

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



West and Central African Council for Agricultural  
Research and Development

# **CORAF/WECARD Strategic Plan 2007 - 2016**

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## Table of Contents

<b>Table of Contents</b> .....	<b>ii</b>
<b>Foreword</b> .....	<b>iii</b>
<b>Abbreviations</b> .....	<b>v</b>
CORAF/WECARD Profile.....	vi
<b>Executive Summary</b> .....	<b>vii</b>
<b>Background</b> .....	<b>1</b>
Review of the sub-region.....	1
Challenges for Agriculture in West and Central Africa .....	1
Sub-regional Response to the Challenges Facing WCA Agriculture.....	3
Rationale for a new Strategic Plan .....	4
<b>Strategy for 2007-2016</b> .....	<b>8</b>
The Structure for and implementation of the Strategic Plan 2007- 2016 .....	8
Strategic Transition: Programme Approach Vs Network Approach.....	10
Cross cutting issues .....	12
<b>Implementation of the Strategic Plan</b> .....	<b>15</b>
Strategic Logframe Design Summary of the Plan .....	15
Monitoring and Evaluation .....	15
Technical and Policy Research .....	15
CORAF/WECARD Core Functions.....	17
<b>Conclusion</b> .....	<b>21</b>
<b>References</b> .....	<b>22</b>
<b>Annex 1 Logframe Design Summary for CORAF/WECARD <i>Strategic Plan</i></b> .....	<b>23</b>
<b>Annex 2: Summary and Implications for Agricultural R&amp;D Strategies in West and Central Africa</b> .....	<b>32</b>
<b>Annex 3: EVOLUTION OF CORAF/WECARD STRATEGY FOR R&amp;D IN THE SUB-REGION</b> .....	<b>39</b>

## Foreword

In February 2006, key stakeholders closely involved with CORAF/WECARD activities met to discuss approaches and modalities for the implementation of CORAF/WECARD's Strategic Plan<sup>1</sup>. It was agreed that the 1999-2014 should be reviewed in the context of the Comprehensive African Agriculture Development Programme (CAADP) and the Framework for African Agricultural Productivity (FAAP). The CORAF/WECARD Strategic Plan of 2007-2016 is the outcome of extensive consultations with diverse stakeholders representing the entirety of the West and Central African Agricultural (WCA) Research system. The process adopted has identified the main research areas, defined priorities for research interventions, developed a logical framework and defined institutional changes needed for successful implementation of the Strategic Plan. The planning process was a response to the challenges in the agricultural sector which provides a source of livelihood for the majority of inhabitants in WCA.

It is estimated that the sub-region has about 318 million inhabitants, among whom about 70% live on agricultural activities. The question that has engaged the attention of stakeholders in agriculture, especially those of us in research and development, is whether agricultural research has been successful in supporting the livelihoods of the bulk of our people who live and survive on agriculture. Indeed, the impact of agricultural research can be measured by the extent to which outputs from research address the concerns of farmers, and consequently improve on their living conditions. We surely have to change our approach to research if we are to record the much needed impact, and make agricultural research contribute much more than it is now. Our research activities should be underpinned by a demand-driven approach. We believe that all stakeholders must be part of the system addressing a problem. The strategy where technologies were developed at the research station and transferred to the farmers has by and large been ineffective and unsustainable. The farmer has to make an input into the whole process and be in a position to set the research agenda. This, we believe, will enhance the acceptability of the innovations from agricultural research and the consequent adoption.

The process of revising the Strategic Plan has involved many stakeholders including regional partners of CORAF/WECARD, including UEMOA, CEMAC, ECCAS, ECOWAS, national agricultural systems, the International and Advanced Agricultural Research Centres, development partners, the private sector, farmer organizations and NGOs involved in agricultural development. All these stakeholders have agreed and validated a common strategy that will provide the grounds for the development of an operational plan for implementation of the West African Agricultural Productivity Programme (WAAPP) and the Central African Agricultural Productivity Programme (CAAPP) under the framework of CAADP.

Through effective implementation of the Strategic Plan, we are optimistic that CORAF/WECARD's contribution to the 6% target agricultural growth will be achieved.

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<sup>1</sup> Strategic Plan for Agricultural Research and Development Co-operation for West and Central Africa, 1999-2014. CORAF/WECARD, Dakar, Senegal. 120pp

## Acknowledgements

CORAF/WECARD gratefully acknowledges the over 9,112 man-hours put in by the various stakeholders, actors, interest groups and investors during the period of the strategic planning and priority setting process.

Strategic thinkers from members NARS, the scientific partners (IFPRI, IITA, WARDA, ICRAF, ICRISAT, CIRAD, NRI, INSAH, CMAOAC), and technical partners (AATF, CTA and FAO) brought their experiences to bear on the preparation of this document. The role played by the five base centers of CORAF/WECARD (CARBAP, CERAAS ITC, CIRDES, LRVZ) is gratefully acknowledged, as well as the those by the networks.

The political support and direction from Regional Economic Communities – EOWAS, CEEAC, UEMOA and CEMAC – provided visibility and political appropriation of the process and the outcome. FARA, the apex continental organization on agricultural research for development provided the FAAP guidelines on which this strategy was developed; its staff equally participated in the process.

The immense contribution from the private sector represented by INTERFACE, farmer organisations represented by ROPPA and PROPAC and NGOs represented by SONGHAI, ENDA GRAF, and SAILD, in sharing their rich field experiences during the process and showing their commitment in setting the agenda in the implementation of the plans is highly appreciated.

Journalists from the following organizations provided media coverage: RTS, WADR, PANAPRESS, Soleil, ATN, GTV. This is gratefully acknowledged.

IFPRI conducted the GIS and economic quantification of the sub-regional priorities, which formed the basis for this strategic plan.

TheIDLgroup of the UK provided outstanding professional facilitation of the seven workshops leading to the delivery of the outputs: revised 10-year strategic plan, 5-year operational plan, and the change management program. CORAF/WECARD appreciates this invaluable service. Michael Basse, an independent consultant, equally provided facilitation during the process; and this is gratefully acknowledged.

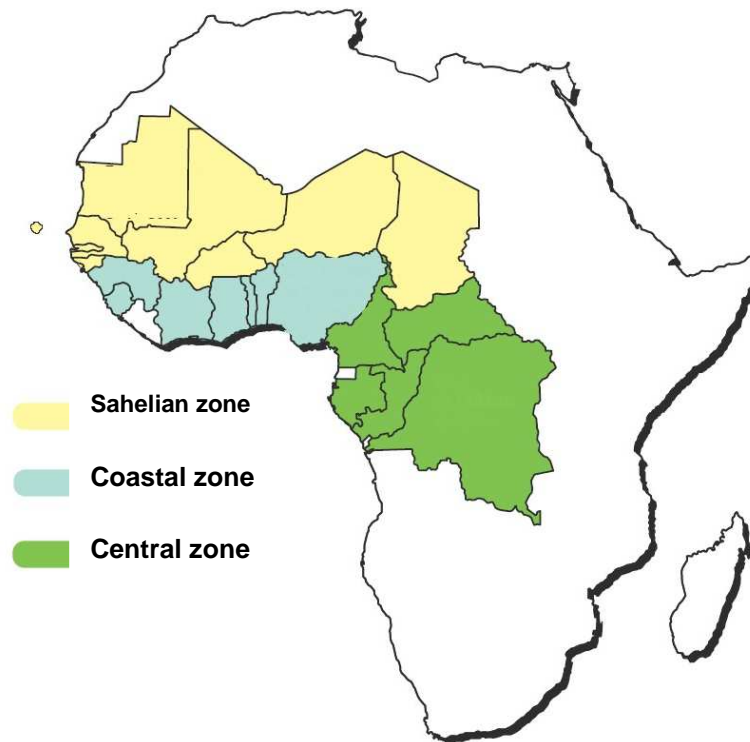
CORAF/WECARD is most grateful to the donor community for their unqualified support to the process, and their promises of support to the outputs of this process. The following donor groups participated in the process: DFID, USAID, World Bank, IDRC, EC, and Coopération Française (SCAC). The financial support from the following donors made this planning process possible: DFID, USAID, and World Bank. CORAF/WECARD gratefully acknowledges this.

## Abbreviations

CAADP	Comprehensive Africa Agriculture Development Programme
CAAPP	Central Africa Agricultural Productivity Programme
CEMAC	Communauté Économique et Monétaire de l'Afrique Centrale
CGIAR	Consultative Group on International Agricultural Research
CORAF/WECARD	Conseil Ouest et Centre Africain pour la Recherche et le Développement Agricoles/ West and Central African Council for Agricultural Research and Development
DFID	Department for International Development
EC	Executive Committee
ECCAS	Economic Community of Central African States
ECOWAS	Economic Community of West African States
FAAP	Framework for African Agricultural Productivity
FARA	Forum for Agricultural Research in Africa
GDP	General Domestic Product
GIS	Geographic Information Services
HPAI	Highly Pathogenic Avian Influenza
IAR4D	Integrated Agricultural Research for Development
ICT	Information and Communication Technology
IFAD	International Fund for Agricultural Development
IFPRI	International Food Policy Research Institute
M&E	Monitoring and Evaluation
MDG	Millennium Development Goals
MTP	Medium Term Plan
NARI	National Agricultural Research Institute
NARS	National Agricultural Research System
NEPAD	New Partnership for Africa's Development
NGO	Non-government Organisation or Organisations
OP	Operational Plan
REC	Regional Economic Community or Communities
SO	Specific Objective
SP	Strategic Plan
SRO	Sub-regional Organisation
STC	Scientific and Technical Committee
UEMOA	Union Economique et Monétaire Ouest Africaine
UNDP	United Nations Development Programme
WAAPP	Western Africa Agricultural Productivity Programme
WCA	West and Central Africa

### **CORAF/WE CARD Profile**

The *Conseil Ouest et Centre Africain pour la Recherche et le Développement Agricoles*/West and Central African Council for Agricultural Research and Development [CORAF/WE CARD] was established in 1987 as conference for African and French Agronomic Research Directors. In 1995 it widened its coverage to include English and Portuguese speaking countries of West and Central Africa. It comprises 21 member states<sup>2</sup>, including Benin, Burkina Faso, Cameroon, Cape Verde, Central African Republic, Chad, Congo, Cote D'Ivoire, Democratic Republic of Congo, Gabon, The Gambia, Ghana, Guinea, Guinea Bissau, Mali, Mauritania, Niger, Nigeria, Senegal, Sierra Leone and Togo. The land area is 11,5 millions km<sup>2</sup> and the population is 318 million out of which 70% are engaged in agriculture. CORAF/WE CARD



#### **CORAF/WE CARD VISION**

**“...A sustainable reduction in poverty and food insecurity in WCA through an increase in agricultural-led economic growth and sustainable improvement of key aspects of the agricultural research system...”**

#### **CORAF/WE CARD MISSION**

**“...Sustainable improvements to the competitiveness, productivity and markets of the agricultural system in West and Central Africa by meeting the key demands of the sub-regional research system as expressed by target groups...”**

<sup>2</sup> Liberia, Equatorial Guinea and Sao Tome are also likely to become members within the medium-term.

## Executive Summary

The *Conseil Ouest et Centre Africain pour la Recherche et le Développement Agricoles/West and Central African Council for Agricultural Research and Development*. CORAF/WECARD was established in 1987 as Conference for African and French Agronomic Research Directors. After having widened its coverage in 1995 to include English and Portuguese speaking countries of West and Central Africa, CORAF/WECARD now comprises 21 member states, eight of which are located in the Sahel, eight in the Coastal and five in the Central zones.

CORAF/WECARD's mission is to achieve *Sustainable improvements to the competitiveness, productivity and markets of the agricultural system in West and Central Africa by meeting the key demands of the sub-regional research system as expressed by target groups*.

The 21 member countries in the WCA region are among the poorest in the world where hunger and abject poverty are a pandemic. Out of its total population of about 318 million people, approximately 70% live in the rural areas and more than a third live below the poverty line and live on less than one dollar per day.

