



Moving Towards the Implementation of the CAADP Framework in the Agriculture Sector: The case of Mozambique

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Brief Paper Contextualization and Acknowledgements

This paper was prepared as background information for the formal launch of the Comprehensive Africa Agriculture Development Programme (CAADP) process in Mozambique by the Government in November 2010. It summarizes country actions towards CAADP framework adoption since the first such attempts were made back in 2004, through the then Ministry of Agriculture and Rural Development. However, it was not until late 2009 and early 2010 that the country started to pay particular attention to the actual implementation of the CAADP framework, particularly within the formulation of a new agriculture sector development strategy called PEDSA. The main objective of this paper is to document and share information on Mozambique's trajectory towards CAADP vision and framework, a trajectory that is still at its early stages, as well as to highlight critical factors to be taken into account in implementing the CAADP framework.

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Acronyms

| | |
|---------|---|
| CAADP | Comprehensive African Agriculture Development Program |
| CAP | Agriculture Census |
| CEF | Forestry Experimental Center |
| CEPAGRI | Promotion Center for Commercial Agriculture |
| CFA | Agriculture Training Centre |
| DCP | Development Cooperating Partners |
| DINAP | National Directorate of Livestock |
| DNEA | National Directorate of Agrarian Extension |
| DNFFB | National Directorate of Forestry and Wildlife |
| DNHA | National Directorate of Agriculture Hydraulics |
| EC | European Commission |
| EWS | Early Warning System |
| FAO | UN Agency for Food and Agriculture |
| GRS | Green Revolution Strategy |
| ICM | Mozambique's Cereals Institute |
| ICRISAT | International Crops Research Institute for Sub-Arid Tropics |
| IFPRI | International Food Policy Research Institute |
| IWMI | International Water Management Institute |
| IFAD | International Fund for Agriculture Development |
| IIAM | Mozambique's Institute for Agricultural Research |
| IPA | Animal Production Institute |
| INE | Mozambique Statistics Institute |
| INGC | Mozambique Institute for Natural Disasters Management |
| INIVE | National Institute for Veterinary Research |
| MADER | Ministry of Agriculture and Rural Development |
| MAP | Ministry of Agriculture and Fisheries |
| MF | Ministry of Finance |
| MIA | Agricultural Survey Mission |
| MIC | Ministry of Industry and Trade |
| MICOA | Ministry for the Coordination of Environmental Actions |
| MINAG | Ministry of Agriculture |
| MOPH | Ministry of Public Works and Housing |
| MPD | Ministry of Planning and Development |
| NEPAD | New Partnership for Africa's Development |
| PEDSA | Strategic Plan for Agriculture Sector Development |
| PAPA | Action Plan for Food Security |
| PROAGRI | National Agricultural Development Program |
| SADC | Southern Africa Development Community |
| SAKSS | Strategic Analysis and Knowledge Support System |
| SIMA | Market and Price Information System |
| TIA | National Agriculture Survey |

1. Background Information

1.1. Background on Mozambique's Agriculture Sector

Mozambique is subdivided into 10 agro-ecological regions (INIA, 2000) (annex 1) and has approximately 36 million hectares of arable land. The country is endowed with considerable seasonal and perennial sources of surface water (annex 2) and the potential for irrigation land has been estimated at 3 million ha (FAO, 1997; Kundell, 2007). However, the use of both available land and water resources has been very limited. Currently, it is estimated that total cultivated land corresponds to about 13% of the total area (TIA, 2008) while the effective use of the irrigation potential stands at about 2%, although the land equipped for irrigation is estimated at 4%, with some of the irrigation infrastructure already deteriorating (MINAG/ EI, 2010).

About 70% of country's population lives in rural areas where agriculture is still the major direct or indirect livelihood activity and approximately 3.6 million smallholders are engaged in farming annual crops (TIA, 2008), from the most agro-ecologically potential regions to the marginal ones. While people living in high agriculture potential regions grow crops for their own consumption and marketing, in marginal areas, agriculture production serves subsistence needs only.

The country is suitable for a wide range of annual and perennial crops as well as for livestock rearing. The main food crops grown include cassava, sweet potatoes, maize, rice, sorghum and millet, as well as pulses. Cash crops such as cotton, tobacco, bananas and the perennial ones such as cashew, coconut, citrus, mango are also grown. Livestock is very important and comprises cattle, goats and poultry, including huge extensive rural poultry production.

In general, crop yields are still very low and are estimated to range between 0.4 – 1.3 tons/ ha for maize; 0.3 – 0.6 for sorghum; 0.5 0 – 1.8 for rice; 4.0 – 5.0 for wet cassava. In addition, the country is vulnerable to recurrent adverse climate conditions and natural disasters which often have adverse impacts on agriculture performance. Out of the 128 rural districts, 20 are highly prone to drought, 30 to flooding and another 7 to both risks (FAO, 2007).

Agriculture institutions and enterprises are still generally limited both in terms of their distribution and interaction with producers throughout the country. Agriculture training institutions, particularly those offering agriculture degrees, have been expanded from just two public faculties in the early 1990s to five.

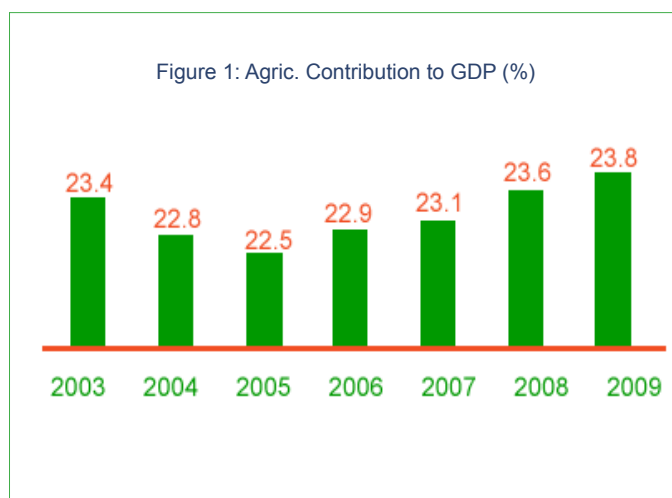
These are located mainly in the central and southern regions of the country. Non-Government organizations (including religious ones) set up two faculties of agronomy in Northern Mozambique. However, the scope of intervention of these institutions has been mainly

on basic agricultural education rather than adaptive or socio-economic research.

Agriculture credit institutions are practically non-existent in the country. The Ministry of Agriculture (MINAG), in collaboration with the Ministry of Finance (MF), has established an agriculture development fund (FDA), a centralized institution with a branch in the central region (Beira city), but with a very limited scope of intervention in terms of credit provision. Private agriculture enterprises that supply agricultural inputs (fertilizer, pesticides and seeds) and equipment (irrigation, land preparation, agro-processing) are still few and mainly based in Maputo and few provincial capitals. Partly due to this problem, input and equipment supply continues to be characterized by high transaction costs and technical assistance for equipment remains ineffective in the rural areas. Generally, farmers' organizations are weak.

Technology adoption has been referred to as being low. For example, only 10% of maize farmers use improved maize seeds, the most cultivated cereal crop in the country (TIA, 2008). Total fertilizer consumption is estimated at an average of 4-5 kg/ha, mainly for crops such as sugarcane and tobacco, with marginal quantities being used for food crops. Pesticides are also used in estimated limited quantities, about 5% of total farmers, mainly for cotton and tobacco production and to some extent for cashew (spraying against the oidium disease) and vegetables especially tomato and emerging production of Irish potato in some rural areas.

Despite the low level of agriculture input use and the low levels of annually cultivated land, agriculture contribution in total GDP based on crops and livestock production as well as on forestry and wildlife commodities is significant as shown in Figure 1 (source: Mozambique's National Institute for Statistics(INE), 2010).



1.2 CAADP and Relevance for Mozambique

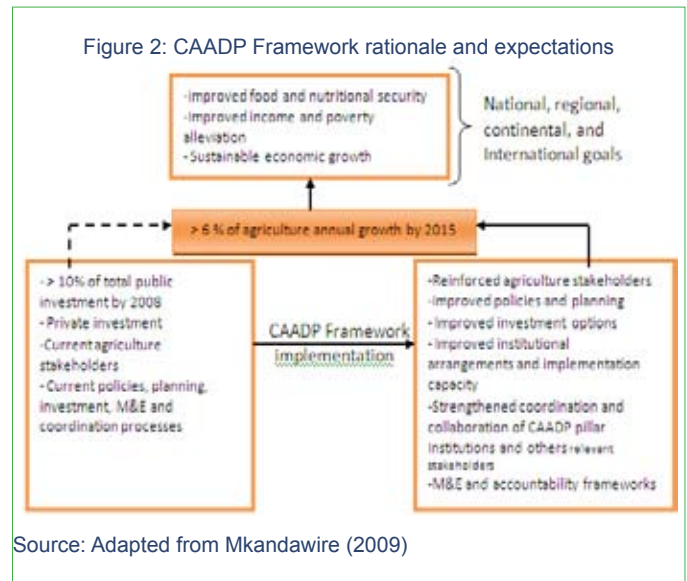
The New Partnership for Africa's Development (NEPAD), an African Union (AU) strategic framework for pan-African socio-economic development, is both a vision and a policy framework for Africa. It is meant to address critical challenges facing the continent, namely poverty, underdevelopment and its marginalization internationally. In 2003, the AU endorsed a new NEPAD initiative called Comprehensive Africa Agriculture Development Program (CAADP) (CAADP, 2008). Since then CAADP has been widely and enthusiastically accepted by African political leaders and development partners as a promising framework for the development of African agriculture. CAADP is an African Union/NEPAD initiative aimed at rationalizing agriculture for economic growth and lasting poverty reduction. CAADP's primary goal is to assist countries in raising economic growth through agriculture-led development under a common framework, reflecting principles and targets defined by African Governments to guide their agriculture strategies and investments (ECA, 2006; EC/AAA, 2007; IFPRI, 2007; FAO, 2009; CAADP, 2009).

In summary, CAADP is recognized as an African initiative to accelerate agriculture growth in the continent in different ways, as summarized in Box 1.

