



ANNUAL REPORT

2010



**Strengthening the Capacity of Stakeholders and Partners
for a Sustainable Agriculture in West and Central Africa**

Producers and Users at the Center of Agricultural Research



CORAF/WECARD

Conseil Ouest et Centre Africain
pour la Recherche et le Développement Agricoles

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Abbreviations and Acronyms

A A

AATF, African Agricultural Technology Foundation
ABS, African Biofortified Sorghum (project)
AFD, French Development Agency
AGRODEP, African Growth and Development Policy
ANAFE, Network for Agriculture, Agro forestry and Natural resources Education
APS, Senegal Press Agency
AR4D, Agricultural Research For Development
ASARECA, Association for the Strengthening of Agricultural Research in East and Central Africa
ASTI, Agricultural Science and Technology Indicators
ATPS, African Technological Policy Study Network
AUC, African Union Commission
AusAID, Australian Agency for International Development
AVRDC, Advanced Vegetable Research and Development Centre
AfDB, African Development Bank

C C

CARBAP, African Research Centre on Banana and Plantain
CBO, Community-Based Organization
CCFAS, Mega programme on Climate Change, Agriculture and Food Security
CDP, Community Development Program
CEMAC, Central Africa Economic and Monetary Community
CIRAD, International Co-operation Center of Agricultural Research for Development
CGIAR, Consultative Group on International Agricultural Research
CNRA, National Agricultural Research Center (Côte d'Ivoire)
CORAF/WECARD, Conseil Ouest et Centre Africain pour la Recherche et le Développement Agricoles / West and Central African Council for Agricultural Research and Development
CRAL/DGRST, Loudima Agricultural Research Center (General Delegation for Scientific and Technical Research)
CRI, Crop Research Institute (Ghana)
CSIR, Council for Scientific and Industrial Research (Ghana)
CSIRO, Commonwealth Scientific and Industrial Research Organization (Australia)
CTA, Technical Centre for Agricultural and Rural Co-operation

D D

DANIDA, Danish International Development Agency
DFID, Department for International Development
DONATA, Dissemination of New Agricultural Technologies in Africa

E E

EC, European Commission
ECOWAS, Economic Community of West African States
ECCAS, Economic Community of Central African States
ES, Executive Secretariat
EU, European Union

F F

FFAAP, Framework for African Agricultural Productivity
FARA, Forum for Agricultural Research in Africa
IFAD, International Fund for Agricultural Development
FP7, Framework Programme 7

G G

GA, General Assembly
GCARD, Global Conference on Agricultural Research for Development
GFSRI, Global Food Security Initiative

I I

IAR4D, Integrated Agricultural Research For Development
ICRAF, International Centre for Research on Agroforestry
ICRISAT, International Crop research Institute for Semi Arid Tropics
IDA, International Development Association
IER, Institute of Rural Economy
IFDC, International Fertilizer Development Centre
IFPRI, International Food Policy Research Institute
IITA, International Institute for Tropical Agriculture
ILRI, International Livestock Research Centre
INERA, Environmental and Agricultural Research Institute (Burkina Faso)
INRA, National Agricultural Research Institution
INRAB, National Agricultural Research Institute, Bénin
INRAN, National Agricultural Research Institute, Niger
IPTA, Innovation Platform for Technology Adoption
ITRA, National Agricultural Research Institute, Togo
ITRAD, Chad Institute of Agricultural Research for Development
IDRC, International Development Research Center

K K

KKM/PLS, Kano-Katsina-Maradi/Pilote Learning Sites

Abbreviations and Acronyms

M M

MDTF, Multi-Donor Trust Fund
M&E, Monitoring & Evaluation
MRU/UFM, Mano River Union

N N

NAIP, National Agricultural investment Programme
NARI, National Agricultural Research Institute
NARS, National Agricultural Research System
NEPAD, New Partnership for Africa's Development
NGO, Non-Governmental Organization
NRM, Natural Resources Management

O O

OOCB, Organisation communautaire de base
ONG, Organisation non-gouvernementale
OSR, Organisation sous-régionale

P P

PPAAC/CAAPP, Central Africa Agricultural Productivity Programme
PSTAD, Promotion of Science and Technology for Africa Development

R R

RAILS, Regional Agricultural Information and Learning Systems
RAIP, Regional Agricultural Investment Programme
ROPPA, West Africa Farmers and Producers Organizations Network
RYMV, Rice Yellow Mottle Virus

S S

STC, Scientific and Technical Committee
SRO, Sub-Regional Organization
SABIMA, Strengthening Agricultural biotechnology implementation in Africa
SCARDA, Strengthening Capacity for Agricultural Research and Development
SSA-CP, Sub-Saharan Africa Challenge Programme

U U

UEMOA, West Africa Economic and Monetary Union
UFM, Union du Fleuve du Mano
UNCCD, United Nations Convention to Combat Desertification
UniBRAIN, Universities, Enterprises Research in Agricultural Innovation
USAID, United States Agency for International Development

W W

WACIP, West Africa Cotton Improvement Program
WASA, West Africa Seed Alliance
WASCAL, West African Science Service Center on Climate Change and Adapted Land Use
WCA, West and Central Africa

Message from the Chairman of the GB and the Executive Director

Stakeholders and Partners empowered to ensure sustainable agriculture in West and Central Africa



Prof. Yusuf B. ABUBAKAR,
Chairman of CORAF/WECARD Governing Board



Dr Paco SEREME,
Executive Director of CORAF/WECARD

During the year 2010, corresponding to the second year of implementation of the Operational Plan (2008-2013), CORAF/WECARD has multiplied initiatives leading to the strengthening of the cooperation between all its stakeholders and partners in agricultural research and development in West and Central Africa and at the international level.

This has included agricultural research coordination, extension of scientific and financial cooperation, delivery and transfer of agricultural technologies, strengthening the capacity of stakeholders and partners, and especially the organization of the second Science Week and the ninth General Assembly of the institution.

We are pleased to emphasize that the much appreciated results achieved in 2010 could be attributed to the normal functioning of the organs of CORAF/WECARD, with the organization of the 9th General Assembly in Cotonou, the ordinary sessions of the Governing Board and the Scientific and Technical Committee, and especially to the remarkable support of development and scientific partners.

After 2008, in Yaounde, stakeholders and development partners again met from 24 to 29 May, 2010, in Cotonou, at the second Agriculture Science Week and the ninth General Assembly of CORAF/WECARD.

The Central theme of these meetings was «Management of Post Harvest Systems of plants, animals, and fisheries products to improve productivity, competitiveness and agricultural markets in West and Central Africa». In addition to important resolutions and key recommendations, which were formulated in relation to this theme, and the appraisal made of the two years of implementation of the Operational Plan 2008-2013, members of the General Assembly (GA) demonstrated their confidence in Prof. Yusuf B. Abubakar by confirming his position as Chairman of the Governing Board and renewed the mandate of almost 40% of the Board members.

The strengthening of our scientific partnership was pursued with the implementation of the Food and Food security Initiative of the Australian Government, within the framework of the AusAID-CSIRO-CORAF/WECARD partnership. This was achieved through the selection of concept notes, which were developed to full proposals on the following themes: seed systems, integrated crop-livestock farming systems, and animal health.

Within the framework of implementing an agreement signed with ICRISAT in December 2008, a regional project on the promotion of millet and sorghum (PROMISO) was initiated by CORAF/WECARD.

Message from the Chairman of the GB and the Executive Director

Moreover, contacts were established with universities in Norway and Finland for scientific exchanges.

With regard to the implementation of CORAF/WECARD's Programmes, we are pleased to report that the Livestock, Fisheries and Aquaculture, Natural Resources Management, Policy Market and Trade and Capacity Strengthening Programmes were able to work in synergy to lead the identification and validation of research priorities for development in these areas. This was followed by the publication of calls for project. We are expecting implementation of these projects in 2011.

Four new competitive fund research projects, coordinated by the Staple crops programme, for improving the productivity of maize, plantain and cowpea, and post-harvest technologies in West and Central Africa, were launched..

Significant advocacy and resource mobilization activities carried out by CORAF/WECARD included the support provided to ECOWAS in the elaboration of strategies to accelerate the dissemination of technologies and agricultural innovations and the implementation of its community development programme.

Within its capacity of regional coordinator and facilitator of the West Africa Agricultural Productivity Programme (WAAPP), CORAF/WECARD provided to WAAPP 1C countries (Gambia, Guinea, Togo, Benin, Liberia, Sierra Leone and Niger) in the preparation and finalization of project appraisal documents for negotiating funds from the International Development Association of the World Bank.

It is important to note that a mid-term review of the Programme conducted in WAAPP 1 A (Senegal, Mali and Ghana), led to the suggestion for introducing another project component on «accelerated technology adoption». This was integrated as a sub-component in the project appraisal document of WAAPP 1B (Côte d'Ivoire, Nigeria and Burkina Faso).

In Central Africa, Efforts made by the Executive Secretariat to initiate a similar programme on agricultural productivity resulted in the expression of interest to the World Bank by Cameroon and Chad.

In terms of financial resources mobilization, negotiations with the World Bank resulted in the approval in September 2010, by the Board of Directors of US\$ 90 million from the IDA and US \$ 19 million from the Japanese contribution to the Multi-donor Trust Fund of the World Bank in response to the food crisis, allocated to WAAPP 1B countries (Nigeria, Côte d'Ivoire and Burkina Faso) and to CORAF/WECARD.

Negotiations with the AusAID resulted in the signing of an agreement in April 2010, for funds to the tune of 374 000 Australian Dollars for finalizing the Partnership document.

Negotiations were also intensified with CIDA for a contribution of US \$ 10 million to the Multi-donor Trust Fund of CORAF/WECARD. This was a strong indication that prospects for effective implementation of the CORAF/WECARD MDTF in 2011 are real.

We would like to remind you that the implementation of the first phase of the institutional change process as envisaged in the Operational Plan came to a successful end with the training of members of the statutory organs of CORAF/WECARD and several stakeholders and partners in the NARS on key aspects of the new Strategic Plan of CORAF/WECARD. A review of the process and lessons learned were carried out to ensure better understanding of the Strategic Plan and its new concepts as well as to propose training programmes for the development of new skills needed for the effective management of IAR4D and the implementation of the Operational Plan.

In 2010, significant efforts were made in the area of information and communication in order to improve recognition of the institution and its activities. This included rehabilitation of the computer system and extension of the mailing list (coraf-community@coraf.org) to 1900 recipients in order to improve the dissemination of information. Moreover, a Policy and Communication Strategy for CORAF/WECARD and more specifically for the WAAPP were developed and implemented. An institutional film was finalized to facilitate information on the activities of the Association at the continental and international levels.

As is the case every year, this report honors and highlights the activities of one of its member NARS. For this edition, readers will discover the NARS focal institution in Sierra Leone, the Sierra Leone Agricultural Research Institute (SLARI). Despite considerable deterioration of its resources, due to armed conflict experienced by the country, it is encouraging to observe a take off with a high level of enthusiasm in this NARS which is driving the mobilization efforts at national and international levels supported by CORAF/WECARD.

With regards to the achievements of 2010 by the Association and its partners, we are optimistic that the results of the mid-term review of the Operational Plan (2008 – 2013) slated for 2011, will not only provide an opportunity to better quantify the actual contribution of CORAF/WECARD in achieving its specific objective but also, to identify specific recommendations for the achievement of the objective of 6 % annual growth of agricultural GDP in the sub-region.

Zoom

2nd Agricultural Science Week

SECOND AGRICULTURAL SCIENCE WEEK IN WEST AND CENTRAL AFRICA

« Management of post-harvest systems of Plants, animals and fisheries products to improve productivity, competitiveness and agricultural markets in West and Central Africa »

The year 2010, in CORAF/WECARD, was marked by two major events : the second Science Week and the ninth General Assembly held from 24 to 29 May, 2010 in Cotonou at Marina Hotel.

The second Science Week dubbed «Management of post-harvest systems of Plants, animals and fisheries products to improve productivity, competitiveness and agricultural markets in West and Central Africa» recorded fruitful discussions and an exhibition of research results.



Actors and Partners participated actively in the sessions

2nd Agricultural Science Week

Zoom

The second agricultural science week was organized in different sessions :

- A day for Partners parallel events

- The official opening of the 2nd science week with useful speeches of the personalities.

- Parallel sessions to discuss the theme and the sub-themes.

> Parallel Sessions

To enable in-depth discussions of the central theme, four sub-themes were defined and addressed based on four results of CORAF/WECARD Operational Plan. The sessions on the four sub-themes were held in parallel and fruitfully discussed. Each sub-theme was introduced by a keynote presentation and three panelists shared their experiences through short presentations. The various sub-theme presentations included :

■ **Sub-theme 1** : innovation systems to improve processing, packaging and labeling of plant, livestock and fishery products

- Trends in Processing, Packaging and Labeling of Agricultural Products;
- Application of cheesemaking technology from pure camel milk in Mauritania;
- Drying;
- Small-scale fish processing and technology innovation: case of smoking ovens in Senegal.

