CENTRE FOR COORDINATION OF AGRICULTURAL RESEARCH AND DEVELOPMENT FOR SOUTHERN AFRICA (CCARDESA)

MEDIUM TERM OPERATIONAL PLAN 2013-2018

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LIST OF ACRONYMS AND ABBREVIATIONS

AET	Agricultural education and training
AGRA	Alliance for the Green Revolution in Africa
AIDS	Acquired Immune Deficiency Syndrome
AIMS	Agricultural Information Management System
ASARECA	Association for Strengthening of Agricultural Research in Eastern and Central Africa
AU	African Union
BASIC	Building African Scientific and Institutional Capacity
BOD	Board of Directors
CAADP	Comprehensive Africa Agriculture Development Programme
CCARDESA	Centre for Coordination of Agricultural Research and Development for Southern Africa
CDM	Clean Development Mechanism
CGIAR	Consultative Group on International Agricultural Research
CGS	Competitive Grants System
CIDA	Canadian International Development agency
CLI	Consortium Lead Institution
CN	Concept Note
CORAF	Conseil Ouest et Centre Africain pour Recherche et le Development Agricole, or West and Central African Council for Agricultural Research and Development (WECARD)
CSC	Consortium Steering Committee
DONATA	Dissemination of New Agricultural Technologies in Africa
DfID	U.K. Department for International Development
EC	European Commission
FAAP	Framework for African Agricultural Productivity
FANR	SADC Food, Agriculture and Natural Resources Directorate
FANRPAN	Food, Agriculture and Natural Resources Policy Analysis Network
FAO	Food and Agriculture Organisation of the United Nations
FARA	Forum for Agricultural Research in Africa
FIRCOP	Fund for Innovative and Collaborative Research Projects in support of smallholder farmer development
FP	Full Proposal
GA	General Assembly
GHG	Greenhouse Gases
GMU	Grant Management Unit
HDR	Human Development Report
HIV	Human Immunodeficiency Virus
IARC	International Agricultural Research Centre
ICART	Implementation and Coordination of Agricultural Research and Training
ICP	International Cooperating Partners
ICRISAT	International Crops Research Institute for the Semi-Arid Tropics
ICT	Information and communication technologies

IEI	Invitation for Expression of Interest
IFPRI	International Food Policy Research Institute
IPR	Intellectual Property Rights
ISNAR	International Service for National Agricultural Research
MAPP	Multi-country Agricultural Productivity Programme
M&E	Monitoring and Evaluation
MDG	Millennium Development Goals
MOU	Memorandum of Understanding
NARS	National Agricultural Research Systems
NEPAD	New Partnership for Africa's Development
NGO	Non-Governmental Organisation
NRI	Natural Resources Institute
PAEPARD	Platform for Africa-Europe Partnership on Agricultural Research for Development
PY	Programme Year
RAILS	Regional Agricultural Information and Learning System
ReSAKSS	Regional Strategic Analysis and Knowledge Support Systems
ReSAKSS-SA	Regional Strategic Analysis and Knowledge Support Systems for Southern Africa
RISDP	Regional Indicative Strategic Development Plan
RUFORUM	Regional Universities Forum for Capacity Building in Agriculture
SAC	Sub-project Approval Committee
SACCAR	Southern African Centre for Cooperation in Agricultural Research and Training
SADC	Southern African Development Community
SC	Steering Committee
SCARDA	Strengthening Capacity for Agricultural Research and Development in Africa
SDC	Swiss Agency for Development and Cooperation
SRO	Sub-regional Research Organisation
SSA CP	Sub–Saharan Africa Challenge Programme
TSG	Technical Support Group
UNDP	United Nations Development Programme
USAID	United States Agency for International Development
USD	United States Dollar
WB	World Bank

ACKNOWLEDGEMENTS

This Medium Term Operational Plan represents the culmination of a lengthy process that contributed to the development and establishment of the Centre for Coordination of Agricultural Research and Development for Southern Africa (CCARDESA) and to the preparation of CCARDESA's R&D programme.

During this process, several stakeholders throughout the SADC region, organisations and consultants have contributed in various ways under the able guidance initially of the SADC Secretariat and subsequently, of the Board and Secretariat of CCARDESA.

CCARDESA is especially grateful to the many donors who supported this process. They include the Canadian International Development Agency (CIDA), the U.K. Department for International Development (DfID) the European Commission (EC), the Swiss Agency for Development and Cooperation (SDC), the United States Agency for International Development (USAID) and the World Bank (WB). The Food and Agricultural Organisation of the United Nations (FAO) and the Forum for Agricultural Research in Africa (FARA) provided technical support.

EXECUTIVE SUMMARY

This Medium Term Operational Plan (MTOP) describes activities to be coordinated and implemented during the first five years (2014 - 2018) of the Centre for Coordination of Agricultural Research for Southern Africa (CCARDESA), a new Sub-regional Organisation (SRO) established by SADC member states to coordinate agricultural research and development (R&D) in the SADC region. Implementation of the R&D activities will be carried out by the various stakeholders in the national agricultural research systems (NARS[1]) in the region.

The plan reflects the recognition that there has been inadequate investment in agricultural research and development in the SADC region despite the established fact that agricultural R&D investment has high returns. This plan highlights the need for sustained investment in R&D because of its potential to contribute towards addressing the prevalent low agricultural productivity, food insecurity and malnutrition as well as high levels of poverty and the capacity for R&D to enhance general development in the SADC region.

The MTOP also addresses regional challenges associated with SADC's growing population and the fact that the majority of farmers in the region are smallholder farmers who are often resources-constrained. The plan identifies the need to facilitate wide participation of an array of stakeholders in the generation and dissemination of research technologies by fostering equal participation of men and women as well as providing opportunities to the youth. The SADC region is rich in natural resources and this presents under-exploited opportunities. The exploitation of some of these can be enhanced through re-vitalizing the regional R&D systems, embracing reform and addressing the known obstacles. Some of these challenges include; inadequate financial and human resource capacity, unfavourable policy and legal environment, poor access to markets for key agricultural inputs, inadequate and underdeveloped markets. Other failures include; low generation and adoption of innovations; inadequate institutional arrangements/capacities that are not able to address the current needs of the clients; and socio-political challenges which hamper the region from realising its dreams of attaining food security and making full use of the existing potential.

CCARDESA intends to address low regional human resource capacity by facilitating the strengthening of national agricultural research system (NARS), farmer organizations and other stakeholders. The proposed approaches emphasize the need to minimize duplication by fostering collaborations and other partnerships to build strong linkages and to reform institutions to make them effective and more customer-focussed.

The programme activities in this MTOP are based on the SADC Multi-country Agricultural Productivity Programme (SADC MAPP), a 15-year regional programme prepared in 2008 to implement Pillar 4 of NEPAD's Comprehensive Africa Agriculture Development Programme (CAADP) in the SADC region. It represents the effort to promote evidence-based agricultural development taking into account the policies and strategies of the SADC region as enshrined in the Regional Indicative Strategic Development Plan (RISDP) in general and, more specifically, in the Dar Es Salaam Declaration on Agriculture and Food Security. The Dar Es Salaam Declaration calls for an increase in investments and institutional development directed towards improving the effectiveness of national and regional agricultural technology and productivity systems.

The formulation and preparation of SADC MAPP was guided by the Framework for African Agricultural Productivity (FAAP) developed by the Forum for Agricultural Research in Africa (FARA), and took into account the research and development (R&D) policies and strategies of the SADC region. In line with the FAAP principles, SADC MAPP was designed to promote interventions that:

[1] In this Operational Plan, NARS is defined as "including all stakeholders involved in agricultural research and development, *i.e.* research, extension or advisory services, agricultural education, farmer organisations, NGOs, private sector entities" (FARA 2004).

(i) enhance incremental net benefits,

(ii) apply the principle of subsidiarity,

(iii) promote pluralism,

(iv) enhance partnerships and

(v) facilitate harmonization and alignment of donor assistance.

Thus both the FAAP and the Dar Es Salaam Declaration provided a framework for the development of this MTOP with the aim of achieving strong and sustainable growth in agriculture in the SADC region. The goal of the R&D programme under CCARDESA is therefore to sustainably reduce the food insecurity and poverty in the SADC region, while the objective is to increase smallholder productivity through adoption of improved agricultural technologies and improved husbandry and marketing practices. CCARDESA will achieve this through facilitating development of market-oriented technologies, and promotion of information dissemination and training mechanisms and production practices that will lead to:

1. increased rate of growth of the agricultural sector in the SADC region and improved livelihoods of the rural population, thereby contributing to the CAADP goal of a 6 per cent average annual rate of growth of agricultural GDP by 2015; and
2. increased productivity of smallholder crop, livestock, fisheries and forestry enterprises in the SADC region, thereby reducing the proportion of poor households among the rural population

The objectives of CCARDESA will be achieved through the delivery of four Results, which respond to the priorities expressed by the national and regional stakeholders. These results are:

1. Participation by key stakeholders in priority-setting of research and farmer demand-driven advisory services is enhanced.
2. Capacity of national agricultural research and development organisations in the region is strengthened.
3. Use of innovative ICT in technology generation and adoption is enhanced.
4. An effective Sub-regional Research Organisation (CCARDESA) is established and financial support from stakeholders and international cooperating partners (ICPs) is secured and coordinated.

These results are inter-related and inter-dependent and reflect the comparative advantage of CCARDESA over national R&D institutions in developing agricultural public goods for the region. The above results will be achieved through implementation of activities in the following five Thematic Areas, four of which are derived from the thematic areas in the SADC MAPP programme document:

- **Thematic Area 1: Farmer empowerment and market access -** to promote regional efforts to empower and strengthen farmers and their organizations to become effective partners in the development and implementation of the agricultural R&D agenda, and to enhance their access to markets.
- **Thematic Area 2: Research and technology generation and farmer demand-driven advisory services** and innovation systems – to:

  (i) generate improved and more efficient technologies that are technically relevant and market-oriented and

(ii) improve the efficiency of the dissemination of market-oriented technologies, to promote knowledge-sharing across member countries, and to encourage the spread of 'best practice' in priority areas.

- **Thematic Area 3: Knowledge, information and communication.** To:

  (i) provide an enabling environment for broad-based and equitable access to both traditional media and new digital-based information and communication technologies (ICTs); and

  (ii) provide farmers, researchers, extension agents and other stakeholders with access to information and knowledge.

- **Thematic Area 4: Institutional development and capacity building** in:

  (i) research, technology generation and farmer demand-driven advisory services,

  (ii) agricultural education, training and learning systems that provide the human and social capital needed to promote farmer-oriented innovation systems and provide life-long learning by the full range of stakeholders, and in

  (iii) knowledge, information and communication.

- **Thematic Area 5: Establishment and strengthening of CCARDESA as an effective SRO by**: recruiting high calibre staff and leading the process of coordinating all matters related to agricultural research and development in the SADC region, mobilise resources and manage the physical, financial and movable assets of the institution.

These Thematic Areas will promote the realisation of the goals and objectives of both CAADP and the Dar Es Salaam Declaration on enhancing agriculture and food security for poverty reduction in the SADC Region. CCARDESA will adhere to these goals and objectives in a manner which is consistent with the FAAP principles. CCARDESA will also take into account and mainstream the important cross-cutting issues of poverty, gender, HIV/AIDS, nutrition, climate-smart agriculture and environment. Monitoring and evaluation will be an integral part in the implementation of CCARDESA programme activities in this Operational Plan.

The regional priorities for R&D investments in this MTOP are derived from two studies:

(i) "Exploring Strategic Priorities for Regional Agricultural Research and Development Investments in Southern Africa" jointly carried out by the International Food Policy Research Institute (IFPRI) and Regional Strategic Analysis and Knowledge Support System - Southern Africa (ReSAKSS-SA). The study was commissioned by the SADC Secretariat during 2010 - 2011; and

(ii) "Research and Development Priorities in Key Agricultural Commodities in Southern Africa" which was based on a value chain approach and carried out by a six-member multidisciplinary team commissioned by CCARDESA in 2012.

The IFPRI/ReSAKSS-SA study, together with the CCARDESA priority setting study provided a framework for identifying the priority activities, sub-projects, partnerships and networks for CCARDESA and its stakeholders.

In general, the priority commodities ranked according to their contribution to agricultural growth and degree of regional technology spill-over potential ranked food staples (maize, rice and cassava) high because of their importance in household food security. The ranking also considered the need for balanced investments between caloric energy commodities (cereals, cassava, plantains, etc.), high protein commodities (livestock, fish, legume crops, etc.) and commodities as sources of minerals and vitamins (fruits, vegetables, etc.). The top ten commodities in ascending order included; maize,

cassava, rice, fruit and vegetables, cattle and dairy, fisheries, beans, sorghum, wheat and lastly potato and sweet potato. The priority intervention areas for each commodity including forestry and fisheries were identified and these are outlined in the plan.

CCARDESA will subsequently support projects to generate new technologies in regional priority areas, and will identify policies, R&D strategies, existing technologies and good practices that can be promoted, up-scaled and out-scaled in the region. CCARDESA will also support capacity building of agricultural R&D institutions. Interventions will focus on programme activities or activity areas identified by the above studies as having potential for quick impact ("quick wins") within and across the priority commodities. This approach will provide CCARDESA with the credibility and recognition that it needs from its stakeholders through providing governance structures that promote accountability to its stakeholders and to achieve value for money by facilitating focus on issues of regional importance. This will among others entail facilitating the coordination of multi-stakeholder partnerships and collaborative efforts in determining the regional research agenda, mobilization of non-state actors in supporting and participating effectively in research and development. CCARDESA will spearhead regional initiatives; for identification of centres of excellence, promotion of information exchange to enable spill-offs and spill-in and drive customer-focused reforms which can transform the industry, improve productivity and the quality of life.

The implementation of this MTOP will cost an estimated USD 38,876, 000 over a five year period. The budget in this MTOP has been developed in 3 different scenarios: Scenario 1 is based on the assumption that the full budget of USD 38,876,000 will be made available from the different funding sources for CCARDESA. However, the MTOP also adopts a pragmatic view of presenting two other budget scenarios on assumption that there could be constraints in the funding of the institution. The other two budget scenarios are:

Scenario 2: Only 80% of the full budget resources available

Scenario 3: Only 60% of the full budget resources available.

Scenario 2 and 3 provide budgets of USD 30,048,000 and USD 23,293,000, respectively.

1. INTRODUCTION

1.1 Background

Agricultural research and technology generation is recognised as one of the prime movers of agricultural development and economic growth, especially in Developing Countries where agriculture is the dominant livelihood activity for the majority of the population. Investment in agricultural research yields substantial returns in virtually all agricultural commodities in Africa. This emphasizes the need for sustained investments in agricultural research as a means to enhance agricultural development. It is in this context that the role of Science and Technology (S&T) in agricultural development has been emphasized in the SADC's Regional Indicative Strategic Development Plan (RISDP) and more specifically in the Dar Es Salaam Declaration on Agriculture and Food Security. Similarly, Pillar 4 of the Comprehensive Africa Agriculture Development Programme (CAADP) of NEPAD focuses on scaling up and improving the effectiveness of agricultural research, technology dissemination and adoption. This is in line with the objectives of the Millennium Development Goals (MDGs) of achieving 50 per cent reduction in poverty by 2015 and the NEPAD goal of attaining a 6 per cent growth in agriculture per annum.

1.2 Agricultural Research in Southern Africa – challenges and opportunities

About 61% of SADC's estimated population of 277 million people live in rural areas mainly as small-scale farmers and the population is growing at an annual rate of 2.4%. This makes agriculture important to the region's overall developmental agenda in terms of social and economic growth, poverty reduction, food security, gender equity and nutrition. It is worth noting that the contribution of agriculture to national GDP is quiet significant in the SADC countries, even for those countries where mining is dominant.

The Southern African region is well-endowed with natural resources capital, and thus harbours vast potential for achieving high agricultural production. The region has a range of climatic and soil types, a combination of which provides the appropriate conditions for production of a wide range of crops and livestock. The vast inland and marine water bodies also offer potential for establishing vibrant fishing industries, while the natural forests and wildlife offer potential for establishment of various viable industries. The primary products of crop, livestock and fisheries components of the agricultural sector form the basis for the 'secondary industries' in processing/value addition along the value chain.

However, a number of formidable obstacles such as low investments in agriculture; inadequate human and financial capacities; poor access to national, regional and global markets; inadequate and underdeveloped markets for key agricultural inputs; unfavourable policy and legal frameworks; low generation and adoption of innovations; inadequate institutional arrangements/capacities that are not able to address the current needs of the clients; and socio-political challenges have made it difficult for the region to realise its dreams of attaining food security and making full use of the existing potential. Of late, the situation is being exacerbated by climate change and its associated undesirable natural occurrences of weather extremes such as floods, drought/water scarcity, and cyclones.

The Southern African region has, for a long time, faced stagnation or even negative growth in capacity and investment in agriculture. In some countries, the national investment has been so low that they have had to be reliant on external funding to support a large proportion of their agricultural and human resource needs. Productivity of resources is also low in the region, despite the potential that exists.

With regard to human resource capacity, there has been low and dwindling capacity in terms of number of qualified experts as well as the inability to maintaining a steady flow of young people to take over from those that are reaching the retirement age. In some countries, this has led to the re-hiring of experts who are well over their retirement age. It is on this basis that the strengthening of capacity of NARS, Farmers Organisations and other stakeholders in the region is recognised as one of the key issues to be addressed by CCARDESA and forms part of this MTOP.

The development of capacities is essential since each stakeholder in the region shall be allowed and encouraged to perform those functions for which they are best placed to carry out. This is in line with the FAAP principles which the CCARDESA Secretariat will adhere to, and the CAADP approach which advocates for closer partnerships, alignment and collaboration between stakeholders in the agricultural sector. Consequently, the overall delivery of outputs as well as the intended outcomes in the region will depend on the extent to which each stakeholder is capacitated for the role they play in the CCARDESA programmes.

In addition, effective partnerships, collaboration and mutual alignment of activities calls for putting in place systems for sharing of information and pooling together the limited resources available in the region. This sets the appropriate foundation for guarding against duplication of efforts by different organisations and sub-optimal application of resources. This MTOP addresses this issue by providing for activities that encourage partnerships and collaborations among the organisations in the region. The CCARDESA Secretariat itself also actively subscribes to this approach and is used as one of the key working principles as described later in this document.

Demographic factors have an important bearing on the agricultural sector in general and are always good indicators of future developments in the sector. Generally, the participation of the youths in agriculture has been declining over the years and there have not been adequate programmes directed at them. Their views have not formed part of the main dialogue in agriculture in the past. The paradox is that the sector requires the youths to actively participate in all the aspects of the sector such as academic and research, marketing, production etc. With the tight labour markets of most countries within the SADC region, the agricultural sector can easily provide significant opportunities to the youths and ease the employment situation in the region. What is required is to have well designed programmes that encourage the participation of the youths in initiatives specifically designed for them. CCARDESA will therefore develop and implement programmes targeted at the youths. This will include an internship programme for the developing professionals, entrepreneurial development, mentoring, and various forms of capacity building specifically for the youths.

A centre of excellence (sometimes called Centre of Competence) refers to a shared resource, facility or entity (either virtue or physical) that provides leadership to others in a focus area. It will have specific goals and generally fulfils the needs of its clients through the provision of support, guidance, shared learning, governance and leadership within its area of jurisdiction.

Centres of excellence are a good option in the development of a concentration of skills and competencies that can be shared with other institutions within a region. In this way, the Centre is used as a valuable source of knowledge and skills which can be transferred to those who are in need of them. Duplication of effort is also reduced and resources economically employed. These benefits are important in the Southern African region where some Centres of Excellence have worked very well before. On this basis, CCARDESA will use its partners to identify and support Centres of Excellence for purposes of allowing other institutions in the region to fully benefit from them.

1.3 Farmers Organizations in Research and Development

Farmers are the important end-user of research and advisory services and therefore are important stakeholders whose needs and effective participation has to be taken into consideration for the R&D system to deliver desired results. In most of the SADC countries' farming is mainly in the hands of smallholder farmers who often lack resources and mechanisms to effectively articulate their needs or contribution even when they are offered such a forum. Therefore, there is need to equip farmers with the skills to organize themselves to articulate their interests to decision makers and in markets. CCARDESA will work with other stakeholders to facilitate efforts to assist farmers organize themselves to promote their interests at regional level. Furthermore CCARDESA will facilitate strengthening and/or development of accountable organisations with grass roots involvement.

Although the region has faced a number of challenges, it is worth noting that there has also been appreciable outputs from the research activities carried out in different countries. Technologies with potential to improve production and productivity have been released in the region. These include seed varieties with desirable traits of high yield, good disease resistance and resistance to drought; conservation agriculture techniques; pest monitoring technologies etc.

The value of any technology developed lies in the extent to which it reaches the farmers and contributes to the production and productivity at that level. This has been a weak link in the region, both within and between the countries. There are many reasons for the low adoption and out-scaling of the technologies that have been developed and proven to be of benefit to the farmers in the region. The extension systems have been inadequate and poorly resourced, such that they have not been able to effectively perform their functions. The NARS and Farmers Organisations have also not been dynamic enough to make positive institutional reforms and have continued to use rather old models whose effectiveness in responding to the needs of modern agriculture is low. It is very important that agricultural and general institutional models keep evolving to match the changes taking place in other sectors and for the agricultural sector to remain relevant and attractive to investors.

In the past decade, one of the main changes that has taken place in agricultural research is the emphasis on linking the efforts at research level in the development of technologies to the actual tangible impact accrued from its use. Thus, monitoring and evaluation has to closely trail the path of immediate output-intermediate output-outcomes-impact. This is partly meant to ensure that the research carried out and the technologies developed reach the targeted stakeholders and result in clear impact there.

Monitoring and evaluation have therefore become critical components of research and development programmes globally. The weakness though, is that data that clearly links research technologies to specific impacts is limited in the Southern African Region. This is a gap that CCARDESA will, through this MTOP and subsequent ones, endeavour to address. Emphasis on impact shall be one of the key issues to be fulfilled in all CCARDESA supported projects and programmes in the region.

The effort and resources that have gone into different commodities in Southern Africa varies significantly. Most of the resources (human, physical and financial) have gone into research of crops that are commercial in nature and are predominantly grown by big companies (e.g. tea, coffee, sugarcane) and those grown by commercial and small scale farmers for purposes of income generation and food (e.g. cotton, maize, sunflower). Maize in particular has received special attention in the past because of being a staple food crop in many countries in the region. It is also a crop that all governments cannot afford to ignore or not to give support to.

On the other hand, there are many crops that are of limited economic significance to commercial organisations and large scale farmers, but they occupy a critical role in the household food security of the majority of farmers and rural households in the region. Such crops (commonly referred to as under-utilised crops in some cases) are part of the farming systems of small scale farmers and form a significant component of their nutrition and annual food calendar. Public organisations involved in works that generate and disseminate technologies may do so not for profit but have a duty to support such crops for purposes of fulfilling a social responsibility to mankind.

Similarly, the livestock sector has been dominated by research into cattle production systems and diseases, while small ruminants have received limited attention. Focus on small ruminants is also required in order to support this disadvantage component of livestock production.

1.4 Implementation of Pillar 4 of CAADP in Southern Africa

In 2008, the SADC Secretariat prepared the Multi-country Agricultural Productivity Programme (SADC MAPP), a 15-year regional programme to implement Pillar 4 of NEPAD's CAADP which seeks to promote agricultural development in Africa. CAADP comprises four mutually reinforcing pillars:

(1) sustainable land and water management;

(2) improved market access and integration;

(3) increased food supplies and reduced hunger; and

(4) research, technology generation, dissemination and adoption.

Pillar 4 is a cross-cutting pillar which supports and reinforces the other three pillars. CCARDESA through this 5-year operation plan will implement the SADC MAPP as part of a continental effort for promoting technology-based agricultural development. It represents the effort to promote evidence-based agricultural development in the SADC region.

The formulation and preparation of this Operation Plan is guided by the Framework for African Agricultural Productivity (FAAP) developed by the Forum for Agricultural Research in Africa (FARA) which was mandated by NEPAD to spearhead the development of CAADP's Pillar 4. CCARDESA as a regional coordinating centre will take into account the policies and strategies of the SADC region as enshrined in the RISDP in general and, more specifically, in the Dar-Es-Salaam Declaration on enhancing agriculture and food security for poverty reduction. These regional documents share the principal elements and priorities of CAADP and closely mirror its emphasis on increasing agricultural productivity. Among others, the Dar Es Salaam Declaration calls for an increase in investments and institutional development directed towards improving the effectiveness of national and regional agricultural technology and productivity systems.

Thus both the FAAP and the Dar Es Salaam Declaration provided a framework for the development of CCARDESA's 5-year operational plan with the aim of achieving a strong and sustainable growth in agriculture in the SADC region. Implementation of the programme activities in this MTOP will be carried out by the various stakeholders within the NARS, Farmers Organisations and other regional strategic partners in line with the FAAP principles. CCARDESA will concentrate on the coordination functions.

1.5 Establishment of CCARDESA

CCARDESA was formally established by SADC member States in order to contribute to the goal of reducing food insecurity and poverty in the SADC region by increasing agricultural productivity. It was established as a SADC regional R&D institution operating under the principle of subsidiarity, i.e., it sources and manages its own financial and human resources while

maintaining a formal linkage with SADC Secretariat through an MOU which elaborates on the relationship between the two institutions as well as the roles and responsibilities of each. Under this MOU the SADC Secretariat has the responsibility of providing policy guidance and priorities for agricultural R&D of the Region. The SADC Secretariat also provides oversight on the activities of CCARDESA and it receives regular reports from CCARDESA Board of Directors.

The establishment of CCARDESA was approved by the SADC Council of Ministers on 26 February 2010 and the Charter establishing CCARDESA entered into force on 5 April 2011, one month after it was signed by two-thirds of Member States. The first Board of CCARDESA was appointed by the SADC Ministers responsible for Agriculture and Food Security in July 2011, and CCARDESA was formally handed over to the Board of Directors in August 2011. CCARDESA has now established its Secretariat in Gaborone, Botswana.

1.6 Vision and Mission

The vision of CCARDESA is stated as: "**A prosperous and food secure Southern African region with vibrant rural livelihoods**" This vision is supported by the mission which states: "to promote innovative research, technology generation and adoption for sustainable agricultural development through effective partnership and capacity building." CCARDESA will pursue its mission through five thematic areas which presented later in this document.

1.6 Objectives of CCARDESA

The overall objectives of CCARDESA are:

1. To promote coordination and collaboration among NARS and Farmer Organisations through regional and international cooperation;
2. To facilitate the exchange of information and technology among the agricultural R&D institutions;
3. To promote partnerships in the SADC region between public, private, civil society and international organizations in agricultural R&D;
4. To improve agricultural technology generation, dissemination and adoption in the region through collective efforts, training and capacity building; and
5. To mobilise human, financial and technological resources to implement demand-driven regional R&D activities that will contribute to the strengthening of national-level institutions/research agencies and individuals.

1.6.1 Specific Objectives

The general objectives of CCARDESA stated above express the organisation's intentions on the key areas in which systematic milestones will be set in pursuit of delivering on its mandate. With regard to this MTOP, the specific objectives are to:

1. Establish and strengthen the administrative, institutional, governance, financial, procurement and technical structures necessary for supporting all the activities that fall within the identified thematic areas;
2. Mobilise resources for implementation of the technical activities of CCARDESA in relation to research and technology generation, farmer empowerment and market access, information and knowledge management, capacity development of NARS and Farmer Organisations, and strengthening of CCARDESA Secretariat's role in coordinating research and development in the region;

3. Establish and maintain effective collaborations and partnerships with regional and continental stakeholders, in order to collectively work on R&D issues in the region using the key principles of FAAP;
4. Carry out advocacy work with regard to Pillar 4 of CAADP and work with Southern African countries to ensure that research and development are adequately addressed in the national CAADP compacts and investment plans;
5. Facilitate the development and application of practical ways of sharing information and out-scaling of demand-driven innovations that contribute to food security, income generation, sustainable production and reduce carbon footprints of agricultural products; and
6. Develop and implement programmes that address cross cutting issues of environment, youth participation, gender equity and nutrition security.

1.7 Institutional Arrangement and Governance of CCARDESA

CCARDESA is governed by a General Assembly of regional R&D stakeholders from SADC Member States. All issues to do with CCARDESA operations will be determined at the General Assembly, which will meet every two years. Members of the General Assembly will be stakeholders drawn from the SADC countries. In addition to the General Assembly, the Ministers responsible for Agriculture and Food Security of countries that are party to the Charter will receive reports of CCARDESA and also perform functions of appointing Board Members as well as approving specific issues. The Board of Directors of CCARDESA, composed of 13 members, provides oversight and guides the CCARDESA Secretariat on its general direction and programmes.

The CCARDESA Secretariat is answerable to the Board of Directors of CCARDESA, through its Executive Director. It will perform the day-to-day functions of CCARDESA by managing and implementing the programmes of CCARDESA, as approved by the Board, and performing all tasks of coordination of agricultural research and development in the SADC region. The CCARDESA governance manual summarises the institutional arrangement, composition and functions of each structure of the governance of CCARDESA.

1.8 Programme Interventions

In line with the FAAP principles, this MTOP was designed to promote interventions that:

(i) enhance incremental benefits;

(ii) apply the principle of subsidiarity;

(iii) promote pluralism;

(iv) enhance partnerships; and

(v) encourage harmonization and alignment of donor assistance:

- Enhancing Incremental Benefits, by ensuring that investments in agricultural technology generation and dissemination are tied to a clear net incremental financial and economic benefits. CCARDESA programmes will emphasize responsiveness to market conditions and maximising economic and financial returns as key factors for determining investments in technology generation and dissemination. Productivity in this regard is not pursued as an end in itself, but as a tool for increasing both financial and economic returns in the agricultural sector and in the rural economy in a sustainable manner;

- Applying the Principle of Subsidiarity: The underlying rationale for subsidiarity in the implementation of the CCARDESA projects is that accountability and efficiency can only be achieved if decision making and implementation are located at the most appropriate level. This means that activities supported by CCARDESA would focus on areas where the region has a comparative advantage over national actions. Activities that could be more effectively supported at the national level or below would be the responsibility of individual Member States. Activities which offer significant potential for efficient gains include:

  (i) pooling resources to address areas of common interest more effectively and take advantage of economies of scale;

  (ii) developing mechanisms for knowledge sharing, building capacity and contributing towards regional integration; and

  (iii) contributing to larger, integrated agricultural markets through the creation of shared information systems and more integrated agricultural technology generation and training systems.

- Promoting Pluralism in the provision of agricultural services: Technology generation and dissemination become a shared responsibility appropriately apportioned between different stakeholders in both the public and private sectors. This is a major shift from the current scenario in which these services are mainly supplied by the public sector (often with inadequate resources). The pluralistic model exploits more fully the skills found within public and private institutions in the region and thus increases capacity at national and regional levels for technology generation and development in agriculture. The working relationships between institutions collaborating in the implementation of programmes will be operationalised by CCARDESA through memorandums of understanding (MOUs) which will specify the nature and scope of the relationships.

- Enhancing Partnerships, by establishing effective linkages and partnerships between research, extension, education, the private sector, agricultural NGOs and end-users (who are mainly the farmers). The enhanced participation, collaboration and consultation involve promoting knowledge sharing and development of synergies and feedback mechanisms. Linkages developed among stakeholders create a more effective overall technology generation and dissemination system.

- Harmonization and Alignment of Donor Assistance: It is recognized that much of past donor assistance in the developing world has been fragmented by donor-driven assisted projects, with resulting high transaction costs and limited aid effectiveness. The Paris Declaration, the Windhoek Declaration and the Accra Agenda represent commitment by the ICPs and country stakeholders to change the way of doing business, in such a manner which promotes greater ownership and leadership by the recipient countries or regions. It also represents commitment for enhanced harmonization and alignment of resources and investments provided by both the donors and the recipient countries or regions, based on programme-based approaches to designing and implementing investment programmes.

  CCARDESA will apply many of the 'best practice' principles of encouraging various donor agencies to work together through a programme/thematic approach to channelling and coordinating the funds.

  In coordinating implementation of this MTOP, CCARDESA will be guided by the five FAAP principles above. It will take into account and mainstream the important cross-cutting issues of poverty, gender, HIV/AIDS, nutrition, climate smart agriculture principles and environment. Monitoring and evaluation will be an integral part in the implementation of the programmes.

This MTOP describes how CCARDESA will coordinate the implementation of the activities during the first five years of CCARDESA. The Plan is divided into the following two main sections:

Section A: discusses implementation of all R&D investments. This includes both new investments and on-going projects currently being coordinated by the SADC Secretariat. The on-going projects include continental projects developed through FARA and coordinated by Sub-regional Organisations (SROs).

This section also outlines the Approach and Methodology adopted in preparing this MTOP, the mechanisms for processing, funding and managing projects, the approaches to monitoring and evaluation, and the risks to the 5-year MTOP. Accordingly, it constitutes the largest component of the MTOP.

Section B: describes the work plans for each of the 5 thematic areas, its financial plan and budget of CCARDESA over the period 5-year period, as well as its logical framework.

SECTION A:

IMPLEMENTATION OF REGIONAL RESEARCH AND DEVELOPMENT PROGRAMMES

2. OBJECTIVES AND THEMATIC AREAS FOR THE RESEARCH AND DEVELOPMENT INVESTMENTS

The goal of implementing the R&D investments in this MTOP is to sustainably reduce the food insecurity and poverty in the SADC region. The objective is to increase productivity of smallholder crop, livestock, fisheries and forestry enterprises through the adoption of improved agricultural technologies, husbandry and marketing practices.

The Operational Plan will achieve this through development of market-oriented technologies, and promotion of information dissemination and training mechanisms. This is expected to result in the adoption of good practices in the entire value chain of different agricultural products, as well as in the provision of improved marketing infrastructure. This will lead to:

- increased rate of growth of the agricultural sector in the SADC region and improved livelihoods of the rural population, thereby contributing to the CAADP goal of a 6 per cent average annual rate of growth of agricultural GDP by 2015; and
- increased productivity of smallholder crop, livestock, fisheries and forestry enterprises thereby reducing the proportion of poor rural households.

The key to the above is the delivery of four results which respond to the priorities expressed by the regional stakeholders. These results are:

1. Participation of key stakeholders in priority-setting and implementation of research and farmer demand-driven advisory services increased.
2. Capacity of national agricultural research and development organisations in the region is built and strengthened.
3. Use of innovative ICT in technology generation and adoption enhanced.
4. An effective SRO is established and financial support from stakeholders and international cooperating partners (ICPs) is secured and coordinated.

