Centre for Coordination of Agricultural Research & Development for Southern Africa

ANNUAL REPORT
2015
COPYRIGHTS

All Rights Reserved

This report contains information that belongs to CCARDESA. However, the information in the report may be used by other organisations and individuals at no cost if such is for non-commercial purposes. Any organization and individual which uses this information for non-commercial purposes needs to acknowledge CCARDESA at all times.

The CCARDESA logo is the property of CCARDESA and is protected under international law. It can neither be used nor copied without the authority of the Executive Director of CCARDESA. Any authorisation or clarification on the use of information in this publication may be sought from:

The Executive Director
CCARDESA Secretariat
4701 Station Exit Road
Private Bag 00357
Gaborone, Botswana
Email: ed@ccardesa.org or registry@ccardesa.org
Website: www.ccardesa.org
Facebook: www.facebook.com/ccardesa
CHAIRMAN’S REMARKS

Since its establishment in 2011, the Centre for Coordination of Agricultural Research and Development for Southern (CCARDESA) has taken steady steps to consolidate its position as a key strategic partner in the driving of the regional research and development (R&D) agenda in the SADC Region. In line with the aspirations of the regional countries, the organisation is filling a gap of coordinating efforts by different stakeholders to address priority needs as outlined in the SADC strategic documents.

Facilitating regional cooperation has huge dividends for the constituent countries by accelerating development through learning, exchange of experiences and pooling of resources for greater impact. CCARDESA initiatives in the regional countries have served to demonstrate the benefits of regional cooperation and joint response against priority challenges and opportunities within the region.

Over the short period of existence the sub-regional research organisation has forged strategic partnerships with a growing list of important stakeholders implementing research and development work in the region and beyond. This is very significant as we live in a globalised world where partnership is an essential ingredient which successful organisations value highly to out-pace the competition. In line with this thinking, CCARDESA has facilitated the working together of different research centres across the region to form consortia to provide critical skills to stakeholders in the region.

This year, through this collaborative effort we have witnessed the significant effort of the Secretariat in placing on centre stage the needs of youth in agriculture by engaging the key stakeholders to work together on this important matter. I have no doubt that the actions and issues identified through this initiative will serve as good inputs for current and future endeavours aimed at developing the youth and women as a critical constituency of the agricultural industry in the region.

In 2015, the Secretariat continued to provide support to the commissioned projects funded under the first CCARDESA Grants and also increased new projects funded under other initiatives. Therefore the number of regional research projects under CCARDESA now stands at 69. The Board and the region has noted the outputs from these research activities which have been presented at international conferences, and other national information dissemination events. These outputs are expected to have a positive impact on food security and livelihoods in the region.

The Board has successfully guided the CCARDESA Secretariat on its mandate and to ensure adherence to effective management and good governance practices. Half of the members of the inaugural CCARDESA Board of Directors who remained when the first batch retired in July 2015 were replaced with new members in line with the provisions of the Charter and Governance Manual. This smooth succession ensured maintenance of good institutional memory for the Board.

I therefore wish to thank all the Board members who retired in 2015 for their long term commitment and contribution in shaping CCARDESA. The dedication of all the Board members in providing guidance on the activities of the CCARDESA Secretariat is commendable. The continued good will and support from the SADC Member States as well as the contribution of the Development Partners is deeply appreciated. I finally wish to thank the staff at the Secretariat for their support which made our task manageable.

Prof. Fanuel Tagwira
Chairperson of the CCARDESA Board
BOARD MEMBERS

Prof. Fanuel Tagwira
Chair

Mr. Chaka N.L. Ntsane
Vice Chair

Dr. Marinda Visser
Private Sector

Ms. Dorothy M. Banda
Financial expert

Ms. Linire Mulima
Legal Expert

Dr. Carolyne Nombo
Agricultural education

Mr. Issaskar. P Mate
Agriculture Research

Dr Calisto Bias
Agribusiness

Dr. Pharaoh. Mosupi
Public Sector

Ms Margret Nyirenda
SADC representative

Dr Yemi Akinbamiyo
FARA Representative
Making a difference in the lives of the people of the SADC region by channeling the combined efforts of the key agricultural research and development stakeholders to contribute towards improving regional food security and poverty reduction is central to the existence of CCARDESA. As a result, the pursuit of collaborative actions and partnerships has become a trademark of CCARDESA in fostering coordinated regional cooperation on matters of agricultural research and development as outlined in the organisation’s Medium Term Operational Plan (MTOP). The MTOP embraces the aspirations of the regional agricultural development and integration agenda as articulated in key strategic documents such as the SADC Regional Agricultural Policy (RAP), the Regional Indicative and Strategic Development Plan (RISDP), the Comprehensive African Agriculture Development Programme (CAADP), the Science Agenda for African Agriculture (S3A) and others.

The 2015 financial year saw an invigorated execution of a rich portfolio of over 69 research projects which provided the important moments of learning for CCARDESA. The Research and Development (R&D) landscape is increasingly becoming challenging with numerous competing needs compounded by limited resources.

One of the highlights of the year was the rallying of many key stakeholders towards a consensus on addressing the low participation of youth in agriculture. The deliberate targeting of women and youth in the execution of the MTOP is vital for addressing regional agricultural challenges. The active engagement of SADC Deans of Faculties of Agriculture and the Directors of Agricultural Research was continued as some of the critical stakeholders for CCARDESA towards the realization of the envisaged transformation of agriculture in the region.