Box 1: Ways through which CAADP seeks to ensure accelerated growth in African agriculture

- Boosting key national agriculture institutions and contributing to improved policies and investment options
- Promoting mutual knowledge, evidence-based policy debate and learning on agriculture performance, growth and development issues among African countries
- Bringing agriculture to the top of national, regional and African political and economic agendas
- Strengthening countries' and donors' accountability in responding to national, regional and continental commitments to sustain and develop agriculture, improve food security and reduce poverty

Like many other Sub-Saharan countries, the economy of Mozambique is an agriculture-based (World Bank, 2008). However, far from the impressive post-war agriculture recovery from 1993 to 1998¹, agriculture productivity has been almost stagnant over the last 10 years. The realized annual growth rates over time have been partly due to annual expansion of cultivated land mainly due to population increase (new farmers), and favorable weather conditions in some years, rather than due to consistent improvements on productivity. Among various structural limitations affecting agriculture, the narrow interventions on production issues rather than comprehensive agriculture support is viewed as one of the critical factors affecting the agriculture sector growth and development (PROAGRI II, 2004; MF/IGF, 2009). Thus, the alignment of PEDSA with the CAADP framework (in terms of using CAADP principles, values, tools and guidelines) is particularly relevant for Mozambique, given the potential advantages that are expected from CAADP sustainable implementation, as shown in Figure 2.



CAADP framework offers the basis for more comprehensive and strategic thinking and interventions in agriculture towards accelerated growth in contrast to the limited growth that characterize agricultural sectors in many parts of Africa (Jones, 2008; Nkandawire, 2009), including Mozambique. Key issues that ensure accelerated agriculture growth become more crucial in agriculture thinking and debate namely: to what extent agriculture and related policies have been contributing to accelerate growth? Is evidence being used to guide strategic decisions? Is agriculture prioritised at national level? Are cooperating partners being held accountable? In summary, the impact (change) from embracing the CAADP framework should be realised changes/impact on (i) quality of the investment plans and programmes; (ii) policies and capacity for policy examination, formulation/adaptation; and (iii) institutional/ organisation capacity, as shown in figure 2.

CAADP is a country driven and country implemented framework. Thus, the countries have their own respective key roles and responsibilities to ensure successful implementation of the framework.² Two primary targets were identified by African governments as critical in ensuring accelerated agriculture and sustained economic growth in Africa:

- The allocation of a minimum of 10% of the annual national budgets to agriculture by 2008 (2003 Maputo Declaration); by each government
- Achievement, for each country, of agriculture growth rate of at least 6% per year by 2015.

It is crucial that countries commit to accomplishing these two targets.³ Another success factor which must be

¹ Mozambique faced a post-independence prolonged civil war that ended in October 1992 through an exemplar Peace Agreement.

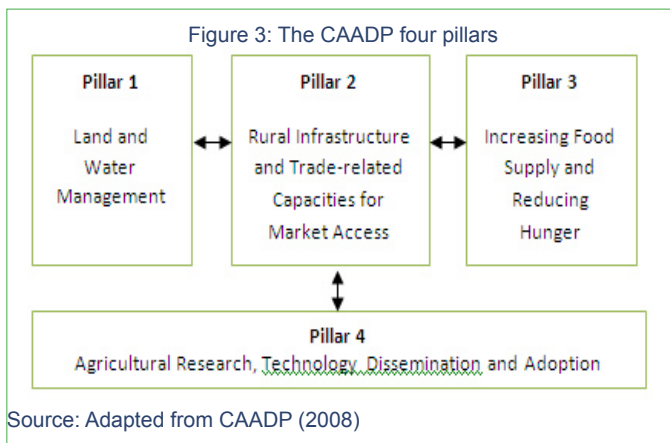
² The Africa Union Commission (AUC), the NEPAD Planning and Coordination Agency (NPCA) and the Regional Economic Commissions (RECs) and others can only support the countries in implementing CAADP

taken into account is the effective bridging of the four CAADP pillars (Figure 3), which are the general priorities that Africa and indeed the countries will need to address in advancing agriculture development. Government leadership in bringing together pillar institutions, with committed involvement of key decision-makers is of paramount importance to ensure the needed inter-sectoral coordination and harmonization. The roles of commercial farmers, smallholder's organizations and related private sector players as well as the development cooperating partners (DCP) in contributing to the framework implementation are also crucial.

1.3. CAADP implementation in Mozambique

The first attempts towards CAADP framework started in 2004 through the then Ministry of Agriculture and Rural Development (MADER, 2000-2004). However, despite some enthusiasm at that time, the implementation of the framework never really took off until 2010 when the government renewed its interest in adopting CAADP. This was particularly relevant given the then anticipated implementation of PEDSA, a comprehensive agriculture policy prepared by MINAG since 2007 through an extensive consultation process, particularly in 2010.

This paper provides a brief yet comprehensive trajectory of Mozambique's adoption of CAADP and highlights critical factors to be taken into account in the implementation of PEDSA using CAADP framework based on past lessons. In order to ensure better contextualization of the theme under discussion, the next section undertakes a brief background review of past agriculture policies



³ On-going discussions have focused on the feasibility of having 10% as a uniform target for total public investment to be allocated to the agriculture sector. For few African countries with strong non-agricultural economies and high rates of private investments in agriculture, such as, S. Africa it can be a very high target while for other countries, such as, Ethiopia, this is indeed the minimum required.

⁴ In 2005 the Ministry of Agriculture and Rural Development (MADER) was transformed into the current Ministry of Agriculture (MINAG); the top Ministry leadership was changed; between late 2005 and early 2006 the Ministry was involved in profound institutional reforms; and in 2006 and 2007 bio-fuel crops and food production issues, respectively, become top priority at MINAG. All these facts may have contributed to the interruption of CAADP process whose local awareness at that time was very low.

and strategies adopted since independence (June 1975). Literature review, unstructured interviews with key informants and direct observation of key processes related to CAADP adoption form the methodological basis of this paper.

2. Agricultural Policy and Strategy in Mozambique

This brief background covers the main agriculture policy and strategy changes that have occurred over time, since the national independence in 1975 to date, as described below.

2.1 1975-1992: Post-independence Government interventionist agriculture policy and its collapse

Policy and strategic planning processes have been changing considerably since Mozambique independence in 1975. Upon independence, the Government announced agriculture as the basis for economic development. At the time, particularly in the central and southern regions, about 2,400 commercial farms of different sizes had been abandoned by the Portuguese farmers who left the country. Under a centralized economy, the alternative found to revitalize abandoned commercial farms and to promote agriculture production and marketing was the creation of state farms, from medium to large ones, with some hundred hectares. Some of them, then called agro-industrial complexes, were managed as real high capital intensive state enterprises with strong production support (irrigation, mechanization, farming inputs), transport and processing facilities. The Limpopo Agro-industrial Complex (CAIL) (Valá, 2006) and the Angonia Agro-industrial Complex (CAIA) were two examples of large agro-industrial complexes in the country. It was an era in which public investment in the agriculture sector was principally channeled through state enterprises, including service provision in areas such as mechanization, input supply and crop marketing and credit provision mainly through the then Government owned bank called Banco Popular de Desenvolvimento (BPD). From 1978 to 1981 about 90% of public investment in the agriculture sector was allocated to the state enterprises (Caballero, 1990; Mosca, 2005), and only 10% went to support smallholder agriculture mainly through co-operatives that existed at that time.

From the mid-1980s and during the early 1990s state farms and agro-industrial complexes gradually collapsed. This period was also characterized by pioneer actions to privatize state enterprises, particularly in the northern (Nampula province) and central regions. Thus, although privatization of state farms and agro-industrial complexes occurred mainly in the first half of the 1990s, their collapse had started in the second half of the 1980s. Analytical work by MINAG in 1986 to assess the financial situation of the state farms and agro-industrial complexes estimated the unpaid loans of such state enterprises at USD 200 million (Caballero, 1990).

Different reasons were identified as the causes of the collapse of state farms and agro-industrial complexes including the civil war that devastated the country with a negative impact on rural security from the 80s until the 90s; managerial constraints in addressing technical, economic and social issues properly; and accumulated bank loans with very low rate of reimbursement. Some of the state farms privatized in the early 1990s in the north and others in the central region (Manica province and parts of uplands of Zambezia) were initially transformed into joint venture companies (JVC) involving government and private investors. The JVCs were mainly oriented to promote cotton production through contract farming involving thousands of smallholder producers and few commercial farmers. Government authorized exclusive production of cotton for periods varying from 5 to 20 years a model that came to be known as “cotton concessions” (Gemo et al, 2005; Gemo, 2008).

The main issue to be highlighted with regard to 1975-1992 period, when many state farms and agro-industrial complexes were still operating, was the government’s holistic intervention in the agriculture sector. Despite sustainability issues that undermined this approach (Cabrero, 1990; Valá, 2006; Mosca, 2005; Mosca, 2010), the post-independence government role in agriculture sector showed that there was a clear understanding of the importance of providing a comprehensive support to pursue agriculture growth, as shown in Box 2.

Box2: Government’s holistic intervention actions in agriculture sector under the centralized economy until their privatization

- State farms and agro-industrial complexes had own means of transport for delivering and distributing crops
- Parastatal enterprise for supplying mechanization equipment and provision of technical assistance through various branches (MECANAGRO)
- Parastatals for irrigation equipment delivery and technical assistance (Tecno-Mecânica, HIDAG, Hidromoc), in addition to one private company then based in Maputo (COMEL)
- Parastatals for fertilizer and pesticides provision (BOROR)
- Government-Swedish large seed company (SEMOC) which became the main seeds supplier to the emergency seed program (PESU) in the late 1980s and first half of the 1990s.
- Government bank (BPD) for credit provision, especially for the state farms
- Parastatals for marketing smallholder’s grains (AGRICOM or ICM) and supply of basic hand tools in some cases.
- Implementation of subsidized and even free emergency seeds and agriculture hand tools for thousands of farmers affected by droughts and civil war, particularly between the late 1980s and first half of the 1990s.

Thus, despite the critical lack of private sector contribution, the government had tried to ensure comprehensive support to the agriculture sector by creating a number of parastatal enterprises to respond to provision of crucial factors of production and services as well as by facilitating access to credit to state farms and agro-industrial complexes.