These results are inter-related and inter-dependent and reflect the comparative advantage of an SRO (*i.e.* CCARDESA) over national R&D institutions in developing agricultural public goods for the region. The above results will be achieved through implementation of activities in the following five thematic areas, four of which are derived from the SADC MAPP themes:

- **Thematic Area 1: Farmer empowerment and market access -** to promote regional efforts to empower and strengthen farmers and their organizations to become effective partners in the development and implementation of the agricultural R&D agenda, and to enhance their access to markets.
- **Thematic Area 2: Research and technology generation and farmer demand-driven advisory services and innovation systems**

  (i) to generate improved and more efficient technologies that are technically relevant and market-oriented and

  (ii) to improve the efficiency of the dissemination of market-oriented technologies, to promote knowledge-sharing across member countries, and to encourage the spread of ‘best practice’ in priority areas.

- **Thematic Area 3: Knowledge, information and communication**

  (i) to provide an enabling environment for broad-based and equitable access to both traditional media and new digital-based information and communication technologies (ICTs); and

  (ii) to provide farmers, researchers, extension agents and other stakeholders with access to information and knowledge.

- **Thematic Area 4: Institutional development and capacity building**

Undertake capacity building activities in

  (i) research, technology generation and farmer-led advisory services;

  (ii) agricultural education, training and learning systems that provide the human and social capital needed to promote farmer-oriented innovation systems and provide life-long learning by the full range of stakeholders; and

  (iii) knowledge, information and communication.

- **Thematic Area 5:** Establishment of, and strengthening of the Coordination Centre for Agricultural Research and Development for Southern Africa (CCARDESA) as an effective sub-regional organisation (SRO). CCARDESA will coordinate implementation of all regional agricultural R&D programmes.

CCARDESA is a stakeholder-driven organisation whose activities are guided by the following principles:

  (i) a flexible, stakeholder-driven implementation process;

  (ii) effective partnerships and a Centre of Leadership approach;

  (iii) focus on achieving regional benefits; and

  (iv) a strong results orientation which will guide the selection and implementation of programme activities.

3. IMPLEMENTATION OF PROGRAMMES THROUGH THE THEMATIC AREAS

3.1 Overview

CCARDESA derives its comparative advantage over national initiatives from:

(i) Mobilising the capacity of the various stakeholders to address critical issues impacting on the agricultural sector in the region. Such critical issues span multiple sectors described in the Dar-Es-Salaam Declaration, such as production, marketing and trade in agricultural inputs and products, crop and livestock pests and diseases, natural resource degradation, as well as cross-cutting issues of climate change and the health of farming households; and

(ii) Mobilising resources otherwise unavailable to individual SADC Member States and harnessing the advantages gained by addressing constraints that are: (a) common to Member States; and (b) those constraints associated with lack of critical mass at the national level.

3.2 Identification of regional R&D investment priorities

The first step in identifying regional R&D priorities was the study undertaken by IFPRI/ReSAKSS-SA in 2010/11[2]. That study basically identified the priority commodities ranked according to their contribution to agricultural growth and degree of regional technology spill over potential (see Table 3.1).

In general, food staples (maize, rice and cassava) ranked high because of their importance in household food security. In addition to the commodity ranking and in order to enhance household food and nutrition security, the study also recognised the need to consider other factors, such as the need for balanced investments between caloric energy commodities (cereals, cassava, plantains, etc.), high protein commodities (livestock, fish, legume crops, etc.) and commodities as sources of minerals and vitamins (fruits, vegetables, etc.). However, the study did not evaluate how R&D activities should be carried out within the identified priority commodities, nor did it include forestry, which is an important agricultural sub-sector in the SADC region. Consequently, a second study was commissioned by CCARDESA in 2012 to identify intervention areas and key activities along the value chains among the commodities identified by the IFPRI/ReSAKSS-SA as well as in the forestry sub-sector[3]. The key intervention areas within individual commodities were identified and the detailed ranking of the priority intervention areas within the individual crop, livestock, fisheries and forestry commodities is given in Annex 1.

[2]IFPRI/ReSAKSS-SA (2011) *Exploring Strategic Priorities for Regional Agricultural Research and Development Investments in Southern Africa*" A study commissioned by the SADC Secretariat.

[3]Mudhara, M., Hikwa, Danisile, Mtenga, L. Kaunda, E., Kojwang, H. and Manda, Elizabeth (2012). *Research and Development Priorities in Key Agricultural Commodities in Southern Africa.* A study commissioned by CCARDESA Secretariat

Table 3.1: Rankings of agricultural commodities based on contribution to agricultural growth and degree of technology spill-over potential across SADC countries

Major Sector	Commodity or Sector	Contribution to Agricultural growth*	Degree of regional spill over potential	Total Weighted Score	Final rank
Weights		***0.5***	***0.5***	***1***	
Cereals	Maize	25.6	34.9	30.3	1
	Rice	8.9	12.1	10.5	3
	Wheat	4.3	2.0	3.2	9
	Millet	0.5	0.7	0.6	17
	Sorghum	1.6	5.4	3.5	8
Roots & Tubers	Cassava	14.5	7.5	11.0	2
	Potato & Sweet potato	3.5	2.3	2.9	10
Pulses	Beans	3.2	5.3	4.2	7
Oil nuts	Groundnuts	2.3	2.3	2.3	12
High Value	Sugar	1.1	0.3	0.7	16
	Cotton	1.2	1.1	1.2	15
	Fruit & Veg.	10.2	7.8	9.0	4
Livestock products	Cattle & Dairy	9.2	8.4	8.8	5
	Chicken & Eggs	2.9	2.2	2.6	11
	Pigs	2.1	1.0	1.6	13
	Sheep & Goats	1.6	1.3	1.4	14
Fisheries	Fisheries	7.3	5.2	6.3	6
Total		***100.0***	***100.0***	***100.0***	

Source: *IFPRI/ReSAKSS-SA (2011)*

The findings from the two priority setting studies have been incorporated into this MTOP, focussing on the activities that are expected to yield quick impact ("quick wins") within each individual theme of the Operational Plan. "Quick wins" were identified for most of the priority commodities. This entailed taking into consideration the priority ranking of the interventions and activities for the commodity, reflecting on their importance and achievability over a 5-year period, and reaching a consensus on the appropriateness of including the activities in the relevant programme Component of this Operational Plan. The outcomes of this approach and methodology as well as the basis for selecting investment activities under this Operational Plan are discussed within each theme.

3.3 Role of CCARDESA in Southern Africa

CCARDESA was developed as an agency of SADC upon recognition that the region lacked a coordinating centre dedicated to agricultural research and development. This void resulted in the following undesirable situations:

1. inadequate attention given to challenges that are regional in nature, affecting a number of countries in the region and cannot be dealt with on individual country basis;
2. Fragmentation of research and development efforts between countries;
3. Lack of formal and effective strategy for sharing of information of common interest to the countries in the region;
4. Duplication of research and development efforts resulting in the inefficient employment of resources;
5. Low levels of resource flow to the region in support of research and development; and
6. Inadequate partnerships and collaboration among stakeholders and poor linkages between public and private organisations in agricultural value chains.

In the implementation of this MTOP, CCARDESA will focus on providing effective coordination of agricultural research and development in Southern Africa by identifying challenges of regional nature and instituting measures to address these challenges in conjunction with stakeholders. The approach will rely heavily on establishing effective partnerships in which the roles and responsibilities are clearly defined between CCARDESA and her partners. In this regard, the main interest will be to ensure that CCARDESA only takes the lead on tasks that are complementary to those of partners and that it focuses on those issues that are best done at regional level.

For example, CCARDESA will leave the implementation of research and development projects to NARS, CG Centres and other stakeholders. However, CCARDESA will play a crucial role of actively participating in resource mobilisation for such projects, monitoring the implementation, providing guidelines for conducting high impact research, and providing mechanisms for sharing of results and innovations within the region. With this approach to its work, CCARDESA will concentrate on the following:

1. Problem identification in order to assist with defining the direction, quality and methodologies for research and development activities in the region, with the view of getting the highest possible impact and outcomes from the effort and resources used;
2. Advocating and directly influencing institutions to carry out reforms for improving the management of agricultural research and development, and encouraging the successful establishment and management of partnerships among stakeholders in order to rationalise the use of resources;
3. Carry out capacity building activities for NARS and other stakeholders that they become more effective in service delivery and management of human, physical and financial resources;
4. Provide the necessary environment and mechanisms for sharing of information among stakeholders, and for extension services to farmers. This will include the development and use of innovative ways of carrying out extension services;
5. Effectively monitor the activities being carried out by CCARDESA and its partners in the region, in order to learn lessons and develop clear learning systems for CCARDESA and partners in the region; and

6. Foster strong linkages, collaborations and synergies between the private and public sectors for purposes of increasing resource flow to the research sector and encouraging the delivery of quality service to clients.

In summary, the role of CCARDESA is to add value to research and development activities being carried out in the region to improve efficiency and quality of outputs. The FAAP principles will form the guide for CCARDESA and will be used to strictly direct the operations and interactions of the institution with stakeholders at regional, continental and global levels.

Thus, CCARDESA will develop partnerships with other organisations in the region – including the NARS, CG Centres (e.g. CIMMYT, ILRI, IITA, ICRISAT, etc), policy analysis organisations and others. On the other hand there will be further strong linkages with continental organisations such as FARA and its continental programmes, NEPAD Planning and Coordinating Agency, African Forum for Agricultural Advisory Services (AFAAS) and others. The underlying principle is clear recognition that CCARDESA will achieve its objectives through a combination of outputs from its own works and the outputs coming from other organisations which will be tasked with some specific assignments.

3.4 Thematic Area 1: Farmer Empowerment and Market Access

Some of the key constraints to increased smallholder crop productivity in Southern Africa identified in the R&D priority setting studies include limited access to agricultural inputs; limited affordability of improved seeds and fertilisers; loss of indigenous seed genetic resources that are generally more resilient to environmental and climatic shocks such as droughts, and lack of incentives to encourage wider-scale production and market access. CCARDESA will therefore take due cognisance of these pervasive and pressing constraints in its activities by primarily promoting SME agribusiness development as well as the development of public-private partnerships.

3.4.1 Rationale

The available information on farmers' organisations within the SADC region shows strong social, political, institutional, and economic disparities both between and within countries. The interaction among these factors creates environments which may favour or hinder the emergence of effective farmer organisations. Generally, it is rare to find farmer organisations (especially those dealing with smallholders) that are able to adequately represent their members, to advocate for development of appropriate policies for farmers or to support research and advisory services. Farmer organisations therefore need suitable institutional support, if they are to be strengthened and to participate effectively in agricultural transformation. Therefore, regional support focusing on facilitating the spread of 'best practice' in farmer empowerment and market access across the region is essential.

This theme will support efforts to build the capacity of farmer groups and their national associations to participate more effectively in the formulation of the R&D agenda and to play a more active role in enhancing access to markets through advocacy, better linkages to input and output markets and to key technical/business management services. The youths will also be given special priority and will be provided with special programmes to empower them in their participation in agricultural programmes.

3.4.2. Specific Objectives

i. to identify empowerment and policy strategies that enhance development of effective farmer organisations;

ii. to build capacity of NARS to develop farmer empowerment mechanisms that promote good business linkages and private sector development;

iii. To facilitate enhancement of skills and capacities for farmers through skills transfer and knowledge sharing on agriculture and relevant climate smart technologies; and

iv. To support regional R&D initiatives that enhance farmer empowerment and effective business linkages.

3.4.3. Expected Outputs

i. Empowerment and policy strategies that enhance development of effective farmer organisations identified;

ii. Capacity of NARS to develop farmer empowerment mechanisms that promote good business linkages and private sector development built;

iii. Enhancement of skills and capacities for farmers through skills transfer and knowledge sharing on agriculture and relevant climate smart technologies facilitated; and

iv. Regional R&D initiatives that enhance farmer empowerment and effective business linkages supported.

3.4.4 Approach and Activities for implementation under the thematic area

Studies will be commissioned to identify empowerment and policy strategies that will enhance development of effective farmer organizations. These studies will inform the priority activities, activity areas and sub-projects to be implemented. The studies will identify the good practices and partnership models to be promoted under this component. The Integrated Research 4 Development (IR4D) approaches under Innovation Platforms (IP) will be used as a tool to organize farmers. Targeted training will be conducted to build the capacity of the NARS to develop skills for empowering farmers. The Operational Plan will support innovative pilot activities that are likely to enhance farmer empowerment. It will promote the establishment of appropriate networks and partnerships.

The approach to implementation of this Thematic Area and the activities that need to be undertaken to achieve the expected outputs mentioned above are outlined in Table 3.2. The approach is based on interventions encompassing policy, capacity development, pilot studies, facilitation of knowledge sharing and promotion of good practices for agribusiness linkages and market access. The activities are broad ranging and include studies, capacity building, support of networks and partnerships, workshops and exchange visits, dissemination of information on good practices and experiences and support of pilot studies.

The “quick wins” identified under this Thematic Area encompass sorghum, soya bean, poultry/eggs and forestry, with the priority activities being as outlined in Table 3.3. However, it is very important to recognise that farmer empowerment and access is, in effect, a cross-cutting issue, and therefore applies to all commodities. As such, this Thematic Area needs will be based on needs assessments across all commodities and not simply on a limited number of priority commodities as indicated in the “quick-wins” (Table 3.3).

CCARDESA will take due cognisance of activities identified as “quick wins” and ensure that, where appropriate, they are included in this first five-year period.

3.4.5 Key stakeholders

A range of institutions are expected to participate collaboratively in the activities under this component. These include farmer organizations, NGOs, private sector, private sector service providers, and national agricultural research, extension and education systems.

Table 3.2 Approach and Activities for Thematic Area 1: Farmer Empowerment and Market Access.

Approach	Activities
1. Develop effective farmer organizations	1. Carry out analysis to identify priorities for farmer empowerment; identify good practice and partnership models; and identify empowerment strategies and policy opportunities that promote development of farmer organizations 2. Support stocktaking assessments of good practices on farmer and producer organisations' development and models for agribusiness linkages; and 3. Commission studies to assess needs for farmer empowerment and access across all commodities
2. Develop capacity of NARS to foster farmer empowerment mechanisms and to promote good practice for agribusiness linkages and private sector development	1. Conduct targeted training to build the capacity of the NARS to develop skills for empowering farmers; 2. Support capacity building activities to enable farmer organisations to actively engage with their members; 3. Conduct targeted training to promote good practice for agribusiness linkages and private sector development 4. Facilitate development of policies and strategies that improve farmer and youth access to affordable inputs;. 5. Promote development of youth internship programme to motivate them to pursue Agriculture R&D careers; and 6. Establish/strengthen Integrated Research 4 Development (IR4D) and Innovation Platforms (IP) linking farmers, youths, producers to markets and to key technical and business management services.
3. Facilitate the exchange of knowledge and experiences	1. Support up to four workshops to review study tools methodology and study results analysis, including identifying some projects, partnerships and networks. These workshops and other means (publications and newsletters) will serve as platforms to disseminate good practices and experiences 2. Support regional exchange visits and publications to disseminate good practices and to share experiences including on climate smart agricultural technologies. 3. Packaging of already existing research and extension outputs for dissemination and out-scaling.
4. Support regional R&D sub-projects that enhance farmer empowerment and agribusiness linkages	1. Support innovative pilot activities that are likely to enhance farmer empowerment. 2. Carry out inputs and commodity market surveys and analysis. 3. Implement sub-projects identified as "quick wins" (Table 3.3) in this first five-year period. 4. Carry out Quick win (priority) activities in the following: • development of reliable seed supply and marketing systems in major sorghum growing countries; • improvement of market access in the value chain for soybeans; • promotion of the commercialization of indigenous local chickens; • analysis of policy incentives for investments in smallholder forest plantation development; and • analysis of policy incentives for investments in small-scale value added processing in forestry

Table 3.3 Identified quick win activity areas for Sub-project development under Thematic Area 1 - Farmer Empowerment and Market Access.

Commodity	Output and Priority Intervention Area	Activity Area(s)
Cereals especially Sorghum	Development of seed supply and Marketing/ trade of crop produce	Develop reliable seed supply and marketing systems in major cereals (sorghum) growing countries (Farmer Empowerment)
Soybean	Development of seed supply and Marketing and trade of crop produce	Improve market access in the value chain (Agribusiness Linkages)
Poultry, Eggs	Development of Marketing/ trade in livestock and livestock products	Promote commercialization of indigenous local chicken (Agribusiness Linkages)
Forestry	Development of technologies and Policies to support sustainable forest management and poverty reduction	Analyse policy incentives for investments in small holder plantation development (Farmer Empowerment and Agribusiness Linkage)
		Analyse policy incentives for investments in small-scale value added processing (Agribusiness Linkages)

3.4.6 Technologies for Out-scaling

Countries in Southern Africa have had a long history of conducting research in agriculture and have produced various technologies. Some of the technologies have reached farmers and have had positive impacts to food security. However, there are many technologies that have been produced and have not reached the targeted communities. Thus the value of these technologies has not been realised. Some of these technologies include:

1. Crop varieties with desirable traits of disease resistance, drought tolerant, high yield and early maturing;
2. Farm mechanisation implements that save labour and improve tillage;
3. Agroforestry practices that are essential for soil fertility management and carbon sequestration;
4. Conservation agricultural technologies for sustainable crop production;
5. High performance livestock breeds with potential to increase income and nutrition of farming communities;
6. Water harvesting technologies for improving water use in crops and livestock production systems; and
7. Backyard gardening techniques using household waste water.

3.5 Thematic Area 2: Research, Technology Generation and Farmer demand-driven Advisory Services

The main R&D priority areas for which CCARDESA has regional comparative advantage that would add value to the efforts of individual NARS were identified during programme preparation, and primarily in the CCARDESA priority setting study carried out in 2012. As expected, several activities relating to research, technology generation and farmer-led advisory services were identified for all the priority commodities (Annex 1). However, emphasis has been placed on the "quick wins" that are considered achievable during the period of this MTOP (see Table 3.5).

3.5.1 Rationale

Generation of appropriate technology is one of the essential enabling conditions to ensuring increased agricultural productivity. More effective investment in farmer-centred agricultural R&D is needed to underpin farmer innovation and provide solutions to emerging agricultural problems within the SADC region. Among SADC Member States there is scope for greater cooperation and coordination to address common research priorities and to mobilize and utilise the scarce national and international resources more effectively. There is also a need to make regional technology development and transfer more cost-effective and efficient by fostering partnerships.

For most of the past few decades, the traditional model of technology generation and transfer in Africa was seen as a one-way process where researchers generated technologies, passed them on to extension staff who, in turn, extended them to farmers. The technologies developed through this research-extension model have had limited success, especially among smallholders. New methods which will be promoted will involve participatory learning and action research. There are a number of existing technologies, knowledge methodologies and participatory methods from within the region, the continent and beyond that are now widely accepted and can be employed for scaling out within the SADC region through extension systems. There are also some good examples of advisory service reform and participatory technology development in the region that can serve as models for others and can therefore be promoted and scaled out.

3.5.2. Specific Objectives

The objectives of CCARDESA assistance under this thematic area are:

i. to strengthen the NARS to participate more actively in regional R&D activities;

ii. to identify the regional priority research activities, advisory service practices and partnerships that will generate regional or trans-boundary benefits;

iii. iii) to implement identified regional R&D priorities that will generate regional or trans-boundary benefits to smallholder farmers;

iv. to support dissemination of research outputs and extension information through exchange visits, conferences and publications; and

v. to facilitate the up-scaling and out-scaling of best agricultural practices.

3.5.3. Expected Outputs

i) NARS strengthened and participating more actively in regional R&D activities;

ii) Regional priority research activities, advisory service practices and partnerships that will generate regional or trans-boundary benefits. Identified;

iii) Identified regional R&D priorities that will generate regional or trans-boundary benefits to smallholder farmers implemented;

iv) Dissemination of research outputs and extension information through exchange visits, conferences and publications that promote farmer-driven advisory services supported;

v) Best agricultural technologies and best practices scaled-up and out-scaled

3.5.4 Approach and Activities for implementation under the thematic area

CCARDESA will support regional sub-projects which will contribute to the generation of technologies that respond to the identified priority needs of farmers. A key principle will be collaboration among the NARS and partnerships with the relevant universities and IARCs in the region. The partnerships and collaborations will promote the principle of subsidiarity in R&D and the need to strengthen and to build the capacity of weaker research institutions. CCARDESA will Establish networks and partnerships whose main functions will be to carry out the agreed priority research and advisory services activities of common interest between countries, to share knowledge and to disseminate research outputs generated for the benefit of the entire region.

Several “quick win” priority activity areas were identified under this Component and hence only a limited and manageable number was selected (Table 3.5). They encompass maize, sorghum, cassava, groundnut, soyabean, forestry, livestock (cattle, sheep and goats), and fisheries, and research, technology generation and farmer-led advisory services relating to:

The approach to implementation of Thematic Area 2 and the activities required to achieve the expected outputs mentioned above are outlined in Table 3.4. CCARDESA will adopt a two-pronged approach whereby it will (i) support sub-projects that contribute to the generation of technologies that respond to the identified priority needs of smallholder farmers, and (ii) promote a farmer-driven approach to R&D as well as advisory services. A range of activities will be undertaken to achieve the expected outputs under the Thematic Area.

Table 3.4. Approach to Implementation and Activities for Thematic Area 2: Research, Technology Generation and Farmer-Driven Advisory Services.

Approach	Activities
1. Strengthening the NARS to participate more actively in regional R&D activities	1. Support R&D capacity building initiatives for NARS (training, equipment etc) 2. Facilitate training of NARS staff on proposal writing
2. Identification of regional R&D priorities that will generate regional or trans-boundary benefits	1. Facilitate activities for identifying regional research and development priorities including quick-wins initiatives
2. Implementation of identified regional R&D priorities that will generate regional or trans-boundary benefits to smallholder farmers	1. Facilitate partnerships and support networks to implement agreed priority research and advisory services activities of common interest between countries 2. Support development of research programmes on under-utilized crops in collaboration with NARS and other stakeholders 3. Fund 8 sub-projects for generation and testing of new technologies. 4. Support 6 sub-projects for piloting and scaling up/out of good practices and technologies
4. Supporting the dissemination of research outputs and extension information through exchange visits, conferences and publications.	1. Support dissemination of research outputs and extension information/ findings through three regional conferences. 2. Support exchange visits between research scientists and advisory service providers sharing common interests **3.** Facilitate dissemination of research and extension information/findings through funding publications in different media including journals and common press.
5. Promoting farmer-driven advisory services	1. Promote the involvement of non-state actors in the provision of research and advisory services (i.e. private sector, civil society, farmer organizations) through establishment of multi-stakeholder innovation platforms for different commodities 2. Convene workshops in 3 regional countries to catalyze implementation of farmer-driven research and extension services. 3.Support initiatives to promote linkages between farmers and decision makers
6 Facilitating the up-scaling and out scaling of best agricultural practices	1. Support the identification of technologies to be up-scaled and or up scaled 2. Promote implementation of initiatives for up-scaling and or out-scaling of practices

3.5.5 Key Stakeholders

Several institutions are expected to participate in the various partnerships and networks in implementing the sub-projects and in conducting identified studies and other activities in research and advisory services. Those expected to participate include national agricultural research and extension organisations, IARC institutes operating in the SADC region, NGOs and civil society organisations active in promoting agricultural productivity and rural livelihoods, and private sector service providers. As stated earlier, a key principle will be collaboration among the NARS and partnerships with the relevant universities and IARC institutions in the region.

Table 3.5: Quick win activity areas for Thematic Area 2 - Research, Technology Generation and Farmer demand-driven Advisory Services

Commodity	Priority Intervention Area	Activity Area(s)
Maize	Soil fertility and plant nutrient management	Adapt and validate available soil fertility interventions in similar environments in the region
	Conservation Agriculture Systems	Enhance agro-ecosystem resilience through minimum tillage, use of farm available organic matter and improved water harvesting and soil management in drier environments
Sorghum	Agro-processing, food safety and value addition	Develop, adapt and promote appropriate gender-sensitive smallholder equipment for processing and value addition at household level
Cassava	Agro-processing, food safety and value addition	Identify and develop alternative uses of cassava in livestock feed
Groundnut	Post harvest crop management	Develop improved farm level post-harvest handling and storage infrastructure to reduce aflatoxin infestation and other losses
Soybean	Soil fertility and plant nutrient management	Up-scale the rhizobium inoculation technology production and use in major soybean growing areas in the region
Forestry	Value-added processing and marketing of wood and non-wood products	Support research on the properties and potential applications of reconstituted wood products
	Policies to support sustainable forest management and poverty reduction	Analyse policy incentives for investments in small holder plantation development
Livestock	Water and range management and conservation	Conduct studies to support sustainable water supply & utilisation of rangeland resources
	Livestock pests and diseases	Undertake control and eradication of TADs
	Breeding, biotech and conservation of animal genetic resources	Improve access to adapted quality heifers by farmers
	Breeding, biotech and conservation of animal genetic resources	Stabilize supply of improved day-old chicks through village/district level low cost hatcheries & cock-circles
Fishery	Fish processing, food safety and value addition	Enhance productivity of aquaculture through fish processing, food safety, value addition
	Sustainable harvesting and management of inland fisheries	Carry out socioeconomic research on marine fisheries to underpin sustainable management and harvesting

3.6 Thematic Area 3: Knowledge, Information and Communication

Knowledge and information management are now considered to be essential components of an institution. Their development has to take place at the same pace with the technical components of the organsiation. CCARDESA's impact in the region will therefore be greatly enhanced if its technical success is supported by a strong and up-to-date system for managing information and knowledge.

3.6.1 Rationale

Building human and social capital to improve agricultural productivity requires increased and improved knowledge and information-sharing through effective use of communication methods, media channels and processes. In recent years, there have been revolutionary advances in digital and Internet-based information and communication technologies (ICTs). A new information economy has emerged where trade and investment are global and businesses compete within a context of global knowledge and information. For all SADC countries, these changes mean major adjustments to harness information for economic and social development. However, many smallholder farmers have largely been by-passed by these developments.

Empowering smallholders to improve their production efficiency and to generate higher income through increased market engagement is a process that requires better access to appropriate information and the use of local knowledge to shape existing and new technologies to suit local situations. Therefore all sector stakeholders, including farmers, need to have access to information on available technologies and current market conditions in order for them to respond appropriately to market demands.

There is also need to build farmers' capacity to interpret information in order for them to make informed decisions and to strengthen their negotiating skills. In this regard, the use of ICT has considerable potential as a vehicle for promoting stakeholders' access to information. ICT can be harnessed to help them participate more actively in national economic and social development. However, farmer advisory service providers and communication practitioners lack skills on how to use ICTs for development, including how to design multi-media strategies.

3.6.2 Specific Objectives

The **specific objectives** of this thematic area, therefore, are to:

i. Identify needs, best practices (ICT policies, strategies, tools, network linkages) and opportunities in agriculture and other sectors best suited for specific needs;

ii. Facilitate capacity building in the use of ICTs in the agricultural information systems by national and regional stakeholders;

iii. Promote the use of ICTs, media channels and interpersonal interactions to link different stakeholders including use for education and learning as well as empowering smallholder farmers to access markets and make informed decisions;

iv. Build the capacity of CCARDESA to serve as platform for sharing of information; and

v. Promote the wide and free access to agricultural information in the SADC region

3.6.3. Expected Outputs

(i) The needs, best practices (ICT policies, strategies, tools, network linkages) and opportunities in agriculture and other sectors best suited for specific needs identified;

(ii) Capacity in the use of ICTs in agricultural information systems by national and regional stakeholders strengthened;

(iii) Use of ICTs, media channels and interpersonal interactions to link different stakeholders to markets promoted and improved;

(iv) CCARDESA's capacity to serve as platform for sharing of information developed and strengthened; and

(v) Wide and free access to agricultural information promoted.

This thematic area will also contribute to the development of the SADC FANR's regional Agricultural Information Management System (AIMS).

3.6.4 Approach and Activities for implementation under the thematic area

In PY1, a detailed situation analysis of the knowledge, information and communication systems in the agricultural sector in the region will be carried out in order to identify good and successful ICT policies, strategies and opportunities.

The approach to the implementation of Thematic Area 3 and the activities required to achieve its expected outputs are outlined in Table 3.6. The approach will comprise a situation analysis of information, knowledge and communication in the agricultural sector, the strengthening of information and knowledge management systems, and developing CCARDESA into a repository of comprehensive and up-to-date information on agricultural R&D in the region.

Table 3.6. Approach to Implementation and Activities for Thematic Area 3: Knowledge, Information and Communication.

Approach	Activities
1. Identification ICT needs, best practices (policies, strategies, tools, network linkages) and opportunities in agriculture and other sectors best suited for specific needs	1. Conduct a study to identify good and successful ICT policies and strategies in agriculture and other sectors (e.g., e-commerce) 2. Conduct a study to examine ICT tools and network linkages best suited for for specific needs 3. Hold a regional workshop to review study results and identify sub-projects, partnerships and networks among communication practitioners linked to stakeholders
2. Facilitating capacity building in the use of ICTs in the agricultural information systems by national and regional stakeholders	1. Develop sub-projects, networks and partnerships among ICT practitioners linked to stakeholders 2. Support ICT interventions that benefit the research/extension, private sector and smallholder farmers to make informed decisions and strengthen their negotiation position with service providers and markets 3. Develop and maintain ICT information systems relevant for different stakeholders (insitutions, frontline extension staff and farmers, etc) 4. Promote regional training focusing on ICT tools and network linkages
3. Establishment of CCARDESA as a sound information and knowledge base for the region	1. Promote regional knowledge sharing on ICT tools, best suited for specific national and regional needs 2. Establish and maintain a comprehensive and up-dated information and knowledge management system at the CCARDESA secretariat

The identified “quick wins” under this theme apply to maize, rice, wheat, Irish potato and sweet potato, cotton, fruits and vegetables, forestry, livestock and fisheries and have been summarized in Table 3.7.

3.6.5 Key Stakeholders

Institutions in the ICT sector will participate in this Component and provide leadership in carrying out studies and implementing sub-projects in partnerships and networks with research and advisory service institutions, agricultural education institutions, NGOs, civil society organisations and farmer groups and organisations. In the implementation of activities under this Thematic Area, CCARDESA will partner with institutions such as SADC Secretariat, the FAO, FANRPAN NEPAD NPCA, FARA and others

Table 3.7: Quick win activity areas for Thematic Area 3 - Knowledge, Information and Communication

Commodity	Priority Intervention Area	Activity Area(s)
Maize	Crop pests and diseases	Develop cost-effective and harmonized regional surveillance systems (forecasting, monitoring and management) of migratory pests (armyworm, locusts, etc.)
Rice	Crop pests and diseases	Map out areas of high disease prevalence in the region to develop combined management and control efforts
Wheat	Soil fertility and crop management	Revise/develop temperature and planting dates suitability maps for major wheat producing countries in the region in response to changes in climate
	Crop pests and diseases	Enhance regionally integrated surveillance and management systems for Quelled birds
Irish & sweet potato	Marketing and trade of crop produce	Develop / strengthen accessible information systems for linking producers to fresh produce markets for both sweet potato and potato
Cotton	Marketing and trade of crop produce	Develop input/ output market information systems that are accessible to smallholders
Fruit & Vegetables	Conservation of plant genetic resources	Update an inventory of available indigenous fruit and vegetables in the region to guide conservation actions
Forestry	Policies to support sustainable forest management and poverty reduction	Analyze policy incentives for investments in small holder plantation development
		Analyze policy incentives for investments in small-scale value added processing
Livestock	Marketing/ trade in livestock and livestock products	Improve marketing intelligence & information system
	Breeding, biotech and conservation of animal genetic resources	Synthesize and disseminate existing knowledge on indigenous breeds to promote their utilisation
Fishery	Sustainable harvesting and management of inland fisheries	Carry out socioeconomic research on marine fisheries to underpin sustainable management and harvesting

3.7 Thematic Area 4: Institutional Development and Capacity Building

Service delivery in any sector is based on a set of institutions, each of which plays a specific role. These may appear to be independent in many respects but are linked and interdependent in operation. Some of these linkages may appear latent while others are clear and direct. The strength and efficiency of each institution of a sector is of great concern in the delivery of the service. With regard to agricultural research, it is desirable for the Universities, NARS, CG Centres, Private sector, agricultural/farmers associations, and other stakeholder groups to be active and strong in order for the whole chain of agricultural technology generation, dissemination and adoption to be of relevance to a country.

3.7.1 Rationale

The generation of appropriate technology and its dissemination is essential to ensure increased agricultural productivity. However, this requires effective institutions which can make strong individual contributions to the process of increasing agricultural productivity. Analysis of the individual NARS institutions within the region indicates the need for strengthening their capacity to undertake institutional reform and change processes under CCARDESA. It also indicates the need for capacity building to enable NARS scientists and extension agents to effectively participate in regional research and extension activities through the competitive grant and other schemes which will be the vehicle for funding sub-projects under this Operational Plan.

Agricultural education and training (AET) is a critical investment to create the necessary changes needed in agricultural systems. Although there is a substantial unmet demand at all levels in both public and private sectors for skilled individuals, opportunities exist within the region to help meet some of these needs. A regional approach to AET can be a powerful tool for SADC institutions to respond to common challenges. In the case of agriculture, capacity building must address the needs of smallholder farmers, colleges offering practical certificate and diploma programmes, and university level training, including post-graduate training.

Through this MTOP, CCARDESA will build on successful experiences in institutional reforms in agricultural educational systems. This will embrace non-formal training as well as the formal degree and diploma-based programmes. All levels of training vis–a-vis farmer training and skill development; technical level training (certificate and diploma) as well as University level will be addressed under this thematic area.

The use of ICTs has considerable potential to expand stakeholders' access to information. This Thematic Area will contribute to building the capacity of the NARS to use ICT in technology generation, dissemination and adoption. It will also contribute to building the farmers' capacity to make informed production and marketing decisions, and to strengthen their negotiating skills.

Effective partnerships and networks are crucial for the implementation and coordination of sub-project activities. Consequently, all trans-boundary sub-projects or activities will require these network and partnership arrangements to spearhead implementation, for sharing and disseminating information and promoting good practices. CCARDESA will therefore place considerable emphasis on capacity development in partnership building and networking.

