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SAFGRAD

Semi – Arid Food Grain Research and Development
Recherche et Developpement des Cultures Vivrières dans les Zones Semi-Arides

AN OVERVIEW ON SAFGRAD PROJECT:

LESSONS AND NETWORK ISSUES

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An Overview on SAFGRAD Project: Lessons and Network Issues

1.0 Historical Perspectives

The Semi-Arid Food Grain Research and Development Project (SAFGRAD) was established based on the 1976 Resolution adopted by OAU Council of Ministers in response to recurrent droughts since mid-1970s that reduced agricultural production in several countries of sub-Saharan Africa.

The creation of SAFGRAD culminated into a major agreement between USAID and OAU/STRC. The project was conceptualized to enhance the generation and transfer of technology. Important partners of the USAID funded SAFGRAD project activities were the NARS, as beneficiaries; the International Agricultural Research Centres, such as IITA for the improvement of maize and cowpea; ICRISAT, for the improvement of sorghum and millets; and Purdue University for developing farming system research methodology.

The SAFGRAD Coordination Office (SCO) of the OAU/STRC provided the legal and logistical framework and enhanced broader participation of member countries in the implementation of the project. SCO also implemented training, farming systems and technology transfer project activities funded by other donors.

2.0 Capacity Building

At the time SAFGRAD was established, agricultural research in most African countries was weak. Most of the qualified researchers were expatriates particularily, in the Francophone countries. Thus, the development and transition to full fledged National Agricultural Research Systems (ownership) was smoother in Anglophone than Francophone countries soon after the colonial era.

The USAID funded SAFGRAD programme substantial contribution has been in developing the research and technology transfer capacity of several countries in SSA. Training activities responded favorably to enable those countries with few number of qualified researchers to establish their own national research systems.

Between 1978 and 1986, SAFGRAD programme provided some of the crucial qualified research manpower needed in West and Central Africa. About 30 scientists received training at M.Sc and Ph.D levels in various fields of agriculture. Some of the countries which benefited at this level of training are Burkina Faso, Mali, Cameroon, Chad, Guinea Conakry, Senegal, Togo, etc. About 440 participants from 22 countries received short-term training (lasting 3 to 12 months) in crop improvement agronomy, plant protection, soil-water management, agricultural economics and farming systems. Through special seminars, conferences, symposia, etc. the SAFGRAD programme provided to 4,000 participants the fora for specialized training, sharing of technology, to jointly review regional research programmes and policies, exchange of experience in the transfer of technologies.

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3.0 Networking

SAFGRAD Phase I emphasized on generating technologies targeted to improve the production and productivity of major staple crops, such as sorghum, maize, millets, cowpea, etc. Elite germplasm developed were disseminated through regional trials which all member countries benefited.

Central to USAID-funded SAFGRAD II activities has been the development of collaborative regional food grain networks (maize, sorghum and cowpea networks in West and Central Africa; and sorghum and millets network in Eastern Africa).

The SAFGRAD network model enhanced the mobilization of NARS resources and partnership of IARCs and of Faculties of Agriculture of some African Universities. Furthermore, Collaborative research programmes of SAFGRAD have brought NARS to forefront as "main actors and driving force of networks (i.e collectively identify research needs and priorities, formulated programmes, enhanced scientific and research management leadership, etc.)

4.0 Lessons

4.1 Networks have strengthened NARS research capacity. The stratification of national programme into Lead and Technology Adapting NARS based on the respective strength and comparable research advantage, etc. has enhanced the development of professional leadership and shouldering regional research responsibilities by relatively strong NARS.

4.2 Small NARS (usually Technology Adapting) have fully benefited from networks. They had access to menu of regional trials which delivered elite germplasm targeted to different ecological zones and maturity groups. There has been increased spill over of technology from lead to weak NARS, which reduced cost of technology development for collaborating weak NARS.

4.3 A critical "research mass effect" was attained through each network by pooling together research resources, and scientific talents of strong and weak NARS and IARCs. This effort has enabled to develop relevant technologies to improve production and productivity of food grains in semi-arid ecology.

4.4 One of the most and significant accomplishments of SAFGRAD has been fostering professional growth and development of national scientists.

4.5 The tripartite institutional arrangement for networking i.e. OAU/NARS/IARCs provided appropriate political, legal and technical operational framework for networks development, thereby enhancing the capacity and technological confidence of African Scientists to confront common research challenges within far-ranging agro-ecological zones.

Network Issues

Emphasis should be placed on overcoming previous weaknesses reflected at levels of network structure, functions, membership composition of entities, goals and purpose of programmes. Lessons learned during the last decade seem to indicate that network programmes have tended to be exclusive and narrow in scope. Unless networks permeate beyond the research "elite" by involving policy makers, clients or users of technology, it is very unlikely that research would have an impact on agricultural productivity, production and income.

1) Institutional Arrangements

The "stake holders" of agricultural research networks are several. The essential ones are NARS, regional organizations, IARCS, donors, etc. In West and Central Africa, technical progress of networks is impeded due to prevailing politics in the sub-region, lack of financial and political commitment of governments of benefiting countries and short-term financial support and sudden policy changes of donors. The success of SAFGRAD networks has been due to the tripartite institutional setting (i.e. NARS, IARCS and OAU) within the same project.