These are important policy and strategic issues to be taken into account within the context of CAADP.

It is important to note that the end of the centralized economy and subsequent privatization of almost all agriculture sector parastatals that had been providing key services was not followed by the establishment of similar services by the private sector. The lack of an effective transition from the parastatal enterprises to private enterprises offering the same or better services resulted in critical gaps in the provision of crucial agriculture support services.

2.2 1993-1998: Reviving agriculture under an emergency situation and approval of the first agriculture sector policy

The end of the civil war in 1992 brought new challenges to the agriculture sector, which had been virtually stagnant in the early 1990s. This was at the time when agriculture was constrained in most of the rural areas due to the protracted civil war with millions of rural people internally displaced, in addition to other millions of refugees in neighboring countries, notably: South Africa, Swaziland, Zimbabwe, Tanzania, and Malawi. Although estimations of the number of internal displaced people and refugees vary, by August 1991 it was estimated that at least 1.8 million people were internally displaced while about 1.48 million refugees were living in neighboring countries (IRBC, 1992).

After the October 1992 Peace Agreement, the Government embarked on major efforts to re-launch agriculture and the rural economy in collaboration with development cooperating partners (DCP), including UN agencies and several NGOs. Millions of people returned to their places of origin in rural areas. The revival of the agriculture sector comprised five main activities:

- Reinforcement of subsidized or even free annual distribution of agricultural inputs in the most critically affected rural areas. For example, about 30,000 tons of seeds and selected grains for seeds and about 2,000,000 hand tools (hoes, machetes, axes, etc.) were distributed in the 1993-1994 agricultural season (DINA/ PESU, 1994). The initiative was implemented within the scope of humanitarian assistance (emergency) to help affected people rebuild their lives. The post-war emergency situation was officially over in 1996, but free distribution of seeds and hand tools continued for some additional years under more rigorous selection of beneficiaries;
- Promotion and implementation of the so-called quick impact projects (“projectos de impacto imediato”) in rural areas. For example, the United Nations High Commissioner for Refugees (UNHCR) provided about USD 100 million in the 1990s to encourage refugees’ reintegration in the country (UNHCR, 1998);
- Expansion of key services such as extension (public, private and NGOs) and progressive re-establishment of livestock animal disease control, particularly for cattle. Although there are disputes

on accuracy of the most recent figures, 1.3 million cattle were estimated in 1973 (MIA, 1973), 300,000 heads estimated in 1993 (Macamo, 2002) and 1,6 million estimated in 2008 (TIA, 2008);

- Agriculture sector development policy and key laws formulation. After stakeholders' consultations in 1993-1994, the Government approved the first "Agricultural Sector Policy and Strategy of Implementation" (PAEI, 1995). This was the umbrella policy for subsector development strategies such as the extension master plan implemented from 1999 to 2004/06 under the first national agriculture development program (PROAGRI I). In reviving the agriculture sector, the then Ministry of Agriculture and Fisheries (MAP) led an exhaustive consultation process to formulate the Land Law and the Forestry Law passed respectively in 1997 and 1999;
- Preparation of the pioneer sector budget support program for agriculture (PROAGRI, 1998) and also in the country. The initial stage called Pre-Program at MINAG (the foundation of PROAGRI concept and main goals) started in 1993-94. PROAGRI I formulation had occurred in 1996-1998 and its implementation started in 1999. PROAGRI I formulation was characterized by intensive consultation processes with key stakeholders, especially MAP, MF and several DCP. However, farmer's consultation was less addressed.

In summary, the period from 1993 to 1998 was of paramount importance for the revival of agriculture and rural life in the country, preparation and approval of PAEI (1995) and introduction of crucial laws in the agriculture sector as well as the negotiation and approval of PROAGRI I which was implemented from 1999 to 2004, and then extended to 2006

2.3 1999-2004/06: Implementing the first sector budget support program (PROAGRI I)

As mentioned above, PROAGRI I was the first sector budget support program in the agriculture sector and in the country. It involved the government (MINAG and MF) and 15 development cooperating partners (16 at the initial stage) both bilateral and multilateral, including UN agencies such as FAO and IFAD.

Notably, Mozambique's agriculture sector has, over time, benefitted from an encouraging contribution from various DCP, particularly after the Peace Agreement of 1992. However, it should be noted that DCP support to the agriculture sector was, characterized by:

- Fragmented and dispersed projects in various subsectors and at different levels of implementation (central, provincial, and district level);
- Limited sharing of information among various projects. Extension and the so-called community development projects were the most critical in this respect. this respect.

- Some NGOs' livestock restocking projects were also implemented in an isolated manner, i.e., without the needed collaboration with livestock authorities that offer more competent technical support; Some of the projects had very short periods of implementation (1 to 2 years) which compromised their efforts to contribute to any sustainable change at community level;
- High transaction costs in managing various projects with many of them having specific management units;
- Difficulties in assessing overall agriculture sector performance due to limited information from many of the implemented projects. It should be pointed out that the Early Warning System (EWS) (started in 1993-1994) was the only information system working on the estimation of basic food crops at national level in the early 1990s. The first attempts to conduct national agricultural surveys (TIA) through MINAG occurred in 1993 and in 1996 but were based on a small sample, while the first agriculture census (CAP) was conducted in 1999-2000, under the supervision of the National Statistics Institute (INE). Project information was very important to complement MINAG's efforts aimed at agriculture sector performance assessment.

During PROAGRI planning of 54 different projects were identified. Most of them crippled by the above mentioned weaknesses. The essence of PROAGRI was to work towards coordination and harmonization of DCP contribution to the agriculture sector as a strategy to pursue agriculture growth in a more effective and efficient manner. PROAGRI was intended to be a long term investment program and the first phase (PROAGRI I) was aimed to build MINAG's institutional capacity. Box 3 summarizes some of the most important characteristics of PROAGRI I.

Box 3. Main characteristics of PROAGRI I

- Main Objective:** MINAG institutional development as the first stage of a long term agriculture development program
- Rationale:** To ensure the need of institutional capacity to MINAG as a public leading institution in the agriculture sector
- Main expected result:** A well-equipped and competent MINAG, as a basis for more effective and efficient interventions
- Some basic principles: focus on core functions, outsourcing of other activities, transparency and mutual accountability (MINAG and DCP), decentralization
- Main program pillars:** Human capital development, Information System development (planning and M&E), services delivery development, institutional reforms, improved financial management
- Implementing components:** Extension, Forestry and Wildlife Institutional Development, Irrigation, Land, Livestock, Research, Support to Crop Production
- Total estimated budget:** USD 200 million
- Period of implementation:** 1999-2004 later extended to 2006
- Levels of implementation:** Central, provincial and district level

It should be noted that PROAGRI I implementation was extended from 2004 to 2006 period, as agreed by both MINAG (then called MADER) and DCP. The extension was aimed to implement some of the key activities that had not been accomplished by 2004 and to use the extension period as a transition phase towards PROAGRI II which was prepared in 2003-2004. MINAG institutional reforms were viewed as a fundamental achievement, particularly by the DCP and these occurred in 2005-2006. The reforms consisted of the following:

- Integration of three research institutions (agronomy (INIA), animal production (IPA) and veterinary (INIVE)), one forestry experimental center (CEF) and one agricultural training center (CFA) to create the Mozambique's Agricultural Research Institute (IIAM);
- Integration of three national directorates (agriculture (DINA), livestock (DINAP), and agriculture hydraulics (DNHA)) to create the National Directorate of Agricultural Services (DNSA);
- Integration of two other national directorates (forestry and wildlife (DNFB) and land (DNT)) to establish the National Directorate of Land and Forestry (DNFTF).

The rationale behind such institutional reforms was to recreate a better MINAG in terms of its efficiency in delivering core services as well as in attaining the Ministry's long-term objectives and goals. Until 2010, no institutional reform impact assessment had been conducted at MINAG. However, the creation of the National Directorate of Veterinary Services (DNSV) few months after the closure of DINAP as well as the ongoing internal debate about the need to have more visible and stronger irrigation public services (thus, out of DNSA) are signals that the implemented reforms may not have achieved the intended impact.

The final PROAGRI I assessment (AFP, 2007), among other findings, emphasized the following achievements:

- progress on decentralization, namely on the transfer of decision-making to the local level (planning, budgeting and resource management), although some challenges have been raised on the harmonization of local and national priorities;
- internal dialogue between central and provincial levels (in some cases involving district representatives), especially in planning and budgeting issues through annual technical reviews of PROAGRI I;
- progress on HC development particularly in administration and financial management and strong emphasis on formal in-service training at both central and local levels. Most of these achievements collapsed later with many of qualified HC abandoning MINAG after the Ministry halted the provision of internal incentives, namely access to MINAG's transport and paying salaries above the average salaries in the government system for selected qualified staff at central and provincial levels;

- progress in improving MINAG's operational capacity on ICT and transport, including at provincial level. Concerns related to maintenance of equipment and means of transport were raised after the 2005 MINAG decision to transfer most of the means of transport from the central to the local level.

