CORAF
Rapport annuel 2017

30 années de prises de décisions innovantes à mettre à l’échelle en Afrique de l’Ouest et du Centre

CORAF (Conseil Ouest et Centre Africain pour la Recherche et le Développement Agricoles / West and Central African Council for Agricultural Research for Development)
7 Avenue Bourguiba
B.P. 48, cp 18523, Dakar, Senegal
Tel: +221-338699618
Fax: +221-338699631
Email: secoraf@coraf.org
Website: www.coraf.org

ISBN .................................................. [print]
ISBN .................................................. [pdf]
Abbreviations & Acronyms

AFD   Agence Française de Développement
AfDB  Africa Development Bank
AGRA  Alliance for a Green Revolution in Africa
AGRYHMET Centre Régional de Formation et d’Application en Agrométéorologie et Hydrologie Opérationnelle
AHC-STAFF African Human Capacity Strengthening
APESS  Association pour la Promotion de l’Elevage au Sahel et en Savane
AR&D  Agricultural Research and Development
ARI  Advanced Research Institution
AU  African Union
CAADP Comprehensive Africa Agriculture Development Program
CAP Common Agricultural Policy of Central Africa
CEMAC Communauté Économique et Monétaire de l’Afrique Centrale
CGIAR Consultative Group on International Agricultural Research
CILSS Comité Permanent Inter-États de Lutte Contre la Sécheresse au Sahel
CORAF West and Central African Council for Agricultural Research and Development
CRA Centre Régional AGRHYMET
DFATD Department of Foreign Affairs, Trade and Development
DFID Department for International Development
ECCAS Economic community of Central African States
ECOWAP Economic Community of West African States Agricultural Policy
ECOWAS Economic Community of West African States
EMMP Environment monitoring and mitigation plan
ERF Environmental review form Executive Secretariat
FAAP Framework for African Agricultural Productivity
FARA Forum for Agricultural Research in Africa
FtF Feed the Future (USAID)
GA General Assembly
GB Governing Board
IARC International Agricultural Research Centre
IAR4D Integrated Agricultural Research for Development
ICRISAT International Crops Research Institute for the Semi Arid Tropics
IEE Initial Environment Evaluation
ILWAC Integrated Land and Water Management for Adaptation to Climate Variability and Change
IP Innovation Platform
IsDB Islamic Development Bank
MDTF Multi Donor Trust Fund
MELIA Monitoring, Evaluation, Learning and Impact Assessment
NARI National Agricultural Research Institute
NARS National Agricultural Research System
NCoS National Centre of Specialization
NEPAD New Partnership for Africa’s Development
NGO Non-Governmental Organization
PACA Partnership for Aflatoxin Control in Africa
PAIRED Partnership for Agricultural Research, Education and Development
PERSUAP Pesticide Evaluation Report and Safe Use Action Plan
PROPAC Plateforme Sous-Régionale des Organisations Paysannes d’Afrique Centrale
PLMF Support project to the regional plan for control and management of fruit flies in West Africa
### Abbreviations & Acronyms

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Full Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>PID</td>
<td>Priority Intervention Domains</td>
</tr>
<tr>
<td>RAFNSIP</td>
<td>Regional Agriculture, Food and Nutrition Security Investment Plan</td>
</tr>
<tr>
<td>REC</td>
<td>Regional Economic Community</td>
</tr>
<tr>
<td>RCoE</td>
<td>Regional Centre of Excellence</td>
</tr>
<tr>
<td>ROPPA</td>
<td>Réseau des Organisations Paysannes et des Producteurs Agricoles</td>
</tr>
<tr>
<td>S3A</td>
<td>Science Agenda for Agriculture in Africa</td>
</tr>
<tr>
<td>SCARDA</td>
<td>Strengthening Capacity for Agricultural Research and Development in Africa</td>
</tr>
<tr>
<td>SDG</td>
<td>Sustainable Development Goals of the United Nations</td>
</tr>
<tr>
<td>SP</td>
<td>Strategic Plan</td>
</tr>
<tr>
<td>STC</td>
<td>Scientific and Technical Committee</td>
</tr>
<tr>
<td>T&amp;I</td>
<td>Technologies and Innovations</td>
</tr>
<tr>
<td>UEMOA</td>
<td>Union Economique et Monétaire Ouest Africaine</td>
</tr>
<tr>
<td>USAID</td>
<td>United States Agency for International Development</td>
</tr>
<tr>
<td>WAAPP</td>
<td>West Africa Agricultural Productivity Program</td>
</tr>
<tr>
<td>WAATP</td>
<td>West Africa Agricultural Transformation Program</td>
</tr>
<tr>
<td>WASCAL</td>
<td>West African Science Service Center on Climate Change and Adaptation</td>
</tr>
<tr>
<td>WASP</td>
<td>West Africa Seed Program</td>
</tr>
<tr>
<td>WB World Bank</td>
<td>WCA West and Central Africa</td>
</tr>
</tbody>
</table>
# Table of contents

Foreword 7
Who we are 8

**Our 2017 Milestones and Successes** 9

1. **Consolidating CORAF as a key regional player in agricultural transformation in WCA** 10
   1.1. Complying with emerging trends in agriculture in WCA 10
   1.2. Honing our tools for accelerating agricultural transformation in WC 10

2. **Fostering and extending regional and international cooperation in AR&D in WCA** 13
   2.1 Prompting world-class research cooperation through RCoE 13
   2.2 Expanding partnerships and scientific cooperation 13
   2.2.1 CORAF-USAID: Bringing the partnership to a higher level 13
   2.2.2 Realizing the African Science Agenda in Agriculture (S3A) with FARA 13
   2.2.3 Teaming up with African Union for enhanced Animal Genetic Resource management and use 14
   2.2.4 CORAF and IITA join forces to rapidly transform agriculture in WCA 14
   2.2.5 Developing a new era of partnership between China and West Africa 14

3. **New flagship programs to transform agriculture in WCA** 15
   3.1 Launching a new Partnerships for Agricultural Research, Education and Development (PAIRED) project 15
   3.2 Scaling technologies in Central Africa through the West Africa Agricultural Transformation Program (WAATP) 15

4. **Improving gender equity in R&D to catalyze innovation in WCA** 16
   4.1. Gender mainstreaming is taking roots in NARS and regional initiatives 16
   4.2. Fostering agribusiness mentality in farming among youth 16

