



# Sustainable Financing Mechanisms of Agricultural Research and Advisory Services in West Africa



Policy Brief

« ECOWAP+10 » International Conference







## Summary

Despite efforts made in the field of agricultural production (growth, multiplication of seed varieties, etc.) in West Africa, many challenges are still ahead including the promotion and financing of agricultural research and advisory services. The main challenges for such promotion are attributable to the research funding still dominated by external sources. CORAF/WECARD commissioned a study on the best models and mechanisms for sustainable financing of agricultural research and advisory services in West Africa (WA). Hub Rural equally commissioned another one on the funding of agricultural development. Outcomes of both studies were shared with key stakeholders from 12 WA countries, ECIOWAS, and development partners during a validation workshop. After an analysis of experiences and practices around the world and the sub-region, the following recommendations were made.

## Recommendations

1. As part of its contribution to the ECOWAP+10 process, CORAF/WECARD must strive to promote the "sustainable funding for agricultural research and advisory services."
2. A Task Force will develop a regional action plan to support countries in the implementation of their respective processes.
3. CORAF/WECARD will support cooperation between the countries of the sub-region for mutual learning, including experience-sharing visits of countries to FIRCA and mobilization of expertise to support countries.
4. Countries should also use the national agricultural advisory for in setting up their funds.
5. ECOWAS and UEMOA should further integrate the sustainable funding agricultural research and advisory services dimension in their policies and programs, notably ECOWAP + 10 process and outlook for 2015.
6. The national coordination of WAAPP will provide financial support to the initial actions identified in the workshop to carry out emergency operations (establishment of the National Steering Committee and its secretariat, review of existing funds, finalizing a national roadmap) for the establishment of a sustainable funding mechanism for Research and Agricultural Advisory Services.
7. The introduction of commodity specific levies to finance Research & Extension should be encouraged where marketing systems or producer groups can collect levies in ways which minimize free-rider problems.

## I. INTRODUCTION:

African political and scientific leaders have set a target to increase agricultural output by 6 percent a year for the next 20 years. Improvements in total factor productivity are expected to contribute about 3 percent to this, with the remainder coming from increased investment. But even achieving a 3 percent annual growth rate of total factor productivity will be challenging. In no region of the world has total factor productivity increased over a sustained period of time by more than 2.5 percent per year. It will require larger investments in agricultural research, extension and education systems; and institutional reforms that will increase the efficiency and effectiveness of the spending on research and extension.

Given the expansion of poverty in Africa and especially the declining trend in agricultural production due to the combined effect of population growth and the effects of climate change, African leaders adopted a number of resolutions. Indeed during the 2003 African Union Summit in Maputo, the African governments committed to increase the public spending on agriculture by allocating at least 10% of their total budgets to achieve an agricultural growth rate by 6% per year. Almost 12 years after making such commitment, the results achieved in West African vary from one country to another. Significant efforts have been made in those countries, but investment in agriculture remains dominated by external contributions from TFPs. In 2013, only 13 African countries including seven West African countries have more or less kept up to their commitment (Burkina Faso, Ghana, Guinea, Mali, Niger, Senegal, Togo). The major constraint identified towards achieving the main goal in terms of implementation of the Maputo recommendation for ECOWAS region remains the lack of sustainable funding mechanisms for agricultural development.

Against this background, the West Africa Agricultural Productivity Program (WAAPP) – consisting of four components-- was designed by the Economic Community of West African States (ECOWAS) as a contribution to the implementation of its agricultural policy (ECOWAP) in line with the Comprehensive Africa Agricultural Development Program (CAADP). As a result, CORAF/WECARD was mandated by ECOWAS to coordinate the regional implementation of WAAPP with financial facilitation from the World Bank. This program aims to contribute to increasing agricultural productivity in the major commodity value chains of the agricultural sub-sectors in the participating countries. These sub-sectors must, in line with the regional priorities identified by CORAF/WECARD, contribute significantly to boosting agricultural growth in the region, as well as improving the living conditions of the population. The alignment of national and regional priorities is expected to ensure benefits of the program for the whole region. The program was launched in 2008 and includes thirteen

ECOWAS countries except Guinea Bissau and Cape Verde which are being prepared to come on board.

