



Republic of Mozambique  
**MINISTRY OF AGRICULTURE**

**STRATEGIC PLAN FOR AGRICULTURAL DEVELOPMENT**  
**PEDSA 2010-2019**



*For an integrated, prosperous, competitive and sustainable  
agriculture sector*



## STRATEGIC PLAN FOR AGRICULTURAL DEVELOPMENT (PEDSA)

2010-2019

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## LIST OF ABBREVIATIONS

AAM	Mozambique Cotton Association
ACIANA	Nampula Commercial and Industrial Association
AFRs	Rural Households
CAADP	Comprehensive African Agriculture Development Program
CAP	Agriculture and Livestock Census
CEPAGRI	Agriculture Promotion Centre
CFMP	Medium Term Fiscal Scenario
CTA	Confederation of Mozambican Economic Associations
DNSV	National Directorate of Veterinary Services
EDR	Rural Development Strategy
ERV	Green Revolution Strategy
ESAN II	Food Security and Nutrition Strategy
FAO	Food and Agriculture Organization
FDA	Agriculture Development Fund
HIV	Human Immunodeficiency Virus
IFAD	International Fund for Agricultural Development
IIAM	Mozambique Agricultural Research Institute
INCAJU	Institute for Cashew Promotion
INE	National Statistics Institute
INGC	National Disaster Management Institute
MADER	Ministry of Agriculture and Rural Development
MIC	Ministry of Industry and Trade
MINAG	Ministry of Agriculture
MISAU	Ministry of Health
MOPH	Ministry of Public Works and Housing
MPD	Ministry of Planning and Development
NEPAD	New Partnership for African Development
ODM	Millennium Development Goals
OGE	State Budget
WTO	World Trade Organisation
NGO	Non-Governmental Organisation
PAEI	Agriculture Policy and Implementation Strategy
PAPA	Food Production Action Plan
PARP	Poverty Reduction Plan
PARPA	Absolute Poverty Reduction Plan
PDD	District Development Plan
PEDSA	Strategic Plan for Agricultural Development
PES	Socio-Economic Plan
GDP	Gross Domestic Product
WFP	World Food Programme
PPP	Public-Private Partnerships
PQG	Government 5-Year Programme
PROAGRI	National Agriculture Programme
PRONEA	National Agricultural Extension Programme
PWG	ProAgri Working Group

SADC	Southern Africa Development Conference
AIDS	Acquired Immunodeficiency Syndrome
SIMA	Market Information System
TIA	Agricultural Survey
USAID	United States Agency for International Development

## EXECUTIVE SUMMARY

1. Mozambique's economy is essentially agricultural. Mozambican agriculture is predominantly subsistence, characterised by low levels of production and productivity. Seeking solutions to this problem, in 2007 the Government adopted the Green Revolution Strategy.
2. The PEDSA is integrated into the instruments established by the National Planning System, and presents a medium/long term vision based on national directives for agriculture and the priorities set out in Africa's common guiding framework for improving agricultural sector performance – the Comprehensive African Agriculture Development Programme (CAADP).
3. By systematising the wide range of strategic guidelines for agriculture, PEDSA aims to incorporate a vision that is shared by key actors within the sector, creating a harmonized framework that will guide decisions, deal with issues that affect investor confidence and speed up agricultural competitiveness in a sustainable way. It focuses in particular on the Green Revolution Strategy, the Priorities of the Agriculture Sector, the Research Strategy, the National Extension Programme, the Re-afforestation Strategy, the National Forestry Plan, the Irrigation Strategy, the Food Production Action Plan, and the Strategic Plan for Livestock.
4. PEDSA's implementation approach is based upon the value chain, so its operationalisation takes into consideration all the activities linked to: (a) the development and transfer of technologies and provision of agricultural inputs; (b) agricultural production; (c) processing and marketing activities that add value to agricultural, livestock, forestry and wildlife products; and (d) sustainable natural resource management.
5. PEDSA's vision is founded in Mozambique's Vision 2025: ***An integrated, prosperous, competitive and sustainable agriculture sector.***
6. To materialize the vision, the strategic plan defines the following general objective: ***“Contribute towards the food security and income of agricultural producers in a competitive and sustainable way, guaranteeing social and gender equity”.***
7. To this end, 5 specific objectives are defined:

- Increase agricultural production and productivity and its competitiveness
  - Improve infrastructures and services for markets and marketing
  - Use land, water, forest and fauna resources in a sustainable way
  - Establish a legal framework and policies that are conducive to agricultural investment
  - Strengthen agricultural institutions
8. PEDSA will be implemented through a flexible and interactive learning process that takes into account the specificities of each province and relies on the participation of all key actors on three major fronts:
- The long term commitment and involvement of the Government and all the actors
  - Decision-taking based on analytical work and evidence-based planning
  - Alliances and partnerships to mobilize resources for agricultural investment focusing on: (i) increasing the availability of food in order to reduce hunger, through growth in small producer productivity and emergency response capacity; (ii) enlarging the land area under sustainable management and the number of reliable water management systems; (iii) increasing access to the market through improved infrastructures and interventions in marketing; and (iv) improving research and extension for increased adoption of appropriate technologies by producers and agro-processors
9. The strategy aims to increase agricultural growth by an average of at least 7% per year. The sources of growth will be productivity (ton/ha) combined with an increase in the area under cultivation, with a view to doubling yields and a 25% increase in the area cultivated for basic food production by 2019, while ensuring the sustainability of natural resources.
10. The strategy creates space for a more active private sector in both production and service provision. Family sector producers, associations, emerging farmers, commercial farmers and livestock producers, forestry entrepreneurs and the providers of agricultural goods and services including inputs, equipment, technical assistance, financial service, processing and marketing all form part of the private sector.

11. The Government essentially engages in creating a favourable environment for the private sector to invest in production, processing and marketing, through infrastructures, incentives, improving the legal framework and providing public services. These latter focus on the administration and management of land and forests, environmental protection, promoting production, agricultural information, protecting plant and animal health, agricultural research, training for producers and the emergency response safety network.
12. PEDSA aims to (a) produce synergies that will transform the agriculture sector from being predominantly one of subsistence farming to being more competitive; (b) embody a vision that is shared by the sector's key actors; and (c) deal with issues that affect investor confidence.
13. PEDSA additionally aims to fill existing gaps in the National Sub-System for Agricultural Development Planning and respective Framework that came to light with the implementation of the Food Production Action Plan (PAPA). It will also guide the efforts of development partners and align agricultural development with national, regional and international guidelines.
14. PEDSA expects increases in the levels of public resource allocations in order to create a favourable environment for the private sector. The state will subsidise the supply of production factors at progressively lower levels, and will focus on the large-scale use of animal traction, the adoption of technical packages, promoting mechanisation, the use of water and electricity for production, processing and marketing, as instruments that will lead to the proposed levels of growth.
15. Public investments for areas with high agricultural potential will be given priority, including guaranteeing access to productive areas. In other areas the state will support local initiatives to enable alternative sources of income.
16. PEDSA will be operationalised in 5-year and annual plans:
  - The 5-Year Programme 2010-2014 harmonises sectoral activities to introduce significant improvements in land, water and forest use, with the objective of achieving the Millennium Development Goals. The Food Production Action Plan (PAPA) for 2008-2011 forms part of PEDSA during the first five years.
  - The 5-Year Programme 2015-2019 consolidates food security and widens access to domestic, regional and global markets. The operational basis for



this period will be established in the light of lessons learned during implementation in the first five years.

- PEDSA will be monitored within the framework of the National Planning System, translating the priorities, strategies and plans formulated at political level into practical programmes that can be carried out efficiently and effectively. Four evaluations are included: the Agricultural and Livestock Census currently under way to provide the starting point, evaluation of the food production plan to provide operational lessons, and evaluations at the end of each 5-year period.



## PREFACE

*This Strategic Plan presents the vision of Mozambique's agriculture sector for the period from 2010 to 2019. The plan identifies strategic areas in a sector that the Constitution of the Republic of Mozambique identifies as the cornerstone of national development.*

*The importance of the agricultural sector in the economy, in society and in environmental protection led the Government of Mozambique to define the Green Revolution Strategy and to sign a number of international commitments to agricultural development, including the Comprehensive African Agriculture Development Programme (CAADP), the Abuja Declaration and the Maputo Declaration.*

*PEDSA, the strategic plan for developing the agricultural sector, was designed on the basis of these instruments. The CAADP pillars (sustainable development of natural resources; markets and infrastructures; food production; and agricultural research) comprise visible foundations for PEDSA at strategic and operational levels.*

*PEDSA was developed in a participatory way. A group of technicians from the Ministry of Agriculture, led by the Economy Directorate, was responsible for compiling the draft proposal. A diagnosis was made of the agriculture sector and various scenarios were analysed; the strategies presented in this document result from a matrix of the sector's strengths, weaknesses, opportunities and threats. Representatives of producers (both subsistence and commercial), service providers, academics, cooperation partners and civil society throughout the country took part in the process of situational and prospective analysis and the presentation of strategic options.*

*The document is organized in 3 parts. The first part contains an introduction contextualizing agriculture, and a diagnosis of the sector and the respective challenges and opportunities.*

*The second part discusses the development vision, the general and specific objectives, and respective results and strategies.*

*The third part outlines the operational framework. It covers implementation approaches and the roles of different actors in the agriculture sector. It also presents the planning, monitoring and evaluation of PEDSA and the programmes that are the responsibility of the public sector.*

## INTRODUCTION

### GENERAL CONTEXT

The development of agriculture has always been a priority for Mozambique. Immediately after Independence, development was centred on implementing projects, without a clear sectoral approach. Later on, in 1998, the Government and its main partners designed the Agriculture Development Programme (PROAGRI I), with the goal of improving the coordination of public interventions in agriculture and directing investments. PROAGRI I lasted for 5 years and was revised in 2005, when PROAGRI II was approved. In 2007, with the rapid rise in the prices of basic foodstuffs, the Council of Ministers approved the Green Revolution Strategy as a response to the situation created by the instability of international oil prices and the world economic crisis, which was compromising efforts to reduce hunger.

The Green Revolution signalled the Government's re-affirmation of this priority, establishing a directive for the transformation of an essentially subsistence agriculture into commercial agriculture. In this perspective there is Government commitment at all levels, as was made clear during the Head of State's visit to the Ministry of Agriculture, when the need for a long term strategic vision for the sector was emphasised. Box 1 summarises the Government's main recommendations for Agriculture.

#### **Box 1: Governmental commitment to developing the agricultural sector and the need for a strategic plan for agriculture**

- *The document on the Green Revolution should be strategically enriched with MINAG'S perspectives for the next 5 or 10 years;*
- *Conclusion of the Strategic Plan for Agricultural Development is fundamental, as an instrument for implementing the Green Revolution;*
- *Incentives for producers, including those in the commercial sector, are needed in order to develop the sector;*
- *Proactivity and a change in attitudes are required in the search for solutions that take into account the needs of the country in the short and long term;*
- *Land granted to investors cannot remain idle; there must be land available for whoever wants to work;*
- *Domestic production of factors of production, and fertilizers in particular, is needed to replace unsustainable imports;*

➤ *The areas with greatest agricultural potential for achieving the hoped-for results must be identified and the necessary resources for increasing production and productivity be directed towards them.*

The blueprint contained in the Green Revolution document sets out guidelines for an immediate response to the food crisis, and therefore does not present a long term strategy. The Strategic Plan for Agricultural Development (PEDSA) responds to these concerns and is integrated into the instruments established by the National Planning System, with a medium and long term vision.

PEDSA aims to create a shared vision for the key actors within the sector, and establish a harmonized framework that will guide decisions, dealing with issues that affect investor confidence and speeding up international competitiveness in a sustainable way. It harmonises and aligns a wide range of strategic national, regional and global guidelines for agriculture. Of particular importance is its alignment with new regional initiatives, namely the Comprehensive African Agriculture Development Programme (CAADP) and the SADC's Regional Agricultural Policy (RAP).

PEDSA has a 10-year perspective, from 2010-2019. It will be implemented through 5-year plans and Socio-Economic Plans as follows:

- The 5-Year Programme for 2010-2014 harmonises sectoral activities to introduce significant improvements in land, water and forest use, with the objective of achieving the Millennium Development Goals. The Food Production Action Plan (PAPA) for 2008-2011 forms part of PEDSA during the first five years.
- The 5-Year Programme for 2015-2019 consolidates food security and widens access to the market for domestic production. The operational basis for this period will be established in the light of lessons learned during the first five years of implementation.

## THE FORMULATION PROCESS

PEDSA's formulation began in 2006, with the drafting of terms of reference and creation of a working group led by MINAG. Technical assistance was requested from various cooperation partners, including FAO.

The following objectives determined the essential nature of the process:

- Find synergies for transforming the agriculture sector from a predominantly subsistence agriculture with low production and productivity into a more competitive form of agriculture;
- Embody a vision that is shared by the key actors; and
- Deal with the issues that affect investor confidence (public and private).

The drafting process went through three crucial stages: a first phase making a sub-sectoral diagnosis, a second identifying the guiding features and a third of validation.

