

Catalyzing

INNOVATIONS

Our Strategic Plan

2018 - 2027



**Leading Agricultural Innovation in West
and Central Africa**

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Our Strategic Plan **2018 - 2027**



About CORAF

CORAF is an international non-profit association of national agricultural research systems (NARS) of 23 countries, covering over forty percent of Africa's population, thus making it the largest sub-regional research organization on the African continent. It was created in 1987 and assigned the responsibility to coordinate and facilitate groundbreaking and cutting-edge research outputs needed to unlock the agricultural potential of West and Central Africa.

For more information on CORAF, visit www.coraf.org.

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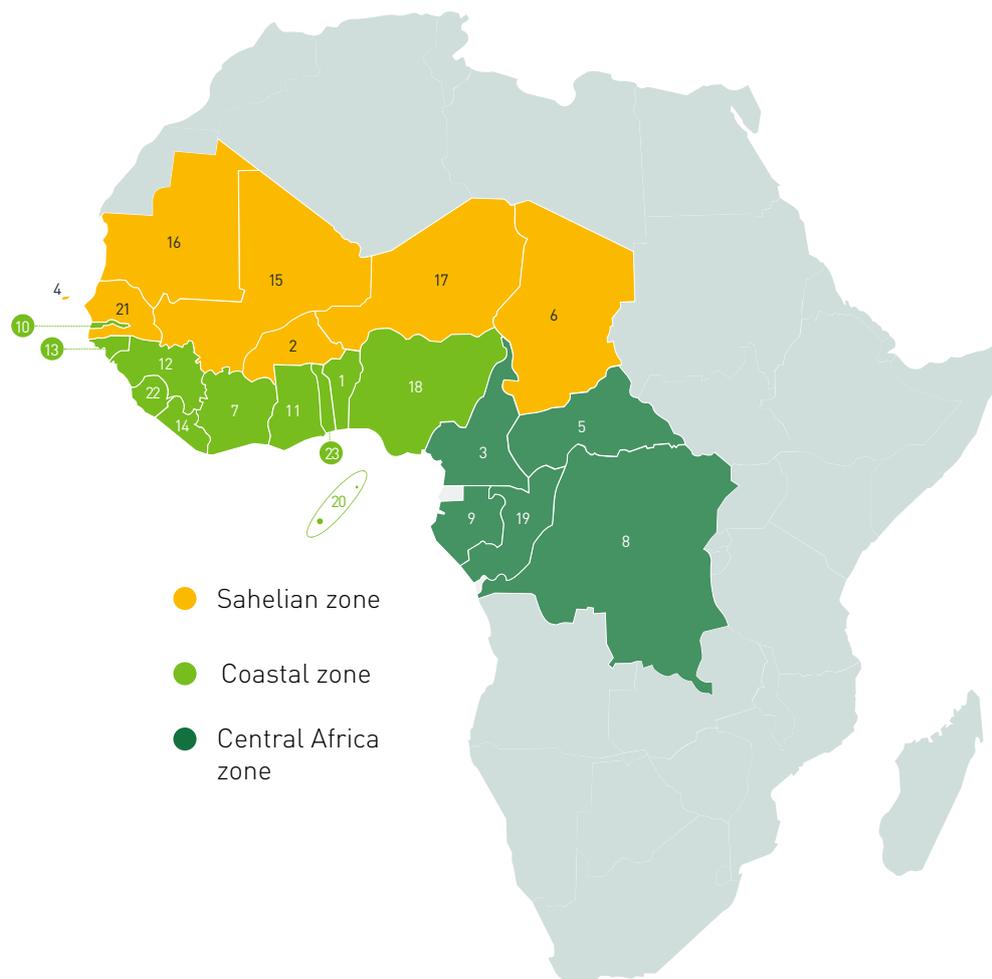
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OUR VISION

We see a future where people and communities in West and Central Africa achieve food and nutrition security and are prosperous.

OUR AGRO-ECOLOGICAL ZONES



1 - Benin ◦ 2 - Burkina Faso ◦ 3 - Cameroon ◦ 4 - Cape Verde ◦ 5 - Central African Republic ◦ 6 - Chad ◦ 7 - Côte d'Ivoire
◦ 8 - Democratic Republic of Congo ◦ 9 - Gabon ◦ 10 - The Gambia ◦ 11 - Ghana ◦ 12 - Guinea ◦ 13 - Guinea Bissau ◦ 14
-Liberia ◦ 15 - Mali ◦ 16 - Mauritania ◦ 17 - Niger ◦ 18 - Nigeria ◦ 19 - Republic of Congo ◦ 20 -Sao Tomé & Príncipe
◦ 21 - Senegal ◦ 22 - Sierra Leone ◦ 23 - Togo.

CORAF intervenes in 23 West and Central African countries covering a total land area of 12.3 million km², with a total population of 433.2 million inhabitants out of which 74 % are engaged in agriculture. The diversity of agricultural commodities in these countries provides opportunities for improvement in national food and nutritional security, domestic incomes and local trade expansion.

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Acronyms

AARP

African Agricultural Research Programme

AfDB

African Development Bank

AGRA

Alliance for a Green Revolution in Africa

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

CEMAC

Communauté Économique et Monétaire de
l'Afrique Centrale

CEEAC

Economic Community of Central African States

CORAF

West and Central African Council for
Agricultural Research and Development

CoS-SIS

Convergence of Sciences: Strengthening
Innovation Systems

ECCAS

Economic Community of Central African States

ECOWAP

Economic Community of West African States
Agricultural Policy

ECOWAS

Economic Community of West African States

FAAP

Framework for African Agricultural
Productivity

FARA

Forum for Agricultural Research in Africa

IARC

International Agricultural Research Centers

IAR4D

Integrated Agricultural Research for
Development

ICT

Information Communication Technologies

IEE

Initial Environment Evaluation

MDTF

Multi Donor Trust Fund

MELIA

Monitoring, Evaluation, Learning and Impact
Assessment

NARS

National Agricultural Research System

NCoS

National Centre of Specialization

NEPAD

New Partnership for Africa's Development

NGO

Non-Governmental Organization

PID

Priority Intervention Domain

REC

Regional Economic Community

RCOE

Regional Centre of Excellence

S3A

Science Agenda for Agriculture in Africa

SDG

Sustainable Development Goals

SME

Small- and medium-sized enterprises

T&I

Technologies and Innovations

TAAT

Technologies for African Agricultural
Transformation

ToC

Theory of Change

UEMOA

West African Economic and Monetary Union

USAID

United States Agency for International
Development

WAAPP

West Africa Agricultural Productivity Program

WASP

West Africa Seed Program

WCA

West and Central Africa

Executive summary

CORAF sees a future where people and communities in WCA achieve food and nutrition security and are prosperous. Its primary objective is therefore to improve livelihoods in West and Central Africa through sustainable increases in agricultural production and productivity, as well as promoting competitiveness, and markets.

To achieve its Vision and Mission, the CORAF Strategic Plan (2018-2027) was therefore developed to strengthen agricultural research, extension and advisory services, stakeholder capacities, and to establish and coordinate communities of practice in agricultural research and development in the region.

The Strategic Plan is a 10-year framework for the development and promotion of successful pathways for scaling up and scaling out agricultural technologies and innovations to achieve widespread impact. It has also been aligned with regional and continental policy frameworks that aim to accelerate agricultural growth and rural development, and improve food and nutrition security and livelihoods, including for women and young people.

Ultimately, implementation of the Strategic Plan will enable smallholders, peri-urban farmers and producer organizations to become market-oriented and to become competitive entrepreneurs in sophisticated markets, while ensuring food and nutritional security for the population of WCA.

More specifically, the Strategic Plan aims to:

- i. Increase the use of appropriate technologies and innovations in the region.
- ii. Increase the uptake of strategic decision-making for policy, institutions and markets.
- iii. Enhance institutional and human capacity in agricultural research for development.
- iv. Meet the demand for agricultural knowledge from target clients.

Achieving sustainable agricultural growth

To deliver on the four results, the Strategic Plan addresses institutional weaknesses, constraints, opportunities and challenges of adopting integrated

Mission Statement:

To sustainably improve the productivity, competitiveness, and markets of the agricultural system in West and Central Africa.

agricultural research for development in the sub-region, through three Priority Intervention Domains that will be supported by three Activity Pillars:

Priority Intervention Domains

1. Agriculture, food and nutrition security addresses:

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

2. Policy, institutions, markets and trade addresses:

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

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 WCA, by:

- i. 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
- ii. supporting youth employment.

Activity Pillars

1. Communities of practice on scaling technologies and innovations for sustainable impact promotes the use of proven technology and innovations, including their generation and scaling up, and the creation of an enabling environment through:

- i. increased use of demand-driven market-based technology and innovations;
- ii. enhanced policies, institutions, markets and trade; and
- iii. support for the design of programs that demonstrate the impact of science, technology and innovations on meeting increasing demands for knowledge on development outcomes.

CORAF Theory of Change

The uptake of quality science, technology, and innovations, access to markets, free trade and common regulatory frameworks are the root solutions to agriculture transformation in West and Central Africa. They contribute to food and nutrition security.

2. Integrated regional capacity strengthening in agri-food research and innovation

focuses attention on capacity strengthening, by:

- i. supporting national agricultural research systems in establishing functional systems to advance science, technology and innovations for agricultural transformation;
- ii. strengthening a new model for innovation delivery; and
- iii. strengthening the institutional capacity of the CORAF Executive Secretariat.

3. Knowledge management and foresight

includes:

- i. setting up an improved CORAF knowledge management system; and
- ii. harnessing intelligence about possible futures to promote informed decision-making for agricultural research and development.

Cross-cutting issues

The Strategic 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;
- the 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 the institutionalization of integrated agricultural research for development.

OUR STRENGTHS

The outputs of research activities coordinated by CORAF have significantly improved agricultural production and productivity, increased incomes and enriched the livelihoods of millions of WCA farmers and entrepreneurs.

Uniquely equipped to tackle these challenges, CORAF:

- has significant experience in the coordination of the generation, dissemination and scaling of agricultural technologies and innovations, and establishing and supporting mechanisms to reinforce and improve research collaboration.
- serves as a regional hub for agricultural research, knowledge management and innovation system thinking in West and Central Africa. CORAF's innovation platforms are critical knowledge hubs for building trust and crucial actors. Access to technology, changes in practices, and value addition occur on these platforms.
- operates as a convening agency to bring together national, regional and global stakeholders to dialogue and collaborate in the transformation of agri-food systems in the region.
- has broad experiences in coordinating regional programs such as West Africa Agriculture Productivity Program (WAAPP), the West Africa Seed Program (WASP), and the Multi-donor Trust Fund (MDTF).
- has capacity to mobilize resources and competencies to respond to crises such as during the 2014 Ebola crisis.
- Coordination of national policies, growing the private sector, and facilitating trade and market access.
- Support to human and institutional capacity and strengthening of national agricultural research systems.
- Strong influencing capacities, advocacy, and knowledge management.

Over-arching aims and objectives

The Strategic Plan will enable CORAF to formulate a more coherent model for coordination and capacity strengthening throughout the sub-region. The Plan will strengthen the capacity of National Centers of Specialization and transform these centers into Regional Centers of Excellence. These new centers will then have the capacity to provide on-the-job training opportunities for scientists and other agriculture personnel, and to share research resources and results across national borders. The Strategic Plan also provides opportunities for national and regional stakeholders to work in clusters or innovation platforms to address common agricultural development problems. The Plan introduces the concept of 'foresight' (modelling future scenarios in order to draw conclusions about actions to be taken in the present) to build consensus and inform decision-making on research priorities. These include climate change, foreign invasive pests, post-pandemic or post-conflict interventions, illegal youth migration, agricultural modernization, policy changes, pricing patterns and market dynamics, as well as increased investments in agricultural science research.

Efficient governance and management by CORAF is critical to ensure successful implementation of the Strategic Plan. To achieve these aims, CORAF will improve efficiencies, effectiveness, and professionalism in agricultural research and innovation, reinforce regional coordination of agricultural research and attain financial stability and sustainability by 2027. A stronger governance structure will be established through the development of a communication and marketing strategy; strengthening of monitoring, evaluation, learning and impact assessments and a knowledge management system; improvement of administrative and financial management systems; and by assembling an appropriate mix of expertise with representatives on the Governing Board.

Achieving impact for the long-term

However, while we have aligned our plans to global, regional and national agriculture policies, tightened our focus and sharpened our tools, we acknowledge no one single institution can tackle such complex challenges alone. CORAF will do what it does best to facilitate relationships and linkages between private and public organizations at the local, national, sub-regional and global levels to bring about large-scale change. We will connect national bodies to each other, and to regional and global fora, fostering partnerships and networking through face-to-face events and online communities. The transformation of agriculture in WCA is a collective effort, and we can only achieve this working in collaboration and partnerships.

“ By 2030, we are hopeful that the poorest living in the remotest corners of WCA will be prosperous, eat nutritiously, and feel secured regarding their basic needs. ”

CORAF's main focus for the next 10 Years

A multitude of challenges and opportunities face agricultural research and development in WCA. CORAF recognizes that it cannot address all of these challenges within the framework of the Strategic Plan (2018-2027). Therefore, CORAF will mobilize its constituents, as well as technical and development partners to:

- Strengthen the institutional and human capacity of the 23 NARS to provide a conducive environment for effective engagement in IAR4D;
- Provide technical and institutional support (frameworks, strategic directions, orientations and tools –innovation platforms, including models and modules) to strengthen the systems of NARS to respond effectively to emerging trends and development challenges;
- Coordinate and network NARS with CGIAR Research Programs, AGRA and FARA; including regional research centers in the agri-food research system. The WASP consortium model can also serve as a source of inspiration;
- Provide support to RECs and member countries in the conception, design and implementation of regional policies and strategies and regional programs for the generation, dissemination and large-scale adoption of technologies;
- Support research into policy, socio-economics and markets to assist with developing and implementing policies and strategies to increase agricultural growth and development;
- Implement priority regional programs (e.g. National Centers of Specialization [NCoS] and Regional Centers of Excellence [RCoE]), regional competitive grants schemes and cooperation with international Centers (CGIAR centers, AGRA, etc.) to implement common programs with economies of scales that cut across national boundaries;
- Promote youth employment in agriculture through agribusiness sector development and partnering with on-going initiatives like the AfDB TAAT, the AARP and AGRA initiatives in the region;
- Provide adequate solutions to emerging issues such as climate change, invasive pests, building resilience and adaptation, especially for smallholder agriculture (tools for coping with uncertainties arising from the effects of climate change, natural disasters and man-made catastrophes);
- Cultivate and nurture partnerships and promote innovation platforms for effective implementation;
- Create research-academia linkages for optimizing research outputs through coaching/mentoring programs for the young graduates to integrate and sustain them to progressively replace the ageing research scientists; and
- Strengthen knowledge management, foresighting and anticipation (enhance knowledge sharing and engagement to enable faster technology, innovation and policy development and anticipation in agricultural research for development).





Nigeria

Developed in Nigeria, the Fish Smoking kiln has considerably reduced smoking and drying time for those involved in the fish value chain in Nigeria and across West and Central Africa. Experts say the Fish Smoking kiln reduces post-harvest losses to zero and increase the farmer's income by about 70 percent.

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Introduction



1.1. Overview and role of CORAF

The West and Central Africa Council for Agricultural Research and Development (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 West and Central African (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. CORAF is the largest of four sub-regional organizations under the apex body, the Forum for Agricultural Research in Africa (FARA).

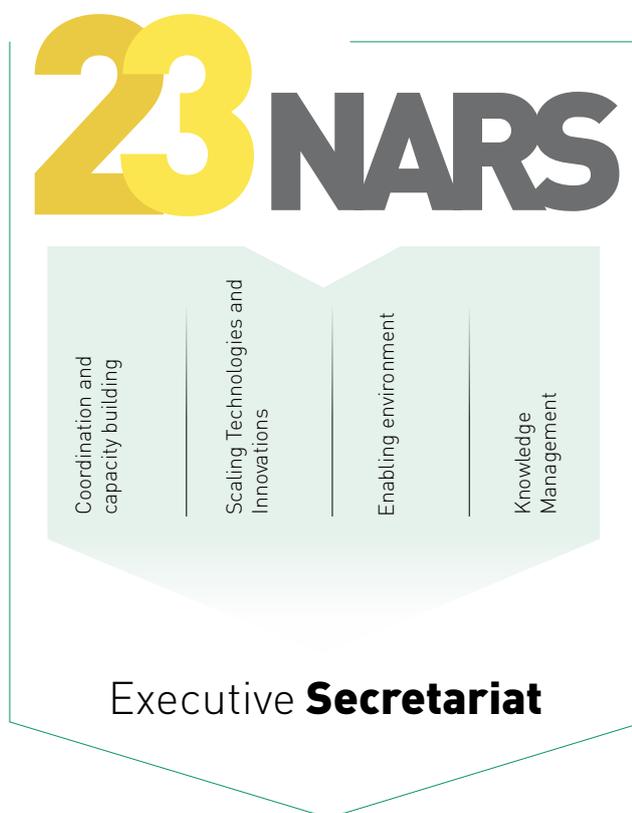
WCA sub-region covers 236 million ha of cultivated land (FAO, 2008) with a population of 414 million inhabitants, which is more than 40% of Africa's population. It is estimated that 65% of the WCA population depend on agriculture for their livelihoods. WCA countries are characterized by widespread food and nutritional insecurity, high rates of poverty (40%) (IFPRI, 2017), and youth unemployment is recorded to be over 60%. The primary objective of CORAF is to improve livelihoods in WCA through sustainable increases in agricultural production and productivity, promoting competitiveness and markets. This objective is achieved through addressing the critical issues of food and nutrition security, chronic poverty, and youth unemployment within the framework of the following core functions.