The work of CCARDESA is based on Pillar 4 of CCADP and thus requires to be implemented in close collaboration with other stakeholders within the region as well as partners linked to implementation of CAADP at national, regional and continental levels. Since CCARDESA is a coordination body and supports the countries of Southern Africa in the implementation of CAADP Pillar 4, it will put great emphasis in guiding the countries in CAADP implementation and its principles. This will include the development of quality investment plans which respond to the needs of each country and provides a good springboard for transformation of the agricultural sector in pursuit of the targeted 6% annual growth.

A centre of excellence (sometimes called Centre of Competence) refers to a shared resource, facility or entity (either virtue or physical) that provides leadership to others in a focus area. It will have specific goals and generally fulfils the needs of its clients through the provision of support, guidance, shared learning, governance and leadership within its area of jurisdiction.

Centres of excellence are a good option in the development of a concentration of skills and competencies that can be shared with other institutions within a region. In this way, the Centre is used as a valuable source of knowledge and skills which can be transferred to those who are in need of them. Duplication of effort is also reduced and resources economically employed. These benefits are important in the Southern African region where some Centres of Excellence have worked very well before. On this basis, CCARDESA will use its partners to identify and support Centres of Excellence for purposes of allowing other institutions in the region to fully benefit from them.

3.7.2 Specific Objectives

The specific objectives under this thematic area are to;

(i) assist in institutional development and capacity building in research, technology generation and advisory services
(ii) enhance networks and partnerships in agricultural education and training, including training of smallholder farmers, technical level training (certificate and diploma) and university level training for effective well-coordinated research, extension and agricultural education programs.
(iii) Identify from regional learning systems models / governance frameworks that support R&D innovations.
(iv) facilitate implementation of learning systems that support regional R&D innovation and training.
(v) build effective partnerships and networks at different levels within the region
(vi) support SADC countries in the development of CAADP investment plans

3.7.3. Expected Output

(i) Improved institutional capacity in research, technology generation and advisory services;

(ii) Enhanced regional networks and partnerships for agricultural education and training systems and operating effectively in the delivery of well-coordinated programmes of research, extension and agricultural education;

(iii) Institutional governance frameworks / models that support R&D innovations identified;

(iv) Learning systems that support regional R&D innovation and training available and functional; and

(v) Effective partnerships and networks at different levels within the region developed; and

(vi) CAADP investment plans developed in all SADC countries.

3.7.4 Approach and Activities for implementation under the thematic area

Capacity strengthening under this thematic area will also focus on promoting good practices and partnerships. Activities for the promotion of good practices will start with conducting a needs assessment in agricultural education in the region and to identify current practices, their impacts and relevance to the agricultural sector. CCARDESA will support projects and activities that will mainstream the good practices, including gender, food security, nutrition and HIV/AIDS in curricula for education systems that have agriculture or agriculture-related focus.The approach to the implementation of this Thematic Area and planned activities are outlined in Table 3.8.

Table 3.8. Approach to Implementation and Activities for Thematic Area 4: Institutional Development and Capacity Building.

Approach	Activities
1. Develop, strengthen institutional capacity of research, technology generation and advisory services.	1. Update a regional situational analysis on capacity for research planning, management and funding in NARS. 2. Organise 2 regional workshops for NARS to share experiences and to promote good practices in research and advisory services; 3. Support 3 targeted advocacy workshops to promote market-oriented, farmer-led and demand-driven policies, research and advisory services 4. Promote institutional reform in R&D for effective stakeholder participation and governance; 5. Foster collaboration with IARCs to strengthen NARS in institutions reforms and share experiences; 6. Support capacity building activities to develop research and extension networks and partnerships; 7. Train NARS on how to reform research and advisory services in partnership with IARCs; and 8. Build capacity of NARS on how to prepare research proposals for competitive funding and on competitive grant management in partnership with IARCs and NARS 9. Support 2 sub-projects that contribute to institutional reform. 10. Support 6 exchange visits for NARS to share experiences and to promote good practices in research and advisory services 11. Implement identified "quick wins" capacity building activities
2. Develop, strengthen institutional capacity in agricultural education and training	1. Conduct a survey on agricultural education in the region (and centres of leadership) to identify practices, and the impact and relevance on the agriculture sector and carry out a regional workshop to review the study and identify sub-projects 2. Support two sub-projects that mainstream the good practices, including gender and HIV/AIDS in curricula at primary, secondary and tertiary levels and informal education systems; 3. Facilitate dissemination of good practices and experiences through various media
3. Building and strengthening of effective partnerships and networks	1. Conduct a regional workshop to promote partnerships which 'mainstream' AET activities and institutions; and (ii) Conduct a regional workshop to build partnerships that promote the use of mass media and ICT to improve curriculum development, delivery and access. 2. Support three exchange visits to promote networks and partnerships between educational systems and research and advisory services and farmer organizations 3. Support 15 Support short term sabbatical initiatives 4. Identify and support regional centres of leadership.
4. Promotion of good practice and capacity building in knowledge, information and communication	1. Conduct two workshops to promote smallholder innovation and improved access, participation and ownership in knowledge and information systems. 2. Train NARS to design and use ICT-based communication strategies and campaigns in support of farmer-centred innovations.
5. Support SADC countries in the development of CAADP investment plans	1. Develop and implement a strategy for building capacity and guiding SADC countries in the development of CAADP investment plans in partnership with other institutions in the region.

3.7.5 Building partnerships and networks

Effective partnerships and networks are crucial for the implementation and coordination of project activities under this thematic area. Partnerships and networks can be formed at two levels; (i) that involve research and their institutions on one hand and (ii) the other involving farmers and their organizations' networks. Consequently, all trans-boundary sub-projects or activities will require these network and partnership arrangements to spearhead implementation, for sharing and disseminating information and promoting good practices.

In general, a network will be developed around a sub-project. A regional R&D strategy built around active networking serves, not only to bring top expertise into the process, but also is a powerful tool in the building of capacity amongst partners who will, inevitably, be at different stages of development. CCARDESA will follow this principle in institutional strengthening, where networks of specialisation[4] will be developed. Within these networks, those partners with the best skills and facilities would become the leaders, with the objective of enhancing capacity and quality throughout the network. The network lead institutions could be designated to enhance capacity and quality throughout the network.

Networks of Specialisation will therefore be recommended as a strategy to promote complementarity and synergy. Figure 3.1 provides a generalised structure of a network of specialisation.In line with the principle of subsidiary, sub-projects will be led where possible by an institution (public or private) based in the region, with collaborating CGIAR centres and other international institutions as partners. The level at which the project is led automatically becomes the level of decision authority so that all decisions are taken as closely as possible to the farmers and the target groups. CCARDESA will monitor the implementation of the projects, facilitate learning between/among the stakeholders and take actions and decisions on matters in which they have impeccable and exclusive competence and competitive advantage. On this basis, CCARDESA's actions will remain within the areas and at levels where its actions will show clear and unique effectiveness compared to such actions being taken at any other level. This approach, together with targeted training, is expected to enhance the capacity of the NARS institutions.

The NARS in the SADC region have developed from differing starting points and invested their limited resources in ways which suit their particular circumstances. No one institute anywhere operates at the cutting edge in all disciplines of science. Through greater collaboration, researchers, students, and (most importantly) farmers will be able to access the range of knowledge, technologies and facilities held by all SADC members.

[4] A Network of Specialisation among SADC institutions participating in a sub-project can therefore be viewed as having leaders, facilitators and needy members. Leaders are the institutes that have greatest expertise and most up to date facilities in a certain subject area. Facilitators are those with specialised, but incomplete capacities within that area. Needy members are those who acknowledge their weakness in that area and seek to collaborate within the network in order to increase their services and capacities. By pooling their efforts through networking, collaborating institutes will be able to expand their capacity in training and impact-oriented R&D.

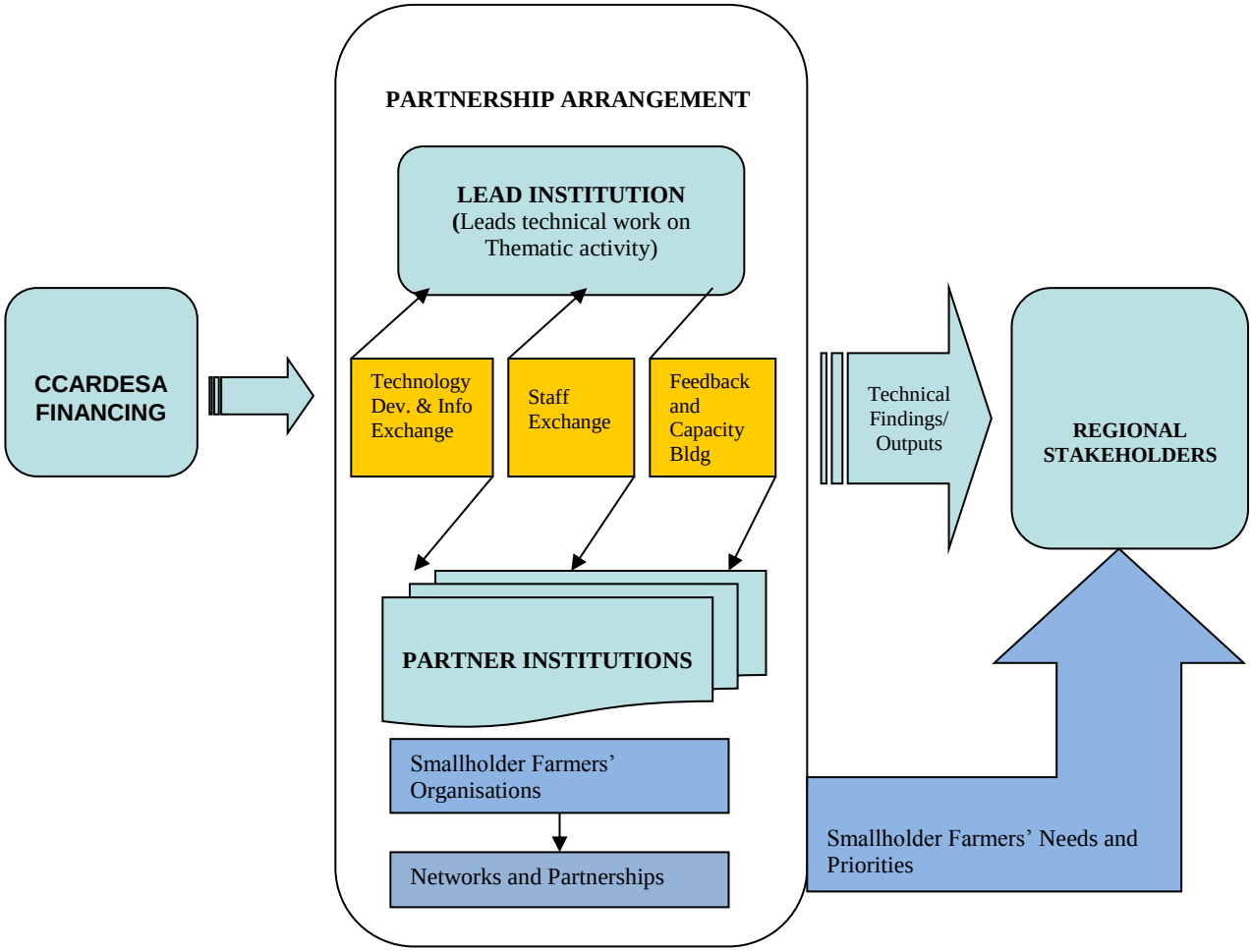

Figure 3.1: Generalised structure of Partnership and Network of Farmers and Specialised Institutions

3.7.6. "Quick win" priority areas relating to institutional development and capacity building

The identified "quick win" priority areas relating to institutional development and capacity building are summarised in Table 3.9. They comprise of:

i. development and maintenance of facilities to provide clean disease-free cassava planting material;

ii) strengthening of regional surveillance and management systems for potentially devastating and easily spread diseases in Irish potato and sweet potato;

iii) development of protocols to allow free germplasm exchange among research scientists working across the region;

iv) facilitation of the establishment of rural agro-dealerships to improve access to input/ output markets by smallholder bean growers;

v) development of models for co-management or joint management of forests with local communities;

vi) analysis of policy incentives for investments in smallholder plantation development; and

vii) analysis of policy incentives for investments in small-scale value added processing in forestry.

Table 3.9: Identified quick win areas for Thematic Area 4 - Institutional Development and Capacity Building

Commodity	Priority Intervention Area	Activities
Cassava	Conservation and plant genetic resources	Support maintenance of community-based cassava nurseries that act as sources of clean planting material for farmers
	Plant breeding, crop variety development, biotechnology	Establish reliable supply systems for quality certified cassava planting material (produced using tissue culture)
Irish potato and sweet potato	Crop pests and diseases	Strengthen regional surveillance and management for powdery scab (*Spongospora subtarranea*) and potato cyst nematode (*Globodera rostochiensis*)
Dry bean	Conservation and plant genetic resources	Develop protocols to allow germplasm exchanges among research centres in SADC working on similar projects
	Marketing and trade of crop produce	Facilitate establishment of rural agro-dealerships to improve access to input/ output markets by smallholder bean growers
Forestry	Production and sustainable use of natural forests and woodlands for multiple benefits	Promote development of models for co-management or joint management with local communities
	Policies to support sustainable forest management and poverty reduction	Analyze policy incentives for investments in small holder plantation development
		Analyze policy incentives for investments in small-scale value added processing

CCARDESA: Mission and Themes

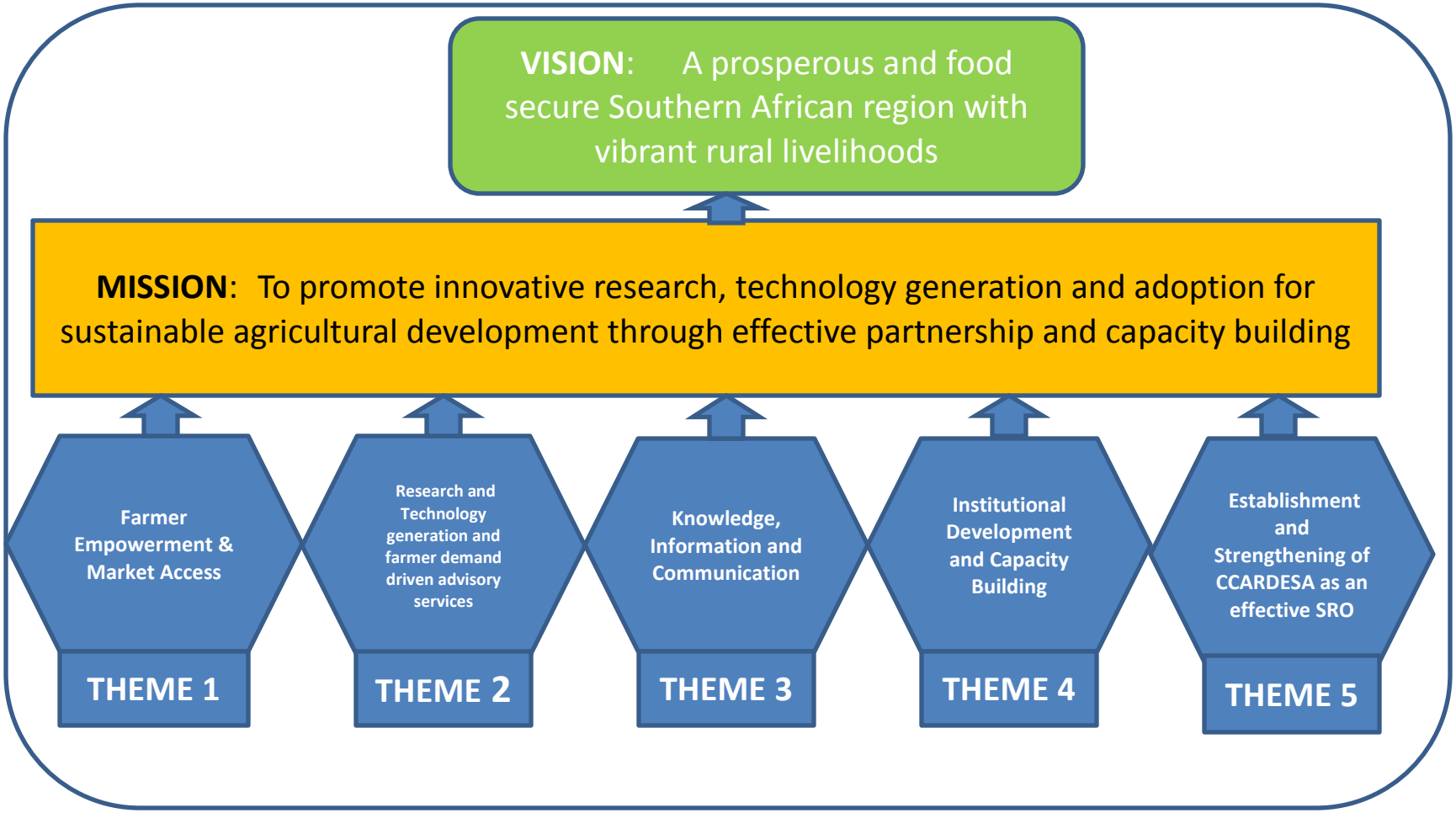

Figure 3.2 CCCARESA Mission and Themes

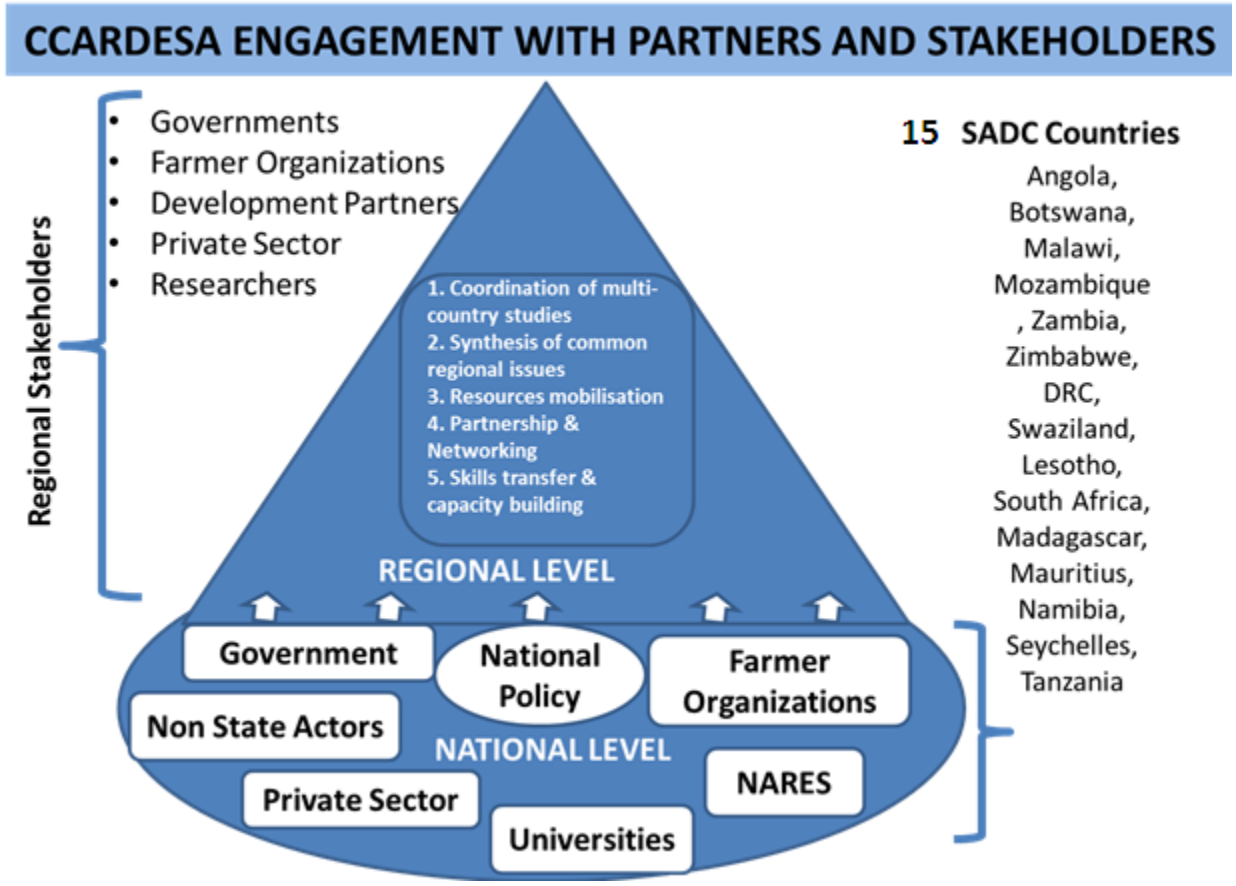

Figure 3.3 CCARDESA Engagement with Stakeholders and Partners

3.7.7 CCARDESA Impact Pathways

CCARDESA 's mission is to promote innovative research, technology generation and adoption for sustainable agricultural development through effective partnership and capacity building. This will enable it to contribute towards its vision of "a prosperous and food secure Southern African region with vibrant rural livelihoods" (Figure 3.2). CCARDESA will pursue its mission through the five thematic areas which have been described in detail in the earlier sections of the plan.

CCARDESA will engage with multiple stakeholders and partners to achieve its mission (Figure 3.3). These include, among others, non-state actors, national research and extension system actors, universities, development partners, private sector and farmer organisations. The impact pathways of CCARDESA in delivering the outcomes will entail the following: coordinating, facilitating, networking, communicating, convening, training and exchange visits. As an apex sub regional organization, it will coordinate regional research and development initiatives, facilitate regional meetings, workshops to promote partnerships and sharing of experiences including best practices, and research outputs between the stakeholders. This will entail harnessing different modes of communication to reach the different actors as well as promoting regional capacity building and skills sharing.

3.8 Thematic Area 5: Establishment and strengthening of CCARDESA as an effective SRO.

In general SROs have proven effective at providing a responsive institutional structure that allows stakeholders to benefit from the shared stock of knowledge and resources a formal institutional structure can mobilize. However, experience within the region (particularly with SACCAR), has shown the need for careful design and operation of a SRO. Lessons learned from SROs supporting agricultural technology generation and dissemination within the SADC region and elsewhere have shown the importance of:

- Ownership by and responsiveness to key stakeholders including stakeholders within the NARS, farmers and farmer groups, and private sector and civil society;
- Governance and management arrangements that focus on accountability, are responsive to a diverse set of stakeholders and a lean and effective Technical Secretariat to manage day-to-day activities;
- Proactive leadership in promoting partnerships and alliances;
- A focus on viability and financial sustainability through various strategies, including increased contributions from diverse stakeholders, increased cost sharing on regional research agenda; and establishing endowment funds but with a recognition that most SROs are highly dependent on donor funding, recognizing that they are providing essentially a regional public good, which market forces would not supply.

Ensuring institutional relevance and effectiveness, both as a means to improve impact and to ensure overall sustainability and support from stakeholders, are essential elements of an SRO. It is in this context that CCARDESA as the SRO for the SADC region was established. In line with the overwhelming consensus of views of stakeholders in the SADC region, CCARDESA is developed as a semi-autonomous SRO.

3.8.1 Rationale

CCARDESA was designed to serve stakeholders in the agricultural sector, with special emphasis on increasing smallholder productivity and competitiveness through the implementation of Pillar IV of CAADP for the Southern Africa Development Community (SADC) region using the tenets prescribed in the FAAP.

CCARDESA's goal is to sustainably reduce the food insecurity and poverty in the region. It operates within the framework of CCADP Pillar 4 which has the objective of enhancing the livelihoods of African farmers and pastoralists.

3.8.2 Specific Objectives

The objectives of CCARDESA as contained in paragraph 3.1 of its Governance Manual are:

(i) To coordinate and promote collaboration among regional and National Agricultural Research and Development Systems (NARS) through regional and international cooperation;

(ii) Establish and strengthen institutional platform for regional farmer participation in agricultural R&D;

(iii) To facilitate the exchange of information and technology among the SADC regional agricultural R&D institutions;

(iv) To promote partnerships in the SADC region between public, private, civil society and international organizations in agricultural R&D;

(v) To improve agricultural technology generation, dissemination and adoption in the region through collective efforts, training and capacity building; and

(vi) To strengthen national agricultural R&D institutions by mobilising human, financial and technological resources to implement and sustain demand-driven activities.

3.8.3 Expected Outputs

The expected outputs of CCARDESA as an effective SRO are:

(i) Coordination of collaboration among regional and NARS through regional and international cooperation achieved;

(ii) Institutional platform for regional farmer participation in agricultural R&D established and strengthened;

iii) Exchange of information and technology among the agricultural R&D institutions in the region facilitated

iv) Partnerships in the SADC region between NARS, public, private, civil society and international organizations in agricultural R&D enhanced

v) Improved agricultural technology generation, dissemination and adoption in the region through collective efforts, training and capacity building.

vi) National R& D institutions strengthened through mobilisation of human, financial and technological resources to implement demand-driven regional R&D activities

3.8.4 Approaches and Activities

The approach to implementation of this Thematic Area and the activities required to achieve the expected outputs mentioned above are illustrated in Table 3.10.

Table 3.10. Approach to Implementation and Activities for Thematic Area 5: Establishment and Strengthening of CCARDESA as an Effective SRO.

Approach	Activities
1. Strengthening of CCARDESA Governance	1. Convene CCARDESA Stakeholder General Assemblies at regular intervals 2. Hold regular CCARDESA Board meetings
2. Strengthening of CCARDESA institutional capacity	1. Recruit key CCARDESA staff 2. Establish CCARDESA Management systems 3. Develop institutional operational plans 4. Procure fixed and operational assets.
3. Development of strong technical links	1. Develop strong technical links with FANR, NARS in Member States, other SROs in SSA, FARA, IARCs and other multi-lateral agencies.
4. Resource mobilisation	1. Mobilise resources and endowments from ICP and other sources. 2. Represent CCARDESA at strategic regional and global meetings 3. Held regular consultation meetings with and between ICPs involved with CCARDESA

3.8.5 Key Stakeholders

The key stakeholders in CCARDESA's activities shall be the smallholder farmers of the southern African region whose representatives have been consulted in identifying the priority commodities and activities as enunciated in this MTOP. In view of their critical importance, CCARDESA will continue to monitor their needs and aspirations, particularly in view of changing external situations such as climate, input and output prices, markets, information and communication technologies and the need for region-wide knowledge sharing. Its other stakeholders will constitute the NARs, in their entirety, i.e. encompassing research institutions, extension/advisory services, academic institutions and the private sector, SADC FANR, other SROs in SSA, FARA and IARCs. CG Centres and Co-operating partners will also constitute vital stakeholders with whom CCARDESA will liaise with very closely as it operationalises this MTOP and rolls out its programmes and projects.

3.9 CROSS-CUTTING ISSUES

3.9.1 Overview

There are a number of cross cutting issues that influence agricultural productivity in terms of farmer organizational capacity, generation of new technologies, advisory service provision and agricultural education systems, and institutional service delivery of R&D activities. Poverty, Gender, Human health and nutrition, climate change, environment, on-farm energy and R&D policy are such major issues that cut across all the Thematic Areas and sub-projects. Gender roles and the impact of HIV/AIDS are important in determining farm level agricultural productivity and require specialized responses from the NARS in the region. Implementation of activities and all other R&D projects will therefore take into account and mainstream the important cross-cutting issues of gender, health and nutrition, poverty, climate change and environment.

3.9.2 Gender

3.9.2.1. Rationale

Gender specific roles in agricultural production and marketing are common among smallholders within the SADC region. Women often have different tasks or are even involved in different income generating activities than men. Services and interventions that lessen women's tasks and improve their labour productivity and income generating capacity need to be promoted because they have the potential for enhancing agricultural productivity and household wellbeing. It will also be essential during sub-project formulation and implementation to strengthen the knowledge and

skills of the NARS in terms of how to determine gender specific needs, services and opportunities and to develop technologies that address these needs.

3.9.2.2 Specific Objectives

The specific objectives are to:

(i) Promote services and interventions that lessen women's tasks and improve their labour productivity (especially labour saving technologies) and income generating capacity;

(ii) Strengthen knowledge and skills of the NARS in determining gender specific needs, services and opportunities;

(iii) Strengthen the knowledge and skills of the NARS to develop technologies that address gender specific needs, services and opportunities.

3.9.2.3 Expected Outputs

i) Increased availability of services and interventions that lessen women's tasks and improve their labour productivity (especially labour saving technologies) and income generating capacity;

(ii) Enhanced knowledge and skills of the NARS in determining gender specific needs, services and opportunities; and

(iii) Improved knowledge and skills of the NARS to develop technologies that address gender specific needs, services and opportunities.

3.9.2.4 Approach and Activities for implementation

Areas where CCARDESA will focus on at the regional level are summarized in Table 3.11 and will include:

(i) A review of the gender situation in agriculture in the SADC Member States. The findings will be used to develop training and advocacy programmes on gender in agricultural R&D as appropriate for individual NARS;

(ii) Advocacy and capacity building on gender awareness within the NARS; and

(iii) Workshops, meetings, exchange visits and dissemination of relevant information on best practices in addressing gender issues in technology generation and service provision.

Table 3.11. Approach to Implementation and Activities for Gender

Approach	Activities
1. Promote equal participation of men and women in agriculture in the SADC member states	1. Conduct a review of the gender situation in agriculture in the SADC Member States. 2. Convene a workshop to review study findings 3. Develop training and advocacy programmes on gender in agricultural R&D as appropriate for individual NARS 4. Conduct capacity building / training on gender awareness within the NARS. 5. Promote advocacy on gender awareness within the NARS
2. Facilitate information dissemination on gender mainstreaming in regional R&D activities.	1. Conduct workshops, meetings, exchange visits and dissemination of relevant information on best practices in addressing gender issues in technology generation and service provision

3.9.2.5. Sub-projects development

The Grant Management Unit (GMU) in collaboration with the review and appraisal experts will ensure that gender issues are adequately addressed as necessary through careful screening of all sub-project proposals before their final approval and release of sub-project funds. The sub-project screening process will also require that each sub-project proposal has a logical framework and an M&E strategy which sufficiently mainstream the gender issues in order to assess the impacts and draw lessons learnt.

3.9.2.6 Key Stakeholders

CCARDESA will collaborate with the Gender Unit of the SADC Secretariat in all regional activities relating to gender and HIV/AIDS. Other regional networks such as FANRPAN will also be involved in specific studies and policy analysis. Areas of collaboration will include advocacy, training for capacity building of the NARS, developing gender and HIV/AIDS checklists for screening sub-project proposals, and identifying appropriate gender and HIV/AIDS indicators both in the CCARDESA M&E system and in the logical frameworks for sub-project proposals.

3.9.3. Health and nutrition

3.9.3.1 Rationale

The impact of HIV/AIDS and nutrition is being felt throughout the agricultural systems within the SADC region[5]. Because HIV/AIDS affects the most productive age group, it is having a devastating impact on agricultural labour and agricultural service providers in the SADC region. The NARS in SADC have lost professional staff, with the disease reducing the number of scientists and extension agents. Likewise, the death of productive adults has left many villages in the SADC region with fewer experienced farmers and a large share of malnourished children and under-employed or unemployed young adults. The reduced availability of adult labour and skills also creates a greater burden on the family, leaving the females as widows with limited income sources, as resources are diverted into caring for the unwell.

Studies will be commissioned to synthesize the extent of nutrition intake and determine appropriate intervention measures to prevent and mitigate the effect of HIV/AIDS, high stunting

[5] Food consumption has been found to drop by 40 percent in homes afflicted by HIV/AIDS; globally, Southern Africa is the region most affected by the pandemic. AIDS has killed around 7 million agricultural workers since 1985 in the 25 hardest-hit countries, mostly in east and southern Africa, where AIDS-related illnesses could kill 16 million more before 2020, and up to 26 percent of their agricultural labour force within two decades (World Bank, World Development Report, 2008).

rates and malnutrition in Southern Africa. New production technologies such as “labour saving technologies” are needed that exert less demand on household labour and promote the production and consumption of more balanced diets in rural households.

3.9.3.2 Specific Objectives

The specific objectives to address the above challenges include to:

i) Develop regional measures to prevent malnutrition;

ii) Undertake measures to prevent and mitigate the effects of HIV/AIDS in Southern Africa;

iii) Contribute to better nutrition through development and dissemination of technologies

3.9.3.3 Expected Outputs

i) Regional measures to prevent malnutrition developed

ii) The effects of HIV/AIDs in Southern Africa reduced.

3.9.3.4 Approach and Activities for implementation

Key areas where CCARDESA will focus are summarized in Table 3.12 and will include:

i) Regional study to identify gaps within national systems and develop strategies to build human capital through joint activities or training;

ii) Workshops, meetings, exchange visits and dissemination of information on best practices in addressing HIV/AIDS and nutrition issues in technology generation and service provision;

iii) Coordination of the development of labour saving technologies/strategies, including dissemination of successful examples of the use of appropriate tools or practices, and promotion of value adding crops for HIV/AIDS affected households.

iv) The study commissioned by CCARDESA in 2012 gives a detailed description of the specific activities that need to be considered along commodity value chains in crops, livestock, fisheries and forestry in order to enhance food and nutrition security among HIV/AIDS affected households . These will be considered in developing and implementing sub-projects as well as in information dissemination and advocacy; and

v) Close collaboration with on-going regional and national nutrition programmes, and draw on these lessons for scaling-out.

vi) Development and outscaling of technologies that improve nutrition

Table 3.12. Approach to Implementation and Activities for Health and Nutrition.

Approach	Activities
1. Support and participate in regional R&D initiatives to prevent and mitigate the impacts of HIV/AIDS	1. Conduct a regional study to identify gaps within national systems 2. Closely collaborating with on-going regional and national HIV/AIDS programs, and draw lessons on these for scaling-out 3. Develop strategies to build human capital through joint activities or training.
2. HIV/ AIDS awareness and mainstreaming	1. Conduct workshops, , meetings, exchange visits and dissemination of information on best practices in addressing HIV/AIDS in technology generation and service provision 2. Facilitate sharing of information, on best practices 3. Promote cultivation and value addition to crops for HIV/AIDS affected households 4. Coordinate the development of labour saving technologies/strategies
3. Nutrition studies, awareness and mainstreaming	1. Support studies to determine nutritional status for various local foods 2. Synthesize study results and provide indicators for implementation 3. Create awareness through workshops and media campaigns

3.9.3.5. Sub-projects development

The Grant Management Unit (GMU) in collaboration with appraisal experts will ensure that *Health and nutrition* issues are adequately addressed as necessary through careful screening of all sub-project proposals before their final approval and release of sub-project funds. The sub-project screening process will also require that each sub-project proposal has a logical framework and an M&E strategy which sufficiently mainstream the *Health and nutrition* issues in order to assess the impacts and draw lessons learnt.

