



Leader de l'innovation
agricole en Afrique de l'ouest et du centre.

Operational Plan

2018-2022



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Acronyms

AfDB	African Development Bank
AGRA	Alliance for a Green Revolution in Africa
AIS	Agricultural innovation system
APESS	Association pour la Promotion de l'Elevage au Sahel et en Savane
APU	UEMOA's Agricultural Policy
ARI	Advanced Research Institution
AU	African Union
CAADP	Comprehensive Africa Agriculture Development Programme
CAP	Common Agricultural Policy of Central Africa
CARBAP	Centre Africain de Recherches sur Bananiers et Plantains
CEMAC	Communauté Économique et Monétaire de l'Afrique Centrale
CIDA	Canadian International Development Agency
CILSS	Permanent Interstate Committee for drought control in the Sahel
CIRDES	Centre International de Recherche-Développement sur l'Elevage en zone Subhumide
CORAF	West and Central African Council for Agricultural Research and Development
CoS-SIS	Convergence of Sciences: Strengthening Innovation Systems
CTA	Technical Centre for Agricultural and Rural Cooperation
DANIDA	Danish International Development Agency
DFATD	Department of Foreign Affairs, Trade (Australia)
DFID	Department for International Development (UK)
ECCAS	Economic Community of Central African States
ECOWAP	Economic Community of West African States Agricultural Policy
ECOWAS	Economic Community of West African States
EMF	Environmental Management Framework
EU	European Union
FAO	Food and Agriculture Organization of the United Nations
FARA	Forum for Agricultural Research in Africa
IAR4D	Integrated Agricultural Research for Development
IEE	Initial Environment Evaluation
M&E	Monitoring and evaluation
MDTF	Multi Donor Trust Fund
MELIA	Monitoring, Evaluation, Learning and Impact Assessment
MoU	Memorandum of Understanding
NARI	National Agricultural Research Institute
NARS	National Agricultural Research System
NCoS	National Centre of Specialization
NEPAD	New Partnership for Africa's Development
NGO	Non-governmental organization
PAIRED	Partnership for Agricultural Research, Education and Development in West Africa
PERSUAP	Pesticide Evaluation Report and Safe Use Action Plan
PID	Priority Intervention Domains
PROPAC	Plateforme Sous-Régionale des Organisations Paysannes d'Afrique Centrale
REC	Regional Economic Community
RCoE	Regional Centre of Excellence
ROPPA	Réseau des Organisations Paysannes et des Producteurs Agricoles
S3A	Science Agenda for Agriculture in Africa
SCARDA	Strengthening Capacity for Agricultural Research and Development in Africa
SDG	Sustainable Development Goals
SME	Small- and medium-sized enterprises
STC	Scientific and Technical Committee
T&I	Technologies and innovations

UEMOA
UniBRAIN
USAID
WAAPP
WASCAL
WASP
WCA
WHO

West African Economic and Monetary Union
Universities, Businesses and Research in Agricultural Innovation
United States Agency for International Development
West Africa Agricultural Productivity Program
West African Science Service Center on Climate Change and Adaptation
West Africa Seed Program
West and Central Africa
World Health Organization



Executive summary

The primary objective of the West and Central African Council for Agricultural Research and Development (CORAF) is to improve livelihoods in West and Central Africa through sustainable increases in agricultural production and productivity, as well as promoting competitiveness, and markets.

The CORAF Operational Plan (2018-2022) was developed as a mechanism to implement the CORAF Strategic Plan (2018-2027) which defines the trends, opportunities and challenges that agricultural research and development systems in the region face, as well as contemporary agricultural policies and strategies. More specifically, the Strategic Plan aims to:

- 1** Increase use of appropriate technologies and innovations in the region ;
- 2** Increase uptake of strategic decision-making options for policy, institutions and markets ;
- 3** Enhance institutional and human capacity in agricultural research for development ;
- 4** Meet the demand for agricultural knowledge from target clients.

To deliver on the four results, the Operational Plan details three Priority Intervention Domains (PIDs) that will be supported by three Activity Pillars:

PID 1: Agriculture, food and nutrition security addresses:

- sustainable increase of agricultural production with strong links to national food and nutrition security;
- effects of climate change on high-value non-staple and staple crops, livestock and fisheries production;
- management of emerging pests by enhancing regional capacity for pest surveillance and management; and
- water resource management with an emphasis on enhancing farm and watershed productivity.

PID 2: Policy, institutions, markets and trade addresses:

- enhancement of value addition, agriculture value chains and commercialization of high-value non-staple and staple crops, livestock and fisheries;
- improvement of market access;
- enhancement of viable seed and other agri-input systems;
- promotion of smallholder enterprise development as an incentive for smallholders to invest in farm-based enterprises; and
- promotion of domestic agro-industries.

PID 3: Gender, youth and social equity aims to ensure equitable access to agricultural research and development resources, and opportunities and benefits for men and women, particularly for vulnerable groups in West and Central Africa by:

- targeting the special needs of women farmers, processors and agro-entrepreneurs and professionals, to ensure that they are afforded equal opportunities to benefit from program activities; and
- supporting youth employment.

	<p>ACTIVITY PILLAR 1:</p> <p>Communities of practice on scaling technologies and innovations for sustainable impact.</p> 	<p>ACTIVITY PILLAR 2:</p> <p>Integrated regional capacity strengthening in agri-food research and innovation</p> 	<p>ACTIVITY PILLAR 3:</p> <p>Knowledge management and foresight.</p> 
	<p>promotes the use of proven technology and innovations, including their generation and scaling up, and creation of an enabling environment through:</p>	<p>focuses attention on capacity strengthening by:</p>	<p>includes:</p>
	<ul style="list-style-type: none"> ◆ increased use of demand-driven market-based technology and innovations; ◆ enhanced policies, institutions, markets and trade; and <p>support for the design of programs that demonstrate the impact of science, technology and innovations on meeting increasing demands for knowledge on development outcomes.</p>	<ul style="list-style-type: none"> ◆ supporting national agricultural research systems in establishing functional systems to advance science, technology and innovations for agricultural transformation; ◆ strengthening a new model for innovation delivery; and ◆ strengthening the institutional capacity of the CORAF Executive Secretariat. 	<ul style="list-style-type: none"> ◆ setting up an improved CORAF knowledge management system; and ◆ harnessing intelligence about possible futures to promote informed decision-making for agricultural research and development.

Cross Cutting Issues

The Operational Plan will also focus attention on better integration of cross-cutting issues such as:

- ◆ gender mainstreaming by targeting the special needs of women farmers, processors and agro-entrepreneurs and professionals, to ensure that they have equal opportunities to benefit from program activities;
- ◆ support for youth employment programs using a pool of technologies and best practices suitable for the region, in collaboration with the private sector;
- ◆ enforcement of regulations on environmental and social safeguards by ensuring that all CORAF programs are subjected to an environmental review; and
- ◆ promoting adoption of agricultural innovation through institutionalization of integrated agricultural research for development.

To achieve the Strategic Plan objectives, the Operational Plan will:

- ◆ Develop and execute a **priority setting and planning framework**. A medium-term review and planning process will critically examine the program portfolio and update Operational Plan content.
- ◆ Increase the efficiency of **project management** by reviewing, regularly updating and applying CORAF's Project Management Manual to commissioned projects.
- ◆ Adopt a strategic **communication and marketing** approach that engages all key stakeholder groups, regularly updates donors, partners and collaborators with developments, and disseminates timely and relevant information throughout the agriculture sector in the region.

Mobilize partnerships and resources

- ◆ to provide longer-term stability and remove the risks associated with short-term funding and a narrow donor base.
- ◆ Develop a **monitoring, evaluation, learning and impact assessment** tracking system to enhance and facilitate assessment of progress in implementation, planning and decision-making, accountability and transparency, learning, partnership arrangements and information sharing.
- ◆ Propose and apply appropriate **risk mitigation** measures to address several risks, notably financial and accountability, to which CORAF is potentially exposed.

Efficient governance and management by CORAF is also critical to ensure successful implementation of the Operational Plan. CORAF will strengthen its Governing Board and establish a small management structure. The Governing Board and management will also be actively involved in resource mobilization to fulfill the Operational Plan budget and to forecast financing for the Strategic Plan.

I. Introduction

The West and Central African Council for Agricultural Research and Development (CORAF) Operational Plan (2018-2022) was developed as a mechanism for implementing the CORAF Strategic Plan (2018-2027) for the first five years, 2018-2022. The Strategic Plan (2018-2027) defines trends, new opportunities and challenges experienced in the agricultural research and development system in West and Central Africa (WCA), as well as contemporary agricultural policies and strategies.

Implementation of the CORAF Strategic Plan (2007-2018) resulted in a mismatch and a funding gap between 2016 and 2017, which presented major challenges for the implementation of the CORAF Operational Plan (2014-2018). Consequently, the CORAF Governing Board decided to terminate the Operational Plan (2014-2018), and to fast-track the development of a:

- 1 *10-year Strategic Plan for the period 2017-2026;*
- 2 *marketable Operational Plan for 2017-2021;*
- 3 *Resource Mobilization Plan; and*
- 4 *Revised organizational structure of the Executive Secretariat.*

To address the opportunities and challenges experienced in agricultural research and development in WCA, this Operational Plan (2018-2022) outlines modalities for implementation of the Strategic Plan (2018-2027). It describes Priority Intervention Domains (PIDs) and defines Activity Pillars for each PID. Activity Pillars are aggregated in terms of objectives and key activities which are vital for delivering on the Four Results Framework of the Strategic Plan (2018-2027).

Actions which will achieve the expected outputs of the Strategic Plan (2018-2027) and ensure success-

ful implementation of the Operational Plan (2018-2022) include:

- 1 *priority setting and planning;*
- 2 *efficient project management;*
- 3 *preparation of a Communication and Marketing Strategy;*
- 4 *development of a Partnership and Resource Mobilization Strategy;*
- 5 *preparation of a budget and finance strategy;*
- 6 *establishment of a monitoring, evaluation and reporting system; and*
- 7 *design of a risk management plan.*

In addition to these actions, attention has been paid to CORAF governance and management to enable efficient coordination of activities in the implementation of the Operational Plan (2018-2022). The composition of the CORAF Governing Board will be reorganized to reflect the organization's new focus, while the core administrative and management team will be small with appropriately-skilled support staff.

The formulation process of this Operational Plan was led by the CORAF Executive Secretariat, through an extensive consultation and a participatory process. This process was informed by the outcomes of several stakeholder consultations, two internal CORAF Executive Secretariat retreats, as well as individual interviews with members of the CORAF Executive Secretariat.

It is hoped that through successful implementation of the interventions defined in this Operational Plan, widely endorsed by major stakeholders of the agricultural research and development system in WCA, the objective of CORAF will be achieved towards significantly improving national food and nutritional security, poverty reduction, wealth creation and prosperity in WCA.



Background to the CORAF Operational Plan (2018-2022)

The CORAF Strategic Plan (2018-2027) highlights the:

- i. *agricultural landscape in WCA;*
- ii. *trends, opportunities and challenges; and*
- iii. *political environment in which research for agricultural development takes place in WCA.*

2.1. CORAF profile

CORAF, was originally established in 1987 as the Conference of Heads of African and French Agronomic Research Institutions. Membership of CORAF was expanded in 1995 to include 23 National Agricultural Research Systems (NARS) of the following WCA countries: Benin, Burkina Faso, Cameroon, Cape Verde, Central African Republic, Chad, Côte d'Ivoire, Democratic Republic of Congo, Gabon, The Gambia, Ghana, Guinea, Guinea Bissau, Liberia, Mali, Mauritania, Niger, Nigeria, Republic of Congo, Sao Tomé & Príncipe, Senegal, Sierra Leone and Togo. These countries have a total area of 236 million ha of cultivated land (FAO, 2008), with a population of 414 million inhabitants out of which 74% are engaged in agriculture.

The average proportion of people living on less than US\$1.25 a day in CORAF's mandate area is estimated at 48.5% (UN, 2014) ranging from 10% in Cameroon and Gabon, to 80% in Liberia. In WCA, food demand is projected to increase by about 60-80%. The average yield gap in agricultural production has been relatively high and is estimated at 75%, while average economic growth rates in these countries is estimated at 7%.

The mandate of CORAF is to promote sub-regional cooperation, mobilize resources, create synergies, reduce duplication, and generate and share common solutions to agricultural research and development problems leading to the transformation of agriculture in WCA. This is

achieved through four core functions:

- i. *coordination of NARS;*
- ii. *capacity strengthening;*
- iii. *advocacy; and*
- iv. *knowledge management.*

CORAF coordination is conducted by articulating a regional agenda and allocating sub-grants to relevant public and private organizations to implement agricultural production and productivity projects and increase farmers' incomes for attainment of improved livelihoods in WCA.