- *coordination and capacity strengthening;*
- *scaling technologies and innovations (T&Is);*
creating an enabling environment at regional level for technology flows and increased trade; and
- *knowledge management and learning.*

CORAF core functions mutually reinforce each other (Figure 1) to:

- *establish a regional community of practice – cooperation, dialogue, knowledge and information exchange amongst NARS and their partners;*
- *harmonize existing research programs by creating synergies and reducing duplication;*
- *advocate and mobilize resources for sub-regional agricultural research;*
- *define common sub-regional priority research themes and objectives;*

- *serve as an advisory council for research conducted by research and development organizations in WCA;*
- *strengthen capacities and ensure the implementation of sub-regional research that adds value to national programs; and*
- *create new regional programs and operational research units in WCA.*



CORAF

Figure 1 Role of CORAF in the agricultural research system for development in WCA

1.2. CORAF's unique values

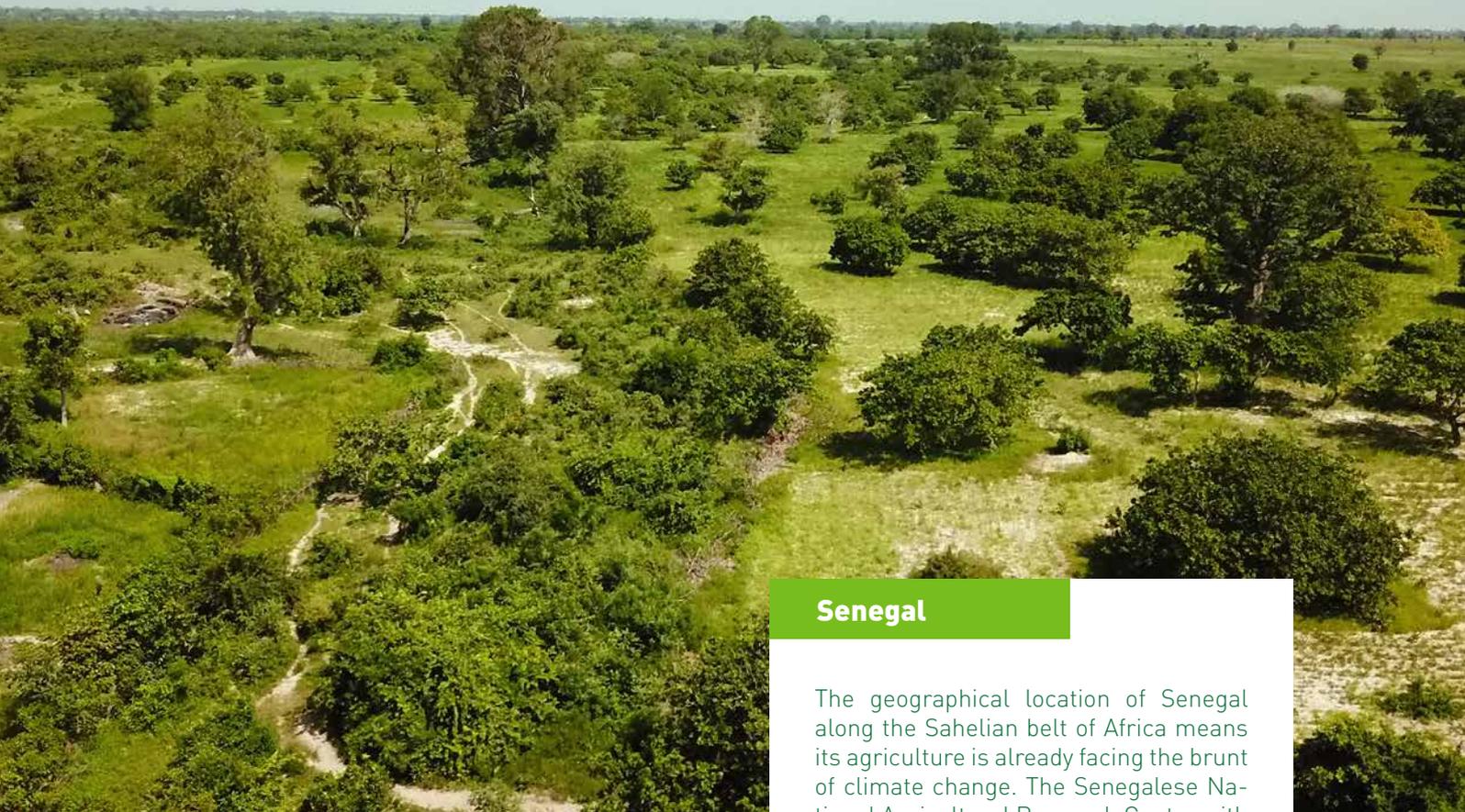
CORAF's unique values include:

- *Providing sub-regional innovative solutions to the challenges of agricultural research for development in WCA.*
- *Facilitating regional cooperation and economic integration in WCA.*
- *Operating as a convening agency to bring together national, regional and global stakeholders to dialogue and collaborate in the transformation of the agri-food systems in WCA.*
- *Establishing and supporting mechanisms to reinforce and improve research collaboration in WCA.*
- *Scaling innovations for food and nutrition security in WCA; and*
- *Serving as a regional hub for agricultural research, knowledge management and innovation system thinking in WCA.*

Research initiatives coordinated by CORAF include mega-programs such as the West Africa Agriculture Productivity Program (WAAPP) and the West Africa Seed Program (WASP), as well as projects funded through the Multi Donor Trust Fund (MDTF), Australia's Department of Foreign Affairs and Trade (formerly AusAID), the United States Agency for International Development (USAID), the UK's Department for International Development, the African Development Bank (AfDB), the West African Economic and Monetary Union (UEMOA), the European Union and the Economic Community of West African States (ECOWAS). These agricultural research and development initiatives have been recognized and appreciated by national, regional and international communities. Thus, through programs such as WAAPP and WASP, CORAF, in collaboration with several stakeholders, and Regional Economic Communities (RECs), developed unique solutions which respond to the complex issues associated with the agricultural sector in WCA.

CORAF's actions ensured coherence and synergies among funding agencies such as USAID and the World Bank, and resulted in a successful model for achieving impact. USAID recognizes WASP as one of its flagship programs under the global Feed the Future Initiative, and in 2016, the Rockefeller Foundation ranked WASP among the eight

best agricultural innovations in Africa. That same year, the World Bank ranked WAAPP as its 'second best' project on innovation, creation, dissemination and adoption of improved agricultural technologies. CORAF will leverage on these rich experiences in the design and implementation of its Strategic Plan (2018-2027) and Operational Plan (2018-2022). ■



Senegal

The geographical location of Senegal along the Sahelian belt of Africa means its agriculture is already facing the brunt of climate change. The Senegalese National Agricultural Research Center with the support of the West Africa Agriculture Productivity Program has generated resilient groundnut varieties that can adapt to the current climate.

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Agricultural development context

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



2.1. The agricultural landscape

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

CORAF mandate regions consists of four major agro-ecologies:

- *Sahelian region (<90 growing days);*
- *Sudan savannah (165 growing days);*
- *Guinea savannah (210 growing days);*
- *Forest zone (270 growing days).*

On the basis of these agro-ecologies and regional economic blocks, CORAF has grouped its member countries into three zones (Figure 2):

i. Sahelian zone: comprising countries with less than 90 growing days including Burkina Faso, Cape Verde, Chad, Guinea Bissau, Mali, Mauritania, Niger, Senegal and The Gambia;

ii. West Africa Coastal zone: comprising countries on the coast from Guinea to Nigeria. Most of these countries have Sudan savannah, Guinea savannah and Forest agro-ecologies with growing days ranging from 90-270; and

iii. Central Africa zone: with countries containing mostly forest agro-ecologies and growing days of up to 270.

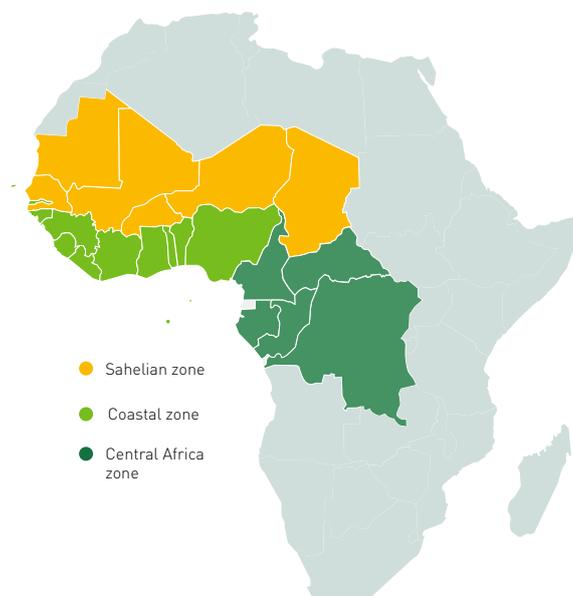


Figure 2. CORAF agro-ecological zones

The major agricultural commodities in the Coastal and Central Africa zones are roots and tubers, plantain/banana, oil palm, cocoa, coffee, rubber, citrus, mango, cereals, legumes, vegetables, fish, poultry and livestock (to a limited extent). In the Sahel zone, the commodities are mango, cereals, legumes, vegetables, poultry and livestock. The contributions of major commodities to the projected WCA total agricultural growth are as follows :



(CORAF, 2007). These agricultural commodities provide opportunities for improving national food and nutritional security, increasing farm incomes, creating jobs and expanding domestic and regional trade in WCA.



2.2 Livelihoods and demography

Reducing poverty and improving national food and nutrition security remain major challenges in many WCA countries where nearly 40% of children under five are affected by stunting, 12% suffer from acute malnutrition and 75% are affected by anemia. These figures are well above World Health Organization accepted thresholds (IFPRI, ACTED, 2015). Nutritional problems are more acute in the Sahel due to low rainfall, poor soil fertility rates, limited dietary diversification, poor health, and a range of other debilitating factors. Rapid population growth and urbanization also have considerable impacts on national food and nutrition security in WCA.

The population of WCA is currently estimated at 414 million inhabitants (UNFPA, 2015), which represents more than 40% of Africa's entire population. At an average annual growth rate of 2.7%, WCA's population is expected to double by 2035 while annual agricultural productivity growth is estimated to be less than 2% during the same period. This population growth rate will continue to create very high demands for basic foods, especially for a population in which about 60% live on less than US\$2 (FCFA 1,120) per day. Furthermore, women who constitute over 60% of the agricultural workforce in WCA are constrained by limited access to land, financial resources, T&I. These constraints have presented major challenges for women in providing basic needs including food, health and nutrition, education, and jobs.

In most WCA countries, the youth population is exceptionally high, with about 33% of young people aged between 15-34, yet youths make up 60% of the unemployed population. High youth unemployment has resulted in youths engaging in social vices and risky illegal migration to Europe in search of brighter economic opportunities. Experiences in Asia and Brazil show that high youth populations can be an asset for socio-economic development, therefore it is vital that governments in WCA create innovative and attractive opportunities for the engagement of youth in agriculture. However, the region is yet to experience a demographic dividend¹ (Economic Commission for Africa, 2013).

2.3 Emerging trends as drivers of change

Markets and bio-physical environments

The demand for adequate and nutritious foods, especially in growing WCA urban centers, is projected to increase by 60-80% by 2050, but agricultural yields are not keeping pace with these demands. As the economies of WCA countries become more integrated into the global market, international drivers of change, together with local and regional factors impact on low-income farm families. Rapid population growth, new and sophisticated consumers, rural-urban migration, changing dietary patterns and consumer preferences, food safety issues, as well as organic farming are creating more challenges for agricultural research and for resource-poor farm families.

A new type of agriculture led by private sector entrepreneurs along agricultural value chains, includes entrepreneurial smallholders producing high value and often specialized products. These smallholders are expected to be connected to domestic and regional traders, small- and medium-sized (agribusiness) enterprises (SMEs) and agro-processors. Strengthening capacities of SMEs helps in the design of research and development programs that take into account farm family agriculture, biological and ecological inputs, and processing and export of locally produced agri-food products such as cereals, fruits and vegetables, fish, aquaculture, livestock and forest products.

Competitiveness for food and agricultural products in the global market will lead to increased exposure of farmers to volatile world market prices, increasing demands for high quality produce and pressure for competitive prices. The devastating effects of foreign invasive pests and climate change also continue to increase, especially for low-income farm families that depend on rain-fed agriculture. Thus critical areas for improvement of farmers' circumstances include improving efficiencies and agricultural yields, reducing storage losses, implementing produce grades and standards, expanding agricultural mechanization and modernization, as well as agri-processing, and developing a vibrant agribusiness sector that will be more profitable to smallholder agriculture.

¹The demographic dividend represents an excellent opportunity for many developing countries to experience accelerated economic growth because of population changes. This, however, presents both opportunities and challenges. Africa is ideally positioned to develop an environment conducive to reaping the economic benefits of a demographic dividend, but Africa's economic and social development agenda will be fully realized only if youth are mobilized, incentivized, energized, and equipped for the agricultural transformation process.

2.4. Policies and strategies

CORAF's Vision and Mission remain valid and compelling, but CORAF needs to make strategic adjustments to align with new trends and the frameworks of the African Union (AU)-New Partnership for Africa's Development's (NEPAD's) Comprehensive Africa Agriculture Development Programme (CAADP) and Malabo Declarations, FARA's Science Agenda for Agriculture in Africa (S3A); REC (ECOWAS, UEMOA, Economic Community of Central African States [ECCAS] and Communauté Économique et Monétaire de l'Afrique Centrale [CEMAC]) agricultural policies; the United Nation's Sustainable Goals (SDGs); the AfDB Strategy for the transformation of agriculture in Africa (Technologies for African Agricultural Transformation [TAAT], African Agricultural Research Program [AARP]), USAID's Feed the Future Strategy, and the World Bank-led Science for Agriculture Consortium programs focusing on climate resilience and post-harvest management.

Regional, continental and global frameworks compel WCA countries to adopt policies and strategies to drive increased investments in agriculture, and to build functional partnerships to accelerate economic growth, reduce poverty, and improve food and nutrition security. These frameworks, policies and strategies guided the design of the CORAF Strategic Plan (2018-2027) and the CORAF Operational Plan (2018-2022) which will contribute to delivering on the agricultural policies and strategies of the RECs (Figure 3). ■

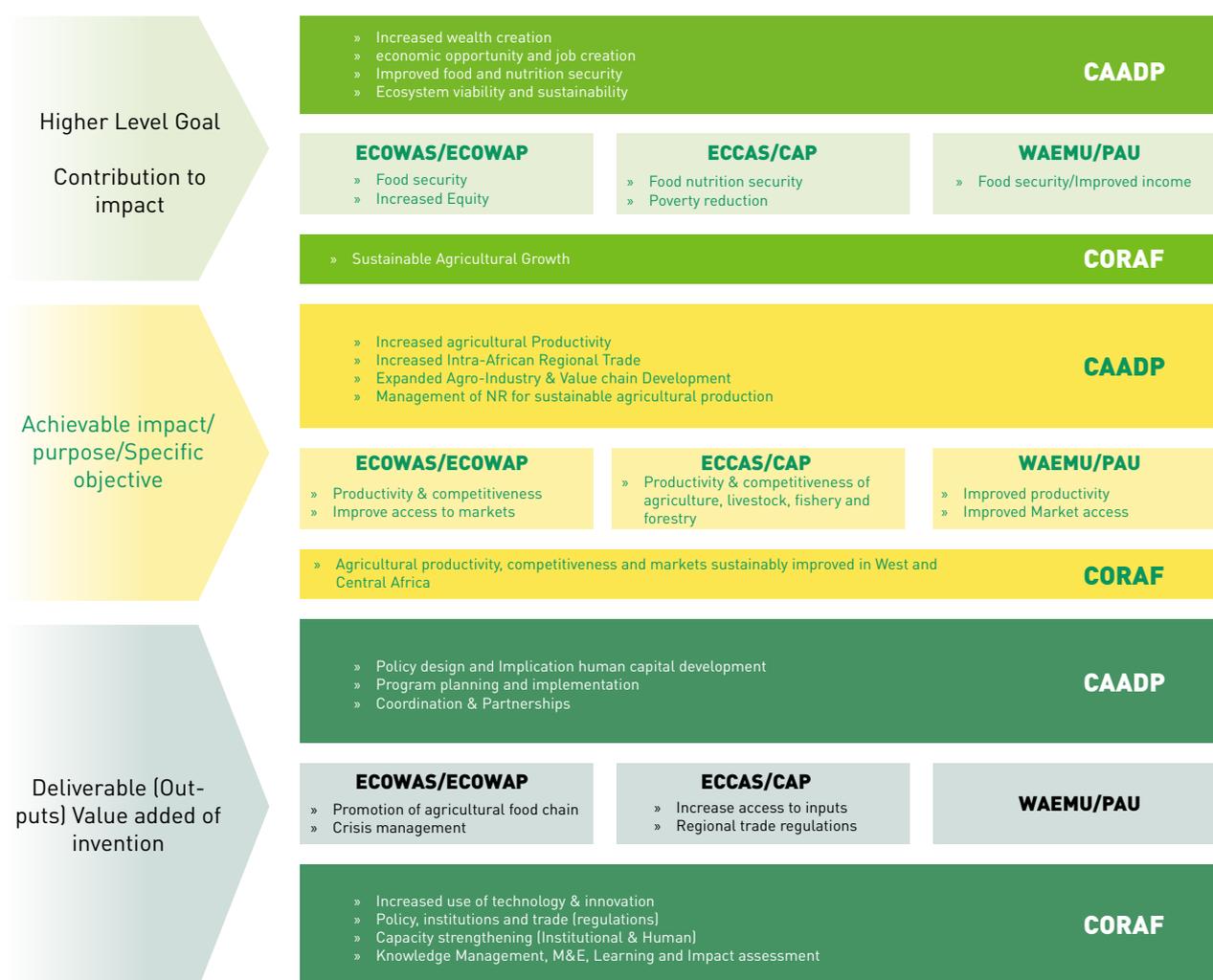


Figure 3: Alignment of the Strategic Plan (2018-2027) with CAADP and regional agricultural policies



Benin

Since the introduction of a new pineapple production technique using polyethylene film by CORAF's local partners, pineapple producers in Benin has doubled. Known for its taste and quality, demand for pineapple from Benin is growing leading to higher income for producers and improved trade balance for the country.