5. **Bridging the gap to new technologies for small holder farmers in WCA** 18
   5.1. Sustaining and scaling up adoption of technologies in WA 18
   5.2. Capitalizing on achievements in the seed industry in WA 19
   5.3. Animal and aquaculture genetic resources in WA 19
   5.4. Towards effective management of the dreadful fruit fly in West Africa 20
# Table of contents

6. **Strengthening capacity for rapid agricultural transformation in WCA**

   6.1. Channeling Israeli experience to transform West African agriculture
   6.2. Grooming the agricultural research workforce and competencies
   6.3. Addressing the capacity and productivity constraints on Maize, Cotton and Livestock value chains

7. **Administration and Finance**

   7.1. Human and talent mobilization by CORAF
   7.2. Resource mobilization by CORAF

8. **Challenges and lessons learned**

9.1. **Conclusion**

9.2. **Perspectives**

**ANNEXES**

- Annex 1: References
- Annex 4: New projects and study initiated in 2017
- Annex 5: The Results Framework of the CORAF Strategic Plan 2018-2027
Foreword:
Celebrating 30 years of Impact in Agriculture in WCA

Dr Alioune FALL
Chairman of the Governing Board

Dr Abdou TENKOUANO
Executive Director

We are pleased to introduce our 2017 Annual Report, coinciding with CORAF’s 30th anniversary. Within this period, CORAF has played a leading role in coordinating agricultural research for development in West and Central Africa (WCA) where a growing number of smallholder farmers are accessing innovations and technologies that are impacting on productivity and production of major commodities. CORAF also continued to provide policy options to member states to achieve food security and progress in the agricultural sector.

To sustain these efforts and bring agriculture to a higher level, a restructuring and rebranding process with the aim of strengthening our visibility, relevance and impact were necessary. We have developed a new Strategic Plan (2018-2027) which is a road map through which CORAF and its stakeholders can collectively tackle growing challenges such as climate change, gender disparities, massive migration of youths, and unemployment in WCA.

The rebranding philosophy is also portrayed in our new visual identity. The organization has been using both French and English acronyms (CORAF/WECARD) since it embraced Anglophone countries in the region. However, it was commonly referred to as only CORAF. Therefore, following a broad consultation, it was agreed that henceforth, the organization should be referred to as CORAF and this has been reflected in the new logo of the organization. As part of the activities to celebrate the 30th anniversary, a special logo was designed and the new look for all CORAF products will provide visual coherence – a clearly identifiable brand.

We wish to salute all of you who have been part of the journey that CORAF has traversed over the years in coordinating and advocating for agricultural science, research, technology and innovation. CORAF’s management is grateful to the Regional Economic Communities and Monetary Unions (ECOWAS, UEMOA, ECCAS and CEMAC), a host of development partners namely the World Bank, EU, USAID, Global Canada, IDRC, AfDB and IsDB for their support towards our various projects, programs and initiatives. The management also appreciates support from our 23-member countries and their NARS as well as the numerous other stakeholders involved in the implementation of our regional programs and sub-projects, mostly farmer-based organizations (ROPPA, PROPAC, APESS and RBM), the CGIARs (IITA, AfricaRice, ICRAF, ICRISAT and AVRDC), including the advanced research institutions (CIRAD, IRD and EMBRAPA). This report would not have been possible without these actors who equally receive tremendous backstopping from the staff of CORAF.

We invite you to enjoy this report and circulate it within your networks.
The West and Central Africa Council for Agricultural Research and Development, with the acronym, CORAF was originally established in 1987 as a Conference of Heads of African and French Agronomic Research Institutions. CORAF’s membership has expanded since 1995 and presently includes 23 National Agricultural Research Systems (NARS) of the following West and Central Africa (WCA) countries: Benin, Burkina Faso, Cameroon, Cape Verde, Central African Republic, Chad, Congo, Côte d’Ivoire, Democratic Republic of Congo, Gabon, The Gambia, Ghana, Guinea, Guinea Bissau, Liberia, Mali, Mauritania, Niger, Nigeria, Sao Tomé & Principe, Senegal, Sierra Leone, and Togo.

CORAF intervenes in these 23 WCA 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. The demand for food in WCA, especially in the growing urban centers, is projected to increase from about 60% to 80% by 2050, although agricultural yields are not keeping pace with the increasing demands. Competitiveness for food and agricultural products in the global market has led to increased exposure of WCA farmers to high produce quality, world market prices, and pressure for competitive prices. The “new agriculture”, including family farming and organic farming, is expected to improve access to markets and global agri-food value chains through local and regional traders, small and medium-scale (agribusinesses) enterprises (SMEs), as well as agro-processors.
Our 2017 Milestones and Successes

- Positioning CORAF as a key regional player in the agricultural transformation in WCA with key strategic documents for the next ten years.

- Facilitating the production of 54 tons of breeder seeds (34% of regional supply), 1,010 tons of foundation seeds (13% of regional supply), and 11,694 tons of certified seeds, thanks to the WASP PPP model.

- Increasing the performance of WAAPP with 750,000 people directly benefitting from WAAPP (of which 41% are women), more than 700,000 farmers adopting new technologies, and 2 National Center of Specialization (Dry Cereals and Root & Tuber) satisfying conditions to be upgraded into Regional Centers of Excellence.

- Enhancing knowledge on breeding and phenotypic characteristics of the Ndama bovine breeds of Senegal and Côte d’Ivoire, thanks to the UEMOA supported project.

- Building capacity of NARS (Sierra Leone, Liberia, Chad and DRC) with 12 out of 28 students completing their MSc. and PhD thesis, thanks to IDRC’s support.

- Developing environmentally sound control techniques (IPM, Biological control) for fruit fly pests, thanks to the EU funded project (PLMF).

- Improving financial stability by increasing resource mobilization and expanding partnerships:
  - **USD 15.0 million** funding from USAID for a new 5 years-program entitled “Partnership for Agricultural Research, Education and Development” (PAIRED);
  - **USD 4.468 million** from the Additional Financing for WAAPP 1C to scale up adoption of technologies in Benin, Guinea, Niger and Togo;
  - Scaled WAAPP to include Cape Verde and Guinea Bissau;
  - Supported the development of a new program, the “West Africa Agricultural Transformation Program” (WAATP) to scale WAAPP successes in WCA;

- Increasing CORAF’s visibility in Central Africa through the coordination of WAATP in Cameroon and Chad.

