

SEMI-ARID FOOD GRAIN RESEARCH AND DEVELOPMENT RECHERCHE ET DEVELOPPEMENT DES CULTURES VIVRIERES DANS LES ZONES SEMI-ARIDES



FRAMEWORK FOR DEVELOPING AND IMPLEMENTING THE PROJECT ON THE TRANSFER AND COMMERCIALIZATION OF AGRICULTURAL TECHNOLOGIES IN NIGERIA

Draft Document

April 2001

Bibliothèque UA/SAFGRAD 01 BP. 1783 Ouagadougou 01 Tél. 30 - 60 - 71/31 - 15 - 98 Burkina Faso

631 SAF/5F

The West African Small Grants Program

1. BACKGROUND

1.1. Issues and problems

Neglect for developing the agricultural sector

Because of the neglect for developing the agricultural sector, per capita income of the population of Nigeria has increasingly declined from 1980s level (approximately \$1,000) to \$240 by 1996 (Table 1.) regardless of substantial petroleum resources.

Decline per capita food production

Per capita food production has also declined over the last two decades. As of 1990, about 17 per cent of families of the Nigerian population faced food insecurity (Table 2.) and this untenable situation induced increased importation of cereals. Food prices (maize, sorghum, rice, cassava, yam, etc.) also dramatically increased from 1990 to 1995 (Table 3.). Increase of food prices has been attributed to removal of input subsidy support, regardless of productivity gains for key crop commodities due to the use of more productive technologies over the last fifteen years.

Decline of agricultural production in Nigeria has been exacerbated due to unaffordable improved technological packages promoted for adoption by research and extension; rising transportation costs both to deliver agricultural inputs, such as improved seed, fertilizers and to move agricultural produce to the market outlets.

Market liberalization

Regardless of the on-going market liberalization, structural adjustment and macro-economic policies, the transition of agricultural production support services from public to private sector has yet to take place since it requires an enabling policy environment, technical capacity and managerial know-how to commercialize and service key technologies (access t financial services, etc.).

Enabling environment

Creating the enabling environment for technology transfer and commercialization is a continuing process requiring attention in institutional infrastructure and market reforms.

Bibliothèque UA/SAFGRAD 01 BP. 1783 Ouagadougou 01 Tél. 30 - 60 - 71/31 - 15 - 98 Burkina faso 1

In Nigeria, the enabling policy environment is being put in place. This has created new challenges and opportunities to enhance agricultural productivity and the development small to medium-sale micro-enterprises in agricultural production support services (inputs and agribusiness) food industries both for local and export market. These challenges can be met through innovative financial services (reducing the exorbitant rates of interest by commercial banks and informal moneylenders).

The contribution of this program is to undertake case studies, generate information and surface policy issues that need to be addressed for effective support services to enhance the transfer and commercialization of agricultural technology.

Private investment led agribusiness development

To facilitate change of support services from public to private sector, there is, need to promote the development of micro enterprises to provide inputs (i.e. fertilizer, seed, pesticides, farm-implements, etc.) as well as providing financial services and the commercialization of agricultural technologies.

The development of agri-business and industries in Nigeria is constrained due to lack of sustained production of quality raw material for industry. Through limited number of micro-enterprises that will be supported through the competitive grants, and based on the analysis of constraints of the on-going small to medium: - scale micro-enterprises, this program will strengthen partnership between farmers (as suppliers of raw material) and food processors and related industries (as users of raw material).

New orientation for NARIS in Nigeria to enhance demand driven research

The Nigerian agricultural research and technology transfer systems have operated in isolation of market trends and demand. Revitalizing the NARS in Nigeria to respond to the needs of small-scale farmers can stimulate growth of the agricultural sector. Project development major emphasis should be to:

- Revitalizing linkages between research and farmers as well as to agro-industries;
- > The identification of viable innovations and interventions to enhance the generation of income and employment;

- > Strengthening partnership between sources and users of technology;
- > Document of the salient institutional, technical and policy constraints that impeded technology-transfer and commercialization in Nigeria.

Enhancing participation of women in technology transfer and in agribusiness One of the program thrusts is to facilitate the participation of women in technology transfer, agri-business for food security and nutrition enhancements, by accessing training, research and micro-enterprise development (through competitive grants) opportunities.