2.2. The agricultural landscape of WCA

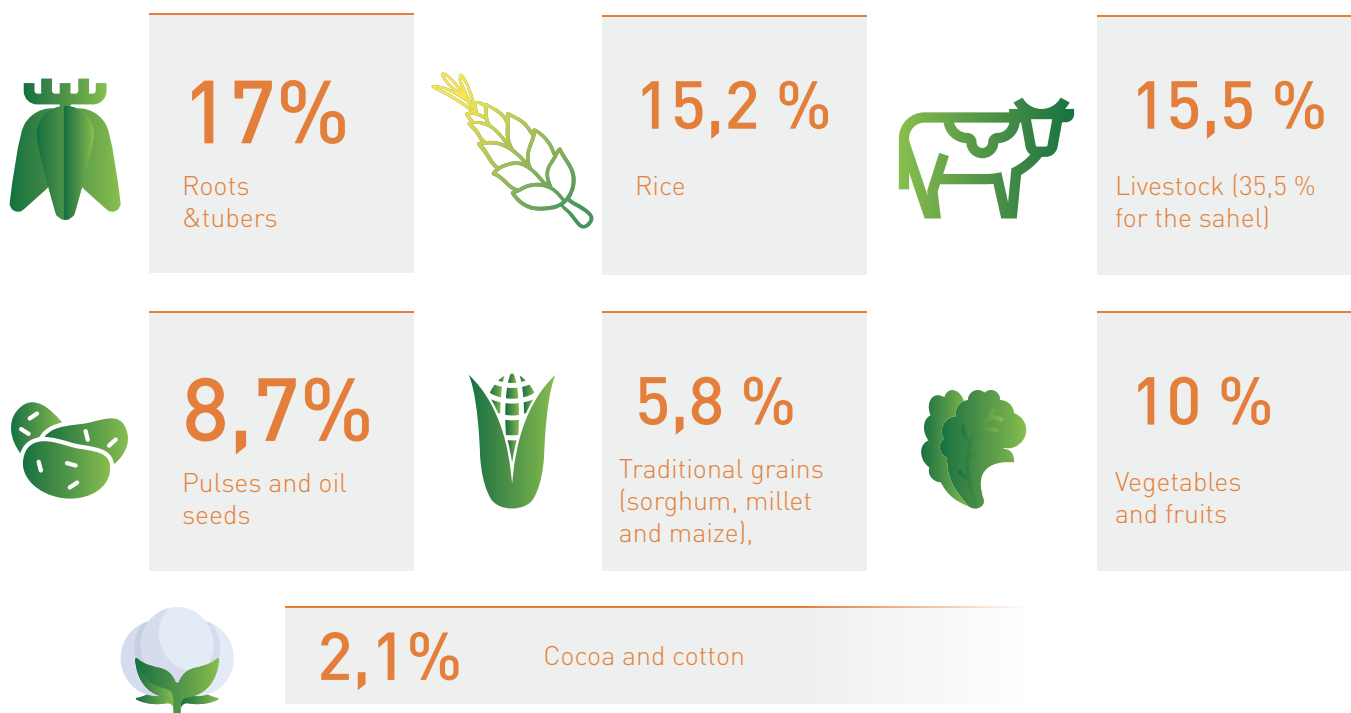
The agricultural sector accounts for 35% of West Africa's gross domestic product and 15.3% of regional export earnings. Agriculture remains the main source of food, health and nutrition security and more than 50% of employment and thus constitutes the main driver of socio-economic development in WCA.

Three major agro-ecological zones (Figure 1) are recognized in the CORAF mandate area:

- i. *Coastal zone with bi-modal rainfall (1,500–2,000 mm/year) for eight months and a short dry season;*
- ii. *Central Africa zone with more intense bi-modal rainfall (up to 3,500 mm/year) for over nine months and a shorter dry season; and*
- iii. *Sahel Savannah zone with short uni-modal rainfall (500–1,200 mm/year) for two to three months and a long dry season.*

The major agricultural commodities in Coastal and Central Africa zones are roots and tubers, plantain/banana, oil palm, cocoa, coffee, rubber, citrus, mango, cereals, legumes, vegetables, fishery, poultry and, to a limited extent, livestock. Commodities in the Sahel zone are mango, cereal, legumes, vegetables, poultry and livestock.

The contributions of the major commodities to the projected total agricultural growth in WCA are as follows:



The diversity of these agricultural commodities provides opportunities for improved food and nutritional security, increased incomes and expansion of local trade.

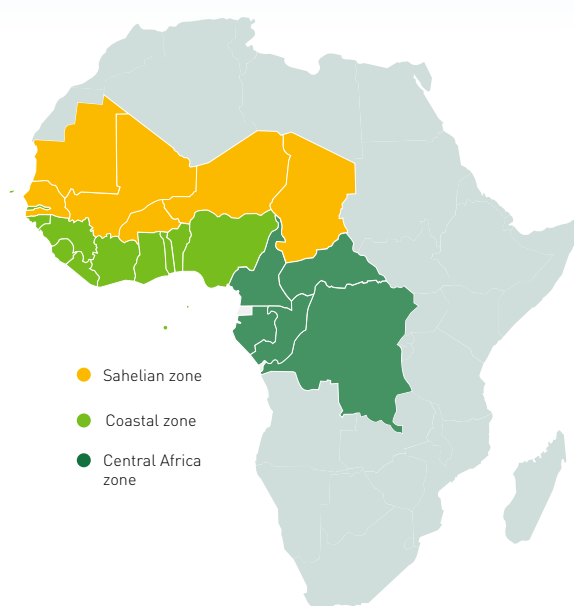


Figure 1. CORAF agro-ecological zones

2.3. Trends, opportunities and challenges

Food demand in WCA is projected to increase, especially in growing urban centers, by about 60% to 80% by 2050, but agricultural yields are not keeping pace with increases in demand. As the economies of WCA countries become more integrated into the global market, international drivers of change, together with local and regional factors, are likely to impact on low-income farm families. Global agricultural development is being defined by several factors such as, new and sophisticated consumers, rural-urban migration, population growth, changing dietary patterns and consumer preferences, food safety issues, and improvements in family farming and organic farming. The 'new agriculture' is led by private entrepreneurs in value chains, linking producers to consumers including entrepreneurial smallholders producing high value and specialized products. 'New agriculture' smallholders are expected to be linked to global value chains through local and regional traders and small- and medium-sized (agribusinesses)

enterprises (SMEs) and agro-processors.

Competitiveness for food and agricultural products in the global market will lead to increased exposure of WCA farmers to increasing demands for high quality produce, and volatile world market prices. The adverse impact of foreign invasive pests and climate change, especially for low-income farm families that depend on rain-fed agriculture, also continue to increase. Critical areas for improvements for farmers are related to improved efficiencies – high yields, low storage losses, high produce grades and standards, agricultural mechanization and modernization, including agro-processing – and the development of a vibrant agribusiness sector that will be more profitable to family farming. Thus, competitiveness will be an essential and important driver of change in WCA agriculture.

Furthermore, countries in the CORAF region must deliberately address the following critical factors to significantly improve agricultural production and productivity:

- i. *internalities such as perceived low inclusion of Lusophone, Central Africa and Island countries;*
- ii. *weak communication with policymakers;*
- iii. *insufficient accountability culture of some member institutions; and*
- iv. *externalities including:*
 - a. *high youth unemployment;*
 - b. *underdeveloped private sector and regional trade;*
 - c. *poor mechanization, weak intellectual property management, climate change, and degradation of the natural resource base*

Opportunities to adequately address these factors include

- i. *experiences gained from coordination of projects such as the West Africa Agricultural Productivity Program (WAAPP), West Africa Seed Program (WASP) and the Multi Donor Trust Fund (MDTF);*
- ii. *CORAF capacity to mobilize resources and competences, and to respond to crises (such as Ebola);*
- iii. *support for human and infrastructure capacity development in NARS;*
- iv. *lobbying and advocacy;*
- v. *new continental, regional and national policy frameworks;*
- vi. *growing private sector and markets;*
- vii. *new development programs; and*
- viii. *a variety of potential funding possibilities.*

2.4. Contemporary continental and regional agricultural policies and strategies

The Operational Plan (2018-2022) will be implemented in the context of African continental agricultural development policies and strategies. Thus, the

Operational Plan (2018-2022) is designed to constitute part of the enabling policy environment and will contribute to the achievement of the objectives of the agricultural policies and strategies described below.

African Union (AU)/New Partnership for Africa's Development (NEPAD)'s "Sustaining the CAADP Momentum":

A recent review of the performance of the Comprehensive Africa Agriculture Development Programme (CAADP) over the past 10 years by NEPAD in 2012-2013, delivered the Sustaining the CAADP Momentum - Going for Results and Impact, report (NEPAD, 2014) which is a 10-year result framework for delivering CAADP's desired impact on agricultural performance. In effect, it emphasizes the urgency to better demonstrate results and impact and the critical need to strengthen capacity to design and implement agricultural development programs and to track performance for achieving agricultural growth, poverty reduction and national food and nutrition security objectives.

Malabo Declaration on African Agriculture

and CAADP: The Heads of States and Government of the AU meeting in Malabo in June 2014 adopted two Decisions and two Declarations which directly relate to CAADP and Africa's agricultural transformation and food security agenda in the decade 2015-2025.

The goals and targets of the Malabo Declaration on CAADP and Commitment to Accelerate Agricultural Growth and Transformation for Shared Prosperity and Improved Livelihoods are:

- i. recommitment to the principles and values of the CAADP process;
- ii. recommitment to enhance investment finance in agriculture (uphold 10% public spending target, establishment of Africa Investment Bank);
- iii. commitment to ending hunger by 2025 (at least double productivity, focusing on inputs, irrigation, and mechanization; reduce post-harvest losses by at least half; reduce stunting to 10%);
- iv. commitment to halving poverty by 2025, through inclusive agricultural growth and transformation: sustain annual agricultural sector growth by at least 6% GDP; establish and/or strengthen inclusive public-private partnerships for at least five priority agricultural commodity value chains with strong linkages to smallholder agriculture;
- v. create job opportunities for at least 30% of the youth in agricultural value chains; preferential entry and participation by women and youth in gainful and attractive agribusiness;
- vi. commitment to boosting intra-African trade in agricultural commodities and services

(triple intra-Africa trade in agricultural commodities; fast track continental free trade area and transition to a continental common external tariff scheme);

- vii. commitment to enhancing resilience in livelihoods and production systems to climate variability and other shocks;
- viii. commitment to mutual accountability to actions and results, through the CAADP Result Framework Biennial Agricultural Review Process.

The Declaration on Nutrition Security for Inclusive Economic Growth and Sustainable Development in Africa included the following commitments:

- i. reaffirmation of the commitment to end hunger by 2025 through strengthening of development policies as an effective investment in the human capital;
- ii. commitment to ending child stunting: bringing down stunting to 10% and underweight to 5% by 2025 and focusing on the first 1,000 days as the period when permanent and irreversible physical and mental damage can be avoided. Commitment to positioning this goal as a high-level objective in national development plans and strategies, as well as establish long-term targets that give all children equal chance for success, by eliminating the barriers imposed by child under-nutrition.



Science Agenda for Agriculture in Africa (S3A)

The S3A developed by the Forum for Agricultural Research in Africa (FARA) and its stakeholders in 2013, articulates the science, technology, innovations, extension, policy and social learning that Africa needs to apply in order to meet its agricultural and overall development goals (FARA, 2014). The strategic thrusts of S3A in the short to medium-term are:

- i. successful implementation of CAADP;
- ii. increased domestic public and private sector investment;
- iii. creation of an enabling environment for sustainable application of science for agriculture; and
- iv. doubling of the current level of Agricultural Total Factor Productivity by 2025 through the application of science for agricultural development. In the medium to long-term, S3A aims to strengthen national and regional science capacity to address the evolving needs of farmers, entrepreneurs and consumers, particularly considering issues such as climate change and urbanization.

The thrusts of S3A for the short to medium-term are integrated in the Strategic Plan (2018-2027) and Operational Plan (2018-2022).

Agricultural policies of Regional Economic Communities (RECs):

The CORAF Strategic Plan and PIDs will significantly contribute to delivering on the agricultural policies and strategies of the RECs (Economic Community of West African States [ECOWAS], Economic Community of Central African States [ECCAS], West African Economic and Monetary Union [UEMOA] and the

economic and monetary community of Central Africa, Communauté Économique et Monétaire de l'Afrique Centrale [CEMAC]). All of these policies and strategies seek to achieve the objectives of poverty reduction and national food and nutrition security through sustainable agricultural growth.