1. Consolidating CORAF as a key regional player in agricultural transformation in WCA

1.1. Responding to emerging trends in agriculture in WCA

After 10 years of implementation of the CORAF Strategic Plan (2007-2016), agricultural and socio-economic development patterns demanded CORAF to comply with new orientations notably, the United Nations Sustainable Development Goals (SDGs), the 2014 Malabo Declaration, and the recommendations of the International Conference on ECOWAP (ECOWAP+10) in 2015. External and internal reviews, mid-term and final evaluations of OP1 (2008-2013) and WAAPP, WASP, MDTF, FTF, DFID, DFAT, and ILWAC programs as well as extensive consultations with stakeholders, highlighted the achievements and lessons learnt that have informed the development in a consultative and inclusive approach, of key strategic documents:

- Second 10-Year Strategic Plan for 2018-2027 (SP2);
- A marketable third Operational Plan for 2018-2022 (OP3);
- Resource Mobilization Plan; and
- Strategy of Communication and Marketing.

1.2. Honing our tools for accelerating agricultural transformation in WCA

Based on the multitude of challenges and opportunities faced in agricultural research and development in WCA, CORAF recognizes that it cannot address all of these alone. CORAF will facilitate comprehensive linkages between multiple organizations consisting of local, national, sub-regional, regional, private, public sectors and civil society, to bring about large-scale changes. To achieve the objectives of the CORAF SP2 (2018-2027), an initial five-year OP3 (2018-2022) was prepared with special attention to the following key issues:

- **Priority setting and planning:** Most of the priorities emerged from problems identified and translated into projects (WAAPP, WAATP, PAIRED, Fruit fly, UEMOA projects) to be implemented over the next decade.

- **Project management:** Funding for projects will be channeled through commissioned research and competitive grant scheme, mostly to NCoS and RCoEs which have specific research expertise, competence and facilities.

- **Partnership for impact:** CORAF will deliver its mandate by developing functional partnerships that leverage expertise and resources.

- **Resource mobilization:** Implementation of the SP2 (2018-2027) will enhance financial partnership with traditional donors, broaden the donor base and emphasize cooperation with non-traditional development partners, such as China, Israel, Bill and Melinda Gates Foundation, Dangote Foundation, AGRA, and the relevant Private Sector players.

- **Communication and Marketing:** Demonstrate to donors, regional and national partners that rooted in WCA, CORAF more than any other institution has an unparalleled experience in providing lasting solutions required to transform the agricultural industry in the sub-region.
The CORAF SP2 addresses institutional weaknesses, constraints, opportunities and challenges in adopting IAR4D in the WCA through 3 Priority Intervention Domains1 (PID), namely: (i) Agriculture, Food, and Nutrition Security, (ii) Policy, Institutions, Markets and Trade, and (iii) 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 Results Framework (“Sustaining the CAADP Momentum - Going for Results and Impact), the Malabo Declaration goals, the United Nations Sustainable Development Goals (SDGs) and National Agricultural Policies. Furthermore, they facilitate the establishment of clear linkages between priority programs and deliverables of the RECs policies, particularly National Agriculture, Food and Nutrition Security Investment Programs (NAFNSIP). 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: These are:

(I) Community of practice in scaling up technologies and innovations for impact,
(II) Regional integrated capacity strengthening and coordination, and
(III) Knowledge management, foresight and anticipation

1 An 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, the RECs agricultural policies, the AU-NEPAD’s CAADP and Malabo Declaration Goals as well as the new UNs SDGs.
1. Strengthening the institutional and human capacity of the 23 NARS to provide a conducive environment for effective engagement in IAR4D.

2. Coordinating and networking of the NARS with the CIGIAR CRPs, AGRA, FARA; including regional research centers (base centers, poles, centers of excellence) in the Agrifood Research System. The WASP consortium model can serve as a source of inspiration.

3. Providing support to the RECs and member countries in the conception, design and implementation of regional policies as well as strategies and regional programs for the generation, dissemination and large-scale adoption of technologies.

4. Research into policy, socioeconomics and markets is supported to assist with the development and implementation of policies and strategies in order to increase agricultural growth and development.

5. Promoting youth employment in agriculture through agribusiness sector development and partnering with on-going initiatives like the AfDB TAAT, the AARP and AGRA initiatives in WCA.

6. Linking with universities to optimize research outputs through coaching/mentoring programs for young graduates as well as integrating and sustaining them to progressively replace the ageing research scientists.

7. Knowledge Management, Fore sighting and Anticipation (enhance knowledge sharing and engagement to enable faster technology, innovation and policy development and anticipation in AR4D).
2.1 Prompting world-class research cooperation through RCoE

ARS member countries of CORAF are fine-tuning an innovative model in agricultural research for development through the National Centers of Specialization (NCoS), which are currently under transformation into Regional Centers of Excellence (RCoE). This model ensures a regional research framework with a common pool of resources and research expertise to better transform ideas into policy, policy into action, and action into results, while fine-tuning technologies and innovations to achieve sustainable impact at scale.

Among the five NCoS assessed in 2017, two have satisfied the criteria for upgrading into RCoE (Roots & Tubers in Ghana and Dry Cereals in Senegal). CORAF will make an official recommendation to ECOWAS in 2018 for these two institutions to be recognized as ECOWAS Agricultural Regional Center of Excellence.

2.2 Expanding partnerships and scientific cooperation

During 2017, CORAF pursued the implementation of the OP2 (2014-2018) with relentless efforts in the mobilization of resources through various advocacy missions with partners.

2.2.1 CORAF-USAID: Bringing the partnership to a higher level

Winning a US$ 15 million five-year USAID supported program:

CORAF devoted efforts in 2017 to develop a winning proposal following a call from the USAID-WA. The winning project is entitled “Partnership for Agricultural Research, Education and Development” (PAIRED) aims to primarily undertake systemic reforms that will improve the efficiency, effectiveness, and professionalism of CORAF to move the organization towards becoming a stellar instrument for regional coordination of agricultural research, and to put it on a path to financial stability and sustainability. These reforms will result in a solid and resilient organization with a new strategic orientation capable of providing a high-quality, demand-led core service package.

Building the agri-inputs regional strategy with IFDC:

A delegation from USAID visited CORAF to support the collaboration between CORAF and IFDC on agri-inputs regional strategy aimed at increasing the use of quality agri-inputs in the region. CORAF in collaboration with IFDC, AGRA, together with private and public-sector partners, is pursuing the development of models based on empirical data for packaging seeds and fertilizers to increase their marketability, particularly among small scale farmers in rural communities.

