-farming: i) a "full-service" contract that involves the production of two or more crops, the provision of a package of inputs that includes seed, fertilizer and limited pesticides, as well as a mechanized land preparation service where appropriate, and more intensive training and monitoring; and ii) a "seed-for-crop" contract under which seed, planting instructions and guaranteed crop purchase are provided.
3. Justification (Market promotion, comparative advantage, etc.)	- The company's primary business objective is to add value in the agricultural supply chain by linking small-scale farmers to better inputs, credit, logistics and markets. - The company acts as a catalyst for better farming practices and greater productivity, which could create the opportunity to earn a margin from supplying inputs and services and in marketing the outputs.
4. Project Partners (Beneficiaries/ Target Groups)	- 400~500 out-growers with a "full-service" contract - 800~1,000 out-growers with a "seed-for-crop" contract
5. Main Products or Services	- Crop production: soybean (300 tons), maize (300 tons), and sesame (120 tons) - Seed production: soybean (300 tons) and sesame (150 tons)
6. Project Schedule	- 2013.7: Submission of a proposal to ProSAVANA Development Initiative Fund - 2013.10~11: Consultation with farmers' groups for contract arrangements - 2013.12 ~ 2014. 7: Crop production and purchasing according to the contract
7. Financial Requirements - Investment Value - Required Finance	- Implementation of contract-farming for 1 crop season (Dec. to July for 8 months): USD 150,000 - A short term loan with low interest rates is required to widely carry out contract-farming due to the nature of business involving small-scale farmers.
8. Financial Viability	- Expected financial returns will be 34% for 8 months
9. Required Infrastructure	- Improvement of access road conditions (rural roads) is necessary to widely expand the contract-farming model to rural communities.
10. Economic and Social Impacts to Local Economy	- Livelihood of small-scale farmers who participate in contract-farming will be improved as a result of increased income as a consequence of having a secured market and increased production. - Proper agricultural techniques using locally available quality seed and inputs will be widely promoted if the number of out-growers is increased.
11. Environmental and Social Considerations (Summary of EIA pre-screening)	- Concerns related to Site selection: None; Beneficiary targeting: None - Supposed environmental category: C or less (Need for EIA: No need) - Mitigation measures: None - Recommendations for monitoring and/or compensation: None
12. Other Information	-

13. Map of the project site



Quick Impact Project (Private Investment)

Project Title: (8) Establishment of a Mill for Poultry Feed and Flour Production (by the Cooperative)	
1. Project Site	- Cuamba, Niassa Province (Zone V)
2. Project Summary	- This project would allow the Cooperative to better serve its members through the construction of a mill and the start-up of poultry feed and flour production programs. - The mill would allow the Cooperative to add value to soybean and maize through the production and sale of flour and poultry feed. This value-added processing will provide an additional sales outlet for members' crops and assist in the co-op's goal of the increase of members' incomes. - When the cooperative is not using the milling equipment for its own production purposes, it would be available to local residents at a fee.
3. Justification (Market promotion, comparative advantage, etc.)	- Maize flour is a staple food throughout Mozambique and is in high demand. The flour that the Cooperative produces would be sold in local public markets. Maize flour is sold in Cuamba for approximately 20 MT per Kg while maize as an unprocessed agricultural crop sells for approximately 5 MT per Kg. The 15 MT difference represents an opportunity for the Cooperative to add-value to member's products through processing. - Southern Niassa Province does not currently produce any poultry feed and those interested in raising poultry need to travel outside of the province to purchase feed. Poultry farmers in the area currently travel to Nampula or Malawi to purchase feed, incurring significant costs. The Cooperative is in a position to become the first producer of poultry feed in Niassa Province. Producing feed also opens up opportunities for cooperative members to raise poultry.
4. Project Partners (Implementation, Beneficiaries/ Target Groups)	- Implementation: The Cooperative would manage implementation of the project. Additional project management support would come from a Peace Corps Volunteer working with the Cooperative. Throughout the design and planning of the project, a local NGO has provided technical assistance to the Cooperative. - Beneficiaries/Target Groups: ✧ The project's main beneficiaries are the co-op members and small-scale farmers from throughout Southern Niassa Province. Nearly all of the co-op members cultivate less than 5 hectares. The cooperative's members would benefit from better market access for their agricultural products and higher incomes. ✧ While co-op members represent the project's primary beneficiaries/target group, general consumers and poultry farmers in Southern Niassa, who would be the customers for the mill's products, would be a secondary target group. Both current and potential poultry farmers would have local access to poultry feed, which is not currently sold/produced in Niassa Province. The general population would have access to an additional provider of maize flour, which is the staple food in Mozambique.
5. Main Products or Services	- Maize flour and poultry feed - Use of mill equipment for a fee when not being used by the Cooperative
6. Project Schedule	- Procurement of mill equipment and supplies: Month 1 - Delivery of equipment and supplies: Month 2 - Construction of the mill facility: Month 2-4 - Installation of mill equipment: Month 4 - Initiation of milling and production: Month 5 - Sale of products: Month 5 and on-going
7. Financial Requirements	- Investment value: USD 21,500 (645,000 MT) ✧ Milling equipment: USD 12,000 ✧ Milling facility and building: USD 9,500 - A soft loan is required to cover the initial investment cost.
8. Financial Viability	- The Cooperative is currently undertaking a market analysis/feasibility study; initial analysis points to both access to an additional market for member-farmers and a profitable business for the Cooperative and its members.
9. Required Infrastructure	- Major infrastructure is not required.
10. Economic and Social Impacts to Local Economy	- The primary social/economic impact would be increased income for co-op member farmers. They would benefit from an additional outlet for their products and

	increased incomes. - Principal secondary impacts would be increased market opportunities for poultry farming due to local availability of poultry feed and the availability of additional flour providers for general consumers. - The additional opportunity for members to sell agricultural products would likely help in gradually increasing the number of member-farmers who move from subsistence farmers to small-scale farmers, emerging farmers and ultimately, commercial farmers. This shift will have numerous social impacts. The increase in income is the primary goal of co-op members, and it is believed that nearly all of the impacts would be positive, including better access to education, health care, and an increased standard of living. - Transportation associated with the purchase of poultry feed (currently not sold in the local area) and distribution of maize flour (to be sold locally) would be greatly reduced.
11. Environmental and Social Consideration (Summary of EIA pre-screening)	- Concerns related to Site selection: None; Beneficiary targeting: None - Supposed environmental category: C or less (Need for EIA: No need) - Mitigation measures: None - Recommendations for monitoring and/or compensation: None
12. Other Information	- The Cooperative is a farming co-op founded in 2010, and it has grown to 550 individual and collective members from throughout southern Niassa Province. It aids these members in the sale of their agricultural products, providing better market access and allowing small-scale farmers to increase their income and expand production. The Cooperative's 2013 commercialization campaign plan calls for the commercialization of 1,492 tons of agricultural products (includes both member and non-member products). The primary agricultural products the Cooperative brings to market for farmers are: soy, sesame, ground nuts, mung beans and pigeon peas. The Cooperative provides access to inputs as well as extension support for its members, and has collection points in the six southern Niassa districts.

13. Map of the project site

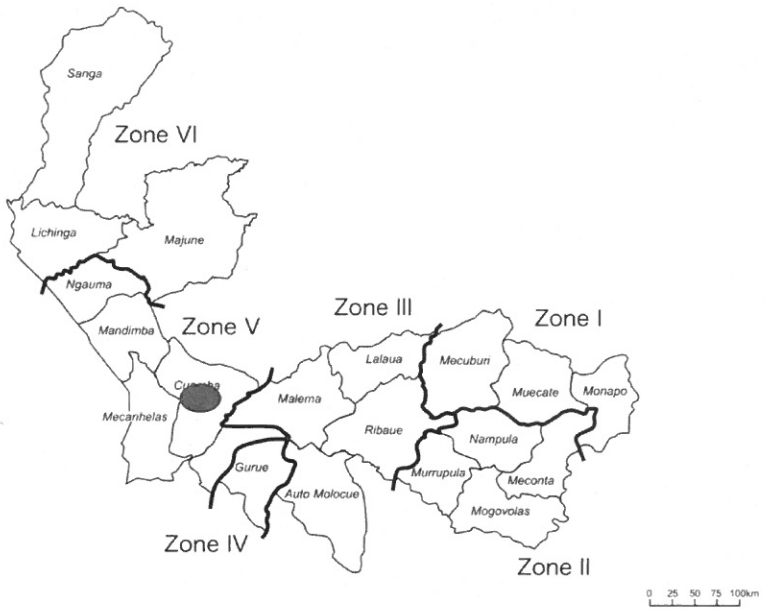


Table 4.1.4 Summary of the Business Models of QIPs proposed by Agribusiness Companies

	1. The expansion of poultry business	2. Promotion of out-grower scheme for soybean production	3. Development of a cassava processing factory and promotion of contract-farming with small-scale farmers for the production of cassava and other crops
1. Project Site/Zone	- Lichinga Town and the surrounding area (Zone VI) in Niassa Province	- Lichinga and the surrounding area (Zone VI) in Niassa Province	- Lioma Plain (either in the Malema (Zone III), Cuamba (Zone V) or Gurue Districts (Zone V))
2. Details of the Business	- Establishment of an integrated poultry production system - Expansion of a macadamia nut farm	- Soybean production through contract-farming with local farmers along with mechanized large-scale farming operations on its own farm	- Agro-industry development (cassava processing factory) with the production of cassava through contract-farming arrangements with local farmers
1) Products	- Soybean (chicken feed), Broilers, Chicks - Macadamia nuts	- Soybean	- Cassava (raw materials), industrial products (cassava starch and ethanol) - Maize and soybean
2) Market/Value Chain	- The domestic demand for chicken meat is high. - The company intends to develop vertically integrated production systems for the poultry industry from feed production, breeding, and broiler production to the marketing of products. - There is demand for chicks and feed from small-scale broiler producers in the surrounding area. - Macadamia nuts have a promising market in South Africa.	- There is a strong domestic demand for soybean, especially from the poultry industry. - The company plans to sell soybean to other parts of Mozambique since the market in the Lichinga area is limited compared to the company's expected production volume. - Since a shareholder of the company owns a poultry factory, it would enable the company to create a value chain for the poultry industry among its sister companies.	- Demand for cassava starch (both for human consumption and industrial use) has been growing in the international market. - 75~80 % of the product will be exported to the international market. - There is increased demand for cassava cake from a local brewery, which uses it to brew beer made up of 70% cassava and 30% malt.
3) Land Title (DUAT)	- In the process of obtaining DUAT for 1,500 Ha	- Obtained DUAT for 3,800 Ha of land	- In the process of identifying a project site
4) Finance	- Investment value: USD 1.48 million - A mid/long-term loan with a low interest rate will be required.	- Investment value: USD 345,000 - An affordable agricultural loan is required to cover 50% of the cost of implementing the out-grower scheme.	- Initial investment value: USD 35 million - An international investment fund will finance the project.
5) Contract-farming	- Contract-farming arrangements will be applied in the future for the production of soybean.	- This is planned to involve around 1,000 local farmers in the contract-farming of soybean - Total production area of out-growers will reach 1,000~1,500 Ha.	- It is expected that around 10,000~15,000 small-scale farmers will be engaged in cassava production as out-growers.
6) Infrastructure	- Improvement of access road conditions. - Extension of electricity distribution lines.	- A warehouse will be constructed to store the produce in proper conditions.	- Installation of a water supply system (well) and electricity. - Rehabilitation of access roads.
7) Financial Viability	- Expected IRR: 18%	- It is expected to become a commercially viable operation within 5 years. - Expected IRR: 13%	- The company considers this project as a long-term investment that will generate financial returns in the long-term.