■ **Sub-theme 2** : Policy options and enabling institutional environment for improving the processing and marketing of crops, livestock and fishery products

- Improve agricultural competitiveness in Africa : policy and institutional options
- From farm to market, regulation to ensure competitiveness and sustainability of agricultural products
- Constraints and Challenges in Governance and Channel Choice in Tropical Agri-Food Chains: Evidence from Pineapple Supply Chains in Benin
- Promoting the agricultural sector's value chains in West and Central Africa: Case of the mango industry in Burkina Faso,

■ **Sub-theme 3** : Enhancing the Partnership between key players (producers, processors, researchers, NGOs ...) to encourage collective action towards reducing post-harvest constraints

- Actors and post-harvest challenges in West and Central Africa: Partnership or Deal?
- Development of a partnership to promote/enhance cassava production in rural households in NKOLBI-BANDA, CAMEROON.
- IAR4D Approach for strengthening partnerships among stakeholders to encourage collective actions towards post-harvest issues
- Collective management of logging companies in Senegal: which strategy for effective communication and partnership?

■ **Sub-theme 4** : Effective knowledge use on post-harvest practices in the areas of crop, livestock and fishery production

- Knowledge and post-harvest for Development;
- Using video and radio to Improve rice quality in Africa;
- Impact of the adoption of food processing technologies by rural women in Benin;
- Contribution to improved post-harvest systems.

Zoom

2nd Agricultural Science Week

► Panel discussions with the Congolese Minister of Scientific Research



Dr Henri Ossébi, Minister of Scientific Research of Congo and Dr Papa Abdoulaye Seck Director General of Africa Rice during the Panel discussions

► Exhibition of Research products left visitors satisfied



Several Visitors comprising searchers, farmers and students were satisfied.

2nd Agricultural Science Week

Zoom

> Benin showcases its achievements



Participants discovered the research results of Benin



> Honorary Awards to important personalities who contributed to CORAF/WECARD's development

The 13 personalities who received honorary awards for their contribution to the CORAF/WECARD's development are : Mrs. Seynabou Diop, Dr. Demba Farba Mbaye, Dr. Bouraima Ossen, Dr. Chuks Ogbonnaya, Dr. Eric Smailing, Dr. Daniel Ngou Ngoupayou, Dr. Marcel Nwalozie, Dr. Dominique Hounkonnou, Dr. Samba Ly, Dr. Salomon Namkossere, Dr Bino Témé, Dr. Simon Zok, Mrs. Elisabeth Atangana.



Dr Samba Ly receiving his honorary award from Gregoire Akofodji, Minister of Agriculture of Benin and Mrs Elisabeth Atangana greeting all participants.



Zoom

9th General Assembly

Pr Yusuf B. Abubakar, confirmed Chairman of the Governing Board

On 28 and 29 May, 2010, the Directors of National Agricultural Research Systems from 22 countries of West and Central Africa and their partners met within the framework of the 9th Ordinary Session of CORAF/WECARD General Assembly.



Actors and partners during the General Assembly Session

Dr. Innocent Butare, Senior Project Manager at the International Development Research Center (IDRC), on behalf of the scientific partners, chaired the Ninth General Assembly of CORAF/WECARD.

During discussions, participants reviewed and adopted the report of the Board; they equally reviewed and adopted CORAF/WECARD's Activity Report; they adopted CORAF/WECARD Governance Manual and the By-laws of the Governing Board. GB members whose term was ending were renewed and Prof. Yusuf Abubakar,

Chairman of the Governing Board since the departure of Dr. Simon ZOK in January 2010, was confirmed to this position by the General Assembly.

Sixteen representatives of national research systems (NARS) out of a total of 22 in CORAF/WECARD were attending. The quorum being reached, the General Assembly in accordance with the statutes could legitimately deliberate. At the end of the proceedings, the General Assembly made five recommendations and eight resolutions.

> Recommendations et Resolutions

Related to the recommendations :

- Recommendation 1, was about Strengthening National Agricultural Research Systems
- Recommendation 2, Facilitation of activity implementation in countries
- Recommendation 3, Pursuing the diversified partnership
- Recommendation 4, Reducing reliance on external funding
- Recommendation 5, Participation of young researchers in the 2nd Science Week

A total of eighth Resolutions have been made

- Resolution 1, Adoption of the moral report of the Board's Chairman
- Resolution 2, Appreciation to former members of the Governing Board
- Resolution 3, Re-appointment of Board members
- Resolution 4, Election of New Governing Board members
- Resolution 5, Election of the Chairman and the Vice-chair
- Resolution 6, Approval of the Manual of Governance
- Resolution 7, Conclusions and Recommendations of the 2nd Agricultural Science Week
- Resolution 8, Countries to host the next General Assembly.

See CORAF/WECARD website (www.coraf.org) for the Recommendations and Resolutions details



Constructive discussions came out of the sessions

Zoom

9th General Assembly

The members of CORAF/WECARD's Governing Board since May 29, 2010 :

- Pr. Yusuf B. ABUBAKAR, Board's Chairman, Executive Secretary of ARCN, Nigeria
- Dr. Ibet OUTHMAN Issa, DG ITRAD, Tchad, Vice Chairman
- Dr. Tiémoko YO, DG CNRA, Côte d'Ivoire
- Dr. Atsu Comlan AGBOBLI, DG ITRA, Togo
- Dr. Alfred DIXON, DG SLARI, Sierra Leone
- Dr. André MAKIZA-MABEMBA, Director CRAL/DGRST, Congo
- Dr. Rui SILVA, Representative RECs West Africa, ECOWAS
- Mr. Roger TCHOUNGUI, Roger Tchoungui Representative RECs Central Africa, ECCAS
- Mrs. Simone ZOUNDI, Representative Private Sector, INTERFACE
- Mme Clarisse Nailar NEHOUDAMADJI, Representative NGO, ATOSA
- M. Djibo BAGNA, Representative of Producer Organizations, ROPPA
- Mrs. Anne SIMON, Representative of the EU, Representative of Development Partners
- Dr. Bram HUIJSMAN, Representative of scientific partners, Director of Wageningen International
- Dr. Paco SEREME, Executive Director of CORAF/WECARD, Rapporteur of the Governing Board



From Left to Right : Mr Roger TCHOUNGUI, Dr Atsu Comlan AGBOBLI, Dr Alfred DIXON, Mrs. Clarisse Nailar NEHOUDAMADJI, Dr André MAKIZA-MABEMBA, Prof. Yusuf B. ABUBAKAR, Dr Paco SEREME, Dr Ibet OUTHMAN Issa, Mrs Simone ZOUNDI and Dr Rui SILVA

9th General Assembly

Zoom



Dr Henri OSSEBI, Congolese Minister of Scientific Research signing CORAF/WECARD Guestbook.



CORAF/WECARD in 2010

Advocacy and Cooperation

Intense activities to help meet the agricultural challenges in WCA through the implementation of the 2008-2013 Operational Plan

Throughout the year 2010, the different and various CORAF/WECARD activities were to conduct sustained advocacy to diversify the partnership in order to mobilize more resources to implement programmes and projects. The activities for coordination of agricultural research in the NARS as well as those related to capacity strengthening of actors in agricultural research and development contributed to the effective implementation of the Operational Plan. The sessions of the Scientific and Technical Committee and the Governing Board and especially the holding of the second Science Week and the Ninth General Assembly also marked the year 2010 at CORAF/WECARD resulting in a further enhanced image through information and communication activities.

➤ Advocacy and cooperation

For a successful implementation of the Operational Plan, advocacy and cooperation were intensified with development partners, technical and scientific partners to mobilize resources.

International Partners

A Through two major activities, CORAF/WECARD played an important role in the implementation of recommendations made during the Global Conference on Agricultural Research for Development (GCARD), held in Montpellier in March 2010. These contributions concerned the development of the research program for the Mega Program on Climate Change and participation on behalf of FARA in the GFAR's 24th session held in September 2010 in Brussels. This activity resulted in the definition of a roadmap to guide the system of agricultural research for development towards greater global impact. It also led to CORAF/WECARD reaffirming its expectations at the national, regional and global levels, vis-à-vis its actors and their responsibilities.

Continental partners

PDDAA/NEPAD/CUA : In support to the various CAADP processes, CORAF/WECARD contributed to:

- the preparations for the sixth preparatory meeting of CAADP in March 2010;
- Raising awareness of key actors in central Africa for the implementation of CAADP Pillar 4;

- Defining strategies to enable smallholding farmers to meet the challenge of climate change in achieving food security and improved incomes in Africa.

This latest result was achieved thanks to the participation of CORAF/WECARD in a regional workshop for West Africa organized by ROPPA in September 2010, as part of preparations for the CAADP's African Forum and to the participation of CORAF / WECARD in the same forum in October 2010.

FARA :

CORAF/WECARD supported FARA in finalizing a consolidated action plan and a budget to support national and regional post compact processes to be implemented by FARA and its SRO components. This plan was validated by FARA Governing Board in November 2010. Then, It will be submitted to the World Bank's MDTF for funding. Participation in the meeting of the General Assembly of FARA held in Ouagadougou in June 2010 valued FARA's goals and strengthened the relationship between this organization and CORAF/WECARD.

Support from CORAF/WECARD was instrumental in getting Dr. Yo Tiemoko elected as the Chairman of FARA's Board. Dr. Tiemoko is currently the Direc-

Advocacy and Cooperation

CORAF/WECARD in 2010

tor General of CNRA-Côte d'Ivoire, one of CORAF/WECARD's NARIs. His chairmanship of the FARA's Board raises hopes as to improving the recognition that the institution enjoys from many development partners.

CORAF/WECARD agreed to support the implementation of the continental-wide project called «Unibrain, coordinated by FARA and funded by DANIDA. ATPS, PanACC and ANAFE collaborated in the implementation. This project aims at facilitating INRAs' involvement in research for the development of agro-business incubators for the benefit of the population. The main role of CORAF/WECARD is to facilitate the reporting of dynamic partnerships between the INRAs of Benin, Burkina Faso, Mali and Ghana and universities, agricultural enterprises as well as policy structures to carry out research on products and research results using «business incubators».

Regional and sub-regional partners

ECOWAS : CORAF/WECARD supported ECOWAS in revising the NAIP for 13 West African (WA) countries, in collaboration with FARA, to ensure their alignment with the CAADP principles and improve their quality. At a meeting organized by ECOWAS in September 2010, CORAF/WECARD was involved in the process of defining mechanisms to facilitate the networking of research centers and the dissemination of research results in West Africa. This was about interconnecting universities and research centers to develop a system of equivalence for diplomas and certificates of higher education and promote scientific and technological innovation in development. CORAF/WECARD took the opportunity of this meeting to introduce the issue of harmonizing the status of researchers in WA which had emerged as a recommendation of the 9th General Assembly.

CORAF/WECARD contributed to defining strategies to fast-track the dissemination of agricultural technologies and innovations in the NAIP and RAIP projects of and developing a roadmap for the collection and transmission of available and / or newly generated technologies. The leadership of CORAF/WECARD was sought in this process.

The support of CORAF/WECARD was also requested by ECOWAS to implement its Community Development Program (CDP). The objective of this program is to implement the Vision 2020 of the Community (from an ECOWAS of States to an ECOWAS of Peoples).

The process for developing regional research policy was launched in September 2010. This meeting gave CORAF/WECARD the opportunity to share the experience gained in the process of developing its strategic plan (2007-2016). CORAF/WECARD was co-opted as a



Participants group-photo during FARA GA in Burkina Faso

member of study committee set up to develop this policy for regional research.

PPAAO/WAAPP :

Within its capacity of regional coordinator and facilitator of the West Africa Agricultural Productivity Programme (WAAPP), CORAF/WECARD provided to WAAPP 1C countries (Gambia, Guinea, Togo, Benin, Liberia, Sierra Leone and Niger) in the preparation and finalization of project appraisal documents for negotiating funds from the International Development Association of the World Bank.

It is important to note that a mid-term review of the Programme conducted in WAAPP 1 A (Senegal, Mali and Ghana), led to the suggestion for introducing another project component on «accelerated technology adoption». This was integrated as a sub-component in the project

CORAF/WECARD in 2010

Advocacy and Cooperation



appraisal document of WAAPP 1B (Côte d'Ivoire, Nigeria and Burkina Faso).

CORAF supported the conduct of the WAAPP 1A's mid-term review. This review reaffirmed the validity of the development goal of the project and recommended: (i) strengthening WAAPP's communication skills and (ii) integrating the sub-component of the project on the «accelerated technology adoption» in order to improve the performance of this project.