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Analysis of CORAF's internal and external environment

3.1. Key challenges and opportunities

Major internal and external challenges confront agricultural research and development, food and nutrition security, poverty reduction and youth employment in the CORAF mandate region. These challenges include:

I. Internal challenges:

- a. *low inclusion of Lusophone, Central African and Island countries in CORAF programs; and*
- b. *weak communication with policymakers and shortfalls in meeting commitments to member institutions.*

II. External challenges:

- a. *high youth unemployment;*
- b. *poorly developed private sector and inefficiently organized regional trade;*
- c. *inadequate agricultural mechanization;*
- d. *lack of intellectual property rights management;*
- e. *climate change;*
- f. *rapid degradation of the natural resource base;*
- g. *weak competitiveness in the agriculture and livestock sectors;*
- h. *weaknesses in agricultural policies; and*
- i. *efficient coordination of research for development in WCA.*

Opportunities for managing these challenges emerge from:

- i. *experiences gained from past and on-going implementation of WAAPP, WASP and projects funded by MDTF;*
- ii. *CORAF capacity to mobilize resources and competences, and capacity to respond to crises (such as Ebola);*
- iii. *support for human and institutional capacity strengthening of NARS;*
- iv. *strong lobbying and advocacy;*
- v. *coordination of national policy frameworks;*
- vi. *growing private sector and markets; and*
- vii. *new development programs, and funding opportunities.*

“ While we have aligned our plans to global, regional and national agriculture policies, tightened our focus and sharpened our tools, we acknowledge no one single institution can tackle such complex challenges alone. CORAF will do what it does best to facilitate relationships and linkages between private and public organizations at the local, national, sub-regional and global levels to bring about large-scale change.



3.2 Key strengths and weaknesses of CORAF

Analysis of the strengths and weaknesses of CORAF provides an appropriate framework for defining the rationale for the development of the CORAF Strategic Plan (2018-2027) and the CORAF Operational Plan (2018-2022).

CORAF strengths lie in its:

- i. efficient coordination of community of practices for agricultural research for development in WCA;*
- ii. contributions to implementation of the policies of RECs (ECOWAS, UEMOA, CEMAC, and the Economic Community of Central African States [CEEAC]) for reforms, thus CORAF is designated as the technical arm of the RECs;*
- iii. significant achievements in coordination of the generation and dissemination of agricultural T&Is; and*
- iv. diversity of the membership of the CORAF Governing Board.*

Weakness include:

- i. poor linkages with national ministries of agriculture and finance in WCA,*
- ii. weak capital base and high dependence on technical and international development and financial partners;*
- iii. absence of sustainable funding mechanisms;*
- iv. inadequate numbers of core staff and in-country focal persons;*
- v. inefficient partnership arrangement systems;*
- vi. low level of impact assessments;*
- vii. lack of systematic storage of institutional information and memory, and inadequate quality control and certification systems for technical results, and difficulties in applying FAAP's principle of subsidiarity².*

This CORAF Strategic Plan (2018-2027) seeks to address these institutional weaknesses. ■

²The principle of subsidiarity devolves operational authority and decision-making to the lowest levels of authority (local, national and regional) consistent with the operational competencies required, and the efficient use of funds and other resources.



Ghana

Among the nine national centers of specialization of the Economic Community of the West African States, the Roots and Tuber Regional Center of Excellence based in Ghana has distinguished itself in its contribution to innovative solutions to improve this value chain. New Cassava and sweet potatoes varieties from Ghana have been taken up by farmers across West Africa resulting to increase productivity.

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One of the most significant challenges facing the agriculture research community in the region is how to move well-tested technologies that hold tremendous promise to scale such as the transformation of peanut into groundnut oil and avoid post-harvest loss.

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Rationale for the CORAF Strategic Plan (2018-2027)

Emerging agricultural and socio-economic development trends, together with changes in international, continental and regional policies, notably the Millennium Development Goals, CAADP, and REC's agricultural development policies have major implications for agricultural development in WCA countries. After 10 years of implementation of the CORAF Strategic Plan (2007-2016) CORAF needed the next Strategic Plan to comply with new policies, including the SDGs, the Malabo Declaration, and ECOWAP+10. Implementation of the Strategic Plan (2007-2016) had also resulted in 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:

- *10-year Strategic Plan for the period 2018-2027;*
- *marketable Operational Plan for 2018-2022;*
- *Resource Mobilization Plan; and*
- *revised Organizational Structure of the CORAF Executive Secretariat.*

The CORAF Strategic Plan (2018-2027) aims to strengthen agricultural research, extension and advisory services and stakeholder capacities, as well as establish and coordinate communities of practice in agricultural research and development. The Strategic Plan (2018-2027) addresses emerging challenges in agricultural development in WCA. Such challenges are related to:

- i. high population growth;*
- ii. degradation of the natural resource base;*
- iii. declining soil fertility;*
- iv. loss of biodiversity;*
- v. devastation by foreign invasive pests;*

- vi. effects of a changing climate (drought, flood, extremes of temperature);*
- vii. low yield potentials of crops, livestock and fisheries;*
- viii. policy and regulatory bottlenecks;*
- ix. limited access to input and output markets and knowledge; and*
- x. limited use of modern approaches adapted to youth and women, including the use of information communication technologies (ICTs).*

The CORAF Strategic Plan (2018-2027) creates a road map through which CORAF and its multi-stakeholders can collectively contribute to the achievement of CORAF's Vision, Mission and Objectives to address the challenges of agricultural research and development in WCA. Efforts to reduce the existing 70% yield gap and 30% post-harvest losses are the major actions required to increase agricultural production and adequately respond to future global demand for food, feed and fuel.

The growing importance of regional integration requires efficient policy coordination throughout CORAF's 23 constituent NARS. Achieving the set of objectives for a productive and competitive agri-food research and innovation system requires actions well beyond the traditional mandates of NARS. The implementation of the CORAF Strategic Plan (2018-2027) therefore requires more effective coordination among the wide range of multi-stakeholders and different national and regional actors.



Côte d'Ivoire

Thanks to the composite bread technology discovered in Senegal many of the hurdles in the pastry market in Cote d'Ivoire are now being addressed. Pastry and bread are now produced with inexpensive, more nutritive and easy-to-produce cassava flour. Most of the bread in Cote d'Ivoire's commercial capital, Abidjan is produced from cassava flour.

© WAAPP Côte d'Ivoire

Planning process for the CORAF Strategic Plan (2018-2027)



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During the planning process (Figure 4), stakeholders explored new initiatives, identified possible areas for change and defined their roles and responsibilities. Stakeholders' expectations in IAR4D in WCA were articulated and incorporated in the formulation of the Strategic Plan (2018-2022).

“

The CORAF Strategic Plan (2018-2027) was developed through a planning process of extensive stakeholder consultations in 2017, evaluations of the outputs of the Strategic Plan (2007-2016) and the Operational Plan (2014-2018), as well as an institutional and organizational audit in June 2016.

The planning process was inclusive and consisted of a combination of internal Executive Secretariat retreats and a series of multi-stakeholder interactive consultations to build consensus and buy-in on key thematic issues and emerging trends affecting agricultural research for development. Consultations occurred with: 23 NARS; WAAPP stakeholders in West Africa; RECs; farmer-based organizations (the Network of Farmers Organizations and Agricultural Producers of West Africa the *Association pour la Promotion de l'Élevage au Sahel et en Savane*, and the *Plateforme Sous-Régionale des Organisations Paysannes d'Afrique Centrale*); non-governmental organizations (NGOs) (FARA, the Alliance for a Green Revolution in Africa [AGRA], CGIAR centers, the Comité Permanent Inter-Etats de Lutte Contre la Sécheresse au Sahel, PRASAC, AfDB); international development partners (USAID, the International Fund for Agricultural Development, CIRAD, World Bank);

and the West African Science Service Center on Climate Change and Adapted Land Use project. The Executive Secretariat retreats involved staff of the Executive Secretariat and consultants who facilitated the design of the Strategic Plan.

The outputs of these consultations included: (i) identification of opportunities and challenges (emerging trends: drivers of change, facing agriculture in the sub-region); and (ii) definition of the role of CORAF in addressing issues in a more dynamic and challenging global financial environment. Consultations used the Strengths, Weaknesses; Opportunities and Threats analysis to characterize the strengths and weaknesses of CORAF, to identify the emerging challenges of agricultural development and new pathways to agricultural transformation in WCA.

During the planning process (Figure 4), stakeholders explored new initiatives, identified possible areas for change and defined their roles and responsibilities. Stakeholders' expectations in IAR4D in WCA were articulated and incorporated in the formulation of the Strategic Plan (2018-2022).

The draft CORAF Strategic Plan (2018-2027) was submitted to the CORAF Governing Board for validation before it was presented to the Assembly General for approval and adoption. ■



Figure 4: CORAF Strategic Plan (2018-2022) planning process: a stepwise approach



Burkina Faso

In leading new and innovative technological solutions to boost agriculture productivity, a substantial investment was also made by countries to build the next generation of agriculture researchers. More than 1,000 young scientists across West 72 percent of men and 28 percent of women were trained. A three-year research and development project funded by the West Africa Economic and Monetary Union (WAEMU) also trained young researchers such as Rokiyatou of Burkina Faso pictured below.

© CORAF



2016 World Bank stats show that 60 percent of people in Africa lived in rural areas and relied on agriculture for their livelihood of which women made up at least half of the agricultural labor force. CORAF strategic plan includes gender-sensitive activities to promote economic growth and poverty reduction and enhance the well-being of men, women, and children.

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Focus of the CORAF Strategic Plan (2018-2027)

Based on an analysis of development trends in agricultural research for development in WCA, stakeholders concluded that the current Vision and Mission statements of CORAF were still valid and compelling but recommended slight modifications to CORAF's Vision which now reads: "Prosperity and food and nutrition security in WCA". This Vision is consistent with the spirit of CORAF member countries' National Agricultural Investment, Food and Nutrition Security Plans, the REC's agricultural policies, the S3A, CAADP and Malabo Declarations, the Declaration on Nutrition Security for Inclusive Economic Growth and Sustainable Development in Africa, and the SDGs.

To achieve this Vision, stakeholders defined three Priority Intervention Domains (PIDs), as the main thrust of the CORAF Strategic Plan (2018-2022).

The main focus of CORAF for the next 10 years is efficient coordination and capacity strengthening of NARS, creating an enabling environment for adoption of IAR4D, facilitating scaling out and scaling up of T&Is and knowledge management (Box 1). ■

CORAF's main focus for the next 10 years

A multitude of challenges and opportunities face agricultural research and development in WCA. CORAF recognizes that it cannot address all of these challenges within the framework of the Strategic Plan (2018-2027). Therefore, CORAF will mobilize its constituents, as well as technical and development partners to:

- Strengthen the institutional and human capacity of the 23 NARS to provide a conducive environment for effective engagement in IAR4D;
- Provide technical and institutional support (frameworks, strategic directions, orientations and tools –innovation platforms, including models and modules) to strengthen the systems of NARS to respond effectively to emerging trends and development challenges;
- Coordinate and network NARS with CGIAR Research Programs, AGRA and FARA; including regional research centers in the agri-food research system. The WASP consortium model can also serve as a source of inspiration;
- Provide support to RECs and member countries in the conception, design and implementation of regional policies and strategies and regional programs for the generation, dissemination and large-scale adoption of technologies;
- Support research into policy, socio-economics and markets to assist with developing and implementing policies and strategies to increase agricultural growth and development;
- Implement priority regional programs (e.g. National Centers of Specialization [NCoS] and Regional Centers of Excellence [RCoE]), regional competitive grants schemes and cooperation with international Centers (CGIAR centers, AGRA, etc.) to implement common programs with economies of scales that cut across national boundaries;
- Promote youth employment in agriculture through agribusiness sector development and partnering with on-going initiatives like the AfDB TAAT, the AARP and AGRA initiatives in the region;
- Provide adequate solutions to emerging issues such as climate change, invasive pests, building resilience and adaptation, especially for smallholder agriculture (tools for coping with uncertainties arising from the effects of climate change, natural disasters and man-made catastrophes);
- Cultivate and nurture partnerships and promote innovation platforms for effective implementation;
- Create research-academia linkages for optimizing research outputs through coaching/mentoring programs for the young graduates to integrate and sustain them to progressively replace the ageing research scientists; and
- Strengthen knowledge management, foresighting and anticipation (enhance knowledge sharing and engagement to enable faster technology, innovation and policy development and anticipation in agricultural research for development).

The transformation of agriculture in WCA cannot be achieved by CORAF alone. CORAF will facilitate comprehensive linkages between multiple organizations consisting of local, national, sub-regional, and regional private, public sectors and civil society organizations, to bring about large-scale changes. CORAF will connect national bodies to each other, and to regional and global fora, fostering partnerships and networking through face-to-face events and online communities. CORAF is recognized as the technical adviser to the RECs (ECOWAS, UEMOA, and CEEAC) for the conception, design and coordination of regional programs for the generation, dissemination and large-scale adoption of technologies and innovations, and will leverage this status to carry out its mission effectively to achieve the CORAF Vision for 2027.



Knowledge generation and dissemination are central to the work of CORAF and the new strategy. As part of efforts to learn and better serve maize-growing communities in West Africa, CORAF undertook an evaluation to measure the impact of the adoption of improved maize varieties in Benin, Burkina Faso, Côte d'Ivoire, and Mali. Among the many conclusions, the study shows that the adoption of new varieties could potentially increase profit by about 35 percent.

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CORAF Theory of Change

CORAF's paradigm shift in interventions in agricultural research and development leading to scaling and impact is the IAR4D concept. This is a shift from the conventional linear system of research-extension-farmer technology transfer system towards agricultural innovation system thinking.

The CORAF Theory of Change (ToC) (Figure 5) has been institutionalized through the establishment of multi-stakeholder innovation platforms, resulting in the co-generation, dissemination and effective adoption of technologies and innovations in agri-food systems in WCA. This ToC, shows the chain of inter-connections between the actions undertaken (processes) and the anticipated effects leading to impact. La voie de changement sur les fonctions de base du CORAF.

The ToC has three interactive change pathways:

- i. CORAF core functions change pathway;*
- ii. IAR4D change pathway through NARS; and*
- iii. Scaling results for impact and learning pathway.*

i. CORAF core functions change pathway:

This change pathway commences with four interactive core functions backstopped by the Executive Secretariat:

- i. coordination and capacity strengthening of NARS;*
- ii. knowledge management;*
- iii. creating enabling environments for technology flow and scaling technologies; and*
- iv. promoting innovations for impact.*

These functions mutually reinforce each other through interactions to generate and integrate knowledge, learning, analysis, perspectives and actions of stakeholders on a common theme (PID) using IAR4D and innovation platforms. The process results in the identification and setting of an agenda for agri-food research and innovation system under the intervention areas of NARS. The essence of the ToC is interactive flows, feeding CORAF core functions to intervention areas of NARS in a complex set of actions by multi-stakeholders operating in innovation platforms along commodity value chains. These actions lead to specific outcomes and impacts in the change pathway.

ii IAR4D change pathway through NARS:

NARS member countries of CORAF convene and coordinate innovative approaches to agricultural research for development through NCoS, that are currently being transformed into Regional Centers of Excellence (RCoE). In this change pathway, the emphasis is on upgrading and transforming NCoS to RCoE. This mechanism will establish regional research and development priorities, reducing duplication of research efforts, pooling resources and research expertise in the region to respond to agriculture and socio-economic development opportunities and challenges. This pathway ensures stakeholder participation and inclusiveness in setting the agenda for agricultural transformation in WCA. The underpinning framework is the IAR4D and innovation platform approach for modifying the pattern of work for agricultural research organizations and their partners to deliver sustainable impact at scale.

In adopting the IAR4D paradigm, NCoS and RCoE collaborate with clusters of national and regional organizations within the three CORAF PIDs:

- i. Agriculture, food, and nutrition security;*
- ii. Policy, institutions, markets and trade; and*
- iii. Gender, youth and social equity.*

NCoS and RCoE undertake joint planning, resource mobilization, cost sharing, and program implementation. Relevant stakeholders are engaged in the learning cycle using evidence-based systems with emphasis on data analysis, sharing of best practices, and lessons learnt in informed decision-making and up-scaling and out-scaling of success models (WASP and WAAPP) to achieve a common objective. The learning pathway reinforces interactions between NARS stakeholders, including national governments, local development partners, private sector businesses, knowledge institutions, farmer-based organizations, and farming communities, working together on the change pathway. Thus, through working together, they can transform ideas into policy, policy into action, action into results, and fine-tuning of T&Is to achieve sustainable impact at scale.

The NCoS will serve as convening centers to draw expertise and resources from CGIAR centers and foundations such as the Syngenta Foundation for Sustainable Agriculture, and the Bill and Melinda Gates Foundation, as well as international development partners including AGRA, USAID's Feed the Future innovation laboratories and bilateral programs, and the CoS-SIS program.

iii. Scaling results and learning change pathway:

This pathway facilitates stakeholders understanding and communication of the key messages that are central to success. The learning change pathway deals with complexities and mechanisms to manage organizational change. Scaling up and scaling out T&Is is critical to achieving the objectives of improved agricultural productivity, competitiveness, and markets through ensuring that technologies reach large numbers of end users, especially women, youth and vulnerable groups. Fostering a regional enabling environment to facilitate the flow of T&Is is achieved through promotion of dialogue, provision of information for capacity strengthening and influencing of regional policies and institutions that govern stakeholder behavior and facilitate information sharing and learning.