8) Impact to Local Economy/Communities	- Creation of employment opportunities for the local population. 155 permanent workers and seasonal workers will be hired by the company.	- Out-growers will acquire proper agricultural techniques and skills for farm management as well as realize improved livelihoods through increased income.	- Increase in employment opportunities at the processing factory and the corporate farm. - Increase in farmer's income through improved productivity as a result of adjoining contract-farming.
3. Environment and Social Considerations	- Concerns related to Site selection: Yes; Beneficiary targeting: None - Supposed environmental category: B (Need for EIA: Simplified environmental report) - Mitigation measures: Land-use planning, Proper treatment of solid waste and effluent - Recommendations for monitoring and/or compensation: Yes	- Concerns related to Site selection: None; Beneficiary targeting: None - Supposed environmental category: C or less (Need for EIA: No need) - Mitigation measures: None - Recommendations for monitoring and/or compensation: None	- Increase in employment opportunities. - Increase in farmer's income through improved productivity as a result of participating in contract-farming. - Increase in crop production and improvement in out-grower's cultivation techniques.
4. Other Information	- The Lichinga area is suitable for the production of macadamia nuts due to its climate and soil conditions. - A long-term loan is necessary for the expansion of the macadamia nut garden since it will take 7~10 years to reach full-production.	- In the Lichinga area, the forestry companies have been engaged in contract-farming for soybean and other crops as a way to realize their company's social responsibility and in order to avoid social conflicts with local communities.	- Along with cassava production, the company will promote the production of other crops, such as maize and soybean, in order to promote crop rotation by out-growers.
5. Summary of the Business Model	- Taking advantage of the prospect of increased demand for chicken meat, the company plans to establish integrated production systems, which could result in financial strengthening through reduced transaction costs and improved productivity for broilers. - Sales of macadamia nuts will greatly contribute to profits over the long-term. - It is advisable to apply the out-grower scheme for soybean production to chicken feed in order to complement the volume produced on its own farm.	- The company's primary business model is to expand mechanized farming operations at their own farm to achieve high productivity. - The company is also interested in the expansion of the out-grower scheme, if it is financially viable, in order to increase the volume of production. - Under the contract-farming arrangements, a complete package of services including the provision of necessary inputs and mechanized land preparation services will be provided to out-growers. - The company can apply the experiences and lessons learned from its sister project in Lioma, Gurue District to the implementing of this out-grower scheme.	- Taking advantage of the increased demand for cassava starch on the international market, the company plans to establish a comprehensive cassava processing factory on the Lioma Plain, which has great potential for the production of cassava and other crops due to its climate and soil conditions. - In order to secure the necessary amounts of raw materials to be delivered for the factory, it is planned to involve more than 10,000 local farmers as out-growers for cassava production. - The company's ultimate business goal is to create an agro-industry cluster in partnership with other agribusiness firms operating in the Lioma Plain.

	4. Promotion of an out-grower scheme for soybean production	5. Promotion of seed production by out-growers under contract-farming arrangements	6. Tea industry revitalization project: promotion of the out-grower model for tea production
1. Project Site/Zone	- Lioma, Gurue District (Zone V) in Zambesia Province	- Ribaue (Zone III) and Mecubri (Zone I) Districts in Nampula Province	- Gurue Town (Zone IV) in Zambesia Province
2. Details of the Business	- Soybean production through contract-farming with local farmers along with a mechanized large-scale farming operation on its own farm.	- Seed production under contract-farming arrangements with medium-scale local farmers and selected associations.	- Tea production with out-growers at a corporate tea garden along with the establishment of a new tea garden.
1) Product	- Soybean	- Crop seed (sesame, ground nut, soybean, maize, cowpea, and sorghum)	- Tea leaves and processed tea
2) Market/Value Chain	- The company will continue to sell its produce to the domestic market in the coming years due to an increased demand for soybean. - The company plans to expand its markets off-shore targeting neighboring and middle-east countries where the demand for poultry feed is high. - It will have potential to rapidly increase the total volume of soybean production in the Lioma area, which could induce investment in agro-processing industries.	- Demand for quality seed is high both from the government and local farmers. - The company has a retail shop in Nampula and has a strong connection with local retailers at the district level to sell its produce. - The company has a direct delivery route to NGOs that need a large amount of quality seed for implementing agricultural extension service projects.	- Tea production and processing is a unique local industry found only in the highlands of Zambezia Province in Mozambique. - Gurue tea, "*Cha de Gurue*", is an established brand name. - Around 85% of the total production is exported to the international market (mainly to Europe). - The company has already established an entire value chain of tea products from production, processing and packaging to marketing.
3) Land Title (DUAT)	- Hold DUAT for 2,500 Ha of land	- Not necessary	- Hold DUAT for 15,000 Ha of land
4) Finance	- Investment value: USD 100,000 - An agricultural loan at a low interest rate will be required to widely promote the out-grower scheme.	- Investment value: USD 200,000 - A soft loan is required to widely promote the out-grower scheme for seed production.	- Investment value: 5.5 million MT (2 million MT for the out-grower scheme and 3.5 million for the establishment of a new tea garden) - A soft loan is required to initiate the out-grower scheme for tea production.
5) Contract-farming	- The company was involved in contract-farming with 62 local farmers in the 2012/13 planting season. - The number of out-growers will be doubled within 3 years with a goal of 130 members. - The company will make a full-service contract with out-growers, providing inputs and mechanized production services.	- The company mainly works with middle-scale farmers who have more than 10 Ha of land for the contract-farming of crop seed. - The company plans to expand its contract-farming operations to involve more out-growers by contracting with 3 farmer's associations. - The target number of out-growers to be achieved within 3 years is 80, which will result in an increase in the production volume by 30%.	- A block of tea gardens (48 Ha) owned by the company will be allocated to 48 out-growers taking responsibility for the management of tea production. - The company facilitates the planting of seedlings to establish new tea gardens under the out-grower arrangements with local farmers.
6) Infrastructure	- Installation of electricity if cost is affordable.	- Not required.	- Not required.
7) Financial Viability	- Expected IRR: 21%	- Expected IRR: 36%	- Expected IRR: 13% (out-grower scheme)

8) Impact to Local Economy/Communities	- Out-growers learn effective production systems, using agricultural machinery, which will result in increased production per unit of land.	- Out-growers are given opportunities for achieving more stable incomes since the price of seed is much higher than that of crops.	- The project will contribute to the revitalizing of the tea industry in Gurue, which has declined over the years.
3. Environment and Social Considerations	- Concerns related to Site selection: None; Beneficiary targeting: None - Supposed environmental category: C or less (Need for EIA: No need) - Mitigation measures: None - Recommendations for monitoring and/or compensation: None	- Concerns related to Site selection: None; Beneficiary targeting: None - Supposed environmental category: C or less (Need for EIA: No need) - Mitigation measures: None - Recommendations for monitoring and/or compensation: None	- Concerns related to Site selection: None; Beneficiary targeting: None - Supposed environmental category: C or less (Need for EIA: No need) - Mitigation measures: None - Recommendations for monitoring and/or compensation: None
4. Other Information	- The Lioma Plain has great potential for producing soybean due to soil conditions and agro-ecological characteristics. - The average land area for each out-grower is around 5 Ha with a range from 2 to 10 Ha.	- Availability of quality foundation seed at an affordable price is the main challenge to seed production/multiplication business in the Nacala Corridor.	- It will be necessary to import an improved variety of tea seedlings from Malawi, which are not available in Mozambique, in order to improve productivity by replacing old tea plants. - Cuttings taken from improved tea plants will be used for the propagation of seedlings in order to accelerate the replanting of the plants.
5. Summary of the Business Model	- Along with crop production on their own farm (total 2,500 Ha) through mechanized farming, the company plans to expand its contract-farming operations by doubling the number of out-growers from 65 to 130 within a few years. - It is expected that the total production area of the out-growers will reach 600 Ha. - Through contract-farming arrangements, the company supports local farmers by providing inputs and mechanized services with regular technical extension in order to encourage more productivity, which could also benefit the company due to increased production volume. - In order to take advantage of economies of scale, the company plans to obtain an additional 5,000 Ha of land in the future.	- Seed business is quite profitable since its price is much higher than that of crops. However, seed producers should have enough capacity in farm management for producing quality seed. - Taking advantage of the high demand for quality seed in the local market, the company's business model is to increase the production volume by effectively conducting contract-farming with selected local farmers or associations who have the capacity for and experience in seed production. - The company plans to install a seed processing machine in the warehouse to maintain the quality of products by improving post-harvest technologies.	- Though the company's primary business model is the production and processing of tea leaves produced on their own tea garden by hiring laborers, the company plans to initiate an out-grower scheme by allocating a block of tea gardens to local farmers. - It is anticipated that this will increase productivity and the production area through the promotion of an out-grower scheme involving more local farmers in tea production. - It is necessary to strengthen the capacity for seedling propagation for an improved variety of tea plants at the nursery to be used for planting at the new tea garden.