2) Perception of Networking

Partners should have common perception of networking, eventhough they may have conflicting interests and avenues for attaining the same goal. Networking is usually perceived as mechanism for sharing technologies, experiences, diffusion of technologies and for pooling together scientific talents, and resources to attain "research critical mass" inorder to alleviate common problems of agricultural production.

Since 1993, USAID funded networks are implemented by IARCs in consultation with the respective Steering Committees. The perception of networking by IARCs may need revisiting. The weak linkages and poor support evident among IARCs researchers to networks suggest that, networks are not used as mechanism for technology diffusion. Some of the network coordinators, seem isolated due to the apparent lack of technical backstopping by concerned IARC.

Technically, the IARCs with the involvement of NARS can develop and manage networks alone. They could not, however, ensure government commitment, leadership development and eventually NARS ownership of networks. As soon as financial support by donors is withdrawn, the technical backstopping of IARCS to networks also ceceases.

3) Rôle of Regional Organizations

The participation of indigenous regional organization can provide political validity, legal framework to enhance network operation; and economic entity, to ensure sustainability of networks. It also provides the fora to review programmes of research and development; to build awareness and commitment of governments and to eventually improve the allocation of financial resources in support of agricultural research.

In West and Central Africa, SPAAR has opted for CORAF to serve as mechanism for coordination regional research including networks. The weakness of this approach is that countries in West and Central Africa do not belong to the same economic and political sub-groupings, essential for sustainability of networks in the long-run. For example, SADC, which established SACCAR has both political validity and economic entity. SACCAR core secretariat is funded through the contribution of SADC member countries.

Similar to SACCAR, OAU/STRC supports the establishment of the West African Centre for Cooperation in Agricultural and Natural Ressource research (WACCAR) under ECOWAS (Economic Community of West Africa). Such arrangement provides both political validity and economic entity, crucial for sustainability of networks.

Some Central African countries (i.e. Burundi, Rwanda and Zaire) are members of ASARECA (which also lacks political validity) until such time the situation of COMESA (Common Market of Eastern and Southern Africa - organization) is stabilized. The remaining countries in central Africa (i.e. Chad, Cameroon, Gabon, etc.) can establish research collaboration with WACCAR, once it is institutionalized.

4) Involvement of OAU/STRC-Institutions

The linkages of networks to indigenous organizations, like OAU/STRC- can inflluence the research agenda of both networks and IARCS. For example, IITA moved its food grain research into semi-arid zone, because of its involvement in SAFGRAD. The project approach has been effective in putting in place approriate institutional arrangements for networking.

SAFGRAD is one of the four regional research institutions of the OAU, with special emphasis on the improvement of food grain. The mandate of SAFGRAD was limited to semi-arid ecology and on food grains. In 1995, it mandate was expanded to all ecologies and major crops in SSA by the OAU Council of Ministers.

In cooperation with IARCs and NARS, OAU/STRC-SAFGRAD has developed capacity for technical and financial management of networks (regional research) over the last 15 years. As coordinating unit of networks, SAFGRAD has been successful in the development of NARS scientific and research management leadership. Stewardships of networks by OAU/STRC could address network sustainability issues and enhance NARS ownership of networks in the long-run.

5) Networks Strategic Plan

Through the USAID support, the strategic plan of SAFGRAD Networks was developed as of 1990. It implementation was expected to realize broader agricultural research networks (as a new project) replacing SAFGRAD II.

6) Contracting Network Services

At this juncture, OAU/STRC-involvement in the USAID funded networks in West and Central Africa can be re-institutionalized through contracting SCO (SAFGRAD Coordination Office) to provide some aspect of network development and management services as outlined below.

This include:

6.1 The reactivation of NARS institutions, such as the Oversight Committee and the Conference of National Agricultural Research Diretors to provide policy guidance, integrate network and national programmes, share costs and responsibilities, monitor the implementation of programmes across networks, etc.

6.2 To improve the financial and research management systems of national research institutions.

6.3 To enhance the commercialization of network technologies by broadening options for industrial utilization and transformation of sorghum, maize, millets, cowpea. For example, some African countries (Nigeria, South Africa, Burkina, etc.) are utilizing sorghum, maize and related cereals in brewery, bakery and confectionary industries. SCO can facilitate interaction between and among 'stake holders' such as farmers, industrialists, bankers, government, Chambers of Commerce) to stimulate commercialization of agricultural technologies.

6.4 To improve inter-network linkages and activities.

6.5 To enhance the diffusion of network technologies through publications including newsletter.

6.6 Reactivation of Cowpea Network (RENACO)

In collaboration with IITA, SCO can facilitate the resumption of the network activities provided that the network coordination centre is based in Burkina Faso.

Furthermore, the Organization of African Unity, by fully funding the SAFGRAD Coordination Office and modifying its status to an OAU Bureau for the Coordination of Agricultural Research (OBCAR), would play a more critical rôle in the coordination and creating the fora to address policy issues related to agricultural research, technology adoption and utilization.

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