One of the major areas of the first component of WAAPP-- strengthening strategies, mechanisms and procedures to help improve agricultural productivity-- is the establishment of sustainable financing mechanisms for agricultural development. To achieve this, each country shall imperatively start strengthening its sustainable financing mechanism for agricultural research and advisory services before the end of the project. In most West African countries, the funds injected in agricultural research programs and projects come from outside Africa, and more often will not reflect national or regional priorities. To deal with this situation, these countries need to urgently mobilize endogenous and sustainable funding to support national and regional development priorities.

In this respect, CORAF/WECARD as the ECOWAS technical arm was mandated to commission a study on sustainable funding models for agricultural research and advisory services in order to identify the best-bet models for the sub-region that take into account the different endogenous funding sources, including the private sector. This study has a triple focus: first, it gives an overview on selected funding models; secondly it singles out a set of scalable endogenous funding models, and thirdly, it draws some policy conclusions and recommendations.

## **II. METHODS**

Several studies across the world have highlighted that supporting the endogenous agricultural research is the best way to sustain support to the agricultural development. After a three-week tour in five countries, a literature review capturing African and international models was drawn up. Though dealing with complex and multiple options adopted according to the country (Funds, Foundations, Regional Program, Ad hoc support, etc.) three models have been singled out taking into account the characteristics of the ECOWAS countries. Building on specific experiences, it came out that the endogenous funding scheme, though being paradoxical, should be gradually introduced and custom-tailored to the realities of each country because both the agricultural research and the entire agricultural sector remain subject to many contingencies likely to prevent the private sector coming in very soon. The State and the Technical & Financial Partners (TFPs) will therefore continue to remain the key financial partners.

## **III. ANALYSIS**

### **3.1. Overview of selected existing endogenous financing initiatives for agricultural research and advisory services**

#### **3.1.1. National Models**

Endogenous financing mechanisms for agricultural research and advisory services range from the support of sector by a group, a national company to more comprehensive strategies focusing on community/collective development movements for research through the creation of Foundations or Funds.

In general, Farmers demand-driven research is the rationale for the development of these financing mechanisms. Specific initiatives are sometimes supported through the establishment of semi-private institutions with participation of producers and the private sector in the capital. A good example is the National Agricultural Research Center (CNRA) of Côte d'Ivoire where producers hold 60% equity. Another example is the cotton industry with textile fiber companies based in francophone countries (Burkina Faso, Mali, Chad, Benin, etc.). New initiatives have emerged to mobilize private funds, especially funds from priority agricultural value chains as evidenced by the Inter-professional Fund for Agricultural Research and Advisory Services (FIRCA) of Côte d'Ivoire, which operates based on professional contributions paid by producers and primary processing agribusiness. Private funds are also mobilized by the producer organizations for research through various foundations in Kenya with tea and coffee (Tea Research Foundation of Kenya, TRFK), with tea in Tanzania or with sugar or tobacco in Zimbabwe.

- **The Brazilian Agricultural Research Corporation (EMBRAPA)**

The Brazilian Agricultural Research Corporation (EMBRAPA), is a public research organization, under the Ministry of Agriculture, Livestock and Supply. It was created in 1973. EMBRAPA has a budget worth about \$ 1 billion, mostly funded by the federal government. Its mission is to develop research and innovation for sustainable development for the benefit of the Brazilian society. For example in the 60s, Brazil was a net importer of agricultural production. The country produced 17.2 million tons of grain per year against 150 million today.

Despite these achievements, the Brazilian Agricultural Research seems to lack cohesion on the one hand and on the other hand the agriculture intensification developed by the EMBRAPA program seems to have marginalized family farming. There still exists family farms alongside the large farms which provides 70% of the country's production. Brazil is ranked 7th in terms of agriculture production in the world and agriculture accounts for 22% of GDP. These achievements should not make us lose sight that the Brazilian agriculture remains highly concentrated, in view of its 79% production being supplied by 5% of the farmers. In addition, Brazil is a large country due its geographical size and the size of its population which can only be compared to Nigeria. This raises a question whether or not the Brazilian model is suitable for agriculture development in ECOWAS.

