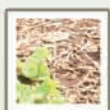




# ANNUAL REPORT 2011



**Strengthening Agricultural Research and Development  
for Sustainable Agriculture in West and Central Africa**



## **CORAF/WECARD**

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

West and Central African Council  
for Agricultural Research and Development

Siège social : 7, avenue Bourguiba, Dakar  
Adresse : BP 48, Dakar RP, CP 18 523 (Sénégal)  
Tél. : (221) 33.869.96.18  
Fax : (221) 33.869.96.31  
E-mail: [secoraf@coraf.org](mailto:secoraf@coraf.org)  
Site web: [www.coraf.org](http://www.coraf.org)

# Table of Contents

## MAJOR ABBREVIATIONS AND ACRONYMS.....

## MESSAGE FROM THE CHAIRMAN OF THE GOVERNING BOARD AND THE E. DIRECTOR

- La consolidation des sillons d'une agriculture durable.....

## ZOOM

WAAPP: The Flagship Programme in West Africa.....

- High points of the Programme .....
- Significant results.....
- Achievements for WAAPP in 2011.....

## MAJOR ACHIEVEMENTS IN 2011

### PROGRAMMES

- Achievements by result area of the Operational Plan.....
- Situation of the Commissioned and Competitive Projects.....
- Planning, Monitoring and Evaluation.....
- Regional Initiatives.....
- Results of the Base Centers.....

### INSTITUTIONAL GOVERNANCE

- Meetings of the Statutory Organs.....
- Mid-Term review of the Operational Plan.....
- Recruitment of the new ED.....
- Human resource management.....
- Financial Resource Management.....
- Operating account.....
- Audit and certification of accounts.....
- Information and Communication.....

### ADVOCACY AND PARTNERSHIPS

- Regional, continental and international cooperation.....
- Scientific cooperation.....

## HONOUR TO CHAD

Agriculture, bedrock of Chad's economy.....

## ANNEXES

- Major workshops and missions in 2011.....
- Statutory Organs of CORAF/WECARD (GA, GB, STC and ES).....
- Heads of WAAPP National Coordination.....
- NARS member countries.....
- List of heads of NARS.....
- Heads of Base Centers.....



# Major 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/WE CARD**, 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

# Major 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 Governing Board and the Executive Director

### A Level playing ground for sustainable agriculture



*Pr Yusuf B. ABUBAKAR, Président du Conseil d'Administration du CORAF/WECARD*



*Dr Paco SEREME, Directeur Exécutif du CORAF/WECARD*

6

The year 2011 is the third year for the implementation of the 2008-2013 Operational Plan of CORAF/WECARD. It was devoted to the strengthening of the sub-regional programs on one hand, and the regional, continental and international partnerships on the other hand.

For this reason, we affirm that results already obtained, which are said to be meaningful for agricultural development of the West and Central Africa sub-region, are the fruits of a combination of various actions and activities.

Through them, the Sub-regional Organization (SRO) has sown these seeds in order to reap an improved coordination for agricultural research; a sound increase in activities for the generation and transfer of agricultural technology and innovation; reinforcement of stakeholders and partners' capacities, diversification without closure of this internal and external partnership.

At the organizational level, two international firms recruited, Enterprise Development Services (EDS) and Management System International (MSI), having identified strengths and weaknesses, conducted the mid-term review of the CORAF/WECARD Operational Plan (OP) and an institutional review of the SRO, which has germinated in the hearts of all the agricultural stakeholders, ingenious facts, high hopes which provide the bases for our affirmation.

In consolidating these two reviews efficiently, CORAF/WECARD role of sub-regional coordination of agricultural research and development, we are convinced to do the same with its recommendations, with respect to the current OP and with the second OP 2014-2018 in view, by deeply anchoring the recommendations as the bases of its preparation.

Furthermore, grafted to this, was the process, in a participatory and transparent manner in the selection of the New Executive Director of CORAF/WECARD by the Governing Board supported by the International, Executive Search (SRI) firm.

## Message from the Chairman of the Governing Board and the Executive Director

At the upcoming 10th General Assembly, expected to take place from 14 to 19 May 2012, it has been scheduled to endorse the choice of the future Executive Director, Dr Harold Roy-Macauley, previously the Director of Programmes of the Institution, to whom, we renew, moreover, our warmest congratulations.

At the cooperation level, the sustained and multi-dimensional advocacy we adopted has also paid off: the reinforcement of our partnership. We are pleased to inform you then, dear readers, the importance of the advent of the partnership agreement with the Australian Agency for International Development (AusAID); the reinforcement of the West African Agricultural Productivity Programme (WAAPP) and its extension to seven other countries of the Economic Community of West Africa States (ECOWAS); the effectiveness of the Multi-Donor Trust Fund of CORAF/WECARD supported by the European Union (EU) and the Canadian International Development Agency (CIDA); the implementation of new continental initiatives such as the development of agri-business incubators through UniBRAIN and a policy process platform for exchange between researchers and decision makers on climate change adaptation in Africa (AfricalInteract).

At the financial level, all these efforts resulted in the mobilization and securing of additional resources intended to fund the current OP. The amount is US\$ 27, 735, 897 granted by the MDTF, US\$ 12, 050, 000 by AusAID, CAD\$ 3,161,000 by AfricalInteract, US\$ 6,000,000 for WAAPP 1 B and US\$ 9,000,000 for WAAPP 1 C.

These also resulted in external auditing which plainly certified the good performance of financial resource management of the Annual Work Plan and Budget (AWPB) for 2011, as for the previous years.

In terms of coordination and scientific cooperation, the launching of 14 new research and development projects, including 6 funded by AusAID and 8 by the MDTF, which brings to function all the eight programs of the OP - Livestock, Fisheries and Aquaculture; Staple Crops Non Staple Crops, Natural Resource Management, Policy, Markets and Trade, Biotechnology and Biosafety, Knowledge Management, Capacity Building.

The year 2011 witnessed CORAF/WECARD's improvement in its visibility, its information system on research outputs managed by a reorganized database; the construction of four web-pages to effectively communicate results generated by joint initiatives with partners; the reinforcement of relations with media; the tightening of relations with its stakeholders and partners; the improvement of the system for collecting and managing information systems of national agricultural research systems (NARS) through capacity strengthening of their communication specialists.

In the spotlight this time, is the NARS of Chad through its representative NARI in CORAF/WECARD, the l'Institut tchadien de recherche agricole pour le développement (ITRAD).

Agriculture, the second pillar of Chad's economy after oil, is strongly sustained by research. It remains, however highly affected by various arm conflicts that the country faces. It is however encouraging to note the upturn efforts of agricultural research and development, thanks to the national authorities and with the support of CORAF/WECARD.

This means therefore that three years after having designed the grounds for sustainable agriculture for West and Central Africa, through the adoption of its Operational Plan, there are signs of hopes that the year 2011, presages in 2012, a rhythmic move towards progressively achieving the objective and results, that CORAF/WECARD, has set itself "in soul and conscience".

Hope you enjoy reading.

# Zoom

## PPAAO/WAAPP

### » The Flagship Programme in West Africa

The West African Agricultural Productivity Programme (WAAPP) is a programme initiated by ECOWAS in 2008 with the financial support of the World Bank.

Its objective is to contribute to sustainable increase in productivity of the national and regional priority sectors through regional integration as an instrument for promoting shared growth and poverty reduction in West Africa.

Mandated by ECOWAS to ensure the regional management of the programme, CORAF/WE-CARD facilitates the coordination of the activities of WAAPP among participating countries.

It facilitates the dissemination of the outputs of the programme at the regional level.

It also facilitates networking of the National Centers of Specialization (NSC), development of indicators at country level, and monitoring and evaluation of the effectiveness of the mechanisms for disseminating technologies.

WAAPP is centered around four components:

**Component 1** : Favorable conditions for regional cooperation in the area of development and dissemination of improved technologies.

**Component 2** : National Centers of Specialization.

**Component 3** : Dissemination and adoption of improved technologies.

**Component 4** : Coordination, management, monitoring and evaluation

**Table 1: WAAPP countries and funding**

<b>13 Pays participants</b>	<b>WAAPP 1A (3 pays)</b>	Sénégal, Mali, Ghana
	<b>WAAPP 1B (3 pays)</b>	Côte d'Ivoire, Burkina Faso, Nigéria
	<b>WAAPP 1C (7 pays)</b>	Bénin, Gambie, Guinée, Libéria, Niger, Sierra Léone, Togo
<b>Sommes mobilisées par groupe de pays</b>	<b>WAAPP 1A</b>	45 millions de Dollars soit 15 millions par pays
	<b>WAAPP 1B</b>	90 millions de Dollars
	<b>WAAPP 1C</b>	83,600 millions de Dollars

The funding mechanism operates either through loans or donations from the World Bank or from other financial partners.



## KEY RESULTS IN THE SUB-REGION

### ➤ Au niveau du PPAAO/WAAPP 1A

In Mali, three improved rice varieties already released in Senegal, were adopted and locally named by the farmers in the regions of Timbuktu and Gao. These are: (1) WAS 62 locally known as SUTURA meaning tranquility; (2) WAS 49 = SAKU (Satisfying all expectations); 3) WAS 197 called WAPMO (WAAPP rice). All these varieties have a higher yield of at least 15 percent compared to other local varieties used by farmers.



In Senegal, the support from the Programme helped to register 16 rice varieties, 8 maize varieties and 6 sesame varieties. Besides, 4 groundnuts varieties were sent to OAPI for the plant variety protection certificate. This is not clear!!!

Three (3) sorghum varieties adapted to the different agro-ecological zones in the country (which country?) with quality grain suitable for human and animal consumption were developed.



# Zoom

## PPAAO/WAAPP

Besides, the Food Technology Institute of Senegal, with support from WAAPP, developed a partnership with the producers, the Non-Governmental Organizations (NGOs) and the Private Sector (processing artisans and agro-industrialists) in Senegal. This partnership led to the production and distribution of pastry flour, blending local cereals of millet and maize. Twenty (20) training sessions on the use of local products, particularly cereals and legumes were also organized for 200 beneficiaries.

In Ghana, 4 varieties of cassava were released. These are: (1) AW1 CSIR-CRI Buronyi bankye with a yield of 56 T/ha; (2) AW 18 CSIR-CRI Ampong with a yield of 40 T/ha; (3) AW 34 CSIR-CRI Sika bankye with a yield of 56 T/ha; and (4) K 25 CSIR-CRI Otuha with a yield of 65 T/ha. Registration of 6 new technologies of yam and sweet potato are ongoing this year.



### ► At the regional level

WAAPP, in 2011, was extended from 13 to 15 ECOWAS countries which is a sign of the passion of countries for the programme as well as the advocacy by CORAF/WECARD and ECOWAS. In addition, within the context of the regional collaboration between researchers, a vision that forms the basis of the existence of WAAPP, scientific exchanges were organized regularly to enable the researchers to learn from each other and to share their experiences.

The involvement of all actors, being the producers, researchers, processors, the private sector and policy makers both at the national and regional levels, is the guarantee for the sustainability of the WAAPP activities.

# Zoom

## PPAAO/WAAPP

After three years of implementation, WAAPP has been institutionalized in West Africa and is presented as the flagship programme for the improvement of agricultural productivity, something that augurs high expectations for the sub-region.

### ➤ Major achievements for WAAPP in 2011:

The ES of CORAF/WECARD continued its efforts aimed at extending and guaranteeing the effectiveness of the WAAPP programme in ECOWAS member countries. To this end, the ES of CORAF/WECARD supported Benin, The Gambia, Guinea, Liberia, Niger, Sierra-Leone and Togo in finalizing the financing and management of the WAAPP programme with the World Bank.

Within the framework of the coordination role played by the ES of CORAF/WECARD, the actors and partners of WAAPP IA, IB and IC, at a consultation meeting held in Dakar in July 2011, discussed the modalities for (i) strengthening the mechanism for the mobility of researchers; (ii) the functioning of the National Specialization Centers (NSC); (iii) the launching of the regional mechanism for the competitive fund for agricultural research and (iv) the transfer of technology within the WAAPP countries. As a result of this consultation by the stakeholders, a call for proposals was made on the following thematic: (i) Research and development (R&D-NRM) for natural resource management; integrated management of land and water to adapt to climate change and variability (US \$4.8 million); (ii) research and development on agricultural productivity in West Africa (US \$5 million).



