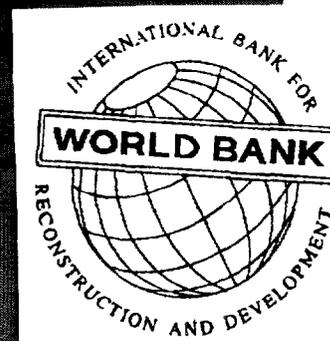


Findings

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Agricultural Research in the Sahel: Challenge and Response

Agricultural research must be bold if it is to contribute significantly to the evolution of a fragile ecosystem whose development requires many integrated actions. A creative approach, tempered by a basic - if yet imperfect - understanding of Sahelian agrarian and economic systems, helps to target the major objectives for agriculture so that it can contribute significantly to economic growth. These objectives present the challenge which research must confront if it is to have a role in the economic future of the Sahel, consisting of Burkina Faso, Cape Verde, Chad, Guinea-Bissau, Mali, Mauritania, Niger, Senegal and The Gambia. This economic future cannot be isolated from West Africa's as a whole. If the Sahel is ecologically unique, its economy is, however, tied to its cities and its neighboring countries towards which its product and labor markets are already directed.

The Problem

Economic growth in the Sahel depends on the sustainable performance of its agricultural sector. The problem which this Framework for Action (FFA) seeks to address is the slow rate of technology generation within the Sahelian agricultural research system. Science-based technology generation should spearhead agricultural development in four priority areas of concern:

- Maintaining and improving *food security* making research responsive to market conditions and consumption trends.
- Orienting research towards new markets for cash and export crops and animal products and fisheries (*diversification*) for which the region has a comparative advantage (climate, distance to market outlets, and labor costs).
- Broadening research to include upstream (production costs) and downstream (alternative

product uses) considerations in a *sub-sector (filière) approach* to cash-in on market opportunities.

- Leading research towards the goal of making Sahelian agrarian systems *sustainable* in a rapidly changing ecological and economic environment.

The Challenge

Taking agricultural research out of its relative isolation by making it more accountable to its clientele (farmers and herders and their associations, extension services, the processing industry, seed production companies, manufacturers and distributors of agricultural inputs, etc.) and more responsive to national and regional economic development challenges.

The Proposed Framework for Action

To meet this challenge, the FFA seeks to address the present slow rate of technology generation through a three-pronged effort:

- Institutional reforms of the National Agricultural Research Systems (NARSs) to evolve an "enabling" environment for creativity, innovation and improved performance. These systems set up by individual governments comprise a number of research institutions focusing on crops and/or disciplines such as soil science, for example.
- New modes of regional cooperation based on the principles of comparative advantage and the relative strengths of NARSs. Thus, a country with a strong research system in maize will disseminate the appropriate information to other maize-growing countries in the region, thereby avoiding the duplication of research efforts.
- A series of cross-cutting actions to support revitalized national and regional efforts.

New in this approach is that the NARSs are the basic building blocks of an emerging regional research agenda with an ecological focus. They should be empowered to become the leaders of that agenda.

In this manner, the Framework for Action builds on the proposed reforms of the of the NARSs, in terms of its institutional and research focus.

Principal Features

To generate an "enabling" institutional environment, the Framework for Action proposes the following areas for immediate action.

- Removing concerned institutions from the stranglehold of the public sector and opening them to the outside world, by making them client and market-driven, through (amongst others) the introduction of "Consolidated Funding Mechanisms" to ensure: (a) the sustainable funding of recurrent research operating expenditures, and (b) the desired coordination between all the actors involved in the regional research agenda.
- Establishing regional research poles with a common priority research thrust and building on the

relative strength of all the NARSs in the region by consolidating existing national scientific capacity. This implies positioning those NARSs that have a clear comparative advantage in specific areas of research as lead national centers and regional poles. This will also enable IARCs, donors and others to better target their interventions and support, leading to optimal research success and impact.

- Creating an economic analytical capability at the national and regional levels to ensure the continuous adjustment of national and regional research strategies to the dynamics of a changing economic environment;
- Building human capacity to serve the agricultural sector of the region in general and agricultural research in particular.
- "Dove-tailing" the evolving strategy of the Consultative Group for International Agricultural Research and the International Research Centres by making it responsive to the "needs" of the regional research agenda.

Implementation

Implementing the Framework for Action will need the full endorsement of all its stakeholders, especially in obtaining the political commitment from the member states of the Inter-State Committee for Drought Control in the Sahel (CILSS). These comprise Burkina Faso, Cape Verde, Chad, Guinea-Bissau, Mali, Mauritania, Niger, Senegal and The Gambia. To this end, the Framework was formally adopted by the CILSS Council of Ministers. To further flesh it out, the donor community, the IARCs and the "networks", all have to play their role in the evolving regional research agenda. The Special Program for African Agricultural Research (SPAAR) membership formally adopted the proposed FFA during its December 1991 session.

Adoption of the FFA has signalled the preparation of a series of parallel activities, coordinated by the Institut du Sahel (INSAH). These are :

- The NARS reforms;
- The first regional research poles for priority research programs; and
- A "blue print" for a regional agricultural education system.

To accomplish its expanded task under the FFA, INSAH will strengthen its policy analysis and research development capability as well as its scientific oversight and research coordination function. INSAH will also seek a special program arrangement with the International Service for National Agricultural Research (ISNAR) for methodological assistance in preparing the NARS reforms and a regional human resources development strategy. It is important to underline, once more, that the responsibility for FFA implementation lies entirely with the "empowered" NARSs, INSAH's mandate providing for the necessary coordination.

An important element to secure continued commitment of all the stakeholders (governments, donors, IARCs, etc.) will be the reaching of an agreement on the establishment of an independent mechanism to monitor and evaluate FFA implementation.

Indicators of Progress

Successful implementation of the proposed FFA is expected to be indicated by the following:

- Increased number of technological innovations well adapted to local situations and higher rates of technology diffusion and adoption.
- The organization of vibrant interchanges between scientists and their clients so that the research agenda is more demand-driven.
- Gradual broadening of the research agenda and its client base to incorporate issues important to a market-driven agriculture, including emphasis on trade, utilization, agro-processing and market/ product development.
- Stability in the institutional environment of NARSs, including areas of funding, programming and staffing.
- Increased participation of faculties of agronomy, private sector institutions, farmers and herders and their associations, NGOs and extension-oriented bodies in human capacity-building and technology generation.
- Gradual decrease in exogenous technical assistance and greater use of indigenous human resources.
- More substantial interaction with relevant IARCs as equal partners and for mutual benefit.
- Rationalization of the regional agricultural research system, perhaps through a reduction in the number of networks not focusing on national and regional priorities and in the multiplicity of uncoordinated regional efforts.

The fact that the FFA's recommendations are anchored in the national systems of the respective countries offers hope for their successful implementation and a way out of the present economic crisis.

Jan Weijenberg, et.al. 1993. Revitalizing Agricultural Research in the Sahel : A Proposed Framework for Action. Discussion Paper No. 211. Technical Department, Africa Region. Washington, D.C.: World Bank.

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