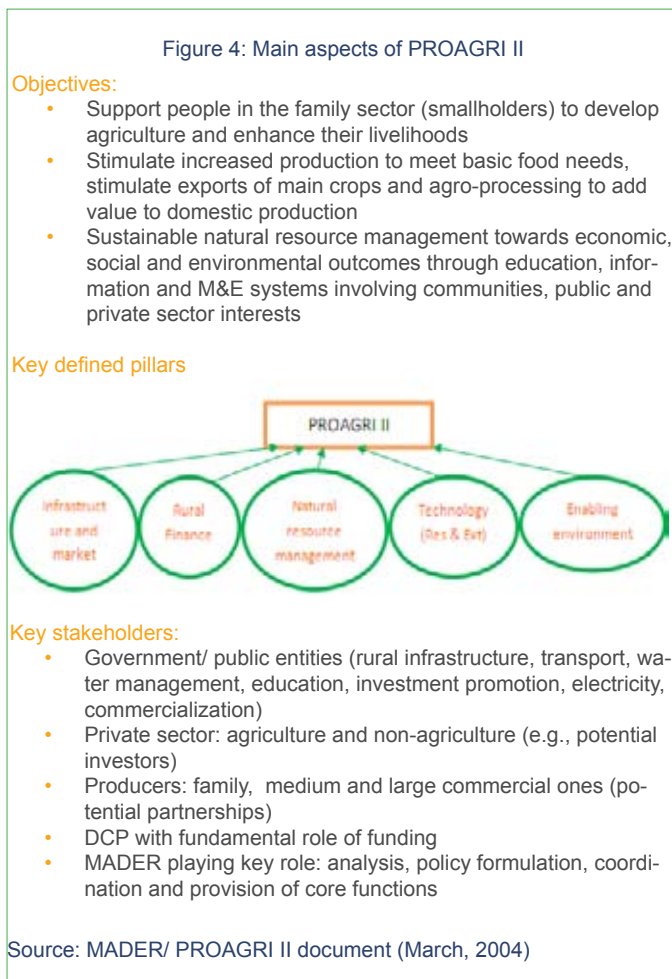
Despite the above mentioned achievements, the emphasis of PROAGRI I on MINAG's institutional development apparently was not well understood by political leaders, academia, media, and even by agriculture stakeholders such as farmer's organizations. In particular, in 2004-2005 PROAGRI I used to be criticized through the media for not addressing field production constraints and spending too many resources on MINAG's institutional development issues. In fact, in terms of the entire PROAGRI conceptualization, the production support was planned for the second stage, after strengthening MINAG's capacity in phase I. It is worth noting that in 2006 DCP disbursements to MINAG/ PROAGRI I were estimated at USD 207 million against the initial estimated total budget of about USD 200 million for the 1999-2004 period (Cabral, 2009).

2.4 2007-2010: PROAGRI II versus Green Revolution Strategy (GRS), the Action Plan for Food Production (PAPA) and the development of a new agriculture sector policy (PEDSA)

The period from 2007 to 2010 was characterized by intensive policy and strategy formulation. After the expiry of PROAGRI I, the Government (MINAG, MF and MPD) and 8 DCP signed a new memorandum of understanding for the implementation of PROAGRI II (MoU, 2007). Although PROAGRI I had initially involved 15 DCP in 1999, the intended second phase (starting in 2007) was endorsed by just half of them. In fact, some of the DCP partners had left PROAGRI I after 2 to 3 years following the establishment of the common flow of funds mechanism (CMFF) in May 2001. The early withdrawal of some of the DCP from PROAGRI I may have been due to various reasons, including the level of satisfaction vis-à-vis their expectations based on their own agenda, aspirations and cooperation philosophies. Regardless of the reasons behind the abandonment of PROAGRI I, PROAGRI's intended agenda of coordination and harmonization of the contribution by the DCP (and other stakeholders) to the agriculture sector remains relevant and in accordance with the CAADP principles.

The formulation of PROAGRI II was conducted in 2003-2004, involving an extensive consultation process between the then Ministry of Agriculture and Rural Development (MADER) and key stakeholders, including the Provincial Directorates of Agriculture (DPAs) with technical assistance (TA). As mentioned above, PROAGRI II was intended to be more production oriented, with a more holistic approach of supporting agriculture within the realm of rural development. It was expected to be implemented between 2005 and 2009.

Figure 4 summarizes key aspects of PROAGRI II (MADER/ PROAGRI II, 2004).



PROAGRI II, however, was not approved and implemented as expected. This failure to transition from PROAGRI I to PROAGRI II as initially planned could be partly attributable to decisions to: extend PROAGRI I to the 2005-2006 period; the restructuring of MADER into MINAG in 2005 with the transfer of the rural development component to MPD; the appointment of a new MINAG leadership in 2005; the profound MINAG institutional reforms implemented in 2005-2006 and the criticism against PROAGRI I due to the limited role in addressing production support.

2.4.1 New actions and strategies formulation at MINAG

In 2006, in the process of extending PROAGRI I, MINAG started the formulation of the “documento de prioridades do sector” (agriculture sector priorities document) whose preliminary version was discussed in May 2006, in Manica Province, but it was later abandoned. At the same time, MINAG embarked on efforts aimed at the promotion and production of bio-fuel crops⁵. The 2007-2008 international food crisis (Coelho, 2008; McMichael, 2009; Lantier, 2008), in addition to the rise in oil prices, added the pressure on MINAG to promote and implement concrete actions to increase domestic food production and productivity, particularly from 2007.

In 2007, MINAG resumed the preparation of the National Irrigation Strategy with technical assistance from FAO. In 2009 the process was again discontinued apparently due to some logistic reasons as well as some weaknesses in ensuring process continuation, including key consultations and harmonization. In 2010 the International Water Management Institute (IWMI) joined the MINAG formulation team and the Strategy was finalized in December 2010.

Also in 2007, MINAG was focusing its attention on a document called “Agrarian Intensification and Diversification Program” with the support of the national and international TA, in collaboration with FAO. The program was set to address chronic food insecurity and the country’s structural cereal deficit through increased production and productivity. In order to attain such objectives, it proposed to facilitate access to agriculture inputs, disseminate technology and provide credit to selected farmers in areas with agro-ecological potential (Gemo and Cabral, 2008; Cabral, 2009). Apparently, this document also contributed to PEDSA formulation, concomitantly with the Green Revolution Strategy (GRS), the priority document at that time. The GRS was submitted in October 2007 to the Council of Ministers for approval. The GRS is a concept that provides general policy orientation to increase agriculture production and productivity.

In order to operate the GRS, MINAG also designed an Action Plan for Food Production (PAPA, 2008) which was approved by the Council of Ministers in 2008. PAPA’s objective was to increase the production and productivity of selected food crops and livestock in targeted districts.⁶ It was to be implemented from 2008 to 2011. PAPA intends to contribute to food self-sufficiency of key crops and livestock products and to reduce related food imports. Its implementation was planned to comprise:

- facilitation of farmers’ access to improved agriculture inputs , particularly through technology packages;
- promotion of use of animal traction and, as much as possible, tractors among farmers and farmers’ organizations involved in the PAPA;
- linkages with research and extension and with markets (commercialization and agro-processors);
- emphasis on irrigation, where possible;
- resources mobilization for strengthening the initiative, including credit access to farmers.

⁵ In 2006-2007 MINAG became particularly involved in promoting “jatropha” crop through actions such as seed import, plant multiplication and distribution, extension assistance, in various districts involving smallholders farmers as well as in dealing with investment proposals on FDI for bio-fuels production.

⁶ Initially planned to be implemented in 22 districts but in practice expanded according to the decisions of each province

Some critical issues related to the conceptualization and implementation of PAPA include:

- high expectations on achieving production targets for commodities such as rice, wheat, and Irish potato in 3 years;
- weaknesses in providing technology options for targeted crops in different agro-ecological environments;
- limited research and extension expertise and experience in dealing with selected crops such as the Irish potato and wheat, respectively;
- market constraints throughout the rural areas led to delayed access to inputs and high transaction costs in marketing both inputs and crops;
- financial, technological and social constraints in expanding and using effectively available irrigated land;
- Lack of clearly defined roles and responsibilities of the different stakeholders.

In September 2010, MINAG organized a high level Government meeting to discuss 2009/10 agriculture season performance as well as the preparation of the 2010/11 season (MINAG, 2010). The two-year PAPA implementation (2008/09 and 2009/10) was discussed and most of the above critical issues were mentioned as constraining the success and sustainability of PAPA.

2.4.2 About PEDSA

The formulation of PEDSA was through an internal group of selected professional staff from national directorates and subordinate institutions with periodic TA. Progressive versions were discussed at MINAG and also with the DCP, particularly those involved in agriculture SBS, the so-called "PROAGRI partners group" (PPG). However, the process was temporarily discontinued due to its overlap with the GRS formulation process in 2007 and PAPA in 2008. The latter documents received higher priority and political support. The formulation and approval of both GRS (2007) and PAPA were the fastest processes (less than one year) that have ever occurred at MINAG over the last 10 years. On average, it takes MINAG 2 to 3 years, and even more, to formulate policy and strategies and get it approved. PEDSA formulation continued from 2008 to 2010 comprising several consultation processes at targeted DPAs in the northern, central and southern regions as well as at central level involving different stakeholders. Box 4 summarizes some of the main elements of PEDSA.

PEDSA approval by the Government and its implementation has been viewed with strong expectation at MINAG and by other stakeholders, particularly the DCP. With PEDSA as a strategic tool or framework, sound and in as much possible evidence-based investment plans are expected to be developed, implemented and assessed accordingly. However, its wide scope of proposed and desired interventions in the agriculture sector is a huge challenge.

Box 4: Main elements of PEDSA

- Provides an objective agriculture sector diagnosis
- Highlights general goals related to agricultural sector growth
- Emphasizes the broadness of the agriculture sector highlighting the role of other related sectors such as industry and trade, rural infrastructure, energy, financial services, etc.
- Highlights the key role of inter-sectoral coordination
- Provides comprehensive inclusion of agriculture sub-sectors into a logical framework (interrelated areas of the entire agriculture sector)
- Includes strategic activities by subsector and states the intended goals
- Includes categories of agriculture sector performance indicators and key subsector performance indicators (to be updated over time).

In fact, most of the indicators have been re-adapted from or aligned with CAADP M&E framework

- Emphasizes the need for programmatic interventions in the agriculture sector (planning and investment options)
- Emphasizes the value chain developing approach for the main agriculture commodities
- Highlights the role of MINAG in delivering core services and its coordination role within agriculture sector
- It is a long term development plan (10 years)

In summary, the 2007-2010 period was hugely characterized by the formulation of strategic documents, namely:

- Agriculture Sector Priorities ("documento de prioridades do sector agrário", 2006) narrowly related to agriculture commodities and not to areas of interventions as such.
- Agrarian Intensification and Diversification Program ("Programa de Intensificação e Diversificação Agrária", 2007), a document that provided broader scope of "support to agriculture production" and may have contributed to the formulation of both PEDSA and PAPA
- GRS ("Estratégia de Revolução Verde", 2008)
- National Irrigation Strategy (MINAG/EI, 2010) aimed to contribute to revitalise irrigation subsector in the next 10 years, as part of PEDSA
- PEDSA ("Plano Estratégico de Desenvolvimento do Sector Agrário", 2010) with expectations to be officially approved by early 2011.