# Zoom

## PPAAO/WAAPP

### Preparation of WAAPP 2A

The preparation of the second phase of WAAPP IA was marked with the review of the achievements and lessons learned in this programme by the countries and the ES of CORAF/WECARD since its creation in 2008. CORAF/WECARD and the countries achieved significant results in WAAPP IA that provides the basis for the regional cooperation in the generation and dissemination of agricultural technologies. Form the achievements and lessons learned from WAAPP IA, a second phase, WAAPP 2A, was designed with special attention on the component for the dissemination of technologies. The documents for the evaluation of WAAPP 2A were prepared by CORAF/WECARD and the countries and presented to the Bank for funding.

### Signing of the retrocession agreement with countries of WAAPP IB

The retrocession agreements were signed with Burkina Faso and Cote d'Ivoire for WAAPP IB in June and July 2011 respectively. A Joint visit by CORAF/WECARD and the World Bank was led by the Executive Director of CORAF/WECARD and the Senior Coordinator of WAAPP (TTL) at the World Bank in October 2011 to Nigeria, in order to accelerate the signing of this agreement between the Government of Nigeria and CORAF/WECARD. Burkina Faso and Cote d'Ivoire have fulfilled the terms of effectiveness (coming into force, in July and September 2011 respectively).

### Signing of the retrocession agreement with countries of WAAPP IC

Within the framework of the application of the terms of effectiveness of WAAPP IC, retrocession agreements were signed with all the countries: Benin, The Gambia, Guinea, Liberia, Sierra Leone, Niger and Togo. The Gambia and Niger have fulfilled the terms of effectiveness.

# Major Achievements en 2011

## Programmes

### » Programmes

In 2011, the programmes conducted the coordination of the activities on the generation of agricultural technologies, development of policy options, capacity building and knowledge management that should lead to the achievement of the results of the 2008-2013 Operational Plan and also, the launch of 14 research and development projects. The Non-Staple Crops Programme is functional. Its manager has taken up his post and research priorities were identified and validated. Below are the major achievements by area of result of the Operational Plan.

#### ACHIEVEMENTS BY RESULT AREA OF THE OPERATIONAL PLAN

##### ➤ **Result 1** : Appropriate technologies and innovations developed

**The Livestock, Fisheries and Aquaculture Programme**, within the framework of the coordination of the livestock-market gardening project (PLM) helped to generate the following main results : Six innovation platforms were set up to promote the sustainable and profitable development of the livestock-diary-market gardening mixed systems; four trials were set up to investigate (a) low cost irrigation systems that will sustainably increase legume production, (b) fodder production based on the double objective of crop and semi-aquatic forage grasses (bourgou), (c) management of soil fertility for legume farming using cattle waste, and (d) improvement of traditional post-harvest techniques for Wangash cheese.

The coordination of competitive projects of the **Staple Crops Programme** produced many results, namely: the establishment of four innovation platforms and protocols for participatory varietal trials on maize, sorghum, niébe and groundnuts in order to determine the yield performance for the best varieties under two fertilizer regimes.

**The Biotechnology and Biosafety Programme** has contributed to the establishment of a cassava cleaning and multiplication methodology that combines in vitro and in vivo greenhouse techniques within the framework of a commissioned project of the food security response initiative, five isogenic lineages of rice (NIL) on the allele RYMV1 were developed through selection in Burkina Faso, Cote d'Ivoire, Ghana, Sierra-Leone and Nigeria and two NILS (NIL2 and NIL16) were observed on the field and in all the trials in the countries as the most promising lineages in terms of performance in the area of agronomic resistance to the rice yellow mottle virus (RYMV).

# Major Achievements in 2011

## Programmes

Other significant results obtained are the artificial characterization of the actual level, and the nature of this resistance, using different isolates of RYMV collected in situ; and an innovative integrated method combining tissue culture of cassava and the multiplication on the field (new growth system) to produce large quantities of healthy plant material for farmers.

Through the FSP-Coton project, bio-indicators for monitoring the dynamics of pest populations in niébe were identified.



14

### ➤ **Result 2 : Strategic options for decision making on policies, institutions and markets developed**

**The Livestock, Fisheries and Aquaculture Programme**, through the PLM project, defined the strategic options that will facilitate access to markets for inputs and products from the dairy and market gardening mixed production systems.

**Under the Staple Crops Programme**, we have : the development of 57 new entrepreneurship for the processing and marketing of improved yam seedlings (2) and sorghum (55) that will facilitate access to markets.

**Under the Biotechnology and Biosafety Programme**, strategic options for the dissemination of MGOs and the regional regulations on MGOs were defined.

# Major Achievements in 2011

## Programmes

One also notes the defining of strategic options for the acceptability of neibe Bt in Burkina Faso and an ex ante study on the socio-economic impact of the adoption of the modified gene (MG) technology in West Africa. The knowledge generated from these studies has led to a better understanding of the importance of the GM technology by different categories of stakeholders. One of the main results was the authorization granted by the National Agency for Biosafety in Burkina Faso to INERA to conduct tests on the neibe BT.



*Les échanges ont été constructifs au cours de l'Assemblée Générale*

### ➤ **Result 3** : Agricultural research system in the sub-region strengthened and coordinated

Within the framework of the **Livestock, Fisheries and Aquaculture Programme**, the capacities of 12 researchers were strengthened on the methodology for selection of intervention sites for the PLM projects on the IAR4D concept, the value chain analysis and on gender issues. Four students are working on their thesis at Masters and Doctorate degrees.

Through these projects that it coordinates, **the Staple Crops Programme** strengthened the capacities of 2,585 producers, 77 entrepreneurs, 464 processors, 70 percent of whom are women from 9 countries where these projects are implemented, as well as two students on the different technologies that are the subject of transfer.

In Mali, Burkina Faso and Senegal, the capacities of 121 entrepreneurs in the private sector (made up of 101 men and 20 women) were strengthened in the production and marketing of Sorghum seeds; the



# Major Achievements in 2011

## Programmes

capacities of 1,080 producers, of whom 21 percent were women, were strengthened in the control of striga in sorghum; 300 farmers and entrepreneurs were trained in the production and marketing of seed yam in Ghana, Nigeria, Togo and Benin.

Through the project on climate change whose implementation started in April 2011, **the Natural Resource Management Programme** refined the results framework of the project, the preparation of the major activities and the identification of the main regional actors as well as their roles and responsibilities. Key stakeholders and Regional Economic Communities in West Africa were also sensitized on project logic and design.

**Under the Biotechnology and Biosafety Programme**, the capacities of 27 researchers and technical experts were strengthened in the areas of risk assessment and management in connection with Genetically Modified Organisms (GMOs), through ongoing training at CIRDES, construction of green houses, acquisition of laboratory materials and chemical products for conducting experiments on the biotechnologies identified for the projects.

At the level of **the Policy, Markets and Trade Programme**, 77 persons made up of NARS specialists, staff of the ES of CORAF/WE CARD, and the BM were trained in the area of environmental and social protection and 30 researchers from 22 NARS were trained in methods of analyzing the impacts of agricultural policies. Within the framework of WAAPP, a charter on exchange of visits by researchers was drawn up with the stakeholders and the operating mechanisms of the National Specialization Centers were discussed.

16





# Major Achievements in 2011

## Programmes

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

The coordination of programmes and projects helped to produce publications and knowledge generated through manuals, newsletters, articles, brochures, fact sheets and policy notes. On the field, school fields, demonstration plots and innovation platforms were established and radio and television programmes as well as exchange visits were carried out.

Specifically in the FSP Coton, a database on insects that feed on cotton in the conventional farming system through the use of chemical products in Benin, Burkina Faso, Mali and Togo was updated and knowledge exists on the relative abundance and diversity of different insect families, their connection with agricultural activities, the dynamics of the populations of the different species, and the importance of the different species for pollination.



### ➤ **State of commissioned and competitive projects**

The year 2011 helped to continue the implementation of commissioned and competitive projects that are ongoing or we started in 2010. Fourteen new research and development projects were launched at the level of the Stable Crops, National Resource Management, as well as Policies, Markets and Trade Programmes.

# Major Achievements in 2011

## Commissioned et Competitive Projects

➤ **Table 1 : List and objective of 14 projects launched in 2011**

N°	Project	Budget (US\$)	Country of implementation & duration	Objective
<b>Competitive Projects financed under MDTF</b>				
1	Negative externalities of the intensification of cultivated land: methods and assessment tools and alternative practices (PGRN)	490 050	Burkina Faso, Togo, Senegal 2011 - 2014.	Analyze the risks of contamination and develop alternate early warning management mechanisms linked to the massive use of organic and mineral fertilizers
2	Optimization of compromise between productivity and diversity of perennial species in the cocoa production systems of West and Central Africa (PGRN)	794 800	Cameroon, Côte d'Ivoire, Ghana 2011 – 2014	Build capacities of cocoa farmers to increase and diversify production and revenue, while protecting perennial intercropping and ecological integrity of agroforestry systems of improved cocoa.
3	Introgression of Sahelian zebu in the trypanotolerant population of <i>Bos taurus</i> in West Africa (PGRN)	449 828	Burkina Faso, Mali, Benin. 2011 – 2014	Assess the risk of trypanotolerant cattle in West Africa through the phenotype and genetic characterization.
4	Policy, programmes strategies for natural resource management with emphasis on Non Wood Forest Products (NWFP): What works for small farmers in Burkina Faso, Cameroon and Senegal (PPMC)	290 000	Burkina Faso, Senegal, Cameroon 2011 - 2014	Promote the development of policies, programmes and strategies for the management and basic use of NWFP natural resources that are efficient, effective and fair in order to strengthen the contribution of NWFPs to the subsistence of small farmers, particularly women and other vulnerable groups.
5	Support for the sustainable improvement of productivity and competitiveness of the dairy sector in West and Central Africa (PEPA)	454 250	Sénégal, Burkina Faso, Cameroon, Niger and Chad 2011 - 2014	Increase sustainably the productivity and competitiveness of the dairy value chain
6	Poverty eradication and empowerment at the grassroots through the sustainable integrated development of aquaculture: Rice production with fish and piggyery (PEPA)	500 000	Sierra Leone, Nigeria, Cameroon 2011 - 2014	Contribute to make aquaculture sustainable for indoor fish farming and diversification of the efforts of agriculture in the enhanced zone
7	Integrated sustainable aquaculture through fish pond farming with poultry farming and rice: economic, social and environmental assessment (PEPA)	500 000	Nigeria, Cameroon, Sierra Leone 2011 - 2014	Contribute to the creation of sustainable growth in agricultural productivity in the project zone thanks to the contribution of integrated aquaculture
8	Ecological intensification of extensive family fish farming in West and Central Africa from an analysis of the innovative process; extensive fish farming systems (SyPiEx) (PEPA)	498 452	Cameroon, Benin, Côte d'Ivoire, Liberia 2011 – 2014	Improve the sustainability of small-scale extensive aquaculture in West and Central Africa based on an analysis of the innovative aquaculture process.
<b>TOTAL FUNDING</b>		<b>3 977 380</b>		

# Major Achievements en 2011

## Commissioned and Competitive Projects

N°	Project	Budget (US\$)	Country of implementation & duration	Objective
<b>Commissioned projects financed under AusAID</b>				
1	Evaluation of ticks and emerging livestock diseases and integrated control strategies in West Africa	500000 \$	Burkina Faso, Benin, Cameroon 2011 - 2014.	The project aims at studying the impact and risks associated with the introduction in West and Central Africa of an exotic livestock tick, <i>Rhipicephalus (Boophilus) microplus</i> (Bm). The approach to achieve that is based on the cautious application of effective acaricide products, assessment of the tick resistance to acaricides doubled with an integrated management of ticks
2	A tree-cereal-livestock integrated system for a sustainable use of land and improved living conditions for small farmers of the Sahel (CerLiveTreeS)	2 100 000\$	Burkina Faso, Senegal, Cameroon, Chad 2011 - 2014	Improve the cereal-livestock-tree integrated systems and the livelihoods of small farmers thanks to a sustainable management of the territory in the Sahel, within the context of the degradation of farmlands and climate change.
3	Sustainable intensification of agriculture-livestock integrated systems to increase the productivity of agropastoral systems and food security in West and Central Africa (ISIAE)	2 090 000\$	Burkina Faso, Senegal, Cameroon, Chad, 2011 - 2014	Sustainably improve the productivity and production through the intensification of plant and livestock integrated systems, and contribute to food security and poverty reduction in the semi-arid and subhumid regions of WCA.
4	Options for the sustainable intensification of agrosilvipastoral production systems)	2 500 000\$	Burkina Faso, Mali, Senegal, Niger 2011 - 2014	Improve in a sustainable manner the productivity of agrosilvipastoral systems in the subhumid and semi-arid zones of West Africa.
5	Sustainable intensification of the integrated sheep and goat breeding systems in West Africa	1 199 000 \$	Ghana, Mali, Gambie, Benin 2011 - 2014	Improve the security of agricultural productivity, revenue and food through integrated farming systems of small ruminant production
6	Strengthening of seed systems in West and Central Africa	1 300 000\$	Burkina Faso, Ghana, Mali, Cameroon 2011 - 2014	Establish effective and sustainable seed systems for the main staple crops (sorghum, millet, maize, niebe and groundnuts) in Burkina Faso, Cameroon, Ghana and Mali.
<b>TOTAL FUNDING</b>		<b>9 689 000\$</b>		