2.2.2 Realizing the African Science Agenda in Agriculture (S3A) with FARA

The Science Agenda for Agriculture in Africa (S3A) led by FARA was launched in 2014 in Johannesburg. The S3A is the game changer for the continent’s agricultural transformation agenda. Its implementation within the countries is anticipated to create a favorable policy environment for Science, enhance capacity strengthening mechanisms, promote financing arrangements and support innovative platforms in advancing agricultural transformation.

In July 2017, CORAF and FARA supported the Government of Ghana and Senegal in the national S3A meetings in Accra (Ghana) and Dakar.
(Senegal), respectively to identify key activities, design the Result Framework and the Theory of Change. CORAF also provided support through its involvement in a collaborative research activity with IFPRI under the CAADP and CGIAR alignment activities of the S3A. In this regard, CORAF carried out the country case study on New Rice for Africa (NERICA) in Senegal. This study under the partnership with IFPRI resulted in the predictions of the potential economic benefits of NERICA adoption in the Casamance region and South of the Sine Saloum region in Senegal.

2.2.3 Teaming up with African Union for enhanced Animal Genetic Resource management and use

In September 2007, the international economic committee, convened by FAO, organized the first Global Action Plan (GAP) for Animal Genetic Resources (AnGR) in Interleken, Switzerland. The ensuing plan highlighted 23 strategic priorities and aims to combat the erosion of animal genetic diversity and to sustainably use AnGR for food and agriculture. One of these priorities is the establishment of an AnGR Regional Focal Point (RFP) in each continent. In Africa, the RFP was established as the Inter African Bureau of Animal Genetic Resources of the African Union (AU-IBAR). The African RFP is gradually building five (5) Sub-regional RFP (S-RFP) for Central Africa, North Africa, East Africa, Southern Africa and West Africa. In West Africa, the S-RFP includes a General Assembly composed of AnGR National Coordinators, a Steering Committee (SC) chaired by the ECOWAS Commission and the Secretariat hosted by CORAF.

2.2.4 CORAF and IITA join forces to rapidly transform agriculture in WCA

IITA is the main implementing agency of the Technologies for Africa’s Agricultural Transformation (TAAT), an ambitious new technologies’ adoption program in Africa funded by the African Development Bank (AfDB), while CORAF is the main implementing agency of the West Africa Agricultural Transformation Program (WAATP) funded by the World Bank. The transformation of Africa’s agriculture is the focus of both organizations. IITA and CGIARs have ready to share technologies that can rapidly transform agriculture under the joint WAATP and TAAT, a solid collaborative working relationship between IITA and CORAF. Both organizations are bringing together their comparative advantages to maximize impacts and be more effective in the delivery of development results in WCA.

Furthermore, IITA and CORAF signed an agreement in December 2017 to collaborate in controlling aflatoxins associated with several crops (cereals, legumes, vegetables, roots and tubers) and livestock (eggs, milk) and causing adverse impacts on health, food security, and trade sectors. This collaboration will promote the use of “Aflasafe”, a biological product to control Aflatoxins in CILSS member countries. In this regard, CORAF is hosting the IITA Unit for the commercialization of Aflasafe in Senegal and The Gambia and is coordinating an initiative on cereals and legumes contamination.

2.2.5 Developing a new era of partnership between China and West Africa

CORAF led a delegation of 22 members from eight (8) WAAPP countries to China in September 2017. The visit was aimed at exposing the members to Chinese expertise in the production and utilization of hybrid seeds, transfer of intensive aquaculture technology and agricultural mechanization along agricultural commodity value chains. The WAAPP delegation met eight businesses which expressed the desire to form a partnership with WAAPP member countries. The Nonghaha Agricultural Machinery Manufacturing particularly indicated its readiness to set up a demonstration center for its agricultural machinery in West Africa. The outcome of this successful mission was the signing of a MoU between the Hebei Academy of Agriculture and Forestry Sciences of China and CORAF.
3. New flagship programs to transform agriculture in West and Central Africa

3.1 Launching a new Partnerships for Agricultural Research, Education and Development (PAIRED) project

The CORAF-USAID/WA partnership is underpinned by the conviction that regional approaches and interventions are efficient as an added value to national efforts in reaching out to millions of people whose livelihoods depend on agriculture and whose socio-cultural and economic circumstances are similar.

The Partnerships for Agricultural Research, Education and Development (PAIRED) Project, a new USAID support of 15 million USD started in 2017 for a period of 5 years. It has enabled CORAF to develop its second Strategic Plan (2018-2027) and third Operational Plan (2018-2022), together with separate Resource Mobilization, Knowledge Management and Communication and Marketing Plans. PAIRED’s objective is to increase agricultural growth, food and nutritional security and poverty reduction in West Africa. The specific objective is to enhance CORAF’s institutional and technical leadership in increasing agricultural productivity. This will be achieved through the delivery of three mutually reinforced components: (i) Support for Strengthening CORAF’s Institutional Capacity; (ii) Scaling Up Agricultural Technologies; and (iii) Increasing Availability of Quality Agri-Inputs. PAIRED will build on partnerships with various stakeholders along five value chains – Dry cereals, Fruits and Vegetables, Livestock, Rice, and Roots and Tubers – through the designated RCoS with headquarters in Senegal, Burkina Faso, Niger, Mali, and Ghana, respectively.

3.2 Scaling technologies in Central Africa through the West Africa Agricultural Transformation Program (WAATP)

The agricultural challenges facing countries across can be tackled effectively by using a regional integration approach. Lessons learned from the implementation of WAAPP demonstrated that a regional approach is essential to achieve the positive results of a “green revolution” in Africa.

The first series of activities in the WAATP will be implemented in the ECOWAS countries (Côte d’Ivoire, Burkina Faso, Ghana, Liberia, and Sierra Leone) and ECCAS countries (Cameroon and Chad). It is expected that other countries will join the program in due course to expand the CORAF portfolio. This new initiative seeks to transform the agriculture industry sustainably by scaling up replicable innovations and technologies using ICT tools and geo-mapping. The objective is to accelerate massive adoption of improved technologies, youth job creation and to strengthen enabling conditions for access to regional markets. WAATP will have five components: (i) Strengthening the new model of innovation delivery in West and Central Africa; (ii) Accelerating mass adoption of technologies and job creation; (iii) Policies, markets and institutional strengthening; (iv) Contingent emergency response; and (v) Project management, learning, monitoring and evaluation.
4. Improving gender equity in R&D to catalyze innovation in West and Central Africa

4.1. Gender mainstreaming is taking roots in NARS and regional initiatives

CORAF has made considerable contributions towards gender mainstreaming at regional and continental levels through high level gender policy dialogues and partnerships on gender equality in agriculture. This follows CORAF’s commitment to a programmatic approach that ensures gender equality and subsequently facilitating access to agricultural resources by women and youth.