The CCARDESA Secretariat has made significant strides towards cementing vital relationships with key strategic partners in the region. This has translated to a number of grants and into joint activities with partners who increasingly view the organization as an important broker in driving the regional R&D agenda. The diligent stewardship of the organization’s mandate has blossomed into growing partnerships with more stakeholders who have either signed memoranda of understanding or commenced engagement towards working with CCARDESA. These include: Regional Network for Agricultural Policy Research Institutes (RENAPRI), International Food Policy Research Institute (IFPRI), Common Market for East and Southern Africa (COMESA), Centre de Coopération Internationale en Recherche Agronomique pour le Développement (CIRAD) the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ).

The Secretariat remains indebted to the support of development partners who have seen through the establishment of this organization and the encouraging support of the SADC Member States towards the effective operation of CCARDESA. The commitment of staff of the Secretariat coupled with the support of the Board has been a critical factor in the smooth operation of the organization with a very lean complement of staff. This report gives a brief account of the organisation’s achievements and lessons learnt in the third year of the existence of this important sub-regional research organisation.

Prof. Timothy Simalenga
[Executive Director]
ACKNOWLEDGEMENT

CCARDESA would like to acknowledge the following sponsors and partners for their contribution into CCARDESA work in attaining its region mandate:
# TABLE OF CONTENTS

PROGRAMMES AND PROJECT IMPLEMENTATION ................................................................................. 2

INTRODUCTION ........................................................................................................................................ 2

TECHNICAL HIGHLIGHTS .......................................................................................................................... 3

THEMATIC AREA 1: FARMER EMPOWERMENT AND MARKET ACCESS ........................................... 3

THEMATIC AREA 2: RESEARCH AND TECHNOLOGY GENERATION AND FARMER DEMAND-DRIVEN ADVISORY SERVICES AND INNOVATIONS ................................................................. 5

THEMATIC AREA 3: KNOWLEDGE, INFORMATION AND COMMUNICATION ................................... 7

THEMATIC AREA 4: INSTITUTIONAL DEVELOPMENT AND CAPACITY BUILDING ............................. 8

CROSS-CUTTING ISSUES ......................................................................................................................... 9

PARTNERSHIPS AND INSTITUTIONAL DEVELOPMENT ....................................................................... 13

FINANCIAL PERFORMANCE ..................................................................................................................... 15

CORPORATE GOVERNANCE ................................................................................................................... 15

CONCLUSION ........................................................................................................................................... 17

2016 AT A GLANCE ................................................................................................................................. 17

ANNEX: LIST OF PROJECTS IMPLEMENTED IN 2015 ......................................................................... 188
### Abbreviations and Acronyms

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>AgBIT</td>
<td>Agri-Business Incubation Trust</td>
</tr>
<tr>
<td>AHC-STAFF</td>
<td>Africa Human Capital in Science, Technology &amp; Agripreneurship for Food Security Framework</td>
</tr>
<tr>
<td>AnGR</td>
<td>Animal Genetic Resources</td>
</tr>
<tr>
<td>APPSA</td>
<td>Agricultural Productivity Programme for Southern Africa</td>
</tr>
<tr>
<td>AU-IBAR</td>
<td>African Union Inter-African Bureau for Animal Resources</td>
</tr>
<tr>
<td>CA</td>
<td>Conservation Agriculture</td>
</tr>
<tr>
<td>CAADP</td>
<td>Comprehensive Africa Agriculture Development Programme</td>
</tr>
<tr>
<td>CCARDESA</td>
<td>Centre for Coordination of Agricultural Research and Development for Southern Africa</td>
</tr>
<tr>
<td>CIMMYT</td>
<td>Centro Internacional de Mejoramiento de Maíz y Trigo (International Maize and Wheat Improvement Centre)</td>
</tr>
<tr>
<td>CIRAD</td>
<td>Centre de coopération internationale en recherche agronomique pour le développement</td>
</tr>
<tr>
<td>CoE</td>
<td>Centre of Excellence</td>
</tr>
<tr>
<td>COMESA</td>
<td>Common Market for East and Southern Africa</td>
</tr>
<tr>
<td>CTA</td>
<td>Technical Centre for Agricultural and Rural Cooperation</td>
</tr>
<tr>
<td>ESMP</td>
<td>Environmental and Social Management Plan</td>
</tr>
<tr>
<td>EU</td>
<td>European Union</td>
</tr>
<tr>
<td>FANRPAN</td>
<td>Food, Agriculture and Natural Resources Policy Analysis Network</td>
</tr>
<tr>
<td>FAO</td>
<td>Food and Agriculture Organisation of the United Nations</td>
</tr>
<tr>
<td>FARA</td>
<td>Forum for Agricultural Research in Africa</td>
</tr>
<tr>
<td>FIBL</td>
<td>Research Institute of Organic Agriculture, Switzerland</td>
</tr>
<tr>
<td>GA</td>
<td>General Assembly</td>
</tr>
<tr>
<td>GDP</td>
<td>Gross Domestic Product</td>
</tr>
<tr>
<td>GiZ</td>
<td>Deutsche Gesellschaft für Internationale Zusammenarbeit</td>
</tr>
<tr>
<td>GMO</td>
<td>Genetically Modified Organism</td>
</tr>
<tr>
<td>IAR4D</td>
<td>Integrated Agricultural Research for Development</td>
</tr>
<tr>
<td>ICT</td>
<td>Information and communication technologies</td>
</tr>
<tr>
<td>IFAD</td>
<td>International Fund for Agricultural Development</td>
</tr>
<tr>
<td>IFPRI</td>
<td>International Food Policy Research Institute</td>
</tr>
</tbody>
</table>
M&E Monitoring and Evaluation
MDTF Multi - Donor Trust Fund
MOU Memorandum of Understanding
MTOP Medium Term Operational Plan
NARS National Agricultural Research Systems
NEPAD New Partnership for Africa's Development
NGO Non-Governmental Organisation
PSTAD Promotion of Science and Technology for Agricultural Development
R & D Research and Development
RAP Regional Agricultural Policy
RCoL Regional Centre of Leadership
RENAPRI Regional Network of Agricultural Policy Research Institutes
RISDP Regional Indicative Strategic Development Plan
RUFORUM Regional Universities Forum for Capacity Building in Agriculture
SADC MAPP Southern African Development Community Multi-country Agricultural Productivity Programme
SADC Southern African Development Community
SC Steering Committee
SRO Sub-regional Research Organisation
SSA CP Sub–Saharan Africa Challenge Programme
TSG Technical Support Group
UniBRAIN Universities, Business and Research in Agricultural Innovation
USAID United States Agency for International Development
USD United States Dollar
WB World Bank
WIKWIO Weed identification and knowledge in the Western Indian Ocean
The CCARDESA 2015 Work plan devoted attention to driving activities initiated in previous years, particularly 2014. The operational momentum of activities was built up throughout 2014 with the awarding of CCARDESA supported research grants and implementation of a total of 69 projects. Therefore, the focus in 2015 was on accelerating the implementation of these activities including those identified as quick wins or low hanging fruits in the CCARDESA Medium Term Operational Plan (MTOP).