UEMOA :

The working visit conducted by the Executive Director and the Administration and Finance Director of CORAF/WECARD at the UEMOA's headquarters in August 2010, was the occasion to review the activities of the framework agreement signed between CORAF/ WECARD and UEMOA. Through this review, the joint validation by the CORAF/WECARD and UEMOA as well as the main actors, of a CORAF/WECARD-coordinated for

identifying priorities for agricultural research and development projects on the WAEMU policy for the agricultural sector has been deferred to 2011.

ECCAS :

Startup of CAAPP/PPAAC has been much delayed. CORAF/WECARD anticipated actions in support of ECCAS, which is a focal CAADP institution for coordinating the preparation and implementation of CAAPP/PPAAC in Central Africa. This included direct discussions with the Ministers of agriculture in the countries of the ECCAS space intended to raise awareness and mobilize them for membership and for showing interest in the World Bank to start the CAAPP/PPAAC. Cameroon and the Republic of Chad, through their ministers of agriculture and irrigation, responded positively to these missions. Requests made by these countries to start the CAAPP/PPAAC were studied by the World Bank in 2010 for a CAAP/PPAAC start in Central Africa.

Advocacy and Cooperation

CORAF/WECARD in 2010

Development Partners

MDTF :

Negotiations were also identified with CIDA for a contribution of US 10 million to the MDTF. A contract submitted by the World Bank to the European Commission, in August 2010, has been reviewed by the EC Delegation in Dakar, Senegal, who was appointed to administer the contract. CORAF/WECARD is awaiting the finalization of this process to make effective its MDTF in 2011.

AusAID :

The strengthening of our scientific partnership was pursued with the implementation of the Food and Food security Initiative of the Australian Government, within the framework of the AusAID-CSIRO-CORAF/WECARD partnership. This was achieved through the selection of concept notes, which were developed to full proposals on the following themes: seed systems, integrated crop-livestock farming systems, and animal health.

Negotiations with the AusAID resulted in the signing of an agreement in April 2010, for funds to the tune of 374 000 Australian Dollars for finalizing the Partnership document

USAID :

USAID has expressed interest in extending the agreement it signed with CORAF/WECARD for institutional and programmatic support to the operational plan beyond the present period of two years. A one-year work plan, from October 2010 to September 2011, has been approved by USAID.

IDRC :

through a dialogue initiated with IDRC, CORAF/WECARD was consulted to submit a concept note for hosting the Platform for Climate Change Adaptation in Africa. This platform will bring together actors from the agricultural sector, researchers and policymakers, notably, to find solutions to facilitate the adaptation of small farmers to climate change and improve their incomes. CORAF/WECARD worked on another concept note, justifying its ability to host the Centre of Excellence of the Project 'Africa Adapt Climate Change'.

Canada, Holland, Norway and Finland :

CORAF/WECARD has continued dialogue with CIDA and initiated discussions with the Ministers for Cooperation of the Netherlands, Norway and Finland as regards their support to implementing the Operational Plan. Appropriate contacts have been established for future collaboration for the development of agricultural research and development in WCA and the main areas of collaboration with partners have been identified. The initiatives outlined include the development of regional projects.



Dr Paco SEREME and Dr Bruce Pengelly during the signing of the agreement in 2010, April.

CORAF/WECARD in 2010

Advocacy and Cooperation

Scientific and technical partners

CIRAD :

A draft action plan for the implementation of a cooperation agreement between CORAF/WECARD and CIRAD, signed on 12 December 2009, was finalized in September 2010. Natural Resource Management Program was asked to identify topics of mutual interest in which Europe, southeast Asia, Africa and / or Latin America will benefit from scientific and technical cooperation as part of Theme 2 «Food, Agriculture, Fisheries, and Biotechnology» (also known as the KBBE: knowledge-based bio-economy) of the EC's FP7 Cooperation Program.

WASA :

A draft agreement was developed between CORAF/WECARD and WASA. It describes the activities geared towards NARS' and seed companies' capacity building specializing in the fields of testing, distribution, maintenance and inventory of varieties based on ECOWAS protocols.

CTA :

An agreement was signed with CTA to get on with the second phase of the project aiming at contributing to capitalizing and transferring the results of agricultural research for development in WCA. The activities should start in 2011.

CGIAR centers :

CORAF/WECARD participated in the development of several CGIAR's Mega - Programs of the, now called CGIAR Research Programs (CRP) to ensure that CRP's priorities are consistent with those of CORAF/WECARD. The collaboration with Bioversity International has led to joint development and submission of a regional project proposal to be financed by the International Treaty for agricultural genetic resources for food and agriculture. The project was submitted through the Ministry of Agriculture of Senegal. This initiative aims at contributing to the implementation of the Ouagadougou Declaration and the recommendations of CORAF/WECARD's Strategic Plan on agricultural genetic resources.

IFPRI :

thanks to the negotiations initiated in early 2010 to strengthen collaboration between the two structures, IFPRI invited CORAF/WECARD to join the Committee of Reflection of the Initiative "African Growth and Development Policy Modeling Consortium" (AGRODEP). The AGRODEP initiative seeks to strengthen capacity of ac-



Dr Gerard Matheron, DG of CIRAD, one of the key scientific Partners of CORAF/WECARD

tors on the research on strategies and policies for agricultural growth in Africa.

ICRISAT :

CORAF/WECARD will coordinate, in collaboration with ICRISAT, the implementation of a regional project on the promotion of millet and sorghum (PROMISO) to be implemented in Burkina Faso, Ghana, Mali, Niger, Benin, and Senegal with a budget worth euro 3.5 to 4.1 million. This project aims at strengthening the capacities of farmers and researchers in West Africa to jointly adapt the varieties of millet and sorghum as well as innovations in agricultural production.

Bases-centres:

the recommendations made by the STC and the GB of CORAF/WECARD to achieve excellence base-centers and facilitate their role in strengthening NARS in specific research areas led to the institutional, technical and scientific assessment of CARBAP. The recommendations will lead to the gradual erection of CARBAP into a CORAF/WECARD's regional Centre of Excellence.

Cooperation with Universities in Norway and Finland :

CORAF/WECARD has initiated contacts with universities in Norway and Finland. A firm commitment was

Advocacy and Cooperation

CORAF/WECARD in 2010

made by the Noragric Head of Department, in Norway, to put CORAF/WECARD in connection with a new project in Mali and examine possible sectors/areas where it can support CORAF/WECARD's activities in a near future. The University of Helsinki has proposed to include CORAF/WECARD in the implementation of a project on arabic gum bringing together 10 countries. This project will be financed by the Finnish cooperation and ADB.

SAFGRAD :

CORAF/WECARD helped launch a Regional Action Program (RAP) to combat desertification in Africa through six Existing Thematic Program Networks (TPNs) of UNCCD. The 6th TPN has a mandate to promote research on sustainable agriculture. By helping to clarify the role of SAFGRAD / AU in enhancing the incomes at

the semi-arid regions of Africa, CORAF/WECARD also revealed the need for SAFGRAD / AU to clearly identify its role in coordinating research and development in the various regions in view of FARA's mandate and its related sub-regional organizations.

WASCAL : The final goal of the West African science service center on climate and adopted land use (WASCAL) is to develop the scientific basis and tools to inform policy makers about strategies to help cope with the impact of climate change. CORAF/WECARD supported WASCAL in helping identify priorities in capacity strengthening for WASCAL during a meeting held in June 2010 and the main areas of research, approaches and partnership arrangements along with designing a baseline program research on Climate Change.



CORAF/WECARD Stakeholders were invited to identify research priorities in the framework of AusAID-CSIRO-CORAF/WECARD partnership

CORAF/WECARD in 2010

Information & Communication

➤ Information and Communication

In 2010, many efforts have been made in information and communication to raise awareness on the institution and its activities and help disseminate knowledge through the website. The latter has seen its number of visitors increased from 1200 per month in 2009 to 1700 per month in 2010.

Relationships between actors and partners within CORAF/WECARD are being strengthened through timely dissemination of information through mailing lists compiled and regularly updated. It is coraf-community@coraf.org which includes nearly 2000 recipients from all countries and participantsag2010@coraf.org that was designed for actors and partners involved in the 2010 General Assembly to enable a cross-fertilization.

Thanks to the communication policy and strategy CORAF/WECARD has established in 2010 and validated by its Governing Board, the communication activities are now aligned to help achieve the vision and mission of CORAF/WECARD.

To facilitate access of actors and partners to knowledge, the information system of CORAF/WECARD has been rehabilitated. And Internet connection has become more efficient and the whole system more dynamic. This system has become a regional system that offers many services and inspires various NARS now as to improve their information and communications systems.

The process of establishing a regional database that could be populated both at national and regional level has started and the database will be operational in 2011.

For the coverage of all regional workshops, the support to programs and projects in communication was effective.

The WAAPP / PPAO communication strategy was developed and validated and its implementation began with the capacity building of communication specialists from Burkina Faso, Nigeria, Côte d'Ivoire, Ghana, Senegal and Mali.

The implementation of the science and technology promotion project through its RAILS component has



Exchange with journalists during the WAAPP promotion Day.

continued and 10 of the 19 countries were able to acquire their IT/computer equipment. All national focal points were also trained in the eRAILS tool during a review meeting on the operation of RAIL in the CORAF/WECARD space.

As regards publications, the contents of the quarterly newsletter 'CORAF ACTION' was reconsidered to be directed towards program and projects activities focusing on research results and their impacts. Only one issue on livestock was produced. Twelve monthly issues of the newsletter 'CORAF ECHO' were produced in English and French and widely diffused.

A 13-minute corporate film on CORAF/WECARD, with French and English version, which deals with its mission, vision and its main activities was produced. A CD of the series of technologies and innovations for rice, cassava and maize prepared by NARSs in the region was produced. An interactive CD of the 2009 Annual Report was produced and widely distributed.

Information & Communication

CORAF/WECARD in 2010

Brochures, leaflets and hanging banners on projects and programs were realized as well as the promotion of Gadgets such as diaries, calendars, pens distributed to all partners of CORAF/WECARD.

As regards strengthening relations with the media, a wide media coverage through the international and Benin press was provided during the 2nd science week and the 9th General Assembly held from 24 to 29 May 2010 in Cotonou.

In the framework of the biannual exchanges with the Senegalese national media and international press, an information and exchanges day with the press on the WAAPP / PPAO was held at the CORAF/WECARD's headquarters in Dakar during the first half of 2010. In

the second half, an information and exchanges day with the press on the issues and challenges of Biotechnology and Biosecurity in West and Central Africa was also organized. The WAAPP / PPAO's Steering Committee held from 23 to 30 October 2010 in Bamako was widely covered by journalists.

In 2010, 16 of CORAF/WECARD events were covered by more than 200 journalists from print to audiovisual media.

The partnership between the Senegalese Press Agency (APS) and CORAF/WECARD worked well and all releases on CORAF/WECARD activities were posted on the APS' site and echoed by several other newspapers/press.



An exhibition of the objectives and activities of the Programmes.

CORAF/WECARD in 2010

Governance

➤ Governance

During 2010, all statutory meetings were held. The 9th General Assembly and the 2nd science week took place from 24 to 29 May in Cotonou. The Board held its two ordinary sessions, the first from 5 to 6 May in Dakar and the second on 29-30 November and 1 December in Dakar.

The Scientific and Technical Committee held a special session from 11 to 16 January in Dakar and its regular session from 18 to 22 October at Saly, Senegal.

In 2010, the Executive Secretariat worked with a staff of 30 persons including 5 executives of the management team and 11 senior executives, 3 middle managers and 11 agents forming the support staff. The Executive Secretariat recorded the departure of the Special Technical Advisor to the Executive Director, whose contract came to end in September 2010. Although institutional changes are envisaged to achieve the results of the

Operational Plan, this level of staff was maintained to preserve the significant level of overhead. Another major activity in terms of human resources the development and adoption of the human resource policy of CORAF/WECARD.

There were also numerous advocacy and cooperation activities carried out both at sub-regional countries and international levels. The Executive Secretary invested heavily in the preparation, organization and holding of the second Science Week and the 9th General Assembly in Cotonou. It served as a focal point for partners and the institution's actors and it ensures and coordinated information exchange between member countries and institutions.

In 2010, CORAF/WECARD organized or participated in 74 workshops and meetings in the sub-region, in Africa and across the world.



Headquarters of CORAF/WECARD Executive Secretariat in Dakar.

Resources Mobilization

CORAF/WECARD in 2010

> Change Management

Five workshops were organized with facilitation by IDL group and CORAF/WECARD staff.

Five workshops were held with Group IDL and CORAF/WECARD's staff used as facilitators.