During the first phase exhaustive diagnoses were made of the major agriculture subsectors, with particular emphasis on food crops, cash crops, livestock and natural resource management.

The main goal of the second phase was to formulate the strategy's vision for the future and key lines of orientation. Special attention was given to questions of alignment with the policies, strategies and roles of the main actors.

The third phase was one of consultation and validation of the document, and included coordination seminars with the various parties involved (MINAG, MIC, MOPH, MPD, CTA, NGOs and Universities) and regional consultations. It also included work of technical consolidation, with the support of FAO.

Throughout the process the approach adopted was pragmatic, considering the need for wide participation and the appropriation of PEDSA by all stakeholders.

# PART I

## THE AGRICULTURE SECTOR IN MOZAMBIQUE: SITUATIONAL ANALYSIS

### 1. THE SOCIO-ECONOMIC IMPORTANCE OF AGRICULTURE

#### 1.1 CONTRIBUTION TO THE NATIONAL ECONOMY

Mozambique has been one of the African countries with the best economic performance in recent years, achieving an average annual growth rate of 8% during 1994-2007. The growth rate fell to 6.7% in 2008, as a result of the price increases in food and oil. In 2009 it was 6.1%, and the projection for 2010 is 6.3%.

The agriculture sector is a pillar of the national economy. In 2009 it contributed 24% of GDP (INE). In addition, the sector employs 90% of the country's female labour force, and 70% of the male labour force. This means that 80% of the active population is employed in the agriculture sector.

The agriculture sector's contribution to GDP has grown by 7-11% (see Figure 1, which shows the evolution of the GDP growth rate and the agriculture sector's rate of contribution to GDP).

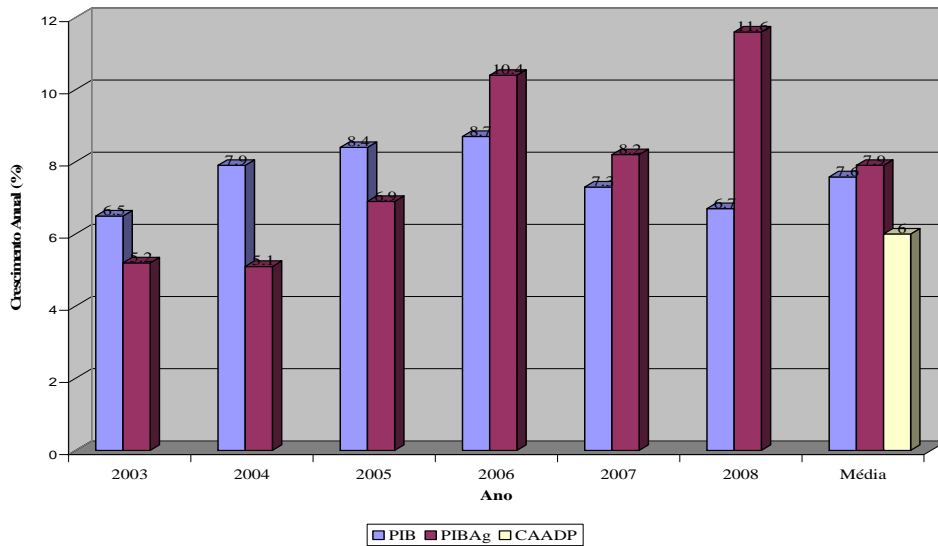


Figure 1. Growth rate of the agriculture sector's contribution to GDP. Source: INE, CAADP

Although agriculture's average contribution to GDP has declined in recent years, this does not necessarily signify a structural transformation of the economic sector, as it is primarily due to the start-up of megaprojects such as MOZAL, Pande and Temane gas, and the Moma heavy sands. The national accounts (INE) show that the contribution of the agriculture sector to GDP has been growing.

The variations in the agriculture growth rate essentially reflect the effects of changeable weather, in particular the variations in rainfall from one campaign to another: over 98% of farms are rain fed.

Agricultural exports comprise only 16% of total exports, a low figure if we look at the sector's potential. Despite substantial growth in production over the last few years, Mozambique continues to be a net importer of agricultural products.

## 1.2 CONTRIBUTION TO POVERTY REDUCTION

The Constitution of the Republic of Mozambique defines agriculture as the cornerstone of national development. Mozambique has a population of 21.8 million inhabitants, growing at an annual rate of 2.3%, and the majority depends on agriculture as its source of survival (70% in the last census). Agriculture is dominated by the family sector, with 3.7 million smallholdings with an average area of 1.1 ha/family. (TIA 2008)

As a result of the economic recovery of the last twenty years, Mozambique made great progress towards reducing poverty and improving other social indicators. The poverty rate fell from 69.4% in 1996-97 to 54.1% in 2002-03, and the Absolute Poverty Reduction Plan – PARPA II – aimed to reduce the rate to 45% in 2009 (this goal is currently being evaluated). Notwithstanding the progress made, the situation continues critical since almost 10 million people live in absolute poverty suffering from lack of food security, low incomes and unemployment. While poverty has decreased more in rural areas than in urban areas, it continues to be higher in the rural areas.

Rural poverty is above all due to the limited development of agriculture, the limited access to the market, and the low productivity of food crops. If poverty is to be reduced the development of agriculture is fundamental, since 80% of the income of rural families comes from this sector and the remaining 20% from other sectors of the economy (TIA 2002, CAP 2000).

Agriculture also plays an essential role in food and nutritional security. For the majority of people in rural areas it is their main source of both food and income. As domestic agricultural production is extremely variable, with low levels of marketing of basic foodstuffs, and as the availability of foreign exchange for satisfying food needs through imports is restricted, the increase and stabilization of domestic production is essential for achieving food security. Nonetheless it is important to stress that while agriculture contributes to improved food and nutritional security, coordination among the various sectors is essential, especially for the areas of nutrition and social protection.

## 1.3 POLITICAL AND INSTITUTIONAL FOUNDATIONS

### 1.3.1 POLITICAL FOUNDATIONS

The Mozambican Government designed and has been implementing a series of policies, strategies and programmes with the purpose of combating absolute poverty, achieving food security and promoting sustainable socio-economic development. These instruments, taken together, comprise the guiding framework for public sector action in the various branches of the economy. The main policies, strategies and programmes related to agriculture are reviewed in chapter 2.3.4.

In the case of agriculture, and in particular of issues related to intensifying and diversifying farming and livestock production, the framework is built from the guidelines contained in seven key documents: the Agricultural Policy and Implementation Strategy (PAEI); the Absolute Poverty Reduction Action Plan (PARPA); the 5-Year Government Programme 2010-



2014; the Green Revolution Strategy; the Food Production Action Plan (PAPA); THE Rural Development Strategy (EDR); and the Food and Nutritional Security Strategy (ESAN).

The Government's Agricultural Policy and Implementation Strategy (PAEI), approved in 1996, is still in force. It sets out the following mission statement: "Develop agricultural activity with a view to achieving food security through the diversified production of goods for consumption, provisioning domestic industry and export, based on the sustainable use of natural resources and the guarantee of social equity". The PAEI integrates agriculture into Mozambique's economic development objectives in 4 main areas: 1) food security; 2) sustainable economic development; 3) reducing the unemployment rate; and 4) reducing the levels of absolute poverty.

According to the PAEI, the expansion of productive capacity and improvement of agricultural productivity depends on appropriate strategies regarding the following objectives;

- Access to land and planning and developing its use;
- Food production for self-sufficiency and food security;
- Production for export contributing to the balance of payments;
- Restructuring the agro-business sector;
- Development of efficient professional training, research and extension services;
- Plant and animal protection; and
- Infrastructure development.

The Absolute Poverty Reduction Action Plan – PARPA I, 2001-2005 – was Mozambique's first poverty reduction strategy. It focused on institutional reform aimed at providing an appropriate environment for private and public investment in human capital and productive infrastructure, as a way of facilitating economic growth. The implementation strategy is organized into 6 areas: macro-economic financial management, education, health, agriculture and rural development, basic infrastructures and good governance.

PARPA II 2006-2009 defined the country's medium term strategy for promoting growth and reducing poverty, through activities grouped into three pillars: Governance, Human Capital and Economic Development. With regard to rural development, the Government's main goal was to increase income-generating opportunities, especially for the family sector.

The Government 5-Year Plan 2010-2014 (PQG) centres government action on the "combat against poverty to improve the living standards of the Mozambican people, in a climate of peace, harmony and tranquillity". This plan reiterates the importance of agriculture as the basis for developing the domestic economy, offering high potential for fighting poverty. The

goal continues to be the structural transformation of subsistence agriculture into prosperous, competitive and sustainable agriculture, making an increasing contribution to GDP through implementing the Green Revolution, which highlights agricultural research, water resource management and animal traction. The PQG establishes the following strategic objectives for the agriculture sector:

- Ensure the growth of production and food security
- Raise the productivity of farming activity and its whole value chain
- Encourage the increase of agricultural production for the market
- Promote the sustainable use of land, forests and wildlife
- Develop the human capital and institutional capacity of the agriculture sector

PEDSA's objectives and strategies are aligned with those defined in the PQG.

Mozambique is currently preparing the Poverty Reduction Plan (PARP) for 2010-2015. The PARP is a medium term planning instrument for socio-economic management intended to materialize the 5-Year Programme. It is also a mechanism for establishing partnerships with national and external actors who are directly involved in the formulation, implementation and evaluation of strategy and plans for combating poverty, following on from PARPA II 2006-2009. The Government intends to use the process of formulating the PARP to improve links between the different programmatic instruments.

The Green Revolution Strategy, approved by the Council of Ministers in 2007, is considered to be both a national policy instrument and simultaneously a mechanism for speeding up fulfilment of the goals of the previous 5-Year Programme (2005-2009), which aimed to increase production and productivity of basic food products and introduce cash crops to ensure food security and surpluses for export.

The primary objective of the Green Revolution in Mozambique is therefore to stimulate growth in small producer production and productivity, increasing the supply of food in a competitive and sustainable way.

Taking into account the main constraints to the development of the agriculture sector, the Green Revolution's implementation strategy is based on the following pillars:

- a. Natural resources (land, water, forests and wildlife)
- b. Improved technologies
- c. Markets and up to date information
- d. Financial services
- e. Formation of human and social capital

An integrated production and value chain approach is fundamental to achieving the Green Revolution, together with the involvement of all actors from both public and private sectors and civil society organisations. With regard to the State institutions, the participation of such Ministries as Planning and Development, Finance, Industry and Trade, Public Works and Housing, Fisheries, Health, Science and Technology, Education, Culture, Mineral Resources, Labour and State Administration, coordinated by the Ministry of Agriculture, is crucial.

The Food Production Action Plan 2008-2011 (PAPA) comprises the main instrument for operationalising the Green Revolution Strategy. The PAPA establishes national programmes and production targets aimed at guaranteeing the increased availability of food through growth in agricultural production and productivity. Operational Plans were drawn up, with targets by province and district and implementation mechanisms.

In order to achieve the goals and targets of the PAPA the Government carried out concrete activities in the context of the research programme (production of basic seeds and revision of technical norms), the agricultural extension programme, the seeds programme (production and distribution of improved seeds), the fertilizer programme, the programme of plant health campaigns, the irrigation programme, the animal traction development programme, the agricultural mechanization programme, and the agro-processing and agricultural marketing programmes.

The Rural Development Strategy (EDR) approved in 2007 aims to improve the quality of life and develop the rural areas, through:

- Competitiveness, productivity and the accumulation of wealth
- Productive and sustainable management of natural resources and the environment
- Diversification and efficiency of social capital, infrastructures and institutions
- Expansion of human capital, innovation and technology
- Good governance and planning for the market

Given that the resources of the majority of the rural population are closely linked to agriculture and related sectors, the EDR's goals are perfectly aligned with those of PEDSA.

The Food and Nutritional Security Strategy II 2008-2015 (ESAN) evolved from ESAN I to incorporate the Human Right to Adequate Food and fill some gaps identified by the independent evaluation requested by SETSAN.

The general objective of ESAN II is to guarantee that all citizens have physical and economic access at all times to sufficient food for an active and healthy life, in fulfilment of their human right to adequate food. It is based on the following food security pillars: production and availability of food in sufficient quantities for consumption; physical and economic

access to food; the use and utilization of food; adjustments to ensure that the food is socially, environmentally and culturally acceptable; and the stability of food consumption at all times.

ESAN II underlines that food and nutritional security is a crosscutting issue that involves sectors such as agriculture, livestock, fisheries, commerce, transport, education, employment, social security and the environment, and its implementation must therefore be done in coordination with a broad range of actors (various ministries and governmental institutions, the private sector and civil society).