# Major Achievements in 2011

## Planning, monitoring and evaluation

### PLANNING, MONITORING AND EVALUATION :

The Planning, Monitoring and Evaluation Unit monitored the implementation of the Annual Work Plan and Budget of the ES of CORAF/WECARD through the organization of the annual review programmes/projects, the planning and launching of competitive and commissioned fund projects, the completion of a Monitoring and Evaluation (M&E) strategy for managing the performance of projects and the establishment of technical and financial relations for the Executive Secretariat. Other important result obtained by this Unit concerns,

The preparation of a risk assessment and management plan for the ES to facilitate project coordination and management;

- On capacity building, the following results were generated: 21 members of the NARS from 9 countries trained in the use of the Smart Toolkit tool for monitoring and evaluation (M&E), in collaboration with the CTA and the capacity building of specialists in planning, monitoring and evaluation from CORAF/WECARD in result-based management, at a workshop organized by FARA in Accra from 21 to 25 February 2011. There was also the training of the M&E staff of WAAPP IA-IB on the preparation of the performance management framework, data collection, analysis and reporting based on the results to improve the overall performance of the WAAPP programme and the training of the M&E staff of projects financed by DFID of the Staple Crops Programme on result-oriented results and reporting;
- The mid-term review of the 2011 AWPB and the preparation of the 2012 AWPB for the ES;
- The preparation of a performance measurement framework for the project: "Exchange Programme between researchers and policy makers for adaptation to climate change."



# Major Achievements in 2011

## Regional Initiatives

### REGIONAL INITIATIVES

Beside the West Africa Agricultural Productivity Programme (WAAPP) for which it provides the regional coordination, CORAF/WECARD continued the implementation of other regional initiatives in which it is involved, namely, SCARDA, DONATA, RAILS and PROMISO.

#### SCARDA

Strengthening capacity for agricultural research and development in Africa was implemented through the NARIs of Mali, Republic of Congo, Ghana and Gambia. Twenty-five of the twenty-seven MSc students including 11% women successfully completed and were integrated in their national systems. About 227 senior and middle level research managers and scientists' managerial skills including 18% women were enhanced. Furthermore, 23 NARS staff of which 58% were women was trained on gender mainstreaming in agricultural organizations and programs.

#### DONATA

Eight (8) MSc students from Central Africa Republic, Sierra Leone, Liberia, Niger, Côte d'Ivoire, Guinea, Mauritania and Ghana of the 12 at Universities of Kwazulu Natal and Pretoria both in South Africa, Dschang in Cameroun, Institut Agronomique et Vétérinaire (IAV) Hassan II in Morocco, and KNUST in Ghana, have successfully completed. Only three (3) of these students are females.

To date, about 110 maize and cassava value chain innovation platforms (IPTA) were established in 14 countries (maize value chain involve Benin, Burkina Faso, Mali, Guinea, Togo, Gambia, Senegal; cassava value chain include Côte d'Ivoire, Republic of Congo, Ghana, Sierra Leone, Liberia, Chad; maize & cassava in Cameroun). Over 2000 ha of maize were cultivated in 7 countries and only 87.5 ha cassava was reported in 5 countries. Lowest average maize yields of 1.5 ton/ha was obtained in Benin and highest average yield of 6.5 ton/ha was achieved in Guinea. Average cassava yields of 15-33 tons/ha was obtained across the countries, with Côte d'Ivoire having both the lowest and highest average yields. The situation in Cameroun, Chad and Senegal is less clear. Over 17,000 IPTA actors were involved of which 66.9% were men and 33.1% were females.

About 11,579 tons of grain maize was produced by farmer organization FNZ, formerly known as FEPASSI in Burkina Faso in 2011 on 1,800 ha of which 110 ha was seed maize. Of these, 2,500 tons of commercial grain was contracted to Société Nationale de Gestion des Stocks de Sécurité (SONAGESS), l'Association des Aviculteurs de Ouagadougou, and ATCB at CFA150/kg. Around 50 tons of grain maize was processed into flour. An additional 220 tons of certified seed was produced by FNZ and being sold at CFA500/kg. About 23 tons of commercial grain was sold in

# Major Achievements in 2011

## Results of the Base Centres

Gambia with an additional 2 tons processed and 1.3 tons estimated for household consumption. About 175 bags of foofou were processed from 8,750 kg of raw cassava roots and sold in Sierra Leone. The 152 tons of grain maize produced in Togo were yet to be sold. Some of the processed products include maize flour and grits; and gari, foofou, placali, etc from cassava roots. About 1,175 kg of hybrid seed maize was sold in Cameroon.

### RAILS

The achievement of CORAF/WECARD within the framework of this project concern: capacity building of 18 RAILS focal points in Web 2.0 and the management of the contents of eRAILS; the computer hardware was deployed and the communication specialist were trained in Guinea; support in terms of management of eRAILS contents for focal points from Cape Verde, cote d'Ivoire and Guinea Bissau in their institutions and ES for the project implementation; the computer hardware was delivered in Togo, Chad and Guinea-Bissau. The information specialist at CORAF/WECARD and the data management specialist were trained in Uganda on the E-rails 2database management tool. The process of acquisition of ICT facility for Senegal and Mauritania has been initiated by the ES.

### PROMISO

The monitoring and evaluation tools were developed and the capacities of 22 NARS members involved in the project implementation were strengthened on the use of these tools and 1AR4D—innovation systems

## RESULTS OF THE BASE CENTERS

### CERAAS

The Regional Study Center on the Improvement of Plant Adaptation to Drought (CERAAS) has a mission of providing technical solutions to reduce the depression effect of drought on agricultural production. These technical solutions target desertification control, the improvement of natural resource management, reduction in food deficit and improvement in the standard of living of the populations.

In 2011, several national and regional scientific activities were carried out within the framework of project implementation, training of students, and participation in national and international meetings.

The bulk of the activities were devoted to the implementation of WAAPP activities as a Center of Specialization on dry cereals. The major achievement involves the integrated management of *Striga hermonthica* through Farmers Field School (FFS). Efficiency gains of more than 40 percent were obtained; the production of breeder seeds of new millet, maize and sorghum varieties. The following quantities were obtained: 6,064 tonnes of millet seed, 2,707 tonnes of sorghum and 5,156 tonnes of maize. Furthermore, 3 varieties of millet, and 4 varieties of sorghum were registered.

# Major Achievements in 2011

## Results of the Base Centres

The tests on food ratio done showed that the varieties of sorghum with low tannins gave animal life weight gain higher than 50 percent seen with maize. The population density and fertilization practices that can improve at least 40 percent of yield from the cultivation of flood-recession sorghum were identified not clear!. There is also the development of a prototype of “multifunctional granulator (arraw, conscous and Thiackry)” of average capacity. New molecules (Ethyl 17C and Isopropyl ITC) were detected in plants for a protection of cereal stocks. Not clear!

Another major event to note for the year 2011 was the departure of Dr Ousmane N'Doye, former Director CERAAS. He was replaced by Dr Cisse N'Diaga in February 2011.

### CARBAP

The main activities of the African Center for Research on Banana and Plantain (CARBAP) during 2011 consisted of the implementation of regional projects and the capacity building of producers and researchers for the development of banana and plantain cultivation.

#### Establishment of platforms to disseminate innovations

This activity that was aimed at contribution to the dissemination of innovations to optimize the development of the banana and plantain sectors in Central Africa produced the following main results: Training of trainers for groups that have newly joined the project activities; the construction of horticultural multiplication units; establishment of seed fields; monitoring of innovations transferred to the platforms; conduct of economic investigations with the functioning of the sector.

#### Promotion of integrated management technologies for plantain cultivation to improve the productivity of farms

Within the framework of this CORAF/WECARD project coordinated by CARBAP whose aim is to contribute towards transferring and promoting new varieties and improve management techniques for a much higher productivity and profitability between small producers in Central and West Africa, helped to obtain the following results: Diagnostic investigations on the reference situation was done in all the countries and samples of soil and leaves are being analyzed; establishment of two platforms in each of the six countries benefiting from the project; training of trainers and producers in the technique of horticulture multiplication and the methods of control biogressors, an academic degree (MSc) thesis was defended, the planning and monitoring and evaluation at the regional and national levels was done.

# Major Achievements in 2011

## Results of the Base Centres

### Improvement in the cultivation system of banana and plantain in the peri-urban zone in Central Africa

The improvement of this project that aims at sustainably improving the competitiveness of the banana sector in Central Africa, within the framework of the national development strategies of this sector generated the main result that are; the study on the evaluation of the power of the pathogens of the damaging nematodes present in the different commercial plantations was the subject of an engineering dissertation and the floristic inventory done in four commercial plantations of banana helped to draw up a list of adventices on banana trees and to assess their status concerning the nematodes.

In 2011, besides these follow-up activities project implementation, CARBAP also organized workshops and took part in regional and international meetings to strengthen its visibility build the capacity of its researchers and for advocacy in resource mobilization.



### » CIRDES

The major activities of the International Center for Research and Development of Livestock in humid zones (CIRDES), during the year 2011 consisted of the implementation of regional projects and the building of producers and researchers for the development of the livestock sector.



# Major Achievements in 2011

Results of the Base Centres

## Strategic control of diseases

Developing and popularizing tools and strategies adapted to the technical and economic capacities of the beneficiaries for an effective control of African trypanosomiasis and diseases transmitted by ticks; these are the major objectives of this project. Several results were obtained through its implementation in 2011:

- An ELISA test based on the detection of a serological biomarker anti-tsetse salivary protein was developed and is at the final validation stage with more specific peptides;
- Breeding of tsetse flies at the insectary at CIRDES was better mastered and the trapping systems and control screens became two to five times effective in terms of capture following their miniaturization or association with synthesis odours;
- Populations isolated genetically were illustrated in the tsetse flies and evolution of clonal strains of *Erichia ruminantium* locally proved to be the main obstacle to the development of a regional vaccine in West Africa.



# Major Achievements in 2011

## Results of the Base Centres

### Biodiversity and genetic Improvement Programme

Biodiversity and genetic Improvement Programme, CIRDES achieved:

- The genetic characterization with the aid of microsatellite markers among the zebu in Niger reveals a high genetic variability among the different populations resulting in a classification of 2 or 3 clusters.
- The inventory of ichthyology wildlife in the two basins in Burkina Faso reveals 49 species distributed in 18 families in the “Comoe” and 66 species distributed in 21 families over part of “Mouhoun”;
- The monitoring of the dynamics of the insect populations of eight hemiptera families (Jessiae, Miridae, Pentatomidae, Cicadellidae, Coreidae, Prrhocoridae, Lygaeidae and Alydidae) indicates that they are continuously increasing at the genetically modified cotton farms, causing loss of production and depreciation in the fibre quality. Besides, the species *Junonia orythia* and *Acraea serena* were identified as possible bio-indicators of biocide load in the environment.

### Integrated sustainable management of agrosilvipastoral resources

This project coordinated at the regional level by CIRDES, within the framework of its implementation, yielded the following results:

- Establishment of village consultation framework functional in seven villages of the province;
- Training of producers on Research-Action in partnership;
- Setting up of 1,600 manure and compost pits and the development of methods for producing innovative organic manure
- Development of itinerant techniques for forage plant cultivation (*mucuna*), maize-legume associations (*mucuna* and *niebe*), seedlings on vegetative cover, assisted production and regeneration of *Faidherbia* and the tillage in dry soil technique coupled with the use of organic manure.

The major event of CIRDES in 2011 was the appointment of the new Director General, Dr Valentine Yapi Chia Gnaore. The Center also organized workshops and took part in several regional and international meetings on livestock.



### PRASAC

PRASAC (Regional Pole for Applied Research for the Development of Agricultural Systems in Central Africa) is an institution of the Economic Community of the Central African States (CEMAC), at the same time it is an operational tool of CORAF/WE CARD. Its role is to facilitate the implementation and coordination of agricultural research activities in Central Africa and in the entire CORAF/WE CARD zone. It promotes the formation of regional thematic teams and supports them in the implementation of projects under different funding (generally acquired through calls for proposals).