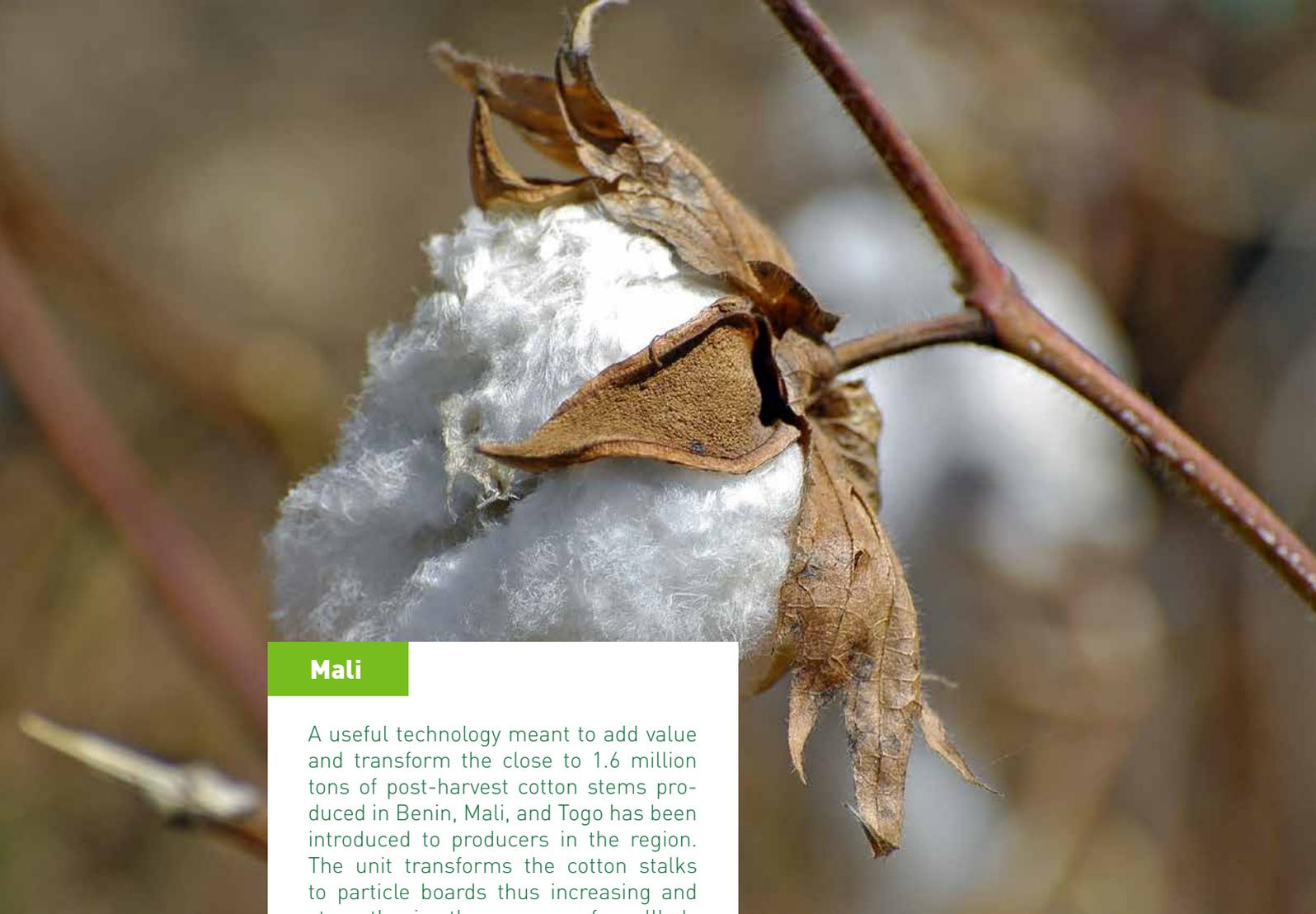
Monitoring, Evaluation, Learning and Impact Assessment (MELIA):

Learning through monitoring and evaluation (M&E), knowledge sharing and training reinforces this pathway and takes interventions to sustainable impact at scale. For this learning pathway, CORAF will use its knowledge and lessons learned to better integrate cross-cutting issues such as environmental safeguards, women and youth in agriculture.

Assumptions for success: Assumptions for success are that stakeholder commitment to the change process is high, a stable political and social environment prevails and natural disasters are minimal. ■



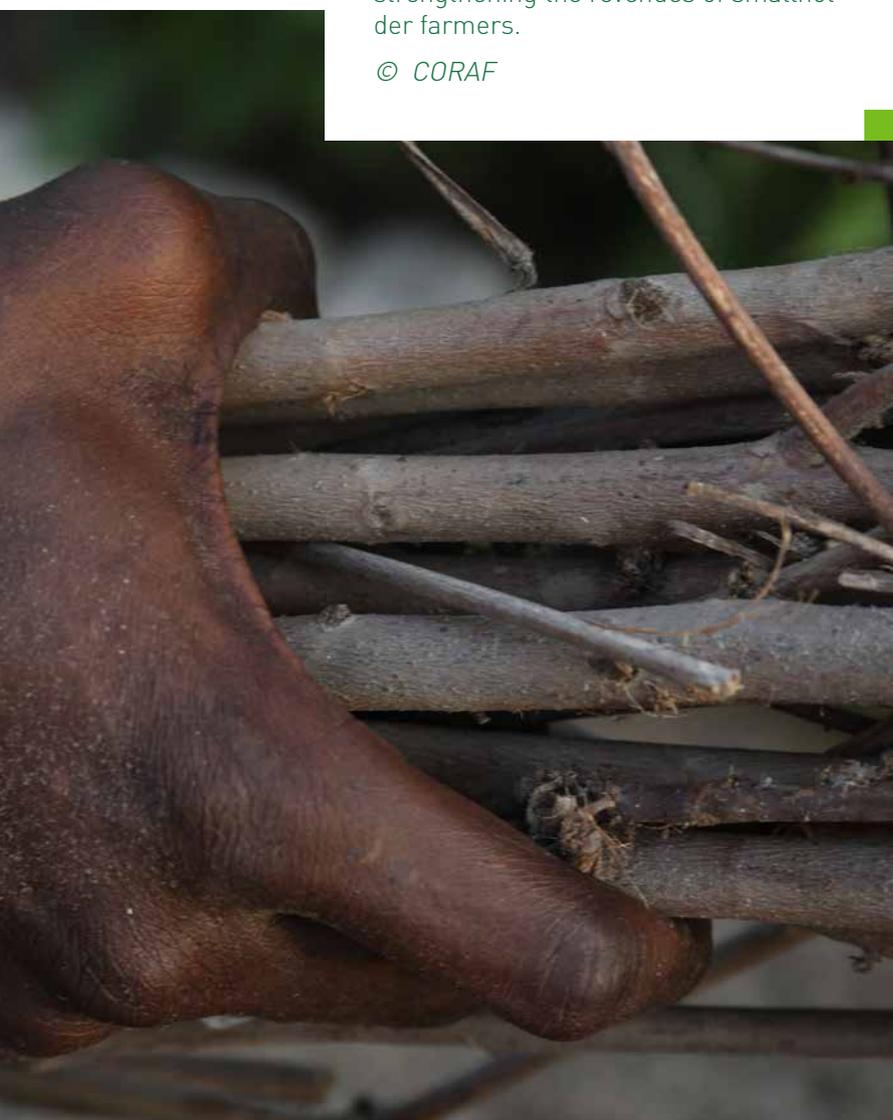
Figure 5. The CORAF ToC



Mali

A useful technology meant to add value and transform the close to 1.6 million tons of post-harvest cotton stems produced in Benin, Mali, and Togo has been introduced to producers in the region. The unit transforms the cotton stalks to particle boards thus increasing and strengthening the revenues of smallholder farmers.

© CORAF



Non-timber forest products are central to the operational plan of CORAF. These products do not only offer sustainable alternatives to forest conservation particularly for Central African countries and those located in the Guinean Forest of West Africa but can also be vital income-generating sources for forest-dependent communities.

© CIFOR



CORAF's Strategic Plan (2018-2027)

8.1. CORAF's Vision and Mission statements

Broad based and extensive multi-stakeholder consultations in 2017 concluded that the current Vision and Mission of CORAF remain valid and compelling as they were a decade ago. CORAF's Vision incorporates stakeholders' expectations and clearly defines where CORAF and its constituents should be by 2027. At the CORAF internal retreat in September 2017, consensus was reached to rephrase the CORAF Vision and Mission statements as follows:

Vision

We see a future where people and communities in West and Central Africa achieve food and nutrition security and are prosperous.



Mission

For the sustainable improvements to the productivity, competitiveness and markets of the agricultural system in WCA



8.2. Strategic statements

The CORAF Strategic Plan (2018-2027) links a series of logical steps and processes, presented in the Results Framework (Figure 6). This Results Framework was developed using the cause and effect linkages of the logical framework model and draws from the CAADP results framework (2015-2025)³, S3A, and RECs policies and results (Economic Community of West African States Agricultural Policy [ECOWAP], the Common Agricultural Policy of Central Africa [CAP] and UEMOA's Agricultural Policy [APU]).

The General and Specific Objectives of CORAF's Strategic Plan (2018-2027) are designed to contribute to the objectives of the AU/NEPAD's continental policy orientations, the Malabo Declarations, the SDG, the REC's agricultural policies and to FARA's S3A.

³The Results Framework serves as the visionary beacon and clarifies a collective vision and shared standards of practice, which is to be translated at 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 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 established in WCA

Specific Objective

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

CORAF will promote agricultural development in WCA by achieving its Specific Objective through the delivery of the following Four Results (Figure 6).



The Specific Objective is also consistent with NEPAD's CAADP and the Strategic Plans of FARA. Improvements in productivity, competitiveness and markets cover the entire spectrum of the agriculture value chain, and consider all actors along the value chain, especially youth and women. The nature and extent of these improvements are described as outcome-based indicators in the Result Framework presented in Figure 6, Annex 2 and Annex Table 2.

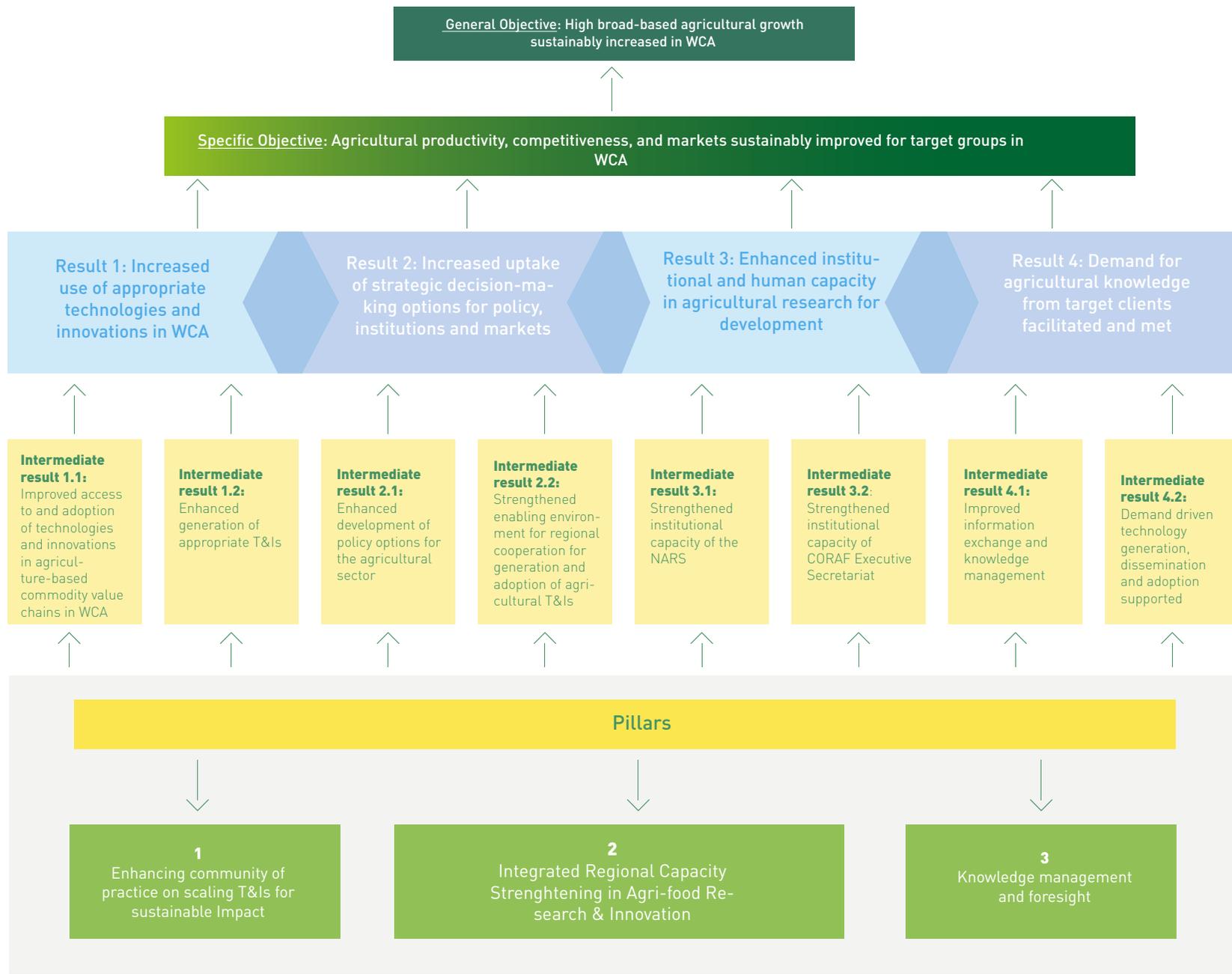


Figure 6. CORAF Results Framework

8.3. PIDs and Activity Pillars

The Strategic Plan (2018-2027) addresses institutional weaknesses, constraints, opportunities and challenges of adopting IAR4D in the WCA sub-region through three PIDs⁴:

- *Agriculture, food, and nutrition security;*
- *Policy, institutions, markets and trade; and*
- *Gender, youth and social equity.*

These PIDs were identified by stakeholders as the major challenges facing agricultural transformation in WCA. They focus attention on increasing the resilience of households and systems to respond to a wide range of biological, environmental and socio-economic challenges. They are consistent with CAADP's Results Framework (Sustaining the CAADP Momentum - Going for Results and Impact), the Malabo Declarations goals, the SDGs and national agricultural policies. Furthermore, they facilitate the establishment of clear linkages between priority programs and deliverables of REC policies, particularly National Agriculture, Food and Nutrition Security Investment Programs. These development frameworks seek to achieve the objectives of poverty reduction, food and nutrition security through agriculture-led economic growth.

To facilitate implementation of the PIDs, three Activity Pillars were defined within this strategy:

Pillar I

Community of practice on scaling up T&Is for impact;

Pillar II

Regional integrated capacity strengthening and coordination; and

Pillar III

Knowledge management, foresight and anticipation.

The relationship between the PIDs, Activity Pillars and the Four Results Framework is presented in Figure 7. The Pillars constitute enablers to facilitate implementation of the PIDs by NARS through managing commissioned research and competitive grant projects.



Sierra Leone

"With this SRI system, I do not need to bring my wife and children to weed the farm, and it gives me hope of a good reward for my hard work. With such a high productivity, it might very well take me out of poverty. It also gives my children enough time to concentrate on their studies," says Adekalie Kamara, SRI farmer in Sierra Leone. Overall, System of Rice Intensification (SRI) introduced by CORAF is helping bring rural farmers closer to food self-sufficiency. In the next ten years, CORAF and partners will seek to scale up the technology.

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⁴An intervention domain is an activity area (theme) that provides CORAF and its partners with directions on where they can best contribute to development outcomes, and ultimately to the CORAF Specific Objective and to make contributions to its overall goal, REC's agricultural policies, the AU/NEPAD's CAADP and Malabo Declaration goals as well as the SDGs.

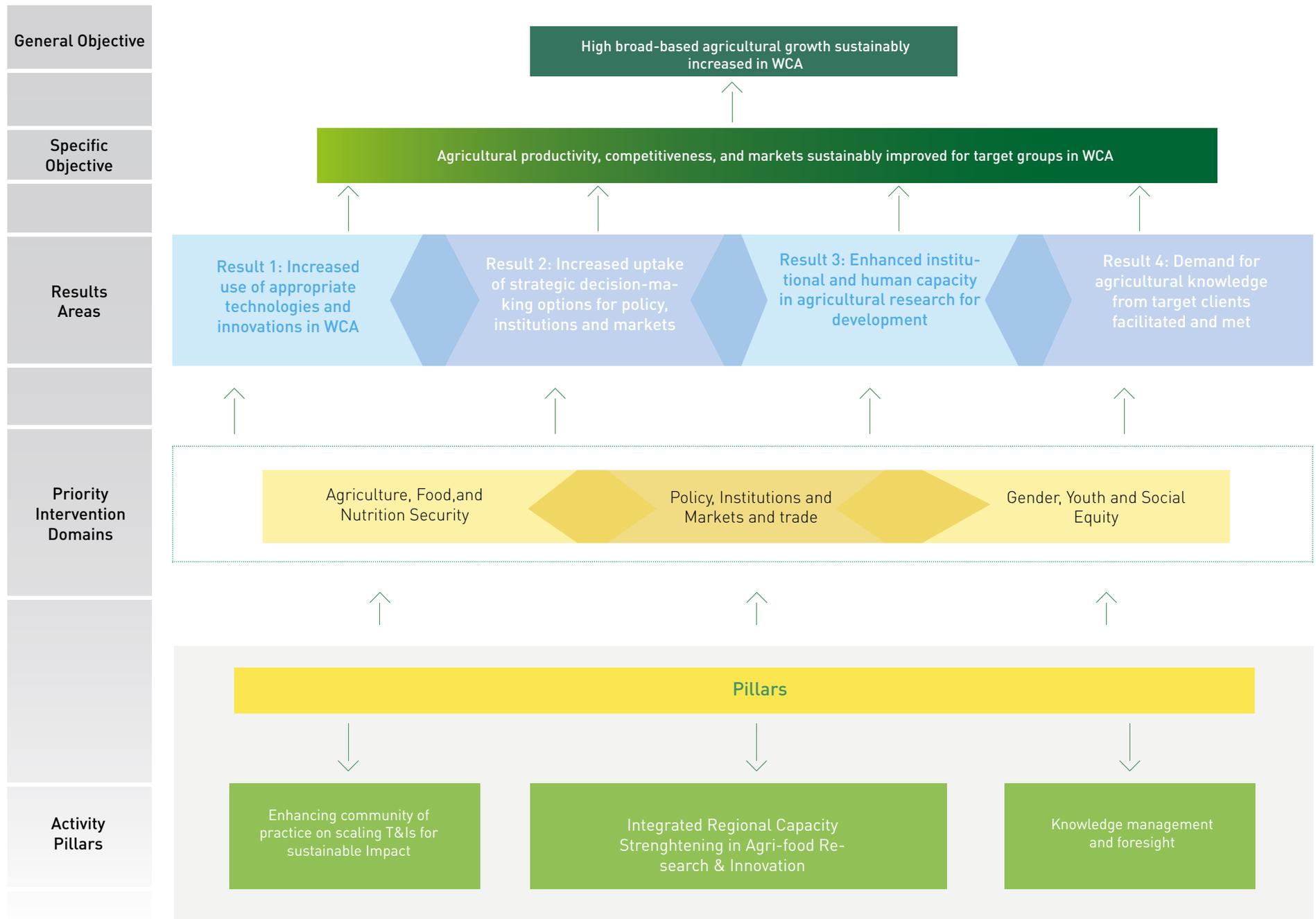


Figure 7. Linkages between PIDs, Activity Pillars and the Four Results Framework

8.4. Activity Pillars

8.4.1 Pillar 1: Community of practice on scaling T&Is for sustainable impact

A community of practice is a group of people or a network of individuals and institutions who share a common concern or a passion for something they do and then learn to do it better when they regularly interact. The interaction process is driven by the desire for collective learning in a shared domain of interest, and the need to explore innovative techniques to do something better in order to improve performance.