	7. Promotion of contract-farming for crop production with smallholders	8. Establishment of a mill for poultry feed and flour production
1. Project Site/Zone	- Meconta (Namialo) District (Zone I), Ribaue (Iapala) District (Zone III) in Nampula Province	- Cuamba in Niassa Province (Zone V)
2. Details of the Business	- Contract-farming with local farmers for crop and seed production under 2 types of contracts	- Installation and operation of the mill for feed and flour production by the cooperative
1) Product	- Crop (soybean, maize, and sesame) - Crop seed (soybean and sesame)	- Maize flour and poultry feed
2) Market/Value Chain	- Soybean and maize will be sold to the domestic market, especially to the local poultry industries. - Sesame will be exported to the international market, mainly to Asian countries. - Crop seeds will be delivered to the government and NGOs in addition to being sold to local seed retailing companies.	- Maize flour is a staple food and in high demand. - Maize flour and poultry feed will be sold at local markets in southern Niassa Province where there are no producers of feed. - Raw materials for the mill such as maize and soybean will be produced by the co-op members.
3) Land Title (DUAT)	- Not necessary	- Hold DUAT for 4Ha of land
4) Finance	- Investment value: USD 150,000 (4,500,000 MT) for implementing contract-farming for 1 crop season (8 months). - A short term loan with low interest rates is required to widely carry out contract-farming.	- Investment value: USD 21,500 (645,000 MT) - A soft loan is required to cover the initial investment costs.
5) Contract-farming	- The project covers 2 contract-farming operations through a "full-service" contract with around 500 farmers and a "seed-for-crop" contract with around 1,000 farmers.	- Since the project implementing agency is an existing cooperative, it is not necessary to create a contract-farming arrangement with members since they have already registered in the co-op.
6) Infrastructure	- Improvement of access road conditions (rural roads) is necessary to widely expand contract-farming to rural communities.	- Not required.
7) Financial Viability	- Expected financial return will be 34% for 8 months (during 1 crop season)	- A market analysis and feasibility study has been undertaken by the Cooperative. Initial analysis indicates that this project represents promising investment returns.
8) Impact to Local Economy/Communities	- Proper agricultural techniques using locally available quality seed and inputs will be widely promoted as a result of the increased number of out-growers involved in the project.	- There would be increased market opportunities for poultry farming due to the local availability of poultry feed. - The availability of additional flour providers for general consumers.
3. Environment and Social Considerations	- Concerns related to Site selection: None; Beneficiary targeting: None - Supposed environmental category: C or less (Need for EIA: No need) - Mitigation measures: None - Recommendations for monitoring and/or compensation: None	- Concerns related to Site selection: None; Beneficiary targeting: None - Supposed environmental category: C or less (Need for EIA: No need) - Mitigation measures: None - Recommendations for monitoring and/or compensation: None
4. Other Information	- The company's primary business objective is to add value to the agricultural supply chain by linking small-scale farmers to better inputs, credit, logistics and markets.	- The cooperative has 550 individual and collective members from throughout southern Niassa Province, and has about 50 collection points in 6 districts to purchase crops from members.

5. Summary of the Business Model	- Two types of contracts will be made with small-scale farmers for contract-farming. - A "full-service" contract that involves the production of two or more crops, the provision of a package of inputs that includes seed, fertilizer and limited pesticides, as well as the mechanized land preparation service where appropriate, and more intensive training and monitoring. - A "seed-for-crop" contract under which seed, planting instructions, and a guaranteed crop purchase is provided.	- The cooperative will install a mill for producing poultry feed and maize flour in order to provide opportunities for members to gain better profits, taking advantage of a price difference of 15 MT between maize flour and unprocessed maize crop. - The milling equipment will be available to local residents at a fee, which would generate additional income for the cooperative. - Poultry feed production is a promising business in southern Niassa Province where demand for feed by local poultry producers is high.

4.1.4 Evaluation of QIPs

With reference to the selection criteria for QIPs presented in Table 4.1.1, the proposed QIPs were reviewed in order to confirm the level of fulfillment of the criteria, justifying the necessity for carrying out the QIPs to accelerate or kick-start agricultural and agribusiness development in the Nacala Corridor. Table 4.1.5 and 4.1.6 show the results of the evaluation for the proposed QIPs.

Table 4.1.5 Results of the Evaluation (QIPs carried out by public funding)

Project (Public Sector Projects)	Criteria							Total
	1	2	3	4	5	6	7	
1. Land registration of small scale and medium scale farmers	3	2	3	3	2	-	-	13/15
2. Road improvements for marketing	3	3	2	2	3	-	-	13/15
3. Promotion of quality seed production at the regional level	2	3	3	3	2	-	-	13/15
4. Promotion of vegetable production with small pump irrigation	3	3	2	2	2	-	-	12/15
5. Renewal of cashew trees	2	3	3	3	2	-	2	15/18
6. Planning of land reserves for medium and large scale investment	3	2	2	3	3	-	-	13/15
7. Model project for family food production cluster development	2	2	3	3	3	-	3	16/18
8. Development of agricultural special economic zone	2	2	3	3	3	-	-	13/15

(Score - 3: High, 2: Medium, 1: Low)

Table 4.1.6 Results of the Evaluation (QIPs carried out as private investment)

Project (Private Sector Projects)	Criteria							Total
	1	2	3	4	5	6	7	
1. The expansion of poultry business	3	3	2	3	3	2	2	18/21
2. Promotion of out-grower scheme for soybean production	3	2	3	3	3	2	3	19/21
3. Development of a cassava processing factory and promotion of contract-farming with small-scale farmers for the production of cassava and other crops	2	2	3	3	3	2	3	18/21
4. Promotion of an out-grower scheme for soybean production	3	2	3	3	3	2	3	19/21
5. Promotion of seed production by out-growers under contract-farming arrangements	3	3	3	3	2	2	3	19/21
6. Tea industry revitalization project: the promotion of the out-grower model for tea production	2	3	3	3	2	2	2	17/21
7. Promotion of contract-farming for crop production with smallholders	3	2	3	3	3	2	3	19/21
8. Establishment of a mill for poultry feed and flour production	3	3	3	3	2	2	3	19/21

(Score - 3: High, 2: Medium, 1: Low)

4.1.5 Implementation Plan for QIPs

(1) Implementation of public sector projects

Though QIPs are formulated to enable kick-starting activities separately under each QIP implementation structure without extensive preparatory work, it is critical that a proper coordinating body be formed with the aim of arranging available financial resources for implementing the projects, coordinating with stakeholders and concerned government offices for the initial formulation of the project implementation framework, overseeing the progress of activities during the implementation stage, and widely disseminating the results/impacts of the QIPs to the concerned stakeholders including the public, governments, donors, and private sectors. Since an implementing body for the ProSAVANA agricultural master plan would not be formally established when QIPs start implementation in 2014, the ProSAVANA Headquarters will take a coordinating role to facilitate the initiation of project activities with this responsibility being taken over by the ProSAVANA implementing body when it becomes fully functional. In terms of the day-to-day project management of QIPs, the respective provincial and district government offices will coordinate project activities with local partners such as NGOs. Table 4.1.7 summarizes the proposed implementation structure of each QIP including potential organizations as local partners for the project.

Table 4.1.7 Summary of the Proposed Implementation Structure (Public Sector Projects)

Overall Coordination: ProSAVANA Headquarters (to be taken over by the ProSAVANA Implementing Body)				
Project No.	Coordinating Body	Primary Implementing Organization	Local Partner (Implementation)	Other Partner (Ad-hoc support, etc.)
1	- DPA	- SPGC - SDAE	- consulting company	- DNTF (Central Government) - FAO (financing)
2	- DPA	- SDAE, SDPI	- NGO/ Consulting Company, - Contractor	- ANE
3	- DPA (SPA: Agricultural Service)	- IIAM North East Center in Nampula	- IIAM North East Centre in Nampula, SDAEs	- Local seed growers (private sectors) - DPA (seed inspectors)
4	- DPA	- SDAE	- NGO (that assigns extension workers)	-
5	- INCAJU	- INCAJU	- SDAE, INCAJU (extension workers)	- IIAM, NGO
6	- DPA	- SPGC	- Local consultant - SDAE	- IIAM laboratory for soil experiment
7	- DPA	- SDAE	- NGO	- Private sector (processing factory)
8	- GAZEDA	- GAZEDA	- SDAE - Government office (road, electricity, etc.) - Contractor	- Private sector (infrastructure development)

(2) Implementation of private sector projects

In contrast to the public sector projects, QIPs to be carried out by the private sector will be autonomous in terms of the formulation and implementation arrangement of the projects, which will be organized according to the business plan of each company. However, since

most QIPs expect to access a ProSAVANA financial scheme, such as the ProSAVANA Development Initiative Fund or other financial mechanism to be introduced in the near future, in order to secure financing for covering the initial investment costs of the project, the ProSAVANA implementing body (or ProSAVANA Headquarters) will closely coordinate the formulation of project activities with the agribusiness companies as well as the concerned government offices in line with the requirements of the financing scheme along with the principles for responsible agricultural investment.

(3) The cost of implementation for QIPs

As summarized in Table 4.1.8, the implementation costs for the public sector projects were estimated in consultation with the counterparts and potential partner organizations, while that of the private sector projects were provided by the agribusinesses companies based on their experience and knowledge in formulating projects. Though the financing for the private sector projects will be determined through the efforts of each agribusiness, it is critical to find the available financing options for the public sector projects in order to initiate the planned activities in a timely manner beginning from 2014. Holding a series of stakeholder consultations involving central and local government representatives, donors, NGOs, and the private sector is necessary to secure the available financial means for QIPs. The ProSAVANA implementing body (or ProSAVANA Headquarters until the implementing body has become operational) will take a leading role in the consultation process.

Table 4.1.8 Summary of the Project Implementation Cost

No.	Project Name	Project Cost (MT)
Public Sector Project		
1	Land registration of the small scale and medium scale farmers	13,248,900
2	Road improvement for marketing	16,415,400
3	Promotion of quality seed production at the regional level	2,164,100
4	Promotion of vegetable production with small pump irrigation	11,200,112
5	Renewal of cashew trees	5,607,360
6	Planning of land reserve for the medium and large scale investment	2,400,000
7	Model project for family food production cluster development	34,922,000
8	Development of an agricultural special economic zone (SEZ)	24,883,200
	Sub-Total (MT)	443,060,102

No.	Project Name	Project Cost (USD)
Private Sector Project		
1	The expansion of the poultry business	720,000
2	Promotion of the out-grower scheme for soybean production	345,000
3	Development of a cassava processing factory and promotion of contract-farming with small-scale farmers for the production of cassava & other crops	35,000,000
4	Promotion of an out-grower scheme for soybean production	100,000
5	Promotion of seed production by out-growers under contract-farming arrangements	200,000
6	Tea industry revitalization project: the promotion of the out-grower model	207,000
7	Promotion of contract-farming for crop production with smallholders	150,000
8	Establishment of a mill for poultry feed and flour production	21,500
	Sub-Total (USD)	36,743,500

4.2 Environmental and Social Considerations of QIPs

The present chapter will only focus on the likely adverse impacts associated with the QIPs. In-depth analysis of the grand design of the Master Plan and its projects in terms of environmental and social considerations will be presented in the Draft Final Report. See Chapter 6 for the approach of the Strategic Environmental and Social Assessment to be applied during the further study.

4.2.1 Screening and Scoping of QIPs

The 16 proposed QIPs show different progress in terms of the determination of project sites and target beneficiaries, as well as their magnitude, as summarized in Table 4.2.1.