3.9.5 Climate Change and Environmental issues

3.9.5.1 Rationale

Climate smart agriculture and Environmental issues are drawing increasing attention globally. In recent years, attention has focussed on climate change, the production and use of bio-fuels, and the use of biotechnology in the development of genetically modified crops and livestock. Agriculture in sub-Saharan Africa is the driver of deforestation and degradation, with Greenhouse Gas (GHG) emissions from agriculture, deforestation and forest degradation accounting for 30 per cent of emissions. It is estimated that agricultural emissions are likely to increase under a business-as-usual scenario.

To date, there has been very little serious attention to promote adaptation strategies for climate change and the other environmental issues in the SADC region, in terms of the development of the science, adaptation measures and harmonised regional policy. Compared with other regions of the developing world, the SADC region has also not benefited from investment in environmentally-friendly technology from developed countries under the Clean Development Mechanism. There is therefore need for a major paradigm shift towards development of agricultural technologies for coping, mitigation and adaptation to climate through developing and promoting husbandry practices that contribute to climate smart agriculture principles and environmental sustainability.

3.9.5.2 Specific Objectives

The following specific objectives will be undertaken to contribute to the understanding of climate change and other environmental issues in the region and to the development of resilience/mitigation strategies, technologies and husbandry practices that contribute to climate smart agriculture and environmental sustainability. These objectives will include to:

i) Support development of climate resilience strategies and technologies

ii) Promote technologies for sustainable utilisation of natural resources

iii) Facilitate information sharing and dissemination on environmental issues

3.9.5.3 Expected Outputs

i) Development of climate resilience strategies and technologies supported

ii) Sustainable utilisation of natural resources promoted

iii) Increased awareness on environmental issues

3.9.5.3 Approach and Activities for implementation

In general climate change adaptation options relate to improvement of management, such as:

(i) improved forest management by reducing deforestation, degradation and de-vegetation,

(ii) improved crop and grazing land management through improved agronomic practices, nutrient use, tillage practices and residue management, and

(iii) conservation, including restoration of organic soils that are drained for crop production, and restoration of degraded lands.

CCARDESA will contribute to the understanding of adaptation scenarios to climate change and other environmental issues in the region by supporting studies and sub-projects and sharing of information through workshops and meetings. The activities are summarized in Table 3.13

Table 3.13. Approach to Implementation and Activities for Climate Change and Environment

Approach	Activities
1. Support development of climate resilience strategies	1. Fund studies that will provide scientific evidence and greater understanding on benefits and risks from the production and use of bio-fuels and genetically modifies crops and livestock 2. Support studies that will identify the main agricultural and forestry activities and practices and adaptation strategies 3. Finance sub-projects that promote the uptake of best practices (e.g. organic, biodynamic, permaculture and related sustainable farming practices help to mitigate and reverse the effects of global climate change).
2. Promote sustainable utilisation of natural resources	1.Support studies which prevents environmental degradation through soil erosion 2. Support studies that identify measure to improve water quality in agriculture 3. Support initiatives on sustainable utilization of natural resources.
3. Facilitate information sharing and dissemination on environmental issues	1. Support workshops, meetings, exchange visits, and collection and dissemination of information on environmental issues of climate change, biotechnology and bio-fuels

3.9.5.4. Sub-projects development

The Grant Management Unit (GMU) in collaboration with the review and appraisal experts will ensure that *Environmental* issues are adequately addressed as necessary through careful screening of all sub-project proposals before their final approval and release of sub-project funds. The project screening process will also require that each project proposal has a logical framework and an M&E strategy which sufficiently mainstreams the *Environmental* issues in order to assess the impacts and draw lessons learnt.

3.9.5.5. Key stakeholders

The key stakeholders with regard to environmental issues are smallholder farmers, NARS, the private sector, natural resource management organisations, relevant ministries in governments and NGOs. These stakeholders will be consulted periodically so that CCARDESA can remain vigilant and informed about environmental issues, and incorporate them into its sub-projects. Agriculture is receiving increasing attention as a result of its contribution to environmental problems (e.g. water quality and deforestation with regard to climate change, eutrophication of water systems) and its potential to contribute to both adaptation to, and mitigation of, climate change. Not surprisingly, there has been a call for the adoption of “climate smart” agriculture, a development that CCARDESA will monitor and advocate for.

3.9.6 R&D Institutional reform and advocacy

3.9.6.1 Rationale

Agricultural research and advisory services in many countries in the SADC region are largely the preserve of the public service institutions with specific legal mandate to set the priorities and carry out R&D activities. While some institutions within the NARS (*e.g.* agricultural NGOs, universities, the private sector, and farmer organisations) can make a significant complementary contribution and may have certain comparative advantages in terms of skills and resources, they often do not have the mandate to contribute to the setting of the R&D agenda, to carry out research, or to provide advisory services.

In order that CCARDESA achieves its objectives, a new way of doing business will be necessary to allow meaningful implementation of the FAAP principles of effective stakeholder participation and consultation, pluralism and subsidiarity in the setting of the R&D agenda as well as implementation of development initiatives within the individual NARS. For these FAAP principles to be adopted, policy reforms and advocacy will be necessary in virtually all the NARS so as to broaden their mandates, responsibility and accountability and to give formal recognition of the roles of the different stakeholders and their contributions. Therefore, facilitating of sound policy making and policy advocacy will be at the core of CCARDESA. Establishing appropriate mechanisms for inputs to be made by farmers, researchers, extension agents and other stakeholders to influence the formulation and implementation of policies will be critical to ensuring the development of appropriate R&D policies.

Advocacy for R&D is of vital importance to national and regional support for agricultural R&D and hence its contribution to the development of both small-scale and commercial agriculture. Without strong advocacy for agricultural R&D, it will receive little or no support in the policy making and budgetary processes of national governments, a situation that already prevails with several governments having failed to honour their commitments to agriculture. As the newly formed regional SRO which was widely called for by all stakeholders and strongly supported by national governments and SADC, CCARDESA, working in collaboration with its stakeholders and through the correct channels, is well positioned to advocate for increased support to agricultural R&D throughout the region.

3.9.6.2 Specific Objectives

The specific objectives of CCARDESA with respect to R&D policy and advocacy are to:

(i) promote and advocate for institutional reform and change processes that will contribute to a new way of doing business and achieving its objectives; and

(ii) support capacity building of national R&D systems so as to enable them to undertake demand-driven reforms of their R&D programmes.

3.9.6.3 Expected Outputs

i) Improved advocacy for institutional reform to contribute to the new way of doing things

ii) Enhanced capacity for national R&D systems to undertake demand driven R& D reforms.

3.9.6.4 Approach and Activities for the Implementation

CCARDESA will promote and advocate for institutional reform and change processes that will contribute to a new way of doing business and achieving its objectives. As the NARS move towards developing more pluralistic, market oriented, and farmer demand-driven research and innovation systems under this Operational Plan, they will require outside knowledge or specialized assistance to facilitate institutional development or change processes. CCARDESA will therefore support capacity building to national systems so as to enable them to undertake demand driven reforms for their R&D programmes. Policy and advocacy activities are summarized in Table 3.14 and will include the following:

1. A situation analysis in PY1 of research planning, management and funding in the SADC Member States. The findings will be used to develop training and advocacy programmes promoting institutional reform and change management in NARS, and to promote effective governance of the R&D.
2. Advocacy and capacity building for national systems on how to reform research and advisory services, and conducting training programmes to support national systems by bringing in capacity from the region and elsewhere to assist in institutional strengthening.
3. Development of projects to pilot activities likely to contribute positively to institutional reform.
4. Workshops, meetings, exchange visits and dissemination of relevant information on institutional reform to promote sharing of experiences between NARS in the different Member States.

Table 3.14. Approach to Implementation and Activities for R&D policy and advocacy

Approach	Activities
1. Undertake regional analysis to identify agricultural R&D policy gaps, challenges and opportunities	1. Carry out a situation analysis of research planning, management and funding in the SADC Member States in PYI. 2. Develop training and advocacy programmes promoting institutional reform and change management in NARS based on the findings. 3. Support sub-projects to pilot activities likely to contribute positively to institutional reform based on the study findings,
2. Strengthen/ build capacity for advocacy and institutional reform	1. Undertake advocacy and capacity building for national systems on how to reform research and advisory services 2. Conduct training programmes to support national systems by bringing in capacity from the region and elsewhere to assist in institutional strengthening
3. Facilitate information sharing and dissemination	1. Support workshops, meetings, exchange visits and dissemination of relevant information on institutional reform to promote sharing of experiences between NARS in the different Member States
4. Advocate for policy and financial support for agricultural R&D among national governments	**1.** Publicise widely the achievements and impact of R&D 2. Undertake active campaign for the policy and financial support of the NARS in the region 3. Utilise CCARDESA's profile and recognition to actively network with development agencies, donors, foundations and NGOs so as to get financial and other support for R&D

3.9.6.4. Sub-projects development

The Grant Management Unit (GMU) in collaboration with the review and appraisal experts will ensure that R&D policy and advocacy issues are adequately addressed as necessary through careful screening of all sub-project proposals before their final approval and release of sub-project funds. The sub-project screening process will also require that each sub-project proposal has a logical framework and an M&E strategy which sufficiently mainstream the R&D policy and advocacy issues in order to assess the impacts and draw lessons learnt.

3.9.6.5 Key Stakeholders

CCARDESA will collaborate with institutions in the region that deal with agricultural policy, such as FANRPAN and ReSAKSS-SA, to carry out specific research policy studies. It will also collaborate with government ministries (Agriculture, Economic Planning and Finance) and other key

stakeholder organisations to advocate for institutional reforms that will promote pluralism and greater stakeholder participation in the governance of agricultural R&D. R&D policy must ultimately address the needs of smallholder farmers who are the main beneficiaries and stakeholders of CCARDESA and its counterpart NARS. While the co-operating partners do not constitute key stakeholders, their views should nonetheless be taken into consideration.

The key stakeholders as regards to advocacy are NARS, smallholder farmers' organisations, the private sector and NGOs. It is these groups who are well positioned to advocate for changes to agricultural policy and the research agenda.

4. MECHANISMS FOR PROCESSING, FUNDING AND MANAGING PROJECTS

4.1. Mechanisms for processing projects

CCARDESA's programmes are designed to provide mechanisms and processes through which participating institutions can be facilitated to work together and pool their resources to undertake joint actions on agricultural R&D issues of common interest through a grant system. Financing for CCARDESA-supported activities will be channelled in two ways:

(i) Agricultural productivity and capacity building grants will be used as the primary means for financing activities under all the Thematic Areas and will form the bulk of expenditures under this Operational Plan

(ii) Core funding will be used by CCARDESA to enable it to fulfil its role as the coordinating body for raising regional agricultural productivity

The primary aim of grants will be to make regional R&D as well as related training and capacity building, more stakeholder-driven, cost-effective, pluralistic and efficient by fostering and strengthening partnerships in the development and implementation of client-driven collaborative research and development networks and sub-projects. An overriding principle of the grant system will be that "funds for projects follow the regional priorities and performance in R&D implementation". Thus, research teams that are successful in resolving core regional constraints will, if requested and appropriate, be provided additional resources to enable them to develop their capacities further to address regional priorities.

In view of the diverse capacity of the region's NARS, there will be some R&D issues that can better be addressed by specific institutions or expertise. The traditional competitive grant system may not be appropriate in such situations. Therefore, four grant systems for projects are envisaged to carter for different circumstances. All the four grant systems have an element of competition:

a) The traditional competitive grants;

b) Commissioned grants – to support specific priority studies where traditional competitive grants will not be appropriate;

c) Institutional capacity building, partnering and nurturing grants – to support and strengthen weak institutions so as to enable them to participate in CCARDESA activities; and

d) Innovation grants – to support the testing of innovative approaches, methodologies and policy interventions and advocacy that it is felt, could eventually be scaled up and scaled out.

Table 4.1 summarises these grant systems together with the criteria and eligibility of the applicants for each grant

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Table 4.1: CCARDESA Grant Systems, Operational Criteria and Eligibility

1. AGRICULTURAL PRODUCTIVITY GRANTS			
Grant System	**Examples of use**	**Operational criteria**	**Eligibility**
Competitive grants			
Support for the generation of new knowledge on specific regional priorities or lines of work across Thematic Areas	• Specific regional priority activities (research, extension, education, farmer empowerment) • Documenting examples of good practice with farmer empowerment, research for development, advisory services, education, ICT or communications	• Should demonstrate partnerships and linkages internally or externally • Activity should be led by a SADC region based institution (public or private). CGIAR centres and other international institutions to partner • Sub-contracting allowed but lead institution is accountable • Awards based on proposals scrutinised by CCARDESA and approval by the Board • Grant used primarily for operational activities but some institutional support allowed • Cost sharing required • Can be awarded for multi-year activities but continued financing subject to annual reviews to assess performance against agreed criteria	Open to the full range of CCARDESA stakeholders (farmers, private sector, public sector, international, regional and civil society institutions)
Commissioned grants			
• To support specific short term studies/work across the range of CCARDESA Thematic Areas • Used where competitive grants are not considered to be appropriate mechanism	• Exploratory work and identification of potential initiatives or programmes • National and regional workshops and training events	• Awards based on proposals from short lists of selected institutions. Proposals scrutinised by CCARDESA and approval by the Board. • Cost sharing required	Specific partner institutions
Institutional capacity building, nurturing and partnering grants			
• To strengthen capacity of institutions, partnerships and networks • To enable CCARDESA to complement the work of other institutions in the region, e.g. CGIAR, AGRA	• Support to networks to contribute to CCARDESA activities • Funds for outsourcing management of activities to other regional institutions • Support to institutions to facilitate their participation in a specific partnership activity (a type of nurturing grant/seed money) • Staff exchanges (visiting	• Must support a regional activity (can support certain national activities with potential regional benefit) • Should demonstrate regional partnerships and linkages • Cost sharing • Renewable subject to annual reviews to assess performance against agreed criteria • Nurturing participating weak institutions	Open to the full range of CCARDESA stakeholders

	experts, scientists)		
Innovation grant			
• Testing new approaches and methodologies at national level with potential for eventual scaling up and scaling out • To support studies on national policy reforms and policy advocacy	• Supports for national systems in piloting innovations • Support for national systems in taking the first steps in implementing institutional and policy reforms Support for "Rapid results activities" which can show quick success	• Grants generally small and short term (12 – 18 months) • Grant activity should demonstrate or generate lessons for other countries in the region	Open to the full range of CCARDESA stakeholders
2. CORE FUNDING FOR FINANCING CCARDESA			
• To establish greater institutional capacity for regional coordination and collaboration • Funds for CCARDESA for its operational activities	• Staffing and administrative costs of CCARDESA • National and sub--regional workshops and training events • Specific technical assistance to national systems provided by CCARDESA staff and consultants • Communication and knowledge dissemination activities for the region	• Activities based on feedback from SADC MAPP networks • Activities identified and based on approved annual work programme for CCARDESA Follows standard procurement procedures with approval by CCARDESA Board and Management	For use only by CCARDESA

Allocation of grants will be based on specific Calls for proposals (Calls) and/or invitations for expressions of interest (IEIs) to cooperating institutions or Consortia to address a particular sub-regional agricultural R&D issue or constraint. A Grant Management Unit (GMU) within the CCARDESA Secretariat will be responsible for:

(i) Preparing and issuing Calls and IEIs for sub-project proposals;

(ii) Processing proposals received; and

(iii) Overseeing implementation of approved sub-projects for grant funding.

In most situations, a Call (or IEI) issued by CCARDESA will first request submission of Concept Notes (CNs), the submission of detailed final full project proposals (FPs) will be requested only from those Consortia or institutions whose CNs had been selected after objective screening and evaluation. The entire process for both Calls and IEIs is kept competitive by ensuring that at least two qualified institutions or Consortia will be requested to submit detailed and budgeted proposals for technical and financial evaluation. In the exceptional cases where there is extremely limited capacity to work on a particular priority problem, grant-financed projects could also be directly commissioned on a “sole source” basis to a single service provider or Consortium with a well-proven track record. Sole-source service providers will be transparently selected. Such projects will still be subject to the normal appraisal and grant approval procedures. Details of the processing projects are given in the CCARDESA’s Grants Manual. Concept notes for specific projects developed to address areas identified as quick wins under different themes will be assessed following procedures described in the Grants Manual.

4.2. Mechanisms for funding projects

Grant funding of projects will be allocated through transparent competition on the basis of quality, efficiency and other specific criteria. All grant-financed projects will undergo the same independent evaluation and approval process and will be subject to similar implementation, back-stopping and supervision arrangements, including rigorous M&E procedures. The region’s NARS, and farmer organisations will be the main competitors for, and beneficiaries of the grant funding under this MTOP.

All CCARDESA-funded grants will include an element of “cost-sharing” by the participating institutions. The major use of CCARDESA grant funds is expected to be for the financing of operational costs (excluding regular staff salaries), travel, training and short-term technical assistance. In addition, limited provision will be made for the financing of essential equipment, transport and institutional/ organizational “overheads”, including M&E activities for each project. Civil works and other capital expenditure will normally not be provided for. The design and operations of the grant system are described in a Grants Manual, and are clearly laid down to ensure that NARS, and farmer organisations will be the primary beneficiaries of the financial resources and capacity-building support.

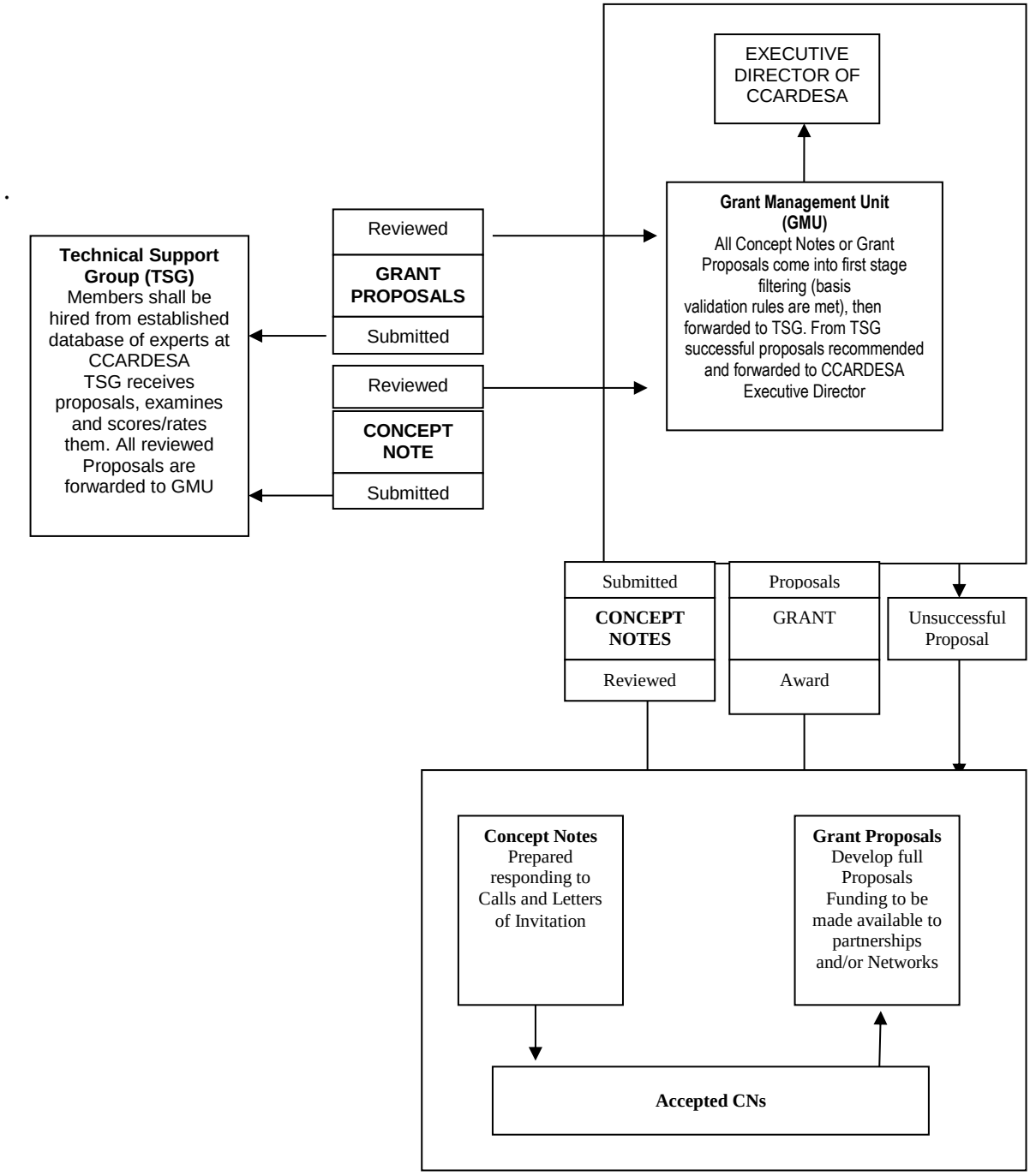


Figure 4.1: CCARDESA framework for grant project review process

4.3 Mechanisms for managing projects

CCARDESA will use a system of research grants to support agricultural research activities in the region, the details of which have been elaborated in its Grants Manual. There shall be two categories of grants: commissioned grants and competitive grants. The commissioned grants shall be used in situations where the competitive grants are not appropriate for the kind of output required or where the situation calls for the kind of grants that are partially targeted at certain institutions. However, these will form a smaller part of the grants offered by CCARDESA; the majority will be competitive grants.

The CCARDESA research grants will be managed in a transparent manner using well established systems. The competitive grants in particular will utilize experts from the region and use a rigorous system to evaluate the concept notes and proposals, before awarding a research grant to the best rated proposal(s). A summary of the governance and management of the CCARDESA grants is given below.

4.3.1. Grant System Governance and Management

The governance structure associated with the evaluation of projects is as follows (see Figure 4.1):

(i) The Executive Director of CCARDESA will be charged with governance, policy guidance and strategic oversight of the grant system. Together with the senior management of CCARDESA, the Executive Director will be responsible for (a) identifying service providers to respond to an expression of interest to implement sole-source contracts and (b) to approve project proposals for grant funding based on the criteria in CCARDESA Grants Manual.

(ii) A Technical Support Group (TSG) will be established to review, evaluate and grade technically and financially the project proposals submitted in response to Calls and IEIs. The TSG will be a database of high profile experts of the respective CCARDESA Thematic Areas. Individual experts from the database will be hired on part-time basis as "consultants" by CCARDESA to support the work of the Grant Management Unit (GMU) in their particular areas of expertise

(iii) A Grant Management Unit (GMU) within CCARDESA, will be tasked to take responsibility for (a) grant system management, including overall planning, budgeting and financial management, (b) organizing and processing the Calls and IEIs, (c) hiring of consultants to undertake approved studies and workshops, in accordance with procurement rules and procedures contained in the CCARDESA Procurement Manual, and (d) supervising the implementation of all approved grant-financed sub-projects, studies and workshops and overseeing their orderly completion. The GMU will comprise the Programmes and Grants Manager in CCARDESA, the M&E Coordinator, and Thematic Coordinators who are expected to lead the preparation of Calls or IEIs in their areas of expertise, and to identify specific studies and workshops under their Thematic Areas. The GMU will also source expertise in crops, livestock, NRM and economics as necessary from SADC-FANR directorate

4.3.2. Project Evaluation and Commissioning Process

Figure 4.3 illustrates the general features of the process of a Call for sub-project proposals (CfP), the preparation of Concept Notes (CNs) and Full Proposals (FPs), sub-project screening, evaluation, approval, launch and implementation. A Call will be widely distributed (or an IEI issued to a limited number of selected certified service providers). After submission of the CNs, there would normally be three stages:

- First, all CNs will be screened by the GMU on their "responsiveness" to the particular Call or Invitation.

- Second, Concept Notes that meet the grant system funding will be submitted to the Technical Support Group (TSG) for evaluation. Thereafter, on the recommendation of the TSG, the GMU will invite the applicants of shortlisted CNs to prepare full proposals; and
- Third, full proposals will be submitted to the GMU for evaluation by the TSG and the best-rated proposal will be approved by the Sub-project Approval Committee (SAC) for the grant system funding by the Executive Director of CCARDESA and his senior management.

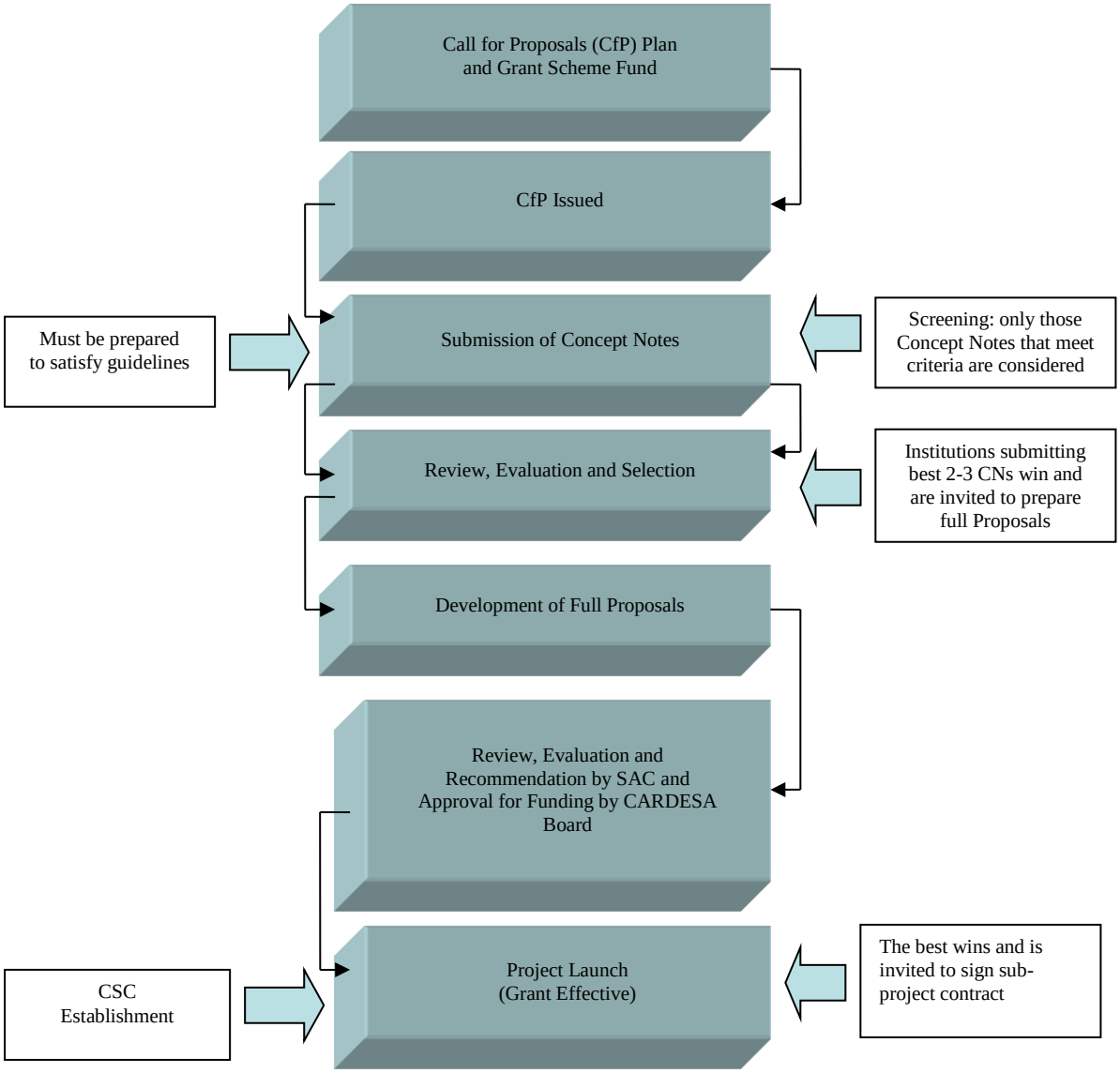


Figure 4.2: The Grant Screening, Evaluation, Selection and Launch Process

Subject to the pre-conditions set in the draft Contract, an approved project and the initial disbursement of funds for implementation (according to a schedule) will take place immediately after signature of the contracts for implementation, and for large projects with a budget above a certain value determined by the CCARDESA Executive Director, and written confirmation of the formal establishment of the Consortium Steering Committee (CSC) by the lead institution in the

project network. The project contract will be signed by the Executive Director of CCARDESA and by the authorised representative of the lead and partner institutions.

Many of the activities in the first two years of this Operational Plan will be commissioned studies, which will provide the necessary groundwork and training of NARS and farmer organisations in developing and implementing projects. Worldwide experience with grant systems shows that it takes time to operationalise a competitive grant system (CGS). Training and capacity building of potential applicants are of crucial importance to successful implementation and this also takes time and concerted effort.

Successful CGS usually need about one year of preparation time to set up the institutional mechanisms as shown in Fig 4.2, to establish consensus on programme objectives and priorities, design the management structure, and to prepare a programme proposal with the required budgets. Eight more months are usually required to complete the process in Fig 4.2. Another two months are necessary for contract negotiations with the grant winners and making effective arrangements (e.g. setting up bank accounts) before the first disbursements can be made. Due to the lengthy process involved in screening and awarding projects, only a limited number of projects can be expected to be launched before PY3, as shown in the Operational Plan budget.

5. MONITORING AND EVALUATION

5.1 Monitoring and Evaluation Arrangements

CCARDESA will develop and implement an effective and comprehensive M&E system. The system so developed will focus on the M&E requirements of CCARDESA as an institution focussed on Research and development (R&D) and on M&E requirements for sub-projects so that the objectives of CCARDESA and this Operational Plan are achieved. In line with this, the M&E System will define the data collection process requirements and usage including reporting requirements (format, frequency and distribution). The M&E system will collect relevant information and data related to the performance of the five Thematic Areas, namely: (a) Farmer empowerment and market access (b) Research and technology generation and farmer demand-driven advisory services (c) Knowledge, information and communication (d) Institutional development and capacity building, and (e) Establishment of, and strengthening of CCARDESA as an effective SRO. The M&E system will be an automated system that will provide information:

(i) on insights on Programmes/projects relevance, efficiency and effectiveness;

(ii) that will identify weaknesses and provide solutions on way forward; and

(iii) to provide lessons learned for replication of best practices.

CCARDESA's M&E system will generate information and data to meet the Secretariat's reporting requirements in relation to the Executive Board, the General Assembly and its stakeholder organisations. In the case of the latter in particular, the CCARDESA M&E system will be linked to other M&E systems that either have been or are being developed to address elements of CAADP Pillar IV. Under consideration will be issues associated with outcomes and results, as well as output and input level indicators. The Secretariat's M&E System will identify a learning processes need to be managed at national level. Therefore, the M & E system will serve as an important tool to provide information that will guide national programmes.

The M&E system will also use indicators of institutional capacity and reform, including measurements of improvements in financial systems, audit, and human resource management as indicated in the logical framework. Similarly it will use indicators to assess performance of sub-projects and the entire Operational Plan. In addition the role of M&E will be to support the organizational development aspects of CCARDESA. The M&E system will be designed in such a way that it will assist organisations to reflect and improve their systems. It is in the Secretariat's interest to adapt methodologies and tools that can capture and quantify issues in processes and activities of projects as part of a viable and effective M&E system. The M&E system will collect data that will be segregated in terms of gender**.**

The Secretariat seeks to establish baseline and target indicators at each level, based on evidence generated through survey instruments and desktop reviews, to inform the process of determining realistic 'target indicators'. This will be done through baseline studies. Baseline studies will also be required for all sub-projects so as to (i) assess the situation prevailing prior to the implementation of a sub-project, and (ii) form the basis for M&E and impact assessment. Depending on the nature of the sub-project, baseline studies shall include all quantitative and qualitative variables which can be tracked and monitored as the sub-project progresses, and which can, be used to assess the impact of, and evaluate the sub-project. The Secretariat's M&E system seeks methodologies that clearly identify the contributions of indirect activities to the achievement of outcomes. For example an Outcome Mapping exercise - a knowledge-based user-driven methodology that can be adapted to evaluate on-going and completed activities. This evaluative tool is informed by the principles of full team participation and iterative learning, throughout the life span of a programme. CCARDESA indicators will be incorporated in the M&E Results Framework used for Secretariat reporting and programme management purposes, as well, as for CAADP Pillar IV activities. These indicators address Research and Development (R&D) activities.

5.2 Approach to Monitoring

CCARDESA Secretariat will be responsible for monitoring of CCARDESA activities through annual work plans, field visits, systematic reporting during implementation on quarterly and annual basis (including M&E related reports/updates), and periodic stakeholders meetings. To this effect, Monitoring Plans will be prepared by the Secretariat. Decentralized monitoring of results will be carried out by stakeholder institutions implementing CCARDESA projects. This will ensure that monitoring is not necessarily the sole responsibility of a specialist unit running in parallel to implementation, but is mainstreamed within implementation and reporting processes of the respective institutions. Each project will therefore be required to conduct a baseline study and prepare its results framework and the monitoring arrangements for capturing data on the results indicators and monitoring plan. These baseline study and results frameworks for projects will contribute to the overall M & E and impact assessment framework. The M&E Unit at CCARDESA will be responsible for compiling the overall results and monitoring of the Programme's intermediate outcomes.

5.3 Approach to Evaluation

Evaluation of CCARDESA and the projects will make use of the SADC and CCARDESA commissioned priority setting studies and other studies and workshops in PY1 to develop a baseline. At specific points in time, purposely designed studies and reviews will be carried out to assess outcomes (both expected and unexpected), effectiveness, efficiency, long-term impact, relevance and sustainability of the interventions, and also to draw lessons for future interventions. Individual performance evaluation will be directly linked to project and organizational performance. Reviews will be carried out by projects as part of the annual planning process where progress towards achievement of objectives will be assessed and the need for corrective action during annual planning.

Therefore, CCARDESA Secretariat will prepare Monitoring and Evaluation Plans for monitoring and evaluation activities of its activities.

The Secretariat's M&E unit will collaborate with CAADP through:

- Regional Strategic Analysis and Knowledge Support System (ReSAKSS), which supports countries in the analysis and interpretation of national data and in strengthening their M&E capacity
- Other CAADP M&E staff on their programmes, projects and initiatives in the context of the IFPRI-ReSAKSS CAADP M&E framework.