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### 1.3.2.MAIN INSTITUTIONS

The institutional foundations of agriculture and rural development in Mozambique are mainly comprised by public sector actors, in particular the Ministry of Agriculture (MINAG). MINAG's main functions include the analysis, formulation and monitoring of sectoral policies (land and agricultural); service provision (research and extension); the establishment of internal and external regulatory and auditing mechanisms. The Ministry of Public Works and Housing (MOPH) is responsible for water policy and management and the network of rural roads. The Ministry for Environmental Coordination (MICOA) coordinates all matters related to the sustainable use of natural resources and the protection of Mozambique's ecology and ecosystems. The Ministry of Industry and Trade (MIC) is responsible for trade policies including the regulation of agricultural markets. The Ministry of Planning and Development (MPD) has general responsibility for national planning and resource mobilization. The Ministry of State Administration (MAE) has responsibility for promoting rural development and coordinating the decentralization process. With regard to the irrigation policy and programme, there is close collaboration between MOPH and MINAG around the use of water resources for agriculture.

MINAG's portfolio includes semi-autonomous institutions that are critical for agriculture and rural development. This is the case of the Mozambique Cotton Institute (IAM) and the Cashew Promotion Institute (INCAJU), which deal with legislation, implementation policy and monitoring for these crops.

In 2009 the Council of Ministers approved the creation of the Commercial Agriculture Promotion Centre (CEPAGRI), in response to a request from the private sector for improved coordination. The private sector in turn created the *Confederation of Mozambican Economic Associations (CTA)* as a mechanism for maintaining links with the government. It likewise created specific associations such as the *Association of Cashew Industries (INCAJU)* in the cashew sub-sector, the *Mozambique Cotton Industry Association (AAM)* in the cotton sub-

sector, the *Mozambique Industrial Association*, which includes the sugar sub-sector, and the *Nampula Commercial and Industrial Association (ACIANA)* in Nampula province, which uses the CTA to channel its opinions and concerns to the government via CEPAGRI.

Numerous NGOs are also active in the agricultural sector, mainly involved in crop diversification, marketing programmes and support to producer associations. These organizations play a key role in providing services to the most vulnerable sections of the rural population.

## 1.4 GLOBAL AND REGIONAL PERSPECTIVE

### 1.4.1 ALIGNMENT WITH REGIONAL AND GLOBAL OBJECTIVES

As a member of the United Nations Organisation, Mozambique endorsed the Millennium Development Goals (MDGs) aimed among others at reducing hunger and protecting the environment, both issues related to agricultural performance.

Agriculture makes a direct contribution to the following MDGs:

- Objective 1: Eradicate extreme poverty and hunger
- Objective 7: Ensure environmental sustainability

Through increasing the availability of and access to food, progress in agriculture also contributes indirectly to the following MDGs:

- Objective 2: Achieve universal primary education
- Objective 3: Promote gender equality and empowerment of women
- Objective 4: Reduce child mortality
- Objective 5: Improve maternal health
- Objective 6: Combat HIV/AIDS, malaria and other diseases
- Objective 8: Develop a global partnership for development

Within the African continent, Mozambique is participating in the New Partnership for African Development, NEPAD. NEPAD's agricultural programme, the *Comprehensive Agriculture for Africa Development Programme (CAADP)*, has four pillars that are mutually reinforcing and on which the improvement of Africa's agriculture, food security and trade balance is based:

- Expand the area under sustainable land management and create safe systems of water control to reduce the dependence of agricultural production on irregular and unpredictable rainfall
- Improve rural infrastructures and capacities related to commerce and access to the market
- Increase the availability of food and reduce hunger
- Agricultural research and the dissemination and adoption of technology

SADC Agricultural Policy is at an advanced stage of consolidation, and is based on four pillars:

- Production, productivity and competitiveness
- Marketing and markets
- Finance and investments
- Social, institutional and environmental factors

The MDGs, SADC Agricultural Policy and the CAADP pillars were all taken into account during the drafting of PEDSA.

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#### **1.4.2 REGIONAL MARKET INTEGRATION**

The domestic market plays an important role in absorbing national production. However, Mozambique depends on regional and international markets for access to products that it does not produce in sufficient quantity, such as rice, wheat and potatoes, to name only the most important in the Mozambican diet.

Competition in the international market is high, and subject to multiple distortions, such as the production subsidies in developed countries. This, allied to the deterioration in the terms of trade, means that Mozambique has low agricultural competitiveness. The World Trade Organisation (WTO) has not made much progress in opening up markets to exports from the less developed countries, but there are opportunities for Mozambique. This situation requires strategic and well aligned action.

The challenges of regional integration mean that when seeking solutions for a more competitive Mozambican agriculture, particularly at regional level, a global vision is obligatory. It is in this light that, in its negotiations with regional blocs, Mozambique has maintained a protectionist trade policy for its agricultural products and has liberalised the import of factors of production for agriculture. At the level of fiscal policy efforts have been made to ensure a range of fiscal benefits.

However, Mozambique must be attentive to the fact that, with the implementation of the SADC Trade Protocol – which aims to integrate the markets in the region, establish a common market and promote investment - tariff and non-tariff barriers will be removed for most products, including livestock products. Domestic producers will be subject to even greater competition coming from industries that are more developed and more advanced technologically. This challenge must be converted into opportunity by taking advantage of the comparative advantage derived from specific conditions for the production of certain crops. At the same time, proximity with countries that are more technologically developed will stimulate Mozambique's competitive capacity in terms of the efficiency of its services and the quality of its products.

## 2. DIAGNOSIS OF THE AGRICULTURE SECTOR

### 2.1 POTENTIAL

Mozambique has natural conditions that will enable the long term development of a diversified and dynamic agriculture sector. Broadly speaking, these conditions are as follows:

- A land area of 799,380 km<sup>2</sup>, with a land border 4,330 kms long and a coastline of 2,400 km, including 3 important ports that serve not only Mozambique but also the neighbouring countries.
- From the point of view of agro-ecological potential for agriculture, Mozambique has ten differentiated agro-ecological zones, mainly defined by rainfall and type of soil.
- There are over 36 million hectares of arable land of which only 10% is in use, and 90% of that is used by the family sector. Around 3.3 million hectares could be irrigated, which is double the irrigable area in South Africa.

- According to the 2007 forestry inventory, forestry coverage is estimated at 54.8 million hectares, ie 70% of total land area. 26.9 million hectares consist of productive forest, 13.2 million hectares comprise forest reserves, and the remaining 14.7 million are occupied by multi-use forest.
- Mozambique has 15 major water basins, 9 of which are shared with neighbouring countries, which have the potential to support agricultural production and productivity growth and minimise the negative impact of climate change and other variables, improving capacity to adapt systems of production.
- Around 35% of the population is living in urban areas, with a growth rate of approximately 4% per year. At this rate of growth it is calculated that the urban population will reach 45% by 2019, which will be reflected in a significant increase in demand for food over the next 10 years.

## 2.2 CHARACTERISATION OF RURAL HOUSEHOLDS

Studies and surveys (MADER/DAP, CAP and TIA) distinguish three types of farm: small, medium and large. The small and medium farms are dealt with together under the heading of Rural Households (AFRs), and are differentiated by the size of cultivated area and the livestock component. As already mentioned above, agricultural production is based on around 3.7 million smallholdings, of which 24.1% are headed by women (TIA 2008). These farms are responsible for 95% of all agricultural production, while the remaining 5% comes from around 400 commercial farmers who concentrate on cash and export crops (sugarcane, tobacco, tea, citrus and livestock).

AFRs may be characterised at various levels and in different ways. Some of their characteristics, selected in order to highlight specific features of these households at national, regional and provincial level, are described below.

**Food crops:** Production of food crops is important in every region, with differences in the type of crop. Maize and cassava production is dominant throughout the country. However, in the north around half of rural households cultivate sorghum; in the centre sweet potato and rice are widely grown (particularly in Zambezia and Sofala provinces); and in the south, with the exception of Inhambane, groundnuts play a major role in household food security.



**Cash crops:** AFR production of cash crops is mainly concentrated in the centre and north. Cotton and sesame predominate in the north, and the centre grows sunflower and tobacco in addition to those. Tobacco is predominant in Tete province, while sesame and sunflower are grown by most households in Manica province.

**Animal breeding:** Animal breeding is mainly done by small and medium households. Chickens are the main product throughout the country, while cattle breeding is concentrated in the south and centre, particularly in Gaza, Inhambane and Tete provinces (TIA 2008). The northern region generally has relatively few cattle, particularly Cabo Delgado province (12,057) and Niassa (2,099) (TIA 2008), mainly due to the high prevalence of tse-tse and tripanosomiasis. Pigs are seriously affected by regular outbreaks of African Swine Fever. There are small ruminants in every province, but they are particularly important to AFRs in the north thanks to their greater resistance to tse-tse and tripanosomiasis. Thus, according to the data in TIA 2008, Cabo Delgado, Niassa and Nampula provinces have around 19% of the national total of goats. At the same time, some areas in the north, especially in Cabo Delgado and Nampula, are less affected by tse-tse, and cattle are being introduced there through development programmes, resulting in the use of animal traction.

**Forestry:** Firewood and charcoal are AFRs' main forestry products in all three regions. Cutting long grass and collecting leaves is more common in the north and centre respectively. In the southern region an important household activity is cutting wooden poles, mainly for house-building. Another significant activity related to forest management is hunting, which is most common in the centre and north.

**Use of inputs:** With regard to means of production, particular water, irrigation infrastructures are mainly used in the centre and south, where rainfall is irregular, and hardly at all in the north. While there are variations among the central provinces, most irrigation infrastructure is concentrated in Gaza, Zambezia, Tete and Manica provinces.

Fertilisers and pesticides are only used by a small proportion of rural households. Regional and provincial data shows that their use is primarily associated with tobacco and cotton production, particularly in the centre and north.

There are no striking differences between regions in the proportion of AFRs that use hired labour, though it is most common in the centre, and particularly in Tete and Manica provinces. Nampula has the smallest proportion of AFRs hiring labour.

**Sources of income:** With regard to sources of income, the sale of agricultural produce appears to be the most important source for AFRs in the centre and north, while wage labour, remittances and pensions are the most important sources in the south (particularly

in Gaza and Maputo provinces), reflecting work done in South African mines and other sectors. Self-employed activities such as micro-businesses are sources of income for a significant number of AFRs in all the regions, but especially in the centre and south.

## 2.3 PERFORMANCE

### 2.3.1 AGRICULTURE SUB-SECTOR

#### BASIC FOOD PRODUCTION

The production of basic food, which is the family sector's main source of subsistence, is subject to enormous variations due to climatic uncertainty and recurring droughts, especially in semi-arid zones; every year pockets of food and nutritional insecurity emerge and re-appear. The risk of losing harvests because of unfavourable weather conditions is over 50% throughout the areas of rain fed agriculture south of the Save River, and can reach 75% in the interior of Gaza province. Given that access to non-agricultural income-generating opportunities is extremely limited in the rural areas, low income continues to be the main cause of food insecurity for many families.

Over 80% of the total cultivated area is used for rain fed production of basic food crops, with maize, cassava and beans occupying around 60% of the total. Horticulture occupies only 5%, and cash crops (sugarcane, cotton, tea, oil plants, tobacco) only 6%. Apart from these, 40% of households use native plants and herbs in their diet and for medicinal purposes.

Most family sector production is for consumption, and is characterized by low yields and modest returns. One cause of the low productivity is the limited coverage and poor quality of agricultural extension services. A World Bank study (ECON Analysis, 2005) on the impact of extension services concluded that access to agricultural extension could increase family sector productivity in Mozambique by 8.4%. Despite the combined action of Government extension services and those of other partners, mainly NGOs, in 2008 only 8.3% of farmers had access to them, which is below the average of around 13% in 2003-2007.

One of the main problems affecting agriculture is its low productivity, which is among the lowest in Southern Africa for many products. This is due to a combination of factors, including traditional farming practices and the low use of inputs. The plots are farmed with hand tools and manual labour, and a minimal use of improved seeds (10% in the case of maize, 1.8% for rice), chemical inputs (4-5%) or animal traction (11.3%) (TIA, 2008). 95% of

farming families live on properties of less than three hectares, which provides a natural limit to the quantity of food that can be produced for consumption and sale and thus restricts the possibilities for income generation.

<b>Crop</b>	<b>Average revenue (Mt/ha)</b>	<b>Potential revenue (Mt/ha)</b>
<b>Maize</b>	0.7 – 1.3	> 4.5
<b>Rice</b>	0.6 – 1.0	> 4.5
<b>Beans</b>	0.3 – 0.6	> 1.0
<b>Sorghum</b>	0.5 – 0.7	> 1.5
<b>Cotton</b>	0.5 – 0.8	> 1.5
<b>Soya (*)</b>	1.5 – 2.5	> 2.5
<b>(*) On a commercial scale, with intensive use of external inputs</b>		
<b>Source: TIA 2007</b>		

Improved inputs are rarely used because of their cost. Most inputs – eg fertilisers, improved seeds, pesticides and herbicides – are imported, but internal demand is low due to lack of knowledge about their use, limited supply and the inadequate purchasing power of family sector farmers.

The trend in usage of inputs over the last 5 years is not encouraging. Their use increased slightly between 1996 and early 2000, but has been static since then. According to the data in TIA 2008, less than 10% of farms are using improved seeds.