Table 4.2.1 Project Sites and Target Beneficiaries by QIP

	Title	Project Site	Target Beneficiary	Environmental and Social Implications in relation to Site and Beneficiary
Public Sector QIPs				
1	Land registration for small scale and medium scale farmers	Determined at locality level (20,000ha in total of 4 sites)	Individual farmers of small to medium scale (number unknown)	- Consideration of PDUT, existent DUATs and neighboring communities. - Fair criteria for beneficiary targeting with special attention to marginalized groups (widows, divorced or childless women, etc.). - Parallel implementation of "community delimitation" as an option.
2	Road improvements for marketing	Determined at exact locations (36km in total of 2 sites)	All potential users of improved roads (number unknown)	- Consideration of historical sites, habitats, water sources and erosion-sensitive places in planning stage.
3	Promotion of quality seed production at the regional level	Only training site is determined, which will be at IIAM-CZnd	Seed growers of 3 zones (60 participants in total are planned; their places of origin are to be determined in implementation stage)	- Fair criteria for beneficiary targeting.
4	Promotion of vegetable production with small pump irrigation	Determined at district level (4 of 5 candidate districts; 110-140ha at each district in 2023)	Farmers' organizations (90 individuals and 20 groups including 200 member families at each district in 2023)	- Consideration of "zones for partial protection", PDUTs and forest reserves in site selection; - Responsible use of water in accordance with ARA's guidance.
5	Renewal of cashew trees	Determined at district level (4 districts; area unknown)	Farmers' groups (priority groups in each district; number unknown)	- Fair criteria for beneficiary targeting.
6	Planning of land reserves for medium and large scale investment	Determined at locality level (10,000ha)	Potential investors (number unknown)	- Consideration of PDUT, forest reserves, "zones for partial protection", existent

				DUATs, historical sites, habitats and water sources in site selection.
7	Model project for Cluster No. 2: family-level farming for food production	Determined at district level with rough location (5,000ha in total)	Farmers' associations (4 associations including 800 member families in total)	- Consideration of "zones for partial protection", historical sites, habitats and water sources - Minimization of eventual forest clearance.
8	Development of an agricultural special economic zone (SEZ)	Determined at district level (500ha)	Farmers, investors and other involved actors (number unknown)	- Consideration of "zones for partial protection", existent DUATs, historical sites, habitats and water sources in site selection; - Minimization of eventual forest clearance.
Private Sector QIPs				
1	The expansion of poultry business	Determined at exact locations (1,000 to 1,500ha of new land)	Local employment opportunities (155 permanent workers; 640 seasonal workers)	- Consideration of PDUT, existent DUATs, historical sites, habitats and water sources in site selection; - Minimization of eventual forest clearance.
2	Promotion of the out-grower scheme for soybean production	Determined at district level (1,000 to 1,500ha in total)	Individual farmers as out-growers (1,000 farmers in total)	None
3	Development of a cassava processing factory and promotion of contract-farming with small-scale farmers for the production of cassava and other crops	Determined at inter-district level (somewhere in Lioma Plain, 5,000ha in total)	Individual farmers as out-growers (10,000 to 15,000 farmers in total)	- Consideration of "zones for partial protection", existent DUATs, historical sites, habitats and water sources in site selection; - Minimization of eventual forest clearance.
4	Promotion of an out-grower scheme for soybean production	Determined at district level (650ha in total)	Individual farmers as out-growers (130 farmers in total)	None
5	Promotion of seed production by out-growers under contract-farming arrangements	Determined at district level (600ha in total)	Farmers' associations as out-growers (3 associations including 80 farmers in total)	None
6	Tea industry revitalization project: promotion of the out-grower model for tea production	Determined at exact locations (48ha for out-grower lots; 5ha for new farm)	Individual farmers as out-growers (48 farmers in total); Tea Producer's Association	None
7	Promotion of contract-farming for crop production with smallholders	Determined at district level (area unknown)	Individual farmers as out-growers (1,200 to 1,500 farmers in total)	None
8	Establishment of a mill for poultry feed and flour production	Determined at exact locations (4ha)	Cooperative members (550) and other farmers in the region	None

Source: Study Team

Subsequently, the likely adverse impacts of each QIP on the natural and social environment have been identified, though it was practically impossible to quantify them at this stage. As shown in Table 4.2.2, the supposed environmental category and the need for EIA of each QIP have also been analyzed.

Table 4.2.2 Likely Adverse Impacts, Supposed Category and Need for EIA of each QIP

	Public Sector QIPs								Private Sector QIPs							
	1	2	3	4	5	6	7	8	1	2	3	4	5	6	7	8
1. Air pollution	-	+	-	-	-	-	-	++	-	-	-	-	-	-	-	-
2. Water pollution	-	+	-	-	-	-	+	+	-	-	+	-	-	-	-	-
3. Improper waste disposal	-	-	-	-	-	-	++	++	-	-	+	-	-	-	-	-
4. Soil contamination	-	-	-	-	-	-	-	u	-	-	-	-	-	-	-	-
5. Noise and vibration	-	+	-	-	-	-	+	++	-	-	+	-	-	-	-	-
6. Ground subsidence	-	-	-	-	-	-	-	-	-	-	+	-	-	-	-	-
7. Offensive odor	-	-	-	-	-	-	+	+	-	-	+	-	-	-	-	-
8. Sediment contamination	-	-	-	-	-	-	u	u	-	-	-	-	-	-	-	-
9. Disturbance of protected areas	-	-	-	-	u	-	-	-	-	-	-	-	-	-	-	-
10. Deterioration of ecosystem and biodiversity	-	+	-	-	u	-	-	+	+	-	+	-	-	-	-	-
11. Change in hydrologic regime	-	-	-	+	-	-	+	+	-	-	+	-	-	-	-	-
12. Soil erosion and siltation	-	+	-	-	-	-	+	+	-	-	-	-	-	-	-	-
13. Salt accumulation, other soil degradation	-	-	-	-	-	-	u	u	-	-	-	-	-	-	-	-
14. Substantial alteration of land-form, geology or landscape	-	-	-	-	-	-	-	+	-	-	-	-	-	-	-	-
15. Improper management of abandoned sites	-	-	-	-	-	-	-	u	-	-	-	-	-	-	-	-
16. Increased risk of forest fire	-	-	-	-	-	-	-	u	-	-	-	-	-	-	-	-
17. Trans-boundary or global effects	-	-	-	-	-	-	-	+	-	-	-	-	-	-	-	-
18. Influence on indigenous peoples or minorities	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
19. Detriment to cultural or historical heritage sites	-	u	-	-	-	-	-	u	u	-	u	-	-	-	-	-
20. Involuntary resettlement	-	u	-	-	-	u	u	u	u	-	u	-	-	-	-	-
21. Limitation of access to natural resources	-	-	-	-	-	u	-	u	u	-	u	-	-	-	-	-
22. Loss or restriction of livelihood	-	u	-	-	-	u	-	-	-	-	-	-	-	-	-	-
23. Serious change in lifestyle	-	-	-	-	-	u	u	++	-	-	-	-	-	-	-	-
24. Marginalization of vulnerable groups	u	-	-	-	-	u	-	-	-	-	-	-	-	-	-	-
25. Localization of benefits and damages	-	-	u	-	+	-	u	u	-	-	-	-	-	-	-	-
26. Aggravation of conflict of interests	u	-	-	+	-	u	u	u	u	u	u	u	u	-	u	-
27. Widening of gender inequity	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
28. Working conditions and occupational safety	-	-	+	-	-	-	+	u	-	-	-	-	-	-	-	-
29. Annoyances during construction	-	+	-	-	-	-	-	++	-	-	-	-	-	-	-	-
30. Risk of accident or harm to human health	-	+	-	-	-	-	-	u	-	-	-	-	-	-	-	-
31. Spread of infectious disease, HIV/AIDS	-	+	-	-	-	u	-	-	-	-	-	-	-	-	-	-
32. Offense against children's rights	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Supposed Environmental Category (A or B or ≦C)	**≦C**	**A**	**≦C**	**≦C**	**≦C**	**B**	**A**	**A**	**B**	**≦C**	**A**	**≦C**	**≦C**	**≦C**	**≦C**	**≦C**
Need for EIA (F: full EIA, S: simplified study, N: No need)	**N**	**F**	**N**	**N**	**N**	**S**	**F**	**F**	**S**	**N**	**F**	**N**	**N**	**N**	**N**	**N**

Source: Study Team - : No or Very Unlikely, + : Possible to Probable, ++ : Very likely, u : Unknown. (Evaluated without supposing mitigation measures)

As a tentative result, 4 QIPs are supposed to be classified in Category A and 2 QIPs in Category B. These QIPs will be required to undertake either a full EIA study or simplified environmental report (SER) to obtain an Environmental License. Although the TORs of such studies need to be approved by MICOA, DPCA and other relevant authorities, some recommendations for important aspects to be included in the TORs are given in Table 4.2.3.

Table 4.2.3 Recommendations for TORs of EIA or SER

Title	Assessment of Adverse Impacts	Measures of Avoidance, Minimization or Mitigation of the Impacts	Environmental Management Plan (monitoring, compensation)
QIPs of Supposed Category A			
Road improvements for marketing (Public sector QIP-2)	- (Planning phase) Historical sites; Habitats; Water sources for local communities; Erosion-sensitive areas; Resettlement needs. - (Construction phase) air pollution; water pollution; noise and vibration; soil erosion and siltation; spread of infectious disease, HIV/AIDS. - (Operation phase) Risk of traffic accidents.	- Route planning (including borrow pits and quarries) to avoid or minimize resettlement or disturbance to sensitive areas and sites. - Road structural design to minimize erosion and accident risk. - Work methods to mitigate annoyances during construction. - Awareness campaign on public health and road safety.	- Monitoring of air quality, water quality, erosion, noise and vibration during the construction. - Monitoring of accident incidence for a certain period during the operation phase. - Fair and prompt compensation based on the resettlement plan. - Proper restoration of workers camps, borrow pits and quarries.
Model project for the Cluster No. 2: family-level farming for food production (Public sector QIP-7)	- (Factory site selection phase) Zones for partial protection; Historical sites; Habitats; Water sources for local communities; Forest clearance needs; Resettlement needs. - (Factory's construction and operation phase) Hydrologic change by irrigation; Noise and vibration; Odor; Waste disposal; Water pollution.	- Factory engineering design to minimize the negative impacts on water and the environment. - Fair and lawful farming contract between the company, associations and farmers.	- Constant monitoring and reporting of water quality and quantity by the company. - Fair and prompt compensation based on the resettlement plan. - Fair and prompt compensation for the loss of access to land and forest resources. - Agreeable modality of mutual compensation for non-compliance with the farming contract.
Development of agricultural special economic zone (SEZ) (Public sector QIP-8) *MICOA and GAZEDA should collaborate for smooth issuance of Environmental License for the projects in SEZ, but this does not mean that all the projects will be exempt*	- (Site selection phase) Zones for partial protection; existent DUATs; Historical sites; Habitats; Water sources for local communities; Forest clearance needs; Resettlement needs. - (Design, construction and operation phase) Almost all kinds of negative impacts on the	- Zone delimitation to avoid or minimize the need for forest clearance and resettlement; - Infrastructure planning and design (electricity, water, communications, roads, etc.) to minimize the negative impacts on the environment. - Awareness campaign on	- Constant monitoring and reporting of environmental parameters by the SEZ operation unit. - Fair and prompt compensation based on the resettlement plan. - Fair and prompt compensation for the loss of access to land and forest resources.