⁷ Held in Maputo (September 16 2010), the meeting was attended by the Hon. Prime-Minister; Ministers of Planning and Development; Agriculture; Trade and Industry; Provincial Governors; Vice-Ministers of Agriculture and Trade and Industry; MINAG national and provincial directors; representatives of DCP (FAO and Finland); private sector; farmers' organizations; relevant academia and the media, etc.

3. Future Outlook

3.1. Moving Towards the Adoption of the CAADP Framework

Initial attempts towards the adoption of the CAADP framework in Mozambique were made in 2004 by the then MADER. This followed the 2003 Maputo Declaration. The process comprised an attempt to establish a technical cooperation commission between the Mozambican and South African Ministries of Agriculture which, among other potential cooperation matters, was to promote the formulation of bankable agriculture projects to be funded within the scope of CAADP, with emphasis on value chains development for selected commodities. Investment plans for crops such as rice, sugarcane, and tropical fruits were then viewed as potential areas of priority. MADER and the South African Ministry of Agriculture have since exchanged some technical (national directors) and Ministers' level working missions.

Despite efforts made in formulating the first investment proposals, the initiative did not achieve tangible results. The efforts were suspended with the institutional change of MADER into MINAG in early 2005. It should be noted that the first attempts towards CAADP adoption did not comprise broad consultation processes in the agriculture sector. It was more of an internal exercise aimed at involving relevant Government institutions (for example in charge of water management, trade and industry), some attempts to collaborate with FAO in that process and especially with the private sector, including Mozambican-South African Agriculture Joint Ventures, through the principle of "bankable projects".

In 2007, MINAG started implementing the pilot phase of the "strategic analysis and knowledge support system" (SAKSS) initiative. SAKSS initiative is aimed at supporting CAADP implementation, particularly on M&E issues at country and regional levels. In June 2007, MINAG and ReSAKSS-Southern Africa (ReSAKSS-SA) co-organized the first public debate on CAADP in Maputo. Although agriculture subsidies were the main agenda topic, a short presentation on CAADP framework and respective roundtable processes were conducted. At that time, MINAG had informally appointed a CAADP "focal point" but little progress was achieved in driving the process towards the implementation of CAADP roundtables. In fact, the focal point was never officially appointed until June 2010, when MINAG decided to appoint the Directorate of Economics as the institutional focal point.

By 2008-2009 little progress was made in establishing regular contacts and exchanges of information between MINAG and the NEPAD- Secretariat. However, in 2008, MINAG attended one SADC-ReSAKSS co-organized agriculture meeting (Botswana, December 2008) in which CAADP and some SADC/RISDP key performance indicators were presented. In 2009, MINAG representatives also attended CAADP meetings in Addis Ababa

and the Agriculture Ministers Meeting in Tripoli (CAADP, 2009). MINAG also concluded the first comprehensive agriculture expenditure review (MINAG/ AgPER, 2002-2007) planned under the auspices of Re-SAKSS and conducted under MINAG leadership with key collaboration of the Ministry of Planning and Development (MPD), Ministry of Finance (MF), Ministry of Fisheries (MP), World Bank, EC and USAID. The study was a response to CAADP's information needs (2003 Maputo Declaration).

However, it was not until 2010 that MINAG, in collaboration with some DCP started to carry out consistent efforts towards CAADP implementation. Box 5 summarizes the main activities carried out by MINAG.

Box 5: Main activities carried out in 2010 towards CAADP framework by MINAG in collaboration with key stakeholders

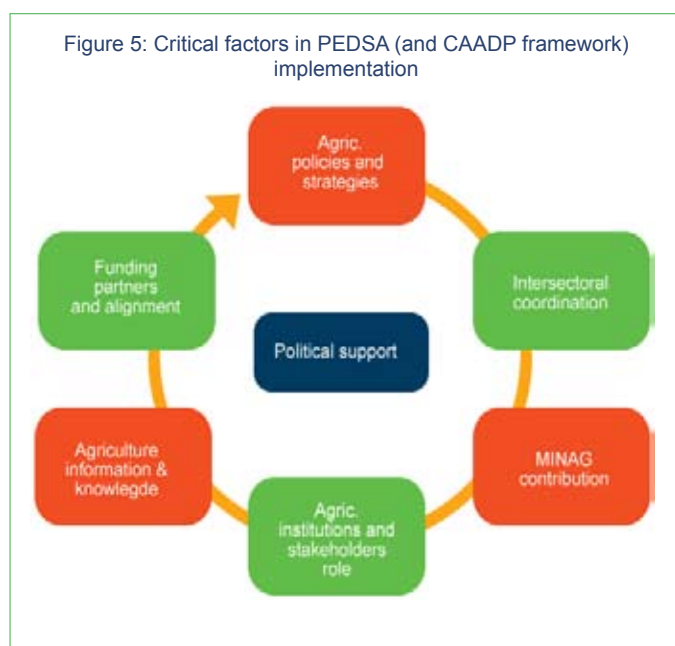
- MINAG presence at the Swaziland CAADP compact signing event (Mbabane, March 2010) with the intention of learning from a neighboring country on how to conduct such process
- MINAG participation at the CAADP M&E framework validation workshop in Johannesburg
- MINAG formal decision to have the Directorate of Economics (DE) as the institution leading CAADP processes within the Ministry (June, 2010)
- MINAG/DE decision to incorporate CAADP M&E framework in PEDSA, as the basis for PEDSA M&E system within the SAKSS initiative (April, 2010)
- Creation of a national CAADP task team composed of representatives from different ministries (Agriculture, Industry and Trade, Public Works and Housing, Planning and Development, Finance), farmers' organizations, NGOs, private sector and DCP.
- Hiring of international TA to help the national CAADP task team and MINAG to conduct relevant activities towards the CAADP formal launching process, compact formulation and signature.
- A comprehensive assessment of existing and relevant local literature and official documents for analytical purposes towards compact and investment plans formulation.
- Consistent efforts to interact with SADC and CAADP secretariats towards CAADP formal launching and compact formulation.
- Government formal CAADP launching led by the Prime Minister on December 13, 2010 in Maputo.
- Approval of the National Irrigation Strategy (EI, 2010) by the Council of Ministers on December 21.

DCP such as Sida, World Bank, USAID, CIDA as well as FAO, and to some extent the UN agencies WFP and IFAD have been particularly committed to helping MINAG implement the CAADP framework. Research and capacity building initiatives by local universities, Moz-SAKSS and Michigan State University (MSU-Moz Program) are efforts to assist MINAG implement the CAADP framework. The consistency and cohesion of key government and non-government partners in strengthening joint efforts in this initiative will determine the performance and sustainability of the government and MINAG's interest in the country's adoption of the CAADP process.

Despite implementation of the above mentioned activities, CAADP's framework is only known by few agriculture stakeholders, government entities, academia, NGOs and the DCP community. Local awareness of what CAADP is (rationale, principles, key pillars, goals) and what value it adds to the country's agriculture sector performance is necessary and important to the success of the implementation of the CAADP framework. Expected stakeholder consultations towards CAADP compact formulation will be helpful in disseminating the framework's rationale, content and expectations. Additional efforts are necessary to raise awareness of CAADP at both national and local levels.

3.2. Implementing PEDSA (and CAADP framework): Factors to be considered

Lessons from past experiences can be used to suggest factors that need to be considered in implementing PEDSA (and CAADP framework). These factors, which are expected to play a role in strengthening and sustaining PEDSA (and CAADP framework) implementation, are indicated in Figure 5.



3.2.1 Political support always crucial

PROAGRI I (1999-2004/06) negotiations and subsequent approval enjoyed political and government support, particularly through the then MAP and MF. The same happened with PROAGRI II (2007-2010/11) whose official adoption involved MINAG, MPD and MF (MINAG/MoU, Feb 2007). Political support was important for the DCP and for resources mobilization and allocation. The same is needed for the successful PEDSA implementation and CAADP framework adoption.

The current Mozambique's actions towards PEDSA approval and implementation, and CAADP framework adoption, require the following pre-conditions:

- major coordination, policy and investments harmonization among key players in the agriculture sector (CAADP pillars and other relevant sectors);
- additional efforts to meet and even go beyond the 10% of the total public investment to be annually allocated to agriculture sector, although this will critically depend on the availability of resources;
- strong agriculture institutions, particularly public ones, which contribute towards better implementation of public policies and investment in the agriculture sector and to boost the role of other partners such as private sector and farmers' organizations towards the achievement of at least 6% annual growth. As an institution with direct public responsibilities in the sector, MINAG is expected to play a key role in all these processes.

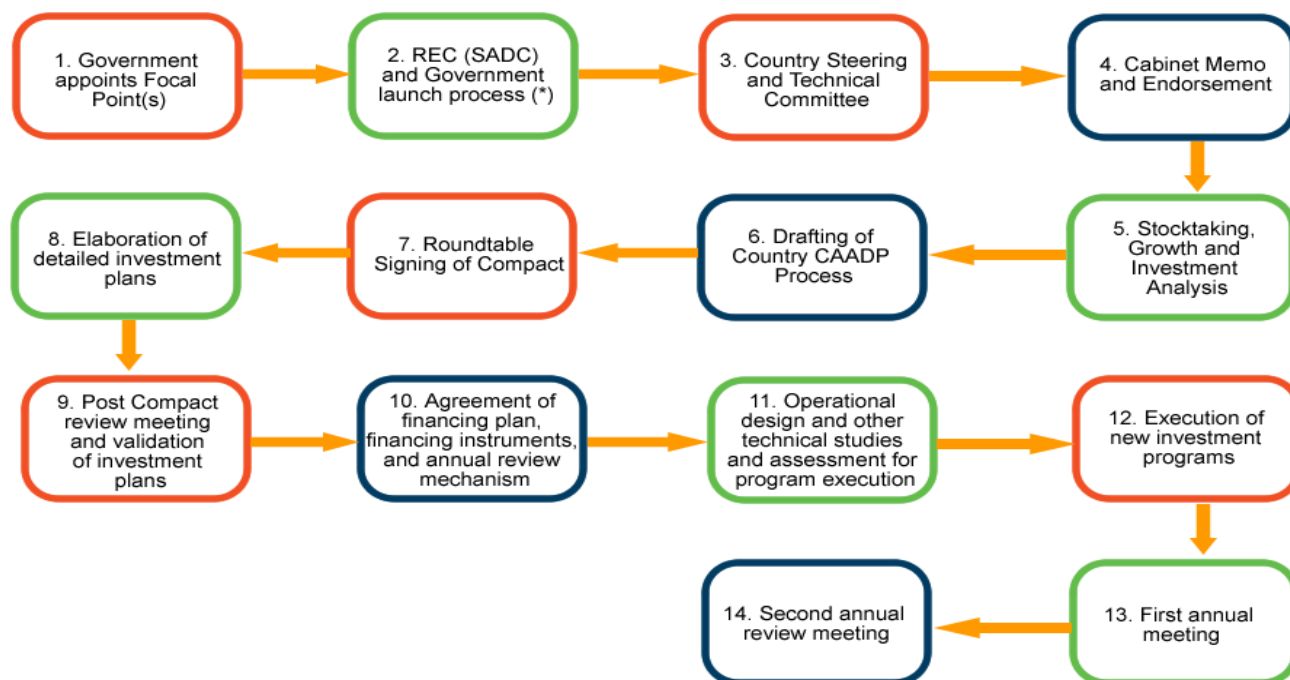
In order to reach the above conditions, a strong political and government support will be needed over time. The criticism of PROAGRI I during the last stages of its implementation may have raised potential credibility concerns for PROAGRI II. Consistent PEDSA/CAADP outcomes and positive impacts on the agriculture sector will be only accomplished at medium-to-long term through different stages of structural transformation involving people and institutions, infrastructure, knowledge and technologies, and natural resources management, use and practices.