This report highlights the key achievements for CCARDESA in 2015. It is organised around the four thematic areas and cross-cutting themes that are of priority to the region. These four Thematic Areas are: (1) Farmer Empowerment and Market Access; (2) Research and Technology Generation and Farmer Demand-driven Advisory Services and Innovation Systems; (3) Knowledge, Information and Communication; and (4) Institutional Development and Capacity Building. Under a resource-constrained environment facing R&D institutions globally, emphasis in 2015 was strategically directed at innovative implementation of regional R&D activities across all the thematic areas.

Thematic Area 1 focused on providing support to build the capacity of smallholder farmers and their national associations to participate more effectively in the formulation of the R&D area. Through the interventions of CCARDESA, five (5) SADC Member States benefited from the adoption of the Integrated Agriculture Research for Development (IAR4D) and resulted in improved production and access to markets for more than 410 smallholder farmers. In addition, CCARDESA collaborated with the NARS (universities and government research institutions) and private sector and trained 10079 smallholder farmers and also created sustainable business enterprises for the smallholder farmers.

Thematic Area 2 focused on providing support to regional sub-projects that are expected to contribute solutions to the identified priority needs of the farmers in the region. In line with this theme, CCARDESA supported and managed 69 regional R&D projects including CCARDESA competitive grants projects. Furthermore, 56 off-the-shelf proven technologies were disseminated to smallholder farmers in the region.

Thematic Area 3 focused on promoting wide and free access to agriculture information and strengthening communication among stakeholders in the region. Consequently, CCARDESA identified and out scaled best practices in the use of ICT platforms for information sharing. A regional ‘Think Tank’ for ICKM was established and a strategy developed to guide implementation of ICKM programmes in the region. As a result, more than 8000 stakeholders in the region and globally accessed information using CCARDESA ICT platforms.

Thematic Area 4, focused on strengthening the collaboration with the NARS in the region and on developing common views with the R&D organisations working in the region. CCARDESA strengthened the capacity of four (4) SADC Member States to practice inclusive planning, strengthened the capacity of its partners implementing CCARDESA projects in the region; and established two consortia as Centres of Excellence.

In line with the cross-cutting themes, CCARDESA attained the following key achievements; developed a gender policy to guide the mainstreaming of gender in its operations and R&D projects, trained officers on gender, empowered youth to take advantage of agribusiness opportunities in the region,
launched a SADC youth agribusiness magazine, supported youth to develop 9 ICT applications to address agriculture challenges and widely disseminated 4 policy and information documents on Climate Smart Agricultural practices.

The achievements in 2015 are an indication of the strong partnerships established by CCARDESA with global, regional and national partners. Together with its partners, CCARDESA mobilised modest resources sufficient to support implementation the work plan for 2015 and its operations. From 2013 up to 2015, CCARDESA interventions have gradually and positively impacted the lives of many rural communities in the region and will continue to do so into the future as it delivers on its regional mandate as outlined in its Charter and MTOP. However, resource constraints limited the planned implementation of activities in the MTOP. This necessitated reprioritisation and deferring of some key activities including the recruitment of staff.
INTRODUCTION

Centre for Coordination of Agriculture Research and Development for Southern Africa (CCARDESA) completed yet another successful year in coordinating and facilitating Agricultural Research and Development (AR&D) in Southern Africa. Formed in 2010 and launched in 2011, CCARDESA became technically operational in 2013. Thus 2015 was the third year of operation, and was characterised by significant acceleration in the rate of implementation of activities as well as in the achievement of the milestones as the institution moves towards fulfilling the objectives for which it was established.