- **The Foundation for Agricultural Research (FHIA)- Honduras**

The FHIA is a non-profit private organization established in 1984 with the support of both USAID and the Honduran government. It is a private organization, which aims at improving agricultural technologies for increased agricultural production. It has therefore expanded its collaboration with the Ministry of Natural Resources and the National Agrarian Reform Institute (INA) to disseminate information on research findings with on-farm demonstrations of the use of technology. The Foundation focuses especially on research on non-traditional crops and supported trials by farmers. It also managed to promote the export of non-traditional crops in this country. Representatives of farmers' associations sit on its governing board, together with representatives of the government and USAID.

- **The Inter-professional Fund for Agricultural Research and Advisory Services (FIRCA ) Model- Côte d'Ivoire**

The Inter-professional Fund for Agricultural Research and Advisory Services (FIRCA) is a model used in Cote d'Ivoire to finance agricultural research and advisory services. It was created by Decree No. 2002-520 of December 11, 2002, and is an instrument inspired from the provisions of Law No. 2001-635 of October 9, 2001 on the establishment of Agricultural Development Fund (FDA) in Cote d'Ivoire. FIRCA provides funding for programs related to plant production, forestry and livestock sectors.

Over the period 2002-2012, FIRCA mobilized over CFAF 44 billion to finance 395 projects. In 2012, over CFAF 14 billion were raised including 56% of funding from dues-paying sectors. The Fund consists of 19 agricultural sectors which 12 contributing or dues-paying sectors. The resources mobilized cover the needs of non-dues-paying sectors. FIRCA is managed by an entity comprising the State and the representatives of the agricultural sectors.

- **The Models of Senegal**

- i) **National Agro-Silvo-Pastoral Development Fund (FNDASP)**

The FNDASP was created by decree of October 2007 to manage and operationalize funds allocated for agricultural research and services in Senegal, with the aim of supporting four key national agricultural programs such as training of producers; institutional support to APOs / sectors; advisory support and large scale dissemination of innovations and technologies; It is a legal entity with a status of public utility Association, housed at the Ministry of Agriculture and the financial supervision of the Ministry of Economy and Finance.

FNDASP, seems for the time being, the best alternative support agricultural development in Senegal because the private sector (industrial, services, etc.) due to the nature of their activities is not yet capable of investing adequately in the agricultural sector let alone financing agricultural research and advisory services. research.

- ii) **The National Fund for Agricultural and Agri-Food Research (FNRAA)**

The mission of the FNRAA is to create the conditions for a diversified and sustainable financing mechanism for agricultural and agri-food research. It is a non-profit organization like FNDASP operating since 1999. The FNRAA has no research team. Its role is to promote the emergence of research teams by federating ISRA, the Institute of Food Technology (ITA), universities in the framework of its projects.

However, the challenge is how to create synergy between agricultural research and agricultural advisory services (ANCAR). Moreover, this fund has existed since 1999 in theory; it is largely relying on external funding, far from being endogenous. Although it has good structuring and the state commitment is demonstrated, the results are mixed at the moment.

- **National Competitive Fund (FCN/NCF)- Burkina Faso:**

Its mission is to create synergy, organize and systematize cooperation between all structures with research capabilities in Burkina Faso. The idea is that the NARS will bridge the gap between different

institutions, promoting therefore the emergence of multidisciplinary and efficient research teams based on their comparative advantages.

To consolidate the system, the best option was the establishment of a National Competitive Fund (FCN/NCF) on "Financing for technology development and adoption" called National Window 2. This Fund finances agricultural and agri-food research on the basis of a fair, organized competition between research teams. The priority sectors are rice, maize, cowpeas, cattle meat, shea butter, millet, sorghum, and local poultry. Eligible activities will cover the main constraints to the development of the sectors: new technologies and also the on-the-job ones which could have a quick impact.