In fact, Mozambique is just starting what appears to be a new approach (emphasizing major inter-sectoral coordination and strategic planning) and commitment to intervening in the agriculture sector through PEDSA under CAADP framework. This will be a long process with results realized over time, as shown in Figure 6⁹.

⁸ Although the PROAGRI II document has never been approved and the last years of PROAGRI I were characterized by criticism, even from some political actors

⁹ It is worth to note that the is not a strictly one-way linear process, some steps can be readdressed over the process

Figure 6: CAADP implementation steps



Note: * indicates the current stage of CAADP process implementation in Mozambique

Mozambique completed step 2 on December 13, 2010, the step 3 has already been accomplished and 4 are expected to be implemented soon. Some investment analyses have started as well as basic stocktaking preparation actions in collaboration with country SAKSS (MINAG, ICRISAT, IFPRI and IWMI). Therefore, depending on what the country has already prepared, or how the process can be accelerated taking into consideration past experiences, some of the steps could be shortened.

Given the fact that there is a need to ensure immediate gains, for example, in food production and in local development projects, it seems that there is a need for a transition period from the current MINAG investment situation to the new CAADP oriented investment plans. MINAG, in collaboration with DCP, will have to balance between “quick-win investments” that can provide temporary immediate progress versus medium-to-long term investments, which can result in more consistent and sustainable outcomes and impacts.

3.2.2 Good Agriculture Policy/Strategy Needed but not Enough to be Successfully Implemented

PEDSA has been viewed as a key achievement of MINAG and the agriculture sector as a whole. It is expected that it will reflect a new agriculture era characterized by stronger pluralistic agriculture sector (government, private sector, NGOs, farmers organizations and DCP), greater inter-sectoral collaboration and harmonization, major DCP alignment and improved efforts for the provision of core services to the producers. It should be noted that PEDSA will be implemented under greater pressure

to increase production, productivity and competitiveness of staple food production¹⁰, under potential effects of climate change over the natural resources already threatened by humans (forestry burning, deforestation, soil degradation, water pollution, etc.) as well as under pressure of ensuring annual agriculture performance above CAADP and even SADC shared targets.

As a matter of facts, PEDSA seems to take into consideration all the above mentioned challenges, given that it was designed in a comprehensive manner. However, a good strategy alone is not enough to ensure implementation success. One fundamental step will be the government and MINAG’s capability to translate PEDSA into sound short, medium and long term investment plans and to implement them accordingly, under an effective M&E and communication system.

The extent to which sustainability issues will be addressed (for example, inter-sectoral coordination), evidence-based interventions will be promoted, eventual successive MINAG leadership will ensure continuity and replication of good practices, and DCP’s respect of their financial commitments will be crucial to the success of PEDSA under the CAADP framework.

¹⁰ The recent official release of the Inquérito Sobre o Orçamento das Famílias (IOF, 2009) by MPD revealed limited contribution of agriculture in reducing poverty and improving food security. The SADC economic integration also requires more effectiveness and efficiency from Mozambique’s agriculture particularly with regard to agriculture commercial exchange with neighbouring countries such as South Africa and Swaziland.

3.2.3 Regional Cooperation and National Inter-Sectoral Coordination

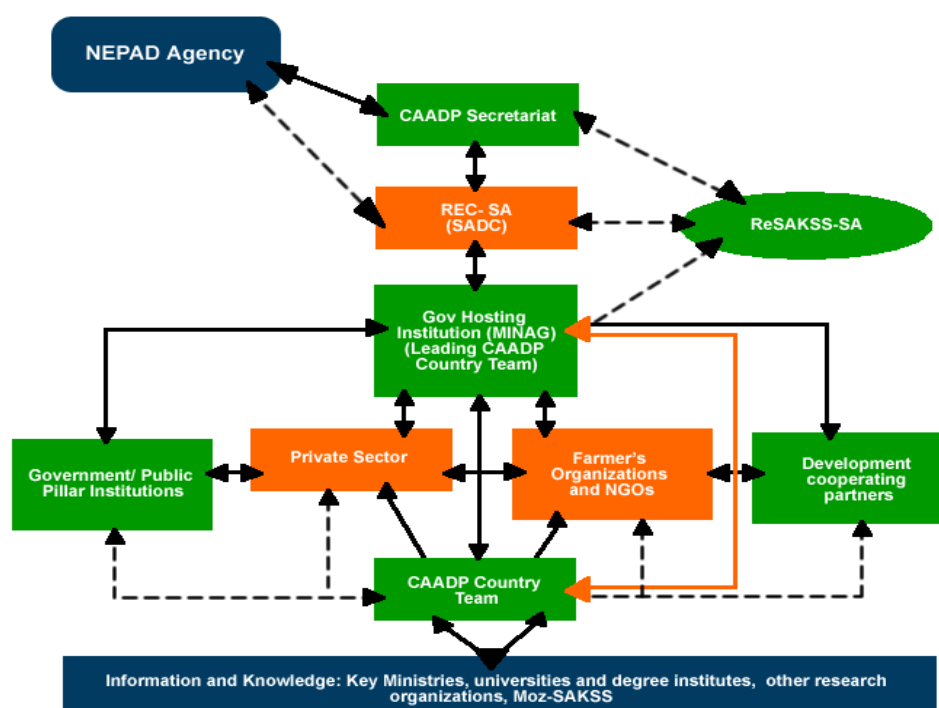
Political support to regional cooperation is mainly aimed at ensuring government or MINAG leadership participation or communication with the NEPAD agency, CAADP secretariat and SADC with regard to high level regional planning and M&E (including accountability issues). Country technical participation in relevant continental or regional events is also important as mechanisms for active learning processes and exchange of the country's experiences in implementing CAADP framework within national agriculture policies and strategies. These events can also be "entry points" to participate and influence possible updates of regionally shared commitments. A basic MINAG requirement will be to report annually to CAADP and SADC on shared goals, in collaboration with ReSAKSS, the initiative that is handling CAADP M&E implementation at regional level. At country level, it is also expected that SAKSS will play an important role in the implementation of the CAADP M&E framework as emphasized during the 2010 CAADP M&E Stakeholder Validation Workshop (CAADP, 2010).

At national level, one of the political support outcomes should be the guarantee of harmonization and collaboration on key policy issues and investment among relevant public sectors to pursue strategic targets within agriculture sector. Inter-sectoral collaboration and harmonization is equally critical at both national and provincial levels, but is extremely important at provincial and district levels where the activities are implemented with local people. Figure 7 shows the main regional and national inter-relationships among relevant stakeholders.

At MINAG, the Directorate of Economics (DE) has a direct (day-to-day) responsibility of facilitating interaction among key stakeholders, co-implementing needed actions and promoting CAADP framework implementation. The role and cohesion of the national CAADP team are crucial in ensuring inter-sectoral coordination over time. It represents the "entry point" to ensure participation and collaboration of different stakeholders. This implies that the national CAADP team members have to be strongly committed to take part in PEDSA and CAADP framework implementation by attending and participating in relevant events and processes and also by communicating with key decision-makers in their institutions or organizations.

As indicated in Figure 7, national inter-sectoral and inter-institutional coordination and collaboration are also challenging factors to be considered while implementing CAADP. It is clear that there is a need for strong political commitment to implement CAADP backed by good governance and accountability (CAADP, 2009). In realistic terms, this will be a process that will be maturing over time. The time needed to generate tangible results, especially at provincial level, derived from such kind of inter-sectoral and inter-institutional coordination and harmonization may further encourage such coordination and collaboration.

Figure 7: Potential Institutional Interactions in Implementing CAADP



3.2.4 Building and strengthening the capacity of MINAG

In a country where smallholder farmers dominates the agriculture sector and private sector role is still very limited, either as commercial farmers or service providers, the role of MINAG in contributing to agriculture performance continues to be fundamental and will remain so for many years to come. Beyond policies and regulation formulation roles, MINAG remains:

- the main overall agriculture service provider (research, extension, livestock vaccinations and epidemiological and crop disease surveillance). The private sector has also been playing an important role in commodity extension through sub-contract farming (mainly for cotton and tobacco) and NGOs have also been contributing substantially to the overall extension system (Gemo and Rivera, 2002; Gemo et al, 2005; Gemo, 2008);
- the main institution coordinating and co-implementing policies (in collaboration with several NGOs and INGC) to mitigate adverse impacts on agriculture due to persistent droughts, erratic rains or even floods;
- one of the main public institutions with direct responsibility for promoting rational use of natural resources for agriculture purposes (land, forestry and water), in collaboration with the Ministry of Public Works and Housing (MOPH) and the Ministry for the Environment (MICOA);
- the main institution involved in the M&E of agriculture sector performance through EWS, TIA, CAP, SIMA and other MINAG information subsystems, in collaboration with INE.