CORAF has been part of a continental task force led by IFPRI to assist countries in mainstreaming gender in their National Agricultural Investments Plans (NAIPs). A continental gender strategy for the NAIPs was developed and technical support was provided during the NAIPs Clinic for ECOWAS member countries held in October 2017 in Senegal.

CORAF has also contributed to gender training, as well as development and assessment of the gender action plans in the implementation of the Regional Sahel Pastoralism Support Project (PRAPS, a CILSS regional project) in Niger, Burkina Faso, Mauritania, Chad, Senegal and Mali.

The African Union gender division invited CORAF to participate in the ‘Gender is my Campaign’ (GIMAC) meeting held in Addis-Ababa in June 2017. This opportunity was cease to share the WAAPP gender strategy and gender responsive technologies with participants. CORAF also shared its expertise on ‘Sustainable Food, Agriculture and Natural Resource Management’ in the context of climate change. Moreover, in October 2017, CORAF shared its experience in gender mainstreaming with participants during a consultative meeting with rural women on the AU Gender Strategy organized by FAO in Accra.

To showcase agricultural technologies and innovations generated, a forum was organized on “Women’s access to appropriate technologies” in Abidjan (Côte d’Ivoire) in June 2017, in collaboration with IFDC. The forum was attended by key gender focal points in WAAPP member countries, namely Burkina Faso, Benin, Mali, Niger, Nigeria, Senegal, and Côte d’Ivoire. A range of the gender responsive machinery and technologies that have transformed lives of many vulnerable women and youth in West Africa were displayed.

- **30%** Female benefitted from MsC and PhD Scholarships under WAAPP
- **43%** Women beneficiaries if WAAPP with getting closer to parity with men in accessing agricultural productive resources (49%) in some countries as Ivory Coast and Mali
- **43%** Women beneficiaries under MDTF, with women making a difference on adoption of technologies in the IPs
4.2. Fostering agribusiness mentality in farming among youth

CORAF is coordinating a project on “Nurturing Enterprising Youth in Agricultural Technologies” (NEYAT) with funding from WAAPP and the Islamic Bank of Development (IsBD). The project is promoting the use of technologies generated by the NCoS among youth and has successfully completed two portfolios on knowledge sharing and web-based channels in previous years.

The first batch of 120 mentees (of which 50% were women) out of 3,000 candidates have been selected and will start a one-year virtual mentorship program in 2018. On the other hand, 40 mentors including 32 scientists and private sector professionals have been selected. In December 2017 about 20 aspiring young agripreneurs attended a pre-forum on ‘ICT in Agribusiness’ (ICT4Ag) in Dakar (Senegal) to examine how ICT can be used to create jobs and income generating activities in the agro-food system in West and Central Africa. In the meantime, the Young Professional for Agricultural Development (YPARD) a network of youth in Africa has been invited to submit a proposal through CORAF’s competitive grant scheme with possible funding under WAAPP.

Grace-Marlène Gnintoungbe, a CORAF mentee, is a young agripreneur from Benin. Her business focuses on the development of an organic farm in Benin.

Since 2015, she has set up market-oriented gardening that is purely organic. She’s going “organic” because she believes that the protection of the environment should be a top priority for farmers.

Grace-Marlène’s garden is located at Glo Djigbé in the department of Atlantique. She’s developing her enterprise to effectively capitalize on ICT. She is particularly interested in post-harvest activities related to processing, labeling, and marketing.

Grace-Marlène participated in CORAF’s Information and Communication Technologies in Agriculture (ICT4Ag) forum, where she shared her experience of waking up from her ICT slumber. Grace-Marlène wants to demonstrate to other young people that it is possible to live a decent life as a farmer while contributing to the community.

“I consider my participation at the NEYAT forum very important because I’ve acquired new knowledge and innovative management tools on how to use the internet to boost my business, ensure better financial management, and create visibility,” Grace-Marlène says.

She will like CORAF and partners to support her through the development of a mobile remote irrigation app, as well as facilitating access to favourable funding opportunities.

“WHEN ORGANIC MEETS SMART-FARMING

Grace-Marlène GNINTOUNGBE

© Photo CORAF

© Photo CORAF

© Photo CORAF
5. Bridging the gap to new technologies for small holder farmers in WCA

5.1 Sustaining and scaling up adoption of technologies in WA

WAAPP was initially conceived as a ten-year horizontal and vertical Adaptive Program Lending (APL) with two phases of 5 years each. Out of 13 countries, only Mali, Senegal and Ghana completed the first and second phases. The first phase for the other 10 countries was closed on December 31, 2016. However, the WB approved Additional Financing (AF) in order to consolidate and extend the program’s promising achievements for another 2 years in Benin, Guinea, Niger and Togo. During 2017, outputs from WAAPP initiatives continued to spread across the region. CORAF also provided support to WAAPP Mali and Niger in evaluating the impact of the program in the respective countries. CORAF is also supporting preliminary preparations on the development of the follow up WAATP.

**WAAPP ACHIEVEMENT OVER THE PAST 8 YEARS**

- **200** Technologies generated in 13 West African Countries Convering over 3 million hectares
- **10 Million** Smallholder farmers that are using the technologies/innovations
- **50 Million** Indirect Beneficiaries benefiting from the technologies generated in the sub region
- **45%** Female smallholder farmers Have better acces to agricultural resources.
- **30%** Average yield increase For improved varieties of millet, sorghum, maize and fonio.
- **34%** Average income increase For smallholder farmers in the 13 West African countries
- **28% - 55%** Average yield increase For improved varieties of millet, sorghum, maize and fonio.
5.2 Capitalizing on achievements in the seed industry in WA

WAAPP in partnership with the USAID/West Africa Mission through WASP organized a two-day learning event in June 2017 in Accra (Ghana) to share lessons learned on the implementation of the WASP, with a broad range of the seed value chain stakeholders. Participants lauded the models initiated by WASP in the regional seed resilience, the business model and the seed demand forecasting tool, and recommended upscaling them across the West Africa region. The use of innovative information and communication approaches will be vital in upscaling successful models together with the sharing of vital experiences among stakeholders and partners. Stakeholders’ need for information is enormous. In this regard, a section was devoted to ICT approaches.