Despite challenges resulting from climate change, disease and conflict/post-conflict situations there is however, enormous potential for agricultural growth in WCA. There is a growing labour force and a widening range of higher yielding technologies and improved farming systems. The large gaps in achieved and potential yields present opportunities for raising productivity. Rapid urbanisation is creating local markets for agricultural products, and trade liberalisation and globalisation is opening markets abroad. Raising the output of the majority of small farmers would raise rural family incomes, and improve food security. It would also lower urban food prices and stimulate the rest of the economy. A smallholder-led growth strategy has the potential to make a very significant impact on food security and poverty reduction; with 2.5% per annum growth in since 1980 there are signs that this potential is being realised.

However 2.5% growth is not fast enough to get ahead of population growth which is among the highest in the world and at the same time cope with health problems including malaria, tuberculosis and HIV/AIDS, environmental degradation and conflict. The realisation that much more rapid progress is required is reflected in the African Vision established by AU-NEPAD which is to achieve an annual growth in productivity of 6% per annum by 2015. Preparing to achieve this has catalysed several important institutional innovations. Amongst these are the AU-NEPAD Comprehensive Africa Agriculture Development Programme (CAADP). This is supported by an innovative Framework for African Agricultural Productivity (FAAP) which provides guidelines and criteria designed to encourage implementers and investors in African agricultural research and development to work in harmony at the scale sustained over sufficient time to achieve the African Vision.

Based on economic and GIS studies, followed by innovative consensus platforms, stakeholders in twenty-one WCA agricultural research systems and partners systemically contributed to the development of this new Strategic Plan. The methodological approach adopted by CORAF/WECARD in the planning process of reviewing and revising the 1999-2014 Strategic Plan consisted firstly with the prioritization of sub-regional agricultural research priorities. This was then followed by a progressive sequence of workshops aimed at bringing together stakeholders for the development of an agricultural research and development strategy as a *Strategic Plan* [2007-2016] supported by an implementation document in the form of a five year *Operational Plan* [2007-2011]. The plan aims to achieve this through its Specific Objective of *broad based agricultural productivity, competitiveness and markets sustainably improved for target clients in West and Central Africa*. Key to this is the delivery of four results which provide the necessary and sufficient conditions for the attainment of the objectives. The priorities expressed by CORAF/WECARD's clients during the strategy development process, as well as the IFPRI commissioned study are fully taken into account, both designed to complement and add value to partners' strategies and programmes, including those of FARA.

The new *Strategic Plan* addresses prioritised issues and makes a clear commitment to delivering a series of four Results which encompass a new paradigm for agricultural research and development. The Results are:

1. Appropriate technologies and innovations developed,



2. Strategic decision-making options for policy institutions and markets developed
3. Sub-regional agricultural research system strengthened and coordinated
4. Demand for agricultural information from target groups facilitated and met.

These are to be delivered through a portfolio of eight Programmes<sup>3</sup> based on technical and policy research and core functions.

By aligning its plan with CAADP and FAAP, CORAF/WECARD has provided coherence, not only with regional concerns but also with other SROs. To ensure timely delivery and functioning of the Strategic Plan, a comprehensive Operational Plan, a strong Planning, Monitoring and Evaluation system and a Change Management Team have been established.

The Strategic Plan intends to coordinate and harmonise fragmented support across WCA, involving a wide range of stakeholders such farmers organisations, NGOs, policy-makers, agri-business private sector (processors, marketers and transporters), agricultural research institutes and universities.

The 2007-2016 Strategic Plan seeks to achieve agricultural-led economic growth. More specifically, the strategy is to achieve sustainable improvements to the competitiveness, productivity and markets of the agricultural system in West and Central Africa by meeting the demand for technology, innovation, policy options, knowledge, and enhanced capacity and coordination of the sub-regional research system expressed by target groups. In achieving these specific objectives CORAF/WECARD would contribute to achieving high broad-based agricultural growth in WCA.

By the end of its implementation period, the *Strategic Plan* would have also contributed significantly to the achievement of the 6% target growth in the agricultural sector, as well as to poverty reduction and food security in WCA.

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<sup>3</sup> 1. Livestock, Fisheries and Aquaculture, 2. Staple Crops, 3. Non-staple crops, 4. Natural Resource Management, 5. Biotechnology and Bio-safety, 6. Policy, Markets and Trade, 7. Knowledge Management, 8. Capacity Strengthening and Co-ordination

## Background

### **Review of the sub-region**

The 22 countries of the West and Central African sub-region constitute some of the poorest in the world. Of its total population of about 318 million people, more than a third lives below the poverty line, as defined by the United Nations. The sub-region's population is predominantly rural in varying degrees and almost entirely dependent on agriculture for subsistence and income. Over the last decade population expansion has been accompanied by massive urbanization which presents greater challenges with respect to economic growth and food security, which will need to be accompanied by improvements in agricultural productivity and structural transformations.

### **The state of affairs in the sub-regional agricultural sector**

In the WCA sub-region, agriculture accounts for more than 35% of Gross Domestic Product (GDP) and more than 40% of its exports. At the moment, 70% of its population depends on agriculture as their source of livelihood. Most of the rural population is poor and food insecure. The sub-region comprises a rich agricultural base spread over a wide range of agro-ecological zones with significant potential for improved agricultural productivity which should offset the existing deficits. Most of the agricultural sector is characterized by small-holder farms with heavy reliance on rain-fed production systems, natural methods of soil fertility maintenance and limited access to markets.

Whilst the growth of agricultural productivity is generally low, the sector's performance has been a primary determinant of overall sub-regional economic growth. Between 2000 and 2004, 1.2% of the annual 3.9% GDP growth was attributed to the agricultural sector.

The main food crops are root and tuber crops, cereals, legumes, plantain/banana, fruits and vegetables. Major industrial/export commodities include Robusta coffee, oil palm, cocoa, Para rubber and cotton. Emerging crops are gaining importance in food-security, income generation, and as non-traditional export commodities. Major livestock include small and large ruminants, poultry and piggery.

The sub-region's diversified agro-ecological base alongside its rapid demographic growth presents an opportunity for improving productivity of the farming systems, as well as enhancing competitiveness of produce and markets. Research, empowered institutions along with targeted policy frameworks, and strengthened capacity of key actor groups and constituents hold some promise in delivering the CAADP, ECOWAS, CEEAC UEMOA and CEMAC agenda on research for development through the present strategic plan.

### **Challenges for Agriculture in West and Central Africa**

#### **Poverty Issues**

The countries that make up the WCA region are among the poorest in the world [UNDP 2006] where hunger and abject poverty constitute some pandemic. Despite the considerable investment in the sector, the productivity and competitiveness of agriculture remains weak, has not impacted significantly in increasing incomes of producing communities, nor has it stimulated the much desired economic growth of the countries. This growth needs to happen by 2016 to improve the livelihoods of the majority of the people who depend on agriculture.

#### **Food Insecurity**

One of the major challenges facing agriculture in the WCA is that of conveniently feeding an ever growing and rapidly urbanizing population ECOWAP (2005), CEMAC (2002). As a matter of priority the community's agricultural policy focuses on increasing the sub-regional food availability and affordability to satisfy the needs of the burgeoning population. However, the performance of the agricultural sector has not been able to fully address the food security needs of the majority of the people. Similar to poverty challenge, the eradication of hunger remains an ideal to be achieved by 2016.

#### **Social and Environmental**

Key on the social and environmental context is to reverse the trend of inadequate stakeholder participation in the sector as a means of promoting sustained management of social and environmental resources. Critical to this is to ensure an attractive rural living environment for the poor,

and foster sustainable development of holistic productivity enhancing practices that are socially and environment friendly.

### ***Global and Regional Market Integration***

Challenges to integration and the improvements of markets revolve around advocacy and policy research. There are key issues relating to the promotion of the sub-regional market and integration of the West and Central African agriculture into the regional and global market, namely:

- Improved access of its products to the sub-regional and the global markets
- Reduction of the tariff protection and subsidies that the developed countries provide for their agriculture
- the consideration for the claims of intellectual property rights against the public good nature of agriculture

### ***Biophysical Constraints***

The sub-region is faced with such bio-physical constraints as droughts, soil acidity, nutrient depleted and degraded soils, etc., which impinge on agricultural development. The threats of climate change could prove to be most challenging to an already over-stretched sub-regional production system. The already available arable land has been greatly menaced by land degradation, increasing desertification and limited water availability, especially for land-locked countries [IFAD, 2001].

### ***Conflicts***

Conflict and post-conflict conditions are some important features of many member states. This should require some special solution aimed at an adequate re-launching of agricultural research for development interventions for specific and targeted reasons.

### ***Agricultural Policy***

Development strategies initiated and implemented by the West and Central African States over the last twenty years focused on national agricultural policies, with little integration the sub-regional level. Under the framework of structural adjustment policies, focus was on financial profitability of the production systems rather than the supportive measures necessary for achieving agricultural policy goals of food security, rural employment and integration of the sub-regional market. Agricultural policies, often defined in the absence of the participation of the grassroots stakeholders, were not only inadequately articulated with macro-economic policies, but often amounted to action plans, programmes and projects whose implementation largely depend on external financial assistance [ECOWAP,2005].

### ***Agricultural Research Support***

Critical to the sub-region is the absence of effective institutions for supporting agricultural initiatives. During the 1970s and 1980s, several national governments created various research institutes and other structures in an effort to combat food insecurity and low productivity. However, most of the national systems have remained unsustainable, mainly due to very limited budgets in particular for operational expenditures. Furthermore, the existing fragmented support provided to the West and Central Africa agricultural research needs to be adequately coordinated, harmonized and channelled to ensure greater productivity and accountability.

The majority of Africa's population depend on agriculture for subsistence and income even though per capita production in agriculture has become stagnant in the sub-region and in some cases show a decline as in the Central African States (Figure 1).

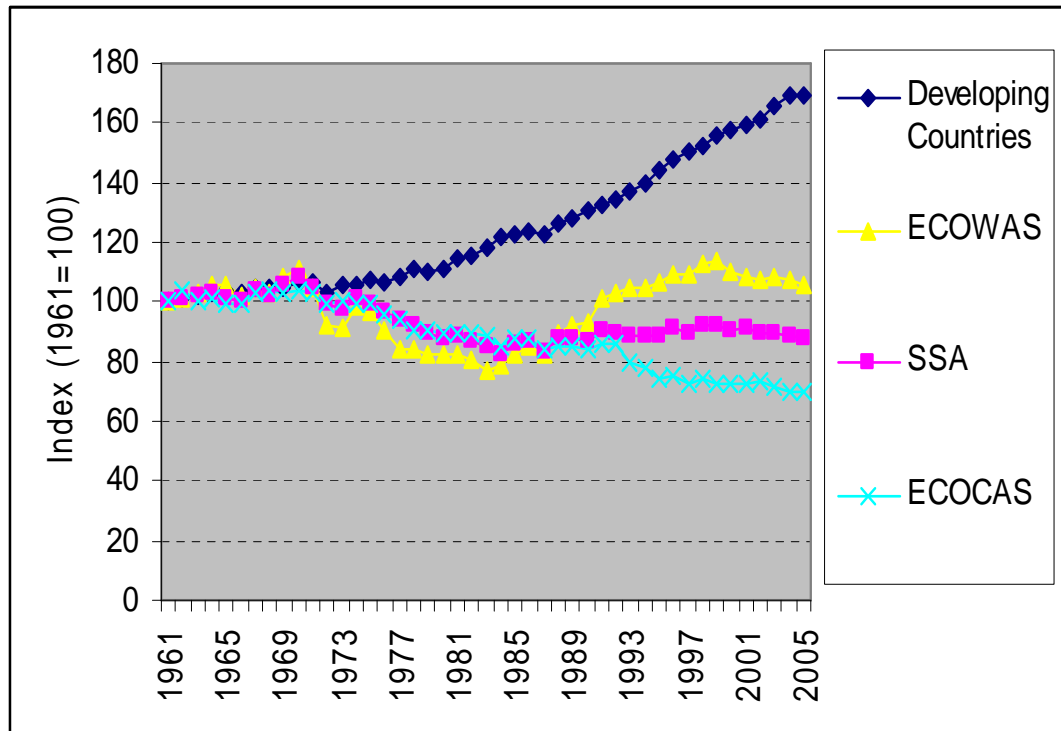


Figure 1: Net per capita agricultural production (1961-2005); **Source: IFPRI, 2006**

### **Sub-regional Response to the Challenges Facing WCA Agriculture**

In the context of the challenges facing agriculture in WCA, the agricultural policies of the sub-region's RECs [ECOWAS and ECCAS] seek to promote a modern and sustainable agriculture [ECOWAP, 2005 and CEMAC 2002]. These aim at improving the effectiveness and efficiency of smallholder farms and the promotion of the agri-business sector. CORAF/WE CARD as a SRO has the following mandate:

- Promote co-operation, consultation and information exchange between member institutions on one hand and the partners on the other;
- Define joint sub-regional and regional research objectives and priorities;
- Serve as a consultative body for research carried out by regional and international organisations operating at the sub-regional level;
- Develop and ensure effective implementation of sub-regional research for development programmes, aimed at adding value to national programs ;
- Harmonise the activities of the existing research constituents, and to facilitate the creation of new regional programs or other operational research units with a regional character.