This Strategic Plan (2018-2027) will establish communities of practice with multi-stakeholders along commodity value chains and natural resource management to enhance scaling of T&Is in WCA. Building on the experience of WASP in managing seed systems, CORAF will support and facilitate Communities of practice through the Consortium of Regional Partners, Public-Private-Partnership and the Alliance for Seed Industry in West Africa. The web-based platform www.wasix.net will be used to link up seed sector stakeholders.

In addition to these arrangements, mechanisms for networking will be established for: private sector entrepreneurs/farmer organizations; (ii) national regulatory agencies; and (iii) plant breeders to increase the production, supply and use of breeder, foundation and certified seeds. Emergency response capacity to crises such as the Ebola epidemic and the emergence of foreign invasive pests will also be strengthened.

Furthermore, CORAF will widen, support and link WAAPP's stakeholder platforms for wrap-up meetings, its web-based video system, MITA, NCoSs and RCoEs, with national and regional clusters and innovation platforms to create communities of practice. Thus, this Strategic Plan (2018-2027) will increase the engagement of multi-stakeholders through networking, partnership arrangements, and alliances to leverage learning and enhance performance of CORAF in scaling T&Is for impact. Through strengthening NCoSs and RCoEs capacities, CORAF will take partnerships to the next level as an efficient mechanism for information dissemination and sharing.

The key indicative interventions under this Pillar are outlined in Annex 1, Table 3.

8.4.2. Pillar II: Integrated regional capacity strengthening in agri-food research and innovation

The focus of this Pillar is enhancing institutional capacity and skills development to significantly improve agricultural research performance and delivery of agricultural technologies to target beneficiaries.

This focus is consistent with CAADP's Results Framework (Sustaining the CAADP Momentum), in particular to accelerate agricultural transformation through productivity gains and wealth creation.

Capacity strengthening is a core function of CORAF in transforming agriculture and changing lives in WCA. The need to strengthen capacity to operate a new and inclusive research agenda in the context of public and private sector contributions to agricultural research for development in the 23 NARS is vitally important. The objective of human and institutional capacity strengthening is to improve the skills of agricultural research scientists and developers, to upgrade infrastructure, and provide equipment to conduct high quality relevant research to significantly improve agricultural research performance and delivery.

Strengthening the capacity of NARS in WCA is a major function of CORAF, particularly because there is widely uneven capacity in the NARS of WCA. Strengthening the capacity of research and development organizations and networks to work together to contribute to science, T&I is critical for agricultural research for development.

While the demands for capacity strengthening in agricultural research and development continue to increase, CORAF cannot respond to all such demands because of financial and other constraints. Therefore, CORAF must define a mechanism to respond to demands for capacity strengthening in agricultural research for development through an integrated regionally-inclusive capacity strengthening program for all stakeholders in WCA. This Strategic Plan (2018-2027), therefore, emphasizes identification, and prioritization of elements of capacity strengthening, drawing on the findings of a recent review of NARS (African Human Capacity Strengthening project) and adopting the NCoS and RCoE model for capacity strengthening. This CORAF Strategic Plan (2018-07) envisages institutional and organizational innovation consisting of mainstreaming capacity strengthening interventions into NCoS programs and promoting the transformation of NCoS into RCoE to provide opportunities for on-the-job training for scientists and other professionals in agricultural development.

Sharing research facilities and infrastructure between CORAF member countries will also be encouraged. This scheme will provide opportunities for better coordination of regional initiatives, sharing of results from cutting-edge research in agricultural research for development, and empowering agricultural research scientists to publish their research findings and exchange information. Furthermore, CORAF will encourage and facilitate NARS to invest in research infrastructure and equipment, cultivate effective partnership arrangements, and create and manage a fund that is accessible to a wide constituency for research.

RCoEs, in collaboration with national governments and RECs, will work with CGIAR centers, international agricultural research centers (IARCs) and advanced research institutes (ARIs), to conduct research to develop cutting-edge technologies that will sustain rapid agricultural growth in WCA. RCoEs will develop a comprehensive strategy for the establishment of a functional network.

The key indicative interventions of this pillar are outlined in Annex 1, Table 4.

8.4.3. Pillar III: Knowledge management, foresight and anticipation

Foresight is increasingly recognized as a useful instrument in informed decision-making in agricultural science, T&I and in wider national agricultural policies and strategies. With support of an effective knowledge management system, CORAF will use foresight to generate consensus on research priorities and support evidence-based policy and decision-making for increased investments in science, T&I by determining alternative futures for agriculture in the economies of WCA countries.

CORAF will develop and manage an effective knowledge management system to provide access to valuable information and resources that create incentives for people to effectively use information, resources and technologies to significantly increase agricultural production and productivity, and improve competitiveness in the agri-food research system. Being able to anticipate future opportunities and challenges, as well as introduce a broad range of alternative development pathways, will help to overcome Africa's poor agricultural performance as a result of inappropriate policies, weak evidence-based priority setting of the research agenda, and changes in population trends, urbanization, consumption patterns, proper management of natural resources and climate change.

To better target agricultural research, innovation and policies, it is important to understand the patterns of emerging trends in agriculture and rural development. Key questions requiring answers include:

- i. what type of science, T&Is, extension and advisory services are appropriate for the transformation of agricultural systems in WCA? and*
- ii. what mix of human skills and competences are required to adequately address challenges in a constantly evolving global economy?*

The key strategic interventions of this pillar are presented in Annex 1, Table 5

8.5 Compliance with FAAP principles

Pour mieux cibler la recherche, les innovations et les politiques agricoles, il est nécessaire de comprendre les tendances émergentes dans l'agriculture et le développement rural et d'apporter des réponses à des questions clés : quels types de science, de technologies et d'innovations, de services de vulgarisation sont appropriés pour la transformation des systèmes agricoles en AOC ? Quelle est la combinaison de compétences et de capacités humaines nécessaire pour relever de manière appropriée les défis dans une économie mondiale en constante évolution ?

The Framework for African Agricultural Productivity (FAAP) program is the mechanism for the implementation of CAADP. It facilitates stakeholders' access to political, financial and technical resources to strengthen Africa's capacity for agricultural research and the development of agricultural T&Is. FAAP also provides guidelines and criteria to encourage implementers and investors in African agricultural research and development to work together to achieve CAADP objectives.

Through implementation of WAAPP, and the PIDs and Activity Pillars of this Strategic Plan (2018-2027), CORAF supports CAADP Pillar IV (agricultural research, technology dissemination and adoption) in WCA. In compliance with FAAP guidelines and principles, institutions are required to use intervention activities and knowledge to increase agricultural production and productivity, wealth creation, and thus achieve improved sustainable rural livelihoods (Box 2).

Box 2: FAAP principles for achieving the African vision of 6% per annum growth in agricultural production:

- *Empowerment of end-users to ensure their meaningful participation in setting priorities and work programs for research, extension, and training to ensure their relevance;*
 - *Planned subsidiarity to give responsibility and control over resources for agricultural research, extension, and training activities at the lowest appropriate level of aggregation [local, national and regional];*
 - *Pluralism in the delivery of agricultural research, extension, and training services so that the diverse skills and strengths of a broad range of service providers [e.g. universities, NGOs, public and private sectors] can contribute to publicly supported agricultural productivity operations;*
 - *Evidence-based approaches with an emphasis on data analysis, including economic factors and market orientation in policy development, priority setting and strategic planning for agricultural research, extension and training;*
 - *Integration of agricultural research with extension services, the private sector, training, capacity building, and education programs to respond in a holistic manner to the needs and opportunities for innovation in the sector;*
 - *Explicit incorporation of sustainability criteria in evaluation of public investments in agricultural productivity and innovation programs [fiscal, economic, social and environmental];*
- Systematic utilization of improved management information systems, in particular for planning, financial management, reporting, and monitoring and evaluation;*
- *Introduction of cost sharing with end users, according to their capacity to pay, to increase their stake in the efficiency of service provision and to improve financial sustainability; and*
 - *Integration of gender considerations at all levels, including farmers and farmer organizations, the private sector, public institutions, researchers and extension staff.*

In addition to improving the performance of initiatives through adoption of best practices, FAAP highlights the need to replicate and expand initiatives through increased levels of investments in agricultural research for development. FAAP stresses how increased funding must be made available through mechanisms that are much less fragmented. Therefore, harmonization of Africa's resources with those of development partners must be given high priority in the agricultural development agenda.

In supporting the implementation of CAADP, CORAF adheres to FAAP's principle of subsidiarity, which devolves operational authority and decision-making to the lowest levels of authority (local, national and regional) consistent with the operational competencies required, and the efficient use of funds and other resources. Sufficient amounts of resources are assigned to each level consistent with the responsibilities assigned to them.

The aim of the subsidiarity principle (Figure 8) is also to increase stakeholder ownership and authority on the basis of comparative advantage, whilst improving efficiencies and reducing costs.

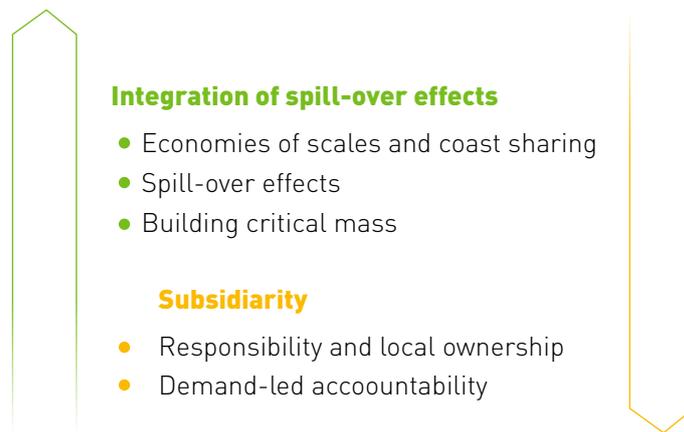


Figure 8: The balance of functions required by the subsidiarity principle

8.6. Cross-cutting issues

Several cross-cutting issues are considered during the implementation of CORAF programs, ensuring that they target vulnerable groups. CORAF programs are also gender sensitive, and address environmental sustainability.

8.6.1. Targeting the poor

CORAF will ensure that innovations promoted are scale neutral (of equal benefit to large and small-scale farmers), specifically target the poor, and will strengthen the resilience of individuals and households to adverse events. This is important in the WCA sub-region where there are no social security nets and the poor, and other vulnerable groups, experience frequent and extreme events caused by climate change and other factors. Important mitigation measures include employment generation, especially for women and the youth, and microfinance initiatives that reduce vulnerability and contribute to agricultural growth. Appropriate credit can also be provided to fund production, or mitigate shocks and stresses from medical costs, weddings and funerals, droughts or floods.

Agricultural legislation and regulation should ensure that growth promotion is not associated with unacceptable risks and vulnerability, and the promotion of technological change should address diversification of agriculture in ways that spread risks among different enterprises. Inappropriate inputs can also increase risks due to greater investment required that might not be recovered in adverse circumstances. Some inputs such as agro-chemicals may also have human health and environmental safety risks. Lessons learnt should be communicated to policymakers for incorporation in poverty reduction strategies and other poverty reduction initiatives.

8.6.2 Gender and youth

Targeting women

It is estimated that in 2014 over 60% of people in Africa lived in rural areas and relied on agriculture for their livelihoods (World Bank, 2015) and that women made up at least half of the agricultural labor force (FAO, 2011).

In the livestock sector, women perform 50-60% of the work related to feeding and milking dairy animals, as well as raising small stock. Rural women provide most of the labor for post-harvest activities, such as storage, handling, stocking, processing and marketing. Outside the farm, women play a key role in land and water management in WCA. Furthermore, women usually collect water, firewood and fodder. They have access to a store of local knowledge on medicinal plants and have been heavily involved in soil conservation programs. Because high numbers of men migrate to cities and illegally to Europe to seek better lives, there has been a dramatic increase in the number of female-headed households. Yet these women do not have easy access to resources for agricultural production, to markets and to technical support services. This major constraint holds back the productivity of women and reduces their contribution to the agriculture sector and to the achievement of broader economic and social development goals. Women are also underrepresented in agricultural research and decision-making forums.

In view of the extensive involvement of women in all aspects of agricultural production, productivity and agricultural development, mainstreaming gender issues into agriculture development programs is a key strategy element for the promotion of equality between men and women, and for sustainable agricultural production. CORAF's strategy for mainstreaming gender issues into agricultural development programs involves understanding the complex requirements and constraints involved, as well as the challenges faced by women and men that affect agricultural production productivity and poverty.

This CORAF Strategic Plan (2018-2027) includes gender-sensitive activities to promote economic growth and poverty reduction and enhance the well-being of men, women, and children. CORAF will actively promote policies and actions, as well as integrate gender perspectives in its program activities, to facilitate equitable access to productive resources by men and women.

In addition CORAF will mainstream gender issues in its programs in the following ways:

- *Ensure that women's needs are addressed in the development and dissemination of agricultural technologies and policies;*
- *Empower women to fully participate in and benefit from agricultural innovation processes;*
- *Ensure that women farmers and scientists receive appropriate training to be fully competitive in their work; and*
- *Provide gender-sensitive capacity strengthening programs for women and men.*

Targeting youth

The population of WCA is estimated at 433.2 million and youths make up 60% of the number of people unemployed in the sub-region. This has resulted in migration of youths from rural to urban areas and illegal migration to Europe in search of economic opportunities and better livelihoods. Desperate youths are also joining gangs and becoming engaged in unacceptable social behavior such as banditry, armed robbery and terrorism, a situation which is currently of great concern to national governments in African countries. These consequences of youth unemployment undermine the stability and socio-economic development prospects of WCA countries. However, youth unemployment could present a great opportunity if they are empowered to become an engine for economic development.

In WCA, youth face major challenges including: poor levels of education, insufficient access to knowledge and research outputs; poor access to information and skills acquisition with apprenticeships and internship opportunities; poor access to financial services; limited access to markets; and minimal participation in policy dialogues. These challenges are important issues for capacity strengthening to harness youth energies to enable them start up agribusinesses, create jobs and wealth, and thus curb migration.

This CORAF Strategic Plan (2017-2026) provides a platform where women and the youth will be empowered to make significant interventions and contributions to agricultural development as elaborated in Annex 1, Table 6.

8.6.3. Environmental sustainability and compliance

The objective of CORAF's Environmental Management Framework is to mitigate against undue harm to people and their environments. Thus, in the design and implementation of CORAF interventions, environmental impact and sustainability issues are taken into account. This Strategic Plan (2018-2027) mandates and ensures that all programs are subjected to an Initial Environment Evaluation (IEE) and any sub-grant to CORAF partners for the implementation of the activities are subjected to a satisfactory Environmental Review Form.

CORAF's Environment Monitoring and Mitigation Plan adopts approved IEEs of the West Africa Agriculture Office and the existing Pesticide Evaluation Reports and Safe Use Action Plans developed under the Feed the Future initiative. Furthermore, CORAF will facilitate training of scientists in participatory research methods, agro-ecological principles and systems tools that involve environmental risk assessment and disseminate the results to the African and international scientific community. Training programs will stimulate sharing of information and decision-making tools related to the sub-regional environment and will endeavor to solicit greater public and private investments in environmental research. Thus, agricultural systems will become more sustainable and compliant with international conventions and regulations.

8.6.4 Agricultural innovation systems

In Africa, the conventional approach to agricultural research, technology development and dissemination has produced numerous success stories, but its impact has largely remained limited and localized, thus failing to have the desired impact on national and sub-regional food and nutrition security, wealth creation and natural resource management. Consequently, the innovation systems approach to agricultural research has become increasingly accepted and adopted as a viable alternative.

The concept of innovation refers to the search for development, adaptation and use of technologies, approaches and methodologies that are appropriate to a specific environment. An innovation system is a network of partners or organizations that are directly involved in the creation, diffusion and application of knowledge for sustained increases in agricultural production and productivity. One of the participating partners or organizations in the innovation platform is assigned responsibility for coordination and facilitation of the innovation processes.

Innovation is thus a combined social and technical process involving multiple sources of ideas and technologies. For the innovation process to be successful, many players are expected to collaborate successfully. Stakeholders, including policymakers, decision-makers, market agents, the private sector, farmers, NGOs, researchers and agricultural extension agents must understand each other's mutual interests, roles and challenges and how they can contribute to providing viable solutions to major problems and to present opportunities for learning. The innovation process involves engaging in genuine dialogue and seeking solutions through joint actions to achieve significant impacts.