The target groups included over 50 participants from NARSs, representatives of subregional institutions and senior management of CORAF/WECARD's Secretariat. These workshops resulted in enhanced understanding and increased ownership by the participants of the CORAF/WECARD's strategic and operational plans, the change management process, and their roles in implementing the change process and skills development in CORAF/WECARD for the benefit of the facilitators of change in communication and training.

As a direct result of these workshops for awareness-raising and participation in the strategic and operational

planning process, many NARSs have pledged to revise their strategic plans from different angles, so they are consistent with those of CORAF/WECARD and the principles of CAADP and FAAP.

In June 2010, a final workshop brought together various stakeholders and partners of NARSs, subregional and international organizations as well as development partners. The workshop assessed the process of change management and reviewed the lessons learned to ensure a better understanding of the strategic plan and its new concepts along with the definition of training in new skills needed for effective management of the IAR4D and implementing the Operational Plan. The results obtained during the workshop are presented in the form of a paper on lessons learned and a strategy proposal to maintain the momentum of the process of managing change within CORAF/WECARD, from 2010 to 2013.

> Mobilization of Financial Resources

The budget for 2010 as validate by the Governing Board amounted to CFAF 5.573.530184 or USD 12.385.622. This amount was partly mobilized through the support of partners who are increasingly placing trust in CORAF/WECARD.

Resources composing this budget were mainly from grants and contributions from NARS partners. In terms of investments and expenses, the resources were mainly used in program activities, the functioning of governing bodies and the Executive Secretariat.

**Audit and Statement Accounts
of 2010 accounts**

OPERATING STATEMENT OF THE EXECUTIVE SECRETARIAT
OF CORAF/WECARD (IN THOUSANDS OF FRANCS)

➤ Certified Accounts

RESOURCES	
Operating subsidies	4 207 214
NARS contribution	21 000
Other products	132 850
Total of resources	4 361 064
INVESTMENTS AND CHARGES	
Programmes	
Activities of programmes	3 172 329
Investments	3 614
Total for programmes	3 175 943
GOVERNANCE AND MANAGEMENT	
Governance Organs	121 353
Operation of the Executive Secretariat	705 171
Investissements	168 782
Total for gouvernance and management	995 306
OTHER CHARGES	
Depreciations and provisions	169 556
Total of other charges	169 556
Total of investments et charges	4 340 805
RESULTAT OF THE FISCAL YEAR	20 260

> REPORT ON THE FINANCIAL STATEMENTS

Financial Statements – As of December 31, 2010

ADRESSEE : Board of Directors

LETTRE D'OPINION

We have audited the accompanying Financial statements of West and Central African Council for Agricultural Research and Development (WECARD), which comprise the balance sheet as at December 31, 2010, and the income for the year then ended, and a summary of significant accounting policies and other explanatory information.

Management's Responsibility for the Financial Statements

Management is responsible for the préparation and fair presentation of these financial statements in accordance with OHADA Accounting System, and for such internal control as management determines is necessary to enable the préparation of Financial statements that are free from material misstatement, whether due to fraud or error.

Auditor's Responsibility

Our responsibility is to express an opinion on these Financial statements based on our audit. We conducted our audit in accordance with International Standards on Auditing. Those standards require that we comply with ethical requirements and plan and perform the audit to obtain reasonable assurance about whether the Financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the Financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the Financial statements, the auditor considers internal control relevant to the entity's préparation and fair presentation of the Financial in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of accounting estimates made by management, as well as evaluating the overall presentation of the Financial statements.

We believed that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

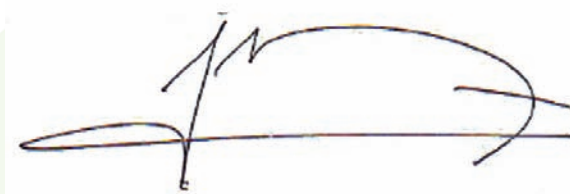
➤ OPINION

In our opinion, the Financial statements présent fairly, in all material respects, the Financial position of West and Central African Council for Agricultural Research and Development as at December 31, 2010, and its Financial performance and its cash flows for the year then ended in accordance with OHADA –Accounting System.

Without impacting our opinion expressed above, we wish to bring to your attention the following information :

- The item « Other receivables » includes outstanding claims for contributions of NARS of WECARD member countries for a total amount of 109 million FCFA to 31 December 2010 including 75 million FCFA predate 2007.
- This amount was to be completely cleared since late 2009, pursuant to the décision of the Board of 2007 which had given a deadline of 2 (two) years to NARS debtors to pay their contribution arrears.

MAZARS SENEGAL : Taïbou MBAYE



Partner

Dakar, le 10 Mai 2011

CORAF/WECARD in 2010

Main workshops and missions

MAIN WORKSHOPS, MEETINGS AND MISSIONS

organized or attended by CORAF/WECARD in 2010

➤ Statutory meetings

First 2010 session of the Governing Board, 5 to 6 May 2010, Dakar.

2nd Agricultural Science week and 9th General Assembly, 24 to 29 May 2010, Cotonou.

Ordinary Session of the Scientific and Technical Committee, 18 to 22 October 2010, Saly, Senegal.

Second regular session of the Governing Board, 29 to 30 November and 1 December 2010, Dakar

➤ Meetings on PPAO/WAAPP

Joint World Bank-CORAF/WECARD mission for the pre-assessment of activities under WAAPP 2, 5 to 19 January 2010, Cotonou, Abuja and Lome.

Diagnostic Information Systems for National Specialization Centre, CERAAS, under WAAPP, 20 to 21 January 2010, Thies, Senegal.

Workshop on the regional environmental and social management framework as well as the pesticide management plan, 22 to 26 February 2010, Dakar.

Technical meeting between experts from countries of the Mano River Union on rice program under WAAPP Phase 2, 12 to 13 March 2010, Abidjan.

Negotiation and validation workshop of PPAO / WAAPP 1b, 29 to 31 March 2010, Ouagadougou.

Workshop on the evaluation of progress for PPAO WAAPP Burkina Faso, 1 to 3 April 2010, Ouagadougou.

Technical discussions on PPAO/WAAPP 1B, 8 to 10 April 2010, Ouagadougou,

Synthesis of the Mid-Term review for PPAO / WAAPP with all stakeholders, 14 May, 2010, Dakar.

Monitoring and evaluation Support to WAAPP's coordinators, 1 to 3 July

Exchange and sharing workshop on the coordination of fiduciary activities for PPAO / WAAPP 11 to 14 October 2010, Abidjan.

3rd Ordinary Session of the Regional Steering Committee for PPAO / WAAPP, 25 to 29 October 2010, Bamako.

PPAAO / WAAPP, Technical workshop for the preparation of Project Document for WAAPP 1C countries (Benin, Togo, Guinea, Liberia and Sierra Leone), 15 to 19 November 2010, Dakar.

PPAAO / WAAPP, Training of focal points as part of the Environmental and Social Management Framework and Pesticide and pest Management Framework, 24 to 26 November 2010, Dakar.

PPAAO /WAAPP Promotion day in Senegal, December 10, 2010, Dakar.

Regional workshop for implementing the PPAO / WAAPP communication strategy, 14 to 16 December 2010, Ouagadougou.

Exchange meeting on PPAO/WAAPP 1C, 20 to 23 December 2010, Washington.

➤ Support meetings to CAADP implementation

FARA's mission at the CORAF/WECARD's headquarters to discuss the implementation of the RAILS and DONATA project, 12 to 13 January 2010, Dakar.

Workshop on CORAF/WECARD's institutional change process for NARS actors, 25 to 27 January 2010, Dakar

Regional Review and Prospects Workshop on the implementation of RAILS AND DONATA projects in the CORAF/WECARD space, 3 to 5 February 2010, Abidjan.

Regional workshop on strengthening the partnership for an agricultural research for development, 2 to 5 February 2010, Nairobi, Kenya

Regional Forum on Agricultural Research, 16 to 18 February 2010, Bamako.

Main workshops and missions

CORAF/WECARD in 2010

Working meeting between ECOWAS and CORAF/WECARD on mobilizing programs, 2 to 3 March 2010, Dakar.

Exchanges between USAID West Africa officials and CORAF/WECARD's Executive Secretariat, 4 to 5 March 2010, Accra.

Training session Institutional change intended for the French-speaking facilitators, 15 to 19 March 2010, Dakar.

Workshop on ECOWAS' mobilizing programs, 28 to 30 March 2010, Cotonou.

First Global Conference on Agricultural Research organized by the Global Forum on Agricultural Research (GFAR), 28 to 31 March 2010, Montpellier, France.

5th Agricultural Science week and General Assembly of FARA, 19 to 24 July 2010, Ouagadougou :

African Forum of farmer organizations on CAADP, 4 to 6 October 2010, Ouagadougou.

Forum on funding policies for agricultural research and results valorization strategies in food security, 9 to 10 October 2010, Ouagadougou.

7th session of the Governing Board of the Forum for Agricultural Research in Africa (FARA), 23 to 26 November 2010, Accra. **International Conference on the implementation for the management strategy of agricultural statistics in Africa**. 3 to 4 February 2010, Tunis.

➤ Scientific and Technical Meetings

Workshop for the establishment of a monitoring and evaluation system for FARA, 1 to 4 February 2010, Accra.

Training workshops under SCARDA, 14 to 20, Banjul and Bamako.

Training in IAR4D concept and the value chains. 15 to 20 March 2010, Bamako.

Africa Rice congress organized by the Rice Center for Africa, 22 to 26 March 2010, Bamako.

Orientation and work planning workshop to update recommendations on crop fertilization in West Africa, 6 to 7 April 2010, Ouagadougou.

Workshop to identify priority research areas to improve animal health and integrated crop -livestock production systems in West and Central Africa, 22 to 23 April 2010, Saly Portudal.

Validation workshop for research priorities in livestock, fisheries and aquaculture in West and Central Africa, 7 to 9 July 2010, Ouagadougou

Workshop for project définition under the CORAF/WECARD - AusAID partnership, 14 to 16 July 2010, Dakar.

Inception Workshop for the Regional Project on Cowpea, 25 to 27 October 2010, Bamako.

Technical Sub-regional workshop on management, dissemination and analysis of agricultural data in Sub-saharan Africa, 18 to 22 October 2010, Dakar.

Workshop to develop a strategy for Information and Communication Management to facilitate the exchange of information and improve decision-making, 18 to 22 October 2010, Accra.

Joint supervision mission CORAF/WECARD-IDRC for the Project «Strengthening the resilience of livelihoods to reduce poverty in semi-arid zones of West Africa, 14 to 17 November 2010, Bamako.

Subregional workshop for the validation of the Gender Policy and Strategy of CORAF/WECARD, 4 to 5 November 2010, Dakar.

Training workshop on the modeling of integrated livestock-crop production systems, 22 to 23 November 2010, Dakar.

9th Session of the Advisory Committee on science and technology for agricultural and rural development in ACP countries, 22 to 26 November 2010, Pretoria.

Roundtable on vegetable production and marketing in the CORAF/WECARD-AVRDC partnership, 6 December 2010, Dakar.

Launching of the Maize Project, 6 to 9 December 2010, N'djamena.

Training for the consideration of gender in agricultural programs, 6 to 10 December 2010, Banjul.

Research Highlights

Research Programmes

The activities for scientific coordination and cooperation carried out in 2010 were conducted on the one hand through the mechanism of competitive grants or commissioned projects and on the other through projects resulting from the collaboration between the scientific partners and those of development partners and implemented under CORAF/WECARD's coordination.

The results achieved by these programmes are presented in the four results areas of the 2008-2013 Operational Plan as following;

Result 1: Appropriate technologies and innovations are developed

► Livestock, Fisheries and Aquaculture Programme :

priority research areas validated



The various activities undertaken to achieve result 1 under the LFAP include :

- The validation of priority research areas for livestock, fisheries and aquaculture development in West and Central Africa (WCA). These research areas were identified through a scoping study conducted in March-April 2010 by various stakeholders during a workshop

held from 7 to 9 July in Ouagadougou, Burkina Faso;

- Launching the two competitive calls for research grants on the concept notes in the area of fisheries and aquaculture;

- Developing concept notes for two potential sponsored projects on the development of a recombinant vaccine CBPP-DNP (bovine pleuropneumonia - LSD)

Research Programmes

Research Highlights

and the integrated control of ticks and tick-borne diseases (TTBD) in WCA conducted by CIRDES in Burkina Faso,

■ Evaluation and ranking by the Scientific and Technical Committee (STC) and resource persons, 20 to 21 October 2010, a total of 27 NCP received by CORAF/WECARD in response to calls launched.