In response to the challenges facing agricultural development in WCA, CORAF/WE CARD mobilised stakeholders to develop strategies to ensure agricultural-led growth (see Annex 3). In 1998 for example, its general assembly (then referred to as the Plenary) meeting in Accra resolved to develop a strategic plan for the period 1999 – 2014, whose main thrusts were to:

- Identify priorities for sub-regional agricultural research cooperation ; and
- Establish framework for negotiation and dialogue with the various agricultural research, and development partners;

### **Review of the 1999-2014 Strategic Plan – an Analysis**

After a 3-year implementation timeframe, the CORAF/WECARD 15 year Strategic Plan (1999-2014) was reviewed and amended in 2002. Further review of the strategic plan by early 2006 indicated a need for a revision of the CORAF/WECARD strategy taking into account the new re-orientations provided by CAADP and FAAP for the implementation of the WAAPP and CAAPP. This was particularly necessary given the new strategic relationships between CORAF/WECARD and the RECs.

Summarised below are key issues derived from the 2006 review of the 1999-2014 strategic plan:

- Fragmented support across Africa for agricultural research, which needs to be co-ordinated and harmonised, involving a wide range of stakeholders, including farmers.
- Whilst the focus is on *Pillar 4*<sup>4</sup> of CAADP, this Pillar links with the other three, which cannot be ignored. There is a need to ensure that CORAF/WECARD's Strategic Plan supports these links where appropriate.
- FAAP provides the framework for CORAF/WECARD operations, which need to support both national and sub-regional programmes. CORAF/WECARD has a role in strengthening national programmes since the existence of strong NARS, will enhance its own capacity to respond to regional issues.
- Several CORAF/WECARD members are involved in overlapping organisations and plans; there is a need to approach this rationally and develop some means of ensuring effective support to the sub-region.
- Conflict and *post*-conflict scenarios are an important feature of many member states. This creates a special situation for agricultural research and development that requires specific and targeted responses.
- There is a need to mobilise regional [local] funding for the activities of CORAF/WECARD and to discourage programmes that are developed and tied to development partner support. *Development partners should be encouraged to provide core funding and support to activities that address the strategy and priorities of the sub-region that have been agreed by stakeholders.*
- The RECs in the CORAF/WECARD sub-region are important and influential. The key ones are ECOWAS, ECCAS, CEMAC and UEMOA - they are already working with CORAF/WECARD. These partnerships need to be capitalized upon.

### **Rationale for a new Strategic Plan**

The review of the 1999-2014 Strategic Plan, and the Consultative Stakeholder Meeting in 2006, highlighted the need for a new look at CORAF/WECARD's strategy and approach to agricultural research and development. Some of the changes and challenges to agriculture in the sub-region are listed in Box 1. Key to this was the AU-NEPAD initiative of CAADP. CORAF/WECARD had been involved with its development, and with the development of FAAP which provides the guidelines for implementation. This coupled with new initiatives for West and Central Africa agricultural productivity programmes and a new level of interest from development partners, prompted CORAF/WECARD to take action.

### **The AU-NEPAD CAADP Initiative**

The AU, through NEPAD, has identified agriculture as the most important sub-sector to support rapid economic growth in the region. As a result, NEPAD has developed CAADP as a strategy to foster agriculture-led development in order to attain this growth, and contribute to the MDG of poverty reduction and hunger eradication [NEPAD, 2003]. This was endorsed by the African Heads of States

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<sup>4</sup> *Agricultural research, technology dissemination and adoption* for more detail on CAADP and the document itself, see [www.nepad.org/2005/files/caadp.php](http://www.nepad.org/2005/files/caadp.php)

and Governments; and the RECs have adopted this as a vision for the restoration of agricultural growth, food security, and rural development in Africa. A specific goal of CAADP is to attain an average annual growth rate of 6 percent in agriculture by 2015.

**Box 1 Significant changes in Africa and African agriculture to which CORAF/WECARD must respond<sup>5</sup>**

**Changes that have taken place or underway**

1. CAADP has been developed to provide goals and objectives and what needs to be done is to achieve the African Vision
2. FAAP has been developed to provide guidelines for implementing CAADP
3. Strengthening and growing authority of Regional Economic Communities in the sub-region
4. Strengthening of national economies in the sub-region due to improved governance and increasing commodity prices
5. Renewed commitment to agriculture by national governments – Maputo Declaration to invest 10% of national budgetary resources
6. Renewed international interest in Africa as declared in the Sea Island and Gleneagles G8 summits and growing commercial ties with Brazil, China and India
7. The shorter, more extreme and mostly adverse weather cycles attributable to *climate change*
8. The impact of globalisation on the competitiveness of African agriculture as a whole and on smallholders and pastoralists in particular
9. The interrelated impact of emigration from agriculture of the youth, increasing feminisation, escalating proportions of women and children-headed households and the loss of breadwinners due to HIV/AIDS
10. The loss of human and institutional capacity due to under-resourced expansion of university enrolments, the emigration of many of Africa's best agricultural professionals and restricted recruitment under structural adjustment policies
11. The emergence of Highly Pathogenic Avian Influenza as a potent threat to African and global peoples and economies

**Changes that are predicted in the life of this new strategy [2007-2016]**

1. Intra-African trade will be increasingly important
2. Prevalence and incidences of zoonotic and animal-borne diseases such as trypanosomosis, HPAI and Rift Valley Fever will increase
3. Increased influence of climate change is leading to more frequent and severe adverse weather conditions, increasing vulnerability and making traditional farmer knowledge obsolete in the local context
4. The need to feed more people leading to increased pressure on land and water resources and accelerating soil degradation
5. Water will become an increasingly scarce commodity
6. Increased scarcity of oil will drive price increases in fuel and petroleum-based inputs, affecting food production costs and international trade
7. Bio-fuel production will alter market parameters, to which farmers will be required to adapt
8. The need to develop new varieties of African crops/livestock and new crop/livestock practices or systems, to meet changing market, weather, disease and pest challenges
9. Conservation and sustainable use of water catchments and biodiversity will become increasingly critical, drawing more attention to forestry and fisheries, as well as to livestock, which utilise the greatest proportion of Africa's land area
10. Africa will have to take greater responsibility for maintenance breeding for their key crops
11. The African Diaspora will become increasingly important as a market for preferred African food products, as a source of inward investment and as an intellectual resource at their home bases and on visit or return to Africa

<sup>5</sup> Adopted from FARA Strategic Plan 2007-2017

Achieving such rapid growth in agriculture requires substantial increase in public expenditure, private investments and improvements in the policy environment. A step in this direction is the political commitment by West African leaders to allocate up to 10% of their fiscal budgets to agriculture by 2008, based on the 2003 Maputo Declaration. The main thrust of the CAADP is to enhance efforts by African countries to “*reach a higher path of economic growth through agriculture-led development which eliminates hunger, reduces poverty and food insecurity and enables expansion of exports.*” CAADP represents a common framework, reflected in a set of key principles and targets defined to (i) guide country and regional strategies and investment programs, and (ii) facilitate greater alignment and harmonization of development efforts.

Entrenched in its key objective of ensuring maximum contribution of Africa's agricultural sector in line with the relevant MDG targets<sup>6</sup>, CAADP focuses its investment activities on four mutually reinforcing pillars of which pillar iv – *constitutes NEPAD's strategy for revitalizing, expanding, and reforming Africa's agricultural research, technology dissemination and adoption efforts.* The pillar, which focuses on raising the productivity of resources on which poor people depend, is recognized as the most effective means of reducing poverty and improving food security. Each of these pillars incorporates policy, institutional reform and capacity building.

At the continental level, NEPAD mandated FARA to take the lead in developing a framework for the implementation of CAADP Pillar IV; whereas the RECs of WCA - ECOWAS and ECCAS - were mandated to coordinate and follow up the implementation of the entire CAADP initiative in West and Central Africa.

The implementation of priority programmes under CAADP pillar 4 has been delegated to CORAF/WECARD by ECOWAS and ECCAS in WCA.. In line with this, the West Africa Productivity Program (WAAPP) and the Central Africa Productivity Program (CAAPP) are being implemented by CORAF/WECARD, with an objective of achieving (i) sustained flow of adequate technologies, and (ii) the development of national systems that are responsive to opportunities and constraints facing farmers.

#### *Methodology for the Review and Development of the New Strategic Plan*

The process of reviewing, revising and prioritizing the 1999-2014 Strategic Plan was based on research area identification and prioritisation and extensive stakeholder consultation.

- *Research area identification and prioritization* - To provide background data/information to the planning process, CORAF/WECARD commissioned IFPRI to conduct an economic and GIS analysis on the sub-regional priorities which could catalyze agriculture-led economic growth, ensure a food secure sub-region and half poverty. The objectives were to provide data to support CORAF/WECARD and its partners in revising, reviewing and prioritizing the sub-regional agricultural research strategy. The results of this study [IFPRI 2006] provided useful inputs for the planning process by delineating and ranking alternative investment opportunities in the sub-region by commodities and research themes. This econometric analysis complemented stakeholder knowledge and experience on the priority areas.
- *Stakeholder consultation process* - Within the framework of reviewing and revising its Strategic and Operational plans, CORAF/WECARD organized a series of 7 stakeholder consultative and development workshops between November 2006 and April 2007. Figure 1 below shows the workshops that made up the planning process.

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<sup>6</sup> Poverty reduction, improving agricultural productivity and growth and ensuring dynamic markets by the year 2015

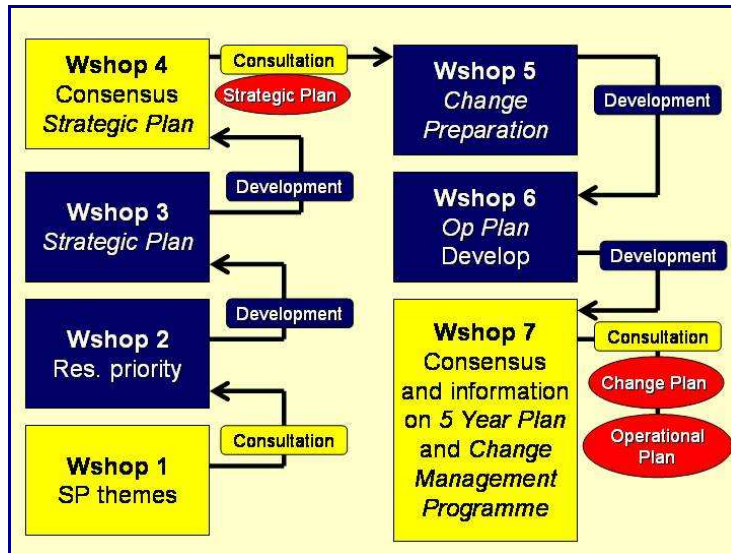


Figure 1 Sequence of Workshops for Planning Process

The consultative workshops provided very useful inputs into the planning process and broadened the ownership and understanding of the Strategic and Operational plans.

## Strategy for 2007-2016

### The Structure for and implementation of the Strategic Plan 2007- 2016

#### Overview

CORAF/WECARD in its Vision and Mission statements confirms its commitments to the MDG of poverty reduction, hunger eradication, and CAADP's goal of agriculture-led development [Box 2].