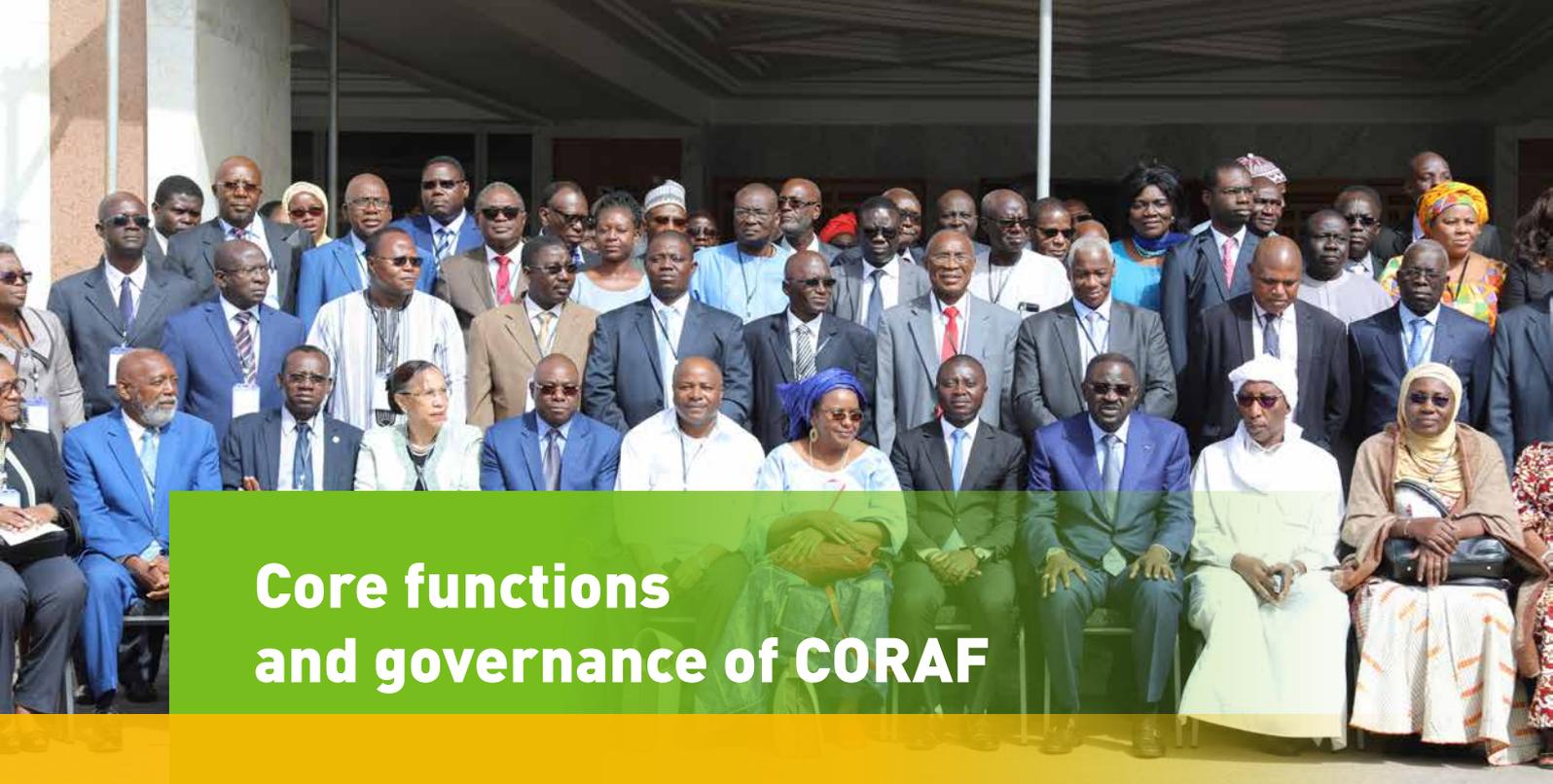
It is important that innovation platform partners are willing to provide infrastructure and administrative support for the functioning of an innovation platform. Such organizations include government agencies and departments, patent offices, private and public funding organizations as well as policymakers and those that have coordinating or catalytic roles with direct service providers. These organizations are involved in a web of interrelationships, thus the efficient functioning of an innovation platform involves activities of its component parts, together with interactions between them. Success of innovation processes is correlated with the extent and openness of knowledge exchange. In practice, however, obstacles often constrain alignment and coordination between implementing partners in innovation platforms.

The experiences of the CoS-SIS project in West Africa on innovation systems approaches, involving scoping and diagnostic studies, system analyses and participatory field experiments, is well documented. CORAF has been involved in the implementation process of this project and will exploit the outputs achieved and best practices developed to promote effective adoption and application of innovation systems approach for of IAR4D in WCA. ■



Decades of underfunding meant most of the critical agricultural research and development infrastructure in West and Central Africa underwent degradation. Countries considerably stepped up investments in the right equipment, laboratories, and infrastructure in the past decade. Plans are to leverage this infrastructure to focus on the innovations needed to transform the agriculture economy in WCA.

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Core functions and governance of CORAF

9.1. Core functions

CORAF is mandated to provide support to its constituent NARS members. CORAF has the comparative advantage of strengthening national agricultural research systems through capacity strengthening of its constituents in specialization, excellence and competence in implementing the IAR4D research paradigm; and maintaining a conducive environment and institutional culture that attracts and retains high quality research scientists.

CORAF core functions include:

- *Coordination and facilitation of research co-operation and partnerships among NARS, researchers, international development partners, and the donor community;*
- *Knowledge management and advocacy to link the dissemination and uptake of knowledge, and experiential learning at various levels, to ensure that technology and policy options respond to the demands of target constituents and facilitate ownership of the outputs and impact of agricultural research.*

These core CORAF functions together create the enabling environment for a sub-regional agricultural research system to grow and thrive. Furthermore, CORAF provides a mechanism for delivery of research results that is required to achieve improved productivity, competitiveness, and markets that will lead to broad based growth of the agricultural sector and contribute to improving national food and nutrition security and poverty reduction in WCA.

Broad based multi-stakeholder consultations and lessons learned from evaluations of CORAF programs and activities during the past three decades revealed that CORAF has encountered many challenges and was constrained in fully performing its core functions. Specific issues constraining CORAF to full delivery of results include:

- *coordination of NARS has mainly focused on project portfolios rather than the strategic coordination specified by CORAF statutes;*
- *capacity strengthening has been poorly emphasized;*
- *policy and institutional development efforts required for institutionalization of IAR4D;*
- *poor emphasis on sub-regional advocacy and an unspecified approach to advocacy; and*
- *inability to undertake sub-regional knowledge management and application of learning systems to promote and support policy dialogues to institutionalize IAR4D.*

In this Strategic Plan (2018-2027), CORAF has reassessed its role in line with its statutes and formulated more coherent and strategic approaches to capacity strengthening throughout WCA. CORAF will move away from a focus on project coordination to coordination of programs in sub-regional agriculture policies, institutions, and agricultural research, including enhancement of relationships and partnerships to ensure national food and nutrition security and improved sustainable livelihoods. CORAF will also fine tune understanding of the application of knowledge management to deliver its Four Results. Consequently, CORAF clearly redefines its core functions as follows:

9.1.1 Co-ordination and capacity strengthening of agricultural research for development

This Strategic Plan (2018-2027) aims to add value to the efforts of COARF's constituent NARS and partners in agricultural research for development through coordination activities that facilitate the adoption of appropriate solutions to regional, sub-regional and national agricultural development problems. Successful performance of this function will minimize duplication of agricultural research and development efforts, establish synergies, and support efficient mobilization of financial, physical, and human resources to enhance the effectiveness of CORAF and to ensure achievement of CORAF objectives.

In view of the critical importance of capacity-strengthening to support agricultural research and delivery, CORAF will coordinate institutional and technical capacity strengthening of the NARS, through leverage on NCoS and RCoE mechanisms and work with the Regional Integrated Capacity Strengthening program.

Adoption of the innovation system approach and IAR4D paradigm require multi-stakeholder involvement and carefully managed co-ordination and capacity strengthening of actors, including researchers, NGOs, the private sector, universities, agricultural communities and agricultural extension agents. The actions of these stakeholders must be efficiently coordinated to ensure that shared goals are achieved. In this context, NARS members of CORAF, national governments and sub-regional organizations and stakeholder groups have a responsibility to identify and exploit windows of opportunities to benefit from CORAF coordination activities.

The CORAF Executive Secretariat is responsible for coordination which is undertaken in two ways: firstly, directly by advocacy, establishment of appropriate fora and chairing of technical meetings; and secondly, indirectly through facilitation of dialogue, mobilizing of resources and providing appropriate channels for information dissemination to stakeholders (Figure 9).

Coordination can be categorized into two broad types:

- *Vertical coordination, for example between projects and PID management and the Executive Director, and between the Executive Director and the CORAF Governing Board; and*
- *Horizontal co-ordination between different sub-regional partners, between PIDs or between partners and PIDs.*

In addition to vertical and horizontal coordination, there is formal and informal co-ordination, which may be permanent or temporary:

- *Formal co-ordination occurs through mechanisms such as regular meetings of PID Heads and project leaders, meetings of the CORAF General Assembly or representation of CORAF at meetings of other sub-regional organizations.*

- *Informal co-ordination may be accomplished on an ad hoc basis such as the development of initiatives to address specific sub-regional themes. Informal coordination provides scope for facilitating exchanges between PIDs and contributes to improvement of monitoring, evaluation and planning processes.*

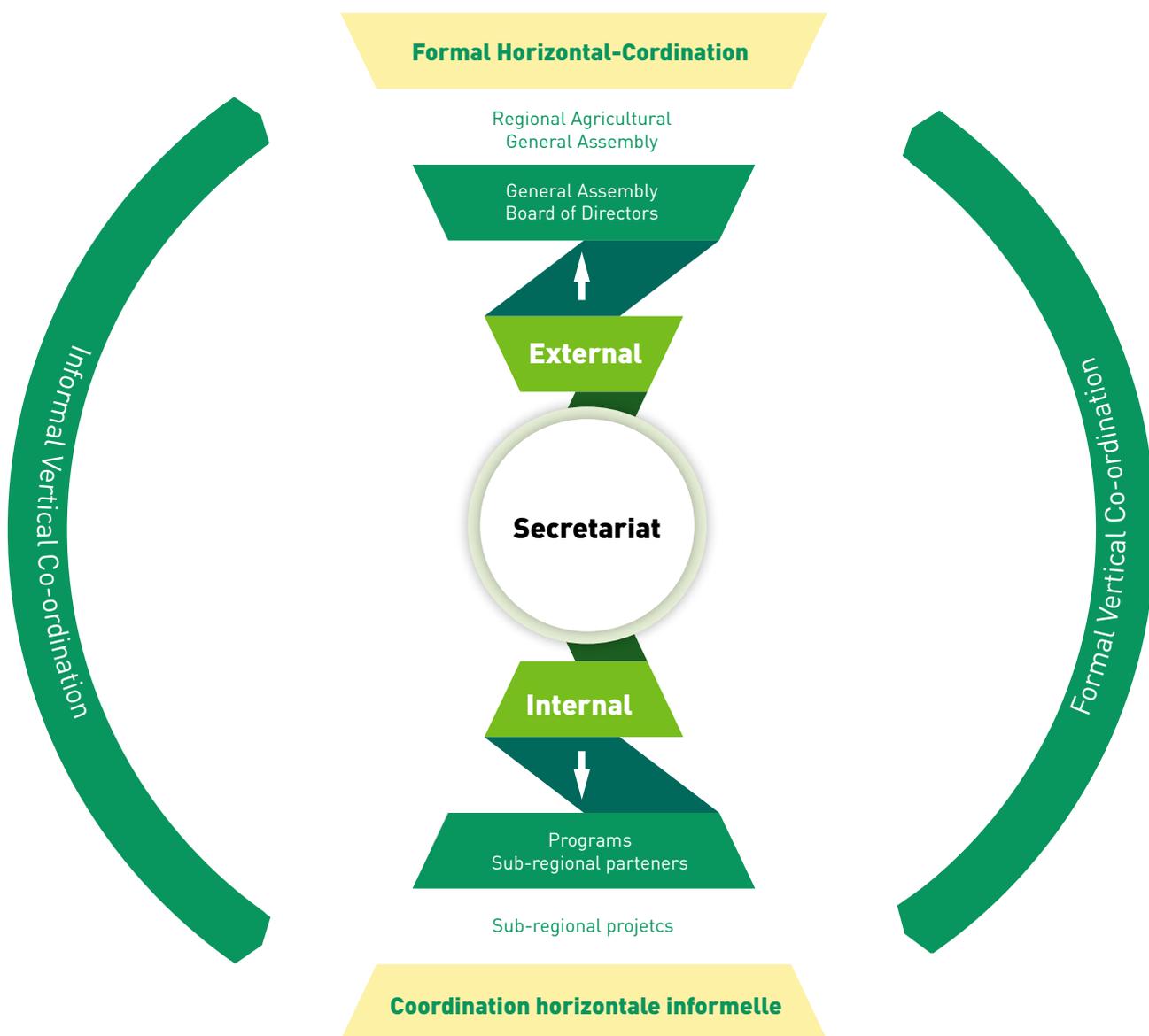


Figure 9: Schematic representation of CORAF's coordination mechanism

Coordination activities ensure that CORAF's interests are widely known and integrated into the planning activities of NARS in WCA. CORAF will also support agricultural research through harmonization of the activities of relevant stakeholders such as farmers' organizations, NGOs, policymakers, private sector agribusinesses (processors, traders and transporters), agricultural research institutes and universities.

Harmonization will be conducted through:

- *increased PID support;*
- *common planning horizons;*
- *common financial and administrative management systems;*
- *pooling of resources and multi-donor trust funds; and*
- *support for FAAP-compliant PID.*

Furthermore, CORAF will address the capacity strengthening needs of its constituents, in view of the fact that capacity is not uniform throughout the NARS. In supporting and strengthening NARS, CORAF will focus attention on NARS with the greatest need in priority areas. CORAF's capacity strengthening model is based on the existence of RCoE established in NARS with the involvement of multi-stakeholders along commodity value chains. Initiated under the ECOWAS WAAPP program, these new mechanisms will respond more appropriately to the human and institutional capacity strengthening needs of the NARS.

This CORAF Strategic Plan (2018-2027) addresses the following five key areas:

- *Mutualization – pooling of resources of NCoS and RCoE;*
- *Creating and maintaining a critical mass of expertise in different agricultural research areas;*
- *Creating and maintaining management and institutional culture, and a conducive environment that attracts and maintains qualified personnel;*
- *Fostering the process of institutional strengthening; and*
- *Developing competences to implement effective IAR4D.*

9.1.2. Up and out scaling of T&Is

Wide-scale adoption of improved agricultural T&Is enable rural households and enterprises to improve agricultural production and incomes, achieve improved food security and enriched livelihoods, as well as participate in the economic growth of their countries. Despite efforts to disseminate the uptake of these T&Is, adoption remains low, thus leading to low agricultural productivity and insecure livelihoods.

CORAF's core function of up-scaling and out-scaling agricultural T&Is will support the adoption of scalable T&Is. Scaling-up involves building favorable institutional environments for the change process to take place through mechanisms such as word of mouth, organized publicity, political lobbying and policy change. Scaling-out is the horizontal spread of knowledge and technology from farmer-to-farmer and from organization to organization within the same stakeholder groups.

9.1.3 Foster a regional enabling environment for scaling of T&Is

This CORAF function will support multi-stakeholders to play their roles more efficiently in technology dissemination to end-users. Activities will consist of:

- i. facilitating development of scaling up plans;*
- ii. exploring the drivers of scaling up pathways;*
- iii. exploring key potential drivers and enabling conditions that will allow T&Is to grow beyond the experimental or pilot stage;*
- iv. selecting operational modalities for scaling up and mobilizing appropriate partners, such as multi-stakeholder partnerships including private sector agribusiness and organizing effective monitoring and evaluation, including through the use of MELIA;*
- v. sharing knowledge on new technologies and innovations;*
- vi. coordinating movement of new T&Is across borders;*
- vii. facilitating networking amongst extension service providers in WCA;*
- viii. advocating for a policy environment that will facilitate scaling up in all PIDs;*
- ix. strengthening institutional and individual capacities for scaling up; and*
- x. mobilizing and allocating resources for scaling up activities.*

9.1.4 Knowledge management mechanism

CORAF PID 2 and Result 4 address knowledge management. All PIDs respond to, and deliver on, the requirements of knowledge management according to the guidelines of the knowledge management Activity Pillar.

Knowledge management covers a wide range of issues and mechanisms and is closely associated with dissemination and uptake of information, conversion of information into knowledge, advocacy, and experiential learning. To promote technology uptake and up-scaling in WCA, CORAF will implement a knowledge management program to ensure efficient management of client-oriented agricultural information. Through efficient knowledge management, technology and policy options respond to the demands of target constituents and enhance ownership and impact of agricultural research outputs.

CORAF's knowledge management mechanism will involve appropriate flows of information to transform agricultural knowledge into action. Knowledge management will therefore be effectively articulated to achieve impact at scale in agricultural research and development.

The CORAF knowledge management mechanism consists of three components:

- *Fostering a knowledge sharing culture: by supporting locally generated information and data in various formats delivered through cost-effective channels and ensuring that knowledge is fed back into regional knowledge management processes.*
- *Leveraging experiential knowledge for up-scaling and out-scaling of technologies and innovations: through integrated monitoring and documentation of major research achievements and lessons learned. Additionally, appropriate tools, and repositories for sharing knowledge and experiences will be established and fora and events will be created for learning by constituents, partners and institutions, the private sector, farmer-based organizations, and smallholder farmers.*
- *Translating knowledge into policy and action: by conducting detailed analyses, synthesizing relevant data and information, and translating it into options that support advocacy for agricultural policy formulation and markets.*

The Communications and Marketing Unit in the Executive Secretariat is the public face of CORAF, increasing the visibility of CORAF in the agricultural research for development landscape throughout WCA and internationally. The activities of this unit complement the knowledge management functions of CORAF by :

- *servicing as the interface and primary point of contact for CORAF;*
- *managing publicity, storing and making accessible information and data from the implementation of the PID;*
performing an information and communication service function to PID; and
- *publishing information bulletins and providing support to CORAF advocacy within the WCA sub-region.*

9.2 Core staff of CORAF

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

1. *CORAF's institutional structure and system;*
2. *modes of operation in the context of the external environment; and*
3. *regional sector developments as well as determining ways to ensure greater consistency of its mission.*

The findings of the audit indicated that although staff and salary costs had doubled since 2010, financial resources had not grown proportionately to continue to support all of the 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 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 its two 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 by:

- *an internal auditor attached to the Board of Directors for audit functions;*
- *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 for program functions; and*
- *a head of partnerships and contracts, a head of finance and accounts, a head of procurement and logistics, and a head of human resources for administrative and financial functions.*

This core team will be supported by a small group of technical and administrative staff. As CORAF programs develop and projects are initiated, project managers and staff will be recruited to share the additional workload. 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).