In Southern Africa, the agricultural sector is of major social and economic importance and contributes between 4% and 27% of GDP and approximately 13% of overall export earnings. About 70% of the region's population depends on agriculture for food, income and employment (SADC, 2015). This makes agriculture important to the region’s overall development agenda in terms of social and economic growth, poverty reduction, food security, gender equity and nutrition.

CCARDESA provides leadership and technical support to the region with regard to improving coordination, promoting collaboration, providing platforms for information exchange and supporting institutional reforms for efficient management of agricultural R&D. This is done within the ambit of its vision of “A food secure and prosperous Southern African region with vibrant rural livelihoods” This vision is supported by the mission “to promote innovative research, technology generation and adoption for sustainable agricultural development through effective partnership and capacity building.”

For a long time the Southern African region has been enjoying the ‘pride’ of harbouring great potential in agriculture. Developing that potential to tangible products and outputs that can drive socio-economic development of individuals and communities at large has eluded the region. In order to move towards impact and availing the people in the region with clear opportunities for development, CCARDESA gave priority to activities that could yield the highest level of impact.

As a subsidiary organisation of Southern African Development Community (SADC), CCARDESA’s focus is closely linked to the technical strategic focus set by SADC. In this regard, the revised Regional Indicative Strategic Development Plan (RISDP), the Dar-es-salaam Declaration on Agriculture and Food Security, the Regional Agricultural Policy (RAP), The Regional Industrialisation Policy and topical issues such as climate change, HIV and AIDS, and Gender continue to shape the work of the institution. The work in 2015 was anchored on a strong foundation of 2013 and 2014, and a model that prioritised practical impact and relevant outputs.

This report provides an overview of the milestones achieved in the implementation of the Medium Term Operational Plan for CCARDESA under the following Thematic Areas:

- **Thematic Area 1:** Farmer empowerment and market access.
- **Thematic Area 2:** Research and technology generation and farmer demand-driven advisory services and innovation systems.
- **Thematic Area 3:** Knowledge, information and communication.
- **Thematic Area 4:** Institutional development and capacity building.
TECHNICAL HIGHLIGHTS

THEMATIC AREA 1: FARMER EMPOWERMENT AND MARKET ACCESS

The majority of the farmers in the region are smallholders who often have to contend with numerous physical and socio-economic constraints such as limited technical skills, poor access to market and market information, credit and other resources, which inevitably impacts negatively on their production and productivity. Therefore, the focus of interventions in this thematic area is on promotion of 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.

In 2015, the thrust of activities was on providing support to build the capacity of farmer groups and their national associations to participate more effectively in the formulation of the R&D agenda. This was mostly driven by the adoption of the Integrated Agricultural Research for Development (IAR4D) concept. The establishment of Innovation Platforms (IP) played a vital role in promoting Integrated Agriculture Research for Development. This approach also facilitated enhanced access to markets through advocacy, better linkages to inputs and outputs markets and to key technical/business management services.

In 2015, CCARDESA attained the following key achievements:

1. Promoted the adoption of the IAR4D concept through the Innovation Platform (IP) approach by different stakeholders in five countries (Botswana, Malawi, Mozambique, Namibia and Zimbabwe) in the region. A total of 24 IPs were established and more than 6000 smallholder farmers benefited from increased production and productivity, and improved access to markets.

2. Trained 10,079 smallholder farmers (4,379-Male and 5,700-Female) in the region. The trainings focused on demo establishment, good agronomic practices, and management of post-harvest
losses, pest and disease control, seed multiplication, agro-processing of groundnuts, sorghum, conservation agriculture, ICT tools and multi-fruit juice extraction technology.

3. Supported efforts to stimulate entrepreneurship in the agricultural sector through promoting collaboration between universities, business and research to create successful and sustainable agri-business enterprises, by improving agribusiness education and up-scaling of best practices in the region. A total of 31 direct beneficiaries (31-Male and 7-Female) who enrolled for business mentorship continued receiving support under this initiative.

4. Produced a review of the regional guidelines on biosafety in the SADC region. The review of the guidelines will assist to update the regional policy regarding the safe use of modern biotechnology and its associated products.

5. Promoted the adoption and use of the fruit juice extraction technology in Malawi and Zambia. CCARDESA also supported the construction of a local market outlet for sale of the fruit juice. Several families benefited from improved market access and increased income.

6. Supported the development of an ICT platform (AMEWI) which empowered smallholder farmers in Botswana, South Africa and Swaziland to access different types of information related to markets, production and weather.
THEMATIC AREA 2: RESEARCH AND TECHNOLOGY GENERATION AND FARMER DEMAND-DRIVEN ADVISORY SERVICES AND INNOVATIONS

Facilitating the generation of improved and more efficient technologies as well as promoting the provision of farmer demand-driven advisory services and innovation systems is a core function of CCARDESA. Efforts to improve the efficiency of disseminating market oriented technologies through knowledge-sharing and the spreading of best practices across member countries is critical towards accelerating the required development and transformation of the agricultural sector in the SADC region. This role is undergirded by the realization that greater cooperation and coordination is necessary in addressing common research challenges.