The National Window 2 is composed of the following organs: the WAAPP Program Steering Committee (SC), the Management Council of the National Fund for Research and Innovation for Development (FONRID), the Scientific and Technical Committee (STC) of FONRID and the Directorate for Control and Scientific Coordination (DCCS) of CNRST. In addition to these state initiatives, new actors have emerged within the framework of the training of farmers, including NGOs, Agricultural Professional Organizations (APO) and Private Organizations such as the Center of Excellence for Training and support in West Africa (ESCWA), the African Institute for Economic and Social Development (INADES), Maison Familiale Rurale (*Rural Family Household*), Agricultural and Craft Training Center of Tangaye.

- **The Trust Fund of South Africa**

Government contributions are the primary source of funding for agricultural R&D presented in the form of grants, supplemented by the earnings from the sales of goods and services, farmer/producer organizations and donor contributions (Flaherty, 2010). Furthermore, agricultural research conducted in universities and carried out within the main agricultural research agency (Agricultural Research Council (CRA)) is also partially funded through the trust fund. (*Trust fund*).

### **3.2. A Regional Model: PPAAO/WAAPP**

These projects include, the West Africa Agriculture Productivity Program (PPAAO) or WAAPP. WAAPP/PPAAO is an ECOWAS (Economic Community of West African States) program. It is funded by the World Bank in 2 phases of 5 years each. The program is coordinated by CORAF/WECARD at the regional level. The overall objective of this program is to generate and disseminate within the participating countries, new technologies in priority areas that are in line with those of the region, for a sustained intensification of agricultural yields.