Considerable amount of farm produce did not reach destined markets due to poor roads and communications. Processing of agricultural produce can relatively improve the shelf life to supplying urban centers, which needs to be catered for a range of market needs

1.2. Goal and Objectives

The primary goal of this project in Nigeria is to improve the livelihood of resource poor farmers, small to medium-scale food processors by improving the efficiency of technology transfer. The main thrust of the project activities will be to promote agribusiness and on-farm micro-enterprise development to particularly generate income and employment. Micro-enterprise activities are known to contribute between 40 to 70 per cent of gross domestic product in Nigeria.

The purpose of the West African Small Grants Program (WASGP) in Nigeria is first, to enable small holders framers improve food productivity beyond their immediate household needs; second, to diversify farm income by identifying and linking market opportunities to smallholder farmers and food processing; third, to optimize the utilization of post harvest technologies to enhance the transformation of agricultural produce into value added products and fourth, to improve the nutrition quality of basic diets through food processing and formulations and improvement of technical skills.

The objectives of the program are, therefore, to:

➤ Identify viable promising technologies that could effectively be delivered to smallholder farmers, food processors and others end-users of research results in Nigeria.

- > Establish and/or revitalize linkages between Nigeria agricultural research institutions, development agencies, small-to-medium-scale industries, and women groups so as to stimulate growth of the agriculture sector;
- > Inventory and document experiences and lessons from selected micro enterprises and to promote agro-enterprise development to generate income and employment.
- > Test and share best practices and experiences of similar projects (i.e. transfer and commercialization of agricultural technologies) in other countries from the sub-region and elsewhere.
- ➤ Enable the use of improved post harvest technologies by smallholder farmers and food processors to enhance the transformation of agricultural produce into value-added products.
- > Streamlining the participation of Nigerian Women in the development and ownership of agri-business, to attain food security and household nutrition enhancement.
- > Promote the development of agro-enterprises to generate income and employment.

II. PROGRAM DEVELOPMENT

2.1. Assumptions

The West African Small Grants Programs (WASGP) in Nigeria will be developed on the following assumptions:

i. Market liberation, economic policy reforms and democratization process in Nigeria will create the enabling environment for the private sector to play key role in investment and in the provision of agricultural production support services. If policy reforms are accompanied by sound fiscal and management practices, the Nigerian agriculture can grow and spur the overall economic development.

- ii. Technology options both to improve agricultural production, food processing and manufacturing do exist. But the public sector and parastatals have grossly failed to efficiently deliver affordable productive technologies/inputs to benefit farmers and other end-users of agricultural technologies.
- iii. The linkages and partnership between sources (NARS AND IARCs) and user of technologies (i.e. extension, farmers, agro-industries, et.) has been poor. Consequently, impact on agricultural production has been limited. The challenge of the WASGP in Nigeria is to promote the development of on-farm enterprises to diversify income and also generate employment.

2.2. Design

The approach that will be employed to develop and implement the program will involve first, to forge partnership among the stakeholders engaged in technology generation and verification; second, by strengthening functional linkages between agencies and communities involved in transfer, development and processing; third, to identify demand for technology chosen linking to local and export markets including to agro-industries and to enhance the transformation of agricultural produce into value-added products.

The program activities will be defined based on initial consultation, and participation of key stakeholders (i.e. farmers, research, extension, NGOs, food processing industries, women groups, community based organization, private entrepreneurs, etc.) Annex 1. Outlines tentative plan of activities.

2.2.1. Consultant study

Initially, national consultant has been fielded to:

a. Undertake analysis of the agricultural research institutions engaged in technology development as to their orientation and capacity in technology transfer and commercialization. The Nigerian agricultural research system is immense. It comprises of 20 agricultural research institutes, 15 universities and four international agricultural research centers. Only few of over 70 improved agricultural

technologies identified are used extensively by farmers and agro-industries due to overall cost for adopting the total packages of technologies.

- b. Inventory viable technology options to stimulate agricultural productivity and to promote post harvest processing for the transformation of farm produce into valueadded products. Forty-one (41) simple hands operated post harvest processing technologies were documented (Consultant report, November 2000).
- c. Document number micro-enterprises operational at on-farm level and urban centers. It is estimated that thousands of these micro-enterprises contribute **between 40 and 70 per cent of the gross domestic product of Nigeria.** To link farm production to agro-industries, 20 oil millions companies, and 24 flourmills were documented (Consultant report, November 2000).
- d. Review previous initiatives and experiences to promote technology transfer through the various development schemes.
- e. A number of constraints hindering technology transfer and commercialization were identified. These include low technology adoption due to high cost of unaffordable technological packages; inaccessibility of necessary credit and financing; poor extension services, market development and limited private sector investment.
- f. Inventory of key institutional partners involved enhancing technology transfer and commercialization (Consultant report, November 2000).
- 2.2.2. The Stakeholders Consultation Workshop for Enhancing the Transfer and Commercialization of Agriculture.