from EIA (Decree no.43/2009, Article 23)	natural environment; Human health and occupational safety.	occupational safety and health of the workers.	- Audit of the workers' health and safety by the companies.
Development of a cassava processing factory and promotion of contract-farming with small-scale farmers for the production of cassava and other crops (Private sector QIP-3) *Use of cassava as raw material for the production of ethanol is not in line with the "strategic policy on biofuel" (2009), which adopts only sugarcane and sweet sorghum for this purpose.*	- (Site selection phase) Zones for partial protection; existent DUATs; Historical sites; Habitats; Water sources for local communities; Forest clearance needs; Resettlement needs. - (Factory's construction and operation phase) Noise and vibration; Odor; Waste disposal; Water pollution; Ground subsidence due to groundwater extraction; Hydrologic change by irrigation dam.	- Land-use planning to avoid or minimize the need for forest clearance and resettlement. - Factory engineering design to minimize the negative impacts on water and the environment. - Fair and lawful farming contract between the company, associations and farmers.	- Constant monitoring and reporting of quality and quantity of surface water and groundwater by the company. - Fair and prompt compensation based on the resettlement plan. - Fair and prompt compensation for the loss of access to land and forest resources. - Agreeable modality of mutual compensation for non-compliance with the farming contract.
QIPs of Supposed Category B			
The expansion of poultry business (Private sector QIP-1) *The company already started DUAT application.*	- (Definitive site selection phase) PDUT; existent DUATs; Historical sites; Habitats; Water sources for local communities; Forest clearance needs; Land acquisition needs. - (Expanded factory's operation phase) Solid waste disposal; contamination of water resources.	- Land-use planning to avoid or minimize the need for forest clearance and land acquisition from existing farmers. - Proper solid waste treatment and disposal. - Proper effluent treatment.	- Fair and prompt compensation for the loss of access to land and forest resources. - Constant monitoring and reporting of quality and quantity of surface water, groundwater and soil contamination by the company.
Planning of land reserves for medium and large scale investment (Public sector QIP-6)	- (Site selection phase) PDUT; Forest reserves; Zones for partial protection; existent DUATs; Historical sites; Habitats; Water sources for local communities. - (Implementation phase) Implications for the resettlement and land expropriation.	*See below.*	*See below.*

Source: Study Team

The public sector QIP-6 "Planning of land reserves for medium and large scale investment" is trying to adopt an innovative approach, so it will be helpful to provide some additional clarification in terms of environmental and social considerations.

The scope of this QIP only covers survey, delimitation and planning of the target area. Physical actions of land expropriation or involuntary resettlement, in eventual cases, are not included in the project. However, it is important to understand that the planning may result in generating implications for the need of such actions.

The expression of "available lands" in this QIP does not exactly mean truly free lands where nobody claims the right of use or its occupancy. Instead, the term only stands for the "mass of lands that can potentially be made available for investment projects relatively easier than other areas". The existence of local people's traditional rights of access to land, forest, water and other natural resources is never ignored. Also, in this QIP, the evaluation of "availability" of lands will not blindly follow the judgment by the government, since it is known that overlapping or negligence in the issuing of existing DUATs and concessions have been reported in several cases due to insufficient coordination among government institutions.

On the other hand, it is not possible to undertake a fully complete EIA within this QIP, because it remains unclear what enterprises will appear with what kind of investment projects, and how significant the adverse impacts will be. Therefore, the idea of the present QIP is to facilitate the entry of investors by providing them with basic information on environmental and social characteristics of the area at the level of Initial Environmental Examination (IEE). When it comes to the concrete project proposal, the investor may utilize such IEE information in order to better design their projects and carry out respective EIAs with greater ease and less time and cost.

The other QIPs, which are supposed to be classified in Category C or less, mostly deal with the expansion of contract farming by increasing the number of out-growers. Important considerations in these cases will be: (i) Fair criteria for beneficiary targeting; and, (ii) Agreeable modality of mutual compensation for non-compliance with the farming contract.

4.2.2 Support for preparation of Resettlement Action Plan in relation to QIPs

ProSAVANA will fully adopt the concept of RAI (Responsible Agricultural Investment). In this perspective, the QIPs of both public sector and private sector will be subject to the 7 internationally accepted fundamental principles.

There are 6 QIPs that may eventually imply the need for involuntary resettlement, though its necessity is still difficult to evaluate due to the lack of precise information. As a support for the public entities as well as private enterprises that will take responsibility of the implementation of these QIPs, standard TORs for the resettlement planning will be presented in the Draft Final Report.

The site selection should be done carefully taking into consideration the actual information about each project, so that it may generate maximum social benefits and the least environmental impact. Also, every feasible alternative should be explored in the project design.

If involuntary resettlement is inevitable, the resettlement activities should be formulated and implemented as sustainable development plans, providing resources for the displaced people so that they can enjoy the benefits derived from the project.

The displaced people should be consulted extensively and have an opportunity to participate in the planning and implementation of the resettlement plan.

The support for formulation of a resettlement plan, in accordance with the Decree no.31/2012 "Regulation on Process of Resettlement caused by Economic Activities", requires the definition of standards, procedures and guidelines for careful planning regarding the treatment of potentially affected people that can be individuals, families or small communities.

In view of the above, the following standards, procedures and work steps are suggested in preparing the resettlement plan:

a) Ensure participation of the persons or families involved in the process of involuntary resettlement, recognizing and legitimizing the organizations and leaderships;
b) Prepare a Resettlement Plan considering that the main objective is to improve the living conditions of the affected people;
c) Ensure compensation for the losses related to the people's present life situation;
d) Ensure assistance during the process of displacement and settlement in the selected places; and,
e) Ensure, at least, maintaining the current living standards (income, production, access to services), and pursue the improvement of these.

Work steps:

a) Preliminary survey and analysis;
b) Studies of project alternatives to minimize involuntary resettlement;
c) Public consultations for the implementation of the QIP;
d) Preparation of a Resettlement Plan;
e) Process and negotiation and acceptance;
f) Compensation for the losses related to the present life situation of the persons or families, recognizing the rural residents' customary rights of access, use and management of land;
g) Ensuring the issuance of DUAT at the resettlement site; and,
h) Implementation of the Resettlement Plan.

It is emphasized that all these suggestions require that the offer of new conditions (for example: lot, housing, transportation and income) should always be at least equal to the previous conditions of the involved lots: however, it is recommended to attain better conditions than before.

CHAPTER 5 PRINCIPLES OF RESPONSIBLE AGRICULTURAL INVESTMENT

5.1 Principles of Responsible Agricultural Investment

As reported in many publications, recent large-scale private investment projects in the agriculture and forestry sectors are facing problems of conflict with local communities, not only in the Nacala Corridor but also in the whole of Mozambique. Major issues include: disagreement on land delimitation, lack of transparency and lack of significant consensus building in the consultation process, involuntary resettlement, unfair or delayed compensation, perceived threat to food security and livelihood of the community, weak compliance with investor-community partnership agreement, and so on. The mechanism for the settlement of disputes through the government's interventions also remains weak.

Under such circumstances, ProSAVANA is expected to establish a model of Responsible Agricultural Investment (RAI) in order to better spread the benefits, and balance opportunities with risks in agricultural investment projects. This will be achieved through the following approaches:

(1) Environmental and social considerations in the grand design of the Master Plan;

(2) Establishment of "ProSAVANA Guidelines on RAI" and its application.

In this chapter, the approach (2) is mainly discussed. It should be emphasized that "ProSAVANA Guidelines on RAI" are not going to create new, original principles which may govern the design and prioritization of components of the Master Plan, but are trying to translate the internationally accepted principles and guidelines into more specific actions to better fit the reality of the Nacala Corridor when the proposed components of the Master Plan will be put into implementation.

5.1.1 Principles of Responsible Agricultural Investment (PRAI)

A discussion note prepared by FAO, IFAD, UNCTAD Secretariat and World Bank Group "Principles for RAI that Respects Rights, Livelihoods and Resources" was made public in February 2010. Although the proposed principles are voluntary and subject to consultation and refinement, the main international agencies agreed that the following seven key principles are essentially the right ones:

Table 5.1.1 Key Principles of RAI

	Principles	Specific Requirements
1	Existing rights to land and associated natural resources are recognized and respected. ***(RESPECTING LAND AND RESOURCE RIGHTS)***	Existing use or ownership rights to land, whether statutory or customary, primary or secondary, formal or informal, group or individual, should be respected. This requires: (i) the identification of all rights holders; (ii) legal recognition of all rights and uses, together with options for their demarcation and registration or recording; (iii) negotiation with land holders/users, based on informed and free choice, in order to identify the types of rights to be transferred and modalitieoing so;

		(iv) fair and prompt payment for all acquired rights; and, (v) independent avenues for resolving disputes or grievances.
2	Investments do not jeopardize food security but rather strengthen it. ***(ENSURING FOOD SECURITY)***	Whenever there are potential adverse effects on any aspect of food security (availability, access, utilization or stability), policy-makers should make provisions for the local or directly affected populations such that: (i) continuing access to food is assured; (ii) opportunities for outgrower involvement and off-farm employment are expanded to protect livelihoods and raise incomes; (iii) dietary preferences are taken into account if the mix of products grown may change; and, (iv) strategies to reduce potential instability of supply are adopted. Moreover, whenever the proposed project is large enough to affect food security at the national level, project design and approval should also consider these four kinds of aggregate impacts.
3	Processes relating to investment in agriculture are transparent, monitored, and ensure accountability by all stakeholders, within a proper business, legal, and regulatory environment. ***(ENSURING TRANSPARENCY, GOOD GOVERNANCE, AND A PROPER ENABLING ENVIRONMENT)***	To create a proper enabling environment, policies, laws, and regulations affecting the investment climate should be benchmarked against, and brought into line with, globally accepted best practices, even as institutions responsible for implementing them are being strengthened. Specific elements in this regard include: (i) ensuring public availability of relevant information, such as land potential and availability, core aspects of prospective investments, and resource flows or tax revenues; (ii) developing the capacity of institutions that handle investment selection, land transfers and incentives to follow principles of good governance, operate efficiently and transparently; and, (iii) ensuring that an independent system to monitor progress towards a better investment climate is in place.
4	All those materially affected are consulted, and agreements from consultations are recorded and enforced. ***(CONSULTATION AND PARTICIPATION)***	Sustainability of investments in agriculture requires that such investments be designed in a participatory manner, consistent with local people's vision of development. Even in countries that already require local consultations as a precondition for project approval, the impact of such requirements is often limited by a lack of clarity on process, the nature and recording of outcomes, and ways to enforce agreements reached in the course of consultations. To make the consultative processes more effective: (i) definitional and procedural requirements in terms of who represents local stakeholders and what is a quorum for local attendance need to be clarified; (ii) the content of agreements reached in such consultations should be documented and signed off by all parties; and, (iii) methods for enforcement and sanctions for non-compliance should be specified.
5	Investors ensure that projects respect the rule of law, reflect industry best practice, are viable economically, and result in durable shared value. ***(RESPONSIBLE AGRO-ENTERPRISE INVESTING)***	In addition to conducting due diligence and project analysis, investors should be expected to: (i) comply with laws, regulations, and policies applicable in the host country (and ideally with all relevant international treaties and conventions); (ii) adhere to global best practices for transparency, accountability and corporate responsibility in all sensitive areas; and, (iii) strive not only to increase shareholder value but also to generate significant and tangible benefits for the project area, affected communities, and the host country. Where the resources in question are publicly owned, or if other public assets such as tax breaks and complementary infrastructure are being offered as incentives, government agencies have an obligation to carefully check the feasibility analysis to ensure that host countries,