Under this Thematic Area, CCARDESA emphasizes on the provision of support to regional sub-projects that are expected to contribute solutions to the identified priority needs of farmers in the region. Collaboration is a key element required among the different research and development stakeholders at both national and international levels. This collaboration often involves the existing institutions of higher learning, national and international agricultural research centres as well as other relevant entities from the non-state actors. These partnerships give local institutions and other actors a greater role in driving the local R&D agenda and confers mutual benefits from inherent complementarity among partners through leveraging on each other’s strengths. This approach also contributes to facilitating regional integration and transformation of agricultural sector in the SADC region as envisioned in the RISDP, SADC RAP and the Malabo Declaration.

In 2015, focus was on providing support to the National Agricultural Research Systems (NARS) to enable them to implement activities aimed at generating technologies for the identified priority needs. There was more focus towards nurturing regional collaboration to address productivity while embracing environmental sustainability.
In 2015, CCARDESA attained the following key achievements:

1. Inaugurated in first competitive grant projects implemented in the region. Support was provided to seven (7) R&D projects to conduct collaborative research on topics of regional priority.
2. Provided technical and managerial leadership on a total of 69 R&D projects (including competitive grants) in the SADC region (see Annex 1).
3. Promoted and disseminated fifty nine (59) off the shelf technologies to end-users in the region.
4. Facilitated the establishment of regional consensus on ecological farming among the members of the NARS and other stakeholders in the region. The stakeholders endorsed organic agriculture and its integration into the national research agenda across the region.
5. CCARDESA supported collaboration of stakeholders including private sector in five (5) SADC Member States to undertake activities aimed at out-scaling and up-scaling the adoption of Conservation Agriculture (CA) in the region. More than 630,000 smallholder farmers were targeted.
6. Through a CCARDESA supported project, a total of 321 farmers directly benefited from four (4) improved bean varieties in Zambia and Malawi.
THEMATIC AREA 3: KNOWLEDGE, INFORMATION AND COMMUNICATION

The role of CCARDESA as a facilitator in Agriculture R&D is anchored on the ability to relay knowledge and information through effective communication. A CCARDESA special theme on Knowledge Information and Communication intends to promote wide and free access to agricultural information in the region, develop CCARDESA to serve as a platform for information sharing and strengthen capacity of NARS and farmers in the use of ICTs in sharing agricultural information.

In 2015, the focus included identification and out scaling of best practices in the use of tools, networks and other channels of sharing information, improving capacity of stakeholders in the use of ICT tools in information management and sharing, strengthening capacity of CCARDESA to serve as an effective platform for sharing agricultural information and in promoting wide and free access to agricultural information in the region.

In 2015, CCARDESA attained the following key achievements:

1. Identified and documented challenges and best practices of Information Communication and Knowledge Management (ICKM) which are being implemented by NARS and other stakeholders in member states. These formed a basis for a prototype information and knowledge management system which is expected to be completed early 2016.

2. In consultation with regional experts in SADC Members States, CCARDESA defined functionalities of an information system which met identified needs of the region. Key functionalities which were recommended include the capability to support collaboration, visibility of ongoing activities in the region, digitisation, document management and sharing as well as internal ICT-based interaction.

3. Established a regional ‘Think Tank’ on knowledge information and communication consisting of experts from SADC Member States. The ‘Think Tank’ provides information, advice and support to CCARDESA in ICKM.

4. Drafted a strategy/road map to guide programmes of ICKM. The strategy aims to promote and increase the number of collaborative research programmes in the region, provide access to up-to-date information and knowledge to farmers and extension professionals as well as policy makers to enable quick and informed decision making.

5. Over 8,000 stakeholders accessed information through the CCARDESA information management systems/tools.
THEMATIC AREA 4: INSTITUTIONAL DEVELOPMENT AND CAPACITY BUILDING

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. It also indicates the need for capacity building to enable NARS scientists and extension agents to effectively participate in regional research and extension activities. Capacity strengthening under this thematic area also focuses on promoting good practices and partnerships.

The main focus in 2015 was on strengthening the collaboration with the NARS in the region, and also on developing a common view on the working model between CCARDESA and the NARS.

In 2015, CCARDESA attained the following key achievements:

1. Successfully introduced ‘inclusive’ planning and implementation of research programmes in four (4) SADC countries (South Africa, Mozambique, Malawi and Zambia). It is expected that the stakeholders will work together in developing national research plans. The capacitation of stakeholders on research planning and inclusiveness is an on-going process which will be scaled to other countries in the region.

2. Provided technical support to strengthen the capacity of its partners responsible for implementing and monitoring CCARDESA supported programmes and projects in the region. CCARDESA ensured compliance by grantees to environmental and social safeguards as articulated in the national policies and CCARDESA guidelines.

3. Undertook CAADP support missions; i) participated in the review of Zimbabwe National Agriculture Food Security Investments plans, ii) participated in the review of Swaziland national action plan of CAADP and iii) identified areas of cooperation and collaboration on CAADP related issues with COMESA, iv) signed MoU with IFPRI and RENAPRI to identified areas of cooperation and collaboration in agriculture policy analysis.

4. Established two Consortia of Centres of Excellence (CoE) for education and training in agriculture. One Consortium is in the area of “Institutional development and response service delivery” and the other one is on “Empowering youth and women and smallholder farmers in agribusiness support and development”.