Despite its several roles and responsibilities, MINAG has been affected by operational constraints such as limited qualified human capital, limited coverage and weaknesses in the provision of core public services, and structural capital gaps¹² (MINAG/KPMG, 2005; MINAG/AFP 2007; MINAG/PEI, 2009).

The CAADP framework implementation seems to be an additional demanding initiative on MINAG especially since it will require coordinating a broader spectrum of stakeholders, using more evidence in its planning and budgeting processes and in widening the scope of its M&E system and communication channels within the agriculture sector. Thus there is need to build and strengthen the capacity of MINAG in light of the implementation of the CAADP framework.

Most of PROAGRI I achievements in institutional building were lost over time due to several factors. There is particular need to address human and structural capital constraints. For example, if research, extension, irrigation and MINAG information system have to effectively respond to PEDSA/CAADP needs, more efforts are needed towards:

- Re-evaluation of the role and performance of the 693 (DNEA, 2009) current public extension workers (since its establishment in 1987!) in the face of the expected public extension (DNEA) commitments and estimate the staff gaps in terms of both quantity and quality. By 2009 DNEA should have had 1024 extension workers, a number that was planned in 2004 (under the preparation of PROAGRI II at that time) as a minimum staff required to cover 69 districts. In 2009 DNEA was operating in selected parts of 126 districts, using the same approaches planned to target 69 districts. MINAG should also pursue better extension workers professionalization, field operational logistics, M&E system and reinforce extension and research linkages;
- Building research in human and structural capital, identifying research priorities and accountability framework and tools as well as providing adequate support for effective functioning of the four zonal research centers in the country. The current body of about 150 researchers, with less than 25 PhDs and 60 MSc at national level (MINAG/ PEI, 2009) most of whom recently graduated and at an early stage of their research careers, should be reinforced. MINAG research system is the largest and most important in the country. However, it lacks expertise in crucial areas of research such as water and land management, vegetables and tropical fruits , agro-forestry research, pastures for livestock, and socio-economic research, etc;
- Building a critical cadre of human capital in irrigation. The current number of less than 15 graduates among MINAG staff members (BSc) and only 2 specialized staff (MSc) that are working in irrigation at national level has been notably constraining MINAG's capacity to provide critical services in this priority area. This is critical taking into account the little private sector contribution to the provision of quality or knowledge-based irrigation services throughout the country.

In addition, it also seems to be a good time to really improve MINAG's databases and information systems, particularly the harmonization of agriculture statistics (Kiregyera, 2007) and other institutional supportive needs in this area such as ICT. Internal analytical capacity should also be improved and become a key target over time. MINAG has to ensure its own capacity for critical planning and performance analysis and rely on inputs from TA only for complex and advanced analysis.

¹¹ This constitutes close to 98% of total farms and more than 95% of total production. With the exception of sugarcane, tea and emerging commercial banana plantations, smallholder farmers dominate in terms of production, including through contract farming of cotton, tobacco and sesame with the involvement of private enterprises.

¹² Structural gaps are here defined as stocks of organizational capabilities, organizational commitment, knowledge management systems, reward systems, IT systems, databases, managerial institution, operations processes, organizational culture, etc. (Zerenler et al, 2008).

3.2.5 Building and strengthening the capacity of key agriculture institutions and stakeholders¹³

There are several degree and diploma awarding agriculture education institutions in Mozambique. Until the late 1990s the country only had one Faculty of Agronomy and Forestry Engineering (FAEF) and one Faculty of Veterinary (FVET) at the University Eduardo Mondlane (UEM). There are two main agriculture diploma schools one in Maputo province and created in 1986 ("Instituto Agrário de Boane", IAB) and another in Manica province ("Instituto Agrário de Chimoio, IAC") established practically by independence¹⁴ period. The liberalization of university education opened doors for the establishment of new agriculture faculties and universities throughout the country, namely:

- the Faculty of Agronomy from Cuamba University in Niassa province (1999);
- the Faculty of Agronomy from Mussa Bin Bique University in Nampula province (2001);
- the Agriculture Polytechnic Institutes of Manica and Gaza (2006);
- the Faculty of Agronomy from Lurio University in Lichinga/Sanga districts in Niassa province (2009).

In 2001, the UEM/FAEF introduced the first MSc course in the field of agrarian and rural development (Falcão and Egas, 2008).

In terms of financial institutions, at least two big commercial banks and even some smaller ones (MG, 2010)¹⁵ have been expanding their branches in some of the country's 10 provinces and into selected districts. There are some banks that are committed to playing a major role in the provision of credit for agriculture such as the Land Bank ("Banco Terra"), based in Maputo, and the First Micro bank-M, a rural oriented microfinance bank based in the north of the country, in Pemba, the capital city of Cabo-Delgado province (MA, 2010). The Ministry of Agriculture has an agricultural development fund (FDA), an organization that contributes to agricultural credit provision and which has been operating at a very limited scale (Nenane, 2007) both in terms of volume of applied resources and beneficiaries due to constraints in resource mobilization. Overall, rural banks and credit organizations providing credit for agriculture are few and work at a localized scale in some district capitals. In fact, rural banks and microfinance institutions are far from playing the dominant role in rural and agriculture financial service delivery due to reasons that include dispersed geographic distribution of agriculture clients, the lack of registered collateral held by smallholder farmers, the highly perishable nature of products, lack of diversification, and problems associated with managing risk, especially covariant risk (Kula and Farmer, 2004; Nenane, 2007; Carter et al, 2007).¹⁶

In terms of marketing institutions, there is the Mozambique's Cereals Institute (ICM), a public entity that has been working in a very limited geographic scope

and with relatively low volumes of traded outputs, which can even be considered to be virtually stagnant (MIC/ICM, 2010). However, emerging large private milling industries in the central region (DECA in Manica province) and government investments in industrial silos (for public-private management) in some targeted rural areas of the northern (Niassa province) and central regions (Zambézia and Sofala) will also play a stimulating role in grain commercialization in the future. Other private organizations such as AMODER (Mozambique's Association for Rural Development) have been contributing to microfinance for agriculture commercialization with rural entrepreneurs since the first half of the 1990s in some geographical areas of at least 6 provinces mainly in northern and central regions as well as through JVC participation and promotion of dialogue on marketing of agricultural commodities. NGOs such as CLUSA have also been contributing to establishing and reinforcing better relationship between farmers' organizations and traders in rural areas since the mid-1990s, especially in one of the two most populated provinces, Nampula (IFAD, 2006). Despite the presence of all these organizations and interventions, agricultural marketing has been one of the critical problems throughout the countryside.

The participation of private sector and farmers' organizations in implementing PEDSA and CAADP are of paramount importance. As mentioned above, the presence of both categories of actors is still weak in the rural areas except for sugarcane, tea, banana as well as cotton and tobacco enterprises, the last two types working through subcontracting farming schemes with thousands of smallholder farmers as shown in Figure 8.

These smallholder farmers, however, are not developed in terms of strong farmers' organizations with enough voice at regional or national levels capable of influencing agriculture sector decisions. The Government role (and that of MINAG in particular) in reinforcing and implementing conducive policies and investments towards the development of agriculture institutions in areas such as education, input and output market development and rural financial services is of paramount importance. In this process, farmers' organizations should be viewed as key

¹³

Key agriculture institutions here include agriculture education institutions, rural banks or agriculture credit organization and output marketing bodies while other main stakeholders referred to here are both NGOs and farmers' organizations.

¹⁴

Was functioning since the colonial period, although with a different name and context of agricultural formal training

¹⁵

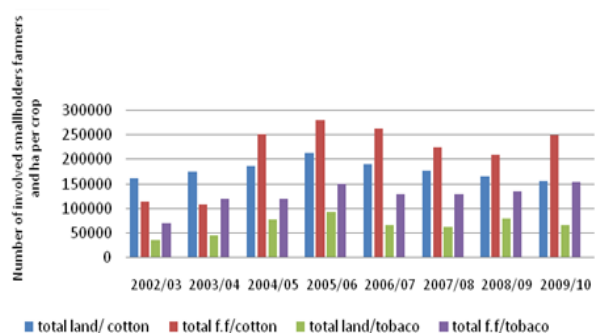
Banks such as Millennium BIM and BCI have been showing some expansion throughout the country rather than be concentrating branches in Maputo, the national capital as was happening before. Some smaller commercial banks such as "Banco Oportunidade" have also been expanding particularly to targeted district capitals.

¹⁶

Covariant risk arises when many farmers or households are adversely affected by a single phenomenon such as drought, floods, epidemics, unexpected changes in world prices, macroeconomics crisis, etc.

stakeholders within the national resource management, production and marketing system. The collaboration of the DCP and the existing private financial actors with the Government in helping to strengthen agriculture institutions will also be crucial in the future.

Figure 8: Annually involved family farmers (f.f.) cotton and tobacco production through subcontracting schemes and total cultivated land per crop



3.2.6 Agriculture sector information and knowledge development as a strategic target

Agriculture information and knowledge development and broad sharing within the sector continue to be generally weak. MINAG's information system, which comprises various subsystems, is also still facing weaknesses that have been affecting subsystems and system expected roles (Santos et al, 2002; PROAGRI II, 2004; MINAG/KPMG, 2005; Norfolk and Ribeiro, 2006; Kiregyera, 2007; Boyko, 2008; MF/IGF, 2010), despite the Ministry's efforts in keeping the subsystems functioning over time.

The current situation suggests that MINAG has to continue addressing efforts to contribute more effectively to information and knowledge development and sharing within the agriculture sector (MINAG/MozSAKSS, 2008; MF/IGF, 2010). Available situational analysis studies commissioned by MINAG to assess the Ministry's information system and to recommend specific actions intended to improve such a system should be taken into account. The anticipated implementation of both PEDSA and CAADP brings more programmatic and broader scope to the MINAG and agriculture sector interventions involving key sectors such as public works (rural infrastructure and irrigation), industry and trade (markets and value chain development), financial organizations (credit), etc. MINAG and agriculture sector information system should be stronger in future in order to be able to gather relevant inter-sectoral data, and to prepare and share useful information with various audiences.