The ECOWAS Agricultural Policy (ECOWAP) was developed in 2005, in response to agricultural and food issues in West Africa. Three main expected outcomes of its implementation are:

- i. improved agricultural productivity and competitiveness;
- ii. improved access to regional and international markets; and
- iii. increased regional convergence and synergy.

The UEMOA Agricultural Policy (APU) was formulated in 2002, covering agriculture, livestock, forestry and fisheries sub-sectors. The objective of APU is to contribute to the food requirements of the region, the economic and social development of member states and poverty reduction in rural areas.

ECCAS' Common Agricultural Policy (CAP) was developed in 2013 and is recognized by stakeholders as the reference framework for interventions in Central Africa's agricultural sector. Through implementation of the Regional Agricultural Investment and Food and Nutrition Security Program², CAP aims to deliver on the following four outcomes:

- i. reduced rural poverty;
- ii. increased food security;
- iii. improved nutrition and health; and
- iv. efficiently managed natural resources.

¹ Logical framework of the program for the implementation of ECOWAP and CAADP in West Africa.

² Programme régional d'investissement agricole et la sécurité alimentaire et nutritionnelle.



Overview of the CORAF Strategic Plan (2018-2027)

3.1 Vision and mission

Following extensive multi-stakeholder consultations and internal CORAF Executive Secretariat retreats, consensus was reached on the following statements for CORAF:

Vision

- ◆ Prosperity and food and nutrition security in WCA.

Mission

- ◆ Sustainable improvements to the productivity and competitiveness of the agricultural systems in WCA

3.2 Results framework

The CORAF Strategic Plan (2018-2027) links a series of logical steps and processes, presented in the Four Results Framework (Figure 2). This Four Results Framework was designed using cause and effect linkages from the logical framework

approach used in the CAADP Results Framework (2015- 2025)³, the S3A Results Framework, and the RECs Policies and Results Framework (ECOWAP, CAP and APU).

The General Objective of the CORAF Strategic Plan (2018-2027) is consistent with the overriding objectives of AU/ NEPAD's continental policy orientations, the goals of the Malabo Declarations, the United Nation's Sustainable Development Goals (SDGs), RECs agricultural policies and S3A.

³The Four Results Framework serves as the visionary beacon, and clarifies a collective vision and shared standards of practice, which is to be translated at the national and regional levels into localized priorities, goals and targets. It serves as a set of benchmarks against which national and regional level efforts will be evaluated and is used as a guide to set targets, identify actions and define indicators when: (a) initiating planning of policies, strategies, programs and budgets; and (b) measuring performance in terms of efficiency of execution, effectiveness of implementation and achievement of outcomes.



General Objective

»» High broad-based agricultural growth sustainably increased in WCA.

Specific Objective

»» Agricultural productivity, competitiveness, and markets sustainably improved for target groups in WCA.

The Specific Objective contributes to the CORAF General Objective through delivery on the following Four Results (Figure 2):

Result 1	Increased use of appropriate technologies and innovations in WCA;
Result 2	Increased uptake of strategic decision-making options for policy, institutions and markets;
Result 3	Enhanced institutional and human capacity in agricultural research for development; and
Result 4	Demand for agricultural knowledge from target clients facilitated and met.

The Specific Objective is also aligned with CAADP and the Strategic Plans of FARA. Improvements in productivity, competitiveness and markets cover the entire spectrum of the agriculture value chain.

CORAF is committed to deliver on the Four Results Framework under the Strategic Plan (2018-2027). These Four Results constitute the nucleus of a paradigm shift from conventional linear research, which is

focused on the development of technology packages, to an innovations approach in which Integrated Agricultural Research for Development (IAR4D) is adopted.

These Four Results will be delivered through three well-coordinated Activity Pillars relating to three PIDs. Figure 2 presents the Four Results Framework, showing nesting between the Activity Pillars and the Four Results to achieve CORAF's Specific Objective.

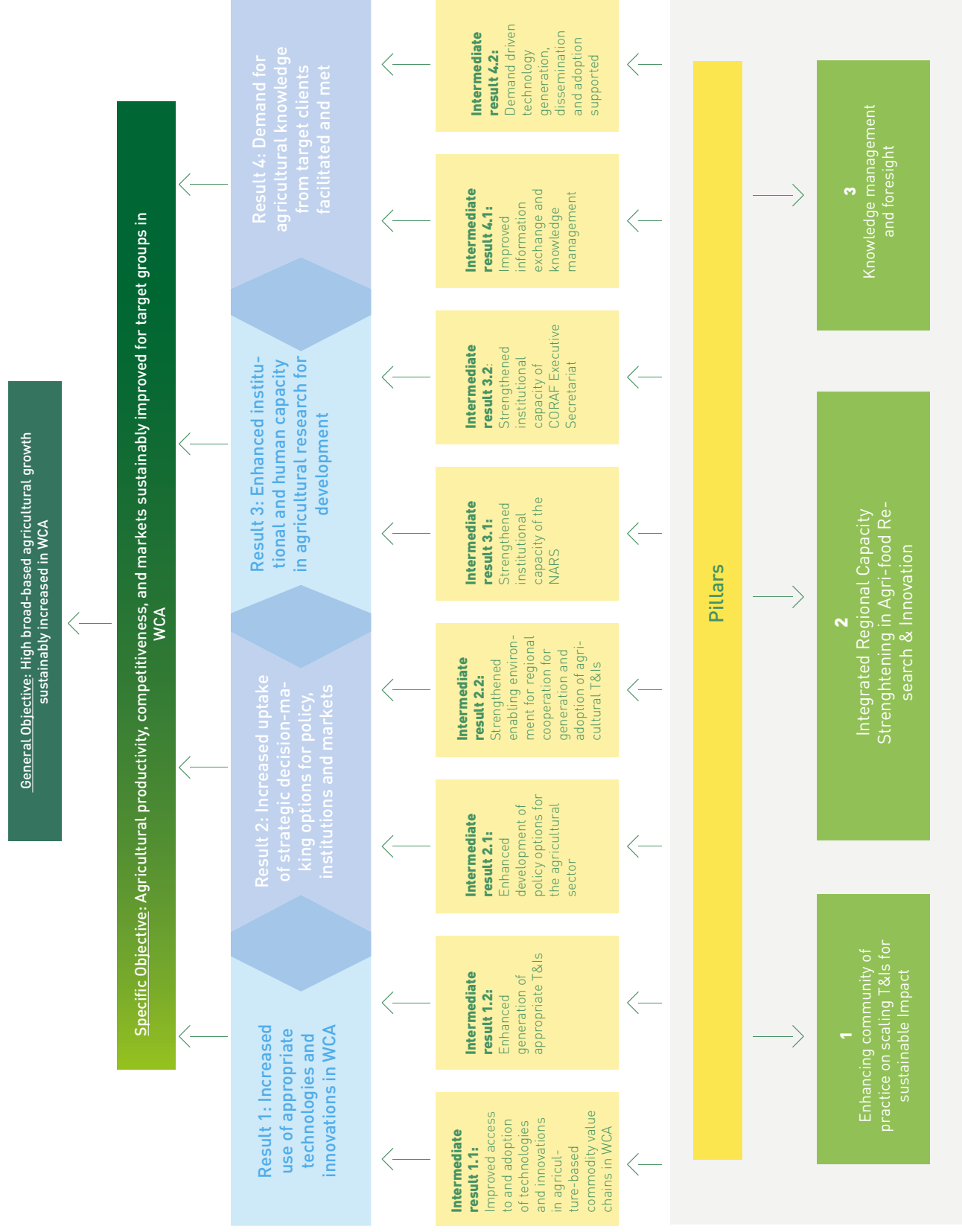


Figure 2. CORAF Results Framework

4. Priority intervention domains

Three PIDs were identified during stakeholder consultations. These focus attention on increasing the resilience of households and systems to respond to a wide range of biological, economic, social, environmental and political challenges. They are also aligned with contemporary continental and regional agricultural policies and strategies as well as the SDGs.

Successful implementation of PIDs will contribute to achieving the objectives of national and regional agricultural policies which address critical issues of poverty reduction and national food and nutrition security through agriculture-led economic growth.

4.1. PID 1. Agriculture, food and nutrition security

Regional food security has improved significantly, but remains unsatisfactory and disparate (IFPRI, 2015). Indeed, the weighted Global Hunger Index regional average (Cape Verde excluded) fell from 25.5 in 1990 to 15.6 in 2014. This score remains below the average (18.2) for many sub-Saharan Africa countries, however the nutritional situation is worsening. In the region, about 40% of children under five are affected by stunting, 12% suffer from acute malnutrition, and anemia affects 75%. These figures are well above World Health Organization (WHO) accepted thresholds. Nutritional problems are more acute in the Sahel, linked to fertility rates, a limited diversified diets, and poor health. This situation is further aggravated by rapidly growing populations and rural urban migration.

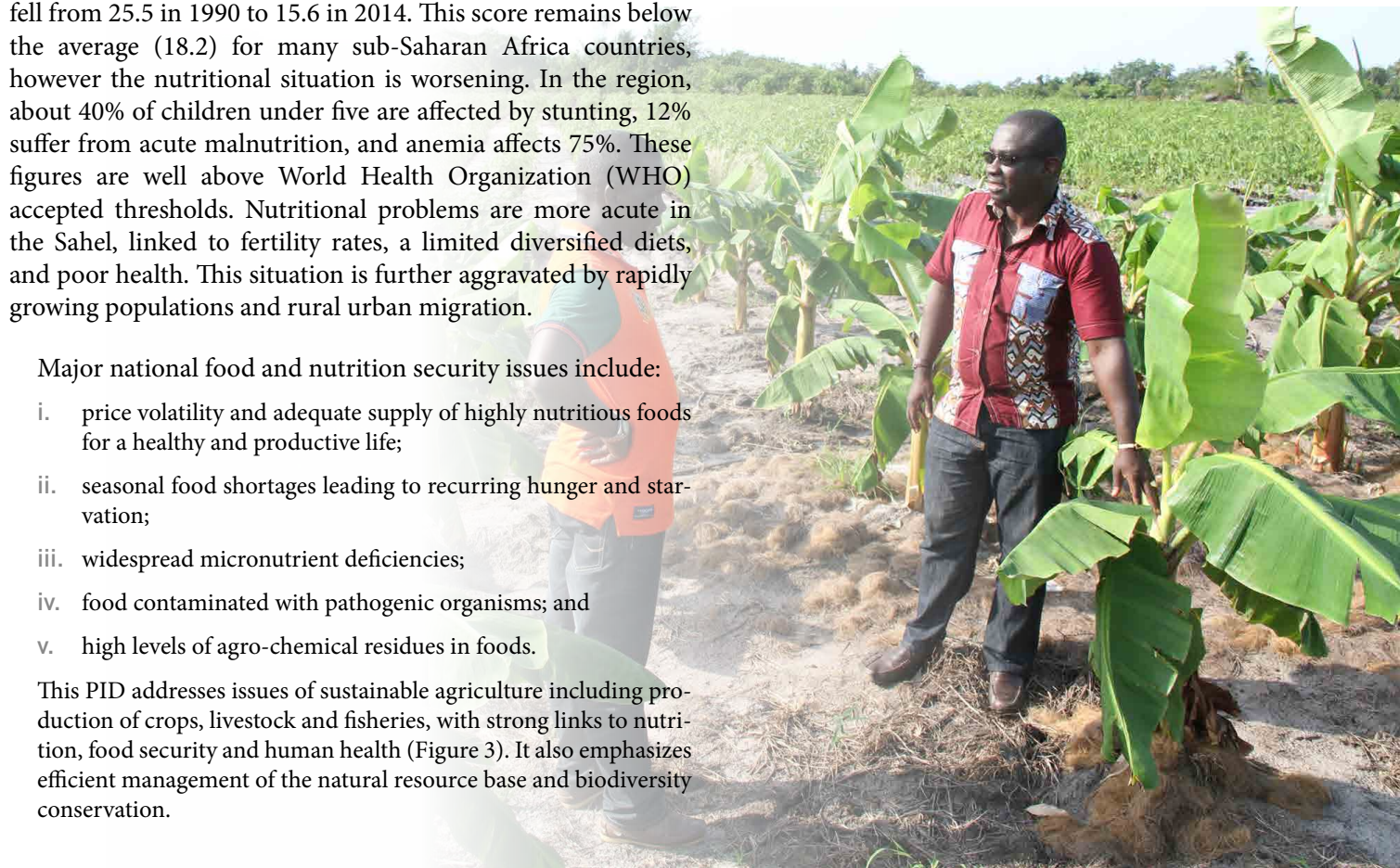
Major national food and nutrition security issues include:

- i. price volatility and adequate supply of highly nutritious foods for a healthy and productive life;
- ii. seasonal food shortages leading to recurring hunger and starvation;
- iii. widespread micronutrient deficiencies;
- iv. food contaminated with pathogenic organisms; and
- v. high levels of agro-chemical residues in foods.