Lessons of the last three decades indicate, innovation has languished for improving the efficiency of agricultural support services. Because it demands resources, liberalization and commercialization of input services, broader collaboration between and among partners involved in the provision of rural development support services.

The workshop serves as a forum of consultation and exchange of experience among key stakeholders and essential partners to document lessons that can lead to improve the efficiency of those institutions engaged in the delivery of inputs and financial services.

2.2. Rapid rural appraisal

A baseline survey will be conducted in project areas to identify interested partners in agribusiness. These include seed growers, community based organizations, innovative cooperatives, food processors, agriculture related entrepreneurs, etc. The survey will also identify markets for various commodities to particularly link farmer's produce to food processing, and agro industries. Emphasis of the survey will be on developing market linkages. Initially, the project will be operational in few agro-ecological zones and states.

III. PROGRAM INTERVENTIONS

This program is to enable small-farmers first, to improve productivity to attain food security beyond immediate need of household; second, to break the vicious circle of subsistence agriculture through diversification of farm-income and increased output and linking to market outlets and agroindustries to generate income and employment. The technology transfer thrust of the program is to enhance adoption to biophysical and economic constraints facing Nigerian smallholder farmers. Equally important focus of the project is to enhance the transformation of agriculture produce into value-added products, and to enable small-scale farmers and processors attain economic of marketing scales by promoting service cooperatives.

The principal target's groups of project are small-scale farmers, entrepreneurs, women groups, farm association, innovative community based organizations. Small-scale farmers will be linked to products and service markets as well as to sources of more productive agronomic and post harvest technologies. As experienced in other countries, this strategy has high probability of success to enhance the transfer and commercialization of agricultural technologies.

Small holders farmers will be linked effectively to source of technology and market outlets to develop their own enterprises acting in groups (associations cooperatives, etc.) and as private entrepreneurs.

Principles that will guide the program strategy:

- i) Market forces will dictate production systems and technology selected.
- ii) Success of projects will be ensured through forging partnership of key stakeholders engaged in agribusiness and commodity linkages to market outlets.
- iii) Technologies will be chosen not only for commercial viability but also for environmental sustainability.

The main areas of the project interventions in Nigeria are briefly outlined below.

3.1. Innovative interventions for enhancing food security

Some of the major commodities of interest are:

- Cereals: i.e. maize, sorghum, millet, rice, etc.
- Grain legumes : i.e. cowpea, groundnut and soybean
- Root and tubers: i.e. Cassava, yam, potato (Irish)
- Horticultural crops: some selected vegetables, mango, etc.
- Livestock particularly small ruminants.

This project may not cover all the above commodities, but will be selected based on relative comparative advantages of agro-climatic, post harvest facilities and market opportunities.

One of the focus of the project is to revitalize technology verification and transfer systems through partnership of innovative national agricultural research institutes, and extension systems.

To enhance food security, the following activities will be supported:

- 3.1.1. Increase of foundation seed
- 3.1.2. Production of certified seed by farmer cooperatives/Association, private small-Seed producer's entrepreneurs.



- 3.1.3. Facilitate the distribution of improved seed and related inputs to small-scale farmers in the project sites.
- 3.2. Interventions in post harvest activities and extend shelf life to minimize loss of agricultural produce to benefit from market opportunities.

The use of innovative post harvest and processing technology compliments improved crop production enterprises, hence, enhancing income generation, employment and food security.

Developing capacity in processing technologies of crops can minimize the loss of farm produce.

More than any other country in the sub-region, Nigeria has diversified agro-processing industries. For example, over the last two decades, mechanized cassava processing has enabled farmers/communities to transform bulky perishable root crops into "gari" and related products, which have become the basis of national dishes. This technology created market and also stimulated production of cassava.

The aim of this intervention is to enable beneficiaries to use most-viable post harvest technologies and commercialize by-products of various crop commodities.

3.2.1. Strengthening linkages between producers and agro-industries

In general, the project — will promote linkages of small-scale farmer producers to agro-indusries. Experience of the implementation of similar program in Burkina Faso, Ghana and Senegal showed that orienting and organizing farmers to produce quality raw material to industry is crucial to enhance transfer and commercialization of agricultural technologies. Contract farming between small-scale farmers/or their cooperative and food processors/or agro-industries will be facilitated in order to reduce current importation of more than 60 per cent of raw materials needs by Nigerian agro-industries in the long run. Successful promotion of these activities will create market demand for food and industrial crops at local and export levels.