6. COMMUNICATION STRATEGY

CCARDESA's is a new organization whose communication strategy is yet to be developed. Within the first 12 months of implementation of this MTOP, CCARDESA will develop its communication strategy which will serve as a route for sharing information with all interested parties and allowing for their participation in the process. The strategy will be developed with a view of ensuring that it meets the international best practice and compares favourably with the top-rated strategies of similar organisations globally.

The development process will, therefore, carry out a detailed benchmarking exercise in order to produce a communication strategy that will not only be modern enough for this new organization but will also deliver positive results for CCARDESA. The communication strategy will be closely linked to the overall strategy and objectives of the organization. This linkage is critical in ensuring that the communication enhances the image of CCARDESA and effectively contributes to the achievement of its strategic vision, mission and objectives.

It is clear that the development of a communication strategy and its subsequent approval may take up to a maximum of 12 months. During this time, CCARDESA will develop a communication plan to guide the communication activities of the institution for immediate implementation. Using this

plan, CCARDESA will inform its various target audiences (including policy makers and partners) about its programmes, purpose, achievements and value it brings to agricultural research and development in the region. Through the effective communication of CCARDESA's activities and achievements, the institution will justify its existence in the region and receive support from its stakeholders and cooperating partners. A communication specialist will be employed to lead the communication work of CCARDESA.

Since CCARDESA is new in the region, communication in the first 12 months will have a strong component of raising the visibility CCARDESA as a credible sub-regional research organization in the region. It will also present CCARDESA as a reliable partner willing to work with public and private organisations in addressing the challenges of food security and agricultural growth through supporting research in agriculture. CCARDESA will use different routes to communicate its messages to various audiences, including newsletters, posters, media releases, maintenance of up-to-date website etc., and will make careful choice of the specific medium to use for maximum outreach and impact.

7. ASSUMPTIONS, BENEFITS AND RISKS OF THE

Assumptions for successful implementation of the MTOP

The successful implementation of this MTOP can be viewed as a sequential and systematic process where:

(i) CCARDESA is initially established and gradually staffed until its full staff complement is achieved;

(ii) Operational procedures and guidelines are put in place to lay the foundation and enable CCARDESA to execute its mandate;

(iii) CCARDESA's work plan, primarily for the first 6-12 months, is followed by implementation of activities in accordance with the plan; and

(iv) CCARDESA begins to screen and support sub-projects that are in alignment with regional priorities. CCARDESA will also be required to develop its annual work plan as soon as possible.

In order for the above to be achieved, it is assumed that at the Activity level:

i) Funds planned to be provided for the MTOP by ICPs/SADC, etc., are made available in a timely manner;
ii) The funds thus provided use common and harmonised accounting, procurement and reporting procedures;
iii) Adequate human, financial and physical resources continue to be provided to the NARS, Farmer organisations and other CCARDESA partner organisations; and
iv) At the Output level, it is assumed that:
v) Lessons learned from farmers are taken fully into account in developing new technologies/ husbandry practices;
vi) Adequate (no decline in real terms) operational funds are made available to NARS/ researchers by national governments and ICPs;
vii) Turnover of qualified staff in NARS and Farmer Organisations reduced to a minimum;
viii) NARS and Farmer Organisations staff trained to be able to make effective use of ICTs;
ix) Enabling environment in place in all Member States that encourages increased private sector, NGO and other non-state actors' involvement in agricultural R&D and advisory service provision (and that these key stakeholders are sufficiently strong to take up this role); and
x) Agricultural advisory services operating effectively, encouraging adoption of new technologies/ practices by smallholders (both male and female).

At the Purpose level, which is “Improved agricultural technologies/ husbandry practices developed, made available, and adopted by farmers”, the main assumptions are:

(i) Private sector operating in an environment in which it is “enabled” to supply improved technologies, and agricultural input and output marketing services to farming community;
(ii) Relative costs and returns of crop and livestock products remain stable for foreseeable future;
(iii) Current trends in marketing and trade liberalisation maintained;
(iv) Occurrence of drought does not rise compared with recent past; and
(v) New technologies and husbandry practices are adopted by farmers.

Finally, at the Goal level, which is “increased productivity of smallholder crop, forestry, fish and livestock enterprises in the SADC region”, the main assumptions are:

i) Continued political stability and harmonious inter-country relationships in the region maintained:
ii) Agricultural production is resilient and responsive to risks and disasters, e.g. climate change, drought and floods;
iii) Farm productivity is increased, particularly given that sub-Saharan Africa is in general lagging behind other parts of the world in terms of productivity increases;
iv) Integrated ecosystems-based approaches are adopted to make smallholder farming not only more productive, but also more sustainable; and
v) A knowledge-and entrepreneurial-driven approach, combining both indigenous and modern knowledge, and a “farming as a business” approach, is engendered in, adopted and practised by small-scale farmers.

7.2 Activities: Inputs and milestones

Inputs comprise the physical and non-physical resources (i.e., personnel, equipment, etc.) and finances/budget necessary to perform the planned activities and manage the project. However, Inputs and budget figures are usually not included in the logframe matrix, but detailed in the main text of the project document. In this section, Inputs and Milestones are discussed, while budgetary issues are detailed in CCARDESA’s Financial Plan.

7.2.1 Inputs

The Inputs required for the main Activities of the MTOP are detailed in Table 7.1. They relate to the key activities that will be undertaken during the pre-implementation phase to the final impact evaluation of sub-projects.

Table 7.1. Inputs required for the main activities of the Operational Plan

Activity	Inputs
Finalisation of work plan for Jan-June, 2013 period	CCARDESA management team
Preparation of Programme document, logframe and costings	CCARDESA Programme Manager and Executive Director
Design and implementation of M&E framework and system	Technical Assistant (TA) and M&E Coordinator
Promotion of CCARDESA competitive grants scheme throughout the region	CCARDESA Executive Director, Grants Manager and contact points (i.e. NARS and Farmer Organisations) in SADC member states
Call for Concept Notes and Proposals	Grants Manager
Evaluation of Concept Notes and Proposals	Grants Management Unit (GMU), Technical Support Group (TSG) and Executive Director
Implementation of sub-projects	NARS and Farmer Organisations, working in collaboration
Monitoring of sub-projects	CCARDESA M&E Coordinator
Impact evaluation of sub-projects	External evaluators working closely with CCARDESA M&E Coordinator and grant holders

7.2.2 Milestones

The main milestones (i.e. events marking a significant new development or stage) for this operational plan are as follows:

- Full staffing of CCARDESA achieved and this MTOP is launched in accordance with finalised work plan(s) by Yr 1;
- CCARDESA secures guaranteed and long-term funding from SADC national governments, who have already pledged to support it, as well as its cooperating partners by Yr 1;
- The first round of competitive grants for sub-projects are awarded by Yr 2;
- CCARDESA's annual work plan is developed and implemented annually;
- Sub-projects supported by CCARDESA undergo impact evaluation and are unequivocally found to be making a significant contribution to its overall goal of "increased productivity of smallholder crop, forestry, fish and livestock enterprises in the SADC region"; and
- CCARDESA's sustainability strategy is operationalized and proves to be producing the intended results, thereby ensuring that CCARDESA will become an effective and sustainable organisation which is valued by SADC, all its stakeholders, as well as its cooperating partners.
- Thematic-based baselines of regional status established by Year 2
- Competitive research grant system established and functional by start of Year 2
- Efficient and improved technologies that are technically and market oriented generated and disseminated by Yr 5
- Knowledge sharing, successful ICT policies and strategies in agriculture, and market access by farmers enhanced by Yr 5
- Access to agricultural information and knowledge by farmers, extension agents and other stakeholders improved by Yr 5
- At least 15 medium competitive research grants and 2 mega-research project grants awarded by Yr 5
- Capacity building strategy for NARS and farmers organisations developed and implemented by Yr 5
- Regional networks, farmer organisations and non-state actors stakeholders supported and capacitated in agricultural research Innovation Platforms' participation by Yr 4

7.3 Economic and Financial Assessment of Benefits

CCARDESA is expected to generate substantial and sustainable financial and economic benefits. In this first phase, most of the activities will involve laying a strong market, stakeholder-driven and institutional foundation for subsequent expanded R&D investments, which will contribute to the generation of quantifiable financial and economic benefits in terms of incremental productivity and diversified increased production by participating farmers. This first phase therefore places attention on developing regional R&D priorities and activities in the major agricultural sub-sectors along value chains, which will contribute, over time, to Member State and regional agricultural and economic growth through the producers' incremental benefits which shall contribute to poverty reduction.

International standard practice for the economic assessment of agricultural research and extension investments recommends the use of representative ex-post, rather than ex-ante quantification of incremental costs and benefits of R&D investments. Consequently, the economic justification of this Operational Plan will be based largely on empirical results of extensive ex-post analysis. Ex-post analysis of agricultural research and extension in a large number of countries in

Africa and in the SADC region reveals relatively high financial and economic returns to investments, ranging between 30 – 75 per cent. A recent review by IFPRI on nearly 700 studies in the developing world gave research and extension combined averaging 43 per cent.

CCARDESA proposes to support regional R&D investments in at least two countries with supporting interventions, such as enhancing input and output market access, farmer organizations, and institutional innovations. These latter activities will ensure that the potential benefits actually materialise[6]. Accordingly, through inference, these ex-post results provide strong analytical support that CCARDESA will be able to generate incremental economic returns which are comparable, if not better than these attractive ex-post results.

The design and implementation arrangements of this Operational Plan are aimed at realizing such potential benefits. Some of the specific measures include:

(a) provisions for the CCARDESA grant funding subproject criteria to require (and provide training in) simplified ex-ante economic justification in the sub-project proposals, which will help ensure rigor in the proposals and their evaluation and approval; and

(b) a monitoring and evaluation system which will pay close attention to tracking the key milestones in benefit generation of sub-projects, providing implementation assistance, and in making reliable ex-post estimates of the sub-project's benefits/impacts following their implementation.

These actions also will facilitate the process of ensuring a good basis for and more reliable ex-ante estimates for the subsequent two 5-year phases. Effective implementation of these measures through the programme's institutional innovations, supported by appropriate capacity building efforts, will ensure a sustainable CCARDESA, from one phase to the next.

7.4 Social and Livelihood Assessment

CCARDESA is expected to generate favourable social and livelihood benefits (R&D incentives) to farmers in the region, especially smallholders, in terms of ensuring focus on smallholders, ensuring equitable distribution of benefits, transparent participatory processes which would lead to genuine empowerment of smallholders. Smallholders, especially women, dominate agriculture in the SADC region, in both local food production and production for export. CCARDESA will give close attention to social assessment criteria in the setting of SADC R&D priorities and grant-funded sub-project proposals, to ensure the specific circumstances of small-scale farmers are adequately considered. For example, it will require that the project proposals identify the farmer population which are likely to benefit directly and indirectly. Preference will be given to adaptive research which will be conducted on farmers' fields. The grant funded scheme will encourage smaller and less established farmer organizations to submit proposals, while ensuring they give adequate consideration to the social effects of their activities. Finally, the CCARDESA M&E system will include key performance indicators which measure the nature and extent of social and livelihood benefits.

7.5 Environmental Benefits

CCARDESA,s programmes are expected to contribute to the generation and use of environmentally safe agricultural technologies. The programmes will contribute environmentally friendly and sensitive agricultural practices, working through a wide range of regional stakeholder networks and organizations which will be implementing the sub-projects, and influencing the environmental standards in each of the participating SADC countries. The project criteria will require key information on environmental practices, such that CCARDESA will not approve and fund sub-projects which are deemed to have adverse environmental and social impact at the regional and national levels. It will encourage proposals which involve Integrated Pest

[6] The nature of these regional-induced incremental economic benefits is well known to be generated by "spill-overs" and "economies of scale". The WDR 2008 states that the international agricultural research centres of the CGIAR were created specifically to provide spill-overs (technologies generated in one country and shared with other countries) in many areas of technology. It is estimated that over 50 percent of all benefits of R&D are generated by such spill-overs.

Management (IPM) and soil management, which promote cost-effectiveness and sustainable use of chemicals in farming. Accordingly, the Technical Support Group (TSG) will ensure compliance through careful screening of all sub-project proposals before their final approval and release of sub-project funds. CCARDESA will also facilitate the harmonization of the use of pesticides in the SADC region.

7.6 Risks

This Operational Plan has variable and moderate risks overall. These risks and their mitigation measures are summarised in Table 7.2 below.

Table 7.2: Summary Risks and Mitigation Measures

	Main Risks	Risk Mitigation Measures	Risk Rating with Mitigation
A	**With respect to the Programme Development Objective**		
1	Delayed establishment and weak functioning of CCARDESA, and cooperation with key stakeholders breaks down or does not produce intended results	Ensure and monitor effective governance arrangements [including representative Board of Directors (BOD)] and mechanisms in Start-up stage and implementation phases of CCARDESA	Medium
		Ensure transparent and competitive recruitment process is in place to attract and retain technically competent "core" CCARDESA staff.	
2	Lack of agreement on relationship between and roles of SADC FANR and CCARDESA	Ensure appropriate design and effective implementation of activities for clear and mutually-supportive complementary relationship and roles of FANR and CCARDESA, supported by a solid MOU, close monitoring, and transparent communication. SADC representation on CCARDESA BOARD	Medium
3	Delay in developing and implementing strong pipeline of diverse stakeholder-driven sub-projects which respond to SADC R&D strategic priorities	Ensure sound design of projects builds on relevant experiences and lessons from FARA, CORAF, ASARECA, and SACCAR, and reflects SADC R&D priorities (to be updated periodically in participatory manner)	Very Low
		Provide adequate capacity building, support systems and monitoring to ensure quality submission & implementation of stakeholder-driven projects	
B	**With respect to implementation and securing intermediate outcomes of CCARDESA Strategic Thematic Areas**		
1	Inadequate and delayed funding for ensuring visible presence and value-added of CCARDESA to SADC region	Early and active involvement of likely ICPs and regional stakeholders, and finding the right balance in funding modalities to achieve the required harmonization and alignment of support from donors, Member States and other regional stakeholders	Medium
2	Rigorous standards and review mechanisms of grant-funded projects are not applied adequately and consistently	Develop and subsequently ensure sound design and consistent application of guidelines and review mechanisms of grant-funded projects	Medium
3	Use of funds is inefficient or inappropriate, and specific internal control mechanisms are deficient, and not identified and rectified in a timely and sound manner.	CCARDESA prepares Operational Manuals and interacts with key stakeholders	Low
		Internal auditor for CCARDESA is recruited with adequate experience and profile to ensure compliance with CCARDESA's operational and financial procedures by stakeholders implementing the grant-funded projects	
4	There is a delay in identifying constraints to implementation and the incremental benefits do not materialise	CCARDESA programme design and detailed design stages have devoted early attention to formulating a sound M&E system. CCARDESA will also include specialized staff for implementing this system, while also building up the capacities of participating stakeholder organizations	Medium
	Overall Risk (Phase 1)		**Medium**

8. REGIONAL AND CONTINENTAL PROJECTS

8.1 Regional Projects

Before the establishment of CCARDESA, all regional agricultural R&D projects and programmes were coordinated by SADC-FANR but all of these were relatively short and have since come to an end, except for the SADC Plant Genetic Resource Centre (SPGRC) which can be considered to be a permanent programme under the FANR Directorate. It received significant financial support from the Nordic countries for a period of 20 years, starting in 1988. The regional projects completed recently include:

- The Fund for Innovative and Regional Collaborative Projects in support of smallholder farmer development (FIRCOP) supported by the French Government
- Implementation and Coordination of Agricultural Research and Training (ICART) support by the EC
- The Land and Water Management Applied Research and Training Programme supported by the EC, and
- The SADC Seed Security Network supported by the SDC

The SPGRC is responsible for assisting in building capacity in conservation of plant genetic resources and in germplasm collection, characterisation, storage, multiplication, documentation, information sharing and training. The Centre is currently working on its financial sustainability strategy.

The relevant elements and valuable lessons learnt from these regional projects should nonetheless be incorporated into CCARDESA's activities because the knowledge and experience gained in executing these projects could be valuable to CCARDESA. Already, the competitive grants system manuals and procedures of FIRCOP and ICART have proved very useful in drafting the grants award system for CCARDESA. Secondly, it is expected that some of the research networks initiated under ICART and Land and Water Management Applied Research and Training Programme will be developed further and incorporated as part of the R&D networks under CCARDESA.

8.2 Continental Projects

Existing continental projects developed through FARA and coordinated and implemented at regional level include the following:

8.2.1 ***The Sub-Saharan Africa Challenge Programme*** (SSA-CP), which is intended to extend to 2014, promotes the Integrated Agricultural Research for Development (IAR4D) approach, drawing upon innovation and uses a systems perspective as its organising principle. The SSA-CP focuses on:

(i) delivering international public goods concerned with best practices in relation to multi-stakeholder engagement in the generation and wide-scale adoption of agricultural innovations, and

(ii) evaluating whether IAR4D works and is more cost/benefit effective relative to conventional approaches. The Programme is being implemented at three Pilot Learning Sites (PLS) covering 8 countries in the ASARECA, CORAF/WECARD and CCARDESA sub-regions.

The continental perspective of the programme means that cross-SRO evaluations can be conducted, data can be pooled across the continent and so derive lessons and identify best practices and share this knowledge among the SROs. In this way the SSA CP contributes knowledge of best practices relating to multi-stakeholder agricultural ARD approaches. After satisfactorily answering the above research issues, the SSA CP will metamorphose into a clearing house for promoting the adoption of IAR4D. This will be achieved through the creation of a

platform that will share information and knowledge concerning agricultural innovation and multi-stakeholder (partnership) engagement in agricultural R&D.

8.2.2 Promotion of Science and Technology for Agricultural Development in Africa (PSTAD)

Promotion of Science and Technology for Agricultural Development in Africa (PSTAD) is a regional project being executed by the Forum for Agricultural Research in Africa (FARA). It was launched in 2007 and is scheduled to close at the end of 2013. The programme is implemented in 34 countries with management support from three Sub-regional Organisations (CCARDESA, CORAF and ASARECA), and is funded by the African Development Bank (AfDB).

The main objective of the project is to build the African Agricultural research knowledge management capacity and support the dissemination and adoption of new and proven agricultural technologies. PSTAD has two related sub-projects namely the Regional Agricultural Information and Learning Systems (RAILS) and the Dissemination of New Agricultural Technologies in Africa (DONATA). These are briefly described below.

a) The Regional Agricultural Information & Learning System (RAILS) is a six-year (2007 – 2012) project designed with the objectives to:

(i) undertake advocacy to encourage increased investment in agricultural information systems (AIS) by African governments and institutions;

(ii) improve access to information and the ability of African stakeholders to contribute to global agricultural knowledge;

(iii) facilitate synergies by linking African information conduits to global providers of agricultural information; and

(iv) develop an African platform for agricultural information and learning systems. It is designed to fill current gaps in the rural community–NARS–regional–continental–global information chain, and adds value to existing systems while avoiding duplication.

RAILS is guided by an assessment of agricultural information systems in Africa and consultations with stakeholders, including SROs and international information service providers. It takes advantage of the information and communications technology (ICT) infrastructural improvements advocated by the African Union, the Regional Economic Communities (RECs) and national governments, which will improve the utility of web-based information and use of traditional communications tools.

b) Dissemination of New Agricultural Technologies in Africa (DONATA). The purpose of this six-year (2007 – 2012) project is to strengthen the innovation capacity of stakeholders in African agricultural R&D development to effectively and efficiently facilitate and or catalyse rapid and large scale dissemination and adoption of successful agricultural best bets in areas where they are needed but are not accessed and utilized.

The principal objectives of DONATA are:

(i) to identify the most profitable and environmentally beneficial African model crops, best bets, and other agricultural enterprises for scaling-up and out in areas where they are suited but where they are currently not accessed and utilised,

(ii) to analyse challenges and opportunities in value chain approach in scaling-up and out, agricultural best bets and disseminating success stories and

(iii) to develop toolkits for disseminators that facilitates the targeting of best bets to where they fit the prevailing social, environmental and market conditions.

Other continental projects that are being developed by FARA in collaboration with its partners include:

(i) the Platform for Africa-Europe Partnership on Agricultural Research for Development (PAEPARD),

(ii) the Africa/Brazil Innovation Marketplace which is based on a competitive grants system, and

(iii) the Universities, Business and Research in Agricultural Innovation (UniBRAIN) project which will be funded by Danida.

Table 8.1: FARA-coordinated projects implemented in the CCARDESA region

Project	Description	Funder	Start date	End Date	Budget for Activities in CCARDESA region from Jan 2013 onwards	Comments
PAEPARD	Platform for Africa-Europe Partnership on Agricultural Research for Development	EC	2008	2012	Not clear yet	PAEPARD III is being developed
SSA CP	Sub Saharan Africa Challenge Programme	EC/IFAD	2005	2014	Not yet determined	Project was extended for two years; now ends 2014 but still working out the details. Learning sites contacts are in Mozambique Malawi and Zimbabwe
Africa/ Brazil	Africa/Brazil Innovation Marketplace	WB, DFID, B&MGF, Brazil, IFAD	2010		Not yet determined.	This is a competitive grant for research and development
DONATA	Dissemination of New Agricultural Technologies in Africa. capture relevant lessons and develop effective trans-boundary partnerships and investments for the dissemination of high-potential technologies	AfDB	2008	2013	$ 1,156,985	Tentative pending real expenditure calculations to date. Being done in five countries in the region, Madagascar, Malawi, Lesotho, Mozambique, and Zambia
RAILS	Regional Agricultural Information and Learning Systems. Facilitating Access and Dissemination of Agricultural Information by African stakeholders	AfDB	2008	2013	$ 627,200	Tentative pending real expenditure calculations to date. Learning teams are established in the participating countries. eRAILS, the online portal is up and running but there is still need to push for quality content to be added. Training and marketing is needed. RAILS 2 was started to reach out to the farmers directly.
UniBRAIN	Universities, Business and Research in Agricultural Innovation. Advancing agribusiness incubation and improved agribusiness education in Africa, by realizing potential for synergy between, universities, research and the private sector.	Danida	2012	2015	Not yet determined Agribusiness Incubator established in Zambia	Agribusiness Incubator for mango enterprise established in Zambia

All the continental projects mentioned above were originally coordinated by SADC FANR. From January 2013, CCARDESA liaised with SADC and arranged for a systematic hand-over of the projects from SADC to CCARDESA. By April 2013, the UniBRAIN and the PSTAD project (consisting of RAILS and DONATA) had been handed over to CCARDESA. Through direct linkage with FARA, the Southern Africa component of the e-Capacities project was also domiciled in the CCARDESA Secretariat.

The implementation of all continental on-going projects such as those mentioned above, and new ones that FARA may develop in future, will be coordinated in the SADC region by CCARDESA and will be incorporated into the relevant Thematic Areas of this Operational Plan. The nature of the strategic and operational linkages and phased integration of these continental projects with the CCARDESA programmatic framework and sustainability of their activities will be underpinned by CCARDESA's overall R&D strategy and associated regional priorities, and further guided by CCARDESA's harmonization and alignment strategy and action plan. All of these combined efforts aim to harmonise implementation of actions in respect of CAADP's Pillar 4 in the region.

8.3 Partnerships with other organisations

One important task of the CCARDESA Secretariat will be to forge partnerships with various NARS institutions, programmes and specialized networks in the SADC region. Regional and international policy research organizations like ReSAKSS-SA, FANRPAN, IFPRI and some CGIAR Centres would, for example, be called upon to give leadership in cross-cutting policy issues through MOUs and research partnerships. Component activities and specific functions will be developed through a process of intensive stakeholder consultations which will provide the basis for CCARDESA to select its strategic partners. Project grants will be used as vehicles for forging these partnerships and joint activities. Section 10.1 elaborates further on CCARDESA's envisaged approach to the effective utilisation of the partnering approach in the implementation of its planned activities and the delivery of results.

SECTION B:
CCARDESA WORK PLAN AND FINANCIAL PLAN

9. CCARDESA WORK PLAN

9.1 Work Plan for 2013

Chapter 3 of this document provided an overview of the activities that CCARDESA will undertake in each of the Thematic Areas over the 5 year period of implementation of this MTOP. These are summarised in tables 9.3 – 9.7, and have been developed with the assumption that the resources will be mobilised to support the implementation of the specified activities under each of the Thematic Areas.

In the beginning, CCARDESA will focus on:

1. initiation of 4-6 'short term' research projects;
2. Internalisation and management of the continental projects;
3. Preparation for implementation of the research grants system; and
4. Strengthening of CCARDESA Secretariat.

9.1.1 Initiation of short-term projects

In the first 6-8 months, CCARDESA will initiate 4-6 short-term research projects within the Thematic Areas 1 – 4, whose implementation may take up to 18 months. These short-term projects will mainly be for demonstrating the available technologies or generating good practical lessons with a view of out-scaling the technologies to other countries of the region. Consequently, CCARDESA is likely to use the Innovative Grant procedure to process the grants to appropriate stakeholders who will undertake these projects. The whole process of choosing the specific projects to be supported and the procedure to be followed will be guided by the provisions of the Grants Manual of CCARDESA.

9.1.2. Internalisation and management of continental projects

The Secretariat will continue to work with SADC FANR to gradually take over the coordination of the continental projects in the region in line with its mandate. This process will target those projects that are listed in 8.1, some of which have already been handed over to CCARDESA. It is important for CCARDESA to embrace all the continental projects quickly in order for the region to fully benefit from these projects. The taking over of the coordination of these projects will be given priority within the first 6-12 months of operations of CCARDESA.

In taking over the coordination of these projects within the region, CCARDESA will assign each of the projects to a specific appropriate officer based on the needs of each project and the expertise of the officers in CCARDESA. This matching analysis will be done prior to allocation of the projects to officers in order to ensure that officers are allocated the project(s) for which they have the requisite skills to understand and coordinate at regional level. For each of the projects, CCARDESA will establish and document the implementation status in the region and then start implementing the activities of the work plans.

For those projects that may not have been under SADC-FANR, efforts will be made to work with FARA so that CCARDESA is introduced to all the continental programmes running or those still under development. Officers will be identified within CCARDESA to coordinate these projects. For those under development, CCARDESA will work closely with FARA to actively participate in the development process before moving onto the coordination of implementation in the region.

9.1.3. Preparation for implementation of the research grants system

Concurrent with the implementation of the project activities describe above, the CCARDESA Secretariat will develop the administrative structures and documents required for the implementation of the suggested activities of the different Thematic Areas summarised in Section 9.2. From a long-term view, the preparatory work is critical and essential for the successful implementation of all future projects of CCARDESA and for the institution to achieve its intended objectives. The background structures and documents to be prepared are numerous but include the establishment of the necessary structures for operating the grant system, reaching out to

NARS and stakeholders, establishing the Technical Support Group, preparing the operational guidelines and procedures, finalising the recruitment and induction of key staff at the Secretariat and initiating linkages with key strategic partners in the region.

9.1.4. Strengthening of CCARDESA Secretariat

Considering that CCARDESA is a new organisation and has had no experience yet in coordinating regional agricultural research and development activities in Southern Africa, the Secretariat will devote a lot of effort towards building its capacity in the entire 5 year period of this MTOP. Initially, the Secretariat will carry out tasks that will make the Secretariat establish itself and be in a position to effectively discharge its duties. These establishment activities will include the equipping of the offices with furniture and working facilities (e.g. internet connectivity), recruitment of key staff, establishment of effective partnerships, mobilisation of resources and setting of priorities to focus on within the initial 12 months.

Table 9.1: CCARDESA Secretariat Work plan (January – December 2013)

ACTIVITY	TIMING OF IMPLEMENTATION (MONTH)											
	M1	M2	M3	M4	M5	M6	M7	M8	M9	M10	M11	M12
1. Identification and funding of five early projects												
1.1: Finalise identification of specific projects												
1.2: Develop concept notes for projects												
1.3 Identify potential bidders for each project												
1.4 Provide training on proposal writing to potential bidders												
1.5 Prepare and launch a call for proposals												
1.6 Assess bids												
1.7 Prepare and negotiate contracts for each project												
1.8 Prepare M & E framework												
1.9 Award contracts												
1.10 Disburse the funds to recipient organisations												
1.11 Manage the contracts (technical, administrative & financial)												
1.12 Monitor implementation of the projects												
2 Capacitation of CCARDESA Secretariat and development of administrative structures for long term Grants	M1	M2	M3	M4	M5	M6	M7	M8	M9	M10	M11	M12
2.1 Complete recruitment of key staff												
2.2 Finalise medium term operational plan												
2.3 Establish the Technical Support Group												
2.4 Commission 4 Thematic-based studies for establishing current status												
2.5 Convene 4 regional workshops to review outcomes of studies and propose specific projects												
2.6 Purchase office furniture, equipment and vehicles												
2.7 Establish electronic system of grant application												
2.8 Produce documents for grant application												
2.9 Prepare and launch the first open call for proposals												
2.10 Convene Board meetings												
2.11 Prepare annual reports to SADC Secretariat												
2.12 Foster regional, continental and global collaborations												
2.13 Procure the finance and procurement systems												
2.14 Establishment of an M&E framework												
2.15 Represent CCARDESA at regional and global meetings												
2.16 Mobilise resources and endowments from ICP and other partners												

9.2 CCARDESA Work Plan for MTOP Implementation

The CCARDESA work plan for MTOP implementation is presented in the form of separate work plans for each of the 5 Thematic Areas (Tables 9.2, 9.3, 9.4, 9.5 and 9.6). The focus of the work plans, particularly that for Thematic Area 5**,** provides details of activities in the pre-implementation phase covering the first 6 months, moderate detail for the first year, and then some detail for the remaining duration of the 5-year period These work plans are not immutable, and only preliminary at this stage. CCARDESA will review and finalise the pre-implementation phase work plan during the first 6 months, and periodically review all work plans as its programme of activities unfolds, and it responds to suggestions from its Board, development partners and General Assembly.

In general, during the initial 1-year period CCARDESA will establish working relationships with all its stakeholders, commission studies, arrange study visits and begin to publicise and introduce its competitive grants scheme. As mentioned previously, competitive grant schemes usually need about one year of preparation time to set up the institutional mechanisms, eight more months to complete the process, and another two months for contract negotiations with the grant winners and making effective arrangements (e.g. setting up bank accounts) before the first disbursements can be made. CCARDESA will set as its target, the initiation of at least five projects by PY2 in order to ensure cost-effectiveness.

9.2.1 Work Plan for Thematic Area 1: Farmer Empowerment and Market Access

The essential aspects of the work plan for Thematic Area 1 and their timelines are illustrated in Table 9.2. They will comprise the following activities:

- Undertake studies on farmer empowerment, good practice and partnership models, input/ output markets, etc;
- Organise regional workshops to review study results, projects and disseminate good practices;
- Build capacity of NARS to develop farmer empowerment mechanisms and to promote good practice for agribusiness linkages & private sector development;
- Support regional R&D sub-projects that enhance farmer empowerment and agribusiness linkages; and
- Support exchange visits to promote good practice (involving farmers, service providers and advisory services).

9.2.2 Work plan for Thematic Area 2: Research, Technology Generation and Farmer Demand-Driven Advisory Services

The work plan for Thematic Area 2 and the timelines for implementation of activities are illustrated in Table 9.3. The following activities will constitute the main elements of this work plan:

- Support 8 sub-projects for generation and testing of new technologies;
- Support 6 sub-projects for piloting and scaling up/out of good practices and technologies;
- Support exchange visits and conferences to disseminate research and extension information/findings; and
- Fund publications to disseminate research and extension information/findings.

9.2.3 Work plan for Thematic Area 3: Knowledge, Information and Communication

The essential aspects of, and timelines for, the work plan for Thematic Area 3 are summarised in Table 9.4. The main activities will be:

- Conduct studies to identify good and successful ICT policies and strategies in agriculture and other sectors (e.g., e-commerce);
- Conduct studies to examine ICT tools and network linkages best suited for specific needs;

- Plan and hold a regional workshop to review study results and identify partnerships and networks among communication practitioners linked to stakeholders; and
- Fund regional projects that benefit the research/ extension, private sector and sma2.llholder farmers to make informed decisions and strengthen their negotiation positions.

9.2.4 Work Plan for Thematic Area 4: Institutional Development and Capacity Building

The work plan for Thematic Area 4, together with the timelines for implementation of key activities, is illustrated in Table 9.5. The main activities will comprise the following:

- Undertake study on capacity for research planning, management and funding in NARS;
- Undertake a survey on agricultural education in the region to identify best practices, their impact and relevance on the agric sector;
- Organise regional workshop to review study results, share experiences, and to promote good practices in research and advisory services;
- Organise targeted advocacy workshops to promote market-oriented, farmer-led and demand-driven policies;
- Train NARS in proposal writing and competitive grants' procedures; and in design and use of ICT-based communication strategies and campaigns;
- Support sub-projects that contribute to institutional reform; and mainstreaming good practices, including gender and HIV/AIDS; and
- Encourage exchange visits of NARS to share experiences; promote networks and partnerships between educational systems, R&D and farmer organizations. Promote sabbatical visits.

9.2.5 Work Plan for Thematic Area 5: Establishment and strengthening of CCARDESA as an effective SRO

The work plan for Thematic Area 5 is detailed in Table 9.6. The plan will essentially consist of a pre-implementation phase covering the first 6 months during which CCARDESA will establish its staffing and prepare itself for execution of its mandate and implementation of its responsibilities, followed by an implementation phase. Its main activities will comprise the following:

- Prepare a complete Programme document with logframe and costings;
- Put in place M&E framework;
- Hold regular CCARDESA Board meetings;
- Identify stakeholders and constitute CCARDESA Stakeholder General Assembly;
- Convene Inaugural and Second General Assembly;
- Train NARS in proposal writing and competitive grants' procedures;
- Call for CNs, Full proposals, evaluate and award;
- Coordinate implementation of R&D activities by regional partnerships and networks

Table 9.2. Work Plan for Thematic Area 1: Farmer Empowerment and Market Access.