		affected communities, and local stakeholders are all likely to benefit. National or regional bodies may have to assist states, provinces or municipalities that are technically unable to review major projects proposed within their jurisdiction. There is also a need to integrate the proposed enterprise into broader food and development strategies.
6	Investments generate desirable social and distributional impacts and do not increase vulnerability. ***(SOCIAL SUSTAINABILITY)***	Among others, social sustainability can be enhanced if: (i) relevant social issues and risks are identified during project preparation, and strategies are devised to adequately address them; (ii) the interests of vulnerable groups and women are considered explicitly; and, (iii) the generation of local employment, transfer of technology, and direct or indirect (e.g. via taxes) provision of public goods and services is part of the investment design.
7	Environmental impacts of a project are quantified and measures taken to encourage sustainable resource use, while minimizing the risk/magnitude of negative impacts and mitigating them. ***(ENVIRONMENTAL SUSTAINABILITY)***	Investors and government need to cooperate so that: (i) independent environmental impact analysis to identify potential loss of public goods, such as biodiversity or forests, is conducted prior to approval; (ii) preference be given to reclaiming or increasing productivity on resources already in use; (iii) the most appropriate production system is selected to enhance the efficiency of resource utilization, while preserving the future availability of these resources; (iv) environmental good practices in agriculture, processing and manufacture are adhered to; (v) provision of desirable ecosystem services is encouraged; and, (vi) negative impacts are addressed through regularly monitored environmental management plans and compensated for where appropriate.

Source: Adapted from "Principles for RAI that Respects Rights, Livelihoods and Resources", 2010

Private investors interested in agricultural development in the Nacala Corridor will be requested to comply with these principles in addition to their internal codes of conduct and voluntary self-regulations. Government institutions, policy-makers, financing agencies, donors, local people and other stakeholders are also expected to help this process by doing their part.

5.1.2 Voluntary Guidelines

It is also advisable to refer to the following publication of FAO:

(1) Voluntary Guidelines on the Responsible Governance of Tenure of Land, Fisheries and Forests in the Context of National Food Security (March 2012);

(2) An informal aid for reading the Voluntary Guidelines on the Responsible Governance of Tenure of Land, Fisheries and Forests in the Context of National Food Security (May 2012);

(3) Trends and Impacts of Foreign Investment in Developing Country Agriculture: Evidence from case studies (November 2012); and,

(4) The State of Food and Agriculture 2012: Investing in agriculture for a better future (December 2012).

The guidelines (1) (2) are focused on the issues of land and resource rights. In connection with PRAI, the chapters 4 "Rights and responsibilities related to tenure", 12 "Investments" and 21 "Resolution of disputes over tenure rights" draw pertinent observations.

The report (3) pointed out that international investments that give local farmers an active role and leave them in control of their land have the most positive effects on local economies and social development. In addition, it advised that acquisition of already-utilized land to establish new large farms should be avoided and other forms of investment should be considered.

The report (4) again called upon the corporate investors and other stakeholders to ensure that large-scale investments in agriculture, like the acquisition of land by private companies and funds, are transparent, accountable, socially beneficial and environmentally sustainable.

There is another currently ongoing important movement on the RAI issue. The Committee on World Food Security (CFS) held its 39th session in October 2012, and agreed to develop a set of voluntary, non-binding principles for RAI, taking into account the existing principles and guidelines, through an inclusive consultation process by October 2014.

5.2 Application of PRAI for Agricultural Development in the Nacala Corridor

5.2.1 Process of Formulation of "ProSAVANA Guidelines on RAI"

As described above, the internationally accepted principles and guidelines on RAI need to be translated into actions, desirably as a balanced mixture of voluntary self-regulations and compulsory instruments. For this purpose, "ProSAVANA Guideline on RAI" will be elaborated as an annex to the "Data Book for Private Investors" by August 2013. The targeted main users include:

(1) Mozambican government at central and decentralized levels;

(2) Investors including enterprises and financial institutions1;

(3) Local stakeholders including communities (for consulting purposes);

(4) Independent neutral players such as NGOs, civil society and academy; and,

(5) Bilateral/multilateral donors and, to the extent possible, governments of the countries from which investment initiatives are emanating.

Table 5.2.1 shows the outline of the Guidelines in terms of structure, contents, schedule, language and contributor. Only Volume 1 will be part of the "Data Book for Private Investors", while Volume 2 will be a separate product. In the longer term, it is desirable that PRAI be incorporated by the Mozambican Government in its public policies.

1 This may also include the "Nacala Fund" and the implementing agencies of other financial schemes to be proposed in the Master Plan. ProSAVANA Guidelines on RAI is expected to be utilized in the selection criteria of investment proposals.

Table 5.2.1 Outline of the "ProSAVANA Guidelines on RAI"

	Index	Contributor	Language	Schedule
Volume 1 for Private Investors	1. Key principles of RAI 2. Legal regulations for RAI in Mozambique 3. Recommendable codes of conduct and good practices for investors 4. Self Checklist 5. Useful links	Study team	English Portuguese Japanese	Feb.: 1st draft April: 2nd draft May: final draft
Volume 2 for Government Officials	1. Key principles of RAI 2. Legal regulations for RAI in Mozambique (simplified) 3. Roles and responsibilities of Government institutions 4. Actions for evaluation and supervision (+ checklist) 5. Useful links	Study team & CPI, CEPAGRI, MINAG, MICOA	English Portuguese	April: 1st draft May: final draft

Source: Study Team

5.2.2 The First Draft of "ProSAVANA Guidelines on RAI"

The first draft of Volume 1 with 47 pages is now going through internal review by the study team and ProSAVANA Headquarters. An emphasis was given to the fact that the Government of Mozambique already has a number of laws and regulations which require obligatory compliance and respond to most principles of RAI, if properly enforced. The contents can be summarized as follows:

(1) Key principles of RAI
- Partial citation of the "7 key principles (extended version)";
- Introduction of other relevant publications of FAO.

(2) Legal regulations for RAI in Mozambique
- Protected Areas, Territorial Planning, Forest and Heritage;
- Land and EIA (Environmental Impact Assessment);
- Involuntary Resettlement and Compensation for Asset Loss;
- Water and Environmental Risks related to Agriculture;
- Industrial Activity, Labor and Benefit Sharing;
- Supervision, Penalty and Sanctions.

(3) Recommendable codes of conduct and good practices for investors
- 25 actions have been proposed;
- Each action described a concept, supervising or supporting institution and legal reference.

(4) Self checklist
- 30 items for self-check have been proposed as follows;

- Conception Stage = 2;
- Site identification and Preliminary survey Stage = 9;
- Assessment and Consultation Stage = 8;
- Technical project design Stage = 7;
- Operation Stage = 4.

(5) Useful links

- 40 websites or reference materials have been presented as follows;
- Principles, Guidelines and Reports issued by International Institutions = 9;
- Mozambican Legislation, Government Institutions and their Publications = 15;
- Outside Knowledge Sources on Good Practices and Standards = 11;
- Official Statements on RAI in Japan = 5.

5.2.3 Mechanism of application and enforcement

For the "ProSAVANA Guidelines on RAI" to become truly effective, it is indispensable to devise good mechanisms for its application and enforcement, which might include the following elements:

(1) To disseminate the Guidelines among a wide range of users;
(2) To help the users better understand the Guidelines;
(3) To strengthen the law enforcement by the Government;
(4) To set up financial conditions to induce or restrict the behavior of private investors; and,
(5) To create an autonomous agency with specialized functions to address RAI issues.

As for the dissemination, Volume 1 will be distributed for the participants of the investment seminars to be held in Maputo and Tokyo in August and September of 2013. Volume 2 will be distributed from ProSAVANA-Headquarters to the local governments (3 provinces and 19 districts) as well as central government institutions such as CPI, GAZEDA, MINAG, CEPAGRI and MICOA, by the end of the Master Plan study. Both volumes will also be available for download on the official website of ProSAVANA.

Any questions related to RAI from private investors will be accepted and answered by the "Support Organization for the Investment and Value Chain Development" to be established as one of the Master Plan components. For the central and local government officials in charge of evaluation and supervision of the investment projects, a series of seminars on the interpretation and utilization of the Guidelines shall be organized together with the distribution of Volume 2. Moreover, such seminars will be constantly held as an activity of the "Project for Strengthening of the Supervision Mechanism on Land and Environmental Law Enforcement".

The strengthening of law enforcement requires a long-term effort, and many different approaches are possible. Table 5.2.2 shows the three principle approaches to be adopted in ProSAVANA.

Table 5.2.2 Approaches to Strengthening of Law Enforcement for RAI

Approach	Details
Project for specific purpose	■ Master Plan component "Project for Strengthening of the Supervision Mechanism on Land and Environmental Law Enforcement" (see chapter 3), which focuses on: - Land and DUAT issues; - District Land-Use Plan; - Environmental Impact Assessment; - Resettlement and Compensation issues; - Investor-Community Partnership Agreement; - Water use and Environmental Quality Standards; - Inspection, Audit and Sanctions.
Policy appeal	■ Strong and constant request for allocation of enough budget to MICOA and other supervising institutions; ■ Legal mechanism to allow budget channelization from FUNAB to MICOA to cover the expenditure for environmental inspection services; ■ Need for public policy and legal instruments on the modality of fair and prompt compensation resulting from economic activities; ■ Need for public policy and legal instruments on the management of fertilizers[2]
Suggestions in RAI Guidelines	■ Evaluation and Licensing stages - Desirable criteria for investment proposal evaluation by CPI/CEPAGRI; - Desirable criteria for DUAT application assessment by SPGC/MINAG; - Desirable criteria for EIA approval or rejection by DPCA/MICOA; - Desirable criteria for forest clearance assessment by SPFFB; - Desirable criteria for water license / concession assessment by ARA; - Recommendations for District Government on the "Administrator's Opinion" on DUAT application process and the approval of Resettlement Plans. ■ Monitoring and Supervision stages - Key points of project and land-use monitoring by CPI/CEPAGRI/MINAG; - Key points of environmental monitoring and inspection by MICOA. - Information disclosure on investment project, DUAT, EIA and other documents.

Source: Study Team

It is also desirable that "ProSAVANA Guidelines on RAI" could be utilized by the financing agencies, including the Nacala Fund or other financial institutions which may handle the loan schemes for private investors under ProSAVANA in the selection process of investment project proposals. One alternative is to provide favorable conditions in terms of project finance for those investors who are committed to comply with RAI principles. Another alternative will be, on the contrary, to reject any proposal which does not meet certain requirements of RAI principles. However, such control by financing agencies will not reach those investors who can implement the project using their own capital or through other financial sources outside ProSAVANA's scope.