3.2.2. Evaluate viable technologies to enhance post harvest and processing enterprises involving small to medium scale food processors, farmers and the private sector. Depending on available institutional, technical support, availability of market, existence of

infrastructure (i.e. processing implements/facilities including seed cleaning and storage, etc.), a number of small micro-enterprise or agribusiness will be supported to promote post harvest processing of the selected crop commodities.

3.2.3. Promote product development

This activity will depend on availability of efficient and simple equipment. This activity aims to market primary farm produce, such as dried fruits, condiments and spices, soybean enriched maize and cassava flours, starch production from cassava, etc.

3.2.4. Improving technical skills

Training needs will be incorporated with each post harvest and processing project.

3.3. Interventions for improving the nutritional quality of basic-diets

Maize, sorghum, millet, rice and cassava are the major staple foods in Nigeria. These crops are the major sources of dietary carbohydrate. According to FAO data 1981 to 1990 show per capita maize utilization in West Africa including Nigeria increased at average rate of 2.5 per cent 30 to 90 kg/per person per year and sorghum and millet between 200 to 250 kg per person per year. An inherent advantage of these cereals and cassava is that they are appropriate vehicles for fortification to improve the nutritional quality of the diversified basic diets. Some of the activities of this intervention include:

3.3.1. Enhance the fortification of cassava, yam and cereal based diets with soybean and related grain legumes

Other USAID funded projects have made advance in increasing production of soybean, cassava and above mentioned cereals. The project will support the enhancement of nutrition quality to complement on-going efforts.

3.3.2. Product development or transfer of available fortified food products

Limited number of project involving Home Economics or Home Science units of selected Universities and private entrepreneurs to promote product-development involving women and their cooperatives.

3.4. Promoting private seeds production enterprises and related input distribution for enhancing agricultural growth

Current estimates in Nigeria show that about 85 per cent of all improved seed are disseminated to farmers by the public sector such as the Agricultural Development Programs (ADPs). Because of ADPs delivery of seeds to farmers almost free of charge price gain for improved seed has been unattractive.

The project focus is also to promote seed enterprise ventures at farm community levels and by small private seed growers. Initially, baseline survey will be undertaken to determine the interest of this business venture by farmer cooperatives and individual seed growers. The survey study will also identify market opportunities.

Linkages and contractual agreement will be facilitated between commercial seed growers as source of market and small seed growers/farmers as out-growers of improved seed. Project partners such as National Agricultural Research Institutes; IITA/ICRISAT/WARDA, etc. are important sources of foundation seed. Increase of foundation seed will be supported on mandated crops by particular research institute of Nigeria and at IITA or ICRISAT sub-stations.

In collaboration with IARCs and national programs, will be promoted by the production of certified seed and distribution to farmers.

Enabling the Nigerian Agricultural Research Institutes (NARIS) and ADPs provide training in seed production, seed treatment and packaging.

The base line survey in each zone of project activities will also determine the micro-financial support services required to improve the delivery of inputs i.e. improved seed, fertilizer, equipment, etc. In collaboration with NGOs engaged in micro-financing, the project will facilitate training in business plans, accounting, etc.

3.5. Activities to scale-up the economic of scale of marketing of agricultural production by farmers and processors

To enable small to medium-scale farmers and their cooperatives to efficiently market their agricultural products. As well as to assist innovative farmers/producers including women groups for improving their entrepreneurships in packaging and marketing.

3.6. Reinforce on-going institutional capacity in micro-finance services to access to credit

Involvement in micro finance will be based on the need identification through baseline survey.

3.7. Capacity building

The following activities may be undertaken:

- Improve technical skills to increase the output of the above mentioned interventions.
- > Training, post-harvest technology, development of business plans, accounting, management of cooperatives, pest control, improved agronomic practices, seed enterprise management, etc.
- > Organizing producers association to enhance collective input services and marketing.
- > Training of trainers in the development of micro-enterprises, organization and management of credit association.