In 2011, PRASAC thus hosted four (4) projects (CASSAVA, VALRENA, PLANTADIV, ACACIAGUM) of which the most important is the CASSAVA project that started in December 2009.

# Major Achievements in 2011

## Results of the Base Centres

### Cassava

This project concerns the sustainable production of cassavas in Central Africa and its integration into the market. It is aimed at contributing to increase in a sustainable way the productivity of the production systems of the small-scale cassava farmers, in order to improve its quality and promote its integration into the markets. In 2011, the major achievements were: the organization of methodological workshops, meetings of the Steering, Scientific and Research-Development Committees and the follow-up mission in the six countries.

### Acaciagum

This project entitled, "Innovative management of Acacia senegal trees to improve the productivity and production of gum Arabic in Sub-Sahara, is being implemented in four countries: Cameroon, Niger, Kenya and Senegal. It is aimed at increasing the marketable quantity and quality of gum Arabic produced from the Acacia Senegal. The initial implementation activities of this project started in 2011.

### Plantadiv

This project entitled, "Evolution of the diversity of the genetic resources domesticated in the Lake Chad Basin is being implemented in Chad and Niger, and is aimed at measuring the evolution of the genetic resource diversity domesticated in the Lake Chad Basin.

Within the framework of this initiative, there has been training and field studies have been conducted.

### Valrena

The Applied research for the development and processing of natural resources in a process to fight poverty in Chad and Cameroon has helped to build the capacities of partner institutions to develop, in cooperation, applied scientific research that will help to improve the health, knowledge and mastery of the environmental heritage and the improvement in the living conditions of the populations in a process of participative development.

To increase the visibility of the institution and contribute towards mobilizing resources to support the CEMAC member countries, experts from PRASAC participated in international, regional and sub-regional meetings.

# Major Achievements in 2011

## Institutional Governance

### STATUTORY MEETINGS

In the course of the year 2011, statutory meetings of CORAF/WECARD were organized.

The first session of the Governing Board was held from 25 to 27 May 2011 in N'djamena, and the second session was held from 28 November to 2 December 2011 in Dakar.

Concerning the Scientific and Technical Committee (STC), it held an extraordinary session from 24 to 28 January 2011 to evaluate the research proposals funded under the CSIRO-AUSAID partnership. This organ held at a retreat from 17 to 19 October 2011, followed by its ordinary session on 20 and 21 October at Saly Portudal in Senegal.

### MID-TERM REVIEW OF THE OPERATIONAL AND INSTITUTIONAL PLAN OF CORAF/WECARD

28

The Governing Board, at its session held in N'Djamena in May 2011, validated the selection of the firm EDS (Enterprise Development Services) and the methodology proposed for the mid-term review of the Operational Plan. The ES facilitated field visits for the plan of evaluators and facilitated the interaction with partners in the field. Finally, the ES consolidated and transferred to the EDS Firm the observations of the stakeholders of CORAF/WECARD. The firm, at the beginning of November 2011, produced a final version of its report that it submitted to the GB. The GB members approved some of the recommendations made by the Firm and rewarded others, before instructing the ES that prepared an implementation plan for these recommendations and also the broad outlines of CORAF/WECARD's 2nd Operational Plan.

The Government of the United States of America launched a new initiative: Feed the Future (FTF) involving countries in West Africa. For that purpose, USAID-WA Commissioned the firm, Systems International Management, to do an institutional assessment of its partners, including CORAF/WECARD. The purpose of this evaluation was to assess the institutional capacity of CORAF/WECARD to host and manage the components of this new initiative.

The evaluation confirmed the commitment made by CORAF/WECARD to strengthen its governance and operationalize the implementation of its strategic and operational plans through the mechanisms of the competitive and commissioned funds. Consequent to this review, the evaluation team highly recommended CORAF/WECARD to USAID as a credible partner that the USAID can validly support for the implementation of its new FTF.

# Major Achievements in 2011

## Institutional Governance

### RECRUITMENT OF A NEW EXECUTIVE DIRECTOR

In May 2011, the GB approved the appointment of the Search Firm Executive (SRI) to facilitate the recruitment of a new Executive Director. The process which lasted 5 months resulted in a shortlist of 4 candidates who were interviewed from 28 November to 1 December 2011, during the 2nd Ordinary Session of the Governing Board for 2011 in Dakar. Dr Harold Roy-Macauley was selected and is expected to be confirmed by the 2012 CORAF/WECARD General Assembly in May in Chad. He will formally take over on 1st July 2012.

The shortlisted candidates conducted seminars on “The role of CORAF/WECARD in agricultural development in West and Central Africa,” to the partners and staff of the ES, before their interview in a closed session by members of the Governing Board.



# Major Achievements in 2011

## Institutional Governance

### HUMAN RESOURCE MANAGEMENT



30

The human resources at the end of 2011 are made up of 14 senior officers, 10 middle level officers and 13 support staff.

Early in the year, within the framework of the strengthening of the ES, the following three officers were recruited: Dr. Abdourahamane Issoufou Kollo, Responsible for the Partnership Programme with AUS AID/ CSIRO; Dr. Ousmane Ndoeye, Manager of the Non-Staple Crops Programme (NSCP); and Mrs. Aminata Sow, Responsible for Human Resource Management and Operations.

In July and September 2011, the following programme assistants were recruited: Ndeye Ouleye Anne, in charge of database management, and Ndeye Khady Lo, in charge of scientific communications at the ES. As such, the total number of employees at the Executive Secretariat is 37.

As the volume of financial transactions and operations at CORAF/WECARD has increased in the past three years, a process to assess the needs in capacity building for the Finance and Administration Department was initiated and a consultant was recruited for that purpose.

In terms of training, the staff of the Accounts Unit of the ES of CORAF/WECARD was initiated in the basic use of the accounting software, TOMPRO. This has helped the accountants to understand the environment of the accounting software and the use of the input window of TOMPRO to enter accounting data following the codes established. Four members of staff of the Programmes department received training in the safe use of pesticides under the USAID projects in West Africa.

# Major Achievements in 2011

## Institutional Governance

### FINANCIAL RESOURCE MANAGEMENT

Le budget révisé et approuvé pour l'exercice 2011 s'élève à 8 131 464 000 FCFA (18. 069.920 USD). Les ressources prévues au titre du budget et des recettes au 31 décembre 2011 s'élèvent à 5 245 961 111 FCFA (11.677.691 USD) constituant ainsi 65% du budget approuvé et mobilisé. A partir d'une analyse simple, ce taux est inférieur au ratio de 83% et peut être considéré comme faible. Cependant, il est important de noter que le flux de ressources dépend des règles de chaque partenaire financier.

### COMPTE D'EXPLOITATION DU S. E. DU CORAF/WECARD (EN MILLIERS DE FRANCS)

#### > Comptes certifiés

<b>RESSOURCES</b>	
Subvention d'exploitation	4 207 214
Contribution des SNRA	21 000
Autres produits	132 850
<b>Total des ressources</b>	<b>4 361 064</b>
<b>INVESTISSEMENTS ET CHARGES</b>	
<b>Programmes</b>	
Activités des programmes	3 172 329
Investissements	3 614
<b>Total programmes</b>	<b>3 175 943</b>
<b>GOVERNANCE ET MANAGEMENT</b>	
<b>Organes de gouvernance</b>	
Fonctionnement du Secrétariat exécutif	705 171
Investissements	168 782
<b>Total gouvernance et management</b>	<b>995 306</b>
<b>AUTRES CHARGES</b>	
Amortissements et provisions	169 556
<b>Total autres charges</b>	<b>169 556</b>
<b>Total investissements et charges</b>	<b>4 340 805</b>
<b>RESULTAT DE L'EXERCICE</b>	<b>20 260</b>

# Major Achievements in 2011

## Institutional Governance

### ➤ RAPPORT D'AUDIT SUR LES ETATS FINANCIERS

Etats financiers – Exercice clos le 31 décembre 2010

**DESTINATAIRE :** Messieurs les Administrateurs

#### LETTRE D'OPINION

En exécution de la mission qui nous a été confiée conformément au contrat de services de consultants N° 55-2009/SECORAF signé entre le Conseil Ouest et Centre Africain pour la Recherche et le Développement Agricoles/West and Central African Council for Agricultural Research and Development (CORAF/WECARD) et le Cabinet Mazars Sénégal, nous avons effectué l'audit des états financiers au 31 décembre 2010 ci-joints du CORAF/WECARD, comprenant le bilan, ainsi que le compte de résultat, l'Etat des Ressources et des Emplois (TAFIRE) pour l'exercice clos à cette date, et des notes contenant un résumé des principales méthodes comptables et des notes explicatives.

32

#### Responsabilité de la direction dans l'établissement et la présentation des états financiers

Le Secrétariat Exécutif du CORAF/WECARD est responsable de l'établissement et de la présentation sincère de ces états financiers, conformément au Système Comptable OHADA. Cette responsabilité comprend : la conception, la mise en place et le suivi d'un contrôle interne relatif à l'établissement et la présentation sincère d'états financiers ne comportant pas d'anomalies significatives, que celles-ci résultent de fraudes ou d'erreurs ; le choix et l'application de méthodes comptables appropriées, ainsi que la détermination d'estimations comptables raisonnables au regard des circonstances.

#### Responsabilité de l'auditeur

Notre responsabilité est d'exprimer une opinion sur ces états financiers sur la base de notre audit. Nous avons effectué notre audit selon les Normes Internationales d'Audit. Ces normes requièrent de notre part de nous conformer aux règles d'éthique et de planifier et de réaliser l'audit pour obtenir une assurance raisonnable que les états financiers ne comportent pas d'anomalies significatives.

Un audit implique la mise en œuvre de procédures en vue de recueillir des éléments probants concernant les montants et les informations fournies dans les états financiers. Le choix des procédures relève du jugement de l'auditeur, de même que l'évaluation du risque que les états financiers contiennent des anomalies significatives, que celles-ci résultent de fraudes ou d'erreurs. En procédant à ces évaluations du risque, l'auditeur prend en compte le contrôle interne en vigueur dans l'entité relatif à l'établissement et la présentation sincère des états financiers afin de définir des procédures d'audit appropriées en la circonstance, et non dans le but d'exprimer une opinion sur l'efficacité de celui-ci. Un audit comporte également l'appréciation du caractère approprié des méthodes comptables retenues et le caractère raisonnable des estimations comptables faites par la direction, de même que l'appréciation de la présentation d'ensemble des états financiers.

Nous estimons que les éléments probants recueillis sont suffisants et appropriés pour fonder notre opinion.



# Major Achievements in 2011

## Institutional Governance

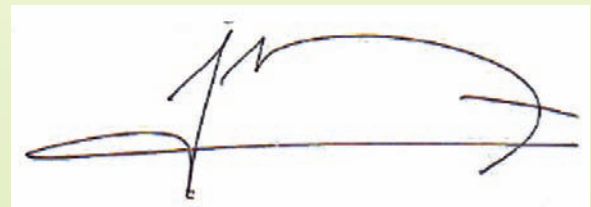
### ➤ OPINION

A notre avis, les états financiers annexés aux pages 7 à 33 présentent sincèrement, dans tous leurs aspects significatifs la situation financière du Conseil Ouest et Centre Africain pour la Recherche et le Développement Agricoles/West and Central African Council for Agricultural Research and Development (CORAF/WECARD) au 31 décembre 2010, ainsi que le résultat des opérations à la fin de cet exercice, conformément au Système comptable OHADA.

Sans remettre en cause l'opinion exprimée ci-avant, nous tenons à porter à votre attention l'information suivante :

- Dans le poste « Autres créances », figurent des créances impayées au titre des cotisations des SNRA des pays membres du CORAF/WECARD pour un montant total de 109 millions de FCFA au 31 décembre 2010 dont 75 millions datent de 2007.
- Ce montant devait totalement être apuré depuis fin 2009, conformément à la décision du Conseil d'Administration de 2007 qui avait accordé un délai de rigueur de 2 (deux) ans aux SNRA débiteurs pour résorber leurs dettes.

**MAZARS SENEGAL : Taïbou MBAYE**



Associé

Dakar, le 10 Mai 2011

# Major Achievements in 2011

## Institutional Governance

### INFORMATION & COMMUNICATION

In terms of Information and Communication, the major achievements in 2011 contributed to improve the visibility of the institution, to strengthen the exchanges between the actors and partners, to make the achievements of the programmes to be better known through publications and the strengthening of relations with the media.