The Learning Event recommended the following: (i) incorporating other crops in a future program, (ii) widening the responsibility for the seed certification process by tapping on the advantages that the private sector possesses, and (iii) injecting more entrepreneurial dimensions into the seed sector, strengthen the access and use of instructional credit, including the institution of viable national seed development fund schemes and credit guarantee arrangements.

25% Production increased
From 11 to 25% increase in terms of land covered by certified seeds

100K Tons of Certified seeds produced

1300 Varieties registered
In a regional catague with 76% of varieties released in 17 Member States

WASP ACHIEVEMENTS OVER THE PAST 5 YEARS

5.3 Animal and aquaculture genetic resources in West Africa

The project «Valorization of local animal and aquaculture genetic resources [PROGEVAL] in the UEMOA zone, is one of the two UEMOA supported projects coordinated by CORAF. It is a game changer in the sustainable valorization of local animal genetic resources [Zebu cattle, Ndama taurin, sheep, guinea fowl] and aquaculture [Tilapia and catfish] with the aim of ensuring food security and increasing the income of producers in Burkina Faso, Côte d’Ivoire, Guinea Bissau, Niger and Senegal. Key results achieved during 2017 are as follows:

Breeding practices and phenotypic characteristics of the Ndama bovine breeds indentified

Female tilapia XY identified and progeny testing that gave 3/4 males in its progeny with potentially 25% YY males.

The technique of early genotyping using a combination of specific chromosomal markers was successfully trasferred to the UPB/CIRDES laboratories

| 25% | 100K |
| Production increased | Tons of Certified seeds produced |
| 1300 | Varieties registered |
| In a regional catague with 76% of varieties released in 17 Member States |
5.4 Towards effective management of the dreadful fruit fly in West Africa

Plans for controlling and managing fruit flies in West Africa (PLMF) were initiated by ECOWAS and UEMOA and funded by the European Union and the French Agency for Development (AFD). CORAF is coordinating the “Applied Research Component” of the project, focusing on existing research and development programs for improved surveillance and technologies to control the flies.

This component is implemented in Benin, Burkina Faso, Côte d’Ivoire, The Gambia, Ghana, Guinea, Mali and Senegal. Recently, Guinea Bissau, Nigeria and Togo were added to the implementing countries. The project aims at improving income of stakeholders in the fruits and vegetables value chain in WA, and to contribute to food security and poverty reduction. Key results are:

- **13 Species of fruit flies** identified as the most damageable to tree fruits in ECOWAS zone with a predominance of one specie, *Bactrocera dorsalis*.

- **Combination of Orchards of GF-120**, a commercial food baits, *Para* pheromones, local and commercial food baits and natural plants leads to about **80%**.

- **Biological control techniques** using parasitoids, predators or pathogens were also demonstrated.

---

2 A decision was made by the Steering Committee of the Project in its meeting held in September 2016 at Lomé to include Guinea Bissau, Niger and Togo as members of the Project.
6. Strengthening capacity for rapid agricultural transformation in WCA

6.1. Channeling Israeli experience to transform West African agriculture

Following a previous ECOWAS mission to Israel in December 2016, a tailor-made training program on the linkage between Applied Research, Extension and the Farmer was organized in September 2017 by Israel’s Agency for International Development Cooperation (MASHAV) in Tel Aviv and was attended by 20 ECOWAS’s professionals.

Key lessons learnt by the participants were: (i) Israel agriculture is niche market driven using “Fork to farm” approach to respond to consumers’ demands for high quality, safe and healthy foods, at reasonable prices while maintaining a sustainable production environment; (ii) just like West Africa, Israel found that the old linear model of technology transfer [from scientists to the users] was outdated and should be replaced by an interactive model of networking systems, which integrate knowledge, production, adaptation, advice and education.

The annual knowledge sharing workshop between Israel and the West Africa research and development stakeholders is planned to be organized in 2018 in Cape Verde on agricultural and water management.

6.2. Grooming the agricultural research workforce and competencies

Capacity for Agricultural Research for Development (C4R4D) initiative in Sub-Saharan Africa is a response to the challenges in developing human research capacity in WCA. The project is funded by IDRC, managed by CORAF and implemented by IITA. Out of 28 students (8 MSc and 20 PhD) from four countries (Chad, Democratic Republic of Congo, Sierra Leone and Togo) supported by this initiative, 6 have already submitted their thesis (3 from Chad, 2 from Togo, and 1 from Congo). The high participation of women (12 out of 28) has encouraged other women to undertake tertiary education especially at MSc and PhD levels. At scale, this will result in a better representation of women scientists in AR4D. It has also provided a model of partnership between a funding agency, CORAF and a CGIAR center to support students in the tertiary education in WCA.

6.3. Addressing the capacity and productivity constraints on Maize, Cotton and Livestock value chains

The West African Economic and Monetary Union (UEMOA) is providing 1.5 Billion CFA for the period 2014-2019 to support CORAF in improving the productivity and competitiveness of five commodities/sectors (maize, cotton, livestock-meat, poultry and aquaculture), with a view to ensuring food security and improving the standards of living of the population. During 2017, key achievements were as follows:
A total of 162 people benefited from short-term trainings on (i) aquaculture practices, (ii) sheep and poultry breeding.

Method developed by CIRAD to analyze production and reproduction performance of a herd within a period of 12 months.

Technical capacity of members of the innovation platforms (IPs) on guinea fowl in Dori (Burkina Faso) was strengthened by the supply of a brooder with a capacity of laying 352 eggs per brooding cycle.

Six (6) MSc students (2 females) were supported by the project on specific issues related to local livestock and aquaculture genetic resources. A total of 29 students (23 MSc, 2 PhD in Vet, 1 Design Engineer and 3 PhD) are under supervision within the PROGEVAL project.

Six (6) functional IPs on the management of Animal genetic resource and Aquaculture were established. These include two on fish value chain in Côte d’Ivoire, one on livestock/meat value chains in Niger, one on guinea fowl in Burkina Faso and one on livestock/meat and small ruminants in Senegal. About 243 IP members (14% of women) benefited from the project activities.
7. Administration and Finance

7.1. Human and talent mobilization by CORAF

The year under review was marked by a serious shortage of personnel at the CORAF Executive Secretariat (ES) this was mainly due to the phasing out of the MDTF and WAAPP programs that funded the bulk of staff salaries. While laying a foundation for a more sustainable funding mechanism, management with the support of USAID through AfricaLead and USAID-ASSESS engaged consultants who helped in developing and/or strengthening key departments including contract management, communication and marketing system, project management and resource mobilization, as well as the consultative processes for reinforcing strategic partnerships.