Although, the implementation of PEDSA using CAADP framework will be challenging, it will provide an opportunity to pursue an effective agriculture information and knowledge development network in Mozambique led by and involving principally public and nonpublic local institutions. Having agriculture as one of the most important

socio-economic sectors, if not the most important, means the development of locally-based agriculture information and knowledge development networks. Public institutions such as MINAG, MPD, MF and MIC, faculties of agriculture, NGOs (including international NGOs) and farmers' organizations as well as private organizations and enterprises should contribute to building a consistent information and knowledge development network. MINAG, in collaboration with other relevant government and non-government local organizations, should play a leading role in this process. CGIAR centers and international universities research programs working in the country should also be involved, as they are sources of information and have easy access to internationally generated information and retain expertise that often with time is lacking or is still weak at country level. Collaboration with CGIAR organizations should be based on their comparative advantage and willingness to contribute to agreed research priorities in collaboration with local institutions to boost information and knowledge development network as well as to strengthen institutional capacity of relevant local partners. Collaboration with information and knowledge oriented DCP such as FAO, WB, USAID, EC, etc., add value to the process and also provide funding opportunities.

In summary, a critical mass of human capital working in information and knowledge development areas at MINAG and at other agriculture sector or related institutions (government and non-government), including NGOs and farmers' organizations, should contribute to relevant information and knowledge development, memorization, dissemination and use in the agriculture sector. Research and extension; water, land and forestry management for agriculture; veterinary and livestock; inland fisheries and aquaculture; agriculture market development (input and output); human and social capital development and overall agriculture sector performance are areas claiming for more analytical work in order to contribute to better informed decision-making processes. Obviously, the monitoring of food (in)security and poverty reduction trends as well as climate change potential effects are of paramount importance.

3.2.7 Funding partners and their alignment with PEDSA and the CAADP framework

DCP funding role in the agriculture sector in general and at MINAG in particular has been crucial to the sector. Since 1999, DCPs have been supporting SBS to agriculture through MINAG. It should be recalled that PROAGRI I (1999-2004/06) was estimated to have costed a total of USD 200 million, a figure that was accomplished virtually during the extension period (2005-2006) (MINAG/AFP, 2007). In early 2007, the government (MINAG, MPD and MF) and 8 DCP (two more later) signed a new "memorandum of understanding" within the context of agriculture SBS. DCP continued to have the prerogative of earmarking resources channeled through the CMF to specific areas (research, extension, etc.) or provinces and districts.

In addition to the SBS through the CMF, which is currently fed by 8 DCP¹⁷, CDP have been channeling resources to the agriculture sector through different fragmented modalities through Government or public institutions and non government organizations. Box 6 summarizes the common modalities of funding out of SBS through the MINAG CMF.

Box 6: DCP modalities of funding out of the SBS through the MINAG CMF

Funding modalities through Government or public system comprises:

- direct funding to some Provincial Directorates of Agriculture (DPAs) and selected districts
- direct recurrent funding to some of MINAG's central level institutions involved in market and value chain development for specific commodities in collaboration with the private sector and other Government entities, such as MIC, Customs and Export Promotion Entity (IPEX)
- funding to some of MINAG's national directorates through specific projects with their own coordination units as it is happening with AfDB and World Bank irrigation development projects.
- funding to MINAG through GBS to contribute to specific initiatives as it is happening with PAPA
- direct funding to education and research programs in some faculties of agriculture

One of the crucial government and MINAG's roles will be to mobilize resources from the national treasury and the DCP to implement PEDSA and the CAADP framework. It should be noted that DCP's resource contribution to the agriculture sector remains of paramount importance, particularly for investment purposes. Funding trajectory of agriculture sector since 1990s suggests that the

Funding modalities to non-Government entities or organizations includes:

- direct funding to NGOs, in particular the international NGOs
- direct funding to CGIAR organizations and international university research programs in the country
- some direct funding to local independent research organizations that also cover agriculture
- direct funding to organizations or programs working on value chain and market development issues
- indirect funding of commercial producers to access resources channeled through commercial banks in collaboration with Government and private entities

Funding trajectory of agriculture sector since 1990s suggests that the government and MINAG have been, over time, able to mobilize DCP to fund MINAG and agriculture sector activities. However, it seems that the implementation of PEDSA and the CAADP framework brings additional challenges in terms of the:

- need to increase the current level of annual public expenditure in agriculture to at least 10%
- need to influence donors to be aligned with PEDSA and CAADP implementation shared principles, priorities, goals and targets in line with the Paris Declaration
- need to pursue in as much as possible the harmonization of key and complementary investment at regional (more than one province), provincial and district levels
- need to influence DCP to contribute to reducing funding transaction costs in order to maximize usefulness of available resources to the agriculture sector

In addition, political mobilization of private financial services is equally important. At national level, CAADP is expected to be based on medium-term investment programs (MTIP) and bankable investment project profiles (BIPPs) (FAO, 2009), through for example local commercial banks.

4. Key Conclusions

The PEDSA and CAADP framework are viewed as promising policy frameworks that can, and will hopefully bring the desired changes to Mozambique's agriculture sector. Both PEDSA and the CAADP framework implementation provides sound perspectives of potential

gains. However, to accomplish such gains towards the transformation of the agriculture sector implies additional efforts in:

- ensuring improved policies and subsectors strategies;
- promoting stronger and consistent inter-sectoral and inter-institutional coordination;
- reinforcing MINAG's contribution to the agriculture sector;
- strengthening agriculture institutions and stakeholders;
- building an agriculture information and knowledge network focused on local institutions;
- mobilizing additional resources and aligning DCP's role and contribution with shared principles, priorities, goals and targets.

In summary, PEDSA and CAADP implementation implies changes to the way of doing business in the agricultural sector to more ambitious and challenging inter-related approach of empowering and bringing different stakeholders together to pursue agriculture growth based on more programmatic and evidence-based interventions.

The accomplishment of PEDSA and the CAADP framework outcomes and impact will be time and resources consuming, and this has to be taken into account. MINAG and key stakeholders have to be proactive in balancing short and medium term investments in order to address long term needed structural changes in the agriculture sector as well as immediate gains in food production or in mitigation actions against the effects of natural disasters.

¹⁷ almost half of those that have funded PRAOGRI from the beginning in 1999

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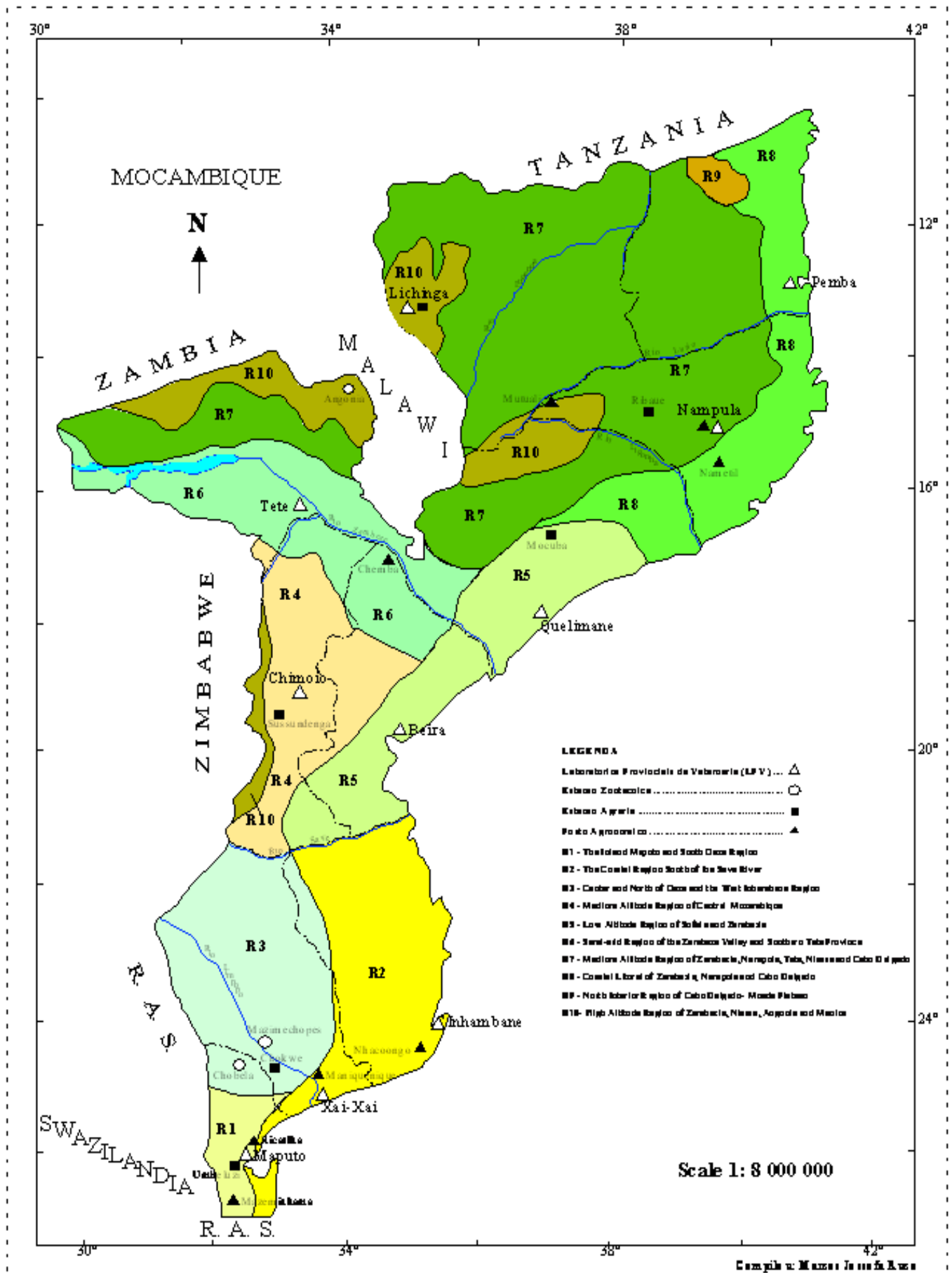
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Annex 1. Mozambique's defined agro-ecological zones (INIA, 2000)



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