Crop	Campaign 2004/05	Campaign 2005/06	Campaign 2006/07
Maize	5.6	9.3	9.9
Rice	3.3	4.0	2.9
Cowpeas	3.5	3.9	6.0

**Table 1- Farms using improved seeds (Source: MINAG)**

Mozambique has enormous potential for irrigated farming, with an estimated 3.3 million ha potentially irrigable. The total irrigated area fell from 120,000 ha to 40,000 ha following the war, and little has been done since then to rehabilitate existing irrigation systems. There are currently around 50,000 ha irrigated, of which 60% is used for sugarcane production. Only 8.8% of family sector farmers use some form of irrigation (TIA, 2008).

Mozambican farmers have little knowledge of advanced production techniques and commercial practices. Most of them operate as individual producers and only 7.2% (TIA, 2008) are organised in small associations (first level) and forums (second level – groups of associations). Furthermore, many of these associations are operating in the informal sector and lack legal status or minimal organisational capacity, which makes it even more difficult to obtain economies of scale and access to land, credit and markets.

## MARKET-ORIENTED PRODUCTION

Agriculture in Mozambique continues to be mainly subsistence, and less than 10% of households sell their surpluses of maize, cassava or cotton. However, there is a wide range of crops oriented to the market.

The traditional cash crops (cotton, sugarcane and tobacco) have been farmed since colonial times, and their organisation and regulation is at an advanced level. These crops are usually produced through a concession system in which the State signs contracts allocating territories to concession companies that will carry out development and rural extension. The companies in turn provide producers with technical assistance and training, as well as production inputs (seeds, fertilisers, pesticides, sacks) and in some cases credit for investment. The concession company is the exclusive buyer in its area of influence, and pays

the producer full value less the cost of the inputs and the repayment of credit advanced for investment.

There are also market-oriented food crops, such as cashew nuts, vegetables and fruit. The professional level of private sector actors is lower for these crops than for those mentioned above. Only cashew has the benefit of a public sector structure for its development and promotion (INCAJU).

Most cashew is produced by the family sector with a double aim: the market and family consumption. Small traders buy the family sector cashew and sell it to larger traders, who in turn either export it raw or sell it to the existing small factories.

A series of new crops has emerged in recent times, aimed exclusively at the market but with no formal organisational set-up whatsoever. They include sesame, paprika, jatropha and castor oil. A characteristic of these crops is that they appear and disappear in accordance with the immediate pressures of the evolving market. Other factors contributing to this instability include the lack of specialised professional institutions and technological packages for production developed by local research systems. Crops grown as raw materials for biofuels should also be highlighted here, as world demand is creating market opportunities whereby countries such as Mozambique can develop their agriculture sectors: Mozambique can be competitive thanks to its favourable agro-climatic conditions, the availability of land and water (north of the Save River), availability of labour and access to infrastructures (ports, railways, etc).

Market-oriented crops present technical challenges of both an agricultural and market nature, and producer communities have varying socio-economic characteristics. Strategic approaches for encouraging their development must therefore be sensitive to these specificities.

The family sector has a very small presence in the market. Less than 20% of rural families linked to each of 8 different groups of crops sell their produce (TIA, 2007).

High transaction costs related to expensive transport, limited access to remote areas and the high cost of basic services (electricity, water and telephone), as well as conservative bank credit policies with extremely high interest rates, create an unfavourable environment for private sector commercial farmers, especially in the rural areas.

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## ACCESS TO THE MARKET

In accordance with the Agricultural Marketing Strategy 2006-2009 (ECA II), the Government began an ambitious process of market liberalisation. Agricultural marketing measures were

introduced with a view to encouraging the development of the domestic market and adapting it to the markets of neighbouring countries. Despite efforts to integrate into the sub-regional market, various problematic areas remain, in particular with regard to farmers' capacity to respond to market signals and prices.

With the exception of the cash crops that are within the realm of concession companies, the remaining products, in particular food produce, are marketed by small trading agents.

The deficient post-harvest handling of the produce, the lack of adequate storage infrastructures, the inadequate implementation of quality norms, the lack of access to credit for marketing, the low availability of information about markets and prices, the lack of extension services for marketing and the absence of strong peasant associations inhibit the establishment of closer and more equitable relations between farmers and markets and the effective functioning of input and agricultural product markets, which are essential components of poverty reduction in the rural areas.

In the northern region, which has the highest agricultural production, road access limits the activities of the marketing agents, particularly during the rainy season. There is no specialized transport sub-sector for agricultural trade. There is no railway system linking the north and south of the country. Improvement of roads and the transport and communications network, together with improvements to irrigation, marketing and processing infrastructures – especially in the most productive areas - comprise another important challenge for increasing agricultural production.

The Mozambique Cereals Institute (ICM) owns warehouses scattered throughout the country inherited from the colonial period, most of which are rented to private traders. The majority of storage capacity is located in the cities and towns, and there is little close to the productive centres. Post-harvest losses are high, due to both pests and the physical deterioration of the products in store.

A huge national electrification effort is under way. However, energy still only reaches the towns and urban centres. Lack of electricity means that irrigation has to depend on using fossil fuels, the price of which has been rising, which makes the cost of production unsustainable. Where there is access to electricity the operators complain about the high prices charged by the concession companies.

Another major constraint is the poor development of Mozambican agro-industry. The lack of a processing industry for agricultural products means that value is not added to the primary products. Where processing is done locally the industry has served to catalyse production, as can be seen in examples such as tobacco, cotton, sugarcane, cashew and

tea. The scheme of producing under contract or in a concession system for tobacco and cotton, coupled with credit in kind, is an example to be followed.

A number of processing factories are paralysed, or operating with obsolete technologies which make it difficult for them to be competitive.

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### 2.3.2 LIVESTOCK SUB-SECTOR

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#### LIVESTOCK PRODUCTION

Livestock plays a vital role for the rural population. 65% of rural families have chickens, 25% have small ruminants (mainly goats), 12% have pigs and 6% have cattle (TIA, 2007). As previously mentioned, only 11.3% of small farms use animal traction, mainly oxen, most commonly in the southern and central provinces where there is greater experience in the use of animals for farming activities and transport. As previously mentioned, due to the high prevalence of tsé-tsé and tripanosomiasis, cattle farming did not develop in the northern region.

Livestock's contribution to the national economy is incipient. In 2008 it represented 10% of total agricultural production and contributed only 1.7% of GDP (OIE Report, 2008). Meat production is growing at an average annual rate of 17%, and eggs and milk at 9% (MINAG: DNSV, 2008). However, the value of animal traction and that of production consumed and marketed on informal circuits in the rural areas is not calculated, and can be presumed to be considerably higher than the value of products marketed in the formal sector.

Mozambique depends heavily on the external market for the supply of beef to the main urban centres, with over 40% of the total consumed imported from neighbouring countries.

The small domestic supply of other products also means that there is high dependence on imports to meet consumer needs (32.5% of meat, 83% of milk and 74% of eggs). Most inputs for livestock production, such as rations, concentrates, medicines, vaccines, veterinary instruments and equipment are also imported, due to low or non-existent domestic production.

Nonetheless, the domestic supply of beef has grown in recent years, as a result of growing herds and the impact of development programmes, leading to a fall in imports. Production rose from 1,500 tons in 2000 to 9,357 tons in 2009 (MINAG/DNSV).

With the exception of chicken meat, the supply of which comes almost exclusively from peri-urban poultry breeders, domestically produced meat marketed through official circuits comes primarily from small family farms (TIA, 2008).

The production levels to date are still far from satisfying the growing demand for beef on the domestic market. According to MINAG statistics (TIA, 2008), Mozambique only produced 68% of all beef consumed in the domestic market, which means that 32% of consumer needs continue to be covered by imports.

Only 17% of milk and its side products consumed in the main urban centres is from domestic production, with fresh milk coming exclusively from commercial farms. There is no systematic or official information about milk consumption in the rural areas.

The eggs consumed in the main urban centres come almost exclusively from neighbouring countries. Recorded domestic production is tiny, at around 5% of the total consumed in formal marketing circuits, and comes from the peri-urban areas. There is no systematic information on egg production or consumption in the rural areas.

The main constraints on the development of livestock production, particularly of cattle, are the following: (i) low production and productivity of existing herds due to the low genetic quality of the breeding animals and unsuitable management practices; (ii) a weak network of veterinary assistance for the family sector; and (iii) lack of infrastructures for watering and managing cattle.

The commercial livestock sector, technologically underdeveloped, has declined drastically over the past thirty years, and currently has a much reduced impact on supplies for the market. Though the accumulation of wealth in the family sector is represented by the number of animals owned, there would be capacity to increase its participation in the market if there were effective activities to support livestock development. A more developed national livestock industry will be a dynamising factor for production and will contribute to import substitution.

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## ACCESS TO THE MARKET

There are two main groups of traders among livestock traders, one linked to animal production and the other to the inputs market.



The **animal traders** are mainly active on the Tete/Manica routes, to supply Beira and Maputo, and the Inhambane/Gaza route to supply Maputo. Nampula and Cabo Delgado provinces are supplied with cattle coming from Tete and Zambezia.

There are also the **meat traders**, who comprise the network of butchers, buying and selling at slaughterhouses or wholesalers, and selling to the public in the urban areas.

The **slaughtering infrastructures** (slaughterhouses and killing sites) are generally very basic, especially with regard to hygiene and conservation. The vast majority does not have running water during the slaughtering, or a refrigeration system, or a clear separation between clean and dirty areas, and the pens where animals rest before slaughter are either non-existent or lack the minimum necessary conditions. Improving these infrastructures could be a catalyst for the development of livestock production.

The **inputs traders** also form part of the production chain, importing and/or distributing vaccines, medicines and rations. They are almost all located in the capital city, Maputo, but have links to the provincial capitals.

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### 2.3.3 TIMBER SUB-SECTOR

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#### TIMBER PRODUCTION

At Independence in 1975 Mozambique possessed around 20,000 hectares of forestry plantations, mostly of *Pinus sp.*, mainly in Manica, Maputo and Niassa provinces. Another 20,000 hectares were planted in the 1980s, mainly with *Eucalyptus sp.* However, re-forestation activity practically came to a halt in the early 1990s, and the State has met with various constraints on the generation or attraction of new investments for the area, notwithstanding the favourable ecological conditions. During the current decade around 7 million hectares suitable for re-forestation were identified in the central and northern regions, and though some problems persist, interest and investment are beginning to grow in this specific area.

Despite its potential, Mozambique only has an estimated 30,000 hectares of forestry plantations, which satisfy a tiny proportion of local needs for timber products, and very little with regard to the goal of replacing the consumption of native species with planted species. The Mozambican timber industry has a generally low production and processing capacity, and lacks the technologies that would be able to supply timber in quantity and quality. Thus most timber is exported as logs, which has increased pressure on native forest, particularly the most precious and valuable species.

The world demand for timber products has been growing, and in the case of paper, for example, it is estimated that world production will grow from 360 million tons in 2004 to 494 million tons in 2020. The Asian countries of the Indian and Pacific Oceans will be responsible for 90% of this increase. These factors, allied to Mozambique's excellent agro-climatic conditions for tree growth and its strategic location close to the major emerging markets, justify the development of forestry plantations on an industrial scale. Undertakings in this area will contribute not only to diversifying national forest production but also to the development of national small and medium enterprises for re-forestation and timber processing, generating jobs, creating wealth and thus contributing to national development, particularly of the rural areas.

Plantations of quick-growing species offer an opportunity for small and medium producers to develop marketable plantations in 5-7 years, in parallel with food production. Recent studies show that while they are growing forest species can be combined with annual food crops such as beans, meaning that producers avoid additional crop management costs. This practice will result in additional household income.

At the same time, so long as many families do not have access to electricity or fossil fuels for heating and cooking, biomass will continue to be the main domestic fuel for most Mozambicans. The establishment of forestry plantations with quick growing native and exotic species for firewood and charcoal production is therefore both a development need and an opportunity, with benefits for local communities, the private sector, the State and the conservation and protection of native forest.

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## ACCESS TO THE MARKET

Most timber producers market the wood locally to processing units or buyers who transport it to the urban areas or export it. However, there is a certain level of vertical integration in timber production, transport and processing, with some operators doing the three activities simultaneously. This integration is encouraged by the concessionary regime, but some businesses with simple licences also own processing units and means of transport.

At the same time, there appears to be a certain degree of horizontal integration: some of the operators who cut timber for logs also cut it for firewood and produce charcoal, making more intensive and therefore more profitable use of their logging and transport equipment.

While information about other activities carried out by the timber operators is neither complete nor systematic, there are signs that logging is not always their main activity. The degree and type of diversification varies in accordance with the nature of the operator: simple loggers or small enterprises may be involved in activities such as agricultural

marketing, while the big companies engage in a series of other large-scale activities such as copra production, cattle breeding and game-hunting tourism.