> Staple Crops Programme :

The competitive grants approved 4 projects

Activities carried out to achieve result 1, under the SCP, concerning the approval by the Governing Board (GB), at its first regular session in May 2010, four projects of the competitive grant scheme on plantain, maize and cowpea productivity and post-harvest technologies.

These projects are implemented in Cameroon, Ghana, Benin, DR Congo, Congo, Togo for plantain; in Mali, Benin, Burkina Faso and Ghana for cowpea; in Cameroon, Chad and Nigeria for maize; in Guinea, Niger, Cameroon and Senegal for post-harvest technologies. In addition, project agreements were signed with the four main coordinating institutions namely ITRAD in Chad for

maize, IER in Mali for cowpea; in CARBAP Cameroon for plantain, and ITA in Senegal for post-harvest technologies.

Activities conducted as part of the partnership between AusAID / CSIRO and CORAF/WECARD helped achieved the milestones in the result 1. It is about launching a call for a sponsored project for the improvement of seed systems in WCA and the identification of a core team of researchers from Mali, Ghana, Burkina Faso and Cameroon and from WASA. This team has developed and submitted a research proposal in October 2010 which will be evaluated in 2011.

> Natural Resource Management Programme :

the priority research areas validated

The main activities carried out as part of Result 1 are :

- Identification of priority research areas for the development of NRM in WCA. This identification is the result of a scoping study validated by various stakeholders at a consultation held from 9 to 11 August 2010 in Douala, Cameroon;
- The launching of two competitive calls for the sustainable intensification and diversification of agriculture, conservation along with enhancement of biodiversity and improvement of integrated agricultural crop / livestock systems under the AusAID-ICRISAT / CSIRO-CORAF/WECARD partnership and
- The evaluation and classification of concept notes received by CORAF/WECARD in response to the call launched.



Research Highlights

Research Programmes

► Biotechnology and Biosafety Programme :

insect pests control increased

As part of a Europe-Africa partnership on cotton funded by the French Ministry of Cooperation, BBP coordinated in June 2010, the official launch of the FSP – cotton Project. The activities carried out to achieve Result 1 were:

- Establishing mechanisms for monitoring the dynamics of insect pests populations attacking cotton in Togo and Benin;
- Implementing experiments in Burkina Faso, Mali, Togo and Benin to set the threshold at which caterpillars are to be dealt with;
- Selecting criteria for decision-making to control caterpillars when they cross that threshold and
- Intensifying ecological control by integrated pest management.



Result 2 : Strategic decision-making options for policy, institutions and markets developed

► Staple Crops Programme :

Ten new yam seed companies created



Through the coordination of one of the three sponsored projects funded by the funded by USAID Emergency Global Food Security Response Initiative (GFSRI) and addressing the promotion of yam miniset technology, ten new yam seed companies to facilitate market access for improved varieties of yam seed were created.

The activities initiated in October and November 2009, with CIRAD, AFD and IFAD have continued. They led to the development of investment guides for donors in the areas of research and geographical intervention areas for improving the staple crop value chain. Based on these documents, funds should be mobilized by the AFD and IFAD to fund priority regional research on staple crops.

Research Programmes

Research Highlights

> Natural Resource Management Programme :

research priorities on climate change, agriculture and food security identified

The NRM Programme initiated support and advice activities to Mega-Programme 7 for CCAFS. These consisted in organizing a regional consultation of actors to develop scenarios and plans for the implementation of adaptation and mitigation activities of climate change in West Africa. They also focused on studies on the vulnerability to climate change for 12 countries of the ECOWAS space. The regional consultations, held in September 2010 helped define research priorities in the field of climate change, agriculture and food security and also to have project ideas to be implemented by the actors in the region. Studies conducted in the countries will provide information from which policy options could be drawn for decision-making in the area of climate change mitigation by the rural poor.

The NRMP coordinated environmental impact assessments and sustainability in Ghana, Togo, Mali and Burkina Faso as part of the commissioned projects funded by the USAID Emergency Global Food Security Response

Initiative (GFSRI). In this context, a pesticide evaluation report (PER) and a safe use Action Plan (SUAP) were developed. These documents contain recommendations on training and awareness for national and regional coordinators of the project and its beneficiaries on the principles, implementation and monitoring of SUAP and also measures and safety practices for the conduct of a project on Bt-cowpea.

The NRMP also coordinated social and environmental assessments in Mali, Senegal, Ghana, Burkina Faso, Côte d'Ivoire, Niger, Nigeria, Guinea, Liberia and Sierra Leone under WAAPP. These evaluations led to the development of an environmental and social management framework and pesticide management plans validated by the regional consultations of actors involving experts from the relevant countries in September 2010. these plans' activities should be integrated into the implementation of all CORAF/WECARD-coordinated projects the in these countries.

> Biotechnology and Biosafety Programme :

BBP supported the UEMOA biosafety programme in risk management associated with the introduction of biotechnology products

BBP supported the WAEMU's 'Biosecurity' Program for developing a project aiming at defining a common approach to assessing and managing risks associated with the introduction of modern biotechnology products in the WAEMU zone. The World Bank agreed to fund this proposal and the activities are to start in 2011. BBP initiated in Burkina Faso, a study on the perception of the public regarding Bt-cowpea. These studies provided information for formulating policy options for decision making on the use of Bt-cowpea.



Research Highlights

Research Programmes

> Policy, Markets and Trade Programme :

priority research topics identified

The PMTP carried out activities for the implementation of competitive grant research projects. The main activities for Result 2 concern :

- The identification of priority research topics for policies, markets, institutions and socio-economics in relation to livestock, fisheries and aquaculture programs as well as natural resource management in WCA through impact studies and actors' consultations in these programs
- The launching of a call for concept notes for projects relating to improved market access and performance of agricultural products;

- Better knowledge of the socio-economic impacts of policies and NRM programs and ;

- Promoting the use of agricultural inputs by small-scale producers

Under WAAPP, the PMTP coordinated activities related to the provision of information to countries involved in WAAPP on the fact that regional laws and regulations governing the use and transfer of pesticides and genetic material in 'ECOWAS should be automatically enforced in countries without governments do need to harmonize their laws and regulations and to ratify them. A study to analyze the constraints encountered in disseminating agricultural products within the ECOWAS has been initiated. It will provide strategies for improving the dissemination and adoption of agricultural products.

Result 3 : Subregional agricultural research system strengthened and coordinated

> Staple Crops Programme :

capacities of several actors strengthened

The SCP coordinated the activities of three commissioned projects funded by the emergency program GSFRI of USAID which produced the following results:

- The establishment of 50 demonstration farms on the practice of integrated control of Striga and minisett techniques for yam production;
- Capacity and autonomy strengthening for of 400 farmers in the production of varieties of Striga-resistant sorghum, dissemination and practice of integrated Striga control;
- Strengthening the capacities and potentials of more than 1,000 farmers to produce yam minisett and disseminate this yam;

- Capacity Strengthening of 71 potential seed entrepreneurs in production techniques of sorghum and training of 10 new seeds entrepreneur in yam seed and in minisetts technique for the yam production;

- Capacity Strengthening of 81 small-scale processors of agro-food products and agricultural entrepreneurs, mostly women, from 11 countries of the subregion through training conducted at the Centre SONGHAI in Benin in the area of the post-harvest cassava and rice, at ITA ,Dakar in the area of the post-harvest of sorghum and millet and

- The registration of 2 students of the third cycle to master's degrees in the yam minisett project.

Research Programmes

Research Highlights



The signing of contracts between the main partners involved in the implementation of competitive grants for four projects on cowpea, maize, plantain and post-

harvest technologies contributed to strengthening partnerships within NARSs and between NARS both nationally and regionally.

> Natural Resource Management Programme :

capacity in cost-benefit analysis of 15 researchers strengthened

Within the partnership AusAID/CSIRO-CORAF, the NRMP organized, from 22 to 24 November 2010, a training workshop aimed at strengthening the capacity of 15 researchers from NARS and their partners on the use of analytical models cost-benefits of the integrated livestock / crop farming systems. This training is also considered as support to researchers who will be involved in the implementation of selected projects for the development of full proposals.



Research Highlights

Research Programmes

► Biotechnology and Biosafety Programme :

capacity of 34 researchers on various aspects of biotechnology and biosafety strengthened

In the framework of three commissioned projects funded by USAID emergency program GFSRI, BBP coordinated capacity building activities for

- Four technicians from Ghana, Liberia, Sierra Leone, Gambia, Benin, Togo and Cote d'Ivoire. ,
- Eighteen technicians and project managers in the use of molecular markers in selecting varieties and RYMV data analysis and
- Two technicians from Mali and Togo on the production of Bt-cowpea and specifically, the protocols on biotechnology and biosecurity at INERA, Burkina Faso.

BBP coordinated the start of activities to strengthen institutional capacities in the framework of the ECOWAS'

Action Plan. These activities have strengthened the relevant NARS so they can in turn carry out the programs of capacity building for better management of market demands. Specifically, there was the regional needs assessment for capacity building in biotechnology and biosafety to create masters programs and doctoral programs in the subregion, in collaboration with CORAF's technical partners. Capacities of Laboratory candidates to be potential Centers of Excellence in biotechnology and biosecurity were also evaluated.

FSP Cotton project activities coordinated by the BBP allowed in respect of capacity building to set up a demonstration farm in Mali for the transfer of results on integrated pest management and registration of a PhD student at the University of Benin.

► Capacity Strengthening Programme :

more than 7,500 researchers and actors for IPTA trained

Needs and constraints in the area of capacity building of actors in agricultural research and development in the areas PEPA, NRMP and PMTP were identified and validated through the same scoping studies and validation workshops conducted by NRMP and PEPA. Calls for PEPA, PGRN and PPMC's Concept Notes also focused on capacity building needs of actors and the conditions conducive to the development, dissemination and adoption of technologies and innovations.

The CBP facilitated on 30 June 2010, the closing of the DFID-funded SCARDA project and implemented in Gambia, Mali, Ghana and Congo. The dialogue with DFID allowed signing a six months agreement to support the project for completing major SCARDA project activities until 31 December 2010. The results concerning the capacity building of 17 students of the third cycle (Master / DEA (Post-graduate Degree or post-master qualification)) to conduct quality research in various disciplines related to agriculture; strengthening leadership and managerial capacities of 201 senior and middle research executives from CRI-Ghana, INRA-Gambia, IER-Mali and CRAL /

DGRST-Congo; strengthening capacity in scientific publications and research proposals for 119 scientists. Negotiations were initiated with the DFID to support a 3 to 4 year- project, on strengthening the institutional capacities and interactions, to go beyond December 2010.

The DONATA project of FARA, which covers the entire continent and financed by the ADB conducted capacity building activities in seven countries in WCA (Burkina Faso, Côte d'Ivoire, Mali, Cameroon, Congo, Sierra Leone and Senegal). These activities produced significant results in strengthening the skills of 7542 actors of Innovation Platforms (IPTA) in different aspects of the maize and cassava value chains (seed production technologies and good agricultural practices, post harvest technology and processing maize and cassava). They also helped initiate activities to strengthen the capacities of 9 students (2 women) or 43% of the total number of students selected by CORAF/WECARD. These students from Niger, Sierra Leone, Liberia, Mauritania, Côte d'Ivoire, Guinea and Central African Republic are currently being training in master classes at the University of Kwazulu Natal Pre-

Research Programmes

Research Highlights

toria, South Africa, University of Dschang in Cameroon and the Institute Hassan II in Morocco.

The CBP, in collaboration with CTA, NAFE and the University of Dschang in Cameroon and that of Abdou Moumouni in Niger supported the training of over 80 staff members for universities and INRAs from Cameroon, Niger, Burkina Faso, Mali, Côte d'Ivoire, Senegal, Chad and

Central African Republic in the field of innovation systems by using the methodological framework ASTI developed by CTA.

Under the AusAID / CSIRO –CORAF/WECARD partnership, the program also supported the selection of African students who expressed an interest in pursuing studies at Master and PhD levels in Australian universities.

Result 4: Demand for agricultural knowledge from target groups facilitated and met

> Livestock, Fisheries and Aquaculture Programme :

priority research areas identified

Knowledge about the state of research and development in livestock, fisheries and aquaculture in WCA were produced through the identification of research priorities for

improving animal health in WCA and a review conducted on integrated crop / livestock systems in semi-arid and subhumid West Africa.

> Staple Crops Programme :

package of basic seeds and minisett techniques developed

The activities of the three commissioned projects, funded under the emergency program, GFSRI, USAID produced packages of basic/foundation seed for an improved variety of sorghum resistant to Striga and packages of minisett techniques for producing yam. These packages led to a multiplication of 30 ha for 3-4 basic seed of the Striga-resistant sorghum variety and the production of over 1 million yam minisett. These activities also produced six drafts of training / extension manuals on the integrated Striga control in sorghum, minisett production techniques for yams and sorghum seed as well as processing cassava, rice, sorghum and millet. They will be edited and published in 2011.