This PID addresses issues of sustainable agriculture including production of crops, livestock and fisheries, with strong links to nutrition, food security and human health (Figure 3). It also emphasizes efficient management of the natural resource base and biodiversity conservation.

“

Regional food security has improved significantly, but remains unsatisfactory and disparate (IFPRI, 2015)



Research chain for agriculture and nutrition

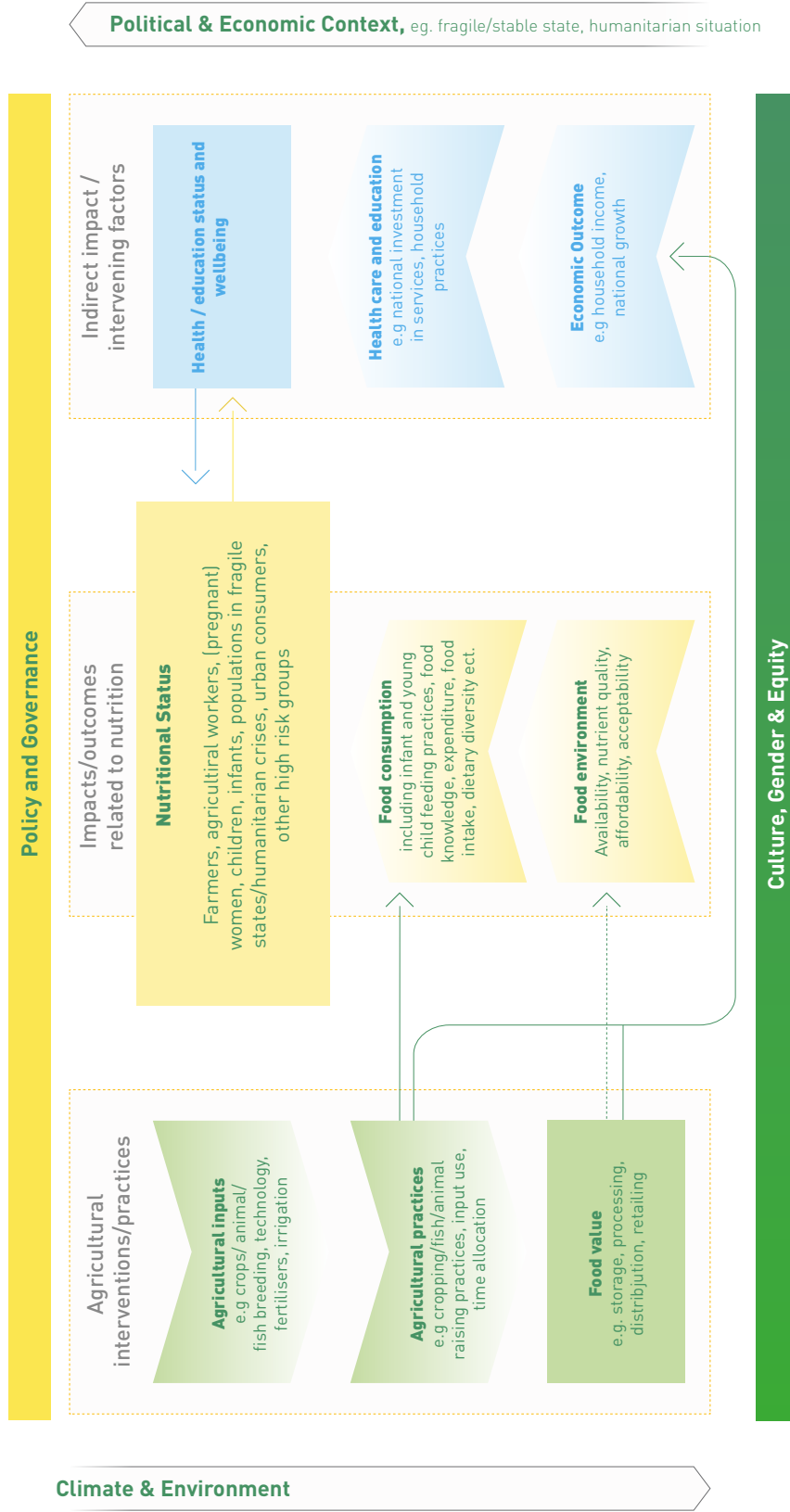


Figure 3: Research chain for agriculture and nutrition [Kawkes et al., 2012]

The major challenges addressed by this PID are:

- i. Effects of climate change on production of high-value non-staple and staple crops, livestock and fisheries. Interventions will include:
 - a. developing strategies for adaptation to climate variability and change;
 - b. strengthening regional capacity for climate forecasting and interpretation of changes for use by farmers and other stakeholder groups;
 - c. enhancing the use of new and indigenous knowledge for predicting climate change and variability;
 - d. strengthening resilience of poor farmers to climate induced shocks through the use of renewable energy sources;
 - e. supporting crop-livestock and fisheries-environment interactions; and
 - f. promotion of eco-agriculture for improved systems productivity.
- ii. Management of emergency foreign invasive pests of high-value non-staple and staple crops, livestock and fisheries will enhance regional capacity for pest surveillance, reporting and management. This will also include surveillance and effective monitoring of economic pests in the region and integrated pest management, including the use of bio-pesticides.
- iii. Water resource management with emphasis on enhancing farm and watershed productivity using techniques such as micro-irrigation, water harvesting and carbon sequestration.
- iv. Promoting soil fertility and conservation enhancement. Interventions will include
 - a. application of the concepts of conservation agriculture, ever-green agriculture; and
 - b. increasing soil nutrients using bio-fertilizers.

4.2. PID 2. Policy, institutions, markets and trade

This PID is concerned with promoting commercialization and access to input and output markets through policy support and technologies for value addition to agricultural produce. Implementation of this PID will emphasize the importance of trade in driving market development processes.

Activities in this PID address issues in the theme; Development of Sustainable Market Chains, and explores opportunities to manage emerging issues as countries actively implement the CAADP agenda. This PID also constitutes one of the major components of the ECOWAP, APU and CAP policies and priorities.



The major challenges addressed by PID2 are:

- i. Regional value addition, processing, value chains and commercialization of high-value non-staple and staple crops, livestock and fisheries. Interventions will include:
 - a. improving market access, including market analyses to inform policy and investment options;
 - b. support for the development and harmonization of quality standards and regulations in WCA to facilitate market access;
 - c. improving the use of innovations to enhance market opportunities;
 - d. adoption of approved standards and bio-safety guidelines for roots, tubers and other crops;
 - e. reviewing issues of trade barriers to promote regional trade; and
 - f. linking farm level gains in agricultural productivity to markets through value chains and local cooperative societies.
- ii. Enhancing seed and other agri-input systems. This includes development of innovative mechanisms for managing agri-input systems.
- iii. Promotion of smallholder enterprise development to encourage smallholders to invest in farm enterprises. Interventions here will complement efforts in the application of incentive mechanisms to support ecosystem management. The approach will improve smallholder access to technology and services such as assembly, storage, marketing, financing, factoring arrangements and business development services.
- iv. Promotion of domestic agro-industries to enhance private research and delivery of innovations that would lead to industrialization. Interventions will include:
 - a. strengthening domestic agro-industries;
 - b. increasing investments and commercialization of agriculture;
 - c. strengthening SMEs and domestic agro-industries to conduct private research that takes into account ecological inputs and the processing and exportation of locally produced agri-food products including cereals, roots and tubers, fruits and vegetables, fish, aquaculture, livestock, and forest products.

4.3. PID 3. Gender, youth and social equity

The aim of this PID is to ensure equal access to agricultural research and development resources, opportunities and

benefits for men and women, particularly for vulnerable groups, namely women and youth in WCA.

Targeting women

Women in sub-Saharan Africa produce up to 80% of basic foods for household consumption and for domestic markets. In the livestock sector, women perform 50-60% of the functions related to feeding and milking larger animals, as well as raising small stock. Furthermore, rural women provide most of the labor for post-harvest activities, such as storage, handling, stocking, processing and marketing. In view of the extensive participation of women in all aspects of agricultural production, mainstreaming gender issues in agriculture is an important strategy for promotion of equality between men and women and for sustainable agricultural production.

The CORAF Operational Plan (2018-2022) will target the special needs of women farmers, processors, agro-entrepreneurs and professionals, to ensure that they have equal opportunities to benefit from all program activities. Activities in this PID will deliver gender-sensitive outputs, including leading a Regional Gender Alliance and establishing a community of practice on gender mainstreaming in agricultural research for development in WCA.

Priority gender issues in the Operational Plan (2018-2022) are:

- i. gender mainstreaming at the CORAF Executive Secretariat including capacity strengthening for staff on gender issues;
- ii. technical assistance to ensure incorporation of gender issues during project development, implementation, monitoring and evaluation (M&E). A minimum target of 50% is envisaged for women as beneficiaries;
- iii. capacity strengthening in gender issues in NARS;
- iv. assistance in the development and implementation of NARS Gender Action Plans;
- v. leadership and capacity strengthening of women and young researchers and follow ups on their appointment to decision-making positions in agricultural research systems;
- vi. strengthening capacity of women and youth's farmer organizations in agriculture value chains;
- vii. facilitation of a postgraduate program on gender and agriculture; and
- viii. supporting a Regional Gender Alliance to coordinate gender mainstreaming initiatives in IAR4D in WCA.

Youth employment

Youth unemployment represents 60% of the unemployed people in WCA and this has become a major social problem in WCA. This has resulted in increasing migration of youths from rural to urban areas and illegal migration to Europe in search of better economic opportunities and improved livelihoods. Desperate youths may also be tempted to join gangs and get engaged in terrorist activities. CORAF shall play an important role by engaging youths in agriculture production and in agribusiness activities.

Activities in the implementation of the Operational Plan (2018-2022) will include organized employment for youths, training in the use of available technologies, collaboration with the private sector, and adoption of best practices. Priority activities to be conducted are:

- i. create awareness of proven and marketable technologies and innovations (T&I);
- ii. capacity development and strengthening in management of agribusinesses as well as development of soft skills, and expertise in incubation centers, national centers of specialization (NCoSs) and regional centers of excellence (RCoEs);
- iii. facilitate access to finance and markets through youth involvement in relevant innovation platforms; and
- iv. create enabling conditions for youth entrepreneurship, in SMEs, and participation in the World Bank's Doing Business⁴ project.

⁴Initiated by the World Bank, the Doing Business project provides objective measures of business regulations for local firms in 190 economies and selected cities at the sub-national level.





5. Delivering the four results

5.1. Building on the achievements and lessons learnt

CORAF has proven its ability to enable rural households and enterprises to improve agricultural production and incomes, improve food security, and contribute to national economic growth in WCA. During implementation of the Strategic Plan (2008-2013) and Operational Plan (2008-2013), CORAF and its partners developed several T&Is in response to the challenges of crop and livestock production, and the development of aquaculture and non-timber forest products.

Internal and external reviews, mid-term and final evaluations of the Operational Plan (2008-2013)⁵ – in addition to the WAAPP, WASP, MDTE, and ILWAC programs, and other CORAF projects funded by the United States Agen-

cy for International Development's (USAID's) Feed the Future program, the UK's Department for International Development (DFID) and Australia's Department of Foreign Affairs and Trade (DFAT) – as well as extensive consultations with stakeholders, highlighted achievements and lessons learnt that informed the development of the Strategic Plan (2018-2027) and implementation the Operational Plan (2018-2022). These programs have generated models, tools and best practices that can be adopted to facilitate the implementation of the Operational Plan (2018-2022).

Annex 1 presents the major achievements and lessons learnt from the implementation of the Strategic Plan (2008-2013) and Operational Plan (2014-2018).

⁵Several external and internal reviews and evaluations of the first Operational Plan (2007-2013) were commissioned by the CORAF Governing Board, Executive Secretariat and development partners. Some reviews focused on specific development partners' interests [DFID, AusAID/DFAT and USAID], whilst others considered the larger strategic objectives and operational framework of CORAF's Strategic Plan (which dates) and Operational Plan (2007-2013). The findings and recommendations of these reviews were also extensively discussed by CORAF's stakeholders and partners.