5. Rolled out the CCARDESA Sabbatical programme by engaging seven (7) sabbatical fellows to conduct regional research studies in the area of farmer empowerment, gender, underutilised crops, climate change and documentation of proven agricultural technologies.
CROSS-CUTTING ISSUES

In any development arena, consideration of cross cutting issues is vital to ensuring success of any development intervention, including AR4D programmes/projects. In the context of CCARDESA, cross-cutting issues covers aspects on environment, youth and women empowerment, and gender equity, HIV/AIDS and food and nutrition security.

Youth and women have been applauded for many years for their huge potential to drive agricultural development in the region. However, they are not empowered enough to harness their potential to advance agriculture development in the region due to a number of constrains. Hence, CCARDESA has taken a deliberate position to empower youth and women to harness their potential and contribution towards improved food and nutrition security in the region. In recognition of this, CCARDESA initiatives takes into account gender dynamics into programme/project development, execution and related monitoring and evaluation. Measures are put in place to ensure that programmes/projects are also implemented in a safe manner that is not harmful to the environment and participating communities.

In 2015, CCARDESA attained the following key achievements:

1. Engaged youth from the region to take advantage of agri-business opportunities in the region. The youth summit was held from 3 – 6 August 2015 in Durban, South Africa. The event was graced by more than 350 participants most of whom were youth from SADC countries and other African countries. Key achievements from the youth summit are as follows:
   a. Launched a SADC Youth Agribusiness Magazine that is aimed at profiling youth activities in agriculture.
   b. Youth and Stakeholders that were present at the Youth Summit adopted a Youth Declaration committing to youth involvement in agriculture.
   c. Supported 17 youth from the region to develop Information Communication Technology solutions (applications: “apps”) to address agricultural challenges.
   d. Youth were exposed to potential markets by providing them with an opportunity to show case their agricultural products.
2. Developed a gender policy that guides the mainstreaming of gender into CCARDESA organizational processes and programmes/projects.

3. Two Officers were trained on gender-related issues, with a particular focus on mainstreaming gender in R&D projects.

4. Produced and disseminated three (3) publications (two policy briefs, one technical brief and one brochure) on Climate Smart Agriculture (CSA) with a particular focus on Conservation Agriculture (CA). The publications address issues to do with pest and weed management, and mechanisation in CA and climate change adaptation. CCARDESA will continue to disseminate the publications among its stakeholders.
CCARDESA sign MOU with CIRAD
PARTNERSHIPS AND INSTITUTIONAL DEVELOPMENT

CCARDESA’s operational model is based on building strong partnerships with strategic organisations and adopting an approach in which the institution implements activities in conjunction with its partners. In this respect, CCARDESA has established strategic partnerships to advance its regional R&D mandate. These were very significant players in the implementation of the 2015 work plan. Table 2.1 shows some of the partners that CCARDESA worked with in 2015.

<table>
<thead>
<tr>
<th>Organization</th>
<th>Collaborative Goals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regional CG Research</td>
<td>Building strong synergies between CCARDESA and the CGIAR. Strong partnership has</td>
</tr>
<tr>
<td></td>
<td>been established with ILRI, ICRISAT, IITA, World Fish, CIAT, IMWI</td>
</tr>
<tr>
<td>COMESA</td>
<td>To collaborate on CAADP activities and support member states on investment plans.</td>
</tr>
<tr>
<td>CTA</td>
<td>Sharing information and activities. Stakeholder database shared, and CCARDESA is</td>
</tr>
<tr>
<td></td>
<td>now planning to hold a joint regional workshop with CTA to identify the needs of</td>
</tr>
<tr>
<td></td>
<td>stakeholders in the region</td>
</tr>
<tr>
<td>RUFORUM</td>
<td>To collaborate in Capacity building and research related activities</td>
</tr>
<tr>
<td>AGRA</td>
<td>Joint development and implementation of development programmes, with a focus on rural</td>
</tr>
<tr>
<td></td>
<td>communities</td>
</tr>
<tr>
<td>SADC</td>
<td>Policy linkage and priority regional development programmes in line with the SADC</td>
</tr>
<tr>
<td></td>
<td>priorities</td>
</tr>
<tr>
<td>FAO</td>
<td>Joint development and implementation of agricultural programmes, with a focus on food</td>
</tr>
<tr>
<td></td>
<td>security</td>
</tr>
<tr>
<td>FARA</td>
<td>Promoting innovative agricultural research and joint visioning for poverty reduction</td>
</tr>
<tr>
<td>Farmers Unions</td>
<td>Strengthening the farmer-research linkages and responsiveness of research to farmers’</td>
</tr>
<tr>
<td></td>
<td>needs</td>
</tr>
<tr>
<td>Private Sector organisations</td>
<td>Promoting commercialisation of technologies and innovations by private sector</td>
</tr>
<tr>
<td>National Agricultural</td>
<td>Promoting strong linkage of regional to national programmes and also implementation</td>
</tr>
<tr>
<td></td>
<td>of regional programmes at national level</td>
</tr>
<tr>
<td>International Food Policy</td>
<td>To collaborate in areas of agriculture policy analysis</td>
</tr>
<tr>
<td>Regional Network of Agricultural</td>
<td>To collaborate in areas of agriculture policy analysis</td>
</tr>
<tr>
<td>Policy Research</td>
<td></td>
</tr>
</tbody>
</table>
3
FINANCIAL PERFORMANCE

The overall budget for the CCARDESA Secretariat is approved on an annual basis by the Board of Directors. It comprises two major sections: an operational budget, which supports the administrative costs of the Secretariat and a programmes budget for financing the technical activities of the organisation. Expenditure is closely monitored by the Board through reports presented by the Secretariat and the Auditors.