To contribute to the strengthening of relations and exchanges between CORAF/WECARD and its constituents, as well as its partners, more than 2,000 stakeholders were informed regularly about the activities of CORAF/WECARD through mailing lists, on the programmes and projects. The capacities of more than 50 information and communication specialists from the 22 NARS of CORAF/WECARD were strengthened to draw up communication strategies in connection with the regional communication strategy of CORAF/WECARD. A network of communication specialists of CORAF/WECARD was thus formed to gather information and data at the national level and to better disseminate regional information and data.

Besides, the WAAPP Communication strategy was updated, taking into consideration the needs of the countries of WAAPP IC and the capacities of 13 WAAPP Communication specialists was strengthened to improve the collection of information and contribute to the dissemination of information at the national and regional levels.

A communication strategy of the project, “platform of exchange between researchers and policy makers for adapting to climate change,” funded by CRDI and implemented by CORAF/WECARD was prepared and validated.

34



# Major Achievements in 2011

## Institutional Governance



Concerning the Information and Communication Technology and database management 4 new portals on the CORAF/WE CARD have been developed and updated: the USAID-CSIRO portal, the CRDI platform for adapting to climate change, the portal on Global Food Security Initiative funded by USAID and the portal on the 10th General Assembly of CORAF/WE CARD.

A WAAPP database was developed and the data on the projects, publications and main research results were updated and reorganized for a better exploitation by users.

Twenty-five research results from the programmes and projects were edited and published in the form of brochures, leaflets, CD Roms and also posted at the CORAF/WE CARD website.

Ten issues of the online monthly newsletter, CORAF ECHO, were prepared and published and four issues of the quarterly newsletter, CORAF ACTION, were published. The document on the Genesis and Progress of CORAF were published and distributed.

The relations with the media were strengthened and this led to a good media coverage of project activities and 20 regional meetings organized by the ES with the NARS, improving the visibility of CORAF/WE CARD. The institutional film on CORAF/WE CARD was shown over a period of six months in 14 countries covered by the regional channel, AFRICABLE.

In its support role to the NARS in terms of communication, the ES facilitated the acquisition of ICT equipment for Guinea-Bissau and trained in their institutions or at CORAF/WE CARD the communication focal points from Guinea, Guinea Bissau, Cote d'Ivoire, Mali and Cape Verde. In addition, the diagnosis of the communication systems in Nigeria and Burkina Faso were done under the framework of WAAP IB.



# Major Achievements in 2011

## Advocacy & Partnerships

For a successful implementation of the operational plan, the advocacy by the ES with development partners, technical and scientific partners, was intense and it contributed to mobilizing more resources. Several types of partners were targeted within the framework of cooperation.

### AT THE LEVEL OF REGIONAL, CONTINENTAL AND INTERNATIONAL COOPERATION

#### FARA :

CORAF/WECARD supported FARA in the refining of the results framework of its OP, thus permitting its alignment with that of CORAF/WECARD; in the adoption of the strategy of Pillar IV of CAADP developed by FARA during the meeting of development partners and organizations in charge of the implementation of the said Pillar in Zurich, Switzerland. There was also the revision and validation of the terms of references for the Steering Committee of the UNIBRAIN (Universities, Business and Research in Agricultural Innovation) Project and the participation of CORAF/WECARD in the dialogue of African Ministers for Agriculture Science and Technology organized by FARA.

#### CEDEAO :

With ECOWAS, CORAF/WECARD has succeeded in drawing up a list of priorities in the ECOWAS Action Plan on livestock validated by a ministerial meeting held in Bamako in March 2011. CORAF/WECARD contributed to the review of the implementation of ECOWAS/CAADP during the ECOWAS technical and ministerial meetings held in Accra, Ghana.

Within the framework of WAAPP of which CORAF/WECARD is responsible for the regional coordination, significant results have been generated.

#### CEEAC

Thanks to the advocacy made by the Executive Secretariat, a request for funding presented by the Republic of Congo to the World Bank in August 2011, for the funding of the Agricultural Productivity Programme in Central Africa (PPAAC), also helped the Republic of Chad and the Republic of Cameroon to join it, thus constituting the minimum number of countries required to be eligible for the programme. The working visit of the Minister of Scientific Research of Congo to the Executive Secretariat of CORAF/WECARD in September 2011, followed by that of the Executive Director of CORAF/WECARD to the headquarters of CEEAC in Libreville in November 2011, led

# Major Achievements in 2011

## Advocacy & Partnerships

to the combined efforts and actions for this programme to become a reality and to identify a strategy for its preparation early 2012.

### AFAAS

With this partner, CORAF/WECARD has pledged to support the continental platform of advisory support for the implementation of activities for a better technology transfer in West and Central Africa. One can give also note the amendment and adoption of the AFAAS strategic plan followed by the initiation of a platform grouping the French-speaking countries of WCA to promote agricultural advisory services during the GA of AFAAS held in Accra, Ghana in April 2011.

### USAID

Since 2011, USAID has been implementing a new initiative; Feed the Future, by replacing the Global Food Security Response (GFSR) initiative. Under the GFSR, a partnership agreement covering five years (2009-2014) is being implemented by CORAF/WECARD and USAID/WEST AFRICA and concerns six projects that will end in 2012. From 12 to 14 December 2011 in Accra, a meeting brought together a delegation of the Executive Secretariat of CORAF (WECARD and officials of USAID West Africa within the framework of a partnership between the two structures. The Executive Secretariat of CORAF/WECARD, from the lessons learnt from the ongoing activities, prepared an action plan for the period 2011-2016, according to the vision of the new initiative. This action plan was shared with the USAID partners. The two parties reacted agreement on the new activities to be carried out in West Africa including those concerning livestock and dairy production.

### AusAID/CSIRO

The partnership with AUSAID entered its practical phase in 2011 with the signing in January 2011, of the second phase of the partnership agreement between CORAF/WECARD and AUSALD/CSIRO covering: (i) Institutional support for CORAF/WECARD and (ii) the implementation of competitive and commissioned projects on the themes, intensification of crop-livestock mixed farming systems, the seed systems and animal health in WCA, all of which were launched with the involvement of all the actors and partners and especially that of the decision makers in the sub-region.

CORAF/WECARD paid a working visit to Australia in march 2011 to take inspiration from the experience of research into the mixed crop- livestock productions systems and exchange views on the prospects of the AUSAID in the area of support to African agriculture through the Australian initiative for Food Security in Africa.

# Major Achievements in 2011

## Advocacy & Partnerships

### » THE WORLD BANK



38

With the World Bank, the cooperation has helped to undertake supervision missions to WAAPP IA and IB programmes: the main recommendations made at the end of the restitution workshop organized in Dakar in March 2011 concerned: (i) the need for a better implementation of the programme on the mobility of researchers, (ii) the preparation for the implementation of the regional competitive fund component of the programme, (iii) a better promotion of the studies conducted into the National Competitive Funds, the National Specialization Centers and their development into Centers of Excellence, (iv) the need for a greater involvement of ECOWAS in the implementation of WAAPP.

The MDTF of CORAF/WECARD signed on 22 July 2011 between the World Bank and CORAF/WECARD became effective on 30 September 2011. Training on the World Bank procedures and the system of fund management was organized for the staff of the Executive Secretariat. The official launch of the MDTF of CORAF/WECARD brought together the major donors and the World Bank at a ceremony organized on 14 October 2011 at the Executive Secretariat of CORAF/WECARD in Dakar, Senegal. It helped to present to the stakeholders as well as the partners of CORAF/WECARD the new finding mechanism of the Operational Plan. As at now, the donors participating in the MDTF are: EU (11,475,000 Euros) and ACDI (10 million Canadian Dollars) that are supporting CORAF/WECARD for a period of five years.

# Major Achievements in 2011

## Advocacy & Partnerships

### CGIAR

The Executive Secretariat, in April 2011, presented an offer of CORAF/WECARD in response to an invitation for the expression of interest presented by AWARD (African Women in Agricultural Research and Development), a GCRAI initiative for professional capacity building (research and leadership) of women in the agricultural sector with the view to selecting an institution that should host its representation in French-Speaking Africa.

CORAF/WECARD has regularly participated in the GCRAI's initiatives and involved many GCRAI centers in the implementation of its projects.



# Major Achievements in 2011

## Advocacy & Partnerships

### AT THE LEVEL OF SCIENTIFIC COOPERATION

The activities under Scientific Coordination and cooperation were pursued with the implementation of competitive projects, commissioned projects and regional projects in collaboration with scientific and technical partners that are CIRAD, ICRISAT, CSIRO and CRDI.

#### CIRAD

A project coordinated by PEPA on “Strengthening the resilience of small-scale livestock breeders and legume farmers in order to reduce poverty in the semi-arid zones of West Africa-PLM, financed by the CRDI with a sum of 2 million Canadian dollars (CAD), is in its second year of implementation in Mali, Niger and Togo.

A project coordinated by the PGRN on management of an exchange platform between policy makers and scientists on climate change in Africa and financed with the sum of 3 million CAD, was approved in April 2011.

#### CRDI

A project coordinated by PEPA on “Strengthening the resilience of small-scale livestock breeders and legume farmers in order to reduce poverty in the semi-arid zones of West Africa-PLM, financed by the CRDI with a sum of 2 million Canadian dollars (CAD), is in its second year of implementation in Mali, Niger and Togo.

A project coordinated by the PGRN on management of an exchange platform between policy makers and scientists on climate change in Africa and financed with the sum of 3 million CAD, was approved in April 2011.

#### CSIRO

With the support of CSIRO, six projects financed by AUSAID are being implemented in West and Central Africa. This scientific partner ensures for the Government of Australia the management of the partnership with CORAF/WECARD.

#### ICRISAT

The activities of the project on the capacity building of producers and researchers for the joint adaptation of varieties of sorghum, millet and innovations on crop production (PROMISO), funded by the EU and IDAF at the sum of 3.5 million Euros (175,000 Euros allocated to the activities executed by CORAF/WECARD, executed in partnership with ICRISAT and coordinated by the PRC] were pursued. This project is implemented in Burkina Faso, Ghana, Mali, Niger, Benin and Senegal.



# Honour to Chad

## » Agriculture, the bedrock of Chad's economy

### 1. BRIEF PRESENTATION OF CHAD



Chad is one of the vastest countries in Central Africa with an area of 1,284,000 km<sup>2</sup>.

The Climatic regime divides it into three main zones depending on the latitude:

- The Saharan zone where rainfall is less than 250 mm. In the far North, there is less than 50 mm of rainfall and there can be no rainfall for several years in a row;
- There Sahelian zone where rainfall is between 200 and 800 mm, spreading from June to September;
- The Sudan or Savannah zone receives more than 800 mm of rainfall a year. In the extreme South, there is more than 1,200 mm of rainfall between April and October.

Like the majority of Sub-Saharan African countries, the economy of Chad is characterized by a significant dependence on the rural sector. The 2009 census put the population in Chad at 11,175,915 inhabitants. However, the rural population represents a little more than 78 percent (8,752,867).

More than half (52 percent) of this active population is made up of women. Their main activities are farming, livestock breeding and fishing. The majority of households in Chad find the bulk of their resources in the rural sector.

Before the oil production in October 2003, the economy of Chad was mainly based on cotton production that accounted for about 50 percent of the country's export revenue and 20 to 24 percent of tax revenue.

Since 2003, oil accounts for about 65 percent of the country's exports, consigning the contribution of agriculture (plant production) to 17 percent, with cotton in particular



# Honour to Chad

## 2. BRIEF PRESENTATION OF THE NATIONAL AGRICULTURAL RESEARCH SYSTEMS (NARS) IN CHAD

Agricultural research in Chad actually started in 1921 with the creation of the Livestock Center at Moussoro. It was taken over in 1938 by that of Ngouri. An agricultural service of the Cotton Committee for French Equatorial Africa was set up and it undertook the initial tests on cotton at Fort-Archm-bault (presently Sarh) in 1931. It created the Cotton Research Center at Fi anga (Mayo-Kebbi) in 1934 and the selection and testing farm at Bemia (Logone) in 1936.

The Cotton and Textile Research Institute (IRCT), created in 1946, in the same year took over the Agriculture and Animal Production Service in the territory of Chad, the cotton farm at Tikem (Mayo-Kebbi), then that of Bebe djia, soon converted into a research station.

In 1960, the Central Station for the improvement of plant food crops at Deli (near Moundou) took over the work at Ba-Illi and gave them a national vocation by relying on the network of administrative farms doing quite well throughout the cultivated territory in Chad. It was at this period that seed production for food crops was launched at the Ministry of Agriculture.