Research Highlights

Research Programmes

> Natural Resource Management Programme :

priority research areas on integrated livestock / crops farming system identified

Knowledge about the state of research and development in the field of NRM in WCA were produced through the identification of priority research areas to improve integrated Livestock / crops farming systems in WCA.

A review on climate and research activities, past and present, conducted during the past decade on integrated crop / livestock farming systems in the semi-arid and subhumid zones in WCA were conducted. These documents should be edited and published in 2011.



> Biotechnology and Biosecurity Program :

Many achievements recorded

The activities of the three commissioned projects funded by the Emergency Program USAID GFSRI, yielded many results: the development of an improved package for production and distribution of basic/foundation seed packages of RYMV-resistant rice varieties in Cote d'Ivoire and healthy cassava cuttings from in vitro culture in all countries involved in the project; the

establishment of multiplication platforms for in vitro healthy cassava cuttings and RYMV-resistant rice varieties; the establishment of a multiplication platform for Bt-cowpea production, and harmonized protocols for disinfection of in vitro tissue and cassava cuttings and the production of Bt-cowpea

> Policy, Trade and Markets Programme :

priority research objectives identified and validated

Knowledge about politics, markets, institutions and socio-economic stakes for LFAP, is generated through the identification and validation of priority research objectives. The status of agricultural enterprises for integrated crop / livestock farming systems in the semi-arid and subhumid WCA was revised. These documents will be edited and published in 2011.



Research Programmes

Research Highlights

➤ Knowledge Management Programme :

new knowledge led to a significant improvement of the productivity

DONATA project activities produced the following results : 35 IPTA on the maize and cassava value chain in place in Burkina Faso, Côte d'Ivoire, Mali, Cameroon, Congo, Sierra Leone and Senegal. These IPTA benefited directly more than 1216 actors with the result that about 128 ha of improved maize and 37 ha of improved cassava. In Burkina Faso where the application of the IPTA tool is the most advanced and agribusiness is active at the platform level, the package of improved maize production has grown 85 hectares of certified maize seed and increase the yields up to 3 to 6 tons per hectare, according to farmers, with production of hybrid maize more important than open air pollinated maize varieties with pollen; a package of improved cassava production in Côte d'Ivoire and Cameroon yielding about 29 to 80 tons per hectare. The added value of cassava tubers

includes processing in attiéké, gari, fufu etc. and (v) the preparation and printing of 2000 copies of the DONATA brochure, 125 Posters / Flyers to facilitate the dissemination of information.

CORAF/WECARD has continued to support the implementation of the Challenge Program as part of the KKM / PLS project. The results obtained relate to the continued operation of 12 innovation platforms based on technologies (IPs) for cereals / legumes (cowpea / maize), fadama rice, the groundnut mottle disease , integrated pest management of vegetables, sheep fattening, agro-forestry, among others, to test IAR4D. Efforts were made to link these elements to markets. Analyses of data from various IP activities implemented in different sites of the working groups began in 2010 and will be completed in 2011.



Research Highlights

Commissioned and Competitive Fund Projects

► Table of projects implemented in 2010

Project title	Duration	intervention area	Regional Institution for coordination	Country	Funding mechanism
Promotion of Striga-resistant Sorghum Varieties to mitigate food crisis in the Sahelian zone	2009-2011	Sorghum	IER, Mali	Senegal Mali Burkina Faso Nord du Nigeria	Commissioned projects USAID / Global Food Security Response (GFSR)
Promotion of improved yam minisetts technology to increase productivity and reduce the overuse of food yam for seeds in WA	2009-2011	Yam	INRAB, Benin	Ghana Nigeria Togo Bénin	Commissioned projects USAID / Global Food Security Response (GFSR)
Improving post harvest quality and packaging of rice, sorghum / millet and cassava products to enhance rice marketability in West and Central Africa	2009-2011	Rice Sorghum Millet Cassava	CTA, Senegal	Benin Nigeria Sénégal Ghana Liberia	Commissioned projects USAID / Global Food Security Response (GFSR)
Facilitating the adoption of Bt-Cowpea in selected West African countries	2009-2011	Bt-cowpea / AATF	INERA, Burkina Faso	Burkina Faso Togo Mali	Commissioned projects USAID / Global Food Security Response (GFSR)
Using in vitro tissue culture methods to preserve, multiply and distribute cassava cuttings free of ACMV to farmers in West and Central Africa	2009-2011	Cassava / Technical support from IITA	CRI, Ghana	Côte d'Ivoire, Ghana, Benin, Togo, Niger, Liberia, Sierra Leone	Commissioned projects USAID / Global Food Security Response (GFSR)
Evaluation of the deployment of RYMV resistant rice varieties in WA	2009-2011	Rice / Technical support from ARC (ex ADRAO)	CNRA, Côte d'Ivoire	Côte d'Ivoire, Liberia, Ghana, Burkina Faso, Sierra Leone, Niger, Nigeria,	Commissioned projects USAID / Global Food Security Response (GFSR)
Strengthening the resilience of livelihood to reduce poverty in the semi-arid West Africa (PLM)	2009 –2012	Livestock Horticulture / Technical support from ILRI	CORAF/WECARD	Togo Mali Niger	Commissioned IDRC
Strengthening capacities in agricultural Research For Development in Africa (SCARDA)	2008-2010	Issues/stakes of capacity building	CORAF/WECARD	Mali Congo Brazzaville Gambie, Ghana	Commissioned DFID
Dissemination of New Agricultural Technologies in Africa (DONATA)	2007-2012	Cassava and maize value chains	CORAF/WECARD	B. Faso, Côte d'Ivoire, Cameroon, S. Leone, Mali, Congo, Senegal	Commissioned African Development Bank (AfDB)
Regional Agricultural Information and Learning Systems (RAILS)	2007-2012	Agricultural Information	CORAF/WECARD	20 countries in CORAF/WECARD	Commissioned AfDB

Commissioned and Competitive Fund Projects

Research Highlights

> Table of projects implemented in 2010

Project title	Duration	intervention area	Regional Institution for coordination	Country	Funding mechanism
Capitalization of result transfer for the agricultural research for development in WA et du Centre	2008- 2011	Capitalization and dissemination of research results	CORAF/WECARD	21 countries (only, Liberia is not involved)	Commissioned CTA
Challenge Program for Sub-saharan Africa: CORAF/WECARD runs the pilot learning site (SAP) of Kano-Katsina- Maradi	2007- 2010	Integrated agri-research for development (IAR4D)	IITA	North Nigeria Niger	commissioned EC DFID
West African Agricultural Productivity Program (WAAPP) - Phase I	2007 -2012	Roots and Tubers Cereals	CORAF/WECARD	Ghana Mali Sénégal	Depinding on countries and World Bank
Bio-fortified sorghum project in Africa (ABS)	2007- 2011	Sorghum/ Technical support from CSIR, University of Pretoria and ARC/LNR (South Africa) AATF, ICRISAT, UC Berkeley (USA)	INERA, Burkina Faso	Burkina Faso only Extension scheduled in Mali, Ghana, Nigeria and Togo during phase 2	commissioned Africa Harvest Biotech Foundation International (AHBFI)
FSP-mobilizing Cotton Project (FSP-cotton)	2009 - 2011	Cotton /Technical support from CIRAD/ CIRDES/ IITA	IER, Mali	Benin, Burkina Faso, Mali, Togo	Commissioned through CIRAD/ French Ministry of foreign and E. affairs
Strengthening capacities for a sound management of Biotechnologies in Sub-saharan Africa (SABIMA)	2009 - 2011	Strengthening biotech capacity / Technical support from FARA	FARA	West Africa : Ghana, Burkina Faso and Nigeria East Africa : Ouganda and Kenya South Africa : Malawi	Commissioned Syngenta Foundation a sustainable agriculture ("FSAD")

Research Highlights

Committed and Competitive Fund Projects

> Table of projects implemented in 2010

Project title	Duration	Intervention area	regional Institution for coordination	Country	Funding mechanism
Promotion of integrated technologies to improve plantain productivity with smallholders	2010-2013	Plantain	CARBAP, Cameroun	IRAD/CARBAP-Cameroon, DGRST-Congo Brazzaville, INE-RA-RDC, INRAB-Benin, ITRA-Togo, CRI-Ghana	Competitive project
Improving cowpea productivity and incomes for the sustainable conservation of the poor farmers' resources, IER, Mali	2010-2013	Cowpea	IER, Mali	IER, Mali INRAB, Benin SLARI, Sierra-Leone INERA, B. Faso GOAN, Ghana, IITA, Benin	Competitive project
Improving maize productivity through the promotion of integrated management technologies in the Savanna Cameroon and Chad, ITRAD Chad	2010-2013	Maize	ITRAD, Tchad	ITRAD, Chad IRAD, Cameroun University of Maiduguri, Nigeria	Competitive project

Planning, Monitoring and Evaluation

Research Highlights

> Planning and Monitoring & Evaluation

The Planning and M&E Unit conducted several activities related to the monitoring of the implementation of the 2010 AWPB, which includes facilitating the preparation and development of results frameworks, work plans and annual budgets for the competitive and commissioned fund projects. We can also notice the organization of the planning process for the preparation of the CORAF/WECARD 2011 AWPB and the development of technical and financial reports. Monitoring and Evaluation Manual strategy was finalized and a Monitoring and Evaluation strategy has been developed.

USAID-funded commissioned projects

The planning and M&E Unit was involved in the launching of baseline studies for the Staple Crop program. The methodological approaches proposed by the consultants, the validation of the approach and the definition of time frame for the study were discussed;

PSTAD, DONATA component

The planning and M&E unit participated in the DONATA project planning and evaluation workshop; provided assisted in the review of regional and national logframes; defined appropriate indicators and developed regional and national annual work plans and budgets for 2010.

PPAAO/WAAPP

This Unit coordinated a workshop on the validation of the environmental and social management plan (ESMP) and the pest and pesticide management plan (PPMP) in compliance with the World Bank policy. The unit also prepared the regional level consultation meeting for the mid-term review of WAAPP 1A. Participants in this meeting went through the program's result framework to remind the delegates of the deliverables, and approved the type and format of the reports to produce for the evaluation mission.



A monitoring and evaluation strategy was developed following recommendations made by the STC. This document outlines the strategic guidelines and mechanisms for M&E within CORAF/WECARD on the one hand, and between CORAF/WECARD and its partners on the other hand. It also proposed a mutual accountability framework for management and monitoring of the performance of the partnership. This document will facilitate the creation of an operational M&E system. Baseline studies on the Operational Plan for the 2008-2013 period were initiated with the identification of consultants who will conduct the study during 2011.

Research Highlights

Bases-Centres

> CERAAS

The mission of the regional center for studies on improvement of adaptation to drought (CERAAS) is to provide technical solutions to reduce the depressive effects of drought on agricultural production.

These technical solutions target desertification control, improvement of natural resource management, reduction in food deficit and improvement of people's standard of living.

In 2010, several scientific activities were conducted at national and regional levels in the implementation of projects including training of students and participation in national and international meetings.

Sorghum

Activities implemented on sorghum included the genetic characterization of varieties of this crop by the identification of ideotypes and the development of techniques for DNA extraction. Specifically, eight varieties of sorghum were planted in bowls at the rate of 15 units per variety. By picking young leaves from plants aged 2-3 weeks and drying them with silica gel, we succeeded DNA extraction using the MATAB technique without liquid nitrogen by means of quartz grinding.

Fonio

With regard to fonio, the genetic characterization of this crop was the major activity performed by CERAAS.

Sixty-four units of the collection of varieties sown in bowls were planted at the rate of 10 units per variety. Picking young leaves from plants aged 2-3 weeks allowed the extraction of DNA by the CETAB technique without liquid nitrogen. We also performed PCR analyses with RAPD markers.



Cereal Systems

En 2010, CERAAS researchers concentrated their efforts on the alleviating vulnerability and intensifying the grain systems in a context of climate variability and change using agro-meteorological tools.

We performed a cycle characterization test and the photoperiodism of 14 millet varieties, 12 sorghum varieties and 10 maize varieties on 3 sites (Kolda, Bambey and St. Louis). Seeding operations were carried out synchronously on June 11 and the thinning took place June 24.

An on-farm monitoring mechanism through the selection of 40 plots in 2 villages in Diourbel was established. Operational monitoring of the campaign for agricultural forecast began with the restoration of a set of 31 rain gauges in the Diourbel administrative constituency.

Cowpea

Concerning cowpea, the identification of QTL associated with nitrogen fixing capacity of this crop was carried out.

A test of both parents Mouride and Bambey 21, for the nodulation capacity and evidence of variability for this character in support of previous findings of other researchers on nitrogen fixation capacity was performed.