	2013												2014				2015				2016				2017				2018			
	J	F	M	A	M	J	J	A	S	O	N	D	Q 1	Q 2	Q 3	Q 4	Q 1	Q 2	Q 3	Q 4	Q 1	Q 2	Q 3	Q 4	Q 1	Q 2	Q 3	Q 4	Q 1	Q 2	Q 3	Q 4
THEMATIC AREA 1: Farmer Empowerment and Market Access																																
Results for Thematic Area 1																																
1. The emergence of strong farmer and producer organizations linked to markets and to key technical and business management services and inputs																																
2. Improved enabling environment for expanded farmer access to improved and affordable inputs, such as seeds, fertilizer, agrochemicals and farm implements																																
3. Improved regional policies and strategies for increasing farmer access to an expanded supply of inputs																																
4. Enhanced good practices and capacities in farmer empowerment																																
5. Enhanced and more effective agribusiness partnerships between farmer groups and the private sector at both national and regional levels																																
Activities for Thematic Area 1																																
1.1 Carry out analysis to identify priorities for farmer empowerment; identify good practices and partnership models; and identify empowerment strategies and policy opportunities that promote development of farmer organizations																																

1.2 Support stocktaking assessments of good practices on farmer and producer organizations' development and models for agri-business linkages																																
1.3 Commission studies to assess needs for farmer empowerment and access across all commodities																																
1.4 Conduct targeted training to build capacity of the NARS to develop skills for empowering farmers.																																
1.5 Support capacity building activities to enable farmer organisations to actively engage with their members																																
1.6 Conduct targeted training to promote good practice for agribusiness linkages and private sector development																																
1.7 Facilitate development of policies and strategies that improve farmer and youth access to affordable inputs																																
1.8 Promote development of youth internship program to motivate then to pursue agriculture R&D careers																																
1.9 Establish/ strengthen integrated research for development (IR4D) and innovation platforms (IP) linking farmers, youths, producers to markers and to key technical and business management services																																
1.10 Support up to four workshops to review study tools methodology and study results analysis, including identifying some projects, partnerships and networks. These workshops and other means (publications, and newsletters) will serve as platforms to disseminate																																

good practices and experiences																															
1.11 Support regional exchange visits and publications to disseminate good practices and to share experiences including on climate smart agricultural technologies																															
1.12 Packaging of already existing research and extension outputs for dissemination																															
1.13 Support innovative pilot activities that are likely to enhance farmer empowerment																															
1.14 Carry out inputs and commodity market surveys and analyses																															
1.15 Implement sub-projects identified as “quick-wins” in this first five year period																															
1.16 Carry out quick win (priority) activities in the following: • Development of reliable seed supply and marketing systems in major sorghum growing countries																															
• Improvement of market access in the value chain for soya beans • Promotion of the commercialization of indigenous local chickens • Analysis of policy incentives for investments in smallholder forest plantation development • Analysis of policy incentives for investments in small-scale value added processing in forestry																															

Table 9.3. Work Plan for Thematic Area 2: Research, Technology Generation and Farmer Demand-Driven Advisory Services

	2013												2014				2015				2016				2017				2018			
	J	F	M	A	M	J	J	A	S	O	N	D	Q 1	Q 2	Q 3	Q 4	Q 1	Q 2	Q 3	Q 4	Q 1	Q 2	Q 3	Q 4	Q 1	Q 2	Q 3	Q 4	Q 1	Q 2	Q 3	Q 4
THEMATIC AREA 2: Research, Technology Generation and Farmer Demand-Driven Advisory Services																																
Results for Thematic Area 2																																
Identification of regional R&D priorities strengthened																																
2. ;At least five priority sub-projects started by PY2 for cost effectiveness																																
3. Regional R&D activities enhanced through increased technologies at the regional and national levels																																
Regional R&D activities enhanced through increased joint activities in research and advisory services on regional priorities by NARS																																
"Quick Win - Best-fit" agricultural technologies and best practices are adapted, adopted and scaled-out																																
Activities for Thematic Area 2																																
2.1Support capacity-building initiatives for NARS (training, equipment etc) (i) developing research and extension networks and partnerships																																
2.2 Facilitate training of NARS																																

staff in proposal writing;																															
2.3 Facilitate activities for identifying regional research and development priorities including quick-wins initiatives																															
2.4 Facilitate partnerships and support networks to implement agreed priority research and advisory services activities of common interest between countries																															
2.5 Support development of research programmes on under-utilized crops in collaboration with NARS and other stakeholders																															
2.6 Fund 8 sub-projects for generation and testing of new technologies																															
2.7 Support 6 sub regional projects for piloting and scaling up/out of good practices and technologies																															
2.8 Support dissemination of research out puts and extension information/findings through 3 regional conferences																															
2.9 Support exchange visits between research scientists and advisory services providers sharing common research interests																															
2.10 Facilitate dissemination of research and extension information/findings through funding publications indifferent media including journals and common press																															
2.11 Provide the involvement of non-state actors in the provision of research and advisory services																															

(private sector, civil society, and farmer organizations) through establishment of multi-stakeholder innovation platforms for different commodities.																																	
2.12 Convene three 3 regional workshops to catalyse the implementation of farmer-driven research and extension services																																	
2.13 Promote linkages between farmers and decision makers																																	
2.14 Support the identification of technologies to be up-scaled and or up scaled																																	
2.15 Promote implementation of initiatives for up-scaling and or out-scaling of practices																																	

Table 9.4. Work Plan for Thematic Area 3: Knowledge, Information and Communication

	2013												2014				2015				2016				2017				2018			
	J	F	M	A	M	J	J	A	S	O	N	D	Q 1	Q 2	Q 3	Q 4	Q 1	Q 2	Q 3	Q 4	Q 1	Q 2	Q 3	Q 4	Q 1	Q 2	Q 3	Q 4	Q 1	Q 2	Q 3	Q 4
THEMATIC AREA 3: Knowledge, Information and Communication																																
Results for Thematic Area 3																																
1. Improved regional knowledge generation and dissemination																																
2. Enhanced knowledge sharing through increased use of ICT within the region																																
Activities for Thematic Area 3																																
3.1 Conduct a study to identify good and successful ICT policies and strategies in agriculture and other sectors (e.g. e-commerce)																																
3.2 Conduct a study to examining ICT tools and network linkages best suited for specific needs																																
3.3 Hold a regional workshop to review study results and identify sub-projects, networks and partnerships among ICT practitioners linked to Stakeholders																																
3.4 Develop sub-projects, networks and partnerships among ICT practioners linked to stakeholders																																
3.5 Support ICT interventions that benefit the research/extension, private sector and smallholder farmers to make informed decisions and strengthen their negotiation position with service providers and markets																																

3.6 Develop and maintain ICT information systems relevant for different stakeholders (institutions, frontline extension staff and farmers, etc)																																	
3.7 Promote regional training focusing on ICT tools and network linkages																																	
3.8 Promote regional knowledge sharing on ICT tools, best suited for specific national and regional needs																																	
3.9 Establish and maintain a comprehensive and up-dated information and knowledge management system at the CCARDESA secretariat																																	

Table 9.5. Work Plan for Thematic Area 4: Institutional Development and Capacity Building

	2013												2014				2015				2016				2017				2018			
	J	F	M	A	M	J	J	A	S	O	N	D	Q 1	Q 2	Q 3	Q 4	Q 1	Q 2	Q 3	Q 4	Q 1	Q 2	Q 3	Q 4	Q 1	Q 2	Q 3	Q 4	Q 1	Q 2	Q 3	Q 4
THEMATIC AREA 4: Institutional Development and Capacity Building																																
Results for Thematic Area 4																																
1. Responsiveness of NARS to their stakeholders improved																																
2. Regional networks and partnerships for agricultural education and training systems developed																																
3. Learning systems that support regional R&D innovation and training are more effective																																
4. Regional education initiatives and stakeholder capacity for regional R&D strengthened																																
Activities for Thematic Area 4																																
4.1 Undertake studies to update a regional situational analysis on on capacity for research planning, management and funding in NARS to inform planning, design and implementation of subsequent sub-projects																																
4.2 (i) Organise 2 regional workshops to review study results, share experiences, and to promote good practices in research and advisory services (ii) Support 3 target advocacy workshops to promote market-oriented, farmer-led and demand-driven policies																																

4.3.Facilitate training to (i) Promote institutional reform in R&D for effective stakeholder participation and governance (ii) Foster collaboration with IARS to strengthen NARS in institution reforms and share experiences (iii) Support capacity building activities to develop research and extension networks and partnerships (iv)Train NARS on how to reform research and advisory services in partnership with IARCs, and (v) Build capacity of NARS on how to prepare research proposals for competitive funding and on competitive grants management in partnership with IARCs and NARs																																
4.4 Support 2 sub-projects that contribute to institutional reform																																
4.5 Support 6 exchange visits for NARS to share experiences and to promote good practices in research and advisory services																																
4.6 Implement identified “quick wins” capacity building activities																																
4.7 Conduct a survey on agricultural education in the region (and centres of leadership) to identify practices, and the impact and relevance on the agriculture sector and carry out a regional workshop to review the study and identify sub-projects																																
4.8 Support 2 sub-projects that mainstream the good practices, including gender and HIV/AIDS in curricula at primary, secondary and tertiary levels and informal education systems																																

4.9 Facilitate dissemination of good practices and experiences through various media																															
4.10 Organise targeted advocacy workshops to promote partnerships mainstreaming AET activities; and promote use of mass media and ICTs, etc to improve curriculum development, delivery and access.																															
4.11 Train NARS in proposal writing and competitive grants' procedures; and in design and use of ICT-based communication strategies and campaigns.																															
4.12 Support subprojects that contribute to institutional reform; and mainstreaming good practices, including gender and HIV/AIDS																															
4.13 Support three exchange visits of NARS to share experiences; promote networks and partnerships between educational systems and research and advisory services R&D and farmer organizations.																															
4.14 Identify and support regional centres of excellence/leadership																															
4.15 Support 15 Support short term sabbatical initiatives																															
4.16 Support two workshops to promote smallholder innovation and improved access, participation and ownership in knowledge and information systems																															
4.17 Train NARs to design and use ICT-based communication strategies and campaigns in support of farmer-centred innovations																															

4.18 Provide support to SADC countries in the implementation of CAADP, especially the development of CAADP investment plans																																

Table 9.6. Work Plan for Thematic Area 5: Establishment and Strengthening of CCARDESA as an effective SRO

	2013												2014				2015				2016				2017				2018			
	J	F	M	A	M	J	J	A	S	O	N	D	Q 1	Q 2	Q 3	Q 4	Q 1	Q 2	Q 3	Q 4	Q 1	Q 2	Q 3	Q 4	Q 1	Q 2	Q 3	Q 4	Q 1	Q 2	Q 3	Q 4
THEMATIC AREA 5: Effective Sub-regional Research Organisation (CCARDESA) established and strengthened																																
Results for Thematic Area 5																																
1. MTOP in place and operationalised by end of February 2013																																
2. Institutional platform for regional coordination and participation of research scientists and advisory service providers in agric R&D established & strengthened																																
3. Institutional platform for coordinated regional farmer participation in agric R&D established and strengthened																																
4. ICP support for NARS in the region harmonised and co-ordinated																																
Activities for Thematic Area 5																																
i. Convene stakeholders General Assemblies at regular intervals.																																
ii. Hold regular CCARDESA Board meetings.																																

iii.	Recruit key CCARDESA staff.																																	
iv.	Establish CCARDESA Management systems																																	
v.	Develop institutional operational plans																																	
vi.	Procure fixed and operational assets for CCARDESA																																	
vii.	Develop strong technical links with FANR, NARS in Member States, other SROs in SSA, FARA, IARCs and other multi-lateral agencies.																																	
viii.	Mobilise resources and endowments from ICP and other sources.																																	
ix.	Represent CCARDESA at strategic regional and global meetings																																	
x.	Hold regular consultation meetings with and between ICPs involved with CCARDESA																																	

10. IMPLEMENTATION MODALITIES AND STRUCTURE

10.1 Implementation modalities

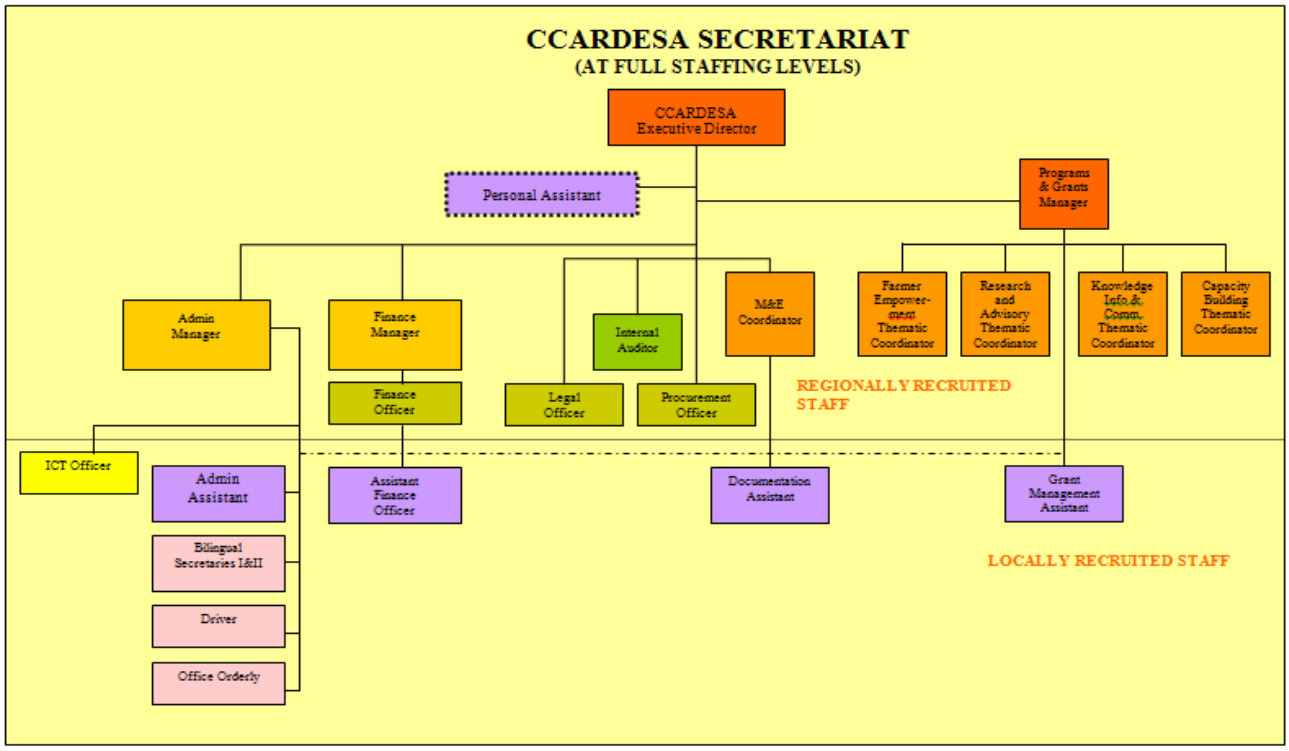
CCARDESA coordinates the implementation of agricultural research and development (R&D) activities in the SADC region. Resources will be deployed according to outputs and activities outlined in MTOP, from which Annual Work Plans will be developed for each of the five Thematic Areas. The implementation of the activities in this MTOP will make use of the human resource capacity of the institution, the details of which are contained in sections 10.2 and 10.3. However, CCARDESA recognises the fact that its staff strength may not be adequate to fully implement this MTOP. It is also not in the best interest of the region or CCARDESA Secretariat for the implementation of the MTOP to be restricted to the CCARDESA Secretariat alone.

Thus, CCARDESA will develop and maintain strong partnerships with other organisations working in the region to collectively deliver on the MTOP. The SADC region and African continent have a range of organisations whose mandates are within the research and development area. These include the NARS, NEPAD Planning and Coordinating Agency, the World Fish Centre, FANRPAN, FARA, CG Centres and others. CCARDESA will therefore partner with different organisations and develop clear working relationships so that each organisation's competitive advantage is recognised, and the tasks are shared accordingly. This will allow for different CCARDESA's partner organisations and stakeholders to effectively deliver on specific activities of the MTOP and thereby contributing to the realisation of objectives of Pillar 4 of CAADP. In addition to section 8.3, an attempt has been made under each of the five Thematic Areas to identify, in a broad way, the available potential stakeholders and partners with whom CCARDESA will work.

In line with the FAAP, the underlying principle shall be the clear recognition that CCARDESA cannot deliver the desired outputs to the region without the full participation of other organisations that have their own unique competitive advantages that CCARDESA and the entire SADC region could benefit from. The principle of subsidiarity shall be fully observed.

10.2 Structure of the Organization to deliver on core functions (staff) deployment)

Below is the Secretariat's organogram that provides how the organization is structured and staff deployed to deliver on core and non-core functions:



10.3 Human Resource and Personnel Profiles to deliver the Core Functions

The secretariat's human capital strength is of the highest calibre to effectively discharge its core and non-core functions towards realization of its strategic objectives.

All the Heads of Departments are holders of a minimum of master's degree in the area of their specialization coupled with more than ten years relevant work experience (refer Table 10.1). CCARDESA as a newly established organization, currently has in place a core staff of seven and the ultimate number will increase with time to about 14 as the workload increases.

Table 10.1 Current technical staff at the secretariat, their job titles and academic/professional qualifications

S/No	Name	Job Title	Academic Qualification
1	Prof Timothy Simalenga	Executive Director	PhD
2	Dr Simon Mwale	Programme and Grants Manager	PhD (Crop Physiology), MSC (Agronomy), BSC (Agriculture)
3	Dr Baitsi Podisi	Research and Advisory Thematic Coordinator	PhD (Quantitative Genetics), MSC (Animal Breeding), MBA, BSC (Agriculture)
4	Mr Samson Ojesi	Monitoring and Evaluation Coordinator	MSc in Agriculture, BSC (Agriculture)
5	Mr Fwambo Mwambazi	Finance Manager	MSc (Finance), CPA
6	Mr Justine Rumanyika	HR and Administration Manager	MSc (HRM), BA (Public Administration)
7	Mr Jimmy Fombe	Procurement Officer	MBA

10.4 Roles and Responsibilities within the Structure

Following are major roles and responsibilities of each function in the Secretariat:

10.4.1 Programme and Grants Management Department:

This function is responsible for identification of funding opportunities. It also deals with development of concept notes and full project proposals with grantee institutions and coordinate submissions to the Technical Support Group (TSG) and Project Approval Committee (PAC). Overall, it oversees all grants management and administration, including grant agreements.

10.4.2 Research and Advisory Thematic Coordination Section:

This unit operates under the Programme and Grants Management Department. It basically deals with promotion of agricultural sector transformation in the region.

It entails coordinating the performance of agricultural research and advisory services projects as well as developing initiatives for investment, concept notes, conducting relevant training; analysing and sharing lessons and experiences in agricultural R&D systems in the region.

10.4.3 Monitoring and Evaluation Section:

The section is responsible for providing managers at all levels with information and advice on how to measure progress of the Secretariat activities. It is also responsible for monitoring and evaluation of sub projects activities.

Overall, it has a role of developing and implementing a Monitoring and Evaluation framework for the Secretariat and assist development of Monitoring and Evaluation frameworks for sub projects. In addition, the role of M&E will be to support the organisation development aspects of CCARDESA.

10.4.4 Finance Management Department:

This department is responsible for overall administration and implementation of the Secretariat's financial operations, policies and procedures. It superintends management of finance through adherence of best international accounting principles as well as the terms and conditions of all financial agreements entered into by the Secretariat.

10.4.5 Procurement Management Unit:

Under the auspice of the Finance Manager, this unit coordinates the Secretariat's procurement plans and implementing the procurement of goods and services in accordance with the Procurement Manual.

10.4.6 Human Resource and Administration Department:

This function superintends over implementation of the Secretariat's human resources and administration operations, policies and procedures.

It is also charged with the responsibility of managing and assuring security of the Secretariat's physical assets and equipment as well as provision of logistics and protocol services.

11. CCARDESA FINANCIAL PLAN

11.1 Financial Overview

The budget for this Operational Plan has been prepared based on the available data on costs and the projected capacity of CCARDESA to execute the programme. The budget will be managed in accordance with sound financial management policies and practices in line with CCARDESA's Finance Manual.

11.2 Budget for the Operational Plan

Table 11.1 summarises the budget for the Operational Plan, showing component activities (Thematic Areas 1 – 4), as well as CCARDESA establishment and operational costs. The total funding requirement over the 2013 to 2018 inclusive is USD 38,876,000. Details are given in Annex 3. Seventy four percent (74%) of the entire budget is earmarked for the programme costs, while about 26 % is expected to meet staff costs administration costs and governance costs. Among the four Thematic Areas, Thematic Area 2 (Research technology generation and farmer demand-driven advisory services) accounts for largest expenditure (23 %) followed by Thematic Area 4 (Institutional development and capacity building), which has been allocated 20% of the budget. Thematic area 1 has 14% while the lowest is Thematic Area 3 [Knowledge, Information and Communication (4 %)].

Table 11.1: CCARDESA Operational Plan: Summary of budget by Component (USD'000)

DESCRIPTION		PY1	PY2	PY3	PY4	PY5	Total	% of total Budget
	Thematic Areas							
1	Thematic Area 1: Promote farmer empowerment and market access	630	1,461	1,378	1,086	843	5,398	14
2	Thematic Area 2: Res, Tech. Generation & Farmer demand-driven Advisory Services	-	2,005	1,725	2,505	2,505	8,740	23
3	Thematic Area 3: Knowledge, Information and Communication	301	550	85	550	50	1,536	4
4	Thematic Area 4: Institutional Development and Capacity Building	926	2,290	1,491	2,418	649	7,774	20
5	Thematic Area 5: Strengthening of CCARDESA as an effective SRO (operations)	750	470	679	470	516	2,885	7
6	Contingency (at 10% of operational budget)	261	678	536	703	456	2,634	7
	Sub-Total Total	**2, 868**	**7,454**	**5,894**	**7,733**	**5,019**	**28,968**	**74**
	Strengthening of CCARDESA as an effective SRO (overheads)							
7	Capital Investments	144	99	-	-	-	243	1
8	CCARDESA Secretariat Emoluments	1,608	1,714	1,714	1,714	1,714	8,464	22
9	Administration Expenses	185	214	259	259	282	1,201	
	Sub-Total (Overheads)	**1,937**	**2,027**	**1,974 4**	**1,974**	**1,9964**	**9,908**	**26**
	Total CCARDESA MTOP Budget	**4,805**	**9,481**	**7,868**	**9,707**	**7,015**	**38,876**	**100**

11.3 Funding Scenarios

Taking into consideration that CCARDESA is a recently established SRO and therefore will have to vigorously mobilise its financing from various donors who have not previously dealt with the institution, it is prudent to assess consequences of potential funding shortfalls in the implementation of the work plan. In this regard the following three scenarios have been developed:

Scenario 1: 100% funding available as presented in the MTOP (i.e. full budget)

Scenario 2: Only 80% of the full budget resources available

Scenario 3: Only 60% of the full budget resources available.

Scenario 1 presents a budget of USD 38,876,000 while scenarios 2 and 3 provide budgets of USD 30,048,000 and USD 23,293,000, respectively. Table 11.2 gives a summary of these funding scenarios. Detailed activities to be implemented under each scenario are given in annex 3.

Table 11.2: Summary of Funding Scenarios (USD'000)

DESCRIPTION		**100% Budget (Scenario 1)**	**80% Budget (Scenario 2)**	**Scenario 2 % reduction**	**60% Budget (Scenario 3)**	**Scenario 3 % reduction**
	Thematic Areas					
1	Thematic Area 1: Promote farmer empowerment and market access	5398	2365	56	1656	69
2	Thematic Area 2: Res, Tech. Generation & Farmer demand-driven Advisory Services	8740	7390	15	3410	61
3	Thematic Area 3: Knowledge, Information and Communication	1536	1536	0	1313	15
4	Thematic Area 4: Institutional Development and Capacity Building	7774	4039	48	2904	63
5	Thematic Area 5: Strengthening of CCARDESA as an effective SRO (operations)	2885	2885	0	2885	0
6	Contingency (at 10% of operational budget)	2634	1925	27	1217	54
	Sub-Total Total	**28,968**	**20,140**	**30**	**13,385**	**46**
	Strengthening of CCARDESA as an effective SRO (overheads)					
7	Capital Investments	243	243		243	
8	CCARDESA Secretariat Emoluments	8464	8464		8464	
9	Administration Expenses	1201	1201		1201	
	Sub-Total (Overheads)	**9908**	**9908**		**9908**	
	GRAND TOTAL	**38,876**	**30,048**	**23**	**23,293**	**40**

11.4 Implementation priorities on the basis of three different funding scenarios

Table 11.2 presents the budgets for three funding scenarios namely 100% funding, 80 % funding and 60% funding. The budget reductions under each thematic area for the 80% and 60% budget reduction scenarios are presented in Annex 3 (ii) and (iii), respectively.

In the event that only 80% of the required resources are available, CCARDESA will scale down on the planned activities under each of the thematic areas. In so doing, priority will be given to thematic area 2, which deals with research technology development, dissemination

and adoption. Thematic area 1 will be scaled down by 56% by doing away with some of the planned sub-projects as well as the entire sub-theme on promoting good practices and capacity building for agribusiness linkages and private sector development. Under this scenario, CCARDESA will maintain almost all the activities under the sub-theme on promoting good practices, capacity building and farmer empowerment. This sub-theme has been maintained because the outputs would assist farmers to develop business linkages once they are fully empowered. Only the sub-projects component of this sub-theme will be dropped under the 80% funding scenario. Under the 60% funding scenario, the reduction in funding allocated to Thematic area 1 will be reduced to USD 1,656,000 which represents a reduction of 69%.

Thematic area 2 (technology generation and demand-driven advisory services) has been given the highest priority under the reduced funding scenarios because it a critical Thematic area and is technically the heart of the activities of CCARDESA. This thematic area will therefore be allocated USD 7,390,000, under scenario 2 - representing a reduction of 15% as shown in Table 11.2. The modest reduction in this thematic area will allow CCARDESA to effectively establish its Research Grant System and provide research grants to the region within the 5 year period, even when the resources available to the institution are reduced to 80% of the required amount. It is important to note that this thematic area has components that will establish contacts with farmers through the technology dissemination activities, participatory research activities and publications. Under Scenario 3, (60% funding) Thematic Area 2 will be reduced by 61%, but it will maintain the highest amount of resource allocation (USD 3,410,000) compared to others.

The resources for thematic area 3 will maintained at USD 1,536,000 under scenario 2. Thus, all the activities will be maintained in this thematic area because it already has a significantly lower budget compared to the other thematic areas. Under Scenario 3, this thematic area will be reduced by 15%, leaving an amount of USD1,313,000 over a period of 5 years.

The budget for Thematic Area 4 will be reduced to USD 4,039,000 under Scenario 2, representing 48% reduction (Annex 3 (ii)). Under scenario 2, the activities related to training and capacitation of NARS will be scaled down and so will the support to Regional Centres of Excellence.

Under Scenario 3, only one activity (regional situational analysis on capacity for research planning, management and funding to NARS) will be maintained under sub-theme 4.1, while sub-themes 4.2a will be dropped from the activities. Due to the importance and need for CCARDESA to actively participate and provide leadership in the development of CAADP investment plans, various activities under sub-theme 4.3 will be maintained even under scenario 3, but will all be scaled down moderately. The resources linked to CAADP under scenario 3 will, however remain adequate to enable CCARDESA provide the necessary leadership to SADC countries in this area.

In conclusion, Scenario 1 is the ideal situation that makes available the maximum possible resources and gives CCARDESA maximum financial ability to implement its programmes. Scenario 2 would affect some operations of CCARDESA only to a limited extent. Scenario 3 is the one that is critical and has significant consequences on the four Thematic Areas. This would have a serious negative impact on CCARDESA, especially that it is just establishing itself now and would receive rather indifferent perceptions from stakeholders if it failed to do the majority of the initial work. Some of this important work involves carrying out studies to establish the baselines upon which sub-projects will be developed. It is absolutely essential that CCARDESA starts strong and has access to ‘sufficient’ resources in the first 5 years of its operations so that the region and stakeholders can appreciate its existence.

11.5 Sources of funding

The report on the establishment of CCARDESA gives the likely sources of funding for the SRO. These include:

- Funding from International Cooperation Partners (ICP) through various modalities, including trust funds and harmonised and aligned projects;
- Member State contributions through the SADC Secretariat, to help secure ownership (including through possible concessional no-interest, long loans, cash and in-kind contributions);
- Private sector sponsorship and contributions, to reflect the incremental benefits derived from participating in SADC MAPP;
- Membership subscriptions and research levies; and
- Generation of own revenue sources, especially from the collection of fees for managing projects, while ensuring this activity will not divert the CCARDESA from focusing on its “public good” functions.

These funding options will be explored as part of the long term strategy for CCARDESA, which is expected to be one of the early activities of the CCARDESA management. While some of these funding mechanisms will take time to develop, it is expected that initially, funding for CCARDESA will come from the ICPs. Most of this funding is expected to be channelled through the Multi-Donor Trust Fund. Over time, other stakeholders are expected to make an increasing contribution. CCARDESA will use its platform to lobby regional countries (i.e. both public and private sectors) to increase funding for research and development. The use of “champions” to engage stakeholders towards this important cause will be actively pursued. At national level, countries will be encouraged to consider establishing research funding mechanisms such as from commodity levies where the producers will have an active voice in the use of such funds.

Table 11.3 shows the current status of CCARDESA funding and Figure 11.1 shows the expected flow of funds for the implementation of this Operational Plan.

Table 11.3 CCARDESA's Current Financing Plan (USD'000)

	Description	**PY1**	**PY2**	**PY3**	**PY4**	**PY5**	**Total**
	Phase I CCARDESA projected budget	**4,805**	**9,481**	**7,868**	**9,707**	**7,015**	**38,876**
	Secured Sources of Funding						
1	*Member State Contribution (Reserve Fund)	1,500	-	-	-	-	1,500
2	Private sector sponsorship and contributions	-	-	-	-	-	-
3	Membership subscriptions	-	-	-	-	-	-
4	Fees for managing projects	-	-	-	-	-	-
5	International Cooperating Partners (ICPs)	-	-	-	-	-	-
	World Bank	600	-	-	-	-	600
	FARA	267	-	-	-	-	-
	USAID	729	-	-	-	-	-
	Swiss Agency for Development Cooperation (SDC)	836.14	-	-	-	-	-
	Sub-total	**2432.14**					
	FINANCING GAP	**2372.86**					**36,443.86**

*The reserve funds are not to be used for CCARDESA operational costs except under special conditions and with permission of the Board of Directors. These resources have therefore been excluded in the calculation of the budget gap.

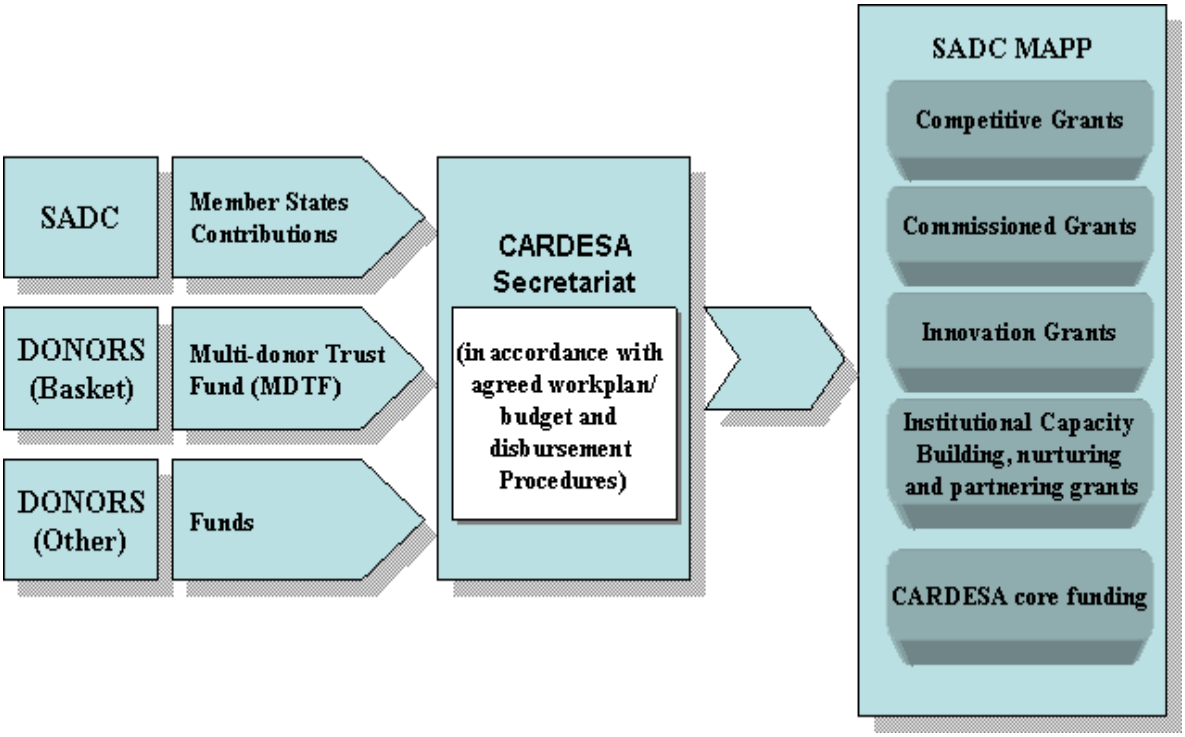


Figure 11.1: Framework for CCARDESA flow of funds

12. CONCLUSION

This Operational Plan represents the first phase of implementing the regional R&D programme under CCARDESA. The Plan has been developed to addresses the R&D priorities of the SADC region involving a range of stakeholders. The main results which CCARDESA will deliver are:

(i) participation of farmers and other key stakeholders in agricultural research priority-setting and in developing technologies is enhanced;
(ii) capacity of national agricultural research organisations is strengthened;
(iii) farmer demand-driven agricultural advisory services are in place;
(iv) capacity of agricultural researchers, service providers and farmers in the region is built;
(v) use of innovative ICT in technology generation and adoption is enhanced;
(vi) an effective Sub-regional Research Organisation fully established and strengthened; and
(vii) support of stakeholders and ICPs secured, harmonised and co-ordinated.

These results reflect the comparative advantage of CCARDESA and its regional programme and will be achieved through implementation of activities under five inter-related Thematic Areas. Programme implementation will take into account and mainstream the important cross-cutting issues of gender, health and nutrition, poverty and environment. Monitoring and evaluation will be an integral part of all the programme activities in order to provide key information to management in order to assess the programme impact and draw lessons and experiences.