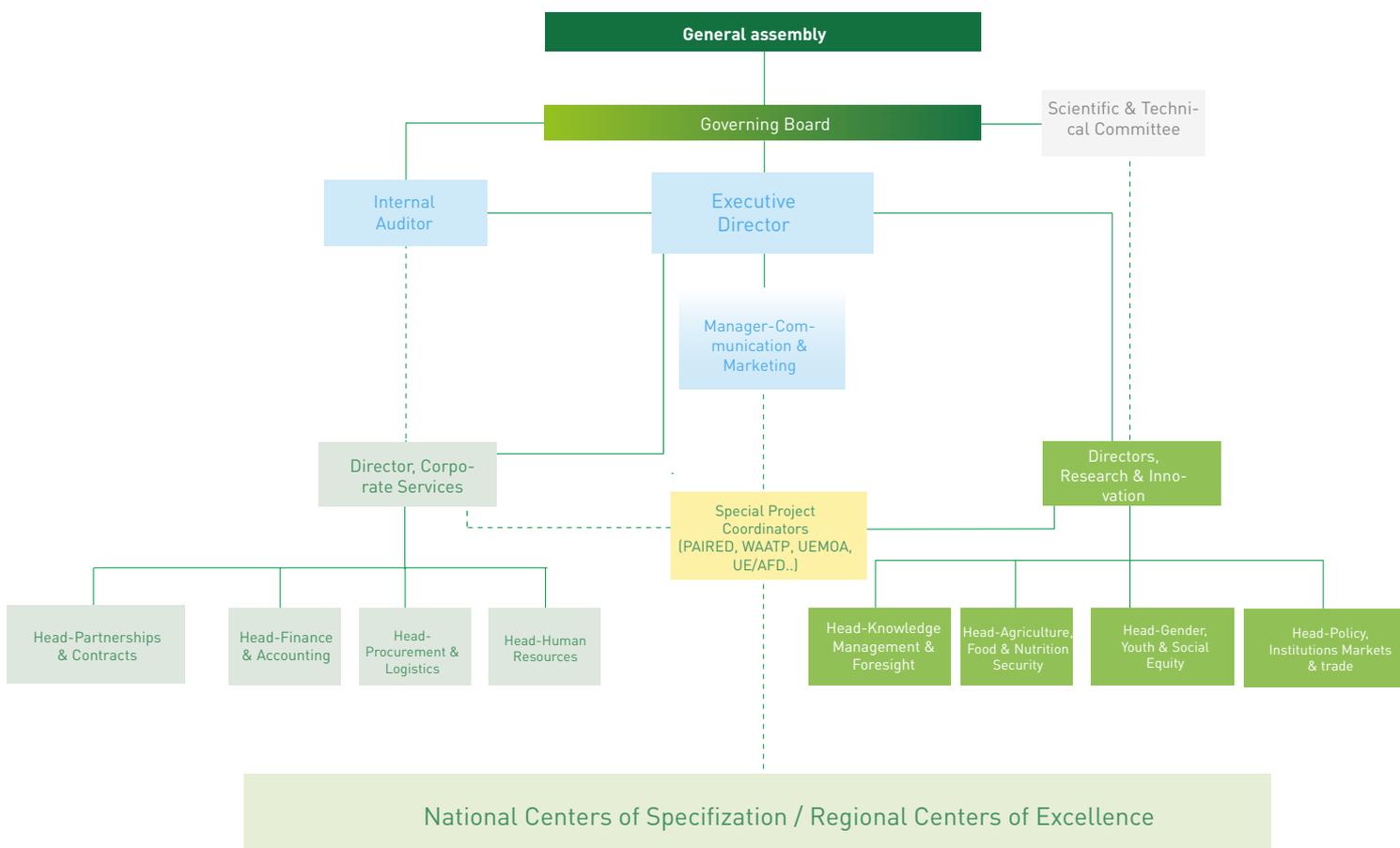


Figure 10. CORAF organizational chart

The resident staff of the Executive Secretariat 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 CORAF Executive Secretariat will identify and mobilize the appropriate expertise when the need arises for the services. 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.

9.3 Core values and principles of CORAF

CORAF is governed by the following core values and principles:

- 1. Integrity:** CORAF remains firmly committed to working in partnership with its constituents (including the private sector, farmer-based organizations, universities and tertiary institutions), and technical and development partners in WCA to achieve its Vision, Mission and Objectives.
- 2. Inclusion and ownership:** Prior to implementation of any intervention, stakeholders will reach a consensus on its relevance and contribution to agriculture and socio-economic development, and demonstrate buy-in. This involves participation of all stakeholders in the planning, priority setting, implementation, monitoring, and evaluation of interventions, as well as in learning processes.

3. Subsidiarity: *CORAF will delegate responsibility to the appropriate level, based on comparative advantage and ability to deliver the required results and impact through efficient use of resources.*

4. Transparency and accountability to stakeholders: *This will be promoted in the use of resources and the delivery of results and impacts to stakeholders and development partners.*

5. Managing for results and impact: *CORAF is committed to delivering results and contributing to CAADP's Result Framework, S3A, and REC agricultural policies (ECOWAP, CAP and APU).*

9.4 Governance

In the current context of agricultural development in WCA, the governance of CORAF requires appropriate reforms to remain relevant, and to respond to the critical issues of agricultural research for development in WCA. CORAF will continue efforts to improve efficiency, effectiveness, and professionalism in agricultural research and innovation, reinforce regional coordination of agricultural research and attain financial stability and sustainability by 2027. Achieving this objective requires appropriate reforms, as well as increased capacity to secure core and project funding. CORAF must also be highly efficient in the management of resources.

Thus, for implementation of this Strategic Plan (2018-2027), a stronger CORAF governance system will be established to enable it to efficiently perform its coordination functions through the development of:

1. *a communication and marketing strategy, together with a resource mobilization plan;*
2. *stronger MELIA and knowledge management;*
3. *improved administrative and financial management; and*
4. *a plan to increase the Governing Board's effectiveness through assembling the appropriate mix of skills on the CORAF Governing Board.*

9.5 MELIA

CORAF's M&E capacity will be strengthened to track progress of interventions in order to improve results delivery by continually providing credible materials for informed decision-making by stakeholders. A central thrust of the CORAF M&E system will be robust MELIA.

The MELIA approach will further strengthen the capacities of NARS to track progress, refine interventions, identify unintended effects, and ascertain the impacts of various initiatives and programs on the livelihoods of beneficiaries in WCA. The MELIA approach will also help CORAF be more accountable to its stakeholders through effective information sharing, experiential learning and feedback mechanisms.

CORAF's MELIA system will include regular reviews, assessments, and special studies. Additionally, monitoring systems and skills of implementing partners and collaborators will be strengthened to achieve CORAF's General and Specific objectives. CORAF will:

1. *develop a plan for strengthening M&E functions and link information nodes located in NARS;*
2. *determine how information and data are managed and rationalized within CORAF;*
3. *improve monitoring tools to ensure that field missions provide key information to CORAF;*
4. *strengthen capacity to efficiently feed learning into future programming as well as to share important findings; and*
5. *define relationships between M&E and knowledge management and potential CORAF outreach operations and communication.*

Furthermore, the MELIA framework will define the scope and function for all interventions and initiatives implemented and coordinated by the Executive Secretariat and CORAF partners including NARS, and civil society organizations involved in agricultural research for development. The MELIA approach will adopt the ToC concept to facilitate consensus building on the change process and confidence to assume ownership of agricultural research outputs. NARS and collaborating partners will develop MELIA plans, which will include ToCs, research questions, and result frameworks based on their specific PIDs. Country MELIA plans will be refined and aligned with regional ToCs with support from CORAF.

CORAF's Executive Secretariat will provide additional capacity strengthening support to NARS and partners to ensure that they can efficiently carry out the MELIA process to support learning and to generate robust evidence about project performance. Finally, CORAF's MELIA Framework will help to establish a robust knowledge platform that promotes scaling up and scaling out of agriculture technologies and innovations in WCA. ■

Niger and Chad

Developed in Niger, innovations are doubling milk production particularly with the local cattle race known as «Azawak.» Countries of the region are seeking to take up such technologies. For Chad and other livestock producing countries, they would be looking to further understanding the characteristics of their local as well as conduct research to improve their adaptation to climate change as well as produce more milk.

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Conclusion

This CORAF Strategic Plan (2018-2027) is a 10-year framework for the development and promotion of pathways for improving agricultural research coordination in WCA, and scaling up and scaling out agricultural T&Is to achieve impact at scale. The Strategic Plan (2018-2027) is aligned with African regional and continental policy frameworks, and aims at accelerating agriculture growth, improving national food and nutrition security, enhanced rural development and livelihoods. The goal is to support agriculture-led socio-economic development that eliminates hunger and reduces poverty, tackles national food and nutrition insecurity and provides youth employment. The Strategic Plan (2018-2027) also serves as a reference for orienting IAR4D stakeholders and policy decision-makers and development partners to the CORAF Vision of achieving 'prosperity and food and nutrition security in WCA'.

This Strategic Plan (2018-2027) will be implemented in two phases (2018-2022 and 2023-2027). CORAF's Operational Plan (2018-2022) outlines mechanisms, procedures and actions for the implementation of this Strategic Plan (2018-2027). The Plan addresses institutional and organizational innovation consisting of mainstreaming capacity strengthening interventions for NCoS and transforming them into RCoE to provide opportunities for on-the-job training to scientists and other agriculture personnel, sharing of research resources and results across national boundaries in WCA.

This Strategic Plan (2018-2027) provides opportunities for national and regional stakeholders to work in clusters to address common challenges and to provide foresight and visioning to build consensus on research priorities including, climate change, foreign invasive

pests, post-pandemic or post-conflict interventions, youth migration, agricultural modernization, policy changes, funding patterns and market dynamics and increased investments in agricultural science research. This is to ensure successful scaling of existing models (such as WAAPP, WASP, MDTF-funded projects, commissioned and competitive grant projects, as well as identification of best practices for the generation, dissemination, uptake and effective adoption of T&Is. This output will be achieved by creating a more conducive environment for the adoption and use of agricultural T&Is for sustainable increases in agricultural production and productivity, for local agro-processing industries and to feed into domestic, regional, and world markets.

Finally, this CORAF Strategic Plan (2018-2027) will encourage transformation of farm family agriculture and peri-urban farmers and producer organizations to become more market-oriented and to be competitive entrepreneurs in sophisticated markets while ensuring national food and nutritional security for the population of WCA. ■

References

- African Development Bank (AfDB), 2012. Briefing Notes for AfDB's Long-Term Strategy: Briefing Note 4: Africa's Demographic Trends. AfDB, Abidjan.
- Alliance for a Green Revolution in Africa (AGRA), 2015. Africa Agriculture Status Report 2015: Youth in Agriculture in sub-Saharan Africa. AGRA, place of publication.
- Andriessse, W., Kaporiri, M. and van Damme, P., 2016. Strategic Review of DEVCO Support to African Continental and Sub-Regional Agricultural Research Organizations: FARA, AFAAS, CORAF/WECARD, ASSARECA and CCARDESA; May 2016 Final Report. Publisher, place of publication.
- CORAF, 2007. CORAF Strategic Plan (2007-2016). CORAF, Dakar.
- CORAF, 2013. Final Evaluation of the CORAF Operational Plan 2008-2013 and the Preparation of the Second Five Year Operational Plan 2014-2018. CORAF, Dakar.
- CORAF, 2014. Second Operational Plan 2014-2018: Up and Out Scaling Technologies and Innovations to Deliver Impact at Scale. CORAF, Dakar.
- CORAF, 2014. Stakeholder Consultation on the Development of the 2nd Five Year Operational Plan (2014-2018) of CORAF. CORAF, Dakar.
- CORAF, 2017. ES Retreat Report (Outputs of the Retreat). CORAF, Dakar.
- CORAF, 2017. First Stakeholders' Consultation Report: 2nd Strategic Plan (2017-2026), 3rd Operational Plan (2018-2022) and a Resource Mobilization Planning Meeting. CORAF, Dakar.
- CORAF, 2017. Second Stakeholders' Consultation Report: 2nd Strategic Plan (2017-2026), 3rd Operational Plan (2018-2022) and a Resource Mobilization Planning Meeting. CORAF, Dakar.
- Economic Community of West African States (ECOWAS), 2016. Consultative Committee for Agriculture and Food: Summary of Major Conclusions and Recommendations, Abuja, 9-10 December 2016. ECOWAS, place of publication.
- Economic Community of West African States (ECOWAS), 2016. ECOWAS Monitoring and Evaluation Mechanisms. ECOWAS, place of publication.
- Economic Community of West African States (ECOWAS), 2016. Regional Agriculture Investment Plan and Food Security and Nutrition (RAIP-FSN) Validated at the Meeting of the Specialized Technical Ministerial Committee for Agriculture, Environment and Water Resources (STMC-AEWR), Abuja, 12 December 2016. ECOWAS, place of publication.
- Food and Agriculture Organization of the United Nations (FAO), 2008
- Food and Agriculture Organization of the United Nations (FAO), 2011. The State of Food and Agriculture, 2011. FAO, Rome.
- Food and Agriculture Organization of the United Nations (FAO), 2013. Agricultural Mechanization in Sub-Saharan Africa: Guidelines for Preparing a strategy. Integrated Crop Management Vol. 22
- Food and Agriculture Organization of the United Nations (FAO), 2016. The Contemporary Forest Concessions in West and Central Africa: Chronicle of a Foretold Decline? Forestry Policy and Institutions Working Paper 34. FAO, Rome.
- International Food Policy Research Institute (IFPRI), 2017. Global Food Policy Report. IFPRI, Washington, DC.
- IFPRI and ACTED, 2015
- International Organization for Migrations (IOM), 2014. Strategy for West and Central Africa 2014-2016. IOM, place of publication.
- United States Agency for International Development (USAID), 2016. Institutional Audit of CORAF/WECARD. USAID, Washington, DC.
- United Nations Economic Commission for Africa (UNECA), 2015. Socio-Economic Profile of West Africa in 2014 and Prospects for 2015. UNECA, place of publication.
- United Nations Population Fund (UNFPA), 2015.
- Word Bank Databank, Agriculture and Rural Development, 2015, <<http://data.worldbank.org/topic/agriculture-and-rural-development>>.

Annexes

Annex 1. CORAF results framework

In the implementation of this Strategic Plan (2018-2027), CORAF is expected to deliver on Four Results. The Four Results reflect measurements in levels of improvements in major sectors including agricultural productivity, trade flow in principal agricultural commodities and market improvements, technology generation and use, policy enabling environments, demand for agricultural knowledge, climate change, and technical capacity enhancement. The Four Results are expected to mutually reinforce each other to achieve CORAF's General and Specific Objectives.

1.1 Graphical presentation

CORAF's Specific Objective is "Agricultural productivity and market sustainably improved for target groups in WCA". CORAF seeks to deliver on eight intermediate results which mutually reinforce each other to achieve the Specific Objective:

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 and development

Result 4:

Demand for agricultural knowledge from target clients facilitated and met

CORAF's Four Results Framework provides a cause and effect relationship between the four intermediate results and how these feed into the Specific Objective, and the General Objective. The logic embedded in the Four Results Framework present a step-wise flow of the development hypothesis that links relevant projects and activities in a program's portfolio to the achievement of intermediate results towards the achievement of the CORAF Specific Objective.

Figure 6 is a graphical representation of the CORAF Results Framework and the linkages between the various levels and objectives. The result areas and linkages show vertical and horizontal correlation between the results.

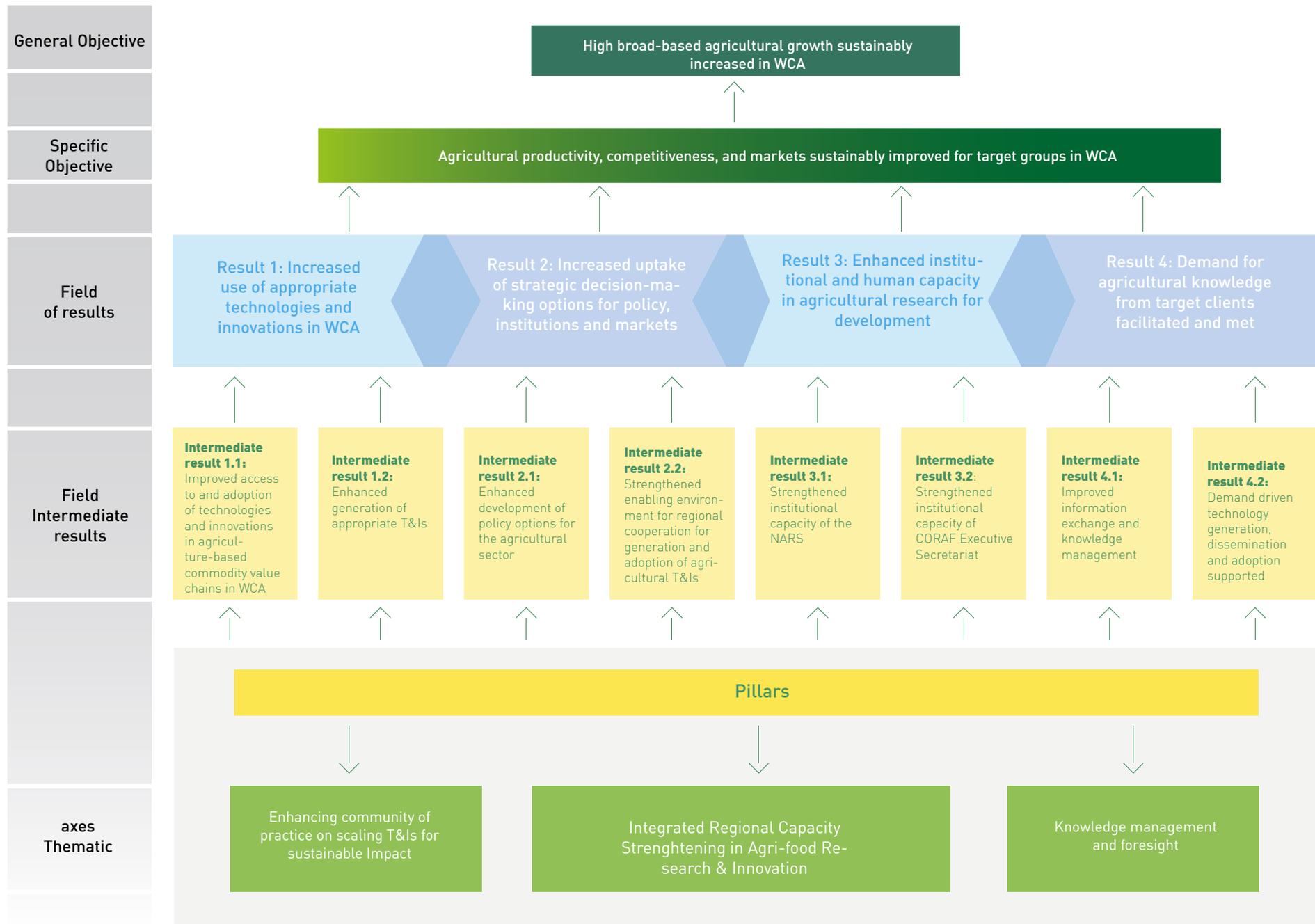


Figure 6. The CORAF Four Results Framework

1.2 Development hypothesis

CORAF has employed a rigorous analytic approach to developing the Four Results Framework, which reflects the overall strategy of the organization. Attainment of results is based on the following hypotheses:

- *The high-level strategic approach/development hypothesis of CORAF recognizes the need to scale up use of agriculture technology and innovation to drive production and productivity of commodities within the value chain across the WCA sub region. Appropriate technologies, combined with conducive policy environments would spur increases in productivity and consequently increase volume of food staples produced across in WCA. With effective market systems commodities can easily move from areas of production to areas of consumption. To this effect, the thrust of this CORAF Strategic Plan is to coordinate adoption and use of agricultural technologies and innovations by smallholder farmers and large-scale commercial producers.*
- *Favorable policy environment is a prerequisite for the growth of the agriculture industry in WCA. Most of the constraints facing the industry are best addressed through an appropriate regional policy approach. In this CORAF Strategic Plan (2018-2022), ECOWAS member states and ECCAS countries will have a better understanding of regional policies and regulations, which will facilitate the enforcement of national regulations in line with regional regulation. Regional coordination, to improve policies and regulations, is key for technology dissemination and free movement of goods among countries in the region.*
- *This CORAF Strategic Plan (2018-2022) promotes the adoption of the concept of IAR4D. Using an IAR4D approach is critically important to transform projects into mechanisms that could address wider expectations including impact and capacity strengthening to make better use of research information to deliver development outcomes and impact.*
- *Improved regional food productivity will lower costs that make agricultural technologies good investments for smallholder farmers. More efficient regional production of food traded across borders will reduce price instability and lower prices, to the benefit of consumers as well as reducing dependence on imported food in WCA.*

- *Capacity strengthening should be focused on the functioning of the entire system, rather than a narrow focus on skills and training. A more strategic approach to capacity strengthening, including trainings, coaching and mentoring are consistent with CORAF objectives and would potentially transform technical capacity to empower stakeholders to deliver.*

1.3 Assumptions

The following assumptions in Table 1 below are expected to hold true for the results earmarked to be achieved

General Objective: High broad-based agricultural growth sustainably established in WCA

Specific Objective

Agricultural productivity, competitiveness and market sustainably improved for target groups in WCA

Assumptions relating to the General Objective

- Extension of target area under sustainable land management and water systems is achieved
- Contribution of improved rural infrastructure and access of trade to markets is achieved
- Famine response and food supply meets target
- Benefits lead to improvements in livelihoods of rural and urban households
- Potential for expanding markets exists and is realized
- Competitive markets are accessible and benefit the poor and disadvantaged
- National and international context promotes benefits for all

Results

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

Assumptions relating to the Specific Objective

- Governments exceed Maputo Declaration commitment of 10% contribution to agricultural research and development
- National policies and unfair competition do not compromise gains
- Complementary and enabling policies are implemented
- Adequate resources and enabling environment exist
- International markets support gains
- Food-aid programs do not negate or disrupt efforts
- Political and economic environment do not negate gains

Table 1. Assumptions underlying achievement of Strategic Plan (2018-2027) results

Table 3 Interventions of community of practice on scaling up T&Is for sustainable impact

OBJECTIVES/RESULTS	PERFORMANCE INDICATOR	INDICATOR TYPE
General Objective: High broad-based agricultural growth sustainably increased in WCA	Indicator: Prevalence of poverty: Percent of people living on less than \$1.25 (FCFA 700)/day	Impact
Specific Objective: Agricultural productivity and market sustainably improved for target groups in WCA	Indicator 1.1: Yield of targeted crops and animals	Impact
	Indicator 2.1: Percent change in value of inter and intra-regional trade in targeted commodities	Outcome
Result 1: Increased use of appropriate technologies and innovations in WCA	Indicator 1.1: Number of hectares under improved technologies or management practices (for crops and animals)	Outcome
	Indicator 1.2: Number of beneficiaries who have adopted an improved agricultural technology promoted by the project (disaggregated by men/women; youth)	Outcome
	Indicator 1.3: Number of farmers who have applied climate-smart agricultural practices	Outcome
Résultat intermédiaire 1.1 Intermediate result 1.1: Improved access to and adoption of researched T&Is in agriculture-based commodity value chains in WCA	Number of targeted beneficiaries with access to T&Is	output
Intermediate result 1.2: Enhanced generation of appropriate T&Is	Number of T&Is generated and disaggregated by commodities	output
Result 2: Increased uptake of strategic decision-making options for policy, institutions and markets	Indicator 2.1: Number of countries adopting regional regulations	Outcome
	Indicator 2.2: Strategic policy options approved and implemented by RECs and national governments	
	Indicator 2.3: Number of policies/regulations/administrative procedures in each of the following stages of development	output
	Stage 1: Analyzed	
	Stage 2: Drafted and presented for public/stakeholder consultation	
	Stage 3: Presented for legislation/decreed	
	Stage 4: Passed/approved	
	Stage 5: Passed for which implementation has begun	

OBJECTIVES/RESULTS	PERFORMANCE INDICATOR	INDICATOR TYPE
Intermediate result 2.1: Enhanced development of policy options for the agricultural sector	Number of policy options under development	output
Intermediate result 2.2: Strengthened enabling environment for regional cooperation for generation and adoption of agricultural technologies	Number of regulations/mechanisms for transfer of technologies across borders developed	output
Result 3: Enhanced institutional and human capacity in agricultural research and development	Indicator 3.1: Average percent change in score on key areas of organizational capacity, measured by a defined organizational capacity assessment tool	Outcome
	Indicator 3.2: Number of actors who have benefited from long-term training (at least 6 months) (disaggregated per category of actors and per institution)	output
	Indicator 3.3: Number of individuals who have benefited from short-term capacity strengthening programs (disaggregated by gender)	output
Intermediate result 3.1: Strengthened institutional capacity of NARS	Number of organizations, members of CORAF and beneficiaries of institutional capacity building	output
Intermediate result 3.2: Strengthened Executive Secretariat of CORAF	Strategic documents and human capacities developed	output
Résultat 4 La demande en connaissances agricoles formulée par les groupes cibles est facilitée et satisfaite	Indicator 4.1: Number of functional innovation platforms in commodity value chains	Output
	Indicator 4.2: Number of women involved in agricultural research	output
	Indicator 4.3: Number of formal enterprises involved in agricultural research	Output
Résultat intermédiaire 4.1 Amélioration de l'échange d'informations et de la gestion des connaissances, prospective et anticipation	Indicator 4.4 Number of foresight studies conducted to inform decision-making processes for priority setting in agricultural research and development	output
Intermediate Result 4.2: Demand driven technology generation, dissemination and adoption supported	Mechanisms for generation and adoption of T&Is developed	output

Table 3 Interventions of community of practice on scaling up T&Is for sustainable impact

KEY STRATEGY 1: INCREASED GENERATION, DISSEMINATION, USE AND ADOPTION OF IMPROVED T&IS IN WCA

Specific strategies	Indicative interventions
<p>Develop a detailed plan for scaling-up the dissemination and use of innovative agricultural technologies based on WAAPP and WASP models.</p>	<ul style="list-style-type: none"> • Establish communities of practice in existing models and mechanisms for the generation, dissemination and adoption of T&Is. • Select the 'dimensions' and define desired scale: expanding services to more clients in a given geographical space. Alternatively, interventions can also involve 'horizontal' and 'vertical' up-scaling. • Defining intermediate results: along the scaling up pathway, it is important that the intervention delivers intermediate results to help in evaluation on the learning pathway. • Exploring the drivers and spaces of the pathway: important to identify and actively explore the major potential drivers and enabling conditions (spaces) that will allow the initiative to grow beyond the experimental or pilot stage. • Selecting operational modalities for scaling up and mobilizing the right partners: successful scaling up generally requires the development of multi-stakeholder partnerships. • Conducting MELIA. • Develop and promote the availability and use of new varieties of drought tolerant, nationally enhanced or high-yielding seeds, promote methods to improve soil fertility, and increase the dissemination and adoption of climate-smart agriculture practices.
<p>Strengthen and scale up priority value chains (cereals such as sorghum, millet, rice, maize, and legumes; livestock, fisheries and aquaculture), including developing and disseminating approaches and technologies to enhance productivity and competitiveness.</p>	<ul style="list-style-type: none"> • n Strengthen the capacity of NARS and other partners in WCA to develop and disseminate new agricultural technologies and practices. • n Target special needs of women farmers, processors and agro-entrepreneurs and professionals, to ensure they have equal opportunity to benefit from program activities. • Identify and increase avenues for successful youth participation in commercial agriculture (incubation centers at NCoS and RCoE).

Key strategy 2: Promote market development and establishment of public private partnerships for enterprise and value chain development

<p>Specific strategies</p> <p>Promote end markets to provide farmers' incentives to continue investing in productivity-enhancing technologies and practices. Promote partnerships with key public and private sector players, including NARS and CGIAR centers, to facilitate relationships between farmers and buyers to ensure a market outlet.</p>	<ul style="list-style-type: none"> • Train actors to become suppliers of seed and other agri-inputs, finance, storage, and other services in order to obtain high quantity products. • Facilitate business relationships between input suppliers (including farmer seed producers, seed enterprises, large and small businesses, including importers, agro-dealers). • Build partnerships with key actors, such as fertilizer and seed companies (IFDC, WAFA, ASIWA, seed producers), to facilitate relationships between input suppliers and agro-dealers and farmer end users.
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KEY STRATEGY 1: INCREASED GENERATION, DISSEMINATION, USE AND ADOPTION OF IMPROVED T&IS IN WCA

Key strategy 3: 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.

Specific strategies

Indicative interventions

Promote scaling of successful interventions and generating credible evidence and knowledge that informs effective decision-making in agricultural research for development.

- Improve the environment for investment opportunities and agribusiness development by the private sector.
- Define feasible pathways and the right mix of approaches for scaling technologies and innovations for impact at scale for successful CORAF interventions in WCA.

Cultivate a learning culture, and make evaluations an on-going effort and share results with all stakeholders; support continual training, learning and practice of impact evaluations.

- Conduct cost benefit analysis for successful (high impact potential) T&Is.
- Create and nurture knowledge sharing platforms on science, T&Is for impact in agricultural research for development.
- Establish a community of practice for impact evaluations, and strengthen capacity for a critical mass of agricultural research scientists and experts.

Key strategy 4: Cultivate and nurture partnerships (networking mechanisms) with competent organizations and institutions (such as the International Food Policy Research Institute's African Growth and Development Policy Modeling Consortium) for impact evaluations

Specific strategy

Key interventions

Integrate impact evaluation in the design and implementation of interventions.

- Conduct ex-ante impact evaluations before the start of an intervention, define the counterfactuals and methods for mid and end point evaluations, or at the start of the project or funding cycle.
- Explore and design cost effective valuation techniques for CORAF activities in WCA, in collaboration with technical and development partners.
- Elaborate plans for impact evaluations for all interventions and ensure they are adequately budgeted for and the human resources for doing the job are contracted in a timely manner.

Table 4. Interventions of integrated regional capacity strengthening in agri-food research and innovation system

Key strategy 1: The approach is underpinned by pooling resources around NCoS and RCoE to engage in capacity strengthening in an integrated manner to the benefit of the WCA sub-region. This approach goes beyond formal training for research scientists and support staff and provision of physical resources.	
Specific strategies	Indicative interventions
1.1 Support NARS in establishing a functional and interactive system to advance Science, technology and innovation for agricultural development and transformation in WCA.	<ul style="list-style-type: none"> Identify and prioritize key elements of capacity strengthening, drawing on findings of recent review of NARS. Strengthen regional and international networking and partnerships to enhance capacity strengthening for Science, Technology and Innovation. Empower stakeholders to think, articulate and collaborate effectively to create a multi-skilled cadre of motivated people capable and willing to work towards results delivery and impact.
Key Strategy 2: Review existing NCoS (institutional set-up for effective collaboration, research programs, scientific capacities, staff and information exchange) and prepare time-bound and institutional development plans for each NCoS to ensure that they deliver on their core mandate	
Specific strategy	Key interventions
2.1 Review the most effective options for establishing a network of RCoE and developing a comprehensive strategy for the establishment of an inclusive network of RCoE.	<ul style="list-style-type: none"> Organize an effective advocacy campaign to secure the active support of national and regional decision-makers, and of donors contributing to the funding of international research, and bilaterally with the CGIAR, to launch viable partnerships in priority areas to consolidate the establishment of RCoEs to undertake joint strategic research programs with IARCs and ARIs.. Create and maintain a critical mass of expertise in different areas of competences.
2.2 Enhancing and developing co-ordination.	<ul style="list-style-type: none"> Establish sustainable innovation platforms. Enhance appropriate communication systems. Develop effective partnership arrangements. Foster a process of institutional strengthening and efficient institutional arrangements.
2.3 Creating and maintaining a minimum base of expertise in different areas.	<ul style="list-style-type: none"> Strengthen bio-scientists' capacity to embrace socio-economic aspects in their work. Promote policies that attract expertise from the private sector. Influence university curricula to address research needs in the WCA sub-region. Provide support to weak NARS with limited comparative advantages. Organize formal training of NARS scientists for higher degrees to replace those who are retiring.

Key Strategy 2: Review existing NCoS (institutional set-up for effective collaboration, research programs, scientific capacities, staff and information exchange) and prepare time-bound and institutional development plans for each NCoS to ensure that they deliver on their core mandate

Specific strategy	Key interventions
<p>2.4 Creating and maintaining management and institutional culture and environment that attracts and maintains qualified personnel.</p>	<ul style="list-style-type: none"> • Encourage performance contracts for staff. • Conduct advocacy to improve budget allocation to agriculture/ research. • Develop change management capacity in NARS. • Establish revenue generating policies for agricultural research. • Review human resources policies of NARS.
<p>2.5 Developing competencies to implement effective IAR4D.</p>	<ul style="list-style-type: none"> • Trains NARS scientists to participate in innovation platforms and share experiences on best practices for adoption.
<p>2.6 Capacity strengthening, knowledge sharing and networking for youth engagement in agriculture</p>	<ul style="list-style-type: none"> • Target youth in local communities and train them in entrepreneurial skills and business development services.

Table 5: Key interventions under knowledge management, foresight, and anticipation

Key Strategy 1: Harnessing intelligence about possible futures to inform present day decision making processes and priority setting exercises in the Agri-food Research and Innovation System in agricultural research for development in WCA	
Specific strategies	Indicative interventions
1 Identification of fundamental (basic) research and emerging T&Is likely to yield greatest economic and social benefits to target populations.	<ul style="list-style-type: none"> Promote effective and inclusive processes to proactively think about the future, generate knowledge to inform agricultural research for development choices (different possible futures and related pathways). Conduct special studies on the 'futures of agriculture in Africa' and create data bases on the evolution of key drivers of change in agriculture. Understand drivers of agricultural research and development (the underlying forces of change, influences between trends and underlying forces, most critical and uncertain drivers of change). Create scenarios (models of possible future worlds or state of agricultural research and development in WCA and the global economy; what are the issues in the news and what happened in the past that created this?). Provide decision-support options through greater emphasis on foresight and anticipation (e.g. emerging pests – maize leaf necrotic disease, demographics/migration). Synthesize insights and knowledge from current qualitative and quantitative foresight efforts on agricultural research in WCA to identify the most important interventions and investments with potentials for poverty reduction.
2. Support the development of individual and organizational foresight capacity in WCA countries	<ul style="list-style-type: none"> Mobilize and empower researchers, academics and civil society to influence science, T&I policy and decision-making processes and related program implementation. Build in-house foresight capacity to translate foresight into action on an on-going basis (communicate results, create an action agenda, create a knowledge management and an intelligence system and institutionalize strategic thinking). Establish and nurture partnerships with CGIAR centers and other collaborating partners involved in global economic modeling.
Develop a strategic outline for facilitating the emergence of foresight capacity for agricultural development in WCA.	<ul style="list-style-type: none"> Strengthen capacity of NARS partners in foresight and anticipation using NCoS/RCoE facilities.

Table 6: Key strategic interventions of cross-cutting issues – women and youth in agriculture

Key strategy 1: Promote engagement and effective participation of women and youth in the agri-food research and innovation system in WCA	
Specific strategies	Indicative interventions
Promote entrepreneurial spirit and effective partnerships among actors.	<ul style="list-style-type: none"> • Strengthen individual and collective capacity in agricultural entrepreneurship in the areas of management, finance, human resources, marketing, and law, with training support from universities and specialized training centers. • Establish partnerships with the private sector to enable immersion of the youth in enterprises of their choice and benefit from professional support services. • Promote agribusiness through networking, labeling and facilitation of access to information on markets and enterprises.
Key strategy 2: Increased use of knowledge generated through research, and establishment of public private partnerships and creation of enabling conditions for agribusiness development	
Specific strategies	Indicative activities
Enhance capacity of NCoS to mainstream youth employment in agriculture in WCA.	<ul style="list-style-type: none"> • Establish incubation centers or upgrade existing ones and support them through NCoS/RCoE. • Develop modules for training, coaching and mentoring youths in agripreneurship development. • Promote agripreneurship start-ups and job creation.
Strengthen capacity of women and youth in value addition, agri-food research and extension, entrepreneurship, ICTs and knowledge management.	<ul style="list-style-type: none"> • Coordinate training programs for women and youth in value addition, agri-food research and extension, entrepreneurship, ICTs and knowledge management.

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

**CATALYZING
INNOVATIONS**

STRATEGIC PLAN

2018 - 2027

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