# Honour to Chad



In effect, it was in 1972 that the research structure at the Ministry of Agriculture was reduced to the rank of a division for agricultural studies. Shortly before the war in 1979, the Agricultural Studies Division was transformed into Agricultural Research Division, but the events disrupted its activities. The Agricultural Research Division resumed activities only in 1984, but under another name of Bureau of Agricultural Research (BRA).

Conceived like in 1975, the BRA had launched its activities by drawing on the Dogul station.

For lack of adequate water resources, this station proved to be rather unfavorable for the safe seed multiplication. To make up for this difficulty, the agricultural research station was set up at Gassi (situated at 15 km to the east of N'Djamena, upstream the River Chari) in 1984. The "Seed" project had broader goals of experimenting rainfed or irrigated seed production, as well as the test for the farming practices at the station at Gassi, then the distribution of the seeds in the rural areas.

In 1986, the Bureau of Agricultural Research (BRA) received support from the World Bank within the framework of a project to restructure agricultural structures (RSA), financed within IDA loan.

A reorganization of the BRA endowed it with two divisions, one in charge of agricultural research and the other for seed production. In the interior of the country, the BRA was responsible for a network of seven administrative farms used for seed production and research that covered quite large ecological and administrative region of the country.

# Honour to Chad



44

With the studies conducted by the Ministry of Rural Development (1991), the National Agricultural Research System (NARS) in Chad evolved towards the more formal creation (in 1998) of the Chadian Institute of Agricultural Research for Development (ITRAD); its second main component with the Laboratory for Veterinary and Zootechnics Research (LRVZ). The mission of ITRAD is research in the areas of plant production, forestry, water and natural resources base seeds, the participation in protection of plant genetic resources and the participation in the training of specialized staff. To these two main components of the NARS in Chad, is added the higher institutions of learning. To carry the research activities to fruition, the NARS rely on a network of development partners made up mainly of the National Rural Development Office (ONDR), the different Non-Governmental Organizations (NGOs), as well as the different Producers Organizations (POs). One can note the importance of the National Food Security Programme (PNSA) that is now an important partner of the NARS in Chad in terms of sponsoring research activities and plant material production in reaction to the specific problems of development



# Honour to Chad

## 3. PRESENTATION OF ITRAD

The Chadian Institute of Agricultural Research for Development (ITRAD) is a government-owned establishment of a scientific and technical nature (EPCST) with a legal status and financial autonomy. Created by Law No. 001/PR/98 of 27 January 1998, ITRAD has thus brought to an end the different structures and denominations of agricultural research in Chad. Its prerogatives cover the areas of plant, water and forest production, then agri-food technologies as well as agricultural policies, training and coordination of young national officers. It is placed under the administrative tutelage of the Ministry of Agriculture and Irrigation and depends essentially on national subvention from the public treasury.

ITRAD is a predominant component of the National Agricultural Research System (NARS). It fulfills its mandate in partnership with other institutions making up the system. As such, the NARS in Chad, like those in other African countries, has a certain number of challenges to face in a context of recurrent food insecurity and a galloping population growth, forced by the climate change phenomenon that has more and more significant negative effects on agricultural production.

In spite of the adoption in 1993 of the National Long-Term Plan for Agricultural Research (PNL-TRA) in Chad, then in 2002, the Medium-Term Plan for Agricultural Research (PMRTA 1) for the period 2003-2007, agricultural research in Chad has remained very limited in its capacity to support the agricultural policies in the country.



# Honour to Chad

Drawing lessons from the ineffective implementation of PMTRA I, ITRAD, supported by the development partners, since 2007 got engaged in a process of institutionally transferring its methods, practices and functional relations.

It is as such that a critical interpretation of PMTRA I was done and this led to the preparation of the Second Medium-Term Plan for Agricultural Research in Chad (PMTRA II) for the period 2010 to 2014. In order to facilitate an effective and efficient implementation of activities, ITRAD, with the assistance of FAO, prepared an Operational Plan for the implementation of PMTRA II.

In effect, before 1998, the year ITRAD was created, agricultural research in Chad experienced some initial difficulties concerning the real status it should have been given as well as the roles it should have been assigned. Here, allusion is made to the real role of knowledge and technology production with the view to developing a sustainable agriculture in Chad, rich in land and hydro-agricultural resources but that are under-exploited.



Thanks to the support from the high authorities of the country, research has made an appreciable progress in response to the resources placed at its disposal; ITRAD revised its first medium-term plan that led to a second one. Different research themes have been implemented as well as publications from researchers that have resulted from it. Seed production that comes to support the development structures, in the past four years, has experienced an exponential evolution. This shows that agricultural research in Chad has made a significant leap in its performance both in quality and quantity.

Also, in a context of climate change where agricultural production is more and more endangered by the poor rainfall distribution both in time and space, researchers are solicited all the more to propose alternatives. That means to develop or introduce knowledge and technologies adapted to this new challenge that is climate change. To do that, it is necessary and indispensable to build

# Honour to Chad

the capacities of the institution in financial, material resources as well as in highly qualified staff. For the moment, the annual budget of ITRAD is about 3 billion, with the majority of its equipment outdated and a scientific staff of less than 50.

The main source of financing the institution is the government. To that must be added the scientific and technical partners such as the Cooperation and Cultural Action Service (SCAC) of the French Ministry of Foreign Affairs, CORAF/WECARD, Africa Rice Center, the Sahel Institute (INSAH), etc.

## 3.1. Production of plant material

For lack of specialized structures, ITRAD is also in charge of the production of plant material. This activity consists of multiplying seed grain and seedlings in a way that makes them accessible to producers.

This presentation only mentions seed production to illustrate the efforts made in this sector in the past four years (Fig. 2).

ITRAD's food crop seed production is done at three levels: (i) production of pre-base seeds, (ii) production of first reproduction seeds (R1). The production of pre base and base seeds comes under the prerogatives of ITRAD. However, pre base seeds are produced in controlled environment, but outside the stations: this activity is also carried out at institutionally supported farms. In addition, the production of R1 seeds is also done by ITRAD due to the lack of institutions that are specialized in that area.

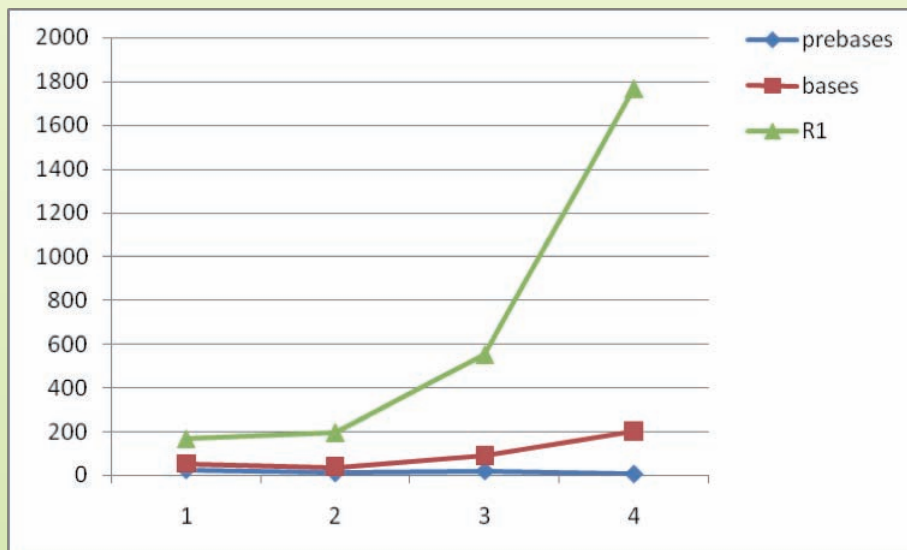


Figure 1 : Evolution of seed production in 4 years (2007 to 2010)

# Honour to Chad

The production of the R1 seed appears to be the most interesting insofar as it is intended for the farmers directly. Each year, ITRAD makes the necessary efforts to increase the production of this category of seeds in order to respond to the needs of the producers of improved seeds. In four years, the effort made has increased from about 169 tonnes in 2007 to 1, 768 tonnes in 2010 that is a little more than 10 times the production in the year under reference (2007). It must also be emphasized that the production of the previous years were well below those of the year under the reference mentioned in this summary (Fig above).

At the financial level, from 2006, the government made an important effort by increasing the budget allocated to ITRAD (Fig 2). It is worth emphasizing that the institution's budget is essentially based on government subvention.

However it evolves in a checkered manner. From 2008, its own revenue contributed in an increasing way to the institutions annual budget. The contribution of conventions with the partners is certainly distinguishing itself but it is how, irregular an on the decrease over a period of six years.

48

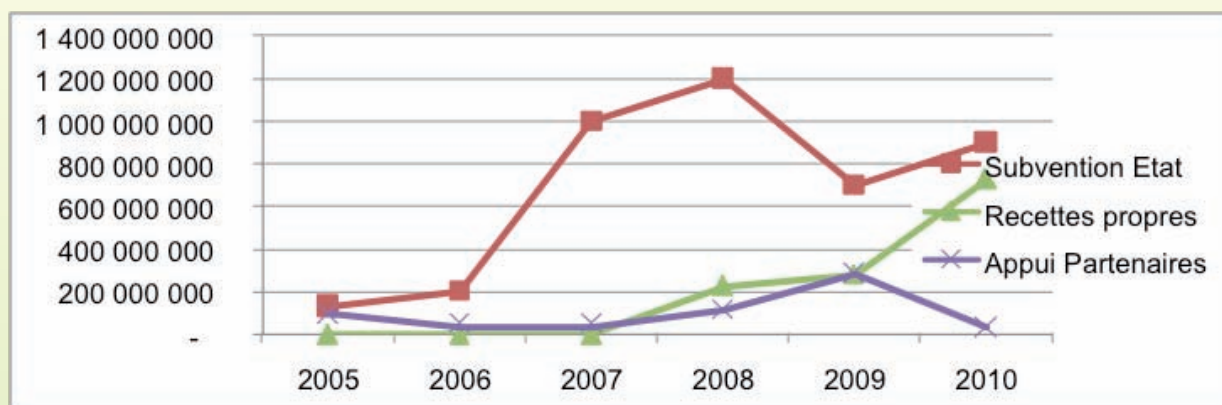


Figure 2 : Evolution of the budget of ITRAD in six years, from 2005 to 2010

## 3.2. Some projects and /or programmes implemented by ITRAD

ITRAD is implementing some projects and/or programme to achieve its objectives in the area of agricultural research. One can mention among others, the projects on :

“Improvement of the productivity of Maize (*Zea mays* L) and its distribution though the promotion of technologies on the Integrated management in the Savannahs of Cameroon, Nigeria and Chad.”