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#### 2.3.4 LAND, SOIL, WATER AND FOREST

##### **LAND**

The introduction of the Land Policy and Strategy and the new Land Law in the 1990s adapted the land question to the new reality of a more liberalised economy. Within a context of no legal land market – land cannot be bought or sold – the State assigns land use rights that are private and exclusive and can be inherited or transferred. One important feature is that rights acquired through customary occupation are legally recognised as rights allocated by the State, equal to the new rights that are formally assigned to investors and others with no community links. Although serious attention is being given to speeding up response time to requests for land from the private sector, and an important feature of the legislation is the requirement for consultations to be carried out between the investor and the community, the communities have not always received adequate attention in this respect. There is concern about the under-use of large areas granted to investors, and challenges still remain:

- To improve the use of land with potential for agriculture, forestry and pasture.
- To guarantee the legally recognised rights of communities and beneficiaries to land and natural resources.
- To increase the amount of land that has legally recognised forms of ownership.

##### **SOIL**

With regard to soil management and conservation, Mozambique is facing the challenge of reductions in arable land due to the increased levels of erosion and salinisation that are visible on all sides. Expected consequences of climate change include a rapid decline in natural soil fertility and increased salinisation in coastal areas due to salt water encroachment.

##### **WATER**

Domestic agriculture is highly dependent on rainfall in at least 95% of cultivated areas (ENI, 2010). The impact of recurrent droughts or insufficient rainfall has resulted in significant loss of harvests.

Mozambique has been suffering extreme climatic events related to water, caused by the low and/or high level of surface drainage of waters through its water basins. The magnitude of the effects of the droughts and floods that have ravaged the country is worrying because the system for controlling and assessing the behaviour of volumes of river flows in Mozambique's water basins is not up to the required level. As Mozambique is located downstream from the main river basins that go through it, the quality and quantity of water that reaches its territory depends on the activities taking place in the countries crossed by the rivers before they enter it. This brings challenges ranging from the creation of capacity to store water in times of abundance for later use in times of shortage, to the creation of technical and institutional capacity for using water efficiently in agriculture.

Mozambique's irrigation potential is estimated at around 3.3 million hectares, but only around 120,000 ha have irrigation infrastructures and of these only 50,000 ha are operational.

In order to reduce vulnerability to drought, irrigation systems for the family sector must be built and rehabilitated and the operation and maintenance of existing systems must be improved.

## **FOREST**

Mozambique has high potential for forestry. However, the use of woodfuels for supplying urban centres, the opening of new areas for farming and uncontrolled fires for land clearance are causing deforestation over vast areas at an alarming rate, especially along the economic corridors and around the main urban centres.

In addition to the goods and services they provide for people's wellbeing, forests and wildlife are important for environmental improvements, soil and water conservation, food for animals, protecting diversity and recreational use.

Data from the forestry inventories of 1994 and 2007 show that the general rate of deforestation, estimated at 0.21% per year from 1972-1990, has been increasing significantly, and more than doubled during 1990-2002 with an estimated rate of 0.58% per year.

Wildlife resources are found throughout the country in different conservation areas and in open country. The conservation areas comprise national reserves, game hunting reserves, and wildlife farms covering around 142,500 km<sup>2</sup> (approximately 18% of land surface). The main problems are related to continued conflict between humans and wild animals, and the need to fence most of the wildlife farms.

## **2.4 MAIN CHALLENGES**

As mentioned in chapter 2.1 above, Mozambique has high potential for agricultural development. However, the sector still faces many constraints that need to be approached in a coherent way by all the actors, some of which have already been mentioned, but are grouped below in accordance with the main objectives of PEDSA:

### **2.4.1 LOW PRODUCTION AND PRODUCTIVITY**

Mozambique's agriculture sector is characterised by low production and low yields of food crops and livestock. The low productivity is due to various factors, in particular the low availability of and access to quality inputs (improved seeds, fertilisers, insecticides,...); the inadequate coverage of extension services and their poor linkages with the research services; limited use of water for agriculture; soil infertility; and limited access to credit.

An important constraint identified in the recent Agriculture Sector Performance Audit (July 2010) is the lack of reliable knowledge about crop production and yields. The data on production and productivity tends to vary widely in accordance with the systems used for obtaining it. The Early Warning System's estimates provide faster results than those of the TIA, but the TIA data is statistically more reliable, though obtained a year later.

With regard to livestock, the main cause of low productivity is the poor vigilance and disease control capacity and the deficient supply of veterinary services. This is also related to poor access to an extension system, which should not concentrate only on cattle, but also on the small animals that are mainly produced by women.

### **2.4.2 LIMITED INFRASTRUCTURES AND SERVICES FOR ACCESSING MARKETS**

Mozambique's family sector faces serious problems in accessing the market. The high transaction costs (high margins between the price paid to the producer and the market price for family sector production, and between the cost of importing inputs and the prices charged to consumers) discourage family sector participation in the market. In order to reduce these costs the road network and market infrastructures must be improved.

The construction and rehabilitation of roads and other infrastructures in areas of greatest farming and livestock potential should be given priority. In addition to the basic infrastructures, markets must have storage infrastructures with minimum services such as electricity, and an effective information system on the prices of inputs and products. These services contribute significantly to reducing transaction costs and incentivising family sector participation in the market.

Other issues that limit family sector participation in the market are related to its low capacity to participate in and develop value chains for farming and livestock products, low standards of quality, limited access to credit and the lack of peasant associations for the collective marketing of production.

### **2.4.3 INADEQUATE USE OF NATURAL RESOURCES**

The sustainable use of natural resources (land, soil, water and forest) is essential for agricultural development.

With regard to land ownership, the legally recognised rights of communities and beneficiaries to land and natural resources must be guaranteed; land with potential for agriculture, forestry and pasture must be better used; and the land area under legally recognised forms of ownership must be increased.

Soil degradation through erosion, diminishing natural fertility and increased salinisation of soil in coastal areas are problems that are having an extremely negative impact on agricultural development.

With regard to forests, local communities have difficulties in managing and using natural resources sustainably for lack of knowledge in this area. The government lacks capacity to monitor and control the use of natural resources. Conflicts between people and wild animals, uncontrolled fires, illegal timber-logging and the excessive consumption of woodfuel are all major threats to agriculture.

With regard to water, the main constraints are related to the low capacity for storing water in times of abundance for later use during shortages, the lack of simple irrigation systems for the family sector and lack of technical and institutional capacity for the efficient use of water for agriculture.

In general, the sustainable exploitation of land, water and forest resources requires well designed institutions that operate in accordance with the rules and in a transparent manner.

### **2.4.4 LIMITED INSTITUTIONAL CAPACITY AND THE NEED FOR MORE COHERENT POLICIES**

Agricultural institutions in Mozambique, both public and private, suffer from weaknesses that need to be overcome in order to perform efficiently and contribute to the prosperity and competitiveness of the sector.

The main obstacles identified include the lack of appropriately trained human resources able to provide an adequate response to the needs of the family sector, particularly at

provincial and district level. There is also a high level of drop out at district level, especially in the more remote districts, for lack of conditions and incentives.

The lack of institutional capacity for collecting and analysing information on production and productivity, the sustainable management of natural resources or the promotion of agricultural technologies in the family sector, are some of the examples mentioned in this Strategy.

One important constraint is the poor coordination among ministries with a role in agricultural development (MINAG, MPD, MAE, MIC, MOPH, MTC, MS), between MINAG and public and private institutions (research institutes, universities), and also all the other key actors (producer associations, traders, companies).

Another vital issue is the existence and coherence of policies conducive to good agricultural performance. The Government should revise the Agricultural Policy and Implementation Strategy (PAIE) and take important decisions that will ensure consistency among the different interventions. Given PEDSA's goal of converting subsistence agriculture into a competitive, sustainable and market-oriented agriculture, decisions need taking in various areas of agricultural policy, such as for example subsidies and credit for production to enable the purchase and distribution of inputs. The recent Agriculture Sector Performance Audit (July 2010) says that one of the PAPA's main problems has been centralisation (inputs are purchased at central level) and the lack of a clear credit policy. Inputs have been being distributed at subsidised prices, and farmers have not been repaying the loans received because they are accustomed to receiving them for nothing.

### **3. CROSSCUTTING THEMES**

#### **3.1 GENDER**

52% of the Mozambican population is female, and 72.2% of women live in rural areas. 24.1% are heads of household (Population Census, 2007). Human development indicators for families headed by women are extremely low.

Proof of the relation between gender inequality, poverty and economic efficiency is increasing clear in Mozambique. Illiteracy levels are much higher among women (63.1%) than among men (33.2%). Women, and girls in particular, have been the population group most vulnerable to HIV/AIDS, with the percentage of infected women in the 15-24 age group three times higher than that of men.

Women perform a key role in food and nutritional security and in the family economy. They participate actively in agricultural and livestock production (around 60-80% of women in developing countries, according to FAO data) and in the conservation, transformation, storage and marketing of food, and they are solely responsible for household nutrition. Women have enormous knowledge about the environment and their natural resources, and are responsible for providing the household with water and firewood/charcoal for domestic activities.

However, women face major restrictions to carrying out their tasks, due to the existing gender relations in rural communities. Women have limited access to and control over resources and services, namely land, inputs, credit, cash crop production, raising middle sized and large animals, extension services, information, training, technology and employment. They additionally take little part in decision-taking bodies on productive and economic matters, due to the role they have socially and traditionally been given.

In 2005 the Ministry of Agriculture designed an Agriculture Sector Gender Strategy with the aim of guaranteeing equal rights and opportunities for women and men in access to and control of resources and benefits. This was to ensure that the most vulnerable producers would have the necessary conditions for increasing food security and the family income, as a way of contributing towards poverty reduction and national sustainable development through a gender-based approach.

### **3.2 HIV/AIDS**

HIV prevalence data shows that 11.5% of the adult population between 15-49 years old is infected. Prevalence among women is higher than that among men, estimated at 13.1% and 9.2% respectively (INSIDA 2009), which has serious implications for household wellbeing.

High rates of poverty and food insecurity contribute to the rapid propagation of HIV/AIDS and vice-versa, and it could be said that there is a vicious circle that must be broken if the rate of both is to be reduced. Poor and malnourished people are more vulnerable to the impact of HIV due to a range of factors, in particular lack of access to health care and migration in search of means of subsistence, which increases the probability of greater numbers of sexual partners. At the same time, women face additional risks when they become involved in sexual activities for subsistence. Worse still, the poor have little access to information, which can limit their ability to take decisions and make choices about their sexual behaviour. Thus the poor are more exposed to risky activities as part of their survival strategies.

People living with HIV/AIDS are less able to work in agriculture and other economic sectors, which significantly reduces family incomes. In the case of women, the situation is even more



serious because of the key role they play in the production, storage, conservation and marketing of food, the selection and conservation of seeds, and the nutritional status of their households.

Given the important role of women in different agricultural activities and the higher prevalence of HIV/AIDS among young women, a MINAG priority should be the design of a special extension programme targeting women living with HIV/AIDS.

### **3.3 ENVIRONMENT**

Most Mozambicans depend on the exploitation of natural resources for their subsistence and income generation. Good use and management of these resources contributes to their sustainability.

Agricultural activities can have a negative impact on land, soil, water and biodiversity, causing problems such as de-afforestation, erosion, the pollution of soil and surface waters and uncontrolled fires. Environmental degradation contributes in turn to reducing the potential of the natural resources that are essential for agriculture. A series of environmental issues have important implications for the performance of the agriculture sector. In Mozambique, the most common are soil degradation (due to erosion and over-use) resulting in a significant loss of productivity, and de-afforestation, which encourages erosion and therefore increases vulnerability to floods and droughts, as well as causing serious loss of biodiversity.



## PART II: KEY GUIDELINES

### 4. AGRICULTURAL DEVELOPMENT STRATEGY

#### 4.1 VISION

Article 103 of the Constitution of the Republic of Mozambique states that (1) “In the Republic of Mozambique agriculture shall be the basis of national development” and (2) “the State shall guarantee and promote rural development to satisfy the growing and multifaceted needs of the people and national socio-economic progress”. Within this perspective, the VISION of the Strategic Plan for Agricultural Development – PEDSA – is that of **an integrated, prosperous, competitive and sustainable agriculture sector**.

This vision, born out of Mozambique’s Agenda 2025, reaffirms the importance of agriculture as a sector containing integrated systems that contribute with multiplier effects towards Mozambique’s economic growth. It is a vision that postulates a competitive, economically viable and sustainable agriculture sector capable of contributing in an equitable manner to improving the living standards of rural and urban communities.

#### 4.2 GUIDING PRINCIPLES

In order to achieve PEDSA’s Vision, the following guiding principles must be observed:

- Poverty reduction through suitable approaches that promote economic growth and reduce vulnerability, increase work productivity and income and reduce the proportion of families dependent on subsistence agriculture.
- The human right to adequate food, which assumes access to sufficient quantities of diversified, safe and nutritional food.