In 2015 the Secretariat’s total budget was USD 3.6 million. The Secretariat spent 78% (USD2.8 million) of its annual budget at the close of the financial year in December 2015. Of this, expenditure on programmes and governance represented 58% of the annual expenditure, while the rest accounted for 42%.

An internal audit was carried out during the year and there was also a review carried out by the World Bank Financial Specialist. These were routine tasks meant to maintain effective internal controls and to consistently improve financial management at the Secretariat. All issues identified were addressed by the Secretariat.

An external audit was carried out in 2015, which focused on the institution’s transactions and business conduct in 2014. The Secretariat facilitated this process and received unqualified audit report.

The flow of funds to support the implementation of programmes has not been as anticipated hence some cost saving measures were adopted. These included re-priotisation to focus on high impact activities and the deferred hiring of staff for some positions.

CORPORATE GOVERNANCE

The CCARDESA Governance structure consists of the SADC Ministers responsible for Agriculture and Food Security, the General Assembly, the Board of Directors and the CCARDESA Secretariat. Meetings of the SADC Ministers responsible for Agriculture and Food Security are coordinated by the SADC Secretariat. The Ministers did not have any scheduled or extraordinary meeting in 2015. The General Assembly meets every two years as stipulated in the Charter Establishing CCARDESA. Its maiden meeting was in 2014.

Two meetings of the CCARDESA Board of Directors were convened in 2015. Both meetings considered several issues pertaining to the technical work of the Secretariat, financial management, work plans, budget as well as general administrative matters. Important approvals and decisions were made by the Board of Directors, which were instrumental in guiding the Secretariat and creating the favourable position for the achievement of the milestones reported herein.
CONCLUSION

The annual progress and achievements of CCARDESA continue to grow over time signified by the increased portfolio of R&D projects and alliances with strategic partners at national and international levels. Of utmost importance is the fact that the achievements of 2013-2015 have started to show impact in the lives of the target communities. More effort is required to fully demonstrate the impact and increase the geographical coverage of CCARDESA’s activities in the region. The technical outlook of CCARDESA in the region is bright and its visibility, relevance and position within the agricultural R&D landscape are growing.

Although there was good progress made in 2015, the institution was faced with a few challenges which had an effect on the recorded progress. The most significant of these was the reduction in funding under the Multi-Donor Trust Fund (MDTF). CCARDESA responded to this situation by reviewing its MTOP and reprioritising future activities, starting with the Annual Work Plan activities for 2016. Other cost containment measures were also implemented, including the ‘partial freeze’ on the filling of vacant positions in the organisation.

2016 AT A GLANCE

The four technical Thematic Areas of the MTOP shall continue to provide a guide for the 2016 annual work plan for CCARDESA. However, the 2016 activities have been developed and planned on the basis of the revised priorities of the original Thematic Areas. Thus, emphasis will be on Thematic Area 3, which deals with information, communication and knowledge management. CCARDESA will maintain its strong focus on other equally important areas such as good institutional governance, gender, environment/climate change and topical issues arising from regional and global developments.

Outputs and lessons learnt from past experiences form an active iterative pathway for modifying and improving the implementation strategies for the planned activities of 2016. Where necessary, new activities will be initiated during the year, especially those answering to new developments that could not be foreseen at the time of developing the 2016 work plan. Some of the key activities planned for 2016 include the following:

1. Promote the wide and free access to agricultural information in the SADC region
2. Promote the use of ICTs, media channels and interpersonal interactions for promoting collaboration & linkages among stakeholders
3. Build the capacity of CCARDESA to serve as a platform for sharing of information
4. Support dissemination of research outputs and extension information
5. Facilitate the up-scaling and out-scaling of best agricultural practices
6. Enhance network and partnerships in agriculture education and training
7. Support SADC countries in the implementation of SADC RAP/ nutritional strategy/RISDP/ CAADP
8. Build capacity of NARS to empower farmers to promote business linkages and private sector development
9. Strengthen the planning and resource management of NARS
10. Mobilise resources for programme implementation
11. Facilitate enhancement of skills and capacities for farmers
12. Integrate cross-cutting issues (Youth, women Gender, HIV/AIDS and Climate Change) in R&D programmes
ANNEX: LIST OF PROJECTS IMPLEMENTED IN 2015

CCARDESA Competitive Grants projects

1. Agriculture market information and early warning system
2. Conservation agriculture and development of smart sprayer for smallholder farmers
3. Development of a solar dryer for small scale mopane worm harvesters in Southern Africa
4. Promotion of ecosystem-responsive integrated urban farming practices in the livestock, vegetable and fish production systems
5. Improving village chicken productivity to increase income and food security in Tanzania and Mozambique
6. Enhancing capacities for milk collection and processing in the agro-pastoral and peri-urban farming systems for improved livelihoods
7. Efficacy and delivery methods of novel combined vaccines against respiratory poultry diseases in Tanzania and Zambia