13. ANNEXES

Annex 1: Summary of ranking within commodity groups and the ranked intervention areas for each commodity

a) Summary of the crops ranking and the ranked intervention areas for each commodity

Commodity	Rank	Priority Intervention area	Priority rank
Maize	1	Soil fertility and plant nutrient management Plant breeding/ crop variety development, biotechnology Conservation agriculture (CA) Post-harvest crop management Crop pests and diseases	1 2 3 4 5
Cassava	2	Crop pests and diseases Conservation agriculture (CA) Conservation of plant genetic resources Plant breeding/ crop variety development, biotechnology Agro-processing, food safety and value addition	1 **2** 3 4 5
Rice	3	Plant breeding/ crop variety development, biotechnology Soil fertility and plant nutrient management Conservation of plant genetic resources Crop pests and diseases Post-harvest crop management	1 2 3 4 5
Fruit and Vegetables	4	Crop pests and diseases Soil fertility and plant nutrient management Plant breeding/ crop variety development, biotechnology Marketing and trade of crop produce Conservation of plant genetic resources	1 2 3 4 5
Beans	5	Plant breeding/ crop variety development, biotechnology Soil fertility and plant nutrient management Crop pests and diseases Conservation of plant genetic resources Marketing and trade of crop produce	1 2 3 4 5
Sorghum	6	Plant breeding/ crop variety development, biotechnology Agro-processing, food safety and value addition Marketing/ trade of crop produce Soil fertility and plant nutrient management Conservation of plant genetic resources	1 2 3 4 5
Wheat	7	Plant breeding/ crop variety development, biotechnology Soil fertility and plant nutrient management Crop pests and diseases Post harvest crop management	1 2 3 4 5
Potato and sweet potato	8	Plant breeding/ crop variety development, biotechnology Soil fertility and plant nutrient management Marketing/ trade of crop produce Agro-processing, food safety and value addition Crop pests and diseases	1 2 3 4 5

Commodity	Rank	Priority Intervention area	Priority rank
Groundnut	9	Plant breeding/ crop variety development, biotechnology Crop pests and diseases Soil fertility and plant nutrient management Post harvest crop management Marketing/ trade of crop produce	1 2 3 4 5
Cotton	10	Crop pests and diseases Plant breeding/ crop variety development, biotechnology Soil fertility and plant nutrient management Conservation of plant genetic resources Marketing/ trade of crop produce	1 2 3 4 5
Sugar cane	11	Plant breeding/ crop variety development, biotechnology Agro-processing, food safety and value addition Post harvest crop management Conservation of plant genetic resources Marketing/ trade of crop produce	1 2 3 4 5
Millet	12	Soil fertility and plant nutrient management Post harvest crop management Agro-processing, food safety and value addition Marketing/ trade of crop produce Conservation of plant genetic resources	1 2 3 4 5
Soyabean	13	Plant breeding/ crop variety development, biotechnology Soil fertility and plant nutrient management Agro-processing, food safety and value addition Marketing/ trade of crop produce	1 2 3 4

b) Suggested priority interventions along the forestry value chain

Rank	Priority Intervention area
1	Plantation development with commercial tree species
2	Value added processing and marketing of wood and non-wood forest products
3	Production and sustainable use of natural forests and woodlands for multiple benefits
4	Policies to support sustainable forest management (SFM) and poverty reduction
5	Forests for Ecosystem Services: water, biodiversity, genetic resources and climate change
6	Managing multipurpose trees in cultivated / farmed landscapes

c) Priority intervention areas for cattle, sheep and goats, dairy and broiler/egg production

Commodity	Rank	Priority Intervention Area	Priority Rank
Beef Cattle, Sheep and Goats	1	Water and rangeland management & conservation	1
		Animal feeding and nutrition	2
		Livestock pests and diseases	3
		Marketing/trade in livestock and livestock produce	4
		Agro-processing, food safety and value addition	5
		Breeding, biotech. and conservation of animal genetic resources	6
Dairy	2	Breeding, biotech. and conservation of animal genetic resources	1
		Animal feeding and nutrition issues	2
		Agro-processing, food safety and value addition	3
		Marketing & trade in livestock and livestock produce	4
		Livestock pests and diseases	5
		Water and rangeland management and conservation	6
Broiler and Egg Production	3	Breeding, biotech. and conservation of animal genetic resources	1
		Livestock pests and diseases	2
		Animal feeding and nutrition issues	3
		Agro-processing, food safety and value addition	4
		Marketing & trade in livestock and livestock produce	5

d) Ranking and justification for priority intervention areas for aquaculture, inland fisheries and marine fisheries

Rank	Intervention Area	Justification for the ranking
1	Enhancing productivity of aquaculture	The area provides a potential for growth in terms of available fish, as well as growth of the economies. The area has also greater impact on small scale subsector which has low fish productivity.
2	Marketing and trade	Any enhancement of fish production has to be in tandem with marketing strategies, whether intra or global. The hardest hit by the lack of marketing strategies is the small scale subsector, which is likely to benefit from these R&D activities.
3	Fish processing, food safety and value addition	Marketing goes along with fish processing and food safety issues including value addition. Fish processing and value addition would allow Southern Africa to work with high value products.
4	Sustainable harvesting and management of inland fisheries	Despite the fact that growth in fish production is unlikely to come from inland fisheries, if left unchecked most inland fisheries are likely to collapse, and which would lead to a huge fish deficit within the region, and more so for the small scale, artisanal subsector which relies on inland fisheries for livelihoods.
5	Sustainable harvesting and management of marine fisheries and aquatic resources	Marine capture will still remain the major contributor of fish supply in the region and the stocks need proper management. The important step will also be to understand how the small scale subsector can fully benefit from marine ecosystems.
6	Policy research	Policy drives growth of any sector. A careful analysis of policies of countries that achieved significant growth in aquaculture, and sustainable management of natural resources would provide lessons that could be a recipe for quick growth in fish production. The question is how policy has affected growth of the small scale subsector along the fisheries value chain.

Note: Rank 1 is most important and Rank 6 is least important.

Annex 2: Logical framework

INTERVENTION LOGIC	OBJECTIVELY VERIFIABLE INDICATORS	SOURCES OF VERIFICATION	ASSUMPTIONS
GOAL			
Increased productivity of smallholder crop, forestry, fish and livestock enterprises in the SADC region	Average yields of crop, forestry, fish and livestock enterprises of adopting small holders increases by 5% per annum, from one year after first use of new technologies.	National crop, forestry, fish and livestock production and marketing annual statistics; Annual reports of Ministries of Agriculture in SADC member states; SADC Agriculture and Food Security Monitoring System (under AIMS) database and reports.	• Continued political stability and harmonious inter-country relationships in the region: • Agricultural production is resilient and responsive to risks and disasters, e.g. climate change, drought and floods: • Farm productivity is increased given that Africa is in general lagging behind other parts of the world: • Integrated ecosystems-based approaches are adopted to make smallholder farming not only more productive, but also more sustainable; and • A knowledge- and entrepreneurial-driven approach, combining both indigenous and modern

			knowledge, and a "farming as a business" approach, is engendered in, adopted and practised by small-scale farmers.
PURPOSE			
Improved agricultural technologies/husbandry practices developed, made available, and adopted by farmers	1. At least 70% of the projects funded by CCARDESA generate technologies that are eventually tested by NARS, for possible dissemination to farmers. 2. Trials of new technologies/practices in farmers' fields show yield and labour productivity increases of more than 15% compared with existing enterprises (and/or decreases of 10% in production costs of selected commodities), over medium-term; 3. All validated and proven technologies made available to NARS and other stakeholders in the region. 4. **Once proven, new farm input technologies being stocked continuously by suppliers, stockists, NGOs & agricultural centres throughout the SADC region; 5. **Improved agricultural production and processing technologies and management practices developed using CCARDESA grants, adopted by 4% farmers in year 5 of the programme, and	NARS annual reports; Min of Ag and national statistical offices' surveys and reports; *Ad hoc* reports of agricultural research stations; Agricultural research journals/reports; Stockists' inventory records and price lists; Agricultural centres' inventory records; NGO reports; SADC Agriculture and Food Security Monitoring System database and reports.	• Private sector operating in an environment in which it is "enabled" to supply improved technologies, and agricultural input and output marketing services to farming community; • Relative costs and returns of crop and livestock products remain stable for foreseeable future; • Current trends in marketing and trade liberalisation maintained; • Occurrence of drought does not rise compared with recent past; • Continued political stability. • New technologies and husbandry practices are adopted by farmers

	progressively increases annually thereafter		• Strong value chain linkages to enable the flow of technologies to farmers
OUTPUTS			
1. Farmer participation in agricultural research priority-setting, in developing technologies and in advisory services, enhanced.	1. Number of SADC countries practising the principle of inclusiveness in the planning and execution of research projects as a result of CCARDESA's interventions. 2. Number of non-state actors and private sector organisations involved in the implementation of CCARDESA supported projects. 3. Number of SADC Member States with farmer demand-driven advisory services' programmes increases from 3 in 2014 to 6 in year 5 as a result of CCARDESA interventions 4.Number of regional exchange visits to promote good practice (involving farmers together with service providers and advisory services) annually starting yr 2 5.Number of targeted training to promote good practice for agribusiness linkages and private sector development starting yr 2	NARS annual reports; FANR annual reports; CCARDESA quarterly and annual reports; Research (protocols') results; *Ad hoc* regional reviews. CCARDESA review/ evaluation reports	• Lessons learned from farmers are taken fully into account in developing new technologies/ husbandry practices; • Adequate (no decline in real terms) operational funds are made available to NARS/ researchers by national governments and ICPs; • Turnover of qualified staff in NARS reduced to a minimum; • NARS staff trained to be able to make effective use of ICTs; • Enabling environment in place in all Member States that encourages increased private sector, NGO and other non-state actors' involvement in
2.Capacity of NARS strengthened	1. Number of research proposals written by people trained under CCARDESA increases by at least 50%, by Year 5. 2. Proportion of successful proposals written by NARS	NARS annual reports; FANR research reports;	

	staff who have been trained by CCARDESA increases by at least 50% 3. Number of refereed papers in regional/ international agricultural journals, written by scientists implementing CCARDESA supported projects, increases by 5 per cent per annum from year 4. 4. Proportion of MTOP funds earmarked for regional research work in priority areas allocated through competitive systems, reaches 50% by 2015. 5. At least four training programmes for researchers, service providers and farmers in the region, drawn-up and implemented, by Year 2 of CCARDESA's operation. 6. Studies of lessons to be drawn from best practices in region undertaken by end-2013 7. Regional centres of leadership in agricultural education & training identified by end-2014 8. Six (6) training programmes in curriculum reform run annually, 2014 to 2017 2012 base year 9. Number of consultative w/shops on partnerships in year 2. 10. Disburse funds to RCOE annually 11. Deploy Technical Assistants annually.	NARS & CCARDESA quarterly and annual reports; International and regional agricultural journals; CCARDESA training course materials and specific study reports; CCARDESA progress reports; Evaluation reports of training courses.	agricultural R&D and advisory service provision (and that these key stakeholders are sufficiently strong to take up this role); • Agricultural advisory services operating effectively, encouraging adoption of new technologies/ practices by smallholders (both male and female)

	12. Number of partnerships developed on ICT curriculum annually. 13. Number of priorities for farmer empowerment identified by Yr 1 14. Number of good practices and partnership models developed 15. Number of empowerment strategies and polic**y** opportunity that promote development of farmer organizations identified 16. Number of project partnerships/ networks identified by Yr 1 17. Number of good practices and shared experiences disseminated		
3. Use of innovative ICT in technology generation and adoption, enhanced	1. Number of ICT based tools developed and made available to NARS and stakeholders for supporting agricultural production and productivity 2. Proportion of farmers regularly accessing technologies and marketing information (including prices) increases from 1% in 2012 to 4% in Year 4. 3. Number of regional training on ICT tools and network linkages best suited for specific national and regional needs	CCARDESA progress reports; *Ad hoc* surveys; SADC and CCARDESA MIS operational manuals; SADC annual report; NARS' annual reports	
4. Coordination of research & development strengthened in SADC	1. Regional R&D agenda and priorities developed, documented and	CCARDESA progress reports (quarterly and	

	implementation initiated by Year 2. 2. Number of formal partnerships established and operational between CCARDESA and national/regional/continental/global institutions 3. Regional management information system for R&D designed and being used by stakeholders in the region by Year 3. 4. Information on the state of R&D in the SADC region continuously collated, updated and shared widely with all stakeholders starting in Year 1. 5. Number of CAADP backstopping missions undertaken annually 6. Number of CAADP plans developed annually 7. Number of consultative and joint planning meeting held annually 8. Number of consultative partnership workshops conducted in Yr 2. 9. Amount of funds disbursed to the RCOE annually 10. Number of partnerships developed annually on ICT curriculum 11. Number of Technical Assistants deployed to RCOE annually. 12. Number of AET partnerships by Yr 2.	annual); Reports of ICPs; NARS' annual reports; FANR annual reports; MIS manual. CCARDESA operational manuals CCARDESA progress reports	

	13. CCARDESA M&E and Financial management system in place by yr 1 14. Number of CCARDESA annual workshops with stakeholders held 15. Number of CCARDESA Board Meetings held annually 16. Number of competitive grants awarded by yr 5		
5. Production of improved and market relevant technologies increased	1. Number of Research projects funded 2.Number of journal articles published 3.Number of user facts sheets/brochures/technical bulletins developed 4.Number of technologies developed by CCARDESA supported programs	CCARDESA progress reports *Adhoc* surveys NARS annual reports	NARS have the minimum required capacity to fully participate in CCARDESA research activities
ACTIVITIES			***Assumptions***
1.1Carry out analysis to identify priorities for farmer empowerment; identify good practices and partnership models; and identify empowerment strategies and policy opportunities that promote development of farmer organizations			• Funds planned to be provided for the OP by ICPs/SADC, etc., are made available in a timely manner; • The funds thus provided use common and harmonised accounting, procurement and reporting procedures; • Adequate human, financial and physical
1.2 Support stocktaking assessments of good practices on farmer and producer organizations' development and models for agri-business linkages			
1.3 Commission studies to assess needs for farmer empowerment and access across all commodities			
1.4 Conduct targeted training to build capacity of the NARS to develop skills for empowering farmers			
1.5 Support capacity building activities to enable farmer organisations to actively engage with their members			
1.6 Conduct targeted training to promote good practice for agribusiness linkages and private sector development			
1.7 Facilitate development of policies and strategies that improve farmer and youth access to affordable			
1.8 Promote development of youth internship program to motivate then to pursue agriculture R&D careers			
1.9 Establish/ strengthen integrated research for development (IR4D) and innovation platforms (IP) linking farmers, youths, producers to markers and to key technical and business management services			
1.10 Support up to four workshops to review study tools methodology and study results analysis, including identifying some projects, partnerships and networks. These workshops and other means (publications, and newsletters) will serve			

as platforms to disseminate good practices and experiences		resources continue to be provided to the NARS and other CCARDESA partner organisations; • Activities programmed to have been undertaken by the Pre-Implementation Period team (*e.g.* production of procedures' & competitive grants' manuals, organising stakeholders' [GA] meeting, etc), realised.
1.11 Support regional exchange visits and publications to disseminate good practices and to share experiences including on climate smart agricultural technologies		
1.12 Packaging of already existing research and extension outputs for dissemination		
1.13 Support innovative pilot activities that are likely to enhance farmer empowerment		
1.14 Carry out inputs and commodity market surveys and analyses		
1.15 Implement sub-projects identified as "quick-wins" in this first five year period		
1.16 Carry out quick win (priority) activities in the following: • Development of reliable seed supply and marketing systems in major sorghum growing countries • Carry out quick win (priority) activities in the following: Improvement of market access in the value chain for soyabeans • Promotion of the commercialization of indigenous local chickens • Analysis of policy incentives for investments in smallholder forest plantation development • Analysis of policy incentives for investments in small-scale value added processing in forestry		
2.1Support capacity-building initiatives for NARS (training, equipment etc) (i) developing research and extension networks and partnerships		
2.2 Facilitate training of NARS staff in proposal writing		
2.3 Facilitate activities for identifying regional research and development priorities including quick-wins initiatives		
2.4 Facilitate partnerships and support networks to implement agreed priority research and advisory services activities of common interest between countries		
2.5 Support development of research programmes on under-utilized crops in collaboration with NARS and other stakeholders		
2.6 Fund 8 sub-projects for generation and testing of new technologies		
2.7 Support 6 subregional projects for piloting and scaling up/out of good practices and technologies		
2.8 Support dissemination of research out puts and extension information/findings through 3 regional conferences		
2.9 Support exchange visits between research scientists and advisory services providers sharing common research interests		
2.10 Facilitate dissemination of research and extension information/findings through funding publications indifferent media including journals and common press		
2.11 Provide the involvement of non_state actors in the provision of research and advisory services (private sector, civil society, and farmer organizations) through establishment of multi-stakeholder innovation platforms for different		

commodities		
2.12 Convene three 3 regional workshops to catalyse the implementation of farmer-driven research and extension services		
2.13 To promote linkages between farmers and decision makers		
2.14 Support the identification of technologies to be up-scaled and or up scaled		
2.15 Promote implementation of initiatives for up-scaling and or out-scaling of practices		
3.1 Conduct a study to identify good and successful ICT policies and strategies in agriculture and other sectors (e.g. e-commerce)		
3.2 Conduct a study to examining ICT tools and network linkages best suited for specific needs		
3.3 Hold a regional workshop to review study results and identify sub-projects, networks and partnerships among ICT practitioners linked to Stakeholders		
3.4 Develop sub-projects, networks and partnerships among ICT practioners linked to stakeholders		
3.5 Support ICT interventions that benefit the research/extension, private sector and smallholder farmers to make informed decisions and strengthen their negotiation position with service providers and markets		
3.6 Develop and maintain ICT information systems relevant for different stakeholders (institutions, frontline extension staff and farmers, etc)		
3.7 Promote regional training focusing on ICT tools and network linkages		
3.8 Promote regional knowledge sharing on ICT tools, best suited for specific national and regional needs		
3.9 Establish and maintain a comprehensive and up-dated information and knowledge management system at the CCARDESA secretariat		
4.1 Undertake studies to update a regional situational analysis on on capacity for research planning, management and funding in NARS to inform planning, design and implementation of subsequent sub-projects		
4.2 (i) Organise 2 regional workshops to review study results, share experiences, and to promote good practices in research and advisory services (ii) Support 3 target advocacy workshops to promote market- oriented, farmer-led and demand-driven policies		
4.3 .Facilitate training to (i) Promote institutional reform in R&D for effective stakeholder participation and governance (ii) Foster collaboration with IARS to strengthen NARS in institution reforms and share experiences (iii) Support capacity building activities to develop research and extension networks and partnerships (iv)Train NARS on how to reform research and advisory services in partnership with IARCs, and (v) Build capacity of NARS on how to prepare research proposals for competitive funding and on competitive grants management in partnership with IARCs and NARs		
4.4 Support 2 sub-projects that contribute to institutional reform		
4.5 Support 6 exchange visits for NARS to share experiences and to promote good practices in research and advisory services		
4.6 Implement identified “quick wins” capacity building activities		

4.7 Conduct a survey on agricultural education in the region (and centres of leadership) to identify practices, and the impact and relevance on the agriculture sector and carry out a regional workshop to review the study and identify sub-projects		
4.8 Support 2 sub-projects that mainstream the good practices, including gender and HIV/AIDS in curricula at primary, secondary and tertiary levels and informal education systems		
4.9 Facilitate dissemination of good practices and experiences through various media		
4.10 Organise targeted advocacy workshops to promote partnerships mainstreaming AET activities; and promote use of mass media and ICTs, etc to improve curriculum development, delivery and access		
4.11 Train NARS in proposal writing and competitive grants' procedures; and in design and use of ICT-based communication strategies and campaigns		
4.12 Support subprojects that contribute to institutional reform; and mainstreaming good practices, including gender and HIV/AIDS		
4.13 Support three exchange visits of NARS to share experiences; promote networks and partnerships between educational systems and research and advisory services R&D and farmer organizations		
4.14 Identify and support regional centres of excellence/leadership		
4.15 Support 15 Support short term sabbatical initiatives		
4.16 Support two workshops to promote smallholder innovation and improved access, participation and ownership in knowledge and information systems		
4.17 Train NARs to design and use ICT-based communication strategies and campaigns in support of farmer-centred innovations		
4.18 Provide support to SADC countries in the implementation of CAADP, especially the development of CAADP investment plans		
5.1Convene stakeholders General Assemblies at regular intervals.		
5.2 Hold regular CCARDESA Board meetings.		
5.3 Recruit key CCARDESA staff.		
5.4 Establish CCARDESA Management systems;		
5.5 Develop institutional operational plans		
5.6 Procure fixed and operational assets for CCARDESA		
5.7 Develop strong technical links with FANR, NARS in Member States, other SROs in SSA, FARA, IARCs and other multi-lateral agencies.		
5.8 Mobilise resources and endowments from ICP and other sources.		
5.9 Represent CCARDESA at strategic regional and global meetings		
5.10 Hold regular consultation meetings with and between ICPs involved with CCARDESA		

**** These are impact indicators which will be measured later in the project cycle**

Annex 3: CCARDESA Operational Plan: Detailed Budget

Annex 3 (i): CCARDESA Operational Plan: Detailed Budget Scenario 1 (USD'000)

THEMATIC AREA 1: PROMOTE FARMER EMPOWERMENT AND MARKET ACCESS															
No.	**DESCRIPTION**	**UNIT**	**PY1**	**PY2**	**PY3**	**PY4**	**PY5**	**Total**	**UNIT COST**	**PY1**	**PY2**	**PY3**	**PY4**	**PY5**	**Total**
Sub-Thematic Area 1.1: Promote good practice , capacity building and farmer empowerment															
1	**Studies**														
	Analysis to identify priorities for farmer empowerment	Days	80	0	0	0	0	80	1	80	0	0	0	0	**80**
	Identify good practice and partnership models	Days	30	0	0	0	0	30	1	30	0	0	0	0	**30**
	Identify empowerment strategies and policy opportunities that promote development of farmer organizations.	Days	30	0	0	0	0	30	1	30	0	0	0	0	**30**
2	**Regional workshop**														
	Review study results & identify subprojects, partnerships & networks	No.	1					1	168	168	0	0	0	0	**168**
	Disseminate good practice and share experiences	No.			1	1	1	3	103	0	0	103	103	103	**309**
3	**Training**														
	Capacity building of NARS to develop farmer empowerment mechanisms	No.		1	1	1	1	4	103	0	103	103	103	103	**412**
4	**Sub-projects**														
	Enhancing farmer empowerment.	No.		1	1			2	500	0	500	500	0	0	**1000**
	Grant processing costs for TSG & SAC	No.		1	1	1		3	35	0	35	35	35	0	**105**
5	**Exchange visits**														
	Disseminate good practice and share experiences	No.			2	2	2	6	65	0	0	130	130	130	**390**
	Sub-total									**308**	**638**	**871**	**371**	**336**	**2524**
Sub-Thematic Area 1.2: Promote good practice and capacity building for agribusiness linkages and private sector development															
	Studies	**UNIT**	**PY1**	**PY2**	**PY3**	**PY4**	**PY5**	**Total**	**UNIT COST**	**PY1**	**PY2**	**PY3**	**PY4**	**PY5**	**Total**

1	Stocktaking assess of good practices on farmer & producer org development and models for agribusiness linkages	Days	30					30	1	30	0	0	0	0	**30**
	Inputs and commodity markets	Days	50		50		50	150	1	44	0	44	0	44	**132**
	Inputs and commodity market surveys	Days	125		125		125	375	1	110	0	110	0	110	**330**
	Analysis of inputs and commodity survey results	Days	90		90		90	270	1	90	0	90	0	90	**270**
2	**Regional Workshops**														
	Review the study tools, methodology and results analysis	No.	1		1		1	3	48	48	0	48	0	48	**144**
	Disseminate good practices and experiences	No.		1				1	143	0	143	0	0	0	**143**
3	**Training**														
	Capacity building to promote good practice for agribusiness linkages & private sector development	No.		1	1	1	1	4	115	0	115	115	115	115	**460**
4	**Sub-projects**														
	Agribusiness linkages	No.		1		1		2	500	0	500	0	500	0	**1000**
	Grant processing costs for TSG & SAC	No.			1	1	1	3	35	0	0	35	35	35	**105**
5	**Regional exchange visits**														
	Promote good practice (involving farmers, service providers and advisory services).	Trips		1	1	1	1	4	65	0	65	65	65	65	**260**
	Sub-total									**322**	**823**	**507**	**715**	**507**	**2874**
THEMATIC AREA 1 TOTAL										**630**	**1461**	**1378**	**1086**	**843**	**5398**

THEMATIC AREA 2: RESEARCH, TECHNOLOGY GENERATION AND FARMER-LED ADVISORY SERVICES															
No.	**DESCRIPTION**	**UNIT**	**PY1**	**PY2**	**PY3**	**PY4**	**PY5**	**Total**	**UNIT COST**	**PY1**	**PY2**	**PY3**	**PY4**	**PY5**	**Total**
1	**Sub-projects**														
	Generation and testing of technologies	No.		2	2	2	2	8	600	-	1,200	1,200	1,200	1,200	**4,800**
	Piloting and scaling up/out of good practices and technologies	No.		1	1	2	2	6	500	-	500	500	1,000	1,000	**3,000**
	Grant processing costs for TSG & SAC	No.		1	1	1	1	4	25	-	25	25	25	25	**100**
2	**Exchange visits and Conferences**														
	Disseminate research and extension information/findings through conferences and exchange visits			1		1	1	3	250	-	250	-	250	250	**750**
3	**Publications**														
	Disseminate research and extension information/findings through publications	Lump sum		1		1	1	3	30	-	30	-	30	30	**90**
	Sub-total									**0**	**2,005**	**1,725**	**2,505**	**2,505**	**8,740**
	Thematic Area 2 Total									**0**	**2,005**	**1,725**	**2,505**	**2,505**	**8,740**

THEMATIC AREA 3: Knowledge, Information and Communication															
No.	**DESCRIPTION**	**UNIT**	**PY1**	**PY2**	**PY3**	**PY4**	**PY5**	**Total**	**UNIT COST**	**PY1**	**PY2**	**PY3**	**PY4**	**PY5**	**Total**
	Studies														
1	Identify good and successful ICT policies and strategies in agriculture and other sectors (e.g., e-commerce);	Days	30					30	1.03	31	0	0	0	0	**31**
	Examine ICT tools and network linkages best suited for specific needs,	Days	20					20	1.1	22	0	0	0	0	**22**
	Communication and Visibility														
2	Develop communication strategy for CCARDESA	Days	20					20	3	60	0	0	0	0	**60**
	Recruitment of Media/Communications Officer														
	Production of publicity material	Lump sum	1	1	1	1	1	5	50	50	50	50	50	50	**250**
	Regional workshop														
3	Review study results and identify sub-projects, partnerships and networks among communication practitioners linked to stakeholders	No.	1					1	103	103	0	0	0	0	**103**
	Sub-projects														
4	Benefit the research/ extension, private sector and smallholder farmers to make informed decisions and strengthen their negotiation position.	No.		1		1		2	500	0	500	0	500	0	**1000**
	Grant processing costs for TSG & SAC	No.	1		1			2	34.75	35	0	35	0	0	**70**
	Sub-total									**301**	**550**	**85**	**550**	**50**	**1536**

THEMATIC AREA 4: INSTITUTIONAL STRENGTHENING AND CAPACITY BUILDING															
No.	**DESCRIPTION**	**UNIT**	**PY1**	**PY2**	**PY3**	**PY4**	**PY5**	**Total**	**UNIT COST**	**PY1**	**PY2**	**PY3**	**PY4**	**PY5**	**Total**
1	**Studies**														
	Regional situational analysis on capacity for research planning, management and funding in NARS.	Days	30					30	1.03	31	0	0	0	0	**31**
2	Workshops														**0**
	Regional workshops for NARS to share experiences and to promote good practices in research and advisory services.	No.			1	1		2	99	0	0	99	99	0	**198**
	Targeted advocacy workshops to promote market-oriented, farmer-led and demand-driven policies, research and advisory services.	No.			1	1	1	3	113	0	0	113	113	113	**339**
3	**Training**	**UNIT**	**PY1**	**PY2**	**PY3**	**PY4**	**PY5**	**Total**							
	Promote institutional reform in R&D for effective stakeholder participation and governance.	Days	60					60	0.95	57	0	0	0	0	**57**
	Foster collaboration with IARCs to strengthen NARS in institutions reforms and share experiences.	No.		1		1		2	129.4	0	129	0	129	0	**258**
	Support capacity building activities to develop research and extension networks and partnerships.	No.		1				1	117.4	0	117	0	0	0	**117**
	Training on NARS on how to reform research and advisory services in partnership with IARCs (e.g. IFPRI-ISNAR, NRI).	No.		1	1			2	117.4	0	117	117	0	0	**234**
	Build capacity of NARS on how to prepare research proposals for competitive funding in partnership with CGIAR institutions.	No.	2	2	2	2		8	113.4	227	227	227	227	0	**908**
	Training NARS on competitive grant management, Seminar	No.	2	2	2	2		8	68.75	138	138	138	138	0	**552**

4	**Sub-projects**														
	Contribute to institutional reform.	Lump sum		1		1		2	500	0	500	0	500	0	**1000**
	Grant processing costs for TSG & SAC		1		1	1		3	34.75	35	0	35	35	0	**105**
5	**Exchange visits**														
	NARS to share experiences and to promote good practices in research and advisory services.	No.			2	2	2	6	50	0	0	100	100	100	**300**
	Sub-total									488	1228	829	1341	213	**4099**

Sub-Thematic Area 4.2a: Institutional development and capacity building in agricultural education and training - Good Practices															
1	**Studies**	**UNIT**	**PY1**	**PY2**	**PY3**	**PY4**	**PY5**	**Total**	**UNIT COST**	**PY1**	**PY2**	**PY3**	**PY4**	**PY5**	**Total**
	Studies - survey on agricultural education in the region (and centres of leadership) to identify practices, and the impact and relevance on the agriculture sector.	Days	60					60	0.95	57	-	-	-	-	**57**
2	**Regional Workshops**														
	Review the study and identify sub-projects	No.	1					1	140.78	141	-	-	-	-	**141**
3	**Sub-projects**														
	Mainstream the good practices, including gender and HIV/AIDS in curricula at primary, secondary and tertiary levels and informal education systems.	No.		1		1		2	500	-	500	-	500	-	**1000**
	Grant processing costs for TSG & SAC		1		1			2	34.75	35	-	35	-	-	**70**
4	**Dissemination**														
	Dissemination of good practices and experiences through various media.	Lump sum			1			1	50	-	-	50	-	-	**50**
	Sub-total									**233**	**500**	**85**	**500**	**0**	**1318**
Sub-Thematic Area 4.2b: Institutional development and capacity building in agricultural education and training – Partnerships										**PY1**	**PY2**	**PY3**	**PY4**	**PY5**	**Total**
	Regional workshop														
1	Promote partnerships which 'mainstream' AET activities and institutions	No.		1	1	1		3	140.78	-	141	141	141	-	**423**
	Building partnerships that promote the use of mass media and ICT to improve curriculum development, delivery and access.	No.		1	1	1	1	4	140.78		141	141	141	141	**564**
2	**Regional Centres of Excellence (RCOE)**														
	Carry out study to identify Regional Centres of Excellence	No.	1					1	60	60	-	-	-	-	**60**

	Conduct consultative workshop to facilitate partnerships amongst stakeholders	No.		1				1	75	-	75	-	-	-	**75**
	Provide technical and financial assistance to RCOE to support implementation of their activities	Lump		1	1	1	1	4	100	-	100	100	100	100	**400**
3	**Exchange visits and internships**														
	Support to short term sabbatical initiatives	Trips			2	2	2	6	45	-	-	90	90	90	**270**
	Sub-total									**60**	**457**	**472**	**472**	**331**	**1792**

Sub-Thematic Area 4.3: Support SADC Countries in the development of CAADP Investment Plans															
1	**Consultative Meetings**									**PY1**	**PY2**	**PY3**	**PY4**	**PY5**	**Total**
	Convene consultative and joint planning meetings with stakeholders	No	3	2	2	2	2	11	40	120	80	80	80	80	**440**
2	**Skills Deployment**														**0**
	Identify and deploy experts to assist countries develop CAADP investment plans including peer review and learning	No	2	2	2	2	2	10	7	14	14	14	14	14	**70**
3	**Backstopping**														
	Carry out backstopping missions to countries for CAADP implementation	No.	3	3	3	3	3	15	3.5	11	11	11	11	11	**55**
	Sub-total									**145**	**105**	**105**	**105**	**105**	**565**
THEMATIC AREA 4 TOTAL										**926**	**2290**	**1491**	**2418**	**649**	**7774**
TOTAL FOR 4 THEMATIC AREAS										**1,857**	**6306**	**4679**	**6559**	**4049**	**23448**

CCARDESA Governance		**UNIT**	**PY1**	**PY2**	**PY3**	**PY4**	**PY5**	**Total**	**UNIT COST**	**PY1**	**PY2**	**PY3**	**PY4**	**PY5**	**Total**
1	General Assembly	Meeting	1		1			2	209	209	0	209	0	0	**418**
2	Board Meetings	Meeting	3	2	2	2	2	11	70.08	210	140	140	140	140	**770**
3	Board Committee meetings (5)	Meeting	10	10	10	10	10	50	19.25	193	193	193	193	193	**965**
4	Planning workshops	Days	3	3	3	3	4	16	45.88	138	138	138	138	184	**736**
Sub- Total										**750**	**471**	**680**	**471**	**517**	**2889**
Capital Investments		**UNIT**	**PY1**	**PY2**	**PY3**	**PY4**	**PY5**	**Total**	**UNIT COST**	**PY1**	**PY2**	**PY3**	**PY4**	**PY5**	
1	Vehicles	No.	2	1				3	50	100	50	0	0	0	**150**
2	Office Furniture	Lump sum	1	1				2	24	24	24	0	0	0	**48**
3	Office Equipment	Lump sum	1					1	20	20	0	0	0	0	**20**
4	Conferencing Equipment	Lump sum		1				1	25	0	25	0	0	0	**25**
Sub-Total										**144**	**99**	**0**	**0**	**0**	**243**