- A solid entrepreneurial base (private, cooperative and other) able to attract private investment, contributing to a dynamic commercial climate based on agents with the capacity to intervene and create efficiencies in the value chain.
- An agriculture sector that supplies diversified raw materials to the agro-industrial sector and is able to compete, substitute imports and produce good quality surpluses for export, and to coordinate with the domestic inputs and equipment industry and suppliers of services.
- A legal framework that is favourable to investment and competitive commercial operations.
- Sustainable natural resource management in accordance with the goals of socio-economic and environmental development, based on management plans that balance community, public and private interests.
- Regional balance, to which agriculture contributes through the creation of opportunities to develop the specific potential of every area.
- Increased support for women's role in agriculture, contributing towards integrated and equitable social and rural development.
- Adaptation of the institutional and productive base to the demographic and economic impact of endemic diseases (AIDS, malaria and others).
- Technological innovations and the dissemination of new technologies for increasing production and productivity, supported by training systems for producers to increase their capability to choose, absorb and adapt technologies.
- Use of agricultural information and statistics systems that are harmonised and produced by universally accepted methods.
- Collaboration between the public sector and all other sectors involved in agricultural development, including public-private partnerships, to improve efficiency and reduce costs throughout the value chains.

## 4.3 OBJECTIVES

### 4.3.1 GENERAL STRATEGIC OBJECTIVE

In order to materialise the vision of the agriculture sector, the focus of the strategic plan will be the following strategic objective:

**“Contribute to food security and agricultural producer incomes in a competitive and sustainable way, guaranteeing social and gender equity”.**

Secure access to sufficient quantities of nutritional food is a fundamental human right. The objective of this agricultural development strategy, in Mozambique’s current stage of development, is therefore to produce and diversify food, especially basic foods, in order to improve citizens’ food and nutritional status and reduce the levels of chronic malnutrition.

Speeding up the production of basic food products also has secondary and tertiary effects on the overall economy, contributing to an increase in national income and employment levels, especially in rural areas, the development of agro-industry, the reduction of some food imports and increased availability of food for the urban population.

The goal of contributing to food security and rural producer incomes in a competitive and sustainable way must guide the directives and programmes of all the actors in agricultural development. In order to achieve this goal, access to and secure ownership of the necessary resources – land and other natural resources – is essential for encouraging investment and good resource management; and the provision of basic services throughout the country, as well as specialised services oriented towards developing value chains, must also be ensured, particularly in the areas with greatest agricultural and commercial potential. This requires strengthening synergies between the production objectives for food and nutritional security and for the market, the sustainable environmental objectives, and strong intersectoral coordination.

### 4.3.2 SPECIFIC STRATEGIC OBJECTIVES

To achieve the vision and general objective in the medium and long term, the PEDSA establishes specific strategic objectives, aligned with the pillars of the Comprehensive African Agriculture Development Programme (CAADP):

- 1. *Agricultural production and productivity and its competitiveness increased***
- 2. *Infrastructures and services for markets and marketing improved***
- 3. *Land, water, forest and wildlife resources used sustainably***
- 4. *Legal framework and policies conducive to agricultural investment in place***
- 5. *Agricultural institutions strengthened***

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**STRATEGIC OBJECTIVE 1: AGRICULTURAL PRODUCTION AND PRODUCTIVITY AND ITS COMPETITIVITY INCREASED**

Productivity increases are crucial for improving competitiveness and sectoral growth, and are expected to contribute to reducing hunger, increasing marketable surpluses and thus increasing income from agriculture. The strategies proposed in this section seek to increase the availability of farmed and animal produce through increasing the productivity of land, labour and capital. Growth in the use of improved technologies and the availability and management of water are key elements for both agricultural and animal production. Equally important is better pest and disease management; better labour productivity through using technologies that need less manual labour; and theoretical and practical knowledge for farmers, service providers and researchers. In order to improve their effectiveness, all the proposed interventions pay particular attention to the special role of women farmers, young people and people suffering from chronic diseases such as those living with HIV/AIDS.

This section comprises the basis for supporting the irrigation issues included in the CAADP's first pillar, which seeks to increase the areas under sustainable land and water management; and also supports the third CAADP pillar, which seeks to increase the supply of food and reduce hunger<sup>1</sup>; and the fourth CAADP pillar, which promotes agricultural research and the dissemination and adoption of technologies. The section likewise serves to support the animal production component in the CAADP's accompanying document. The results and strategies presented below will contribute to increasing agricultural productivity and animal production.

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<sup>1</sup> The existing food security and nutrition strategy covers questions of nutrition and security networks. PEDSA does not therefore go into detail on these important components of food security.

### **Result 1.1: Improved technologies adopted by farmers for increasing agricultural productivity and animal production**

#### ***Strategies:***

- Increase the number of farmers with theoretical and practical knowledge of implementing technologies that promote productivity and agricultural growth, and the post-harvest handling and marketing of agricultural products, through strengthening extension and research systems;
- Increase investment in agriculture through developing an attractive and stable policy environment, including credit and the development of market infrastructures;
- Improve farmer access to agricultural inputs and services, especially to credit;
- Develop specific programmes to support the real participation of women, young people and farmers living with HIV/AIDS;
- Increase farmer interest in investing in agriculture through developing and maintaining an attractive and stable policy environment and developing market infrastructures;
- Promote large-scale adoption of technologies that have an impact on productivity growth;
- Promote technical assistance for improving agricultural practices that affect the quality of production.

### **Result 1.2: The capacity of extension services to effectively provide advanced technologies and practices increased**

#### ***Strategies***

- Improve coordination among different extension service providers and between them and the research services;
- Establish and maintain Agricultural Service Centres throughout the country;
- Promote production contracts with individual farmers or associations, within the framework of extension services provided by the private sector;
- Increase the national coverage of agricultural extension services through public and non-public extension service providers (eg private sector and NGOs);

- Provide extension workers with continuous training in advanced agricultural techniques, including topics on gender equality and HIV/AIDS;
- Gradually reduce the geographical dispersion of production and encourage production specialisation by agro-ecological region;
- Give priority to the districts with highest potential when allocating extension workers.

**Result 1.3: The research system strengthened in order to develop or adapt and make available advanced technologies and agricultural practices**

***Strategies:***

- Give priority to research focusing on agricultural productivity, especially with regard to improved seeds and materials for planting, plant and animal disease control, developing improved pasture, improved methods of cultivation and animal breeding, and the development of efficient technologies for increasing the participation of farmers living with HIV/AIDS;
- Develop research investigating pasture, rations and food supplements for animals, especially for cattle in times of drought;
- Create effective and ongoing links between research, extension, farmers and other actors (eg manufacturers of agricultural equipment);
- Increase the number of scientists dedicated to agricultural research through establishing training programmes and attractive working conditions, and promoting private sector participation in research;
- Strengthen mechanisms for establishing research priorities that are demand-led, market-oriented and innovatory, taking into account the needs of specific groups such as women;
- Give priority to research into reducing post-harvest losses of food crops;
- Give priority to increasing investment in agricultural research;
- Orient production by agro-ecological areas with productive potential.

**Result 1.4: The availability and management of water for agriculture and animal production improved**

***Strategies***

- Improve the knowledge of the relevant actors through increased support for training institutions and extension systems, including increased knowledge for farmers about managing irrigation schemes;

- Promote the incorporation and use by farmers of irrigation technologies using rainwater, thus increasing the irrigated area, especially in dryer areas;
- Improve water management through developing and implementing an integrated national water management policy, with legal instruments and a strategy for agriculture and other use and for mitigating the risks stemming from climate change;
- Strengthen and rationalise the institutional framework for providing support to farmers with regard to irrigation, in accordance with the water management policy and strategy;
- Improve the collection, conservation and management of rainwater through creating capacity and promoting appropriate technologies;
- Build and rehabilitate irrigation and drainage systems;

### **Result 1.5: Soil fertility improved**

#### ***Strategies***

- Promote the use of local mineral resources to improve soil fertility and the production of rations, with special emphasis on limestone, diatomites, phosphates and guano.
- Improve farmers' theoretical and practical knowledge of sustainable cultivation practices, including conservation agriculture;
- Promote agro-forestry activities to protect the soil and reclaim degraded land;
- Invest in research to increase the options for improving soil fertility in terms of knowledge and practices, including research into organic and chemical fertilisers, and animal-aquaculture-agriculture or forest-agriculture-animal production options;
- Increase the use of fertilisers.

### **Result 1.6: Pest and disease controls improved for crops and breeding animals**

#### ***Strategies***

- Strengthen quarantine systems for plants and animals, in particular imported ones;
- Invest in building and rehabilitating public infrastructures for veterinary services, production and marketing, involving farmers in their maintenance;
- Strengthen prevention and control of the main cattle diseases through obligatory vaccination programmes and use of dip tanks;
- Strengthen MINAG capacity to define standards and improve monitoring and compliance with regulations through training and investment in laboratories and other physical infrastructures;



- Implement programmes for eradicating plant and animal diseases whenever possible, especially those that are economically significant;
- Increase public awareness of the importance of controlling pests and diseases in a safe and sustainable way and the respective control mechanisms;
- Promote the use of technologies for the integrated control of pests and diseases, including biological methods whenever viable;
- Strengthen the cattle tracking system;
- Create a favourable environment for increasing the availability (through domestic production or imports), safe use and disposal of agro-chemicals for controlling plant diseases and medicines for controlling animal diseases;
- Take part in international protocols on safety standards for plant and animal production, storage, processing, marketing and consumption.

### **Result 1.7: Agricultural mechanisation and the use of efficient technologies increased**

#### ***Strategies:***

- Through implementing the policy and strategy, create a climate that will attract the private sector to produce and import agricultural machinery and equipment, including those for animal traction, thus increasing the availability of technologies that use less labour;
- Expand conservation agriculture as an instrument for saving on labour, reclaiming degraded soil and managing humidity, including integrated packages of production and pest control management;
- Increase access to credit on accessible terms for farmers and suppliers of agricultural equipment;
- Produce theoretical and practical knowledge on the use of appropriate technologies and disseminate it to farmers, including on mechanised equipment and animal traction for specific crops and appropriate for specific areas, paying particular attention to the needs of women farmers and farmers living with chronic diseases such as HIV/AIDS;
- Carry out research aimed at increasing the availability to farmers of both sexes of appropriate breeds for animal traction;
- Increase the availability of and access to veterinary care.

### **Result 1.8: Production of crops for biofuels increased**

#### ***Strategies:***

- Create incentives for private investment in the maintenance, multiplication and distribution of seeds for plants destined for biofuel production;
- Improve the national guideline on the production and processing of biofuels through developing and implementing coherent policies and strategies for the sustainable use of land and water, and dealing with the implications for food security and poverty reduction;
- Improve producers' and processors' theoretical and practical knowledge of biofuel crops.

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## **STRATEGIC OBJECTIVE 2: INFRASTRUCTURES AND SERVICES FOR MARKETS AND MARKETING IMPROVED**

Good infrastructures and services for markets and marketing reduce transaction costs and provide a valuable incentive for farmers to produce surpluses. They are thus an important prerequisite for the accelerated growth of the agriculture sector and for improving its competitiveness at every stage of the value chain. The focus will therefore be on improving rural roads, market installations and structures related to agricultural markets, and the quality and standards of agricultural products, and adding value and increasing the capacity of all actors with a real contribution along the value chain. Due attention will be given to the role, interests and needs of women farmers, processors and traders.

The programmes in this section will serve as the basis for interventions supporting the second CAADP pillar: improving infrastructure and capacity related to marketing and access to markets. The results and strategies proposed for improving infrastructures and support services for marketing and markets are presented below.

### **Result 2.1: Government investment in agriculture and rural infrastructures increased**

#### ***Strategies***

- Improve market infrastructures to facilitate reaching internationally accepted standards in the collection, storage and post-harvest handling of agricultural products, thus increasing trade in agricultural products;
- Expand access to market information on agricultural products, including through the use of telecommunications and other information technologies;

- Provide the areas of highest potential with rural roads, rural electrification and communication and market infrastructures.

### **Result 2.2: Rural infrastructure improved (road network, storage facilities, markets)**

#### ***Strategies***

- Expand the network of rural market infrastructures, including storage facilities, in particular ensuring year round access to areas with high productive potential;
- Develop road, electricity and communications networks in the rural areas;
- Promote rural employment through implementing the rural infrastructure development projects, paying due attention to the equitable participation of women and young people.

### **Result 2.3: Regulatory capacity and observance of standards and quality guarantees for agricultural and animal products improved**

#### ***Strategies***

- Harmonise the legal and regulatory framework for agricultural marketing in line with regional protocols on plant and animal health regulations and with CODEX in relation to safe food production;
- Create national capacity to support compliance with World Trade Organisation requirements and those of regional partners such as SADC, increasing trade with international partners;
- Promote research into crops and animal production with regard to their quality and safety standards;
- Increase the capacity of Ministry officials at all levels through training in analysis, monitoring and compliance with quality and safety standards for agricultural products.

### **Result 2.4: Value added to agricultural and animal products**

#### ***Strategies***

- Develop and implement policies and strategies for increasing processing of agricultural products;
- Increase the availability of reliable information on markets as a support for agricultural business decision-taking;

- Improve entrepreneurial capacity through vocational training packages including literacy, arithmetic, agricultural processing techniques, and business management and marketing skills;
- Facilitate access to credit for entrepreneurs.

### **Result 2.5: Post-harvest handling of agricultural products improved**

#### ***Strategies***

- Increase post-harvest storage, conservation and protection capacity for agricultural products;
- Increase training for all actors involved in the post-harvest handling of agricultural products;
- Promote the construction of improved granaries in the family sector;
- Promote partnerships between the public and private sectors for the rehabilitation and management of public silos.