5.2. Implementing the Activity Pillars

To implement the Strategic Plan (2018-2027), three Activity Pillars were identified:

- i. establishing communities of practice on scaling T&Is for sustainable impact;
- ii. integrated regional capacity strengthening in agri-food research and innovation; and
- iii. knowledge management and foresight.

The Four Results will be delivered through successful Implementation of these Activity Pillars.

5.2.1. Activity Pillar 1. Establishing communities of practice on scaling T&Is for sustainable impact

This Activity Pillar will promote the use of proven T&Is, and enhance enabling environments to promote agricultural production and value addition. Successful implementation of this Pillar will result in delivery on Results 1 and 2. Table 1 presents the specific objectives and activities to scaling T&Is for sustainable impacts in WCA.

Table 1 Strategic objectives and activities to scaling T&Is for sustainable impact in WCA.

Strategic objectives	Activities
Increased use of demand-driven market-based T&Is in WCA	<ul style="list-style-type: none"> ◆ Support the development of demand-driven market-based T&Is to address new challenges and opportunities; ◆ Enhance up scaling of T&I by strengthening the capacity of private and public extension services and regional networking; ◆ Scale up the use of ICT and innovations in outreach (e-extension and e-voucher schemes; electronic technology markets, etc.) ◆ Support multi-stakeholder platforms (innovation platforms, productive alliances, etc.) with the private sector playing a key role; ◆ Support for regional technology fairs; ◆ Support the upgrade of priority value chains, including developing and disseminating technological and institutional innovations to enhance productivity, competitiveness, value addition and market access; ◆ Develop a detailed plan for scaling the dissemination and use of innovative agricultural technologies based on WAAPP and WASP models.
Creation of an enabling environment through enhanced policy, institutions, markets and trade	<ul style="list-style-type: none"> ◆ Support reforms of regional policies and regulations necessary to accelerate agricultural transformation; ◆ Support development of regional markets, and promote regional trade of targeted products to accelerate import substitution in coastal countries; ◆ Accelerate food self-sufficiency in Sahelian countries; ◆ Support upgrading of national seed systems and regional seed markets; ◆ Support piloting and scale up innovative ways to address rural finance in collaboration with the International Finance Corporation, T&C and commercial banks; ◆ Support NCoS to coordinate projects using the IAR4D approach, including management of value chains and innovation platforms; ◆ Facilitate capacity strengthening of actors along selected value chains to enhance the use of improved agricultural T&Is.
Support design of programs to demonstrate the impact of science, T&Is to meet the increasing demand for knowledge (about what works and how it can be scaled) on development outcomes	<ul style="list-style-type: none"> ◆ Develop policies related to agricultural transformation in WCA and ensure efficient dissemination to decision-makers and relevant stakeholders; ◆ Define feasible pathways and the right mix of approaches for scaling T&Is for impact at scale for CORAF interventions; ◆ Establish a community of practice for impact evaluations, and build capacity to achieve a critical mass of experts; ◆ Elaborate plans for impact evaluations for all interventions and ensure they are adequately budgeted for and the human resources for conducting evaluations are contracted in a timely manner; ◆ Conduct cost benefit analysis for successful (high impact potential) T&Is.

5.2.2. Activity Pillar 2. Capacity strengthening of agricultural research for development

The focus of Activity Pillar 2 is capacity development and strengthening of NARS, NCoS and RCoEs, as well as at the CORAF Executive Secretariat. Successfully conducting the activities in this Pillar will deliver on Result 3 of the Strategic Plan (2018-2027) and Operational Plan (2018-2022). Table 2 presents strategic objectives and activities for this Pillar.

Table 2 Strategic objectives and key activities to strengthen capacity for agricultural research for development in WCA

Strategic objectives	Activities
Supporting NARS in establishing real, functional and interactive systems to advance science, T&I for agricultural transformation in WCA	<ul style="list-style-type: none"> ◆ Support the development and implementation of NARS' capacity strengthening plans using the findings of the African Human Capacity Strengthening project; ◆ Design and implement a systematic coaching/mentoring program for young graduates to enable them to progressively replace retiring research scientists, using the WAAPP training model; ◆ Support universities to revise and implement course curricula to make agricultural science graduates relevant to the agricultural industry and thus capable of providing practical solutions to regional agricultural challenges with the private sector, industry and stakeholders in selected areas; ◆ Develop frameworks, strategic directions, orientations and tools (including models and modules) to back-stop NARS to ensure their orientation towards CAADP and REC's agricultural policies objectives.
Strengthening the RCoE model of innovation delivery in WCA	<ul style="list-style-type: none"> ◆ Support NCoS to up-grade into RCoEs: assess existing NCoS using nine criteria, and support the updating and implementation of their institutional development plans; ◆ Strengthen regional and international networking and partnerships to enhance capacity strengthening for science, T&I through the establishment of clusters; ◆ Support NCoS/RCoE to set up incubation centers oriented for youth and women start-ups to promote promising agricultural I&Ts; ◆ Commission NCoS and RCoE with sub-projects.
Strengthening the institutional capacity of the CORAF Executive Secretariat	<ul style="list-style-type: none"> ◆ Strengthen CORAF's organizational capacity; ◆ Recruit and maintain core staff in relation to CORAF's vision, mission and core functions; ◆ Establish sound financial management systems; ◆ Improve communication and marketing systems; ◆ Support public outreach, business development, and resource mobilization; ◆ Improve partnerships and contract management; ◆ Design and set up robust M&E, learning and impact assessment systems.

5.2.3. Activity Pillar 3. Knowledge management and foresight

The knowledge management and foresight Pillar will focus attention on setting up an improved knowledge management system as well as harnessing intelligence about

possible futures to inform decision-making in agricultural research and development. Implementation of activities under this Activity Pillar will deliver on Result 4. Table 3 presents the strategic objectives and activities on knowledge management and foresight.

Table 3 Strategic objectives and key activities on knowledge management and foresight

Strategic objectives	Activities
Improved knowledge management systems	<ul style="list-style-type: none"> ◆ Identify stakeholder’s needs for agricultural knowledge; ◆ Develop appropriate knowledge management tools (innovation platforms, alliances, networks, learning events, databases, and web portals); ◆ Facilitate access of proven ICT tools to improve decision-making for agri-food value chains; ◆ Facilitate information design and packaging to target various stakeholders for dissemination, easy access and visibility, e.g. ECOWAS requires policy briefs to share with Ministers/Heads of States; ◆ Development of specific knowledge products, including databases and multimedia that can be used to design models that inform decision-making at various levels; ◆ Development and implementation of a CORAF communication and marketing strategy; ◆ Promote scaling of successful interventions and generating credible evidence and knowledge that informs effective decision-making in agricultural research for development.
Harnessing intelligence about possible futures to inform present-day decision-making processes and priority setting in agri-food research and innovation systems in WCA	<ul style="list-style-type: none"> ◆ Support identification of fundamental (basic) research and emerging T&Is likely to yield the greatest economic and social benefits to target populations; ◆ Support the development of WCA foresight capacities at individual and organizational levels (build network of centers with foresight capacities); ◆ Support economic and policy analysis-related agricultural transformation to support decision-making by RECs, NARS and other stakeholders; ◆ Support the development of weather and climate databases to support decision-making by farmers (partner with centers like AGRYMET, and the West African Science Service Center on Climate Change and Adapted Land Use [WASCAL])

5.3. Integration of cross-cutting issues

The Operational Plan (2018-2022) is also concerned with efficient integration and treatment of cross-cutting issues such as social and environmental problems and adoption of agricultural innovation systems.

5.3.1. Environmental and social safeguards

CORAF has an important role in enabling and supporting the development of the IAR4D approach with activities that focus attention on efficient management of the natural resource base. The CORAF Environmental Management Framework (EMF) was developed in 2008 to prevent undue harm to people and

their environment when implementing programs and projects. This framework guides CORAF and its partners in the design and implementation of all programs and activities.

This current Operational Plan (2018-2022) shall ensure that all CORAF programs will be subjected to an IEE and any sub-grants to CORAF partners for the implementation of activities will be subject to a satisfactory environmental review. In developing an environment monitoring and mitigation plan, CORAF will use the approved IEE and the Pesticide Evaluation Report and Safe Use Action Plan (PERSUAP) developed under the Feed the Future initiative.

5.3.2. Agricultural innovation systems

During the implementation of the Operational Plan (2008-2013), CORAF and its partners shifted from a conventional linear approach to agricultural research, technology development and dissemination, towards an IAR4D and agricultural innovation system (AIS) approach. AIS includes a value chain approach as well as innovation platforms; an informal coalition bringing together key players of the agri-food value chains (input suppliers, services providers, farmers organizations, processors, traders and consumers), research institutes, extension services, non-governmental organizations (NGOs), and policymakers.

An innovation platform is a needs-based network bringing together stakeholders from different interest groups, disciplines, sectors and organizations to exchange knowledge, generate innovation and develop joint action. Platforms are more than just places to talk; they create opportunities for stakeholders to test solutions to common problems [Cullen and Ergano, 2011].

The IAR4D concept has been proven by CORAF and its partners through the implementation of projects, such as the Dissemination of New Agricultural Technologies in Africa (DONATA), and MDTF and DFAT-funded programs, and the Convergence of Sciences: Strengthening Innovation Systems (CoS-SIS) project. The outputs from implementation of these projects include several valuable technologies as well as scientific and technical publica-

tions. To sustain institutionalization of IAR4D, CORAF will coordinate improvements to the approach through lessons learnt from its interventions. Thus, CORAF will continue to play a leadership role in the promotion and adoption of AIS by recognizing achievements and disseminating lessons learnt to feed into the agricultural policies and strategies of NARS' and RECs.



Making it happen

To guarantee achievement of the objectives of the CORAF Strategic Plan (2018-2027), special attention will be paid to the following key issues:

- i. priority setting and planning;
- ii. project management;
- iii. communication and marketing;
- iv. partnership and resource mobilization;
- v. budget and financing;
- vi. monitoring, evaluation and reporting; and
- vii. risk management.

6.1 Priority setting and planning

A priority setting and planning framework will be developed and executed during the implementation of the Operational Plan (2018-2022). Successful conduct of the PIDs, elaborated in the Strategic Plan (2018-2027) will empower WCA stakeholders to transform the agricultural sector and lift the population out of poverty, towards national food and nutrition security and rapid economic growth.

Most of the priorities selected in the Operational Plan (2018-2022) emerged from problems which were identified and translated into projects (WAAPP, WAATP, the Partnership for Agricultural Research, Education and Development in West Africa (PAIRED), Fruit fly, WAEMU projects) to be implemented over the next five years. A medium-term review and planning process will consistently assess the program portfolio and update the Operational Plan (2018-2022) content, and build on lessons learned and informed by critical analysis of emerging opportunities and challenges.

6.2. Project management

For efficient project management, CORAF has published a Project Management Manual, which describes a project performance mechanism (add a reference for the document). The manual will be updated regularly based on lessons learnt from

implementing the Operational Plan (2007-2013) and Operational Plan (2014-2018). The updated manual will be applied to commissioned projects implemented by NCoS and RCoEs.

Funding for agricultural research for development projects will be obtained through the commissioned research and competitive grant scheme. The preferred option is for allocation of commissioned research funding to NCoS and RCoEs which have specific research expertise, competence and facilities, notably a critical mass of research scientists and technical support staff as well as functional laboratories and research fields.

For each PID, calls for research proposals will be launched by the CORAF Executive Secretariat. All proposals submitted will be evaluated by the Scientific and Technical Committee, using a set of general, scientific and financial criteria. The CORAF Executive Secretariat will invite experts to assist in the evaluation of research proposals and will publish a schedule and timeframe for completion of evaluation of proposals submitted.

6.3. Communication and marketing

CORAF will adopt a communications and marketing model that:

- i. engages with all stakeholder groups;
- ii. updates donors, partners and collaborators with progress in agricultural development; and
- iii. disseminates timely and relevant information to the WCA agriculture sector.

In consultation with donors, partners and clients, CORAF will develop a communication and marketing strategy that supports its vision and mission. The strategy will elaborate a set of messages that articulate CORAF's vision and the Operational Plan (2018-2022).

The communication strategy will also define the specific niche that it occupies, and how the outputs of activities contribute to the aims, objectives and targets of NARS, donors, partners and other stakeholders.

Branding will reflect CORAF's new identity. The Communications Unit will publish and widely disseminate information about success stories to establish the reputation of CORAF as the primary source of information on agricultural research and development issues in WCA.