#### Box 2 CORAF/WECARD's Key Strategic Statements

##### VISION

**A sustainable reduction in poverty and food insecurity in WCA through an increase in agricultural-led economic growth and sustainable improvement of key aspects of the agricultural research system**

##### MISSION

**Sustainable improvements to the competitiveness, productivity and markets of the agricultural system in West and Central Africa by meeting the key demands of the sub-regional research system as expressed by target groups**

CORAF/WECARD's Strategic Plan links a series of logical steps and processes, presented in the logical framework summary at Annex 1. This has been developed using the cause and effect linkages of the logical framework approach. The Plan leads to CORAF/WECARD's General Objective to which it aims to make a significant contribution provided certain assumptions hold true; this General Objective is for... **High, broad-based agricultural growth and food security be sustainably established in West and Central Africa.**

It will make this contribution by achieving its Specific Objective of broad based agricultural productivity, competitiveness and markets sustainably improved for target clients in West and Central Africa. Key to this is the delivery of four Results which provide the necessary and sufficient conditions for it to happen. These take full account of the priorities expressed by CORAF/WECARD's clients during the development process, and the IFPRI commissioned study. They are designed to complement and add value to partners' strategies and programmes, including those of FARA. The Results are:

1. **Appropriate technologies and innovations developed**
2. **Strategic decision-making options for policy, institutions and markets developed**
3. **Sub-regional agricultural research system strengthened and coordinated**
4. **Demand for agricultural information from target groups facilitated and met**

These four results which CORAF/WECARD is committed to deliver under the *Strategic Plan*, constitute the nucleus of the paradigm shift away from conventional research focusing on the technology packages.

The *Results* are to be delivered through a portfolio of eight Programmes based on technical and policy research and core functions. The following Programmes contribute fully to the delivery of all four Results:

1. **Livestock, Fisheries and Aquaculture**
2. **Staple Crops**
3. **Non-staple crops**
4. **Natural Resource Management**

5. **Biotechnology and Bio-safety**
6. **Policy, Markets and Trade**
7. **Knowledge Management**
8. **Capacity Strengthening and Co-ordination**

Each Programme is led by a Programme Manager who reports to CORAF/WECARD's Executive Director. The Programme Manager is responsible for developing a Strategic Plan based on, and nested within, the CORAF/WECARD Strategic Plan and Matrix. This forms the basis for Five-Year Medium-Term Plans and annual Work Plans that are integrated into CORAF/WECARD's overall planning process.

These documents articulate Programme activities, including inter alia, general and specific objectives, budgets, staffing, monitoring and evaluation. They also describe the processes for periodic redesign to take advantage of the lessons learnt and to adjust for changing circumstances in African agricultural research and development.

### *Strategic statements*

The General Objective of the CORAF/WECARD strategic plan to which FARA is contributing is:

#### **High broad-based agricultural growth sustainably established in West and Central Africa**

This confirms that CORAF/WECARD intends making a significant contribution to the CAADP goal of agricultural growth, and is coherent with the General Objectives of FARA at the Regional level,.

That it is broad-based shows that no potential client groups will be excluded and at the same time allows priority areas to be addressed. It includes issues relating to smallholders and pastoralists as well as female-headed and HIV/AIDS affected households; it also includes large scale and commercial enterprises. The fact that the rate of growth is to be sustainably established, indicates the intention to safeguard environmental issues, and not produce the increased growth through resource mining or other environmentally damaging approaches.

The Specific Objective which CORAF/WECARD is to achieve through the delivery of its four Results is:

#### **Broad-based agricultural productivity, competitiveness and markets sustainably improved for target groups in West and Central Africa**

This objective is similarly coherent with NEPAD's CAADP and the strategic plans of FARA. The improvements in productivity, competitiveness and markets will be broad-based, meaning they will cover the whole spectrum of the value chain, not focussing only on producers but also considering all the actors and issues through to consumption. The nature and extent of these improvements are described as outcome-based indicators in the Strategic Logframe Design Summary.

The Specific Objective is ambitious, but CORAF/WECARD strongly believes that it is achievable given the high degree of commitment and ownership by stakeholders. The important assumptions which need to be made and to hold, if it is to be achieved have largely been internalised and brought under CORAF/WECARD's influence. **CORAF/WECARD is determined to meet the challenge presented by this Strategic Plan, and with the support of its membership and development partners is convinced that it can be done.**

At each of the key levels in the Strategic Plan, there are statements which provide the foundation for outcome-based indicators [see Annex 1]. Detailed numerical indicators in the form of objectively verifiable indicators are provided at the level of five-year medium term, three-year operational and annual work plans. Each of the Programmes has appropriate outcome-based indicators in their plans.

### *CORAF/WECARD's core principles*

In implementing this *Strategic Plan* CORAF/WECARD is governed by principles of:

- **Subsidiarity** in delegating responsibility to the lowest appropriate level
- **Delivery** of the required results and impact through effective and efficient use of resources
- **Accountability** to stakeholders for the use of resources and the delivery of results

- **Participation** of all stakeholders in the planning, implementation, monitoring and evaluation of activities, results and objectives.

### **Strategic Transition: Programme Approach Vs Network Approach**

The shift to a programme-based approach requires significant changes in organisational and institutional [management and formal/informal rules] systems and structures that are being integrated into the Programmes. This will be applied throughout the sub-region and will need to receive specific and carefully planned management.

Networking is the mechanism for ensuring sub-regional collaboration and delivery of *Results*. Network structures permanently financed by CORAF/WECARD, are no longer a feature of the revised Strategic Plan 2007-2016.

Base-centres, centres of excellence and poles play an important role in implementation, but are no longer responsible for overall management of a CORAF/WECARD Programme. They form the nucleus of the networking processes which address specific problems or set of problems through a project or projects. Access to resources and reporting is through the programme management structure based at the CORAF/WECARD Secretariat.

*Capacity strengthening*, including co-ordination, is distinct from technical and policy research. The implication of this is that resources can be focused on delivery and capacity strengthening [although not necessarily in the same place or at the same time] without compromising either.

The strategy of the Capacity Strengthening Programme covers the many facets of capacity strengthening both to meet general requirements and those arising within other programmes. As capacity is being developed, more stakeholders will be able to participate in the technical activities of CORAF/WECARD's agenda.

Changes in organisational structure to allow smooth implementation are integrated into the Programme strategies with oversight of the processes and steps by a dedicated Change Management Team.

### **Compliance with FAAP and subsidiarity principles**

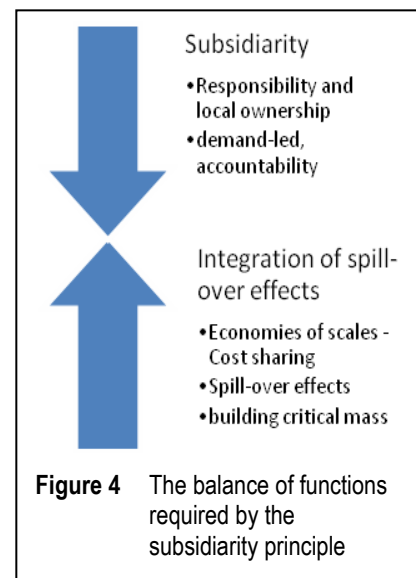
CORAF/WECARD is supporting the implementation of CAADP Pillar IV in West and Central Africa in the context of the WAAPP and the CAAPP aimed at implementing the agricultural policies of the RECs – ECOWAS, CEEAC, UEMOA, CEMAC. It carries out this mandate through its programmes which are a fundamental part of this *Strategic Plan*, in accordance with FAAP guidelines and principles for the policies, programmes and knowledge institutions that are required to raise agricultural productivity and improve rural livelihoods [see also Box 3].

**Box 3 FAAP principles for achieving the African vision of 6% per annum growth in agricultural production**

1. **Empowerment** of end-users to ensure their meaningful participation in setting priorities and work programs for research, extension, and training to ensure their relevance;
2. 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];
3. **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 the private sectors] can contribute to publicly supported agricultural productivity operations;
4. **Evidence-based approaches** with emphasis on data analysis, including economic factors and market orientation in policy development, priority setting and strategic planning for agricultural research, extension and training;
5. **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;
6. Explicit incorporation of **sustainability** criteria in evaluation of public investments in agricultural productivity and innovation programs [fiscal, economic, social and environmental];
7. Systematic utilisation of **improved management information systems**, in particular for planning, financial management, reporting, and monitoring and evaluation;
8. Introduction of **cost sharing** with end users, according to their capacity to pay, to increase their stake in the efficiency of services provision and to improve financial sustainability; and
9. **Integration of gender** considerations at all levels, including farmers and farmer organisations, the private sector, public institutions, researchers and extension staff.

Beyond improving the performance of individual initiatives through best practice, the FAAP further highlights the need to replicate and expand initiatives through increased levels of investment. It stresses how increased funding must be made available through mechanisms that are much less fragmented than has been the case in the past. *Harmonization* of Africa’s own resources with those of development partners therefore needs to be placed high on the agenda; CORAF/WECARD is addressing this through close collaboration with FARA’s networking support functions.

In advancing the implementation of CAADP, CORAF/WECARD further adheres to the *principle of subsidiarity*. This devolves operational authority and decision-making to the lowest level of decision making consistent with the operational competencies required, and the efficient and diligent use of funds. Resources are assigned to each level consistent with the authority delegated to them. The aim is to increase stakeholder ownership and authority on the basis of comparative advantage, improving efficiency and reducing costs. This is illustrated in Figure 4.



### **Cross cutting issues<sup>8</sup>**

There are a number of cross-cutting issues that have to be taken into account throughout implementation of CORAF/WECARD's programmes. These means ensuring that they are pro-poor, gender sensitive, HIV/AIDS appropriate and contribute to ensuring environmental sustainability. Working within the framework of innovation systems and adhering to the FAAP principles and the principle of subsidiarity are the key features of this Strategic Plan.

### **Pro poor**

Not all economic growth benefits the poor and often they can be adversely affected. Technologies that have economies of scale can focus on the wealthy and when too little attention is paid to the division of labour and resources, yield or profit enhancing developments can adversely affect the welfare of women and other disadvantaged groups.

CORAF/WECARD will endeavour to ensure that the innovations it promotes are pro-poor or at least scale neutral, and strengthen the resilience of individuals and households to adverse events. This is important in the sub-region where there are no publicly funded security nets and, for example, the poor will be most affected by the increasingly frequent and extreme events attributed to climate change.

Important measures include employment generation and microfinance that can reduce vulnerability while contributing to agricultural growth. Appropriate credit can be used to fund production or mitigate shocks and stresses from medical costs, weddings and funerals, droughts or floods. Agriculture-related legislation and regulation should ensure that growth promotion does not come with unacceptable increased risk and vulnerability.

The promotion of technological change should promote diversification of agriculture in ways that spread risk among different enterprises. Crop and livestock breeding involves trade offs between yields and vulnerability but, for the poor, care must be taken not to sacrifice too much robustness for higher production potential. Inappropriate inputs can also increase risks due to the greater investment required that may not be recovered in adverse circumstances. Some such as agro-chemicals may also have health and safety risks.

Lessons learnt should be communicated to policy makers for incorporation in Poverty Reduction Strategy Papers and other poverty reducing initiatives.

### **Gender**

Women in Sub-Saharan Africa produce up to 80% of basic foodstuffs for household consumption and for the market. In the livestock sector, they perform 50-60% of the work related to feeding and milking larger animals, as well as raising small stock. Rural women provide most of the labour for post-harvest activities, taking responsibility for storage, handling, stocking, processing and marketing. Beyond the farm, women play a key role in land and water management in all developing countries. Women are most often the collectors of water, firewood and fodder. They have access to a store of local knowledge on the medicinal use of plants; they have been in the forefront of soil conservation programmes. Due to a rise in the number of female-headed households as substantial numbers of males migrate to cities, more women are becoming functional heads of both households and farming activities.

Given the extensive participation of women in all aspects of agricultural production, the mainstreaming of gender into the agriculture sector is a key strategy element not only for the promotion of equality between men and women, but also for sustainable agricultural production.

CORAF/WECARD's strategy for mainstreaming gender into development involves understanding the differing needs and constraints faced by women and men that affect productivity and poverty; and then designing actions so that gender-related barriers to economic growth and poverty alleviation are reduced and the material well-being of men, women, and children is enhanced. Central is the promotion of policies and actions that facilitate equitable access to productive resources by both men

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<sup>8</sup> Adapted from the FARA Strategy 2007-2017

and women, as well as integrating gender perspectives in its programmes and activities to ensure benefit by both sexes. Other ways in which CORAF/WECARD intends mainstreaming gender are:

- Ensuring that women's needs are addressed in the development and dissemination of agricultural technologies and policies;
- Women are enabled to fully participate in and benefit from agricultural innovation processes;
- Women farmers and scientists receive the training they need to be fully competitive in their work;
- Capacity building for both women and men feature gender issues prominently.