“The network of analysis of factors limiting food production, diversification of agriculture and access to markets (AFOMDnet)”

“Improvement in the Competitiveness of Rice in Central Africa CFC/FIGR/14”



# Annexes

## Major workshops and missions

### » ANNEX I : Major workshops, strategic meetings and missions organized by the ES of CORAF/WECARD or in which it participated

#### STATUTORY MEETINGS

Extraordinary Session of the Scientific and Technical Committee to evaluate the research proposals financed under the CSIRO-AUSAID partnership, **24-28 January 2011, Dakar.**

First session in 2011 of the Governing Board, **25-27 May 2011, N'Djamena.**

Retreat by Scientific and Technical Committee (STC), **17-19 October 2011, Saly Portudal, Senegal**  
 Ordinary Session of the Scientific and Technical Committee, **20-21 October 2011, Saly Portudal, Senegal.**

Second ordinary session of the Governing Board, **28 November to 2 December 2011, Dakar.**

#### RENCONTRES SUR LE PPAO/WAAPP

Workshop on the analysis of mechanisms for the dissemination of improved technologies and innovation in the ECOWAS zone, **3-4 February 2011, Dakar.**

Workshop to assess the needs of the actors within the framework of the implementation of the simulation model of agricultural yield coupled with ITC, **23-25 February 2011, Dakar.**

CORAF/WECARD Mission at the headquarters of the Mano River Union to hold discussions on WAAPP IC, **2-3 March 2011, Freetown.**

Regional workshop on the environmental and social protection and supervisory mission of WAAPP activities at the regional level; Synthesis of the supervisory missions at the country and regional levels, **7-11 March 2011, Dakar.**

Signing of agreement between the Government of Cote d'Ivoire and the World Bank and retrocession agreement between CORAF/WECARD within the framework of the results of WAAPP IA and IB, **27-30 June 2011, Thies, Senegal.**

Workshop to demonstrate the tool designed under the Earth Audit Agricultural Yield Project, **29-30 June 2011, Dakar.**

Sub-Regional Technical workshop to review the WAAPP Communication Specialists in member countries, **19-22 July 2011, Cotonou.**

Information sharing workshop for actors on the National Specialization Centers, Research mobility, Regional Competitive Funds and Mechanism for the dissemination and adoption of technologies between member countries, **25-29 July 2011, Saly Portudal, Senegal.**

# Annexes

## Major workshops and missions

Support to the MRU and Sierra-Leone for the implementation of WAAPP IC, **August 2011, Free-town.**

Regional workshop on the planning of the NSC Plantain under WAAPP IB, **September 2011, in Cote d'Ivoire.**

Diagnostic mission of the WAAPP Communication systems in Nigeria, **8-10 December 2011, Abuja.**

Regional workshop on the consolidation of country reports and the regional report for WAAPP 2A, **9-12 December 2011, Accra.**

Diagnostic mission of the WAAPP communication systems in Burkina Faso, **12-16 December 2011, Ouagadougou**

### OTHER SUPPORT MEETINGS FOR THE IMPLEMENTATION OF CAADP

Supervision mission of the new countries of DONATA, **6-13 February 2011.**

Stock-taking Meeting and Project Planning and strengthening of the resilience of livelihoods, **8-10 February 2011, Lome.**

International workshop on climate change organized by FAO and the EU, **22 to 26 February 2011, Copenhagen.**

Regional seminar of the European Union on rural development and food security, **1-4 march 2011, Dakar.**

CORAF/WECARD Mission under the AUS-AID-CSIRO-CORAF/WECARD partnership, **18-29 March 2011, Australia.**

Training workshop for researchers on the methods to analyze agricultural policies, **21-25 March 2011, Dakar.**

Launching of the seed project under the AUS AID-CSIRO-CORAF/WECARD partnership, **28-31 March 2011, Bamako.**

Training of trainers workshop on the eRAILS platform and the web 2.0 tool, **5-8 April 2011, Ouagadougou.**

Launching and planning workshop on commissioned projects on the integrated systems of agriculture and livestock to improve productivity, **11-14 April, Ouagadougou.**

Regional workshop on the dissemination of the use of climatology services in West Africa organized by USAID, **11-14 April 2011, Ouagadougou.**

3rd Symposium and General Assembly of AFAAS, **12-14 April 2011 in Accra.**

Meeting with Australian Parliamentarians on the AUS AID-CSIRO and CORAF/WECARD partnership, **12 April 2011, Accra.**

Launching workshop and planning of regional competitive projects with the theme, Agriculture-Livestock Integration, **18-21 April 2011, Accra.**

# Annexes

## Major workshops and missions

Follow-up meeting of the process for formulating the ECOWAS Regional Research Policy, **May 2011, Accra.**

Training workshops on the Assessment of Risks connected with Genetically Modified Plants in the tropical region under the FSP Cotton project, **May 2011, Burkina Faso.**

Preparation for the second phase of WAAPP 2A, **June 2011 in Dakar.**

Visit of the Executive Director of CORAF/WECARD to the Africa Rice station at Saint Louis, **29 June 2011.**

Annual review of the Growth Policy and Agricultural Development (AGRODEP) organized by IFPRI, **8-10 June 2011, Dakar.**

Validation workshop of research methodologies of projects under the AUSAID-CSIRO-CORAF/WECARD, **15-17 June 2011, Cotonou.**

Planning workshop and the launch of the project on the integrated control of ticks and emerging transmitted diseases in West and Central Africa, **20-22 June 2011, Cotonou.**

Training of Trainers workshop in the area of integrated pest management and pesticide safety within the framework of commissioned funded by USAID, **June 2011.**

Sharing meeting on the new USAID-West Africa initiative, Feed the Future, **June 2011.**

Methodological workshop on climate change under CRDI-CORAF/WECARD, **27-29 June, Dakar.**

Pan-African Conference on Cotton, **June 2011, in Cotonou, Benin.**

Launch of activities of the mid-term review of the 2008-2013 Operational Plan of CORAF/WECARD, **4-8 July 2011, Dakar.**

Regional workshop on the policies and strategies of processing of agricultural food products in West and Central Africa, **11-13 July 2011, Saly Portudal.**

Regional workshop on the preparation of an action plan for the implementation of the gender policy of CORAF/WECARD, **19-20 July 2011, Conakry.**

Exchange missions between a delegation of CSIRO and CORAF/WECARD under the partnership between these two organizations, **25-29 July 2011, Dakar.**

Regional workshop on monitoring and evaluation of ECOWAS/CAADP, **July 2011, Lome, Togo.**

Workshop to finalize the regional regulation on Biosafety in the ECOWAS zone, **August 2011.**

Validation of the reference study and the setting up of the research priorities of PCNV, **1-3 august 2011, Dakar.**

Workshop on the planning of the programme "Climate Smart Agriculture" of CAADP, **August 2011 in Dakar.**

Third UEMOA-ECOWAS-CILSS consultation meeting on biosafety initiatives in West Africa, **August 2011, Ouagadougou.**

Africa Rice Scientific Week, **September 2011 in Cotonou, Benin.**

Meeting of experts and ministers of Africa rice, **September 2011 in Banjul.**

# Annexes

## Major workshops and missions

Working visit by the Minister of Scientific Research of Congo to the headquarters of CORAF/WECA%RD for the implementation of PPAAC, **20 September 2011, Dakar.**

Regional workshop on the sensitization of actors on the platform of exchanges project in the area of climate change, **September 2011, Abuja.**

Follow-up meeting on the process for formalizing the ECOWAS regional research policy, **October 2011, Abidjan.**

Capacity building for communication specialists of the 22 NARS, **11-14 October 2011, Lome.**

Visit of an Australian mission to discover the cotton production systems in West Africa, **November 2011, Mali, Burkina Faso.**

Launching of three competitive projects in West and Central Africa, **1-4 November 2011, Douala.**

Mission to strengthen cooperation between CORAF/WECARD and CEEAC, **2-3 November 2011, Libreville.**

Regional workshop on the development of CCFAS scenarios in West Africa, **2-4 November 2011, Dakar.**

Workshop to review the activities of the AUSAUD-CSIRO-CORAF/WECARD partnership on the food security initiative in West and Central Africa, **9-12 November 2011, Dakar and Bamako.**

Technical mission for the preparation of the 10th General Assembly and the 3rd Science Week in West and Central Africa, **14-15 November 2011, N'Djamena.**

Regional workshop to launch the three competitive projects in West and Central Africa, **22-25 November 2011, Dakar.**

CORAF/WECARD-USAID West Africa workshop on the Feed the Future (FTF) Initiative of USAID, **14-16 December 2011, Accra.**

# Annexes

## 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.

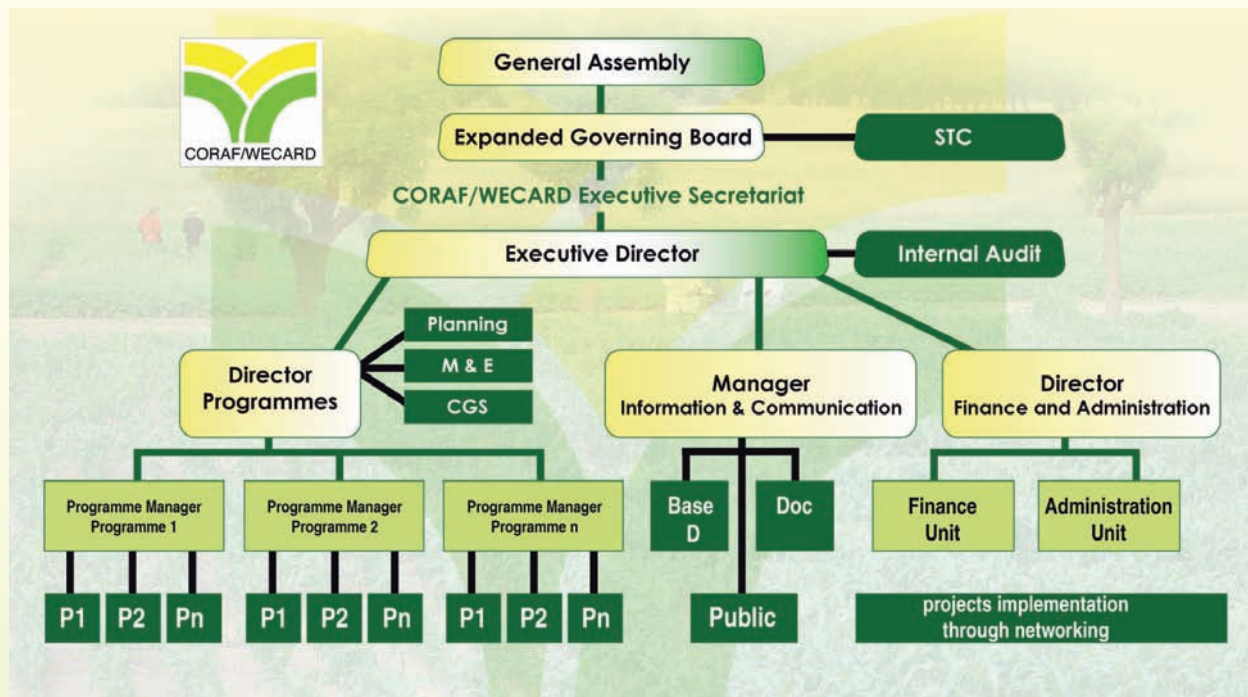
#### > Executive Secretariat (ES)

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.

# Annexes

## Organization

### CORAF/WECARD Organization



54

**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.

# Annexes

## Governing Board

### GOVERNING BOARD MEMBERS



Pr Yusuf ABUBAKAR  
Chairman  
E.S of ARCN Nigeria



Dr Ibet Outhman Issa  
Director General ITRAD  
NARS Representative  
Vice-Chairman



Dr Tiémoko YO  
Director General of CNRA  
NARS Representative  
Côte d'Ivoire



Mme Simone ZOUNDI  
PDG SODEPAL,  
Burkina Faso  
Private Sector representative



Mme Clarisse Nehoudamaji N.  
G. Secretary of ATOSA  
NGO Representative, Chad



Dr Bram HUIJSMAN  
Director of Wageningen International  
Representative of  
Scientific Partners



# Annexes

## Governing Board

### GOVERNING BOARD MEMBERS



Dr Paco SEREME  
Executive Director of  
CORAF/WECARD  
Executive Secretary  
of GB



Dr Rui SILVA  
Director for Agriculture, ECOWAS  
REC Representative,  
West Africa



Dr Alfred DIXON  
Director General SLARI,  
NARS Representative  
Sierra Leone



Dr Atsu Comlan AGBOBLI  
Director General ITRA,  
NARS Representative  
Togo



Dr André MAKIZA-MABEMBA  
Director CRAL/DGRST  
NARS Representative  
Congo



M. Djibo BAGNA  
Pdt ROPPA  
PO Representative



Mrs Anne SIMON  
UE Representative  
Representative of  
Development partners



Roger Tchoungi,  
Représentant la CEEAC,  
REC Representative  
Central Africa



# Annexes

## Scientific and Technical Committee

### SCIENTIFIC & TECHNICAL COMMITTEE MEMBERS



Prof. Claude Adandedjan  
STC Chairman  
Benin



Dr Alassa PEFOURA MOULIOM  
Field of competence :  
Agronomy  
CARBAP - Cameroon  
mouliompefoura@yahoo.fr



Dr Bamidele Oluwarotimi Omitoyin  
Field of competence :  
Animal Health  
Université Ibadan - Nigéria  
bam\_omitoyin@yahoo.co.uk



Dr Eva WELTZIEN  
Field of competence :  
Breeding  
Selection Sorgho  
ICRISAT - Mali  
e.weltzien@icrisatml.org



Dr Brigitte COURTOIS  
Field of competence :  
Production System  
CIRAD - France  
brigitte.courtois@cirad.fr



Dr François LOMPO  
Field of competence :  
Soil Fertility  
INERA - Burkina Faso  
lompoxa1@yahoo.fr



Dr Stella C. AKOMAS  
Field of expertise : Husbandry  
institution : College of Animal  
Science and animal health,  
Michael Okpara University of  
agriculture - NIGERIA



# Appendices

## Comité Scientifique et Technique

### SCIENTIFIC & TECHNICAL COMMITTEE MEMBERS



Prof. Claude Adandedjan  
STC Chairman  
Benin



Dr Alassa PEFOURA MOULIOM  
Domaine de compétence :  
Agronomie  
CARBAP - Cameroun  
mouliompefoura@yahoo.fr