The communications and marketing strategy will include support for the three Activity Pillars. For example, communication will be essential to effectively disseminate the outputs of foresight and knowledge management (Activity Pillar 3), package knowledge management outputs appropriately for target audiences and distribute them through relevant communication channels (Activity Pillar ?), and support capacity development and strengthening (Activity Pillar 2) (including campaigns to attract youth into the agriculture industry, using mainstream and new social media [e.g. radio, television, press, social media, YouTube and films]).

Youth campaigns will be conducted in collaboration with youth-focused initiatives of other organizations such as the International Institute of Tropical Agriculture, FARA and the African Development (AfDB), and incubation centers. Communication to support communities of practice (Activity Pillar 1) will be established with stakeholders to enhance scaling of T&Is in WCA. Communication will also promote regional consultative processes, alliances, and innovation platforms, exploiting the successes and experiences gained from implementation of the WASP and WAAPP projects.

Communication from CORAF will use a wide range of formats and media as well as different languages (mainly English and French but also Portuguese and local languages), in order to engage with various stakeholder groups in WCA. Target audiences will include farmers' associations, consumers, civil society, extension services, researchers, policymakers, donors, development agencies, and the private sector.

CORAF communication activities will also provide opportunities for dialogue, participation and com-

ment using online forums, e-discussions, surveys, questionnaires, social media and comment boxes. By listening to such feedback, CORAF will ensure that its work remains relevant and aligned with stakeholder needs and responsive to new agricultural development challenges.

CORAF will emphasize online communications. The CORAF website will be redesigned as a portal for a wide range of resources and will be tailored for different audiences. The portal will include access to databases and technical information for specialized research and agriculture sector audiences, as well as information for broader audiences, such as the media and the general public. Resources will be made available on the website in a variety of media formats, such as webcasts and podcasts. Shared databases, e-consultations, online discussion fora and video conferencing will facilitate collaboration, partnerships, and networking in agricultural research and development in WCA.

CORAF will produce several publications in appropriate languages. Publications will include an annual report, a quarterly newsletter, fact sheets, briefing notes, best-practice manuals, training manuals, training guides and bulletins. Most of these publications will be distributed electronically, but hard copies will also be available for distribution to partners during annual events.

A regular program of events will be organized as an essential part of CORAF stakeholder engagement. Such events will include: invited talks and presentations at policy fora; exhibitions and presentations at science fairs and trade conferences; participatory events with farmers and their intermediaries; and knowledge-transfer events and demonstrations of new agricultural innovations.

The media will be used as an avenue to influence representatives of all stakeholder groups. These partners will be alerted to newsworthy developments through press releases, briefings, and features. CORAF reach will be extended by offering recorded podcasts and other packages to national and regional newspapers, magazines, rural and national radio, and television stations throughout WCA.

6.4. Partnership and resource mobilization

6.4.1 Partnership

CORAF will effectively deliver its mandate by developing functional partnerships for the implementation of the Operational Plan (2018-2022). CORAF will be innovative in its choice of partners and in developing partnerships and alliances in ways that leverage expertise and other resources, while maintaining meaningful and productive relationships with all partners.

An important objective of CORAF partnership is mobilizing partners to drive its agenda. To ensure successful implementation of the Operational Plan (2018-2022), CORAF will strengthen partnerships with appropriate stakeholders involved in agricultu-

ral research and development in WCA. To achieve this objective, CORAF will critically analyze the partnerships inherited from the previous Operational Plans to ensure that they are appropriate for CORAF's new priorities. CORAF will then undertake institutional mapping to identify the partners that are relevant for implementation of PID Pillar Activities. Memorandum of Understandings (MoUs) will be signed with relevant stakeholders to clearly define commitments and responsibilities in the partnership.

Table 4 presents three Activity Pillars, a summary of key elements and an indicative list of partner organizations that CORAF will involve in each one.

Table 4. Indicative list of partners for Activity Pillars

Activity Pillars	Key elements	Examples of partners
Pillar 1: Community of practice on scaling T&Is for sustainable Impact	<ul style="list-style-type: none"> ● Increased generation, dissemination, use and adoption of improved T&Is in WCA ● Promote market development and establishment of public-private partnerships for enterprise and value chain development ● Increased impact of T&Is in WCA 	<p>National: relevant government ministries; national agricultural research institutes (NARIs); tertiary education institutions; farmer organizations and local civil society organizations and NGOs</p> <p>Sub-regional: NCoS and RCoE, tertiary education institutions, PRASAC, Centre International de Recherche-Développement sur l'Élevage en zone Subhumide (CIRDES), WALIC, Centre Africain de Recherches sur Bananiers et Plantains (CARBAP), West and Central Africa Network of Agricultural and Rural Advisory Services, ECOWAS, UEMOA, ECCAS, CEMAC, Permanent Interstate Committee for drought control in the Sahel (CILSS), Hub Rural, CEBEVIRHA, Réseau des Organisations Paysannes et de Producteurs de l'Afrique de l'Ouest (ROPPA), Plateforme Régionale des Organisations Paysannes d'Afrique Centrale (PROPAC), Association pour la Promotion de l'Élevage au Sahel et en Savan (APESS), RBM, AFAO, and the private sector</p> <p>International: FARA, CGIARs, advanced research institutions (ARIs), NEPAD, the Technical Centre for Agricultural and Rural Cooperation (CTA), the Food and Agriculture Organization of the United Nations (FAO), Farm Radio International, and international NGOs working in the sub-region</p>
Pillar II: Integrated regional capacity strengthening in agri-food research & innovation	<ul style="list-style-type: none"> ● Supporting the process of transformation of NCoS into RCoE ● Developing human capacities in relevant areas of agricultural research and development 	<p>National: relevant government ministries; NARIs; tertiary education institutions; farmer organizations and local civil society organizations and NGOs</p> <p>Sub-regional: NCoS and RCoE, CARBAP, CIRDES, WALIC, PRASAC, ECOWAS, UEMOA, ECCAS, CEMAC, CILSS, ROPPA, PROPAC, APESS, RBM, NGOs, and the private sector</p> <p>International: FARA, CGIARs, ARIs, CTA, FAO, and innovation laboratories</p>
Pillar III: Knowledge management and foresight	<ul style="list-style-type: none"> ● Harnessing intelligence about possible futures to inform present day decision making processes ● Data, information and knowledge gathering, ● organization, analysis, synthesis and dissemination 	<p>National: relevant government ministries, NARIs, tertiary education institutions, and national apex organizations</p> <p>Sub-regional: ECOWAS, UEMOA, ECCAS, CEMAC, CIRDES, CILSS (L'Institut du Sahel, and AGRHYMET), WASCAL, NCoS and RCoE, FRAO, and regional apex organizations.</p> <p>International: FARA, CGIARs, NEPAD, FAO, CTA, WHO</p>

6.4.2 Resource mobilization

CORAF will develop a resource mobilization strategy that provides long-term financial stability and eliminates risks associated with short-term funding and a narrow donor base.

The CORAF Operational Plan (2018-2022) is inheriting some longstanding international partnerships from the implementation of the Operational Plan (2007-2013) and Operational Plan (2014-2018). These partnerships include, the World Bank, USAID, the European Union (EU), ECOWAS and UEMOA. Implementation of the Strategic Plan (2018-2027) will involve early engagement to reconnect with these partners and to build on the partnerships. Furthermore, CORAF will diversify its partnership base to attract new partners relevant for implementation of the Strategic Plan (2018-2027).

Key elements of CORAF resource mobilization strategy are:

- enhance financial partnerships with traditional donors, namely, the World Bank, USAID, EU, Canadian International Development Agency (CIDA), DFAT, and the Danish International Development Agency (DANIDA);
- broaden the donor base – numbers and types of organizations relevant to different PIDs;
- emphasize cooperation with non-traditional development partners, such as China, Israel, the Bill & Melinda Gates Foundation, Dangote Foundation, the Alliance for a Green Revolution in Africa (AGRA), and the private sector. CORAF will also invest time and resources to understand their special interests, expectations and regulations;
- actively explore contributions from the RECs (ECOWAS, UEMOA, ECCAS, CEMAC), including a mix of unrestricted and special projects of regional importance;
- leverage the voice and influence of ECOWAS and individual CORAF member states' to access development funding from international donors especially the AfDB, International Fund for Agricultural Development, AGRA, and the Bill & Melinda Gates Foundation

Managing multiple partnerships presents interesting challenges and transaction costs such as pre-emptive management of expectations, negotiations and conflict resolution. CORAF will recruit a partnerships and resource mobilization manager to manage relationship with partners. This manager will be supported by a technical committee chaired by the CORAF Executive Director.

CORAF's partnerships strategy will be guided by the following principles:

Relationships management - For each major partnership (organization and/or collaborative programs or projects), CORAF will assign a relationships manager to champion the content and processes of the partnership. The relationships manager will operate as a project manager and will be

directly responsible for facilitating program implementation. The partnership and resource mobilization manager will oversee the work of the relationships manager.

Clarity of mission and strategy - The design of partnership models will identify and clearly spell out the opportunities for the organizations involved in the partnership.

Resources - Resource-sharing arrangements between collaborating partners will be clearly defined. CORAF will ensure transparency in financial commitments by partner organizations.

Open and honest communications - Special attention will be paid to openness and honesty in communication and to give credit to deserving partners. This principle will be linked to project

and staff evaluations, ensuring that efforts towards proactive, effective and productive partnerships are rewarded.

6.5 Budget and financing

Following approval of the Operational Plan (2018-2022), by the CORAF General Assembly, it will become the main thrust of stakeholder's agricultural development initiatives for the WCA sub-region.

6.5.1. Budgeting: a result-based model

The CORAF Operational Plan (2018-2022) will be funded largely through new or on-going programs and projects. However, a significant increase in resources is envisaged to deliver on the expected results. Budgeting assumes that about 70% of the resources will be derived from the 'special projects' funded by the World Bank, USAID, UEMOA and ECOWAS. CORAF will mobilize the remaining 30% of the approved budget to finance program priorities and administrative costs that are not covered by the special projects.

Two principles have guided the current pattern of budgeting:

- i. result-oriented budgeting to ensure that most of the funds mobilized will be spent on activities to deliver on the Four Results; and
- ii. full cost recovery which means that each program should support all of the implementing costs, including field research activities, direct costs, technical support as well as all overhead costs for institutional support.

The CORAF financial plan consists of two main cost centers as follows:

- i. Research and development – This cost center covers the total direct expenses of:
 - a. research field activities, studies and analyses;
 - b. direct costs; and
 - c. technical support provided by the Executive Secretariat for each of the Four Result areas.
- ii. Institutional support – This covers costs of adequate functioning of:
 - a. CORAF governance systems; and
 - b. Executive Secretariat operations.

Estimated budget (US\$) of the CORAF Operational Plan (2018-2022)

Budget allocation (en USD)		Ongoing projects				To research 30 %	Total amount	%
		Fruits Flies	UEMOA	PAIRED	WAAPP&WAATP	Sous-total		
A. Research & Développement		1 491 876	1 285 292	1 2791 323	20 995 000	3 656 3491	5 2233 559	85,8
R1. Increased Use of Appropriate Technologies & Innovations	Research & develop field activities	504 306	378 909	1 658 200	3 705 000	6 246 415	8 923 451	14,7
	Direct costs	136 404	46 437	1 493 204	1 111 500	2 787 545	3 982 207	6,5
	Research & develop field activities	43 183	6 4811	52 500	1 482 000	1 642 494	2 346 421	3,9
R2. Increased Uptake of Strategic Decision-Making Option for policy institutions	Activités de terrain de recherche et développement		265 179	440 090	1 852 500	2 557 769	3 653 956	6,0
	Direct costs		30 863	711 049	555 750	1 297 662	1 853 803	3,0
	Technical support		44 998	25 000	741 000	810 998	1 158 569	1,9
R3. Enhanced institutional and human capacity in agricultural research for development	Research & develop field activities	271 174	217 647	1 790 882	1 852 500	4 132 203	5 903 146	9,7
	Direct costs	80 353	19 344	2 881 454	555 750	3 536 901	5 052 716	8,3
	Technical support	25 438	36 018	100 750	741 000	903 206	1 290 295	2,1
R4. Demand for agricultural knowledge from target client	Research & develop field activities	305 622	124 300	1 671 110	4 940 000	7 041 032	10 058 617	16,5
	Direct costs	95 243	31 076	1 899 584	1 482 000	3 507 903	5 011 290	8,2
	Technical support	30 152	25 710	67 500	1 976 000	2 099 362	2 999 089	4,9
B. Institutional support			150 442	2 208 677	3 705 000	6 064 119	8 663 027	14,2
B1. Governance				90 000	1 482 000	1 572 000	2 245 714	3,7
B2. Secretariat Operation (core staff + indirect cost)			150 442	2 118 677	2 223 000	4 492 119	6 417 313	10,5
TOTAL		1 491 876	1 435 734	15 000 000	24 700 000	42 627 610	60 896 586	100

6.5.2. Financing strategy

Most international development donors are increasingly allocating grants to specific projects – in terms of content, deliverables, and geographical coverage. While the CORAF Strategic Plan (2018-2022) consists of activities which may be a high priority for different donors, the challenge will be to match priorities of different donors and to develop ‘bankable’ projects that are acceptable to donors.