The ES is increasingly drawing form the pool of expertise of its wider NARS system across the region. In this regard, a growing number of NARS members are representing the organization at meetings and workshops both within and outside the region. By the end of 2017, the ES had a total of 27 staff members (12 core and 15 project based). Moreover, engaging Young Professionals and Associate Program Fellows, is providing these young people valuable work experience while looking out for very promising ones who could champion CORAF interests like supporting project implementation in their countries. This engagement is turning out to be a win-win situation in nurturing talent and providing job opportunities while ensuring widespread ownership of the organization as well as ensuring a sustainable organization.

7.2. Resource mobilization by CORAF

The year under review marked a formidable resolve for expanding partnerships, diversifying resource mobilization efforts and the initiation of a reserve fund. CORAF therefore made initial gains in acquiring (i) USD 15,0 million funding from USAID for a new 5 years-program entitled “Partnership for Agricultural Research, Education and Development” (PAIRED); and (ii) USD 4,468 million from the Additional Financing for WAAPP 1C to scale up technologies in Benin, Guinea, Niger and Togo. Despite all the difficulties related to the gradual reduction of financial resources in 2017, a rigorous management policy was set up to ensure the proper closure of relevant projects in order to guarantee the credibility and the image of the institution [Table 1].

The advocacy by CORAF for sustained funding of agricultural research contributed significantly to the World Bank engaging countries in the CORAF region to develop a new program called the ‘West Africa Agricultural Transformation Program’, that will scale up WAAPP achievements. This program unlike WAAP will extend to additional countries in West Africa (Cape Verde and Guinea Bissau), as well as Cameroon and Chad in Central Africa. Through its coordination role, CORAF is expected to benefit a total of about USD 20 million as institutional for a period of five years. By the end of 2017, CORAF had built a reserve of USD 417,939 generated through project management charges.

<table>
<thead>
<tr>
<th>Financial Partners</th>
<th>Project life time (Years(s))</th>
<th>Amount in Agreement (USD)</th>
<th>Expenditure and Commitment - USD</th>
<th>Balance as at October 30,2017 USD</th>
<th>Signing Year</th>
<th>Closing date</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Amount allocated to projects</td>
<td>Amount allocated for coordination and regional activities</td>
<td>Expenditure/ projects</td>
<td>Expenditure/Regional Coordination</td>
<td>Balance/ Project Budgets</td>
</tr>
<tr>
<td>WAAP/WB 2A</td>
<td>5</td>
<td>7,027,168</td>
<td>6,074,325</td>
<td>4,456,880</td>
<td>6,056,467</td>
<td>2,570,288</td>
</tr>
<tr>
<td>WAAPP/WB 1C Fonds Add.</td>
<td>2</td>
<td>2,492,637</td>
<td>2,575,705</td>
<td>-</td>
<td>205,553</td>
<td>2,492,637</td>
</tr>
<tr>
<td>USAID/PAIRED</td>
<td>5</td>
<td>6,865,149</td>
<td>8,134,851</td>
<td>10,696</td>
<td>6,865,149</td>
<td>8,124,155</td>
</tr>
<tr>
<td>CEDEAO (Fruit flies)</td>
<td>5</td>
<td>2,951,807</td>
<td>-</td>
<td>1,295,067</td>
<td>130,643</td>
<td>1,656,740</td>
</tr>
<tr>
<td>CRDI/DKAR</td>
<td>3</td>
<td>536,044</td>
<td>32,164</td>
<td>409,099</td>
<td>16,325</td>
<td>126,965</td>
</tr>
<tr>
<td>UEMOA</td>
<td>3</td>
<td>2,700,000</td>
<td>300,000</td>
<td>1,566,595</td>
<td>161,918</td>
<td>1,133,405</td>
</tr>
<tr>
<td>AU BIRA</td>
<td>2</td>
<td>-</td>
<td>78,720</td>
<td>-</td>
<td>412</td>
<td>78,308</td>
</tr>
<tr>
<td>IsDB</td>
<td>1</td>
<td>-</td>
<td>140,000</td>
<td>-</td>
<td>2,586</td>
<td>137,414</td>
</tr>
<tr>
<td>FAO</td>
<td>1</td>
<td>-</td>
<td>40,000</td>
<td>-</td>
<td>40,000</td>
<td></td>
</tr>
</tbody>
</table>

Balance on the agreements signed on 31/10/2017

14,845,184  109,165
8. Challenges and lessons learned

2017 was marked by the phasing out of key programs with their funding resulting in considerable depletion of staff supported by those funding streams. The Directorate of Programs was hardest hit. By the end of the year the WASP Chief of Party was acting as Director of Programs (DP) following the departure of the then acting DP. The period also witnessed the end of contract of the Crops Program Manager as well as the Planning and M&E Officers. The departure of key personnel prevented CORAF from adequately engaging the numerous calls particularly meetings and other strategic consultations with a variety of partners.

However, various coping strategies were developed by the ES to address this challenge. These included technical assistance by developing partners and NARS, internship by young professionals, consultancies and interim positions filled by former staff members. The major lesson learnt is that the ES can operate with a small number of core staff, but rely on its wider membership, projects staff, Young Professionals and Associate Program Fellows to effectively engage with partners and implement activities across the region.
9. Conclusion and perspectives

9.1. Conclusion

The various external evaluation teams identified key factors that hindered CORAF’s performance and formulated critical and helpful recommendations for the Institution. These informed the development of the strategic documents (Second Strategic Plan, Operational Plan, Resource Mobilization, and Communication and Marketing Strategies). The year 2017 was marked by satisfactory performance evaluations of CORAF by funding partners and an extensive resource mobilization which resulted in the approval of the PAIRED project by USAID/WA and the Additional Financing of WAAPP by the World Bank.

All programs, old and new, achieved quality results which were shared with stakeholders. The impressive achievements in seed production in 2017 are a result of the demand created by the promotional activities undertaken by CORAF and its constituents. Applicable access to credit facilities was possible in some countries like Burkina Faso and Nigeria, as well as the Presidential initiatives to boost rice production. The business environment created by WASP and the effective use of the seed forecasting tool and ASIWA platforms also contributed towards increasing demand for seed. CORAF under WASP and WAAPP contributed immensely to the promotion of the Regional Seed Regulation through various strategic meetings and events.