### HIV/AIDS

The HIV/AIDS pandemic is severely reducing the likelihood that African countries will meet the MDG. Medical and funeral costs and the loss of productive family members have permanent negative consequences. In addition to *financial capital*, there is an irreplaceable loss of *social capital* as children lose their parents and mentors and have to fend for themselves. Women are particularly badly affected by the disease because they are more susceptible to infection and they bear most of the burden of care for infected family members; affected rural households cannot produce sufficient nutritious food, aggravating the impact of the disease. Rural institutions are less able to deliver services and development schemes are left unfinished.

CORAF/WECARD will ensure that HIV/AIDS is treated as both an emergency and a long-term development issue that requires pro-active leadership and a long-term multi-sectoral commitment from governments and the donor community. Increased awareness is needed of the importance of agriculture in national HIV/AIDS strategies, particularly with respect to the rural poor, given the role of agriculture in food and nutrition security as factors in managing the disease. The role of agriculture in poverty reduction is also crucial to the recovery of HIV/AIDS affected families and their achievement of self-sufficiency. Gender inequality is associated with the spread of the epidemic and is one of the main determining factors associated with vulnerability to HIV/AIDS. Advancing gender equality should therefore be central to any agricultural response to HIV/AIDS.

### Environmental sustainability

The majority of Africa's farmers are smallholders and the natural resources of land they cultivate are often the only physical assets they possess or have access to. Food demands from a rapidly expanding population are placing great strains on what are mostly low-input systems. This leads to degradation of natural resources in agricultural and pastoral lands, deforestation and desertification and expansion into marginal areas affecting critical environmental services such as flood and erosion control, carbon sequestration and water purification. Enhanced climatic variability due to global climate change is an additional threat.

Current low-input systems need to be intensified to raise productivity on existing agricultural and pastoral lands and safeguard natural lands and watersheds. These systems are highly diverse with a multitude of cropping systems and practices, substantial short-distance variability in crop growth and soil fertility and strong heterogeneity in farmers' access to resources. To address this complexity a much more facilitating role for R&D service providers is required, placing emphasis on agro-ecological principles and collective learning rather than on technology prescriptions and transfer. Ecological functions of the agro-ecosystem need to be exploited as much as possible to control pest, diseases and weeds, retain water and supply nutrients to the crop and enhance the efficiency of external inputs, especially mineral fertilizers. This will save costs, reduce the reliance on external inputs and improve environmental sustainability.

CORAF/WECARD will facilitate training of African scientists in participatory research methods, agro-ecological principles and systems tools that allow environmental risk analyses at different scales and bring them into the African and international scientific community. Programmes will also stimulate exchange of information systems and decision-making tools related to the sub-regional environment and endeavour to solicit greater public and private investments in environmental research and human resources to make agricultural systems more sustainable.

### Agricultural Innovation Systems

In Africa, the conventional *pipeline approach* to agricultural research, technology development and dissemination has produced numerous success stories, but its impact has largely remained localised,

failing to have sufficient impact on food security, wealth creation and natural resource management at national and sub-continental levels. Increasingly, the *innovation systems approach* is seen as a viable alternative.

The concept of *innovation* refers to the search for, development, adaptation, imitation and use of technologies, approaches and methodologies that are new to a specific context. An **innovation system** is therefore a network of organizations within an economic system that is directly involved in the creation, diffusion and application of knowledge [including that from research], as well as the organizations responsible for the coordination and support of these processes.

Innovation is a combined social and technical **process** involving multiple sources of ideas and technologies. For the innovation process to be successful, many players need to pull in the same direction. Stakeholders, including politicians, market agents, farmers, NGOs, researchers and extensionists, need to understand their mutual challenges and how they can contribute to the solutions which present opportunities for learning. This means engaging in genuine dialogue and looking for situations where joint actions can have significant impact.

Equally important are organizations that provide the infrastructure for innovation systems. These include government agencies and departments, patent offices, and private and public funding organizations as well as those engaged in policymaking, or who have coordinating or catalytic roles with direct service providers. Many of those institutions have entrenched ways of working which are directed by rules and mandates from the past. Their adaptation to future requirements is essential if impact on the sub-region's most complex problems is to be achieved.

None of these organisations acts in isolation; each is embedded in a web of interrelationships. In other words, the efficient operation of an innovation system involves not only the activities of its component parts, but also the interaction among them. Such interdependence is important both for producing and exchanging knowledge and using that knowledge. The success of innovations processes are correlated to the extent and openness with which the exchange of knowledge occurs. In practice, however, obstacles often arise that prevent alignment and coordination among institutions. As part of their integration function, innovation systems approaches are working to overcome these institutional obstacles to a truly integrated approach to sub-regional agricultural development.

## Implementation of the Strategic Plan

The CORAF/WECARD 10-year strategic plan will be implemented using two detailed Operational Plans (OP), with each OP running for 5 years. Each Operational Plan will detail the ‘who’, ‘what’, ‘why’, ‘when’, and ‘resources’ needed for its implementation. The larger and broader strategic goals are divided, or sub-divided and assigned to the work units in operational plan. This implementation plan will have specific milestones against which progress could be measured. The OP will itself be reviewed annually as implementation progresses.

### Strategic Logframe Design Summary of the Plan

The logframe design summary was derived using the same principles of ‘cause-and-effect’ as in a logical framework. However, key performance indications (KPI) feature in the logframe design summary, whereas the Objectively Verifiable Indicators (OVI) are feature in the logframe itself. The CORAF/WECARD Operational Plan which comes in two 5-year phases will present Specific objectively verifiable indicators showing precision in quantification, in its implementation plans at the level of Operational and Work Plans for Programmes and Projects.

### Monitoring and Evaluation

Monitoring and evaluation is applied to all CORAF/WECARD activities and synchronises as far as possible with those of FARA through the use of the similar approaches and methodologies. The aim is to ensure that the focus is on the functioning of the sub-regional agricultural research system as whole. The CORAF/WECARD programme and project monitoring and evaluation activities operate within an overall framework to track progress towards result delivery, as defined by the key performance, outcome-based indicators in the *Logframe Design Summary*. The M&E framework provides guidelines and procedures for the collection and analysis of data and information on the indicators, the outcome of which will be used to support effective decision making and execution of programmes.

The M&E units located at the different levels of the CORAF/WECARD constituents (the NARS) will track both implementation [inputs, activities] and results throughout the programme and project cycle. Results monitoring uses tools such as Outcome Mapping and Participatory Impact Assessment.

During the ten year life of the CORAF/WECARD *Strategic Plan* there will be significant modifications in African agricultural research and development. The M&E system will provide the information, data and analyses that will be used to amend/improve the strategy as necessary based on lessons learned in line with the changing political, market and climatic environments.

### Technical and Policy Research

#### Technical Research

The new paradigm of the *Strategic Plan* places great emphasis on an innovation systems approach typically referred to as IAR4D. The paradigm puts farmers and users at the centre of innovative practices, but also encourages learning through the interchange of ideas, success and failures between stakeholders. The targeted clients of the *Strategic Plan*, who will be the initial focus, include *poor small-holder farmers*, female-headed households, youths and other vulnerable groups. Under the IAR4D paradigm, communities and end-users are placed at the centre of innovation processes by:

- Creating multi-institutional innovation platforms<sup>9</sup> at relevant levels to support and encourage the interaction of diverse stakeholder groups. These may range in scope from formally established platforms, to transient platforms, in response to, and based on, specific demand
- Creating and supporting, national focal points to serve as innovation platforms that would encourage and promote the IAR4D paradigm.

<sup>9</sup> The *innovation platform model* is based on the interaction of stakeholders, from both the demand and supply sides of value chains, in such a way that research and development activities are tailored to address the wide range of livelihood needs, competencies and capacity that they represent. See earlier section in this Plan for further detail.

- Increasing beneficiary awareness of their role as full partners in research, empowering and encouraging them to take an active part in identification, planning, implementation and M&E.
- Tailoring research output and knowledge to sufficiently meet the needs of farmers and end-users.
- Strengthening new and existing partnerships through the establishment of formal agreements which would identify specific roles, responsibilities and expectations of stakeholders, whilst making informal relationships to facilitate new paradigm research as and when necessary.

The emphasis of technical research is on adaptive and applied research, and involves at least 70% of all available resources. CORAF/WECARD's mandate is to deliver the indicated results and achieve its growth targets. It focuses on impact-oriented activities and undertakes other basic, strategic, and more upstream research only where there is a comparative advantage and clear rationale in relation to its strategic plan objectives. The key *technical research* Programmes are:

- Livestock, Fisheries and Aquaculture
- Staple Crops
- Non-staple Crops
- Natural Resource Management
- Biotechnology and Bio-safety

The technical research programmes will all deliver on *Result 4<sup>10</sup>*, and their own strategies will be guided by the broader strategy developed by the CORAF/WECARD Knowledge Management Programme ensuring interaction and linkage with it.

### *Policy Research*

Policy research, an integral component of this *Strategic Plan* is a significant new element in CORAF/WECARD's portfolio. Whilst the Policy, Markets and Trade Programme are taking the lead, the technical programmes also have an interactive and supportive role since policy, markets, trade, institutional, and socio-economic themes cut across all programmatic elements. All research-oriented Programmes contain policy research elements.

In its broadest sense, policy research responds to the demand of policy- and decision-makers for information on how to improve policy, and create the enabling environment for high levels of sustained economic growth in the sector.

In order to be effective, the Policy, Trade and Market Programme's strategy specifies the direction of the programme, and identifies and establishes the precise nature of CORAF/WECARD's policy research. It specifies the scale and scope of activities and details mechanisms for interacting with, and responding to, key decision and policy makers. This overall policy research strategy informs and influences the approach to policy research adopted by technical research programmes.

Policy research informs policy makers and enhances decision-making based on relevant, factual information. This implies identifying the key policy and decision makers in the sub-region and creating effective working partnerships between them and the Programme and any other relevant policy research constituents.

As policy research is a new area of strategic focus, it is identifying, developing and establishing policy-related partnerships to support policy, trade, markets, institutional, and socio-economic issues.

Strong inter-personal links underpin the forum [or fora] which facilitate the effective establishment and operation of consultation and articulation of demand. A different approach is used compared with that for facilitating the articulation of demand for technical research. The enhancement and development of the skills and competencies required for this form part of the Programme's strategy.

Another key element of the Policy, Market and Trade Programme is to ensure that the technical programmes integrate socio-economic issues into their strategies.

The development of a communication strategy, as a component of the Knowledge Programme,

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<sup>10</sup> Demand for agricultural knowledge from priority clients facilitated and met

ensures relevant and appropriate media channels and mechanisms are utilised to share and advocate the policy options which are developed.

### **CORAF/WECARD Core Functions**

The guidance provided by CAADP is central to CORAF/WECARD's current strategy and *strategic Plan*. CORAF/WECARD as a membership organisation is not expected to do everything and areas of specific responsibility have been defined on the basis of its core functions. CORAF/WECARD has the important comparative advantage of strengthening national agricultural research systems through

Capacity strengthening of constituents NARS for specialisation, excellence and competence in the context of the new research paradigm of IAR4D; and creating and maintaining a conducive environment and institutional culture that attract and retain quality and value-adding personnel.

Coordination and facilitation of research co-operation and partnerships among NARS, scientific partners and the donor community,

Knowledge management and advocacy: in particular approaches and mechanisms linking the dissemination and uptake of knowledge, advocacy, harmonization and experiential learning at the various levels<sup>11</sup> to ensure that technology and policy options respond to the demands of target constituents and enhance ownership and impact of research programs;

Together these core functions create the enabling environment in which the sub-regional agricultural research system can grow. In doing so it provides the mechanism for delivery of the *Results* that have been identified as the necessary and sufficient conditions for CORAF/WECARD to achieve the improved productivity, competitiveness, and markets that will lead to broad based growth in the agricultural sector and ultimately contribute to poverty reduction in West and Central Africa.

### **Capacity Strengthening Mechanism**

Sub-regionally there is a recognised need for changing the research paradigm away from the development of technology packages, but this is not always reflected in the planning and approaches within the sub-region's NARS and their members. A key element of *capacity strengthening* as a core function is to address this. CORAF/WECARD's strategy for capacity strengthening identifies and prioritises the key elements of the new paradigm, drawing upon the findings of the recent review of the NARS commissioned by FARA<sup>12</sup>.