[2] "Regulation of Fertilizer Management" was approved by the Council of Ministers in Feb. 2013, but not promulgated yet.

Finally, the establishment of an autonomous agency with specialized functions to address RAI issues, or at least as one of the units under the "ProSAVANA Implementing Body", will deserve discussion. The effectiveness of the application and enforcement of the "ProSAVANA Guidelines on RAI" will be influenced quite a lot by the existence or lack of such specialized unit. If such agency or unit is going to be materialized, the following points should be discussed with special attention: (i) objectives; (ii) scope; (iii) geographical coverage; (iv) legal competence and executive power; (v) revenue and expenditure; and (vi) duration (permanent or temporary). Overlapping of functions with other government institutions should be avoided; rather, this agency or unit is expected to contribute to strengthen and complement the government institutions by providing less bureaucratic services from a neutral standpoint. One feasible recommendation is that this agency or unit will not possess legal power to impose sanctions or penalties but will be authorized to carry out independent monitoring, request the disclosure of any necessary documents or information, and support the inspection activities by the government officials.

5.3 District Meetings and Stakeholder Meetings

5.3.1 Supporting the District Meetings

(1) Background and Objectives of District Meetings

Through the several meetings conducted by ProSAVANA-PD at the provincial and district level, Mozambican counterparts of DPA Nampula planned to conduct the dissemination of the ProSAVANA Program at the local government and farmers levels. Unfortunately, their proposal was not approved because of a shortage of government budget. At the Third JCC of ProSAVANA in December 3, 2012, the importance of social communication was confirmed.

In order to conduct the district meeting for the dissemination of ProSAVANA Programs and explanation of the agricultural development master plan outline, the Japanese Study Team of ProSAVANA-PD decided to support the Mozambican counterparts after the Overall Picture was prepared by ProSAVANA-PD in November 2012.

(2) Implementation Plan of District Meetings

The district meeting is organized and conducted by Mozambican counterparts. The explanation of the ProSAVANA program, outline of overall picture of agricultural development and answers to questions are given by Mozambican counterparts. The member of the Japanese Study Team offers supplemental answers to questions, if necessary.

Through the discussion among the Mozambican counterparts to start the implementation planning, it is proposed that the discussion meeting shall be conducted for 3 groups:

1) District government consultative council (district government officials including SDAEs, post administrations, extension workers, traditional leaders, etc.)

This group, as the "voice" of the Mozambican Government at the local level must be prepared to answer questions that arise from the civil society and local people. Also the district government is one of the most important stakeholders for implementation of the Agricultural Development Master Plan.

2) Local farmers and their representatives

Farmers are the largest beneficiaries/stakeholders in agricultural development. They are mostly supported by extension workers of SDAE and NGOs. The method of approach to this group is quite different, starting from the fact that the dissemination must be done in their own language.

Dissemination meetings shall be organized by the local government (SDAE) under support of DPA Province and ProSAVANA-PD/PI. Representatives of farmers/associations will be selected by the extension groups (SDAE and NGOs). Participation is open to any stakeholders, but total participants are set to be around 60, because of the venue and discussion.

3) Civil Societies

This group must be addressed accordingly. Explaining the ProSAVANA-JBM and being prepared to answer their criticisms that are based on lack of information, and details of the project.

Civil Society Platforms are formulated at the provincial level. It is agreed that one discussion meeting on ProSAVANA program will be conducted with representatives of each district platform at Nampula. It will be held at DPA Nampula on March 21 2013 with the participation of ProSAVANA-HQ.

(3) Progress of District Meetings

The first district meeting was the meeting with farmers in Ribaue conducted on March 19, 2013. The schedule of district meetings has been fixed for all districts in Nampula and Zambezia provinces, and they will be completed by April 9, 2013. The meetings in Niassa Province are not fixed yet, so they will be conducted in May to June.

As of March 12, 12 meetings were conducted as shown in Table 5.3.1.

Table 5.3.1 District Meeting Schedule and No. of Participants

Province	District	Meeting with Consultative Council		Meeting with Farmers	
		Date	Participants	Date	Participants
Nampula	Monapo	29-Mar	-	29-Mar	-
	Muecate	14-Mar	-	27-Mar	-
	Mecuburi	22-Feb	43	4-Mar	76
	Meconta	28-Feb	34	5-Mar	104
	Mogovolas	3-Apr	-	3-Apr	-
	Rapale	21-Feb	46	1-Mar	61
	Murrupula	1-Mar	39	13-Mar	-
	Ribaue	9-Apr	-	19-Feb	88
	Lalaua	15-Mar	-	15-Mar	-
	Malema	18-Mar	-	19-Mar	-
Zambézia	Alto Molocue	27-Feb	15	27-Feb	78
	Gurue	4-Mar	13	28-Feb	63
Niassa	Cuamba	-	-	-	-
	Mecanhelas	-	-	-	-
	Mandimba	-	-	-	-
	Ngauma	-	-	-	-
	Majune	-	-	-	-
	Chimbonila	-	-	-	-
	Sanga	-	-	-	-
Total			190		470
Average			31.7		78.3

Note: * Members and staffs of the Study Teams are not counted.
- : not yet specified or conducted

Source: Study Team

In some districts, meetings could not be implemented at the district consultative council but conducted at the meeting of district government officials.

Up to now, total analysis are not complied, but the common issues expressed by farmers are 1) lack of market access, 2) lack of access to agricultural inputs (seeds, tractors), 3) no access to agricultural credit, and 4) poor road to market. On the other hand, the district officials expressed poor social infrastructure including local roads, adult education and specific issues in the region such as low productivity of tea production. These results of meetings will be examined to finalize the agricultural development master plan by the Study Team. And they will be described in the draft final report which will be issued in August 2013

5.3.2 Supporting the Stakeholder Meetings

Separately from the district meetings, two stakeholder meetings were conducted as shown Table 5.3.2. These stakeholder meetings for ProSAVANA-PD were organized by Mozambican counterparts and the Japanese Study Teams provided explanations and answers to questions.

The first stakeholder meeting was prepared for the explanation of the work plan of the agricultural development master plan based on the draft Work Plan in Maputo, Nampula, Lichinga, Quelimane, Alto Molocue in April 2012.

The second stakeholder meeting was conducted on the draft Report No.1: overall picture of the development plan in Nampula and Maputo in November 2012.

The third stakeholder meeting is planned on the quick impact projects on March 18 and 22, in Maputo and Nampula, respectively.

Table 5.3.2 Number of Participants in the Stakeholder Meetings

Round	1st meetings (April 2012)				2nd meetings (November 2012)		3rd meetings (March 2013)	
Material	Inception Report				Interim Report 2		QIP Report	
Place	Nampula	Lichinga	Quelimane	Alto Molocue	Nampula	Maputo	Nampula	Maputo
Farmers	2	0	0	8	4	0		
Private enterprise	10	9	2	2	6	8		
Public organizations	28	28	6	7	28	22		
NGO and Donor	3	5	0	4	3	10		
Unknown	3	1	2	12	0	0		
Sub-Total	46	43	10	33	41	40		
Grand Total	**132**				**81**			

Source: Study Team
* Members and staffs of the study teams are not counted.

CHAPTER 6 FURTHER STUDIES

6.1 Flowchart of Reporting

According to a series of discussions on the triangular work plan of the Study, the following four (4) kinds of report, namely Report 1, Report 2, Report 3 and the Final Report, shall be prepared during the study. The reporting procedure is illustrated in Figure 6.1.1.

(1) Report No. 1: Overall Picture
- Agriculture in the study area (potential and constraints)
- Zone-wise agriculture development strategy and goals
- Sector-wise agriculture development strategy

(2) Report No. 2: Quick Impact Projects
- Zonal goals and cluster development strategy
- Quick impact projects (QIPs)

(3) Report No. 3: Draft Master Plan Report & Preliminary Data Book for Investors (to be submitted middle of August 2013)

(4) Final Master Plan Report & Data Book for Investors

(to be submitted middle of October 2013)

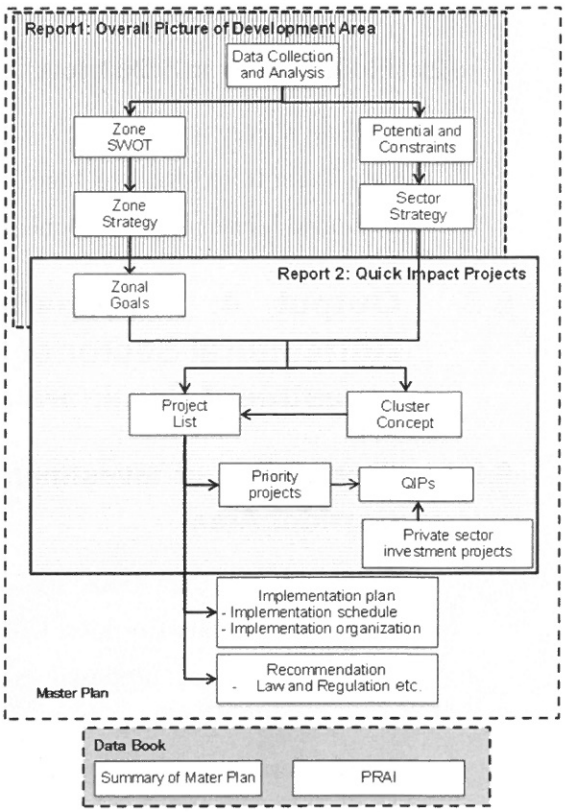


Figure 6.1.1 Flowchart of the Reporting

6.2 Additional Field Survey (March to June 2013)

6.2.1 Continuation of District Meetings

As stated in Sub-chapter 5.3, all of district meetings in Nampula and Zambezia Provinces will be completed by the middle of April by the counterpart of 2 provinces under the support of Japanese PD Study Team. The remained 7 districts in Niassa Province will be completed during the next field Study between May to June. The Study Team will continue supporting the Mozambican counterparts. These results will be compiled and analyzed to confirm the final master plan and details will be attached to the draft final report.

6.2.2 Additional Study of 5 Districts

(1) Collection of Data and Information of Additional 5 Districts

Collection of data and information of additional 5 district will be conducted as same as original 14 districts through provincial DPAs and SDAE of districts.

These present additional data / information will be analyzed and compiled to the present conditions of the original 14 districts as shown in Chapter 3 of Interim Report (1) for the draft Final Report.

(2) Field Survey in 5 Districts

The field survey and interview survey in the additional 5 districts will be conducted by the Study Team from March to June 2013. Field survey also will study the possibility of applying formulated Master Plan component projects and QIPs in these new districts.