A significant proportion of administrative overheads will be raised from different sources. Ideally, administrative costs should be funded from overheads ‘charged’ to special projects. However, ‘special project’ donors are increasingly moving away from providing funds to cover ‘general’ overheads. Therefore, CORAF Senior Management and the CORAF Governing Board must explore sources for ‘unrestricted funding’ to cover administrative overheads.

6.6 Monitoring, evaluation and reporting

CORAF will develop a system for tracking progress of implementation of all its interventions. The tracking system will provide details of performance indicators, and the M&E tools which will facilitate assessment of progress in performance, planning and decision-making, accountability and transparency, learning, partnership arrangements, as well as information dissemination and management.

The Monitoring, Evaluation, Learning and Impact Assessment (MELIA) tracking system will be adopted to track progress, refine interventions, identify unin-

tended effects, and determine the impacts of various initiatives and programs on the livelihoods of a majority of the beneficiaries of countries in WCA.

In adopting the MELIA tracking system, CORAF will become more accountable to its stakeholders and donors through effective information sharing, experiential learning and, feedback mechanisms. An important feature of MELIA is the Performance Indicator Framework that will be developed during the first quarter of 2018. This framework will be complemented by the updated MELIA Manual which will serve as a reference to provide guidelines for using MELIA in the evaluation of performance during implementation of the Operational Plan (2018-2022).

The Performance Indicator Framework emphasizes methods and protocols for monitoring and evaluating programs and projects of the Operational Plan (2018-2022). It also provides step-by-step procedures and processes for data collection and management.

CORAF will publish an M&E manual which responds adequately to the range of demands, and maintains strong M&E capacity for the Operational Plan (2018-2022) in performance management⁶.

6.7 Risk management

A risk management plan describes the steps which should be taken to identify, monitor and control risks. During the development of the Operational Plan (2018-2022), several potential risks and proposed mitigation measures were identified (Table 6).

⁶Performance management as defined in standard terms is the “systematic process of monitoring the achievements of program operations; collecting and analyzing performance information to track progress toward planned results; using performance information and evaluations to influence decision-making and resource allocation; and communicating results achieved, or not attained, to advance organizational learning”.

Table 6 Risks and mitigation measures to ensure successful implementation of the Operational Plan (2018-2022)

Risks	Level of risk	Mitigation measures
Financial risks for the sustainability of CORAF		
Partner disengagement, loss of support by RECs	M	<ul style="list-style-type: none"> • The RECs (ECOWAS, UEMOA, ECCAS, CEMAC) and other donors must allocate resources for CORAF's operation • Develop a partnership financing strategy that provides for longer-term stability and removes the risks associated with short-term funding and a narrow donor base
Low financial contribution from NARS	H	<ul style="list-style-type: none"> • Create an interactive platform with NARS authorities (DG, DS, etc.), with annual meetings • Strengthen institutional communication and marketing of CORAF
Heavily disbursed procedures	M	<ul style="list-style-type: none"> • Together with the donors, evaluate fund management procedures and adjust them to realities in the field • Strengthen the capacity of project implementation teams
Absence of own funds with a high dependence on the financial resources of projects	H	<ul style="list-style-type: none"> • Mobilize resources to build unrestricted core funds to finance CORAF's basic functions through contributions from RECs and countries • Define the certified rate of indirect costs to be applied by CORAF to all financing agreements • Establish a full cost recovery mechanism and apply it to all projects
Low capacity of NARS to manage funds allocated by CORAF for project implementation	M	<ul style="list-style-type: none"> • Greater accountability and practical involvement of NARS authorities (GD, SD, etc.) in the management of CORAF projects
Legal compliance and reputation		
Legal status not appropriate to CORAF's new vision and mission (internal to the host country and external at the sub-regional and international levels)	M	<ul style="list-style-type: none"> • Revise CORAF internal legal texts • Continue ongoing discussions on the revision of the Headquarters Agreement and other external legal texts (international public law institution)
Demotivation and demobilization of Executive Secretariat staff	H	<ul style="list-style-type: none"> • Establish a policy for staff retention (attractive working conditions, succession plan, etc.)
Risks related to representativeness and accountability (CORAF is an intermediary between donors and NARS)	M	<ul style="list-style-type: none"> • Establish a mechanism to increase representativeness and decentralization of CORAF operations
Organizational effectiveness		
Loss of databases of agricultural research results (CORAF and its constituents)	L	<ul style="list-style-type: none"> • Institutionalize a culture of database security by diversifying conservation sites at national and regional levels
Limited access to certain sites for agricultural research because of political instability, civil unrest, and natural disasters	M	<ul style="list-style-type: none"> • Make researchers aware of the risks associated with the accessibility of certain sites during the development of research protocols • Diversify agricultural research sites • Promote a culture of securing land on research sites
Loss of agricultural genetic materials (gene banks)	M	<ul style="list-style-type: none"> • Engage NCoS and RCoEs in sustainable management of agricultural genetic resources in collaboration with CGIAR centers and relevant partners (International Livestock Research Institute, CIRDES, International Crops Research Institute for the Semi-Arid Tropics, Africa Rice Center, and World Vegetable Center)

H: high **M:** medium **L:** low



Governance and management

Efficient governance and management will ensure successful implementation of the Operational Plan (2018-2022). CORAF will remodel its governance structure in response to new orientations. A small and functional management structure will be established to coordinate CORAF operations.

7.1. An enhanced governance structure for CORAF

The proposed governance structure for CORAF will take into account its mission, the socio-political setting in WCA, the regional as well as international landscape, and current trends in organizational governance.

CORAF's Governing Board currently includes representatives from most of the principal partners and clients, namely: farmer organizations, the private sector, NARIs, RECs and development partners. The Governing Board will be expanded to include representatives of tertiary agricultural education institutions.

The main functions of the Governing Board are:

- i. appointment of the Executive Director;
- ii. oversight of CORAF policy and strategy formulation and implementation;
- iii. approval of revised Strategic and Operational Plans, annual work plans and budgets;
- iv. approval of annual financial and external audit statements; and
- v. oversight of risk management.

In view of current financial challenges, CORAF will place greater emphasis on partnership and resource mobiliza-

tion to support the Executive Secretariat. CORAF management will establish a committee to provide guidance on efficient resource mobilization and implementation of the partnership management strategy.

The STC is responsible for evaluation of project concept notes and full proposals of the commissioned and competitive grants scheme. Considering IAR4D and value chain approaches, membership of this committee will be diversified to accommodate the 'development' aspects of CORAF interventions.

7.2. A smaller CORAF management structure

In December 2015, CORAF's Governing Board commissioned an institutional audit which was financed by USAID/WA. The audit focused on three different areas:

- i. CORAF institutional structure and system;
- ii. mode of operation in the context of the external environment; and
- iii. regional sector developments as well as determine ways to ensure greater consistency of its mission.

The findings of the audit indicated that although staff and salary costs doubled between 2010 and 2015, financial resources had not grown proportionately to continue to support the additional number of staff at the Executive Secretariat. The audit, therefore, recommended that CORAF should downsize the Executive Secretariat to a structural system that maximizes the institution's resources for the implementation of its new Strategic and Operational Plans while distinguishing between core and short-term project-dependent staff based on availability of program/project funds. This challenging yet strategic course of action would be cost saving and would allow CORAF management to 'stretch' and utilize funds over a longer period of time.

To implement this Strategic Plan (2018-2027) and the two five year Operational Plans (2018-2022 and 2023-2027), CORAF's current management and support staff structure will be reorganized. CORAF's senior management team will now consist of an Executive Director, a Director of Research and Innovation responsible for oversight of programs, a Director of Corporate Services responsible for administration and finance, and a Manager of Communications and Marketing responsible for image and information management. The management team will be supported:

- for audit functions, by an internal auditor attached to the Board of Directors;
- for program functions, by a head of agriculture, food and nutrition security, a head of policy, institutions, markets and trade, a head of gender, youth and social equity, and a head of knowledge management and foresight; and
- for administrative and financial functions, by a head of partnerships and contracts, a head of finance and accounts, a head of procurement and logistics, and a head of human resources.

This core team will be supported by a small group of technical and administrative staff. As CORAF's program develops and projects are initiated, project managers and projects staff will be recruited to share supplementary workloads of the core staff. Project staff will have fixed-term contracts which will end with the life of the particular projects.

A new organizational chart based on this structure will be adopted to provide information on staff responsibilities and reporting relationships (Figure 10).

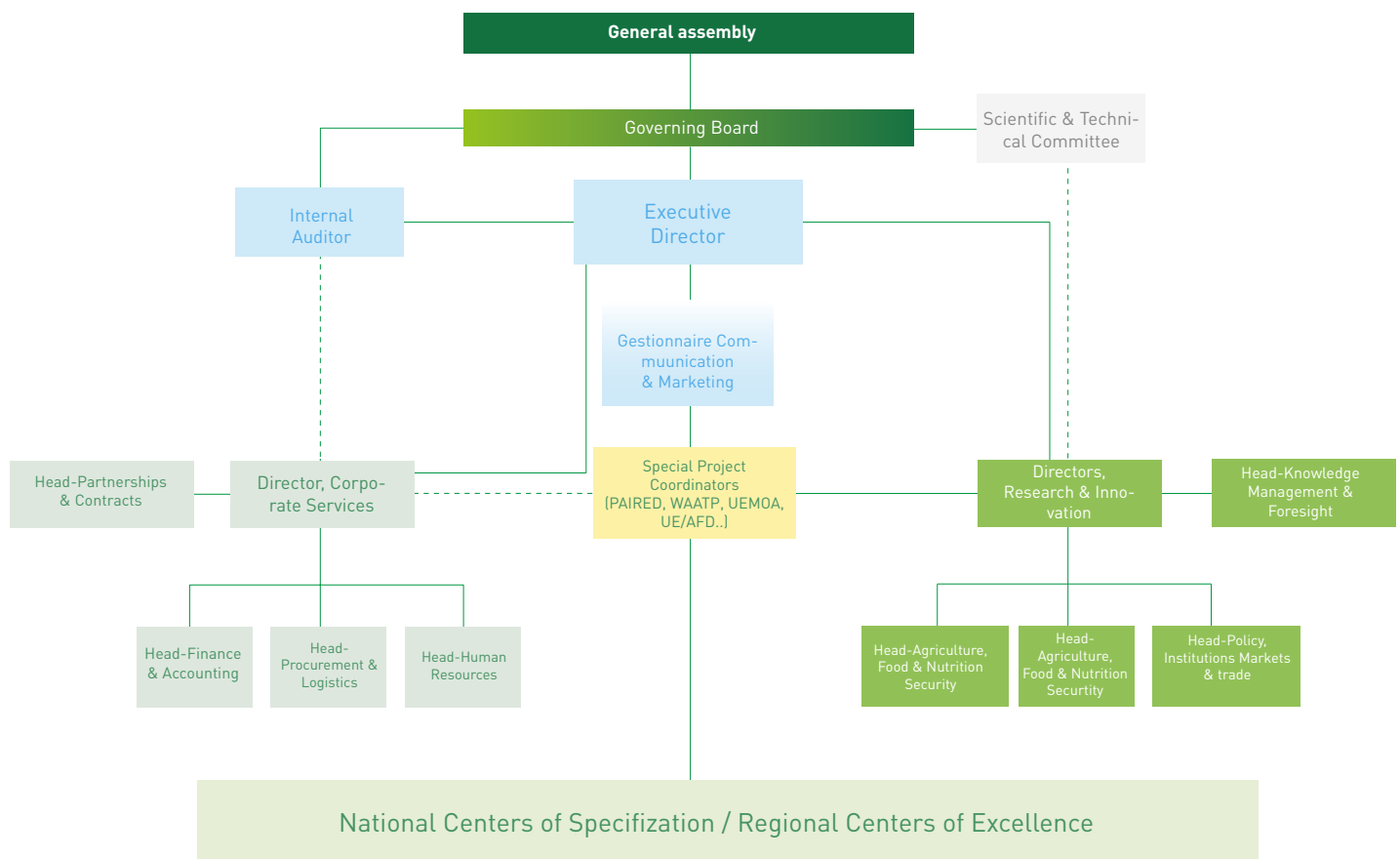


Figure 10. CORAF organizational chart

Executive Secretariat staff will be assisted by regional and international experts in various areas of specialization. Consequently, a database and an electronic directory of experts will be developed to serve as a reference. The Executive Secretariat will then be able to identify and mobilize the appropriate expertise when the need arises.