IV. SUGGESTED CRITERIA FOR SELECTING WASGP PROJECT ACTIVITIES

4.1. Criteria for screening proposals

Based on the finding of the field studies (consultant study and rapid appraisal surveys, consultations workshops of stakeholders, etc.) and objectives of the West African Small Grants

Program (WASGP) in Nigeria, the following criteria will be used to appropriately elaborate programs:

- > Is there market demand for the technology of the commodity chosen?
- > Is the firm/farm association or women groups seeking the grant has been legally registered?
- > Potential of the technology to generate income and employment.
- > Existence of facilities and structures for promoting, for example, processing of farm produce into value-added products.
- > Does the project promote involvement of women in private sector activities such as the development of agribusiness?
- > The chosen technology/or commodity potential contribution to food security and sustainable agricultural development.
- > To what extent does the project improve the nutritional quality of basic diets?
- Does the proposal/or project have matching fund components?

4.2. Suggested criteria for identifying and locating projects in Nigeria

Given the diversity of farming systems and markets opportunities in Nigeria, as well as agroecological adaptation and food security comparative advantages, the following criteria can serve as principal guide to identify and locate project interventions.

- > Comparative advantage of climatic adaptation of the commodity (i.e. millet vis à vis cassava).
- > The food security importance of the technology/or commodity in particular region, culture and society.

- > Availability of conducive infrastructures to enhance transfer and commercialization i.e. such as food processing, seed enterprises inputs distributors, research and extension support and market outlets.
- Availability of more productive technologies for specific commodities (crops) in particular agro-ecological zone.
- ➤ Presence of innovative community based organizations, NGOs, farmer's organizations including women groups promoting on-farm micro-enterprise development with particular emphasis to improve their income and well being.
- > Interest and commitment of local governments in the improving production commercialization.
- > Existence of opportunities for reinforcing credit associations and village saving schemes to small-scale farmers.

V. INSTITUTIONAL FRAMEWORK FOR THE COORDINATION AND MANAGEMENT OF THE PROJECT

The project strategy and framework of implementation include:

5.1. Strategy

The strategy for implementing the project involves:

- 5.1.1. Strengthening of partnership between stakeholders such as suppliers and users of technology in the agriculture sector.
- 5.1.2. Improving the linkage and responsiveness of small and medium scale agriculture related industries to farmers' to broaden their market opportunities.

- 5.1.3. Invigorating the institutional enabling environment and the transfer process by establishing focal units that can strengthen linkages between agricultural research and farmers and other end-users of technology.
- 5.1.4. Determining innovative options, economic feasibility and market demand for agricultural technologies.

5.2. Institutional framework

A number of consultation that took place with some national agricultural research institutes and consultant study have already introduced the nature of activities of this project in Nigeria.

The framework for implementing the project include the following:

5.2.1. Defining the specific roles of collaborative institutions and partners.

Operational Memorandum of Understanding (MOU) will be established between OAU/STRC-SAFGRAD and selected National Agricultural Research Institute of Nigeria to put in place a Focal Unit for technology verification and transfer. This MOU specifies the role and responsibility partners in the implementation of the project by enhancing complementary and synergies.

5.2.2. Focal Units (FU)

Three Focal Units will be established within appropriate institutions of research and development to facilitate the flow of technology and related services. Each Focal Unit will have Coordinator who is identified through consultation between particular NARI and OAU/STRC-SAFGRAD.

Within the framework and agreed MOU, Focal Units are to:

- i) Coordinate the implementation of projects at national level;
- ii) Assist groups such as farmers, micro food processors, and women's groups in the development of projects as well as to linking NARS research to development;
- iii) Organize national workshop to address issues that affect technology transfer and commercialization;
- iv) Submit bi-annual reports on project activities to OAU/STRC-SAFGRAD;

- Undertake new initiatives and research for developing markets and facilitating the cost of production of agricultural technologies (including food processing) to improve competitiveness in local and international markets;
- vi) Facilitate the disbursement of funds from SAFGRAD, as well as to follow-up the justification of the use of funds by project beneficiaries.

5.3. Operationalizing National Steering Committee (NWC)

Some of the function of the committee will be to: review and approve grant proposals based on established criteria; monitor implementation of project activities; and provide guidelines to enhance efficiency of the implementation of project activities.

This National Working Committee will be comprised of NARIS Directors, representatives from the private sector, food processors and agro-industries, farmers and IARCs networks.

5.4. OAU/STRC-SAFGRAD

OAU/STRC-SAFGRAD coordinates and follows up the implementation of project activities. Some of SAFGRAD's other responsibilities include the disbursement and management of grant funds, and the facilitation of program reviews and evaluations. Accountability of the fund used in relation to achievement of project activities is the responsibility of the OAU/STRC-SAFGRAD.