6.3 Output 4: Preparation of Investment Data Book for Agricultural Sector of Nacala Corridor Area and the Holding of Investment Seminars (April to August 2013)

6.3.1 Preparation of Investment Data Book for Agriculture Sector of Nacala Corridor Area

The Investment Data Book will present an overall picture of the agriculture/agribusiness sector in the Nacala Corridor, with a summary of the Agriculture Development Master Plan, including a list of proposed projects, future potential for agriculture and agribusiness development, regulations and necessary procedures for starting agribusinesses, and other related information. The Data Book will be prepared by a joint effort with the both teams with support from the Mozambican counterparts from CPI, CEPAGRI, and MINAG. It is expected that a draft will be compiled by the end of July 2013, while the final product will be printed in August of the same year, following the completion of the editorial work and graphic layout. A tentative outline of the Data Book, including possible contents, is set out in Table 6.3.1.

Table 6.3.1 Tentative Outline of the Investment Data Book

1. Background (2 pages)
- General explanation of agriculture development in the Nacala Corridor
✧ Brief summary of ProSAVANA JBM
2. Current Status of Agriculture/Agribusiness in Mozambique and the Nacala Corridor (10～15 p.)
- Geographical and agro-ecological features
- Agricultural activities (amount of production, product supply chains, export volume and sector trend, etc.)
- Agribusiness investment (existing businesses, current investment trend, etc.)
- Agricultural input supply, logistics, financing and irrigation facilities
- Government structure for supporting the agriculture sector (MINAG)
✧ Organizational structure, roles and responsibilities, and agriculture development policy

3. Summary of Master Plan and Future Potential for Economic Development in the Nacala Corridor (5～10 p.)
- Overall strategy for agriculture development in the Nacala Corridor (target, timeframe, etc.)
- Cluster and zoning development strategy proposed in the Master Plan
- Related economic development activities (Nacala port rehabilitation, road rehabilitation [Nacala and Pemba Corridor],, railway rehabilitation, natural gas and mining projects, manufacturing of chemical fertilizers, etc.)
- Trends in economic development of the Nacala Corridor over the past years and current forecast
- Responsible Agriculture Investment (basic principles of RAI for agriculture/agribusiness development)
4. Agriculture and Agribusiness Potential (10～15 p.)
- Demand for major crops in the local market and production forecasts
- Import substitution potential for agricultural products
- Comparative advantages of agriculture products in the Nacala Corridor
- Details of the development direction of each cluster and potential crop
- Priority/potential areas for large/medium scale agribusiness investment
- The ProSAVANA Special Economic Zone concept (potential area, investment incentives, etc.)
5. Potential Agribusiness Models with Small-scale Farmers (5～7 p.)
- Experiences of contract farming with small-scale farmers in crop production
- Potential business models for the involvement of small-scale farmers in commercial agribusiness
6. Regulations, Policy and Investment Procedures (10～12 p.)
- Land Title (DUAT) (application procedures, timeframe, other related information)
- Investment license (CPI) and Foreign Direct Investment licenses (the Central Bank)
- Investment incentives for the agriculture/agribusiness sector
- Roles and responsibilities of governmental institutions in agribusiness investment
7. Limitations (5～7 p.)
- Policy, regulation and taxes
- Limiting factors: i) infrastructure: ii) access to land: iii) availability of skilled labor: iv) input supply (high quality seeds, fertilizers, machinery, spare parts, etc.): v) agricultural financing: etc.
- Government subsidies provided to agriculture products
- Current concession arrangements made by the government (cotton, tobacco, etc.)
8. Potential Projects proposed in the Agriculture Development Master Plan for the Nacala Corridor (5～7 p.)
- M/P component projects and QIPs (especially related to the supporting of agribusiness investment)
- Outline of the agricultural financing scheme (special loan (soft loan) scheme for small/medium agribusinesses, and the Nacala Fund for large/medium agribusiness investment)
9. ProSAVANA implementing body (tentative) (3~5 p.)
- Will include details (organizational framework, specific roles and responsibilities, staffing, etc.) on the ProSAVANA implementing body if it is confirmed by July 2013.
Annex
- Details of RAI procedures and checklists
- Directory of relevant government offices (CPI, CEPAGRI, DPA, SPGC, MICOA, etc.)
- List of agribusiness companies operating in the Nacala Corridor

6.3.2 ProSAVANA Guideline on RAI

As stated in Chapter 5 of this Report, ProSAVANA Guideline on RAI will be prepared Volume 1: Guideline for Private Investor and Volume 2: for Government Officials by August 2013. Only Volume 1 will make part of the Data Book for Private Investors.

By the end of April, the second draft of Volume 1 (for private investors) and the first draft of Volume 2 (for government officials) will be prepared in respective languages. The final draft of both volumes will be ready by the end of May. After that, Volume 1 will be integrated into the "Data Book for Private Investors" while Volume 2 will become a separate product. Finalization and distribution of the "ProSAVANA Guidelines on RAI" are scheduled to be around August and September 2013.

6.3.3 Holding Seminars for Private Investors

An Investment Seminar shall be held with private companies. In the seminar, the Master Plan and the Investment Data Book for agricultural development in the Nacala Corridor will be explained, and the Investment Data Book shall be distributed. The seminar will be held one day in Mozambique and one day in Japan respectively. The seminar in Mozambique will be held at the same time as the explanation of Draft Final Report in August 2013. On the other hand, the seminar in Japan will be held after the explanation of the Draft Final Report is completed during waiting for the comments on the Draft Final Report from MINAG in September 2013. The number of attendees is expected to be about 50 people in both seminars. At present, it is expected that a few administration officials in Mozambique will be invited to the seminar in Japan.

6.4 Preparation of Draft Final Report (up to August 2013)

6.4.1 Preparation of Draft Final Report

The Master Plan is finalized by feedback of newly found through examination of priority agricultural development plans and QIPs. In particular, in order to maintain consistency between the Master Plan and QIPs, details of QIPs will be reflected in the Master Plan such as detailed activities plan, implementation schedule, result of business model analysis, recommendation for strengthening the implementation structure, etc., which will be examined during the preparation of implementation plans for selected QIPs.

6.4.2 Finalization of Agricultural Zoning, Agricultural Development Plan and QIPs' in the Master Plan

Agricultural zoning determined in Chapter 2 of this report, already included the GIS information of additional 5 districts. And the Agricultural Management zoning together with district-wise Agricultural zoning ware determined. Their results shall be confirmed in each

district through the field survey. If there is some discrepancy found with the present zoning, it shall be modified accordingly.

6.4.3 Master Plan Evaluation

The Master Plan (Agriculture Development Plan in the Nacala Corridor) to be developed, should be evaluated in terms of its validity. The Master Plan is not a long list of the proposed projects, is considered as an aggregate of projects needed to achieve the goals of the Master Plan, and the goals will be achieved if all projects are implemented. Therefore, the project evaluation of the Master Plan will be carried out comprehensively and transversely for multiple projects that make up the Master Plan, and to make a judgmental decision of overall validity of the implementation of the Master Plan. In consideration of above premises, the evaluation of the Master Plan will be carried out with 4 approaches as follows.

(1) Cost and Benefit Analysis

Even though it is difficult to quantify with accuracy, it is still worthwhile to try to figure out the contribution of the Master Plan to the regional economy. Each component of the Master Plan consists of measures to solve various issues raised in the sectors of agriculture, and such measures are strongly related with each other. In consideration the above issues, it will be considered that the increase of local agricultural production and added value of products will be regarded as the net benefit of the Master Plan. Those values will be estimated approximately for major crops in the evaluation.

(2) Qualitative Analysis of Component Project

Most of the component projects of the Master Plan cannot obtain the quantitative outputs. After these outputs are combined, the quantitative outputs can be realized. Therefore, components projects are evaluated by qualitative analysis. The qualitative analysis will be conducted by five viewpoints of DAC criteria namely, "Relevance", "Effectiveness", "Efficiency", "Impact" and "Sustainability".

(3) Analysis of Socio-economic Impact of Cluster Development

In the Master Plan, several agricultural cluster development concepts are proposed and model/pioneer project for each cluster development are formulated as component projects of the Master Plan. The socio-economic impact of cluster development will be analyzed by model of each cluster development and it will be expanded to the Nacala Corridor Area.

(4) Strategic Environmental and Social Assessment

Strategic environmental and social assessment approach, which is described in the following section, will be applied in order to evaluate validity of the Master Plan from the aspect of environmental and social issues.

6.4.4 Strategic Environmental Assessment

Based on the Draft Master Plan, the Strategic Environmental Assessment (SEA) was conducted (ref. Sub-chapter 4.1 of Draft Report on Data Collection and Analysis of Agriculture in Nacala Corridor and Drawing of Overall Picture of Development Plan, November 2012).

After completion of draft Master Plan review including QIPs planning and study results of the additional 5 districts survey, the previous SEA shall be reviewed.

It is expected that Draft Final Report would include the screening and scoping of the "platform projects" and "pioneer/model projects for cluster development" in the same manner as has been applied to the QIPs in the present report (see Chapter 4.2). Moreover, a strategic assessment of the grand design of the Master Plan will be conducted from holistic viewpoints as follows:

(1) *Review and update of the qualitative comparison of likely adverse impacts among the Master Plan and its alternatives (including "zero option")*: some national plans, strategies and regulations have been developed recently, and these shall be taken into consideration.

(2) *Extended stakeholder analysis*: a correlation matrix of the stakeholders and the Master Plan projects will be developed in terms of their susceptibility to the impacts and consultative influence in the decision-making process.

(3) *Recommendations for the core strategies of the Master Plan that imply significant and/or irreversible adverse impacts*: a series of request for modification or reconsideration of the core strategies will be developed in favor of the safeguard of natural and social environment of the Nacala Corridor, focusing on: (i) land issue, mainly in terms of investor-community relationship and desirable distribution of farm sizes in the future; (ii) forest issue, mainly in terms of admissible level of forest clearance for agricultural purpose and compensation mechanism such as "Forest Initiatives Project"; (iii) food and nutritional security; (iv) maximization and sharing of benefit, mainly in terms of fair beneficiary targeting, concern about widening of disparity among different classes of farmers, and, socially fair and acceptable mechanism of benefit sharing between individual farmers and corporate farms; and, (v) policy appeals from ProSAVANA's standpoint.

(4) *Incorporation of the results into the SEA undertaken by PEDEC study team.*

6.4.5 Explanation and Discussion on Draft Final Report

All the results of the Study, from the beginning of the Study to finalization of the Master Plan, are described in the Draft Final Report. (English Portuguese and Japanese) The report will be explained in detail with related institutes in Mozambique, other donors, the private sector and NGOs. The comments stated in the explanation and discussion meeting will be

recorded in the minutes of meetings and agreed on by the MINAG. Moreover, it is noted in the minutes of meeting that additional comments from Mozambican side should be submitted in written form by the required date.

6.5 Preparation of Final Report (October 2013)

The comments on the Draft Final Report of the MINAG, JICA, ABC and output of investment seminars will be reflected in the Final Report. The Final Report will be submitted MINAG through official channel of JICA/ABC