Dr Bamidele Oluwarotimi Omitoyin  
Domaine de compétence :  
Santé animale  
Université Ibadan - Nigéria  
bam\_omitoyin@yahoo.co.uk



Dr Eva WELTZIEN  
Domaine de Compétence :  
Selection Sorgho  
ICRISAT - Mali  
e.weltzien@icrisatml.org



Dr Brigitte COURTOIS  
Domaine de compétence :  
Système de Production  
CIRAD - France  
brigitte.courtois@cirad.fr



Dr François LOMPO  
Domaine de compétence :  
Fertilité des sols  
INERA - Burkina Faso  
lompoxa1@yahoo.fr



Dr Stella C. AKOMAS  
Field of expertise : Husbandry  
institution : College of Animal  
Science and animal health,  
Michael Okpara University of  
agricultureNIGERIA

# Annexes

## Executive Secretariat

### STAFF OF THE EXECUTIVE SECRETARIAT

#### > Management Staff



**Dr Paco SEREME**  
Executive Director



**Dr Harold ROY-MACAULEY**  
Director of Programmes



**M. Jean-Rostand JIADIAIS**  
Director of Administration  
and Finance



**Dr Anatole Y. KONE**  
Information and  
Communication Manager

#### Professional Staff

**Dr Vincent Joseph MAMA**, Monitoring and Evaluation Manager  
**Dr Georges Achu MULUH**, Planning Officer  
**Prof. Abdourahmane SANGARE**, Biotechnology and Biosafety Programme Manager  
**Dr Ernest Assah ASIEDU**, Staple Crops Programme Manager  
**Dr Hamade KGONE**, Gestionnaire du Programme Elevage, Pêche et Aquaculture  
**Dr Abdulai JALLOH**, Natural Resource Programme Manager  
**Dr Sidy SANYANG**, Gestionnaire du Programme Gestion de Connaissances et renforcement des capacités  
**Dr Mbène FAYE**, Policy, Markets, Trade Programme Manager  
**Dr Issoufou KOLLO**, in charge of AusAID Programme  
**Dr Ousmane NDOYE**, Non Staple Crops Programme Manager  
**M. Abou Niang GUISSÉ**, Chief Accountant  
**Mrs Awa Cissé DIONE**, Internal Auditor  
**Ms Julienne KUISEU**, Programme Assistant  
**M. Mika NDONGO**, Programme Assistant  
**M. Jérôme Konan KOUAME**, Programme Assistant  
**M. Gorgui Alioune MBOW**, ICT Assistant  
**Mrs Aminata SOW**, Human Resource Officer

#### > Support Staff

**Mrs Binetou Niasse NDIR**, Administrative Assistant  
**Mrs Mariane Soumaré SECK**, Accounts Assistant  
**Ms Cécile Edith NDIAYE**, Assistante to Director of Prog.  
**Mrs Arame NDIAYE**, Assistante to the Executive Director  
**Ms Sophie Yandé NGNING**, Bilingual Executive Secretary  
**M. Cheikh Tidiane GUEYE**, Accountant  
**Ms Monique NGOM**, Comptable  
**Ms Nina Téning FAYE**, Assistant Secretary  
**M. Mamadou Djigo TANDJIGORA**, Driver to the E. Director  
**M. Issa GUEYE**, Driver  
**M Joseph B. COLY**, Messenger  
**M. Vincent GOMIS**, Security Guard  
**Modou Bousso DIOP**, Procurement specialist  
**Ms Nina Téning FAYE**, Secretary  
**M. Alassane DIA**, Infographist

#### > Consultant

M. Armand FAYE, Editor-in-Chief, Coraf Action

# Annexes

## WAAPP national Coordinations

N°	Pays	Coordonnateur	Contacts
1	Benin	Virginie Assogba-Miguel	primabj@yahoo.fr
2	Burkina Faso	Bernard Atamana DABIRE	atamanabd@gmail.com
3	Côte d'Ivoire	Dr Pierre Ackah ANGNIMAN	packah@firca.ci
4	Gambie		locust@qanet.gm
5	Ghana	Azara Ali-mamshie	alimamshie@yahoo.com
6	Guinée	Dr Aboubacar Diallo	bokardiallo@gmail.com boubacar.diallo@irag-guinee.org
7	Libéria	TALL Ousman	ostall@yahoo.com
8	Mali	Rejane KONE DEMBELE	rejanecnra@afrisonemali.net
9	Niger	Assadeck Mohamed	assadeckmd@yahoo.fr
10	Nigéria	Prof Damian Okey Chikwendu	dochik2001@yahoo.com
11	Sénégal	Oumar Sene	psaop2@orange.sn
12	Sierra Leone	Peter Kamara	nrds78@yahoo.com
13	Togo	ADOU RAHIM ASSIMIOU	a.adourahim@gmail.com

# Annexes

## List of NARIs Addresses

### 1. Benin

Dr David Yao AVODOKOUN  
 Director General of INRAB  
 BP 884, Cotonou  
 Tél. : (229) 21 300 323 / 21 300 723 / 21 300 264  
 Fax : (229) 300326 - E-mail : dginrab@yahoo.fr

### 2. Burkina Faso

Dr Lompo FRANCOIS  
 Director of INERA  
 04 BP 8645, Ouagadougou 04  
 Tél. : (226) 50 34 02 70 / 34 71 12  
 Fax : (226) 50 34 02 71  
 E-mail : inera.direction@fasonet.bf gnissa.konate@liptinfor.bf

### 3. Cameroon

Dr Noé WOIN  
 Director General of IRAD  
 BP 2123, Yaoundé  
 Tél. : (237) 22 22 33 62 / 22 23 35 38  
 Fax : (237) 22 23 35 38 / 22 22 33 62  
 E-mail : irad.pnrva@yahoo.com

### 4. Cape-Verde

Dr Isildo GOMES  
 President of INIDA  
 Caixa postal 84, Praia  
 Tél. : (238) 271 11 47 / 271 11 27  
 Fax : (238) 271 11 33 / 271 11 45  
 E-mail : isildogomes@cvtelecom.cv

### 5. Central Africa

Dr Salomon NAMKOSSERENA  
 Director General of ICRA  
 BP 1762, Bangui  
 Tél. : (236) 61 62 75 / 50 33 12 - Cel. : (236) 05 14 68  
 Fax : (236) 61 63 43 - E-mail : icra.rca@yahoo.fr  
 namkosserena2000@yahoo.fr

### 6. Congo

Pr Itoua NGAPORO ASSORI  
 General Delegate of DGRST  
 Place CCF, BP 2499, Brazzaville  
 Tél. : (242) 81 06 07  
 Fax : (242) 81 03 30  
 E-mail : dgrst@yahoo.fr

### 7. Côte d'Ivoire

Dr Tiemoko YO  
 Director General of CNRA  
 01 BP 1740, Abidjan 01  
 Tél. : (225) 23 47 24 24  
 Fax : (225) 23 47 24 11  
 E-mail : tiemoko.yo@cnra.ci

### 8. Gabon

Dr Auguste NDOUTOUME  
 Director General of IRAF  
 BP 2246, Libreville  
 Tél. : (241) 73 23 75 / Dir. : 73 25 32 / 73 25 65  
 Cel. : (241) 07 41 24 57  
 Fax : (241) 73 08 59  
 E-mail : augustendoutoume@caramail.com

### 9. Gambia

Dr Babou JOBE  
 Director General of NARI  
 PMB 526, Serekunda  
 Tél. : (220) 448 49 31 / 448 49 25  
 Fax (220) 448 49 21  
 E-mail : nari@qani.gm

### 10. Ghana

Dr A. B. SALIFU  
 Director General of CSIR  
 PO Box M32, Accra  
 Tél. : (233) 21 77 76 51 / 21 77 76 52 / 21 77 76 53  
 Fax: (233) 21 77 98 09  
 E-mail: dgsoffice@csir.org.gh

### 11. Guinea

Dr Famoï BEAVOGUI  
 Director General of IRAG  
 BP 1523, Conakry  
 Tél. : (224) 30 43 55 80 Cel. : (224) 60 58 65 10  
 Fax : (224) 60 41 57 58  
 E-mail : beavoguifamoi@yahoo.fr

### 12. Guinea Bissau

Dr Marco Antonio LOPES  
 President-Director General of INPA  
 BP 505, Bissau  
 Tél. : (245) 720 34 97 - Fax : (245) 25 27 74  
 E-mail : simongomis@yahoo.fr

# Annexes

## List of NARIs Addresses

### 13. Mali

Dr Bino TEME  
Director General of IER  
BP 258, Bamako  
Tél. : (223) 20 22 26 06 - Fax : (223) 20 22 37 75  
E-mail : direction@ier.ml  
bino.teme@ier.gouv.ml

### 14. Mauritania

Dr Abdou Oumar NGAM  
Director General of CNRADA  
BP 22, Kaedi  
Tél. (cel.) : (222) 634 65 96 / 680 95 16  
Fax : (222) 533 53 77  
E-mail : limam\_abdawa@yahoo.fr

Dr Mamadou Lamine DIA  
Director General of CNERV  
BP 167, Nouakchott  
Tél. : (222) 525 27 65 / 525 23 26 / 684 31 10  
Fax : (222) 525 28 03 / 525 44 78  
E-mail : cnerv@maurital.mr

### 15. Niger

Dr Abdoulaye MOUHAMADOU  
Director General of INRAN  
BP 429, Niamey  
Tél. : (227) 20 72 53 89  
Fax : (227) 20 72 21 44  
E-mail : inran@intnet.ne

### 16. Nigeria

Pr Yusuf ABUBAKAR  
Executive Secretary of ARCN  
Agricultural Research House Plot 223 D Cadastral  
Zone B6 PNB 5026, Wuse, Abuja - Nigéria  
Tél : 234 803 45 18 811 - byabubakarr@yahoo.com

### 17. Senegal

Dr Macoumba DIOUF  
Director General of ISRA  
Route des Hydrocarbures, BP 3120, Dakar  
Tél. : (221) 33 859 17 20  
Fax : (221) 33 832 24 27 - E-mail : dgisra@isra.sn

### 18. Sierra Leone

Dr Alfred Gilbert OLUJUBEH DIXON  
Director General of SLARI  
Tower Hill PMB 1313, Freetown  
Tél. : (232) 76 705 108  
E-mail : adixon.slari@gmail.com

### 19. Chad

Dr IBET Outhman Issa  
Director General of ITRAD  
BP 5400 N'Djamena,  
Tél : (235) 22 52 01 01 - 22 52 00 73  
Fax : (235) 22 53 41 63

### 20. Togo

Dr Comlan Atsu AGBOBLI  
Director General of ITRA  
BP 1163, Lomé - Tél. : (228) 225 21 48 / 225 30 96  
Fax : (228) 225 15 59 - E-mail : itra@cafe.tg

### 21. Democratic Republic of Congo

Pr Paul MAFUKA Mbe Mpie  
Director General of INERA  
13, Avenue des cliniques, Kinshasa Gombe  
BP 2037, Kinshasa 1RDC  
Tél. (243) 89 89 31 713  
E-mail : inera\_dg@yahoo.fr

### 22. Liberia

J. Q. SUBAH  
Director General, CARI  
Suakoko, Bong County PMB 3929, Monrovia, Liberia  
Tél. : (mob.) 231 77 37 25 21 / 649 42 61  
E-mail : jqsubah@yahoo.com

# Annexes

## Base Centres Representatives

N°	Institution	Directors	Contacts
1	CERAAS	Dr N'Diaga CISSE	.....@yahoo.fr
2	CIRDES	Dr Valentine YAPI GNAORE	.....@gmail.com
3	PRASAC	Dr Seiny BOUKAR LAMINE	.....
4	CARBAP	Dr Daniel NGou NGOUPAYOU	.....





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

**West and Central African Council  
for Agricultural Research and Development**

**Director of publication**

Pr Yusuf ABUBAKAR

**Director of Edition**

Paco Sérémé

**Editor-in-Chief**

Anatole Yékéminan Koné

**Editing and Reading Committee  
Department Info/Com**

**Layout**

Alassane DIA

**Online publication**

Gorgui Alioune Mbow

Siège social : 7, avenue Bourguiba, Dakar  
Adresse : BP 48, Dakar RP, CP 18 523 (Sénégal)  
Tél. : (221) 33.869.96.18 Fax : (221) 33.869.96.31  
E-mail: [secoraf@coraf.org](mailto:secoraf@coraf.org)  
Site web: [www.coraf.org](http://www.coraf.org)