CCARDESA Secretariat Emoluments		UNIT	PY1	PY2	PY3	PY4	PY5	Total	UNIT COST	PY1	PY2	PY3	PY4	PY5	Total
1	Executive Director	Months	12	12	12	12	12	60							
2	Programmes & Grants Manager	Months	12	12	12	12	12	60							
3	Component Coordinator, R&D	Months	12	12	12	12	12	60							
4	Component Coordinator, KIC	Months	6	12	12	12	12	54							
5	Component Coordinator, Capacity Building	Months	6	12	12	12	12	54							
6	Component Coordinator, Farmer Empowerment	Months	6	12	12	12	12	54							
7	Administration Manager	Months	12	12	12	12	12	60							
8	Finance Manager	Months	12	12	12	12	12	60							
9	M&E	Months	12	12	12	12	12	60							
10	Internal Audit	Months	6	12	12	12	12	54							
11	Procurement Officer	Months	12	12	12	12	12	60							
12	National staff Legal Officer	Months	6	12	12	12	12	54							
13	Finance Officer	Months	12	12	12	12	12	60							
14	ICT Officer	Months	12	12	12	12	12	60							
15	Grants – Assistant	Months	6	12	12	12	12	54							
16	Documentation Assistant	Months	6	12	12	12	12	54							
17	Finance Assistant	Months	12	12	12	12	12	60							
18	PA	Months	12	12	12	12	12	60							
19	Admin Assistant	Months	12	12	12	12	12	60							
20	Office Orderly	Months	12	12	12	12	12	60							
21	Driver	Months	6	12	12	12	12	54							
22	Clerical staff/ Secretary	Months	6	12	12	12	12	54							
23	Media and Communications Officer	Months	6	12	12	12	12	54							
SUB-TOTAL										**1,608**	**1,714**	**1,714**	**1,714**	**1,714**	**8,464**

CCARDESA Administration Expenses		UNIT	PY1	PY2	PY3	PY4	PY5	Total	UNIT COST	PY1	PY2	PY3	PY4	PY5	Total
1	Communications	Months	12	12	12	12	12	60	1	12	12	12	12	12	**60**
2	Printing & Stationery	Lump sum	1	1	1	1	1	5	10	10	10	10	10	10	**50**
3	Office Equipment R & M	Lump sum	1	1	1	1	1	5	2.4	2	2	2	2	2	**10**
4	Insurance	No.	2	3	3	3	3	14	1.5	3	5	5	5	5	**23**
5	Travel – Airfares	Trips	30	40	50	50	50	220	1.5	45	60	75	75	75	**330**
6	Travel - Per diems	Days	90	120	150	150	150	660	0.25	23	30	38	38	38	**167**
7	GMU Workshops & Meetings	No.	2	2	3	3	4	14	22.5	45	45	68	68	90	**316**
8	Utilities (Electricity, Water)	Months	12	12	12	12	12	60	0.1	1	1	1	1	1	**5**
9	Vehicle Running Costs	Lump sum	6	10	10	10	10	46	1.3	8	13	13	13	13	**60**
10	Cleaning services	Months	12	12	12	12	12	60	1	12	12	12	12	12	**60**
11	Security services	Months	12	12	12	12	12	60	2	24	24	24	24	24	**120**
Sub-Total										**185**	**214**	**260**	**260**	**282**	**1201**

SCENARIO 1 MTOP BUDGET SUMMARY		**PY1**	**PY2**	**PY3**	**PY4**	**PY5**	**Total**
Thematic Areas							
1	Thematic Area 1: Promote farmer empowerment and market access	630	1,461	1,378	1,086	843	**5,363**
2	Thematic Area 2: Res, Tech. Generation & Farmer demand-driven Advisory Services	0	2,005	1,725	2,505	2,505	**8,740**
3	Thematic Area 3: Knowledge, Information and Communication	301	550	85	550	50	**1,536**
4	Thematic Area 4: Institutional Development and Capacity Building	926	2290	1491	2418	649	**7,772**
5	Thematic Area 5: Strengthen CCARDESA as an effective SRO - Operations	750	470	679	470	516	**2,885**
6	Contingency (at 10% of Operational budget)	261	678	536	703	456	**2,634**
Sub-Total (For all Thematic Areas & contingency)		**2,868**	**7,454**	**5,894**	**7,733**	**5,019**	**28,968**
Thematic Area 5: Strengthen CCARDESA as an effective SRO (Overheads)							
7	Capital Investments	144	99	0	0	0	243
8	CCARDESA Secretariat Emoluments	1,608	1,714	1,714	1,714	1,714	8,464
9	Administration Expenses	185	214	260	260	282	1,201
	Sub-Total CCARDESA (Overheads)	**1,937**	**2,027**	**1,974**	**1,974**	**1,996**	**9,908**
	Total CCARDESA MTOP Budget	**4,805**	**9,481**	**7,868**	**9,707**	**7,015**	**38,876**

Annex 3 (ii): CCARDESA Operational Plan: Detailed Budget Scenario 2 (USD'000)

THEMATIC AREA 1: PROMOTE FARMER EMPOWERMENT AND MARKET ACCESS															
No.	**DESCRIPTION**	**UNIT**	**PY1**	**PY2**	**PY3**	**PY4**	**PY5**	**Total**	**UNIT COST**	**PY1**	**PY2**	**PY3**	**PY4**	**PY5**	**Total**
Sub-Thematic Area 1.1: Promote good practice , capacity building and farmer empowerment															
1	**Studies**														
	Analysis to identify priorities for farmer empowerment	Days	80	0	0	0	0	80	1	80	0	0	0	0	**80**
	Identify good practice and partnership models	Days	30	0	0	0	0	30	1	30	0	0	0	0	**30**
	Identify empowerment strategies and policy opportunities that promote development of farmer organizations.	Days	30	0	0	0	0	30	1	30	0	0	0	0	**30**
2	**Regional workshop**														
	Review study results & identify subprojects, partnerships & networks	No.	1		1		1	3	168	168	0	168	0	168	**504**
	Disseminate good practice and share experiences	No.		1	1		1	3	103	0	103	103		103	**309**
3	**Training**														
	Capacity building of NARS to develop farmer empowerment mechanisms	No.		1	1	1	1	4	103	0	103	103	103	103	**412**
4	**Sub-projects**														
	Enhancing farmer empowerment.	No.		1		1		2	500	0	500	0	500	0	**1000**
	Thematic Area 1 Total									**308**	**706**	**374**	**603**	**374**	**2365**

THEMATIC AREA 2: RESEARCH, TECHNOLOGY GENERATION AND FARMER-LED ADVISORY SERVICES															
No.	**DESCRIPTION**	**UNIT**	**PY1**	**PY2**	**PY3**	**PY4**	**PY5**	**Total**	**UNIT COST**	**PY1**	**PY2**	**PY3**	**PY4**	**PY5**	**Total**
1	Sub-projects														
	Generation and testing of technologies	No.		2	2	2	1	7	600	-	1,200	1,200	1,200	600	**4,200**
	Piloting and scaling up/out of good practices and technologies	No.		1	1	1	1	4	500	-	500	500	500	500	**2,000**
	Grant processing costs for TSG & SAC	No.		1	1	1	1	4	25	-	25	25	25	25	**100**
2	**Exchange visits and Conferences**														
	Disseminate research and extension information/findings through conferences and exchange visits			1	1	1	1	4	250	-	250	250	250	250	**1,000**
	Publications														
3	Disseminate research and extension information/findings through publications	Lump sum		1	1		1	3	30	-	30	30		30	**90**
	Thematic Area 2 Total									**0**	**2,005**	**2,005**	**1,975**	**1,405**	**7,390**

THEMATIC AREA 3: Knowledge, Information and Communication															
No.	**DESCRIPTION**	**UNIT**	**PY1**	**PY2**	**PY3**	**PY4**	**PY5**	**Total**	**UNIT COST**	**PY1**	**PY2**	**PY3**	**PY4**	**PY5**	**Total**
	Studies														
1	Identify good and successful ICT policies and strategies in agriculture and other sectors (e.g., e-commerce);	Days	30					30	1.03	31	0	0	0	0	**31**
	Examine ICT tools and network linkages best suited for specific needs,	Days	20					20	1.1	22	0	0	0	0	**22**
	Communication and Visibility														
2	Develop communication strategy for CCARDESA	Days	20					20	3	60	0	0	0	0	**60**
	Recruitment of Media/Communications Officer														
	Production of publicity material	Lump sum	1	1	1	1	1	5	50	50	50	50	50	50	**250**
	Regional workshop														
3	Review study results and identify sub-projects, partnerships and networks among communication practitioners linked to stakeholders	No.	1					1	103	103	0	0	0	0	**103**
	Sub-projects														
4	Benefit the research/ extension, private sector and smallholder farmers to make informed decisions and strengthen their negotiation position.	No.		1		1		2	500	0	500	0	500	0	**1000**
	Grant processing costs for TSG & SAC	No.	1		1			2	34.75	35	0	35	0	0	**70**
	Sub-total									**301**	**550**	**85**	**550**	**50**	**1536**

THEMATIC AREA 4: INSTITUTIONAL STRENGTHENING AND CAPACITY BUILDING															
No.	DESCRIPTION	UNIT	PY1	PY2	PY3	PY4	PY5	Total	UNIT COST	PY1	PY2	PY3	PY4	PY5	Total
Sub-Thematic Area 4.1: Institutional development and capacity building in research, technology generation and advisory services															
1	**Studies**														
	Regional situational analysis on capacity for research planning, management and funding in NARS.	Days	30					30	1.03	31	0	0	0	0	**31**
2	**Workshops**														
	Regional workshops for NARS to share experiences and to promote good practices in research and advisory services.	No.			1	1		3	99	0	0	99	99	0	**198**
	Targeted advocacy workshops to promote market-oriented, farmer-led and demand-driven policies, research and advisory services.	No.			1	0	1	3	113	0	0	113	0	113	**226**
3	Training	UNIT	PY1	PY2	PY3	PY4	PY5	Total							**0**
	Promote institutional reform in R&D for effective stakeholder participation and governance.	Days	60					60	0.95	57	0	0	0	0	**57**
	Foster collaboration with IARCs to strengthen NARS in institutions	No.		1		1		2	129.4	0	129	0	129	0	**258**

	reforms and share experiences.														
	Support capacity building activities to develop research and extension networks and partnerships.	No.		1				1	117.4	0	117	0	0	0	**117**
	Training on NARS on how to reform research and advisory services in partnership with IARCs (e.g. IFPRI-ISNAR, NRI).	No.		1	1			2	117.4	0	117	117	0	0	**234**
	Build capacity of NARS on how to prepare research proposals for competitive funding in partnership with CGIAR institutions.	No.	2	1	1	1		5	113.4	227	113	113	113	0	**566**
	Training NARS on competitive grant management, Seminar	No.	1	1	1	1		4	68.75	69	69	69	69	0	**276**
4	**Sub-projects**														
	Contribute to institutional reform.	Lump sum		1		1		2	500	0	500	0	500	0	**1000**
	Grant processing costs for TSG & SAC		1		1	1		3	34.75	35	0	35	35	0	**105**
	Sub-total									419	1046	546	945	113	**3068**

Sub-Thematic Area 4.2a: Institutional development and capacity building in agricultural education and training - Good Practices															
1	**Studies**	**UNIT**	**PY1**	**PY2**	**PY3**	**PY4**	**PY5**	**Total**	**UNIT COST**	**PY1**	**PY2**	**PY3**	**PY4**	**PY5**	**Total**
	Studies - survey on agricultural education in the region (and centres of leadership) to identify practices, and the impact and relevance on the agriculture sector.	Days	60					0	0.95	0	-	-	-	-	57
2	Regional Workshops														
	Review the study and identify sub-projects	No.	1					1	140.78	0	-	-	-	-	141
3	Sub-projects														
	Mainstream the good practices, including gender and HIV/AIDS in curricula at primary, secondary and tertiary levels and informal education systems.	No.		0		0		2	500	-	0	-	0	-	1,000
	Grant processing costs for TSG & SAC		1		0			1	34.75	0	-	0	-	-	70
4	**Dissemination**														
	Dissemination of good practices and experiences through various media.	Lump sum			0			0	50	-	-	0	-	-	50
	Sub-total									**233**	**500**	**85**	**500**	**0**	**1,317**
	Sub theme Area 4.2 subtotal									**0**	**0**	**0**	**0**	**0**	**1318**

Sub-Thematic Area 4.2b: Institutional development and capacity building in agricultural education and training – Partnerships															
	Regional workshop														
1	Promote partnerships which 'mainstream' AET activities and institutions	No.		1		1		2	140.78	-	141		141	-	**282**
	Building partnerships that promote the use of mass media and ICT to improve curriculum development, delivery and access.	No.		1		1		2	140.78		141		141		**282**
2	**Regional Centres of Excellence (RCOE)**														
	Carry out study to identify Regional Centres of Excellence	No.	1					1	60	60	-	-	-	-	**60**
	Conduct consultative workshop to facilitate partnerships amongst stakeholders	No.		1				1	75	-	75	-	-	-	**75**
	Provide technical and financial assistance to RCOE to support implementation of their activities	Lump		1		1	1	3	100	-	100		100	100	**300**
3	**Exchange visits and internships**														
	Support to short term sabbatical initiatives	Trips			2	2	2	6	45	-	-	90	90	90	**270**
	Sub-total									**60**	**457**	**90**	**472**	**190**	**1269**

Sub-Thematic Area 4.3: Support SADC Countries in the development of CAADP Investment Plans										**PY1**	**PY2**	**PY3**	**PY4**	**PY5**	**Total**
1	**Consultative Meetings**														
	Convene consultative and joint planning meetings with stakeholders	No	3	2	3	2	2	12	40	120	80	120	80	80	480
2	Skills Deployment														
	Identify and deploy experts to assist countries develop CAADP investment plans including peer review and learning	No	0	2	2	2	2	8	7	0	14	14	14	14	56
3	Backstopping														
	Carry out backstopping missions to countries for CAADP implementation	No.	0	2	2	2	2	8	3.5	7	7	7	7	7	35
	Sub Theme Area 4.3 Subtotal									**120**	**101**	**141**	**101**	**101**	**564**
	THEMATIC AREA 4 TOTAL									**599**	**1603**	**777**	**1518**	**404**	**4039**
TOTAL FOR 4 THEMATIC AREAS										**1067**	**5055**	**3206**	**4784**	**2233**	**16345**

CARDESA ESTABLISHMENT & OPERATIONAL COSTS															
CCARDESA Governance		UNIT	PY1	PY2	PY3	PY4	PY5	Total	UNIT COST	PY1	PY2	PY3	PY4	PY5	**Total**
1	General Assembly	Meeting	1		1			2	209	209	0	209	0	0	**418**
2	Board Meetings	Meeting	3	2	2	2	2	11	70.08	210	140	140	140	140	**770**
3	Board Committee meetings (5)	Meeting	10	10	10	10	10	50	19.25	193	193	193	193	193	**965**
4	Planning workshops	Days	3	3	3	3	4	16	45.88	138	138	138	138	184	**736**
Subtotal										**750**	**471**	**680**	**471**	**517**	**2889**
Capital Investments		**UNIT**	**PY1**	**PY2**	**PY3**	**PY4**	**PY5**	**Total**	**UNIT COST**	**PY1**	**PY2**	**PY3**	**PY4**	**PY5**	**Total**
1	Vehicles	No.	2	1				3	50	100	50	0	0	0	**150**
2	Office Furniture	Lump sum	1	1				2	24	24	24	0	0	0	**48**
3	Office Equipment	Lump sum	1					1	20	20	0	0	0	0	**20**
4	Conferencing Equipment	Lump sum		1				1	25	0	25	0	0	0	**25**
Sub-Total										**144**	**99**	**0**	**0**	**0**	**243**
CCARDESA Secretariat Emoluments		**UNIT**	**PY1**	**PY2**	**PY3**	**PY4**	**PY5**	**Total**	**UNIT COST**	**PY1**	**PY2**	**PY3**	**PY4**	**PY5**	**Total**
1	Executive Director	Months	12	12	12	12	12	60							
2	Programmes & Grants Manager	Months	12	12	12	12	12	60							
3	Component Coordinator, R&D	Months	12	12	12	12	12	60							
4	Component Coordinator, KIC	Months	6	12	12	12	12	54							
5	Component Coordinator, Capacity Building	Months	6	12	12	12	12	54							
6	Component Coordinator, Farmer Empowerment	Months	6	12	12	12	12	54							
7	Administration Manager	Months	12	12	12	12	12	60							
8	Finance Manager	Months	12	12	12	12	12	60							
9	M&E	Months	12	12	12	12	12	60							
10	Internal Audit	Months	6	12	12	12	12	54							
11	Procurement Officer	Months	12	12	12	12	12	60							

12	National staff Legal Officer	Months	6	12	12	12	12	54							
13	Finance Officer	Months	12	12	12	12	12	60							
14	ICT Officer	Months	12	12	12	12	12	60							
15	Grants – Assistant	Months	6	12	12	12	12	54							
16	Documentation Assistant	Months	6	12	12	12	12	54							
17	Finance Assistant	Months	12	12	12	12	12	60							
18	PA	Months	12	12	12	12	12	60							
19	Admin Assistant	Months	12	12	12	12	12	60							
20	Office Orderly	Months	12	12	12	12	12	60							
21	Driver	Months	6	12	12	12	12	54							
22	Clerical staff/ Secretary	Months	6	12	12	12	12	54							
23	Media and Communications Officer	Months	6	12	12	12	12	54							
Sub-Total										**1,608**	**1,714**	**1,714**	**1,714**	**1,714**	**8464**

CCARDESA Administration Expenses		**UNIT**	**PY1**	**PY2**	**PY3**	**PY4**	**PY5**	**Total**	**UNIT COST**	**PY1**	**PY2**	**PY3**	**PY4**	**PY5**	**Total**
1	Communications	Months	12	12	12	12	12	60	1	12	12	12	12	12	60
2	Printing & Stationery	Lump sum	1	1	1	1	1	5	10	10	10	10	10	10	50
3	Office Equipment R & M	Lump sum	1	1	1	1	1	5	2.4	2	2	2	2	2	12
4	Insurance	No.	2	3	3	3	3	14	1.5	3	5	5	5	5	21
5	Travel – Airfares	Trips	30	40	50	50	50	220	1.5	45	60	75	75	75	330
6	Travel - Per diems	Days	90	120	150	150	150	660	0.25	23	30	38	38	38	165
7	GMU Workshops & Meetings	No.	2	2	3	3	4	14	22.5	45	45	68	68	90	315
8	Utilities (Electricity, Water)	Months	12	12	12	12	12	60	0.1	1	1	1	1	1	6
9	Vehicle Running Costs	Lump sum	6	10	10	10	10	46	1.3	8	13	13	13	13	60
10	Cleaning services	Months	12	12	12	12	12	60	1	12	12	12	12	12	60
11	Security services	Months	12	12	12	12	12	60	2	24	24	24	24	24	120
Sub-Total										**185**	**214**	**260**	**260**	**282**	**1201**

SCENARIO 2 MTOP BUDGET SUMMARY		PY1	PY2	PY3	PY4	PY5	Total
	Thematic Areas						
1	Thematic Area 1: Promote farmer empowerment and market access	308	706	374	603	374	**2,365**
2	Thematic Area 2: Res, Tech. Generation & Farmer demand-driven Advisory Services	0	2,005	2,005	1,975	1,405	**7,390**
3	Thematic Area 3: Knowledge, Information and Communication	301	550	85	550	50	**1,536**
4	Thematic Area 4: Institutional Development and Capacity Building	599	1603	777	1518	404	**4,039**
5	Thematic Area 5: Strengthen CCARDESA as an effective SRO - Operations	750	471	680	471	513	**2,885**
6	Contingency (at 10% of Operational budget)	182	553	389	526	275	**1,925**
	Sub-Total (For all thematic areas & contingency)	**1,999**	**6,086**	**4,275**	**5,781**	**3,025**	**20,140**
7	**Thematic Area 5: Strengthen CCARDESA as an effective SRO (Overheads)**						
	Capital Investments	144	99	0	0	0	**243**
8	CCARDESA Secretariat Emoluments	1,608	1,714	1,714	1,714	1,714	**8,464**
9	Administration Expenses	185	214	260	260	282	**1,201**
	Sub-Total CCARDESA (Overheads)	**1,937**	**2,027**	**1,974**	**1,974**	**1,996**	**9,908**
	MTOP Total Budget	**3,936**	**8,113**	**6,249**	**7,755**	**5,021**	**30,048**

Annex 3 (iii): CCARDESA Operational Plan: Detailed Budget Scenario 3 (USD'000)

THEMATIC AREA 1: PROMOTE FARMER EMPOWERMENT AND MARKET ACCESS															
No.	**DESCRIPTION**	**UNIT**	**PY1**	**PY2**	**PY3**	**PY4**	**PY5**	**Total**	**UNIT COST**	**PY1**	**PY2**	**PY3**	**PY4**	**PY5**	**Total**
Sub-Thematic Area 1.1: Promote good practice , capacity building and farmer empowerment															
1	**Studies**														
	Analysis to identify priorities for farmer empowerment	Days	80	0	0	0	0	80	1	80	0	0	0	0	**80**
	Identify good practice and partnership models	Days	30	0	0	0	0	30	1	30	0	0	0	0	**30**
	Identify empowerment strategies and policy opportunities that promote development of farmer organizations.	Days	30	0	0	0	0	30	1	30	0	0	0	0	**30**
2	**Regional workshop**														
	Review study results & identify subprojects, partnerships & networks	No.	1		1			2	168	168	0	168	0		**336**
	Disseminate good practice and share experiences	No.		1		1	1	3	103	0	103	0	103	103	**206**
3	**Training**														
	Capacity building of NARS to develop farmer empowerment mechanisms	No.		1		1		2	103	0	103		103	0	**206**
4	**Sub-projects**														
	Enhancing farmer empowerment.	No.			1			1	500	0		500		0	**500**
	Grant processing costs for TSG & SAC	No.		1				0	35	0	35	0		0	**35**
5	**Exchange visits**														
	Disseminate good practice and share experiences	No.			1	1		2	65	0	0	65	65	0	**130**
	Thematic Area 1Total									**308**	**241**	**733**	**271**	**103**	**1656**

THEMATIC AREA 2: RESEARCH, TECHNOLOGY GENERATION AND FARMER-LED ADVISORY SERVICES															
No.	**DESCRIPTION**	**UNIT**	**PY1**	**PY2**	**PY3**	**PY4**	**PY5**	**Total**	**UNIT COST**	**PY1**	**PY2**	**PY3**	**PY4**	**PY5**	**Total**
1	Sub-projects														
	Generation and testing of technologies	No.		1	1	1		3	600	-	600	600	600		**1,800**
	Piloting and scaling up/out of good practices and technologies	No.		1		1		2	500	-	500		500		**1,000**
	Grant processing costs for TSG & SAC	No.		1		1		2	25	-	25		25		**50**
2	**Exchange visits and Conferences**														
	Disseminate research and extension information/findings through conferences and exchange visits			1		1		2	250	-	250		250		**500**
	Publications														
3	Disseminate research and extension information/findings through publications	Lump sum		1			1	2	30	-	30			30	**60**
	Thematic Area 2 Total									**0**	**1,405**	**600**	**1,375**	**30**	**3,410**

THEMATIC AREA 3: KNOWLEDGE, INFORMATION AND COMMUNICATIONS															
No.	**DESCRIPTION**	**UNIT**	**PY1**	**PY2**	**PY3**	**PY4**	**PY5**	**Total**	**UNIT COST**	**PY1**	**PY2**	**PY3**	**PY4**	**PY5**	**Total**
1	**Communication and Visibility**														
	Develop communication strategy for CCARDESA	Days	20					20	3	60	0	0	0	0	**60**
	Recruitment of Media/Communications Officer														
	Production of publicity material	Lump sum		1		1	1	5	50		50		50	50	**150**
2	**Regional workshop**														
	Review study results and identify sub-projects, partnerships and networks among communication practitioners linked to stakeholders	No.	1					1	103	103	0	0	0	0	**103**
3	**Sub-projects**														
	Benefit the research/ extension, private sector and smallholder farmers to make informed decisions and strengthen their negotiation position.	No.		1		1		2	500	0	500	0	500	0	**1000**
	Thematic Area 3 Total									**163**	**550**	**0**	**550**	**50**	**1313**

THEMATIC AREA 4: INSTITUTIONAL STRENGTHENING AND CAPACITY BUILDING															
No.	**DESCRIPTION**	**UNIT**	**PY1**	**PY2**	**PY3**	**PY4**	**PY5**	**Total**	**UNIT COST**	**PY1**	**PY2**	**PY3**	**PY4**	**PY5**	**Total**
Sub-Thematic Area 4.1: Institutional development and capacity building in research, technology generation and advisory services															
1	**Studies**														
	Regional situational analysis on capacity for research planning, management and funding in NARS.	Days	30					30	1.03	31	0	0	0	0	**31**
2	**Workshops**														
	Regional workshops for NARS to share experiences and to promote good practices in research and advisory services.	No.			1			1	99	0	0	99		0	**99**
	Targeted advocacy workshops to promote market-oriented, farmer-led and demand-driven policies, research and advisory services.	No.				1			113	0	0		113		**113**
3	**Training**	**UNIT**	**PY1**	**PY2**	**PY3**	**PY4**	**PY5**	**Total**							
	Promote institutional reform in R&D for effective stakeholder participation and governance.	Days	60					60	0.95	57	0	0	0	0	**57**
	Foster collaboration with IARCs to strengthen NARS in institutions reforms and share experiences.	No.		1				1	129.4	0	129	0		0	**129**
	Support capacity building activities to develop research and extension networks and partnerships.	No.		1		1		2	117.4	0	117	0	117	0	**234**
	Training on NARS on how to reform research and advisory services in partnership with IARCs (e.g. IFPRI-ISNAR, NRI).	No.			1			1	117.4	0		117	0	0	**117**
	Build capacity of NARS on how to prepare research proposals for competitive funding in partnership with CGIAR institutions.	No.	1		1			2	113.4	113		113		0	**226**
	Training NARS on competitive grant management, Seminar	No.	1		1			2	68.75	69		69		0	**138**

4	**Sub-projects**														
	Contribute to institutional reform.	Lump sum				1		1	500	0		0	500	0	**500**
	Grant processing costs for TSG & SAC		1			1		2	34.75	35	0		35	0	**70**
5	**Exchange visits**														
	NARS to share experiences and to promote good practices in research and advisory services.	No.			1			1	50	0	0	50			**50**
	Sub-total									**305**	**246**	**448**	**765**	**0**	**1764**

Sub-Thematic Area 4.2b: Institutional development and capacity building in agricultural education and training – Partnerships										**PY1**	**PY2**	**PY3**	**PY4**	**PY5**	**Total**
	Regional workshop														
1	Promote partnerships which 'mainstream' AET activities and institutions	No.		1				1	140.78	-	141			-	**141**
	Building partnerships that promote the use of mass media and ICT to improve curriculum development, delivery and access.	No.			1		1	2	140.78			141		141	**282**
2	**Regional Centres of Excellence (RCOE)**														
	Carry out study to identify Regional Centres of Excellence	No.	1					1	60	60	-	-	-	-	**60**
	Conduct consultative workshop to facilitate partnerships amongst stakeholders	No.		1				1	75	-	75	-	-	-	**75**
	Provide technical and financial assistance to RCOE to support implementation of their activities	Lump		1		1		2	100	-	100		100		**200**
3	**Exchange visits and internships**														
	Support to short term sabbatical initiatives	Trips			1		1	2	45	-	-	45		45	**90**
	Sub-total									60	316	186	100	186	**1792**
	Sub-total														

Sub-Thematic Area 4.3: Support SADC Countries in the development of CAADP Investment Plans															
1	**Consultative Meetings**									**PY1**	**PY2**	**PY3**	**PY4**	**PY5**	**Total**
	Convene consultative and joint planning meetings with stakeholders	No		1	1	1	1	4	40		40	40	40	40	**160**
2	Skills Deployment														**0**
	Identify and deploy experts to assist countries develop CAADP investment plans including peer review and learning	No	2	2	3	2	2	11	7	14	14	21	14	14	**77**
3	**Backstopping**														
	Carry out backstopping missions to countries for CAADP implementation	No.	3	3	3	3	3	15	3.5	11	11	11	11	11	**55**
	Sub-total									**25**	**65**	**72**	**65**	**65**	**292**
	Sub Theme Area 4.3 Subtotal														
	THEMATIC AREA 4 TOTAL									**390**	**627**	**706**	**930**	**251**	**2904**
	TOTAL FOR 4 THEMATIC AREAS									**861**	**2823**	**2039**	**3126**	**537**	**9386**

CARDESA ESTABLISHMENT & OPERATIONAL COSTS															
CCARDESA Governance		UNIT	PY1	PY2	PY3	PY4	PY5	Total	UNIT COST	PY1	PY2	PY3	PY4	PY5	**Total**
1	General Assembly	Meeting	1		1			2	209	209	0	209	0	0	**418**
2	Board Meetings	Meeting	3	2	2	2	2	11	70.08	210	140	140	140	140	**770**
3	Board Committee meetings (5)	Meeting	10	10	10	10	10	50	19.25	193	193	193	193	193	**965**
4	Planning workshops	Days	3	3	3	3	4	16	45.88	138	138	138	138	184	**736**
Sub-Total										**750**	**471**	**680**	**471**	**517**	**2889**

Capital Investments		**UNIT**	**PY1**	**PY2**	**PY3**	**PY4**	**PY5**	**Total**	**UNIT COST**	**PY1**	**PY2**	**PY3**	**PY4**	**PY5**	**Total**
1	Vehicles	No.	2	1				3	50	100	50	0	0	0	**150**
2	Office Furniture	Lump sum	1	1				2	24	24	24	0	0	0	**48**
3	Office Equipment	Lump sum	1					1	20	20	0	0	0	0	**20**
4	Conferencing Equipment	Lump sum		1				1	25	0	25	0	0	0	**25**
Sub-Total										**144**	**99**	**0**	**0**	**0**	**243**

CCARDESA Secretariat Emoluments		**UNIT**	**PY1**	**PY2**	**PY3**	**PY4**	**PY5**	**Total**	**UNIT COST**	**PY1**	**PY2**	**PY3**	**PY4**	**PY5**	**Total**
1	Executive Director	Months	12	12	12	12	12	60							
2	Programmes & Grants Manager	Months	12	12	12	12	12	60							
3	Component Coordinator, R&D	Months	12	12	12	12	12	60							
4	Component Coordinator, KIC	Months	6	12	12	12	12	54							
5	Component Coordinator, Capacity Building	Months	6	12	12	12	12	54							
6	Component Coordinator, Farmer Empowerment	Months	6	12	12	12	12	54							
7	Administration Manager	Months	12	12	12	12	12	60							
8	Finance Manager	Months	12	12	12	12	12	60							
9	M&E	Months	12	12	12	12	12	60							
10	Internal Audit	Months	6	12	12	12	12	54							
11	Procurement Officer	Months	12	12	12	12	12	60							
12	National staff Legal Officer	Months	6	12	12	12	12	54							

13	Finance Officer	Months	12	12	12	12	12	60							
14	ICT Officer	Months	12	12	12	12	12	60							
15	Grants – Assistant	Months	6	12	12	12	12	54							
16	Documentation Assistant	Months	6	12	12	12	12	54							
17	Finance Assistant	Months	12	12	12	12	12	60							
18	PA	Months	12	12	12	12	12	60							
19	Admin Assistant	Months	12	12	12	12	12	60							
20	Office Orderly	Months	12	12	12	12	12	60							
21	Driver	Months	6	12	12	12	12	54							
22	Clerical staff/ Secretary	Months	6	12	12	12	12	54							
23	Media and Communications Officer	Months	6	12	12	12	12	54							
Sub-Total										**1,608**	**1,714**	**1,714**	**1,714**	**1,714**	**8,464**

CCARDESA Administration Expenses		**UNIT**	**PY1**	**PY2**	**PY3**	**PY4**	**PY5**	**Total**	**UNIT COST**	**PY1**	**PY2**	**PY3**	**PY4**	**PY5**	**Total**
1	Communications	Months	12	12	12	12	12	60	1	12	12	12	12	12	**60**
2	Printing & Stationery	Lump sum	1	1	1	1	1	5	10	10	10	10	10	10	**50**
3	Office Equipment R & M	Lump sum	1	1	1	1	1	5	2.4	2	2	2	2	2	**10**
4	Insurance	No.	2	3	3	3	3	14	1.5	3	5	5	5	5	**23**
5	Travel – Airfares	Trips	30	40	50	50	50	220	1.5	45	60	75	75	75	**330**
6	Travel - Per diems	Days	90	120	150	150	150	660	0.25	23	30	38	38	38	**167**
7	GMU Workshops & Meetings	No.	2	2	3	3	4	14	22.5	45	45	68	68	90	**316**
8	Utilities (Electricity, Water)	Months	12	12	12	12	12	60	0.1	1	1	1	1	1	**5**
9	Vehicle Running Costs	Lump sum	6	10	10	10	10	46	1.3	8	13	13	13	13	**60**
10	Cleaning services	Months	12	12	12	12	12	60	1	12	12	12	12	12	**60**
11	Security services	Months	12	12	12	12	12	60	2	24	24	24	24	24	**120**
Sub-Total										**185**	**214**	**260**	**260**	**282**	**1199**

SCENARIO 3 MTOP BUDGET SUMMARY		PY1	PY2	PY3	PY4	PY5	Total
	Thematic Areas						
1	Thematic Area 1: Promote farmer empowerment and market access	308	241	733	271	103	1,656
2	Thematic Area 2: Res, Tech. Generation & Farmer demand-driven Advisory Services	0	1,405	600	1,375	30	3,410
3	Thematic Area 3: Knowledge, Information and Communication	163	550	0	550	50	1,313
4	Thematic Area 4: Institutional Development and Capacity Building	390	627	706	930	251	2,904
5	Thematic Area 5: Strengthen CCADESA as an effective SRO - Operations	750	471	680	471	517	2,889
6	Contingency (at 10% of Operational budget)	161	329	272	360	95	1,217
	Sub-Total (For all thematic areas & contingency)	**1,772**	**3,623**	**2,991**	**3,957**	**1,046**	**13,389**
	Thematic Area 5: Strengthen CCARDESA as an effective SRO (Overheads)						
7	Capital Investments	144	99	0	0	0	243
8	CCARDESA Secretariat Emoluments	1,608	1,714	1,714	1,714	1,714	8,464
9	Administration Expenses	185	214	260	260	282	1,201
	Sub-Total CCARDESA (Overheads)	**1,937**	**2,027**	**1,974**	**1,974**	**1,996**	**9,908**
	MTOP Total Budget	**3,709**	**5,650**	**4,965**	**5,931**	**3,042**	**23,297**