In principle, the strengthening of the NARS is the basis for creating a strong sub-regional organisation. Capacity is not uniform across the sub-region and support will focus on those with greatest need in priority areas. Concurrently, sub-regional aspects of the programme will address wider issues to bring capacity to a level where all stakeholders understand and can operate effectively in the new paradigm. The strategy addresses five key areas, although others may be identified:

1. Pooling of resources: Centres of specialisation
2. Creating and maintaining a minimum base of expertise in different areas
3. Creating and maintaining management and institutional culture and environment that attracts and maintains qualified personnel



<sup>11</sup> Program/project level; NARS level, sub-regional and regional levels

<sup>12</sup> *Agricultural Research Delivery in Africa: An Assessment of the Requirements for Efficient, Effective and Productive National Agricultural Research Systems in Africa*. March 2006. FARA Secretariat, Accra, Ghana. 58pp

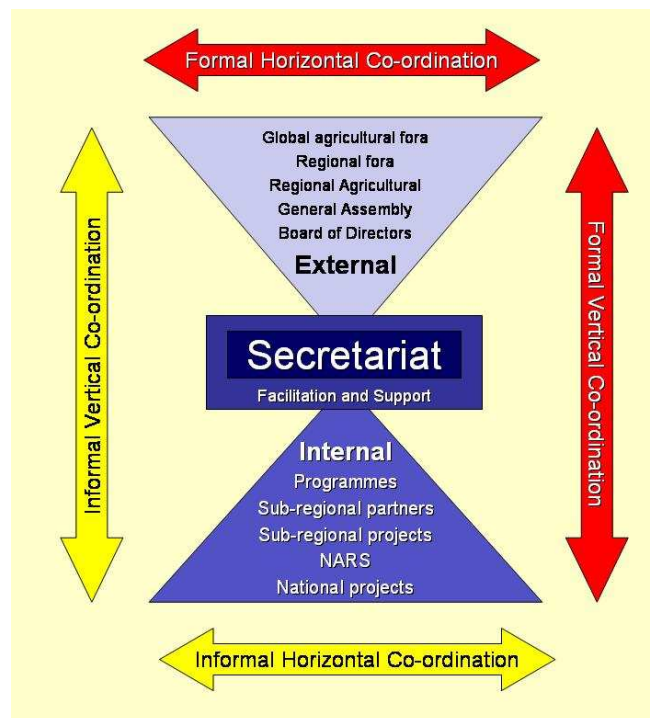
4. Fostering a process of institutional strengthening and institutional arrangements
5. Development of competence to implement effective IAR4D

The nature of the Programme is non-conventional in the sense that it goes beyond formal training for research workers and the provision of physical resources. Whilst there is still a place for these, the main thrusts are on empowering stakeholders to think, articulate and collaborate effectively with each other to create a multi-skilled cadre of motivated people capable and willing of working towards delivery and impact.

The *Capacity Strengthening Programme* also supports the CORAF/WECARD’s co-ordination role. There are several broad themes within this strategy with more specific issues being tackled internally by the different programmes. The programme itself targets public and private sector organisations, NGOs, farmers, universities, producers, trade organisations, IARC, consumer organisations, technical partners, decision makers, and other sub-regional institutions. Whilst there is a stand-alone programme to address *capacity strengthening*, other individual programmes [*technical, policy and knowledge*] also have a responsibility to deliver on issues relating to this important area. This is co-ordinated through the *Programme Management* structure.

### Co-ordination Mechanism

CORAF/WECARD’s strategy is geared towards adding value to the efforts of its constituent NARS through co-ordinating initiatives and efforts that facilitate sub-regional solutions to regional, sub-regional and national issues. This is to minimise the duplication of effort, optimise synergies and support the mobilisation of financial, physical, and human resources. The purpose being to enhance the effectiveness of CORAF/WECARD and ensure the achievement of its objectives.



**Figure 5 Diagrammatic representation of Co-ordination within CORAF/WECARD**

The innovation system approach and IAR4D paradigm requires multi-stakeholder and multi-level engagement, all of which requires carefully managed co-ordination. A key issue is coordinating actors involved in particular bits of development work including, for example, researchers, NGOs, communities and extension to bring them in line with shared goals; these are the stakeholders who are key to success. In this context, NARS members, other government and sub-regional organisations and stakeholder groups all have a responsibility to identify and develop potential opportunities for the co-ordination of their efforts and activities.

The Secretariat is key to co-ordination in CORAF/WECARD and fulfils this role in two ways. Firstly, by direct involvement in co-ordination through for example, advocacy, establishment of appropriate fora and the chairing of meetings. Secondly, indirectly through facilitation of the process by encouraging dialogue, mobilising resources and providing appropriate levels of information.

Co-ordination is complex and multifaceted. It is represented diagrammatically in figure 5. It can be categorised into two broad types, vertical and horizontal co-ordination, although this is an over-simplification.

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

Added to this is the aspect of *formal* and *informal* co-ordination which may be on a *permanent* or *temporary* basis.

- *Formal* co-ordination through mechanisms such as regular meetings of programme managers and project leaders, the meetings of the General Assembly or representation of CORAF/WECARD at meetings of other sub-regional organisations.
- *Informal* co-ordination may be accomplished on an ad hoc basis when driven by specific needs such as the development of initiatives to address specific sub-regional issues.

The proposed centralised Programme management structure greatly enhances co-ordination and integration of effort. It provides the scope for facilitating exchanges between programmes and contributes to the improvement of the monitoring, evaluation and planning processes.

Whilst the bulk of co-ordination remains within the sub-region, there will be some external co-ordination. This takes on more of an advocacy role than one of co-ordination and ensures that CORAF/WECARD's interests are known and integrated into the planning and activities of related organisations and systems, through FARA and its initiatives.

As a consequence of several CORAF/WECARD members being involved in overlapping organisations and plans, there is the need to develop a means of ensuring effective support to the sub-region. Fragmented support for agricultural research would need to be coordinated and harmonised; this should involve a wide range of stakeholders such farmers organisations, NGOs, policy-makers, agribusiness private sector (processors, marketer and transporters), agricultural research institutes and universities. Harmonization would be achieved *inter alia* through:

- increased programme support,
- common planning horizons
- common financial and administrative management systems
- pooling of resources and multi-donor trust funds
- support for FAAP compliant programmes

### Knowledge Management Mechanism

As with *capacity strengthening* there is a specific programme and *Result*<sup>13</sup> area associated with *knowledge management*. All programmes respond to, and deliver on, the needs of knowledge management covered by guidelines coming from the strategy developed and adopted by the Knowledge Management Programme. This is supported and enhanced through co-ordination led by the Programme Management structure under the oversight of the Secretariat.

Knowledge management covers a wide range of issues and mechanisms and is closely linked to dissemination and uptake of information, conversion of information into knowledge, advocacy, co-ordination of effort and experiential learning. This does not rely solely on computerised systems and the development of databases, although these have a role.

The mechanism for knowledge management is innovative in approach, utilising a range of options and methodologies, to develop and improve current technologies. These new approaches focus on the development of relationships to enable effective and significant exchange of information to generate knowledge.

All proposed knowledge functions and activities are distinct from the essentially internal responsibilities of the Secretariat in its *Information and Communication Unit*. The unit has a public relations function that supports advocacy processes.

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<sup>13</sup> Demand for agricultural knowledge from priority clients facilitated and met



The *Communications and Information Unit* within the Secretariat is the public face of CORAF/WE CARD. Amongst other things, the unit complements the knowledge management functions of the SRO, serving as the interface and primary point of contact for external enquiries, arrange publicity, store and make accessible information and data coming from the programmes, provide an information and communication service function for programmes, organise regular publication and information bulletins and provide support to wider advocacy of CORAF/WE CARD's role within the sub-region.

## Conclusion

The CORAF/WECARD 2007-2016 Strategic Plan has been developed in the context of CAADP and FAAP and addresses issues on priorities of the West and Central African agricultural research system, involving a broad range of stakeholders. The plan further makes use of the logical framework as a management and planning tool, particularly in reference to coherence with FARA, NEPAD and other SROs' strategies and objectives.

The new strategy addresses prioritized issues and makes a clear commitment to delivering a series of results which encompass a new paradigm for agricultural research and development. These approaches encompass not only conventional research, but also the use of innovation platforms, policy, markets, capacity strengthening, coordination, advocacy, knowledge management and the involvement of a broad base of stakeholders. All this is integrated in an approach that considers not only research but also development, which has been termed integrated agricultural research for development (IAR4D). The four results which CORAF/WECARD is committed to deliver are: appropriate technologies and innovations developed; strategic decision making option for policy, institutions and markets developed; sub-regional agricultural research system strengthened and coordinated, and demand from agricultural knowledge from target groups facilitated and met.

In this present plan, monitoring and evaluation is applied to all CORAF/WECARD activities and synchronises as far as possible with those of FARA through the use of similar approaches and methodologies for the implementation of CAADP. Being aligned towards achieving the millennium development targets is a key feature of this new strategic. This strategic plan has equally been separated from the implementation plan; this makes room for adjustments as implementation progresses. These are sharp deviations from the earlier strategic plan. The agricultural productivity programs (WAAPP and CAAPP) would be drawn from the strategic plan (and operational plan).

The whole, strategy, seeks to achieve sustainable improvements to the competitiveness, productivity and markets of the agricultural system in West and Central Africa by meeting the demand for technology, innovation, policy options, knowledge, and enhanced capacity and coordination of the sub-regional research system, expressed by target groups. By achieving this, CORAF/WECARD would have contributed significantly to its strategic objective of *high broad-based agricultural growth and food security established in WCA*.

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## Annex 1 Logframe Design Summary for CORAF/WECARD Strategic Plan [2007 -2016]

This logical framework design summary presents a picture of the performance of objective level outcomes and results level outputs on the basis of key performance indicators (KPI) that are being designed as measures to achieve the goals of the strategic plan in the context of operational phases of the plan. The summary, derived from the logical framework approach of the strategic plan, it is based on the principle of cause and effect. The CORAF/WECARD Operational Plan which comes in two 5-year phases will present Specific objectively verifiable indicators showing precision in quantification, in its implementation plans at the level of Operational and Work Plans for Programmes and Projects.

Narrative Summary	Key Performance Indicators
<p style="background-color: #000080; color: white; padding: 2px;"><b>General Objective</b></p> <p>High broad-based agricultural growth sustainably established in WCA</p>	<p><b>Growth</b></p> <p>1. 6% average annual increase in GDP from agricultural sector between 2010 and 2015<sup>14</sup></p> <p><b>Poor farmers</b></p> <p>2. Agricultural income for poor farmers and other small farmers increases by at least 6% above inflation on average between 2010 and 2015</p> <p><b>Poor employees</b></p> <p>3. Household income derived from employment in agricultural and related sectors increases by 6% above inflation on average between 2010 and 2015</p> <p><b>Poor consumers</b></p> <p>4. A significant reduction of poor and vulnerable people's household income required for basic food purchases by 2015</p>

<sup>14</sup> Specific CAADP target

Narrative Summary	Key Performance Indicators <sup>15</sup>	Assumptions
<p><b>Specific Objective</b></p> <p>Broad-based agricultural productivity, competitiveness and markets sustainably improved for targeted groups in WCA</p>	<p><b>Broad-based</b> Measures of the diversity of groups for whom improvements are applicable</p> <p><b>Productivity</b> Significant<sup>16</sup> increase in agricultural production for priority crops livestock and fisheries for targeted groups per unit of input by 2016</p> <p><b>Competitiveness</b> Significant numbers of commodities and products<sup>17</sup> that conform to specific national, sub-regional and/or international standards<sup>18</sup> by 2016</p> <p><b>Markets</b> Significant<sup>19</sup> increase in the inter- and intra-regional market share of agricultural products by 2016</p>	<p>[Specific to General Objective]</p> <ul style="list-style-type: none"> <li>• Contribution of improved rural infrastructure and access of trade to markets is achievable</li> <li>• Targeted response mechanisms exists for famine and improved food supply</li> <li>• Benefits lead to improvements in livelihoods of rural and urban households</li> <li>• Potential for expanding markets exists</li> <li>• Improved markets are accessible with potential benefit to the poor and disadvantaged</li> <li>• Competitive markets are accessible with potential benefit to the poor and disadvantaged</li> <li>• National and international stakeholders and partners cooperate to promote benefits</li> </ul>

<sup>15</sup> Indicators should be disaggregated in the context of specific sets of stakeholders such as farmers, private sector, women's groups and commodity groups.