Other relevant specialists will assist the Executive Secretariat to deliver its core functions, through specialized staff loans from partners, and involvement of trained young professionals, skilled interns, and volunteers.



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Annex 1. CORAF's key achievements and lessons learnt from Operational Plan (2007-2013) and Operational Plan (2014-2018)

Annex 1A. CORAF's key achievements under Operational Plan (2007-2013) and Operational Plan (2014-2018)

Strategy for delivery	Models/ tools/best practices	Brief description	Key successes	Lessons learned
Scaling up T&Is	MDTF projects	<p>Launching of calls under the Competitive Grant Scheme. Selection and implementation of 17 projects under livestock, fisheries and aquaculture; crops, natural resource management, policy, marketing and trade; capacity strengthening and knowledge management. Use of a basket of funds from EU and CIDA (138 T&Is have been generated since the initiation of MDTF projects in 2012)</p>		<p>Incentives for project coordinators are key to project success</p> <p>The use of a functional M&E system is needed</p> <p>Support by a team, rather than one person, in the field is also key to making sure that all plans are effectively and sufficiently implemented</p>
Capacity strengthening of NARS	Change management process conducted from April 2009 to June 2010	<p>CORAF commissioned, through a competitive tender process, the IDLgroup⁷ as a change management team, to support and guide the integration of change into the implementation of the Strategic Plan (2007-2016) and its Operational Plans. Four Results were delivered through a series of activities built around workshop and non-workshop initiatives and are as follows:</p> <p>Program-based IAR4D paradigm for sub-regional agricultural research established;</p> <p>Sub-regional capacity of stakeholders for operating in an IAR4D research paradigm strengthened;</p> <p>Effective sub-regional partnerships supporting and encouraging IAR4D research established and operational;</p> <p>Secretariat-level human and organizational capacity to support sub-regional research activities strengthened.</p> <p>These four results were nested within Result 3 of the Operational Plan. They were delivered through workshops organized with various CORAF stakeholders (NARS leaders, Governing Board members, program and senior managers at the secretariat ; program manager capacity strengthening STC members, development of generic material for change management; identification of national and sub-regional roles in change management</p> <p>change facilitators skills and program development - national agricultural research systems; sub-regional change facilitators skills development)</p>	<p>Ownership of CORAF Strategy by stakeholders</p> <p>Good visibility of CORAF</p>	<p>Need of follow up of stakeholder in the field to make sure that their strategy is aligned on CORAF Strategy</p>

⁷The IDLgroup is a UK-based independent consultancy firm see www.theidlgroup.com for details

Strategy for delivery	Models/ tools/best practices	Brief description	Key successes	Lessons learned
		<p>SCARDA was a programme initiated by FARA, funded by DFID, and implemented by the three sub-regional organizations – the Association for Strengthening Agricultural Research in Eastern and Central Africa, CORAF and the Southern African Development Community's Food, Agriculture and Natural Resources Directorate – in their respective area of coverage based on the subsidiarity principle and decision-making set by FARA and the regional organizations.</p> <p>Capacity strengthening was delivered through a process approach at national level, encouraged by mentoring and feedback which allowed the enhancement of the organizational, institutional and individual capacities of four national ARIs (in Ghana, The Gambia, Mali and the Republic of Congo). Key outputs:</p> <p>Short term capacity strengthening:</p> <p>1. Stakeholders' capacities strengthened:</p> <p>20 leaders including one woman strengthened in agricultural research management;</p> <p>13 men strengthened in M&E, and learning;</p> <p>64 actors including nine women trained in advocacy & negotiation techniques;</p> <p>65 actors including 10 women trained in marketing & public relations;</p> <p>20 actors including one woman trained in strategic planning and agricultural research programming;</p> <p>21 actors including seven women strengthened in financial resources;</p> <p>23 actors including 13 women strengthened in gender mainstreaming in agricultural programs;</p> <p>3. Vocational training for scientists, managers and technicians:</p> <p>119 scientists (13% women) were trained in scientific writing, and writing of research proposals and papers;</p> <p>20 technicians (two women) trained in maintenance of lab tools and equipment and in integrated pest management</p> <p>Long-term capacity strengthening:</p> <p>27 (four women) MSc students supported and completed their studies</p>		
	Strengthening Capacity of Agricultural Research and Development in Africa (SCARDA) project			
	DONATA supported students	26 MSc students (five women) trained and two PhD students (one women) trained		

Strategy for delivery	Models/ tools/best practices	Brief description	Key successes	Lessons learned
	WAAPP	661 MSc students (172 women) trained and 364 (104 women) PhD students trained		
	MDTF	27 543 (comprising 15,543 men and 11,915 women) stakeholders in various categories benefitted from short-term training	Opportunity to work with SMEs such as processors	
	DONATA	<p>Use the IAR4D approach puts farmers' groups and other users of agricultural technologies at the center of the innovation process.</p> <p>Scale-out and -up of improved agricultural technologies and good practices for increased production and productivity</p> <p>105 innovation platforms established in 14 countries in WCA</p> <p>Based on encouraging results of DONATA, CORAF has institutionalized the IAR4D approach and innovation platform tools in all its programs, projects and initiatives (WAAPP, WASP, MDTF, AfricaInteract)</p> <p>One book published on maize and cassava innovation platforms in WCA</p> <p>A practical guide developed on innovation platform creation and facilitation</p>		
Knowledge management				
	WAAPP using innovation platform tools to generate and disseminate T&Is	350 innovation platforms in various commodity value chains		
	MDTF	112 innovation platforms in various commodity value chains		

Strategy for delivery	Models/ tools/best practices	Brief description	Key successes	Lessons learned
	CoS-SIS program in West Africa	Innovation systems approaches have been implemented during the last 10 years through the CoS-SIS program established and implemented with multi-stakeholder innovation platforms, and combining actors from local, district and national levels (http://www.cos-sis.org/). CoS-SIS was a program of comparative action research aimed at gaining a better understanding of enabling conditions for smallholders to innovate and improve their farming systems. It featured scoping and diagnostic studies, system analyses and participatory field and institutional experiments.		
	Converging to innovate towards effective innovation systems for IAR4D in WCA	A four program of institutional change was designed by CORAF and its partners (CoS-SIS; the Wageningen UR/Royal Tropical Institute/ International Centre for Development Oriented Research in Agriculture alliance; the Commonwealth Scientific and Industrial Research Organisation. DFAT; etc.). It aims at enhancing research impact on smallholder farmers and farmer organizations. More specifically the programme seeks to build capacity in NARS and CORAF's Executive Secretariat on innovation platforms and innovation systems		
Youth employment	Universities, Businesses and Research in Agricultural Innovation (UniBRAIN) initiative	The UniBRAIN initiative was a pan- African initiative coordinated by FARA and supported by DANIDA. The objective of the UniBRAIN initiative was to enable universities, and business and agricultural research institutions to commercialize agricultural technologies and produce graduates with entrepreneurial and business skills through agribusiness incubator partnerships.		
Environmental and social safeguards	CORAF EMF	<p>An EMF developed in 2008 guides CORAF and its partners in the design and implementation of all program activities.</p> <p>The social and screening of all WAAPP and MDTF projects.</p> <p>Ensuring compliance with World Bank social and environmental safeguards (development of environmental instruments for WAAPP countries and Central Africa).</p> <p>Ensuring compliance with USAID Reg. 2016 (Development of PERSUAP and an environmental monitoring and mitigation plan for WASP)</p>		

Annex 1B. WAAPP's key achievements under Operational Plan (2007-2013) and Operational Plan (2014-2018)

Strategy for delivery	Models/tools/best practices	Brief description
Scaling up T&Is	CORAF has supported WAAPP countries in setting up more than 350 innovation platforms	CORAF has trained WAAPP countries on the concept of IAR4D using innovation platform and value chain approaches CORAF has contracted a consortium of institutions to coach and mentor countries in setting up innovation platforms
	CORAF has supported WAAPP countries in using e-agriculture	CORAF identified a practice in Ghana of e-extension and e-vouchers using a call center where farmers can access and share relevant information and receive information from their mobile phone. E-WAAPP countries were sensitized and Côte d'Ivoire and Nigeria, have started deploying e-agriculture while Mali, Niger and Senegal are using e-vouchers to track agri-input distribution
Capacity strengthening of NARS	CORAF has facilitated the setting up of nine NCoS to be strengthened in terms of infrastructure, equipment and research and development personnel	CORAF has identified sub-region priorities commodities and decided to give responsibility to individual countries to work on a specific commodity for the sub-region. Countries have invested in research infrastructure, equipment, technology generation and trained 2,021 young scientists. More than 200 new technologies have been released
Knowledge management	CORAF has set up T&I websites	The idea was to provide a platform to NCoS to upload their released T&Is and for users to access these technologies and adopt them
Gender mainstreaming	CORAF has developed a gender mainstreaming strategy to guide WAAPP countries	WAAPP has a target of 40% of women accessing agricultural technologies. CORAF's gender strategy was used by all WAAPP countries to reach this target
Environmental and social safeguards	CORAF has the responsibility to mainstream environmental safeguard and social development in WAAPP	CORAF has a contract with resource personnel to develop or update WAAPP countries' environmental safeguard frameworks, resettlement policies and pest and pesticide management action plans

Annex 1C. WASP's key achievements under Operational Plan (2007-2013) and Operational Plan (2014-2018)

Strategy for delivery	Models/tools/best practices	Brief description	Success factors
Scaling up T&Is	Regional seed system development model (example of WASP)	It is a model to develop seed production systems, develop seed businesses and the private sector, and set up a seed alliance and a prosperous regional policy environment	<p>Operationalization of seed regulation implementation mechanisms through the setup of a seed policy task force, development of tools to facilitate the implementation of regulations at national levels, and organization of support missions to countries</p> <p>Operationalization of seed private sector development mechanism through the promotion of a seed value chain, the development of seed business models, and elaboration of business plans and development of network</p> <p>Operationalization of seed industry alliance mechanisms through private and public partnerships, and creation of synergies with all stakeholders in the seed system</p>
	Forecasting tool	It is a tool used to plan seed production at national and regional levels, involving all actors in the system	<p>Existence of national or regional functional platform including end-users, research, producers, traders, banks, etc.</p> <p>National competencies available to adapt the tools</p> <p>Existence of national committees to monitor the responsibilities of the actors</p>
	The seed's quality control decentralize model	It is a model use by farmer organizations and the seed industry to implement quality control by using private agents accredited by the national quality control system	<p>Existence of private and competent persons accredited by the national seed control system</p> <p>Existence of farmer organizations and the seed industry to mutualize their resources to pay the technicians</p> <p>Existence of MoU between farmer organizations and the seed industry to be controlled by the national seed control system</p>
	Modèle de Coordination Régionale de la Recherche et du développement agricoles (ex du WAAPP) Agricultural research system development and coordination model	It is a model to generate, adopt and diffuse T&Is through a functional platform, the creation of NCoS, and the agricultural research finance system	<p>Existence of a functional platform</p> <p>Operationalization of NCoS development mechanisms through specialization and organization of NARS in clusters</p> <p>Operationalization of a knowledge and best practices sharing system</p>

Stratégie d'exécution	Modèles/Outils/ Bonnes pratiques	Brève description	Facteurs de succès
Knowledge management	WASIX.NET (communication tool)	It is a platform used as a communication hub to share information among seed system stakeholders. It gives information on seed production (quantities and	<p>Existence of a national focal communication person</p> <p>Existence of a national seed control system for seed, which is published on the platform</p>
	Alliance for Seed Industry in West Africa)	It is a seed coordination system between private and public actors, led by the private sector	<p>Definition des points de convergence entre le public et le privé</p> <p>Identification of convergence points (shared values)</p> <p>Existence of the principles and rulers</p>



Leader de l'innovation agricole en Afrique de l'Ouest et du Centre
Leading Agricultural Innovation in West and Central Africa.

7 Avenue Bourguiba

B.P. 48, cp 18523, Dakar, Senegal

Tel: +221-338699618

Email: secoraf@coraf.org

Website: www.coraf.org

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Concept & Editing

David Akana

Graphic Design & Layout

Jimmy Glorial MANDABRANDJA



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