A study on the inheritability of the nodule number character, segregation of the size character, as well as the greenhouse dry biomass (under normal water stress and regime) and in station at CNRA Bambey (winter and off- season) in Rils of cowpea produced by cross-breeding the Mouride variety and the Bambey 21.

> CARBAP

The main activities of the African centre for research on banana and plantain (CARBAP) in 2010 included implementation of regional projects and capacity building for producers and researchers to develop banana and plantain production.



Creation of platforms for the dissemination of innovations

This activity aimed to contribute to sustainable improvement of food security and living conditions of poor people through the development of the banana and plantain value chains in central Africa.

After identifying the major constraints relating to the development of the banana and plantain value chains in 2009, the «platforms for partnerships to develop and disseminate innovations in order to improve the sustainability of the banana and plantain value chains in Africa» focused on the transfer of knowledge and innovations in 2010. The following activities were thus carried out: trainers training in processing and storage techniques; trainers training in improved horticulture

propagation techniques (PIF technique); establishment of pilot PIF production units; establishment of observatories for operational markets; creation of pilot plots (field school) and training in banana farm operations.

Several lobbying and sensitization activities implemented in three platforms led to decision-makers taking ownership of and getting involved in the project. These approaches facilitated considerably the implementation of trans-boundary activities, especially in the NTEM platform. For example, free movement of persons and goods has been significantly improved between Equatorial Guinea, Gabon and Cameroon to ensure smooth implementation of activities.

Research Highlights

Bases-Centres

Study on soil infestation by phytoparasite nematodes

This study aimed to identify phytoparasite nematode species associated with the cultivation of banana (Cavendish type) in industrial farms in Cameroon and evaluate their significance in the different sectors compared to the entire range encountered in these sectors.

Phytoparasite nematodes are a major constraint to industrial production of banana in Cameroon (PHP, DELMONTE, SPM and CDC). Studies in several banana production areas in west and central Africa show that species dependent on this crop cause significant yield losses. For Cameroon, yield losses amount to 39% (Bridge, 1995).

Results of faunal studies show that the nematodes found in these plantations comprise five main species (*R. similis*, *Helicotylenchus multicinctus*, *Hoplolaimus pararobustus*, *Meloidogyne* spp, *Pratylenchus* spp. *Rotylenchulus reniformis*). Among these, *R. similis* was found in greater amount and most frequent in most sectors, whatever the altitude.

To assess the efficacy of chemical control strategies in progress in these plantations, a study on the population dynamics was conducted. This aims to show the impact of abiotic factors (soil, climate) on the development of nematode populations and their distribution in space and in time.

Regarding the vertical distribution, studies show that the nematodes encountered (mostly endoparasites) are mainly found in the root zone of the banana tree, i.e. between 0 and 40 cm.

The study on the pathogenic potential of nematodes conducted under controlled conditions in shade, helped calibrate the screening methodology (substrate type, inoculum density, incubation time, etc.) of banana trees vis-à-vis the main damaging nematodes in Cameroon. From the data collected, we undertook a study on the pathogenesis of the nematodes. This study should allow a better understanding of the virulence of the nematodes according to the geographical origin of strains, as well as the sensitivity of banana trees vis-à-vis the latter.

The floristic inventory highlighted the status of adventitia associated with banana trees in the different sectors. Results show that some plants such as *Platostoma africanum*, *Asystasia gangetica*, *Phyllanthus amarus*, *Cynodon dactylon* host large populations of nematodes including *R. similis*. This reservoir-adventitia can, in the absence of banana trees, hinder soil remediation. These results on the knowledge of the status of adventitia are a valuable tool that will serve the interest of producers to gauge –in real-time –the quality of fallowlands before replanting



Bases-Centres

Research Highlights

> PRASAC

PRASAC (regional center of reference for applied research on agricultural system development in central Africa) is a common institution for the Economic and Monetary Community of Central Africa (EMCCA/CEMAC) and an operational tool for CORAF/WECARD at the same time. Its role is to facilitate the implementation and coordination of agricultural research activities in central Africa, which forms part of the CORAF/WECARD region. It fosters regional thematic team formation and assists in project implementation with various funding sources (generally through calls for projects).

In 2010, PRASAC hosted six (06) projects (CASSAVA, VALRENA, PLANTADIV, ACACIAGUM, FOOT BATH, FONCIER), the most important of which is the CASSAVA project, which began the activities. The summary of the scientific programming of this project was conducted during a regional workshop in Douala (Cameroon) in November-December 2010. Some projects have also attained maturity.

In the course of the same year, actions were initiated and consolidated with a view to seeking new funding (GIFSEC, the rice project, FILPRODAF, etc.).

At last, other themes (cereal value chain, agro-food technology) were listed by CEMAC on the tentative regional agenda (10th EDF). PRASAC hosted the «search group» within CRUROR-AC (Conference of Rectors of State Universities and Heads of Research Organizations in Central Africa).



CORUS

Urban growth and agricultural dynamics around the cities of N'Djamena and Moundou (Chad) helped to determine the impact of urban dynamics on production areas and on the structuring of emerging sectors, and to evaluate its contribution to the supply to N'Djamena.

VALRENA

Applied research on the valorization and processing of natural resources in a context of poverty alleviation in Chad and in Cameroon helped to strengthened the capacity of partner institutions to develop scientific research in a collaborative manner and improve health, knowledge and control of environmental attributes and increase people's living standards in a participatory development process.

PEDILUVE

The validation of the use of footbath in Chad to combat ticks and flies and the diseases they transmit to cattle was a major activity in PRASAC. Footbath was a technique used to fight against tsetse flies and ticks in Chad. This technique has helped to reduce socioeconomic losses due to diseases caused by these vectors.

Honour to

Sierra Leone

THE NATIONAL AGRICULTURAL RESEARCH SYSTEM OF SIERRA LEONE

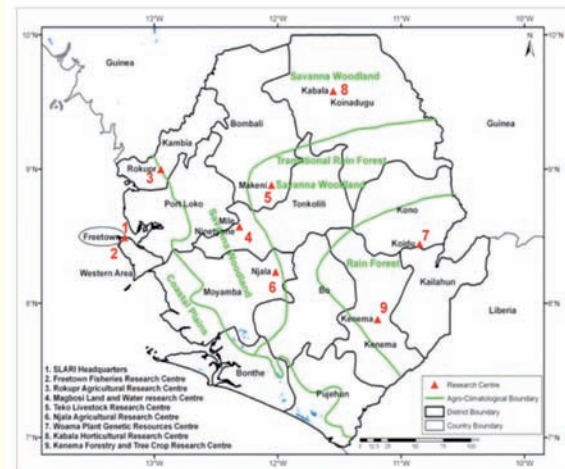
► Presentation of Sierra Leone

Sierra Leone lies on the West Coast of Africa in the humid lowlands and shares borders with Guinea and Liberia. Together with Cote D'Ivoire these countries form the Mano River Union. The major administrative regions in Sierra Leone are the Northern Province, Eastern Province and Southern Province and the Western Area, where Freetown the capital is located (Fig 1). It is a small country with geographical area of 72,000km² consisting of the following physiographic regions: coastal plain that covers 15 % of the land and does not rise above 50m; interior plains that take up 43% of the country and varies in altitude between 50 and 200 m; Guinea highlands that cover 20% of the land with elevation ranging from 500m to 1948m; and plateau immediately south of the Guinea Highlands. There are 60,650 km² of uplands and 11,650 km² of lowlands. Land suitable for cultivation is estimated at 5.36 million ha, that is, approximately 74% of total land area. The soils are mainly low activity clay ultisols and oxisols. The agro-ecological zonation (Fig 1) is coastal plain, savannah woodland, rain forest/savannah and rain forest.

The water resources are substantial; there are nine major rivers with catchment area varying from 720km² (Peninsular) to 14,140km² (Sewa). Global renewable water resources are estimated at 160km³ per annum. Water resources are however underutilized and cropping is mainly rainfed.

High forests used to cover 80% of the country but only 5% of land surface is now under closed forests; the remainder have been converted into fallow scrub, secondary forest re-growth and derived savannah. A variety of wildlife resources are available in mountains, hills, lakes and inland and coastal wetlands.

The climate is monsoon-type humid tropical with two distinct seasons- a rain season typically from May to October and a dry season from November to December. Rainfall averages 3000mm per annum ranging from



Map of Sierra Leone

2000mm in the northern tip to 4000mm in the coastal west. Average monthly temperature ranges from 23°C to 29°C with a maximum of 36°C in the lowlands towards the end of the dry season and a minimum of 15°C in the high lands at the beginning of the dry season. Weather patterns are however changing.

Sierra Leone has an estimated population of 6 millions growing at 2.1% per annum (doubling of population every 34 years). Most (60%) of the population live in rural areas but urbanization is increasing. Internal displacement during the eleven years long civil war from 1989 to 2002 contributed strongly to this.

Sierra Leone

Honour to

> Presentation of Sierra Leone Agriculture

The country is suitable for a wide range of crops. Rice is the major food crop (consumption of 104kg per person per annum) but it is a net importer of this staple. Cassava is second in importance to rice.

The major food crops are produced in the uplands, through the bush fallow rotational system. Rice, sorghum, millet, maize, benniseed, groundnut, broad bean, pigeonpea, cassava, sweet potato and vegetables are grown mainly in mixtures, with rice predominating. The lowlands are cropped with rice during the rainy season and vegetables in the dry season. The major perennial crops are oil palm, cocoa, coffee, citrus, coconut and sugarcane. Others are banana, plantain, kola nut, rubber and cashew. Large plantations of oil palm and cocoa are found in the east where the climate is most suitable. Cocoa, coffee, oil palm are the important export crops.

Livestock consists of cattle, goat, sheep, pigs and poultry; cattle is mainly restricted to the savannahs in the north (semi nomadic system) but the distribution of the small ruminants is wider. Commercial inten-

sive poultry production takes place in cities. Fisheries consist of three sectors-artisanal, industrial and inland/aquaculture. There are Pelagic (surface dwelling) and demersal (bottom dwelling) fish species as well as lobsters, shrimps, cephalopods and crabs. Main fisheries export are from the industrial sector and there is evidence that certain stocks are being overexploited..

Agriculture provides employment for 75% of the population, and contributes 46 % of GDP (Le 7598 billions) with the following sectoral contributions : crops,30%;livestock,3%; forestry,3%;fisheries,8 %.

Within the framework of the Comprehensive African Agriculture Productivity Programme (CAADP) a National Sustainable Agricultural Development Programme (NSADP), was developed in 2009 by the Ministry of Agriculture Forestry and Food Security to exploit the huge agricultural potential of the country. It outlined a number of challenges to improving food security which the national agricultural research system is committed to contributing to..



Improved Varieties of sweet potato developed by SLARI on sale at a roadside

Honour to

Sierra Leone

► National Agricultural Research System

Agricultural research in Sierra Leone dates back to 100 years with the establishment of Njala Experimental Station in 1910 in the Moyamba district. It conducted mainly agronomic research. A Rice Research Station was set up at Rokupr in 1934 in the Kambia district with mandate to conduct agronomic research on rice. Seminal research on the chemistry of acid sulphate soils in mangrove ecology was conducted during Colonial days at Rokupr. A veterinary station was opened at Teko, Bombali district in 1942 and a livestock research station at Musaia, Koinadugu district in 1943. In 1953, the oil palm research site at Njala was upgraded into an outstation of the West African Institute for Oil Palm Research. In 1953 a Forestry Research Institute was established in 1953 at Bambawo, Kenema district and a West African Fisheries Research Institute at Kissy, Western Area. The Institute of Agricultural Research was set up in 1987 as a follow up to the USAID funded Adaptive Crop Research and Extension Project. The National Agricultural Research Coordinating Council was set up in 1985 to coordinate the work of the Institute of Agricultural Research and the Rice Research Station and to provide guidance on the formulation of agricultural research policies and set research priorities. It was replaced in 2007 by the Sierra Leone Agricultural Research Institute.

Njala University College founded in 1964 (transformed to Njala University in 2005) conducts basic and applied research in all the agricultural disciplines. The departments of chemistry, biological sciences of University of Sierra Leone conduct agronomic-related research. The Institute of Marine Biology and Oceanography of the University of Sierra Leone undertakes research in marine fisheries. Research in livestock, fisheries and forestry declined in the post-independence period due to lack of human and financial resources and the destructive effects of the civil war.