<sup>16</sup> IFPRI Study on: Regional Strategic Alternatives for Agriculture-led Growth and Poverty Reduction West Africa, December 2006 as baseline

<sup>17</sup> Crop, livestock and fisheries including processed goods

<sup>18</sup> European Standards to be Adopted for Fruits Exports, 2007 as baseline

<sup>19</sup> IFPRI: Exploring Regional Dynamics in Sub-Saharan African Agriculture, by Xinshen Diao, and Yukitsugu Yanoma, 2003 as base line

Narrative Summary	Key Performance Indicators	Assumptions which need to hold for CORAF/WECARD to achieve its <i>Specific Objective</i>
<p><b>Results</b></p> <p>1. Appropriate technologies and innovations developed</p>	<p>1.1 The development of appropriate<sup>20</sup> technologies/innovations for crops, livestock and/or fisheries<sup>21</sup> available to poor and vulnerable households<sup>22</sup> by 2015</p> <p>1.2 The development of appropriate technologies for land rehabilitation for sustainable production by 2015.</p> <p>1.3 The establishment of effective multi-stakeholder partnerships and mechanisms for the development and transfer of appropriate technologies and</p>	<p>[Result to Specific Objective]</p> <ul style="list-style-type: none"> <li>• The IAR4D paradigm is an effective approach for ensuring <i>business unusual</i></li> <li>• Governments meet or exceed <i>Maputo Declaration</i> commitment of 10% contribution to agriculture R&amp;D<sup>23</sup></li> <li>• Adequate infrastructure is maintained</li> <li>• National policies and unfair competition do not compromise gains</li> <li>• Enabling policies and conducive environment exist and are sustained</li> <li>• Extension services are effective</li> <li>• Effective platforms for consultation exist</li> <li>• Adequate resources and enabling environment exist</li> <li>• the private sector and youths accept agriculture as a positive opportunity</li> <li>• Civil society especially producer organisations are adequately resourced to operate efficiently</li> <li>• Regional and International markets support gains</li> </ul>

<sup>20</sup> Appropriate in this context means demand-driven, affordable, accessible and beneficial to poor and vulnerable households.

<sup>21</sup> To include new and adapted technologies for production, post-harvest storage and processing

<sup>22</sup> Including female-headed, HIV/AIDS affected and youth

<sup>23</sup> ...**IMPLEMENT**, as a matter of urgency, the Comprehensive Africa Agriculture Development Programme (CAADP) and flagship projects and evolving Action Plans for agricultural development, at the national, regional and continental levels. To this end, we agree to adopt sound policies for agricultural and rural development, and commit ourselves to allocating at least 10% of national budgetary resources for their implementation within five years; [Assembly of the African Union, Second Ordinary Session. 10-12 July 2003, Maputo, Mozambique. Assembly/AU/Decl.4- 11 (II). 19pp]

	innovations by 2015.	<ul style="list-style-type: none"> <li>• Harmonization of processes and alignment of resources serve to reinforce strategy efforts</li> <li>• Political/economic environment does not negate gains</li> </ul>
Narrative Summary	Key Performance Indicators	Assumptions which need to hold for CORAF/WECARD to achieve its <i>Specific Objective</i>
<b>Results [continued]</b>		
2. Strategic decision-making options for policy, institutions and markets developed	2.1 Effective multi-stakeholder partnerships and mechanisms for the development of policy, institutional and market options established and functional by 2016. 2.2 Policy options proposed, recommended and advocated to decision makers at regional and national levels by 2012 2.3 Adoption levels of policy options submitted to decision makers, by 2016	As above
3. Sub-regional agricultural research system strengthened and coordinated	3.1 Capacity enhancement needs relating to implementation of IAR4D identified and addressed by 2012 3.2 Significant increases in the numbers of women, youth and other vulnerable groups positively involved and operating in the IAR4D mode of CORAF/WECARD by 2016. 3.3 Significant increases in the capacity of stakeholders to acquire information and utilise improved technologies/innovations to produce, develop, process and market agricultural products by 2016	
4. Demand for agricultural knowledge from targeted clients facilitated and met	4.1 Increase in the numbers of stakeholder groups forming alliances for joint learning, knowledge and information sharing by 2016. 4.2 Increases in the numbers and types of users, including vulnerable/disadvantaged stakeholders, able to successfully access relevant knowledge and information by 2016. 4.3 Increases in the use and uptake of technologies and innovations developed to meet stakeholder demand.	



**Narrative Summary**

**Assumptions which need to hold for CORAF/WECARD to deliver its  
*Results***

Activities	[Activity to Result]
<p><b>Result 1    Appropriate technologies and innovations developed</b></p> <p>1.1    Determine and quantify the status of needs and opportunities for research [countries/sub-region]</p> <p>1.2    Develop and strengthen partnerships</p> <p>1.3    Develop appropriate technologies and innovations through IAR4D paradigm</p> <p><b>Result 2    Strategic decision-making options for policy, institutions and markets developed</b></p> <p>2.1    Identify market constraints and opportunities including an analysis of existing agricultural policy</p> <p>2.2    Develop mechanisms to improve regional and international trade.</p> <p>2.3    Promotion of market information systems.</p> <p>2.4    Identify institutional constraints including an analysis of major agricultural institutions in the sub-region</p> <p>2.5    Develop mechanisms to enhance institutional response to the production-consumption/market continuum</p> <p>2.6    Harmonisation of processes for priority products [policies]</p> <p>2.7    Harmonise and operationalize framework and procedures for quality control</p> <p>2.8    Develop lobbying strategies [advocacy]</p> <p>Continued...</p>	<ul style="list-style-type: none"> <li>● Design and implementation of activities successfully follows the approach of the IAR4D paradigm</li> <li>● Governments exhibit and maintain political will with respect to relevant declarations e.g. the Maputo declaration of 10% national budget allocation to the agricultural sector</li> <li>● Good/effective extension services are functional in the sub-region</li> <li>● Staffing and resource levels are maintained</li> <li>● Good relationships with political stakeholders exist</li> <li>● Policy research at the sub-regional level appropriate at the national level</li> <li>● The financial and physical resource commitments of stakeholders, including public and private sectors, NGO and producer organisations are maintained</li> <li>● Improved infrastructure is in place and effective</li> <li>● A clear and shared vision and commitment exists/is adopted amongst stakeholders</li> <li>● Compatible organisational structures exist</li> <li>● Coordination brings added value</li> <li>● Good press and other media organisations exist</li> <li>● Potential clients able to articulate demand effectively and have resources to respond to output</li> <li>● Paradigm shift in approach internalised by all stakeholders</li> </ul>

Hierarchy of Objectives	Assumptions which need to hold for CORAF/WECARD to deliver its <i>Results</i>
<p><b>Activities [continued]</b></p> <p><b>Result 3 Sub-regional agricultural research system strengthened and coordinated</b></p> <p>3.1 Identify capacity and coordination needs and constraints of NARS in WCA</p> <p>3.2 Develop mechanisms to strengthen collaboration and partnerships between NARS and ensure an enhanced communication system</p> <p>3.3 Strengthen Operational units for CORAF/WECARD [networks, regional programmes, base centres, centres of excellence]</p> <p>3.4 Strengthen competitive funds for regional agricultural research and development</p> <p>3.5 Develop and promote agricultural knowledge management systems</p> <p>3.6 Promote existing capacity strengthening interventions</p> <p>3.7 Strengthen the capacities of stakeholders to analyse the value chain of priority products and the commercial policies of the agricultural sector</p>	<p>As above</p>

Hierarchy of Objectives	Assumptions
<b>Activities [continued]</b>	
<p><b>Result 4</b> Demand for agricultural knowledge from targeted clients facilitated and met</p> <p>4.1 Identify the constraints, needs and opportunities for sub-regional information and communication systems</p> <p>4.2 Establish linkages with the regional and sub-regional knowledge management systems and formulate operational mechanisms</p> <p>4.3 Develop of a sub-regional strategy for communication and advocacy</p> <p>4.4 Develop of a regional database on agricultural research and development outputs</p> <p>4.5 Support NARS and partners in the collection and exchange of agricultural information</p> <p>4.6 Develop sub-regional and national level market information systems for priority products</p> <p>4.7 Support diffusion and exchange of technological innovations</p> <p>4.8 Diversify the framework for diffusion and dissemination of information</p> <p>4.9 Utilising a broad selection of mechanisms and media, promote the output from stakeholder IAR4D-based activities within WCA, including:</p> <ul style="list-style-type: none"> <li>4.9.1 Technologies and innovations</li> <li>4.9.2 Commercial products as business opportunities</li> <li>4.9.3 Decision making tools</li> <li>4.9.4 Policy options</li> <li>4.9.5 Information systems</li> </ul>	<p style="text-align: center;">As above</p> <p>[Pre-conditions below...]</p>

**Preconditions:**

- Good researcher motivation exists
- Adequate and reliable finances are available
- Agricultural research is a high priority at national levels
- Adequate human and physical resources exist In member organisations
- Good ownership, involvement and commitment of all stakeholders in the NARS
- Mitigation measures exists for natural disasters
- Development partners reliably fund and support the SROs
- Good governance in the NARS
- Need for strong co-ordinating bodies
- Organisational stability exists within the SRO
- Good understanding of Point A [current situation] and clear vision for meeting the MDG goals of 2016
- Enabling policy and legal environment exists

**Annex 2: Summary and Implications for Agricultural R&D Strategies in West and Central Africa**

	Contribution to total agricultural growth and ranking	Research benefits and ranking	Other considerations	Implications for policy and R&D
Rice	<ul style="list-style-type: none"> <li>✓ Contribute to 15.2% of projected WCA total ag growth (ranks 3<sup>rd</sup>)</li> <li>✓ Contribute to 16.3% and 17.0% of projected Sahel and Coast total ag growth (ranks 2<sup>nd</sup>)</li> <li>✓ Large contribution to total ag growth in 8 countries (share in country's AgGDP growth): Sierra Leone: 35.5% Guinea: 32.9% Mali: 21.8% Guinea Bissau: 19.5% Mauritania: 18.6% Nigeria: 12.8% Senegal: 12.0% Cote d'Ivoire: 9.9%</li> </ul>	<ul style="list-style-type: none"> <li>✓ Highest total research benefits in WCA (US\$6.8 billion in 10 yrs)</li> <li>✓ Total producer benefits rank 1<sup>st</sup> in Sahel (US\$1.2 billion) and Coast (US\$5.3 billion)</li> <li>✓ Rank 1<sup>st</sup> in 7 countries: Nigeria: US\$4.1 bil Mali: US\$590 mil Guinea: US\$390 Burkina Faso: US\$210 mil Sierra Leone: US\$160 mil Guinea Bissau: US\$60 mil Mauritania: US\$24 mil</li> <li>✓ Consumers in all WCA countries would benefit from lowered price and less import</li> </ul>	<ul style="list-style-type: none"> <li>✓ Markets for rice is not a constraint</li> <li>✓ Areas of low-acc/low-dens show greatest potential for production growth</li> <li>✓ Main constraint is high cost of production inputs</li> </ul>	<ul style="list-style-type: none"> <li>✓ Need adaptation R&amp;D at regional level</li> <li>✓ Complementary investments needed</li> <li>✓ Improving productivity through lowered production costs</li> </ul>