### **Result 2.6: The capacity of actors at each stage of the value chain improved so that they can participate in domestic and international markets (farmers, processors of agricultural products, traders)**

#### ***Strategies***

- Increase lines of credit for agricultural businesses;
- Create special lines of funding for young farmers;
- Promote the tripartite credit model (bank, producers and agro-industry) to minimise risks;
- Promote agricultural insurance;
- Expand and speed up the Guarantee Funds initiative for agriculture;
- Promote the development of value chains for agricultural products in the Nacala, Beira and Maputo Corridors;
- Support the beneficiaries of agricultural credits and District Development Funds (FDD) with technical information and advice for developing agricultural businesses;
- Increase entrepreneur access to information and training in agro-business;
- Strengthen initiatives to attract private sector investments to the agriculture sector and improve measures for protecting them.

**Result 2.7: Private sector capacity to provide agricultural inputs improved (seeds, fertilisers, agro-chemicals, veterinary medicines, instruments, implements and machinery)**

***Strategies***

- Promote the creation and strengthening of associations of farmers, input suppliers, transporters and processors;
- Facilitate the access of agricultural traders to credit;
- Provide training and improve the access of input suppliers to technical and market information about agricultural inputs (seeds and other planting materials, fertilizers, agro-chemicals, veterinary medicines, agricultural machinery and implements).

**Result 2.8: Information system operational for gathering and disseminating information for decision-taking by farmers, processors, traders and policymakers**

***Strategies***

- Create a comprehensive agricultural information system that is widely available to all interested parties;
- Promote the use of telecommunications to disseminate information on agricultural markets;
- Improve the capacity of MINAG staff to administer the agricultural information system efficiently through training and updating;
- Increase the capacity of farmers, traders and other interested parties in the use of agricultural information for decision-taking.

**Result 2.9: Policies to support the input markets strengthened**

***Strategies***

- Review the legal framework, policies and strategies that affect the input markets, with a view to promoting increased involvement of the private sector in providing agricultural inputs;
- Strengthen incentives for private sector involvement in providing agricultural inputs, eg through improved fiscal incentives;
- Provide information and increase the participation of input suppliers in the formulation of policies in this area;
- Reduce the cost of fertilisers through bulk imports.

## **STRATEGIC OBJECTIVE 3: LAND, WATER, FOREST AND WILDLIFE RESOURCES USED SUSTAINABLY**

The sustainable management and use of land, water and forest resources is critical to achieve food and nutritional security for the current generation without compromising the availability of those resources for future generations. Their sustainable use is also integral to mitigating risks arising from the degradation of land and forests and from climate change. Improving the capacity of all actors involved in the management of these resources is critical to the success of this objective.

This section of PEDSA supports programmes related to the first CAADP pillar, which seeks to expand the area under sustainable land management, and the forestry component of the CAADP's accompanying document.

### **Result 3.1: Theoretical and practical knowledge on the sustainable use of natural resources (land, water, forest and wildlife) increased**

#### ***Strategies***

- Make inventories of natural resources and management plans for land, water, forest and wildlife resources;
- Review the legal framework to strengthen measures discouraging indiscriminate felling of trees, killing of wildlife and uncontrolled fires, and improving the management of river banks;
- Increase training opportunities for staff from ministries and other actors in the sub-sector, thus expanding the overall team of specialists to promote the sustainable use of natural resources and public awareness on the issue;
- Increase the security of land ownership, thus promoting increased investment in land improvements on the part of the private sector;
- Develop and implement policies and strategies to mitigate the impact of climate change on natural resources, and in the final analysis on food security and rural ways of life, paying particular attention to the roles of men and women.

### **Result 3.2: The capacity of the Ministry of Agriculture, the Ministry of the Environment and other actors (eg NGOs) to analyse and formulate policies and programmes related to land, water, forest and climate change improved**

#### ***Strategies***

- Increase the awareness of the general public and policymakers on natural resource management of the importance of their sustainable management;
- Increase training opportunities in analysis and drafting of policies and programmes, including gender relations, for ministry staff and other actors;
- Strengthen the information management system for the collection and dissemination of data on land, water, forest, wildlife and the effects of climate change.

### **Result 3.3: Land management improved**

#### ***Strategies:***

- Draw up a national land use plan
- Increase the capacity to supervise land use, preventing the existence of land standing idle, in particular within irrigated areas;
- Update and disseminate information on the adaptation of the most important crops to different agro-ecological zones.

### **Result 3.4: Forest resources used sustainably**

#### ***Strategies***

- Revise the legal framework, strengthening measures to discourage the indiscriminate felling of trees;
- Increase government capacity to monitor and achieve compliance with laws and regulations related to forest use and management;
- Make regular inventories of forest resources to support the formulation and implementation of sustainable forest management plans;
- Promote the establishment of community forests, mainly in areas at risk from erosion;
- Promote commercial forestry plantations and processing units for forestry products;
- Develop and disseminate partnership models between investors and communities for the sustainable management of forest resources;
- Promote the production and marketing of non-timber forest products.

### **Result 3.5: The capacity of rural communities to prevent and control forest fires increased**

#### ***Strategies***

- Implement a wide-ranging information campaign on the negative impact of forest fires, to increase the capacity and willingness of communities to monitor and report occurrences;
- Revise the legal framework to strengthen measures for controlling fires;
- Increase the capacity of the public sector to monitor and respond to the need to control forest fires through training campaigns and making resources, including transport, available;
- Create an early warning system and a database of occurrences of uncontrolled fires.

**Result 3.6: The capacity of rural communities and wildlife sector staff to manage these resources sustainably and reduce human-wildlife conflicts increased**

***Strategies***

- Establish an information system on human-wildlife conflicts and keep it updated and accessible;
- Fence off conservation and hunting areas as required;
- Increase the capacity of government staff and other actors (eg NGOs) to provide specialised counselling to communities on how to deal with human-wildlife conflicts;
- Implement awareness-raising campaigns and consultations with communities most vulnerable to conflicts, leading to sustainable solutions for dealing with the risks associated with the presence of wildlife.

**Result 3.7: Response capacity to the effects of climate change improved**

***Strategies:***

- Increase the production and dissemination of agro-climatic information;
- Strengthen early warning systems;
- Identify and map the areas prone to natural disasters and climate change and design agricultural development programmes for these areas;
- Develop and implement a strategy for mitigating the risks associated with natural disasters and climate change, adapting production systems in order to diversify sources of income;
- Strengthen the capacity of agricultural producers to adapt to drought and climate change through training on alternative options;
- Promote conservation agriculture, particularly in arid and semi-arid areas;
- Increase research into early maturing and drought resistant varieties of food and cash crops.



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## **STRATEGIC OBJECTIVE 4: LEGAL FRAMEWORK AND POLICIES CONDUCIVE TO AGRICULTURAL INVESTMENT IN PLACE**

A legal framework and appropriate policies are fundamental for creating incentives and attracting investment to the agriculture sector. Sectoral policies must be harmonised within the sector itself and between different sectors, taking into account the regional and international agreements and instruments in force. It is equally important that policy formulation is supported by a reliable agriculture information system. Increasing the security of land ownership is another crucial factor for private investment in agriculture.

This section is therefore crosscutting, and supports all the other sections of PEDSA as well as relating to all the CAADP pillars.

### **Result 4.1: Policies consistent with sectoral objectives**

#### ***Strategies***

- Revise and formulate coherent policies for the agriculture sector and related areas, in accordance with its development goals;
- Develop an export policy for agricultural products in order to promote exports to regional markets and other international markets;
- Integrate gender issues into policies and programmes for agriculture and food security;
- Review policies and programmes to ensure their consistency with regional and international protocols and programmes such as the CAADP;
- Improve and update the legal framework dealing with the supply of public sector agricultural services;
- Revise and strengthen the institutional framework to facilitate the implementation of policies, strategies and legal instruments, thus promoting investor confidence;
- Increase training opportunities in analysis, formulation and use of agricultural policies for MINAG staff and staff from other civil service sectors, the private sector and other areas;
- Increase the level of public expenditure on agriculture in accordance with the commitments taken on as part of NEPAD/CAADP.

## **Result 4.2: Agricultural information system strengthened**

### ***Strategies***

- Establish a comprehensive and widely accessible agricultural information system, based on internationally approved and tested systems, with data disaggregated by gender whenever appropriate;
- Train staff from MINAG and other relevant ministries in agricultural information systems and create training opportunities in this area for the private sector and other actors;
- Improve the coordination of the various actors who must supply the system with information.

## **Result 4.3: Security of land ownership and land administration improved**

### ***Strategies:***

- Ensure that land rights acquired are adequately protected by the official land registry;
- Encourage the delimitation and certification of local community land;
- Simplify the procedures for obtaining land titles and clarify the role of each actor at the different stages of registration, so as to shorten the current 90 day process;
- Raise the awareness of landowners about their rights and responsibilities;
- Simplify and speed up the process of resolving land conflicts;
- Increase the capacity of the public sector to provide land-related transaction services, including the acquisition or ceding of land and resolution of land conflicts;
- Improve women's access to and ownership of land, paying particular attention to the needs and interests of households headed by women;
- Improve the security of land ownership through revising and implementing the legal framework and regulatory instruments, with the aim of guaranteeing individual and community rights and the resolution of conflicts.

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## **STRATEGIC OBJECTIVE 5: AGRICULTURAL INSTITUTIONS STRENGTHENED**

Successful implementation of agricultural development and food security requires the strengthening of all relevant institutions in the public, private and civil society sectors. It is likewise important to improve institutional coordination.

The strategies contained in this section are crosscutting in nature, and provide support for all the PEDSA programmes and all programmes linked to the CAADP pillars.

### **Result 5.1: Farmer organisations strengthened**

#### ***Strategies***

- Raise farmers' awareness about the legal and political instruments that govern farmer organisations and the agriculture sector as a whole, including the Law on Cooperatives;
- Improve farmers' theoretical and practical knowledge, providing training in vocational literacy and arithmetic, management of cooperatives, business techniques, contract management and lobbying;
- Promote production contracts between farmer organisations and the private sector;
- Facilitate the access of farmer organisations to credit through mechanisms such as guarantee schemes, in collaboration with local financial institutions.

### **Result 5.2: Human capital improved**

#### ***Strategies***

- Develop and implement a medium term programme for human resource development in the agriculture sector;
- Strengthen coordination mechanisms and links between the Ministry of Agriculture and training institutions at all levels so as to tailor education curricula to the needs of agricultural development and improve the integration of local knowledge systems;
- Increase the number and capacity of agricultural schools for training farmers, technicians and managers;
- Review and strengthen educational curricula to promote the inclusion of educational materials covering agriculture, nutrition and food security;
- Review and adjust working conditions in the public sector so as to improve retention of the best staff;
- Improve the housing conditions of staff at rural stations so as to attract and retain qualified personnel there;
- Develop and implement a programme to improve the integration of people living with HIV/AIDS into agricultural development.

### **Result 5.3: Coordination of agricultural and food security institutions strengthened**

#### ***Strategies***

- Strengthen mechanisms to facilitate wide-ranging coordination among the public and private sectors, civil society and partner institutions in food security development;
- Improve information-sharing among all actors in the field of food security and agriculture;
- Strengthen the Ministry of Agriculture's management, documentation and archive system;
- Improve the capacity of actors at district and local level to share information among themselves and with the Ministry of Agriculture at central level, through better information technology and other communication equipment.