Other components (organizations and individuals) of the National Agricultural Research System include the Ministry of Agriculture Forestry and Food Security, the Ministry of Fisheries and Marine Resources, the Sierra Leone Environmental Protection Agency, the National Federation of Farmers of Sierra Leone, the National Association of Farmers of Sierra Leone, the Sierra Leone Investment and Export Promotion Agency, Farmer Based Organizations, Agricultural Business Centres, the Sierra Leone Centre for Agribusiness Development

(SLeCAD), the Food and Agricultural Organization of the United Nations, the Agricultural Non Governmental Agencies, Input Suppliers, Processors and Marketers.

► The Sierra Leone Agricultural Research Institute (SLARI)



Dr Alfred Dixon, Director General of SLARI

The Sierra Leone Agricultural Research Institute came into being through an act of parliament in 2007, as the government agricultural research and agriculture technology generating body for the benefit of the farming, fishing and forestry sectors in Sierra Leone. The act created the following eight agricultural centres distributed over the northern, eastern, southern provinces and the Western Area: Njala Agricultural Research Centre, Rokupr Agricultural Research Centre, Teko Livestock Research Centre, Kenema Forestry and Tree Crop Research Centre, Magbosi Land and Water Research Centre; Woama Plant Genetic Research Centre, Kabala Horticultural Research Centre and Freetown Fisheries Research Centre.

The centres at Njala and Rokupr are classified as category I because there were some buildings, equipment, staff and funding to permit the execution of research programmes. The centres at Magbosi, Teko, and Kenema were category II centres because they were on sites with damaged buildings, little or no equipment, few staff and very small or non-existent research programmes.

NARS Presentation

Honour to

The three remaining centres have not yet been established physically on permanent sites and are classified as category III.

SLARI's major challenge is to contribute significantly, through these centres, to poverty reduction and food security, in the face of inadequate human, physical and financial resources.

A strategic Plan (2008-2017) was developed in 2007 to enable SLARI, as a new organization, make strategic decisions needed for effective response to the expectations of stakeholders. The plan was crafted through a professionally facilitated workshop of key stakeholders and partners, with technical back stopping from the International Food Policy Research Institute and funding from the Forum for Agricultural Research in Africa.

The SLARI vision and mission statements confirm its commitment to national, sub regional and regional policy and priorities : régionales et régionales.

Vision

Increasing food security and wealth by contributing to sustainable agricultural growth, and an effective agricultural research system.

Mission

Supporting agricultural growth through increasing productivity by the generation and promotion of innovative technology and the empowerment of stakeholders.

The plan specifies the General Objective to which SLARI will make a significant contribution, namely broad based agricultural growth sustainably improved. It will make this contribution by achieving its Specific Objective, that is, agricultural productivity, markets and marketing improved. SLARI's objectives are coherent with the Comprehensive African Agricultural Development Programme and the Strategic Plan of CORAF/WECARD and FARA.

The key to achieving the specific objective is the delivery of five RESULTS, which take account SLARI's Core Functions of Agricultural Research, Information and Knowledge, Capacity Strengthening and Advocacy as well as the strategies and programmes of CORAF/WECARD and FARA.

The Results are :

1. Appropriate technologies/innovations generated and promoted
2. Appropriate policy recommendations developed and promoted
3. National capacity for research and technology development strengthened
4. Collaboration and coordination between stakeholders strengthened
5. Knowledge/information management systems established and operationalized.

The range of Results Areas constitutes a paradigm shift from conventional research focusing on technology generation. The Results Areas are the consequence of holistic and participatory research that put farmers and end users at the centre of agricultural research, that is innovations systems approach or integrated agricultural research for development.

These Results would be achieved across the eight SLARI centres and Programmes with the following objectives :

1. Crop and Animal Improvement: to improve the overall biological and economic efficiency of crops, forests, trees, livestock and fisheries through the provision of an optimized genetic potential to fulfill the needs of farmers and markets.
2. Soil, Crop and Animal Management and Natural Resources: to improve the productivity, profitability and sustainability of food crops, vegetables, forests and tree crop production as well as forage and livestock production, fisheries and aquatic farming systems and develop management strategies and technologies that will optimize a sustainable crop-livestock system and conserve the natural resource base of Sierra Leone.
3. Engineering and Post Harvest and Food Technology: to optimize the quality and suitability of plant and animal produce for market requirements, improve the utility and efficiency of supply chains and minimize pre and post harvest losses.
4. Socioeconomics, Policy Research and Outreach: to provide information that will assist government and other stakeholders to develop appropriate agricultural policies as well as providing vital linkage between research and other stakeholders to ensure efficient promotion, adoption and utilization of research results.

Honour to

NARS Presentation

Governance Organs

The SLARI Operational Plan(2008-2012) outlines the organs: there is a Council which is the highest administrative and policy making body under the Act of 2007, with the power to control and supervise the operation of SLARI. Council has four committees to support its operations namely :

- Scientific and Technical Committee
- Appointments, Promotion and Disciplinary Committee
- Documentation, Data Management and Information Committee
- Administration and Finance Committee

At the Research Centre level there are Centre Programme Committees which report to the Scientific and Technical Committee.

Partnerships

SLARI has partnership arrangements with several local, subregional, regional and international organizations in one or more of the following areas-policy formulation, planning, implementation and evaluation of agricultural research, source/user of improved technology and knowledge and information, capacity strengthening, and funding of research and development projects. They include :

1. Forum for Agricultural Research in Africa (FARA)
2. West and Central African Council for Agricultural Research and Development (CORAF/WECARD)
3. Africa Rice Centre(WARDA)
4. International Institute of Tropical Agriculture (IITA)
5. International Crop Research Institute for the Semi Arid Tropics (ICRISAT)
6. Donald Danforth Centre–International Laboratory for Tropical Biotechnology, St Louis, Mo, USA
7. Technical Centre for Agricultural and Rural Cooperation (CTA), Netherlands
8. International Atomic Energy Agency
9. Njala University, Sierra Leone
10. University of Sierra Leone
11. Non Governmental Organizations eg World Vision,

Concern World Wide, CARE

12. National Association of Farmers of Sierra Leone
13. Sierra Leone Investment and Export Agency
14. National Federation of Farmers of Sierra Leone
15. Government Ministries
16. Research Into Use's Partnership for Agricultural Innovation and Development
17. National Agricultural Research Institutes in West and Central Africa

Linkage with CORAF/WECARD is particularly strong. Among other benefits, CORAF has oriented senior staff of SLARI to Change Management and the Director General of SLARI is a member of the CORAF Board.

Achievements and Way Forward

The achievements in research and development of SLARI and its predecessors include :

1. Field validation of research priorities of Njala Agricultural Research Institute, Rokupr Agricultural Research Centre, and Kenema Forestry and Tree Crop Research Centre that were broadly defined in the Operational Plan. This was followed up by the identification of key issues for research and development during the 2010 annual Work Programme Workshop.



Participatory Rice Varietal Selection

NARS Presentation

Honour to

2. Generation of improved technologies (variety, soil and crop management, processing) for major crops (rice, cassava, sweet potato, yam, maize, groundnut, cowpea, soybean) and promotion of the technologies in the form of a comprehensive Crop Production Guidelines, Quality Rice Producers Handbook (with CARE NGO), reports, papers, training workshops, field days.

Average yields of rice and cassava (the two most important crops in Sierra Leone) are only 1t/ha and 8t/ha on farmers fields. Forty two improved rice varieties including the ROK's and NERICA's and sixteen varieties of cassava, that satisfy a range of ecological and consu-

mer requirements have been made available. Through the use of these SLARI improved varieties and associated soil and crop management practices yields can increase up to 3t/ha and 20t/ha respectively and farm incomes may increase by 25%. Improved post harvest technologies eg mechanized processing of cassava tubers into gari have been promoted and adopted.

3. Stakeholder involvement in SLARI work through the annual Work Programme Workshop, participatory variety trials, innovation platforms, briefing reports, training workshops, field days.



Gari processed from a SLARI Cassava variety on sale at a roadside

Appendices

CORAF/WECARD Organs

The governing Organs of CORAF/WECARD

The West and Central African Council for Agricultural Research and Development (CORAF/WECARD) is made up of four hierarchical bodies that ensure the implementation of the objectives of the sub-regional organization through operational units: the General Assembly, the Governing Board, the Scientific and Technical Committee, and the Executive Secretariat.

➤ General Assembly (GA)

The General Assembly (GA) is the supreme decision-making authority of CORAF/WECARD and is made up of representatives of its NARS members, regional and international institutions in the sub-region and the private sector, agricultural professional organizations and development partners.

➤ Governing Board (GB)

The Governing Board is the Body that controls and monitors the implementation of decisions endorsed by the General Assembly. It is made up of 14 members: the Chairman, the Executive Director of CORAF/WECARD, a Representative of the STC, three NARS representatives, five representatives of the agricultural research partners (RECs, NGOs, PAOs, private sector), one representative of the development partners and one representative of the scientific partners.

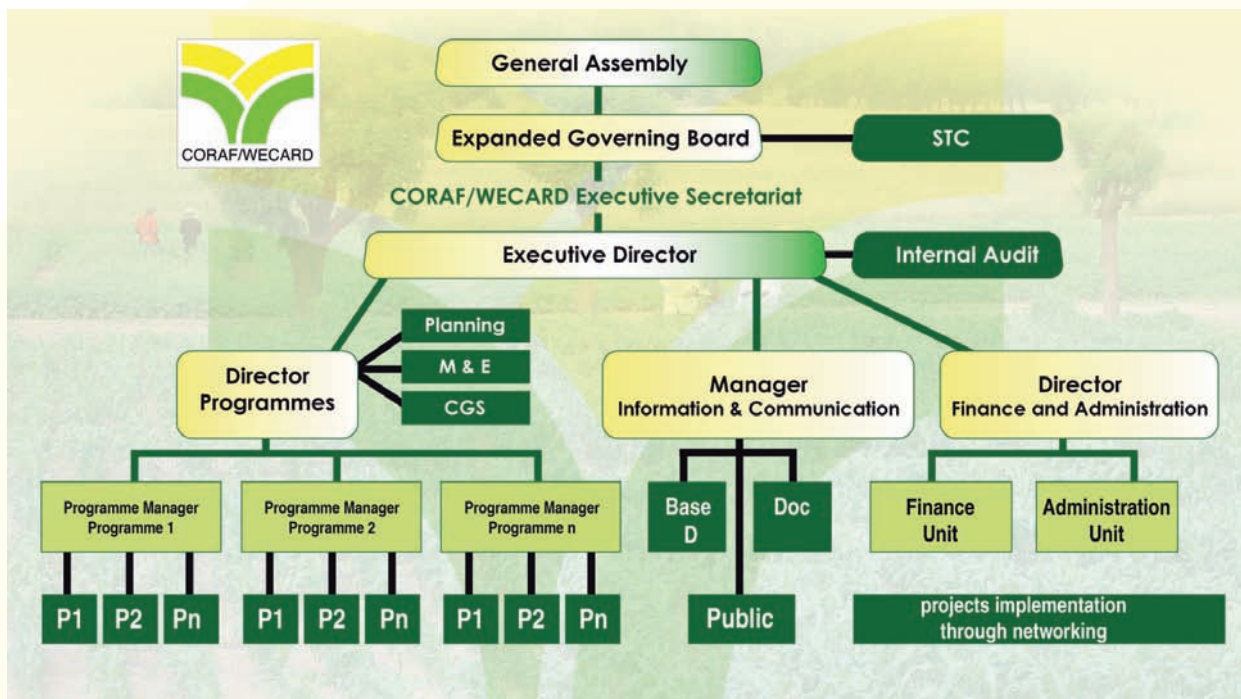
➤ Scientific and Technical Committee (STC)

Le Comité Scientifique et Technique est l'organe consultatif du CA. Son rôle est d'évaluer l'ensemble des activités scientifiques et d'assister le Secrétariat Exécutif dans ses fonctions d'animation et de coordination scientifique. Il est composé de 12 membres, personnalités scientifiques provenant des SNRA et des institutions partenaires choisis intuitu personae en raison de leurs compétences.

➤ Executive Secretariat (ES)

The Executive Secretariat is made up of the professional staff (Executive Director, Scientific Director, Director of Administration and Finance, Information and Communications Manager) and the support staff. Under the supervision of the Executive Director, it implements the decisions endorsed by the General Assembly, monitors scientific activities, organizes audit of research programmes and projects, mobilizes and manages human and financial resources and arranges statutory meetings.

CORAF/WECARD ORGANIZATION



STC : Scientific and Technical Committee.

M & E : Monitoring and Evaluation.

CGS : Competitive Grant Scheme.

D Base : Data Base.

Public : Publications.

Doc : Documentation.

P1, Pn : Programmes 1 to n.

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Governing Board

GOVERNING BOARD MEMBERS (2010)



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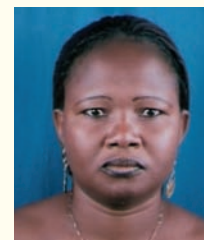
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