<p style="writing-mode: vertical-rl; transform: rotate(180deg);">Traditional grains</p>	<ul style="list-style-type: none"> <li>✓ Contribute to 5.8% of projected WCA total ag growth (ranks 6<sup>th</sup>)</li> <li>✓ Contribute to 1.1% of projected Sahel total ag growth (ranks 3<sup>rd</sup>)</li> <li>✓ Large contribution to total ag growth in 8 countries (share in country's AgGDP growth):            Gambia: 19.2%            Burkina Faso: 17.8%            Mali: 11.7%            Senegal: 11.7%            Niger: 11.3%            Chad: 7.3%            Nigeria: 7.1%            Togo: 5.4%</li> </ul>	<ul style="list-style-type: none"> <li>✓ Total research benefits of maize rank 4<sup>th</sup> (US\$2.5 billion), sorghum ranks 5<sup>th</sup> (US\$2.4 billion), and millet ranks 8<sup>th</sup> (US\$1.6 billion) in WCA</li> <li>✓ Maize ranks 2<sup>nd</sup> in Central (US\$730 million), millet 3<sup>rd</sup> in Sahel (US\$770 million), and sorghum 4<sup>th</sup> in Sahel (US\$440 million)</li> <li>✓ Maize ranks 2<sup>st</sup> in 4 countries:            Guinea: US\$390            Benin: US\$360 mil            Cameroon: US\$360 mil            DRC: US\$320 mil            Togo: US\$50 mil</li> <li>✓ Millet ranks 1<sup>st</sup> in Gambia (US\$60 million), ranks 2<sup>nd</sup> in 3 countries (Guinea Bissau, Mali, Senegal)</li> <li>✓ Sorghum ranks 1<sup>st</sup> in 3 countries (Chad, Niger and Togo), ranks 2<sup>nd</sup> in Mauritania</li> </ul>	<ul style="list-style-type: none"> <li>✓ Higher growth potential will come from areas with low market access &amp; low population density</li> <li>✓ With high urban demand, the linkages with processing is important</li> <li>✓ Linkages with livestock</li> </ul>	<ul style="list-style-type: none"> <li>✓ In low mkt acc/low pod dens areas, processing technologies.</li> <li>✓ Improved varieties that are more suitable for feed</li> <li>✓ In high market access areas, high-input technologies are a better option</li> </ul>
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<p style="writing-mode: vertical-rl; transform: rotate(180deg);">Livestock</p>	<ul style="list-style-type: none"> <li>✓ Contribute to 15.5% of projected WCA total ag growth (ranks 2<sup>nd</sup>)</li> <li>✓ Contribute to 19.9% and 35.5% of projected Central and Sahel total (ranks 1<sup>st</sup>)</li> </ul>	<p><i>Not covered by the study</i></p>	<ul style="list-style-type: none"> <li>✓ In WCA, supply of certain livestock (e.g. beef, sheep, and goats) are concentrated far from major urban markets</li> <li>✓ Major growth of livestock in WCA (such as poultry) is likely to occur near the major urban markets</li> <li>✓ Urban demand for livestock will continue to grow rapidly. Can the region take advantage of this opportunity?</li> </ul>	<ul style="list-style-type: none"> <li>✓ Need region-wide strategy that considers both R&amp;D and reduction in market transaction costs and barriers for intraregional trade</li> <li>✓ There are huge implications between choosing whether investing in intensive systems within coastal areas is more important than investing in the Sahel</li> </ul>
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<p style="writing-mode: vertical-rl; transform: rotate(180deg);">Roots and tubers</p>	<ul style="list-style-type: none"> <li>✓ Contribute to 17% of projected WCA total ag growth (ranks 1<sup>st</sup>)</li> <li>✓ Contribute to 17% and 20% of projected Coast and Sahel total growth (ranks 2<sup>nd</sup> in Central and 1<sup>st</sup> in Coast)</li> <li>✓ More than 15% of contribution to total ag growth in 9 countries (share in country's AgGDP growth): Togo: 34.1% DRC: 30.4% Benin: 28.1% CongoR: 27.0% Ghana: 22.1% Nigeria: 21.1% Gabon: 17.9% CAR: 16.7% Cameroon: 9.7%</li> </ul>	<ul style="list-style-type: none"> <li>✓ Cassava total producer benefits rank 2<sup>nd</sup> in WCA (US\$4.7 billion)</li> <li>✓ Cassava ranks 1<sup>st</sup> in Central (US\$2.1 billion) and 2<sup>nd</sup> in Coast (US\$2.6 billion)</li> <li>✓ Cassava ranks 1<sup>st</sup> in 4 countries (Ghana, Benin, CongoR, DRC, ranks 2<sup>nd</sup> in Sierra Leone)</li> <li>✓ Yam total benefits rank 7<sup>th</sup> in WCA (US\$1.8 billion), rank 5<sup>th</sup> in Nigeria (US\$1.0 billion)</li> </ul>	<ul style="list-style-type: none"> <li>✓ Demand opportunities exist in both regional and export markets – especially for processed cassava products and agro-industry</li> <li>✓ Due to the short shelf life of cassava, complementary linkages between improved production and processing technologies are important in both low and high markets access areas.</li> </ul>	<ul style="list-style-type: none"> <li>✓ Target emerging market demand (e.g., China)</li> <li>✓ Improvements in processing technologies will be critical to improve overall productivity and competitive in regional and international markets</li> <li>✓ Improve varieties for agro-industry and bio-fuel</li> </ul>
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Pulse & oilseeds	<ul style="list-style-type: none"> <li>✓ Contribute to 8.7% of projected WCA total ag growth (ranks 5<sup>th</sup>)</li> <li>✓ Contribute to 11.6% of projected Sahel total growth (ranks 4<sup>th</sup>)</li> <li>✓ Larger than 9% of contribution to total ag growth in 11 countries (share in country's AgGDP growth):                      Gambia: 37.3%                      Niger: 16.4%                      Senegal : 14.7%                      Chad: 14.0%                      Burkina Faso: 13.6%                      Guinea: 13.0%                      Sierra Leone: 9.6%                      CAR: 9.6%                      Nigeria: 9.5%                      CongoR: 9.4%                      DRC: 9.3%</li> </ul>	<ul style="list-style-type: none"> <li>✓ Beans rank 12<sup>th</sup> in WCA (\$US380 million)</li> <li>✓ Groundnuts rank 3<sup>rd</sup> in WCA (\$US3.4 billion)</li> <li>✓ Groundnuts rank 2<sup>nd</sup> in Sahel (US\$810 million), 3<sup>rd</sup> in Coast (US\$2.3 billion) 4<sup>th</sup> in Central (US\$340 million)</li> <li>✓ Groundnuts rank 1<sup>st</sup> in 2 countries (Senegal and CAR), rank 2<sup>nd</sup> in 2 countries (Niger and Nigeria)</li> </ul>	<ul style="list-style-type: none"> <li>✓ Large opportunities in both regional &amp; export mkts</li> <li>✓ Multi-use crop (human consumption and feed)</li> <li>✓ Loss of market share to imports for certain products (e.g. groundnut oil)</li> <li>✓ Changing consumer preferences (groundnut v. soybean oils)</li> </ul>	<ul style="list-style-type: none"> <li>✓ Improve import and export competitiveness (e.g., groundnut oil, groundnuts, beans)</li> <li>✓ Processing technologies</li> <li>✓ Targeted varieties</li> </ul>
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Cocoa/cotton	<ul style="list-style-type: none"> <li>✓ Contribute to 2.1% (cotton) and 2.8% (cocoa) of projected WCA total ag growth</li> <li>✓ Contribute to 4.8% (cotton) of projected Sahel total ag growth and more than 2% (cocoa) of project Coast and Central total ag growth</li> </ul>	<ul style="list-style-type: none"> <li>✓ Cocoa total producer benefits rank 6<sup>th</sup> (US\$2.0 billion) and 10<sup>th</sup> for cotton (US\$1.5 billion) in WCA</li> <li>✓ Cocoa ranks 1<sup>st</sup> in Cote d'Ivoire (US\$1.3 billion)</li> <li>✓ Cotton ranks 2<sup>nd</sup> in Burkina Faso and Guinea, 3<sup>rd</sup> in 3 countries (Mali, Cote d'Ivoire and Benin)</li> </ul>	<ul style="list-style-type: none"> <li>✓ Difficult global markets for bulk commodities – often saturated, volatile, and distorted (tariffs)</li> <li>✓ Key question is the extent to which there are large potentials for farm level productivity gains? Or alternatively, focusing on product differentiation (cocoa)?</li> </ul>	<ul style="list-style-type: none"> <li>✓ Diversify into emerging markets (e.g. East Asia and East Europe)</li> <li>✓ Issues more related to access to markets. Increased competitiveness, product differentiation, varieties, niche markets?</li> </ul>
Vegetable & fruits	<ul style="list-style-type: none"> <li>✓ Contribute to 10.5% of projected WCA total ag growth (ranks 4<sup>th</sup>)</li> <li>✓ Contribute to 10.4% and 17.3% of projected Coast and Central total ag growth (ranks 4<sup>th</sup> and 3<sup>rd</sup>)</li> </ul>		<ul style="list-style-type: none"> <li>✓ Very diverse in both commodities and countries</li> <li>✓ Driven by private sector</li> <li>✓ Highly affected by policies outside of agricultural sector</li> <li>✓ Generally no demand</li> </ul>	<ul style="list-style-type: none"> <li>✓ Strong regulatory and well functioning institutions are important at the country level</li> <li>✓ Given higher incentives for private sector investments, what role for public sector</li> </ul>

Other high value	<ul style="list-style-type: none"> <li>✓ Contribute to 3.6% of projected WCA total ag growth</li> <li>✓ Contribute to 3.7% and 4.4% of projected Coast and Central total ag growth</li> </ul>		<p>constraints</p> <ul style="list-style-type: none"> <li>✓ Poses challenges at the country level since it requires well developed institutions (for certification, grading &amp; standards, sanitation, etc.)</li> <li>✓ Smallholder entry is limited due to the demand for quality standards and certification.</li> </ul>	<ul style="list-style-type: none"> <li>✓ Issues more related to access to markets. Increased competitiveness, product differentiation, varieties in niche marketsb</li> <li>✓</li> </ul>
<b>Crosscutting:</b> Institutionalizing the regional strategic priority options	Very Important	Extremely important	Close collaboration, consultation and coordination with NEPAD/CADDP, ECOWAS, UEMOA, CILLS, NARS, Farmers' organizations, and donors	In addition to commodity research, analysis on how to institutionalize the research priorities is also key
<b>Cross cutting:</b> Building regional analytical capacity in research priority setting	Important	Very Important	Strong support from universities, donors, and IFPRI	Capacity in social economic research needs to be strengthened to assess strategic options in a constant basis.

### Annex 3: EVOLUTION OF CORAF/WE CARD STRATEGY FOR R&D IN THE SUB-REGION

<b>Collaborative activity</b>	<b>Location &amp; time</b>	<b>purpose</b>	<b>Outcome/ further actions</b>
3 <sup>rd</sup> annual Dialogue of NARS (15 French speaking NARS of WCA and Madagascar)	Abidjan, Cote d'Ivoire, March 22-27, 1987	To obtain resolution on the development of an efficient and effective research cooperation in order to resolve the common agric research and dev. Problems in the sub-region	The creation of CORAF (conference of African and French research directors)
10 <sup>th</sup> Plenary meeting of CORAF	N'Djamena, Chad, 17 – 22 March 1997	To review a 10-year systems assessment on research cooperation between African NARS and scientific and technical partners in the north	An analysis on the evolution of CORAF revealed institutional and scientific achievements but the need for a re-organization to (i) enhance and better locate R&D in the sub-region
11 <sup>th</sup> plenary session of the CORAF	20-25 April 1998, Accra, Ghana	adopted a resolution for the development of a Strategic Plan for Agricultural Research in West and Centre Africa co-operation.	A new strategy for agricultural research cooperation that would identify the priorities of research, determine a framework for negotiations and dialogue, between all the actors including a sustainable funding mechanism for agricultural research.
1st Annual General Assembly	17 to 21 July 2000 in Dakar, Senegal	adopted the strategic plan for research co-operation,	Developed and established the plan of action for the period 2000-2003.
	2003	updated its strategic plan for research co-operation as a result of the emergence of new initiatives related to the globalisation of	adopted a new expiry period (2000-2005) for the implementation of the action plan.



			agricultural research,	
External Institutional Assessment	November 2005	To identify issues with the 2003 Strategic Plan	Identified need to review and revised the 1999-2014 Strategic Plan	
Stakeholder Consultative Meeting	2006	To further identify issues with the 2003 Strategic Plan	Defined the way forward for reviewing the 1999-2014 Strategic Plan	
Reviewing and Revising of CORAF/WECARD Strategic Plan	November 2006 to April 2007	Reviewed and Revised Strategic Plan 2007-2016	Strategic Plan 2007-2016 and an Operational Plan (2007-2012)	