CORAF participated in high level consultation meetings and established strategic alliances with key stakeholders in research and agricultural development, both inside and outside its mandate region of West and Central Africa. CORAF succeeded in increasing its visibility in Central Africa by supporting Cameroon and Chad in their integration into the new WAATP. The Institution continues to ensure regional leadership in improving agriculture research, technology generation, dissemination and adoption, empowerment of actors and knowledge management among its stakeholders. A new era for CORAF under the leadership of a new Executive Director has given a new impetus to the Institution and raised hopes and expectations among the staff and partners.

9.2. Perspectives

The recruitment of a new Director of Research and Innovation at the end of 2017 will give a new push to the quality of programs, project development and results delivery. CORAF is planning to make an official request in 2018 to ECOWAS for the upgrading of the two NCOS - Roots & Tubers and Dry Cereals - that have satisfied criteria for their upgrading into RCoE, as ECOWAS Agricultural Regional Center of Excellence.

CORAF will pursue the implementation of recommendations of external reviewers and partners to improve implementation performance of the new Strategic and Operational Plans. It will continue advocacy with the RECs, development and technical partners to mobilize funds for the implementation of its new Strategic Plan (2018-2027) and its Operational Plan (2018-2022) using the newly developed Resource Mobilization, Communication and Marketing Strategies. The future of CORAF looks brighter.
ANNEXES

Annex 1: References

6. InfoCom contribution to the Annual Report 2017; 6 P.
7. CORAF’s Strategy for Resource Mobilization. 10 p + annexes
8. WASP Completion Technical Report (1st August 2012 – 31st October, 2017); Submitted to USAID/ WA By CORAF. 52 p + appendices
10. CORAF’s Communications and Marketing Strategy; 22 p + annexes.


6. S. Sidibe, A. Coulibalý, D. Kone, M. Doumbia Amélioration de la viscosité et de la densité énergétique des bouillies infantiles préparées a partir de farines composées à base de riz, de niébé, de soja et d’arachide; pp 53-61.
7. M Sambe, L.S. Tounkara, M.F.J.S. Lopy, Y. N’diaye Etude des comportements rhéologiques des mélanges de farine blé/sorgho sans tanins issue de trois nouvelles variétés cultivées au Sénégal et mise au point de pains à base de farines composées (blé/sorgho); pp 63-68.
9. S. Sidibe Qualité de conservation des farines de complément, du djouka et du couscous aux feuilles d’épinard et d’amarante; pp 75-82.
11. F. Olayemi, S. Oyewole, M. Omodara, A. Ade, C. Adetunji, F. Omopariolaand, P. Olufemi Development of effective drying technology for quality enhancement of whitings fish (Merlangius merlangius); pp 91-98.

## Annex 4: New projects and study initiated in 2017

<table>
<thead>
<tr>
<th>Project title/Program</th>
<th>Amount USD</th>
<th>Objective</th>
<th>Start Date</th>
<th>End Date</th>
<th>Partners</th>
<th>Countries</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sustainable increase in agricultural productivity through integrated management of organic fertilizers in West Africa – FERTORA</td>
<td>615,092</td>
<td>To contribute to sustainable food security in West Africa with the specific objective of determining the technical and economic performance of the use of organic fertilizers to make recommendations</td>
<td>March 2017</td>
<td>March 2019</td>
<td>Regional WAAPP</td>
<td>Côte d’Ivoire, Burkina Faso, Ghana, Mali, Nigeria and Senegal</td>
</tr>
<tr>
<td>Partnerships for agricultural research, education and development” (PAIRED)</td>
<td>15 000 000</td>
<td>To increase agricultural growth, food and nutritional security and poverty reduction in West (and Central) Africa</td>
<td>June 2017</td>
<td>June 2022</td>
<td>USAID/WA</td>
<td>All ECOWAS countries except The Gambia and Bissau Guinea</td>
</tr>
<tr>
<td>Capacitating stakeholders in using climate information for enhanced resilience in the agricultural sector in West Africa [CaSCIERA-WA]</td>
<td>3 216 649</td>
<td>To capitalize and put into use, in a participatory manner, existing approaches to support farmers and local communities to plan their livelihood activities, which go beyond agriculture</td>
<td>July 2017</td>
<td>July 2019</td>
<td>WAAPP, CCAFS, ICRAF, AGRHYMET</td>
<td>Mali, Benin, Guinea, Niger and Togo</td>
</tr>
<tr>
<td>Assessing the impact of the adoption of the maize improved varieties on maize farmers’ welfare</td>
<td>72 727</td>
<td>To improve knowledge on how the adoption of improved maize varieties is contributing to increase farmers’ welfare in the target countries</td>
<td>March 2017</td>
<td>December 2017</td>
<td>UEMOA</td>
<td>Benin, Burkina Faso, Côte d’Ivoire and Mali</td>
</tr>
</tbody>
</table>
**General Objective:** High broad-based agricultural growth sustainably increased in WCA

**Specific Objective:** Agricultural productivity, competitiveness, and markets sustainably improved for target groups in WCA

**Result 1:** Increased use of appropriate technologies and innovations in WCA

**Intermediate Result 1.1:** Improved access to and adoption of technologies and innovations in agriculture-based commodity value chains in WCA

**Intermediate Result 1.2:** Enhanced generation of appropriate technologies and innovations

**Result 2:** Increased uptake of strategic decision-making options for policy, institutions and markets

**Intermediate Result 2.1:** Enhanced development of Policy options for the agricultural sector

**Intermediate Result 2.2:** Strengthened enabling environment for regional cooperation for generation and adoption of agricultural T&I

**Result 3:** Enhanced institutional and human capacity in agricultural research for development

**Intermediate Result 3.1:** Strengthened institutional capacity of the National Agricultural Research Systems

**Intermediate Result 3.2:** Strengthened institutional capacity of CORAF Executive Secretariat

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

**Intermediate Result 4.1:** Improved information exchange and knowledge management

**Intermediate Result 4.2:** Demand driven technology generation, dissemination and adoption supported

**Pillar 1:** Enhancing Community of Practice on Scaling T&Is for sustainable Impact

**Pillar II**

**Pillar III**

**Knowledge Management and Foresight**