Donor Funded Projects

8. Sub-Saharan Africa Challenge Programme (SSA CP)
9. Universities, Research and Business (UniBRAIN)
10. Promotion and dissemination of fruit juice extraction in Malawi, Mozambique and Zambia
11. Dissemination of improved beans and pigeon peas varieties for increased productivity and production in Zambia and Malawi
12. Climate smart agriculture: Development of climate change adaptation model for Southern Africa
13. Women and youth agribusiness programmes: Cassava and beekeeping
14. Inventory of under utilised crops in the SADC region
15. Management of farm animal genetic resources (AnGR)
16. Dissemination and out-scaling of conservation of agriculture technologies
17. Africa human capital in science, technology & agripreneurship for food security framework (AHC-STAFF)
18. Virtual irrigation project – Developing a people-centred learning system and novel monitoring tools for increasing irrigation water productivity
19. SADC adaptation to climate change in rural areas in Southern Africa, transregional
20. ProIntense Africa

Agricultural Productivity Program for Southern Africa (APPSA) Projects

21. Improving nutritional quality in maize in Mozambique, Zambia and Malawi
22. Disseminating improved maize varieties and agronomic practices among smallholder farmers
23. Development and improvement of inbred lines tolerant to major storage pests
24. Improvement of integrated maize / dairy production systems
25. Improvement of post-harvest management practices in maize
26. Development of maize varieties resistant to major diseases in Mozambique, Malawi and Zambia
27. Screening and promotion of striga tolerant maize varieties in Malawi, Mozambique and Zambia
28. Maize germplasm collection and characterization for climate change adaptation
29. Improving water use efficiency in maize production
30. Rice germplasm collection and characterization
31. Development of improved rice varieties
32. Enhancing productivity of improved rice varieties through the development of integrated crop management practices
33. Promotion and dissemination of improved rice technologies for sustainable production
34. Strengthening rice seed delivery system for enhanced production among smallholder farmers
35. Improving bean productivity in low soil fertility and drought prone areas
36. Developing bean varieties for high Fe and Zn with resistance to ALS and CBB
37. Adaptation and promotion of bruchid resistant Bean varieties in Malawi, Mozambique, and Zambia
38. Improving groundnut productivity in low soil fertility and drought prone areas of Mozambique, Malawi and Zambia
39. Breeding groundnut varieties for multiple disease resistance, for quality and food market access in Mozambique and Zambia
40. Strengthening food legume seed delivery systems in Malawi, Mozambique, and Zambia
41. Up-scaling improved soybean production and utilization for enhanced nutrition and income generation
42. Developing high yielding soybean varieties that are resistant to major diseases and with preferred market traits
43. Developing high yielding varieties and sustainable management practices for improved cowpea production
44. Development and promotion of improved pigeon pea varieties for increased and sustainable production
45. Enhancing dissemination of food legume based technologies for increased production
46. Investigating the occurrence of maize lethal necrosis disease in Malawi, Mozambique and Zambia
47. Improving maize productivity and family income through cow’s animal traction and organic fertilizer
48. Improving and sustaining maize and cowpea productivity and production among smallholder farmers in Malawi and Mozambique
49. Improving maize and bean yields through the increased farmer accessibility to integrated disease and pest management (IPDM) technologies for major pests and diseases of maize and common bean in Malawi, Mozambique and Zambia
50. Participatory evaluation of improved rice varieties to increase productivity in Malawi, Mozambique and Zambia
51. Improving rice productivity in saline soils and drought prone areas
52. Improving surface irrigation drainage water reuse for Rice Production
53. Improving smallholders rice productivity and livelihood through the introduction of rice—duck based farming system in Mozambique and Malawi
54. Evaluation and dissemination of improved cowpea varieties in Mozambique and Zambia for enhanced food security, family nutrition and income
55. Efficacy of soil amendment with agricultural lime in reducing aflatoxin contamination in groundnuts in Malawi and Zambia
56. Development of common bean and cowpea with aluminium tolerance
57. Enhancing agro-processing and market access of food legume products for smallholder farmers in Zambia, Malawi and Mozambique
58. Screening common bean varieties with improved biological nitrogen fixation for yield and quality
59. Enhancing utilization and marketability of groundnut/bambara nut through processing and improved post-harvest practices
60. Development of common bean and cowpea with bruchid tolerance
61. Enhanced resilience to seasonal dry spells in rainfed soya, maize and upland rice using silicon-based fertiliser
62. Evaluation of pesticide residues in legume and cereal cropping systems in Zambia, Malawi and Mozambique
63. Improving grains storage structures for smallholder farmers in Mozambique and Zambia
64. Reducing mycotoxin contamination of maize, groundnuts and beans to improve food safety and enhance health and trade
65. Herbicide weed control and performance among smallholder farmers practicing conservation agriculture
66. Developing conservation agriculture maize-legume systems for smallholders farmers in Malawi, Mozambique and Zambia
67. Improving soil fertility and reducing greenhouse gas emissions using biochar in conservation agriculture
68. Evaluation of trade-offs of tradition and partial adoption of CA systems for improved food security and incomes
69. Disease and pest challenges in maize production under conservation agriculture cropping systems: What do we learn?