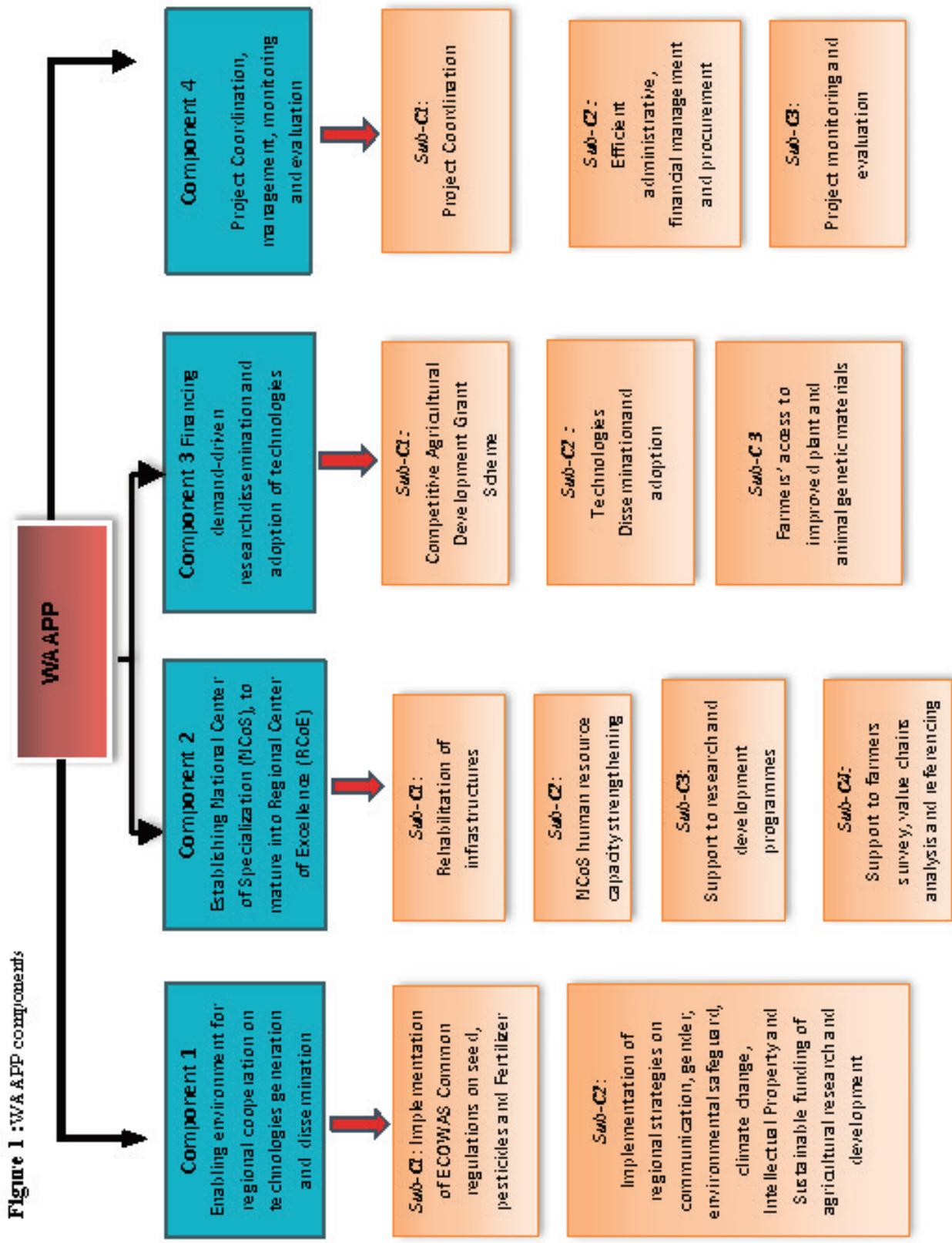


Figure 1 :WA APP components

#### IV. SCALABLE ENDOGENOUS FINANCING MODELS FOR AGRICULTURAL RESEARCH AND ADVISORY SERVICES IN WEST AFRICA

Two models of sustainable funding to be promoted for agricultural research and advisory services in West Africa came out of the discussions of the workshop. These models are:

1. The FIRCA model which is a professional funding mechanism for agricultural research, extension, producers training and capacity strengthening of Farmer Base Organizations developed in Côte d'Ivoire. The sustainability of this model lies in the contribution of professional agricultural sub-sectors and their leadership in the areas of governance and resource allocation.
2. The blanket model which in addition to the FIRCA model, provide resource for investment in infrastructures and equipment. Countries that have not made any provision, to open a specific window for research and agricultural advisory services should do so.

It is clear that no matter the type of model selected, sustainability must be the guiding principle in the design and implementation of the mechanism. This is possible through perennial endogenous financial contributions by the agricultural sector and/or private sector, the strategic position of the producer in the mechanism and their leadership role in the areas of governance and resource allocation.

#### V. CONCLUSION

The purpose of this study was to identify endogenous funding models worldwide that could serve as reference for ECOWAS countries. Both research and advisory services in Africa remain heavily dependent on donor funding. Contributions from donors now provide more than 40 percent of all funds for agricultural research. Given the fragile economies and extensive demands on the public sector in many African countries, donor support for agricultural research and advisory services will continue to be important. Therefore, African policy-makers and key stakeholders in the agricultural sectors must start building political support for promotion sustainable financing mechanisms among farmers, private firms, and other beneficiaries of more productive agricultural systems. There is a crucial need to diversify sources of funds through producer levies, contract research, joint ventures with the private firms, and the like.

Designing a sustainable financing mechanism model can be complex due to the dual hazard/risk involved upstream and downstream of agricultural research. Upstream, the agriculture is a risky sector (we are not sure to have returns); and downstream, there is the uncertainty related to the research impacts. Finally, one should understand that models are custom-designed to fit the characteristics and the strategic needs of each country.

Such complex systems will result in the emergence of multiple funding models. The three proposed models also capture those complex systems in the ECOWAS region. There are different ways of mobilizing endogenous and sustainable funding for agricultural research and advisory

services. These include sectorial funding from the Governments, specific producer organizations, mining sector support initiatives, etc.

In a nutshell, three endogenous funding schemes for agricultural research and advisory services came out of the illustrative models selected. Firstly, sectorial funding based on the State interest, private economic operators and international partners. Secondly, the dynamism and willingness of producers themselves to take initiatives to support the structure they have set up in cooperation with the Government. Thirdly, the country's economic potentials and particularly the dynamism of the agricultural sector in the economic development. In the development of the next generation of NAIPs and RAIP, WA countries and ECOWAS need to seriously consider and set up innovative mechanisms for sustainable financing of research and advisory services for a real transformation of agriculture in the sub-region in the next decade.

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