**SUMMARY OF THE MOZAMBICAN AGRICULTURAL DEVELOPMENT STRATEGY**

<b>Vision</b>	An integrated, prosperous, competitive and sustainable agriculture sector
<b>Strategic objective/s</b>	Contribute to food security and agricultural producer incomes in a competitive and sustainable way, guaranteeing social and gender equity
<b>Specific objectives</b>	<ul style="list-style-type: none"> <li>• Agricultural production and productivity and its competitiveness increased</li> <li>• Infrastructures and services for markets and marketing improved</li> <li>• Land, water, forest and wildlife resources used sustainably</li> <li>• Legal framework and policies conducive to agricultural investment in place</li> <li>• Agricultural institutions strengthened</li> </ul>

<b>Strategic Objective 1</b>	<b>Strategic Objective 2</b>	<b>Strategic Objective 3</b>	<b>Strategic Objective 4</b>	<b>Strategic Objective 5</b>
<b>Agricultural production and productivity and its competitiveness increased</b>	<b>Infrastructures and services for markets and marketing improved</b>	<b>Land, water, forest and wildlife resources used sustainably</b>	<b>Legal framework and policies conducive to agricultural investment in place</b>	<b>Agricultural institutions strengthened</b>
1.1 Improved technologies adopted by farmers for increasing agricultural productivity and	2.1 Government investment in agriculture and rural infrastructures increased	3.1 Theoretical and practical knowledge on the sustainable use of natural resources (land, water, forest and wildlife) increased	4.1 Policies consistent with sectoral objectives	5.1 Farmer organisations strengthened

<b>Strategic Objective 1</b> <b>Agricultural production and productivity and its competitiveness increased</b>	<b>Strategic Objective 2</b> <b>Infrastructures and services for markets and marketing improved</b>	<b>Strategic Objective 3</b> <b>Land, water, forest and wildlife resources used sustainably</b>	<b>Strategic Objective 4</b> <b>Legal framework and policies conducive to agricultural investment in place</b>	<b>Strategic Objective 5</b> <b>Agricultural institutions strengthened</b>
animal production				
1.2 The capacity of extension services to effectively provide advanced technologies and practices increased	2.2 Rural infrastructure improved (road network, storage facilities, markets)	3.2 The capacity of the Ministry of Agriculture, the Ministry of the Environment and other actors (eg NGOs) to analyse and formulate policies and programmes related to land, water, forest and climate change improved	4.2 Agricultural information system strengthened	5.2 Human capital improved
1.3 The research system strengthened in order to develop or adapt and make available advanced technologies and agricultural practices	2.3 Regulatory capacity and observance of standards and quality guarantees for agricultural and animal products improved	3.3 Land management improved	4.3 Security of land ownership and land administration improved	5.3 Coordination of agricultural and food security institutions strengthened
2.4 The availability and management of water for agriculture and animal production	2.4 Value added to agricultural, animal and forest products	3.4 Forest resources used sustainably		

<b>Strategic Objective 1</b> <b>Agricultural production and productivity and its competitiveness increased</b>	<b>Strategic Objective 2</b> <b>Infrastructures and services for markets and marketing improved</b>	<b>Strategic Objective 3</b> <b>Land, water, forest and wildlife resources used sustainably</b>	<b>Strategic Objective 4</b> <b>Legal framework and policies conducive to agricultural investment in place</b>	<b>Strategic Objective 5</b> <b>Agricultural institutions strengthened</b>
improved				
2.5 Soil fertility improved	2.5 Post-harvest handling of agricultural products improved	3.5 The capacity of rural communities to prevent and control forest fires increased		
1.6 Pest and disease controls improved for crops and breeding animals	2.6 The capacity of actors at each stage of the value chain improved so that they can participate in domestic and international markets (farmers, processors of agricultural products, traders)	3.6 The capacity of rural communities and wildlife sector staff to manage these resources sustainably and reduce human-wildlife conflicts increased		
1.7 Agricultural mechanisation and the use of efficient technologies increased	2.7 Private sector capacity to provide agricultural inputs improved (seeds, fertilisers, agro-chemicals, veterinary medicines, instruments, implements and machinery)	3.7 Response capacity to the effects of climate change improved		
1.8 Production of crops for biofuels increased	2.8 Information system operational for gathering and disseminating information for decision-taking by farmers,			

<b>Strategic Objective 1</b> <b>Agricultural production and productivity and its competitiveness increased</b>	<b>Strategic Objective 2</b> <b>Infrastructures and services for markets and marketing improved</b>	<b>Strategic Objective 3</b> <b>Land, water, forest and wildlife resources used sustainably</b>	<b>Strategic Objective 4</b> <b>Legal framework and policies conducive to agricultural investment in place</b>	<b>Strategic Objective 5</b> <b>Agricultural institutions strengthened</b>
	processors, traders and policymakers			
	2.9 Policies to support the input markets strengthened			



## PART III: OPERATIONAL FRAMEWORK

### 5 IMPLEMENTATION

#### 5.1 PEDSA IMPLEMENTATION APPROACH

The transformation of an essentially subsistence agriculture into commercial agriculture will not be achieved in the short term. However, well defined priorities provide a secure base for the desired rapid and sustainable transformation. PEDSA combines activities at national level with space for local priorities in areas with favourable production conditions, and adopts a value chain approach.

The growth of agricultural productivity and production will depend on removing obstacles along the chain and on the support to be given to the production and marketing of products and inputs. This approach requires PEDSA implementation to promote the development of value chains. The following principles will be applied to its operationalisation:

- *Harmonising agricultural development with the decentralisation process under way*
- *Promoting private initiative and the responsibility of each actor, especially in public-private partnerships*
- *Good governance*
- *Equity among the beneficiaries of public actions*
- *Synergies and long term involvement of the different actors in a perspective of mutual advantage*
- *Regional integration and compliance with international agreements*
- *Regular evaluation and updating of the strategy*
- *Preparation of PEDSA implementation plans*

#### 5.2 THE ROLE OF KEY ACTORS

The public, private, cooperative and associative sectors and civil society all have important roles to play in implementing PEDSA. Public-private partnerships will be favoured whenever applicable, and so long as they are more advantageous than separate interventions by each sector.

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##### 5.2.1 THE PUBLIC SECTOR

The role of the public sector will be to create favourable conditions for the producers (small, medium and commercial) to be able to carry out their activities in a competitive environment, providing goods and services such as agricultural research, agricultural extension, specialised services in seeds and plant and animal health and land administration. This role will be performed at each stage of the various value chains.

As has been historically established, the central role of government in free market economies is to guarantee the safety of people and property, provision of a stable macro-economic environment, basic infrastructures and social services (health, education and water).

Ministries are mandated to support, promote and guide production and industrialisation so as to ensure the highest quality of products and services for domestic consumption and export. The following functions are pertinent when performing this role:

- Formulate and revise national agricultural development policies, standards and plans;
- Ensure compliance with norms and regulations and apply the legally approved penalties;
- Provide local governments with technical advice, training and supervision in the relevant areas, especially activities resulting from the decentralisation of services and deconcentration of powers;
- Establish and maintain basic information on the agricultural sector;
- Monitor and inspect operations to ensure that service providers comply with the established norms and standards;
- Coordinate, facilitate and supervise national agricultural development projects and programmes;
- Mobilise financial resources and technical assistance and provide the services and goods for which it is responsible in support of private investment;
- Administer the use of land, forest and wildlife;
- Create conditions and financial capacity to develop the private agriculture sector.

In order to implement its designated role in this strategy, the public sector will establish partnerships with public international institutions, such as the international research institutions that form part of the Agricultural Research Institutions Consultative Group (CGIAR). These institutions, some of which are represented in Mozambique, will intervene in research with regional impact, and it is hoped that they will contribute to the increased productivity of Mozambican agriculture.

The transformation of agriculture implies additional producer use of labour and inputs, which should result in higher production. The growth will require more markets, more transport services, more storage, more agro-processing industries, more packaging, more credit for production and marketing and more financial and legal services.

This process of growth will increase business and job opportunities in the private sector, which in turn will also have to increase its capacity to become more productive, competitive and efficient.

In its role of establishing appropriate policies, norms and regulations and improved socio-economic infrastructures, the public sector will invest in creating and increasing capacity in private sector institutions, cooperatives, associations and producer organisations, so as to support them in making the critical leap at the initial stage.

The private sector's role will be strengthened through its involvement in implementing the sectoral plans, and through being contracted to provide public services directly to producers whenever there is comparative advantage on a commercial basis.

The Government will also promote the private sector by expanding its opportunities for participation in formulating policies and implementing the programmes funded by the public sector.

### **5.2.2 THE PRIVATE SECTOR**

The private sector is the largest group involved in economic development. It includes producers, traders, processors and service providers in rural finance, surveying and other liberal professions.

In Mozambique this sector is dominated by subsistence producers, producing a wide range of products primarily for domestic consumption. The transformation of agriculture will result in the growth of commercial agriculture, and a consequent reduction in the number of small farms and increase in average farm size and productivity.

### **5.2.3 CIVIL SOCIETY**

Civil society organisations, in particular non-governmental organisations and universities, have a fundamental role in developing human and social capital. It is thus expected that civil society organisations will participate in this strategic plan through the organisation of producers into associations/cooperatives and their respective training. This process will also be supported by universities, particularly with regard to studies and policy analysis.

#### 5.2.4 DEVELOPMENT PARTNERS

The cooperation partners participate in consolidating the strategy, defining the programmes and co-funding them.

### 5.3 PLANNING, MONITORING AND EVALUATION

#### 5.3.1 MONITORING AND EVALUATION IN THE FRAMEWORK OF THE NATIONAL PLANNING SYSTEM

In providing a guiding framework for the sector's policies and development as a whole, the implementation of PEDSA must on the one hand ensure the efficient allocation of the sector's resources and on the other strengthen links among the different actors, namely (i) the public sector – central and local government; (ii) the private sector – producers, animal breeders, foresters and service providers; (iii) civil society – NGOs, community organisations, academic institutions and the general public; and (iv) the development partners.

The National Planning System provides the framework for coordinating the different planning instruments that comprise the annual basis for planning and implementing PEDSA activities. Thus PEDSA contributes specific content for the medium term instruments on an ongoing basis:

- The **Government 5-Year Programme (PQG)**, which presents the goals and priorities of national development policy and the strategies for achieving them.
- The **Poverty Reduction Plan (PARP)**, which operationalises the Government Programme and the strategic sectoral and territorial plans that contribute through specific activities to achieving the main goal of the PQG.
- The **Medium Term Fiscal Scenario (CFMP)**, which is the instrument for 3-year financial programming, projecting the generation and allocation of internal and external resources and the structure of sectoral expenditure.

These documents are operationalised annually through the following instruments:

- The ***Socio-Economic Plan (PES)*** presents the main socio-economic objectives and activities that will contribute to reducing absolute poverty for a specific economic year. It is the policy instrument that operationalises the PQG annually.
- The ***State Budget (OGE)*** translates the PES policy objectives into annual financial needs and allocations. PEDSA will give primacy to the link between the PES and the OGE, so as to guarantee consistency and coherence between the plans and the available public financial and human resources.

Monitoring PEDSA implementation covers the following general areas:

- ***PEDSA implementation activities*** - MINAG must develop decentralised systems to monitor the efficiency, effectiveness and impact of PEDSA activities at beneficiary level in all the priority areas.
- ***Agriculture sector performance*** – this involves monitoring agricultural performance from both the sectoral angle and the producer perspective. In this context it is critical to strengthen capacity in monitoring and evaluation.
- ***Consistency with PEDSA*** - it is fundamental that ministerial programmes, activities and directives and district development plans must be consistent with PEDSA. Consistency criteria include:
  - Contribution to PEDSA objectives
  - Implementation in accordance with PEDSA principles
  - Specific activities and projects integrated into specific sub-programmes
- ***Impact on food security, access to markets and the use of natural resources***

A monitoring and evaluation system will be established to ensure that the planned activities are implemented effectively. This system will be linked to financial management and will contribute to budgeting and resource allocation.

The matrix of indicators, including key targets for the agricultural sector of the PQG, is presented in an annex.

## 5.4 PROGRAMMES FOR PRIORITY FUNDING FROM THE TREASURY

The Maputo Declaration on funding for agriculture states that at least 10% of the State budget should go to the agriculture sector, to enable it to grow at a rate of 6% per year. In Mozambique, the budget allocation for agriculture has risen in a little less than three years from 5% to the current 8%. Thus, by 2015, sectoral expenditure will be equal to or higher than 10% of general expenditure.

The main programmes to be funded by the Treasury are summarised in the table below:

Ref.	Name of Programme	Specific objective	Sub-programmes
<b>AGR 01</b>	Promoting Production of Basic Food	Availability of food increased through growth in production, to eliminate hunger	Cereals
			Root vegetables and tubers
			Legumes
			Agricultural inputs
<b>AGR 02</b>	Promoting Strategic Crops	Use of national produce and exports increased	Sugar
			Cotton
			Cashew
			Oleaginous plants
			Stimuli
<b>AGR 03</b>	Plant and Animal Health Protection	National plant and animal health protection system revived	Vegetable Quarantine
			Vigilance and Control
<b>AGR 04</b>	Research and Extension	Productivity increased through the adoption of appropriate technologies	Development of the National Research System
			Full implementation of the National Extension Programme, PRONEA
<b>AGR 05</b>	Water for Production	Water use for increasing productivity improved	Retention and conservation of water for agricultural purposes
			Irrigation and drainage
<b>AGR06</b>	Support for Production Initiatives	Local initiatives to enhance production supported	
<b>AGR07</b>	Alternative Production in Arid and Semi-arid Areas	Programmatic approaches to promoting agricultural production in arid and semi-arid areas developed and implemented	Develop a multidisciplinary agricultural research centre for arid and semi-arid areas
<b>AGR 08</b>	Livestock Development	Veterinary and animal health protection services improved	Animal health protection
			Animal production

<b>AGR 09</b>	Land for Production	Soil conservation promoted as land becomes better used	Fertility management and combating degradation
			Zero idle land
<b>AGR 10</b>	Forests	Sustainable management of forests and wildlife	Re-afforestation
			Forestry industries
			Sustainable management of wild plant and animal life
<b>AGR 11</b>	Development of agrobusiness	Constraints on commercial agriculture lessened at all stages of the value chains	Corridors of agricultural development
			Agricultural financial system
			Support for rural markets
<b>AGR 12</b>	Development of the Institutional Capacity of the Agriculture Sector	Public service provision improved	Agricultural statistics
			Quality of public agricultural services
			Strategic food reserve
			Gender and environment in agriculture