SAFGRAD operates as an autonomous agency within the institutional legal framework and support of the Organization of African Unity. Strengthening partnerships with various research and development organizations including the private sector, agro-industries, etc. has been the key strategy of OAU/STRC-SAFGRAD for enhancing commercialization of agriculture.

To sustain the flow of agricultural technologies from research to farmers and users, SAFGRAD utilizes its network linkages and collaboration with IARCs and other agencies. Over the last five years, SAFGRAD has developed partnerships with agro-industries, medium-scale food processors in several countries. Furthermore, it also strengthened partnerships with various technology transfer and rural development agencies. These linkages have facilitated not only the exchange of experiences, but also the testing and sharing of workable innovations.

To facilitate the implementation of the project, SAFGRAD will field a program coordinator or "Liaison Officer" at OAU/STRC Office, in Lagos, Nigeria.

This unit will follow closely the implementation of the programs; facilitate strong partnership with NARIS, the extension system, Nigerian NGOs and community based organizations, the IARCs; particularly IITA, ICRISAT, WARDA & ILRI and strengthen linkages with users of technology i.e. farmers food processors, agro-industries, etc. as well as liaise contacts with USAID/Nigeria mission.

<u>Table 1</u>. Population, per cent Urbanization, GNP per capita, and Infant Mortality Rate, West African countries.

| Country | Population (millions) 1997 | % Urban Population 1993 | GNP per capita, Dollars 1996 | Infant Mortality Rate (per 1000) 1995 |
|---------------|----------------------------------|-------------------------------|------------------------------------|---|
| Benin | 5.7 | 30 | 350 | 81 |
| Burkina Faso | 11.1 | 23 | 230 | 109 |
| Cap Vert | 0.4 | | 1,090 | 32 |
| Côte d'Ivoire | 14.3 | 42 | 660 | 85 |
| Gambia, The | 1 | 24 | 320 | 122 |
| Ghana | 18.3 | 35 | 360 | 73 |
| Guinea | 7.6 | 28 | 560 | 124 |
| Guinea-Bissau | 1.1 | 21 | 250 | 129 |
| Liberia | 2.5 | | | 113 |
| Mali | 11.5 | 26 | 240 | 149 |
| Mauritania | 2.4 | 51 | 470 | 107 |
| Niger | 9.8 | 16 | 200 | 114 |
| Nigeria | 118.4 | 38 | 240 | 87 |
| Senegal | 8.8 | 41 | 560 | 72 |
| Sierra Leone | 4.4 | 35 | 210 | 132 |
| Togo | 4.3 | 30 | 300 | 77 |

Sources:

Population, GNP per capita, infant mortality rate from Banque Africaine de Developpement, Rapport sur le Developpement en Afrique 1998

% Urban population from agriculture from World Bank, World Development Report 1995, Washington D.C.

<u>Table 2</u>. Food security status in selected West African countries.

| Country | Population Facing food Insecurity | Per capita daily Calories supply (calories) | | Average annual cereals Imports (000T) | |
|---------------|---|---|---------|---|------|
| | % | 1965 | 1988/89 | 1974 | 1990 |
| Benin | 18 | 2,019 | 2,115 | 8 | 126 |
| Burkina Faso | 33 | 1,882 | 2,002 | 99 | 145 |
| Niger | 28 | 1,996 | 2,321 | 115 | 86 |
| Gambia, The | 19 | - | 2,339 | - | - |
| Côte d'Ivoire | 8 | 2,352 | 2,405 | 172 | _502 |
| Ghana | 36 | 1,937 | 2,167 | 177 | 337 |
| Mali | 35 | 1,938 | 2,114 | 281 | 65 |
| Nigeria | 17 | 2,185 | 2,454 | 389 | 502 |
| Senegal | 21 | 2,372 | 2,162 | 341 | 534 |
| Togo | 29 | 2,454 | 2,210 | 6 | 111 |
| Average | 24,4 | 1,323.8 | 2,229 | 137 | 205 |

Source: Extracted from Okaï, 1997, West and central Africa Maize Collaborative Network, 1998

Table 3. Average food prices of stable food crops in Nigeria (Naira per tons)

| | Marco | 0019110111 | אוכפ | | Cassava |
|------|-------|------------|-------|-------|---------|
| 1980 | 200 | 210 | 570 | 561 | 301 |
| 1990 | 1261 | 1293 | 4425 | 2301 | 1262 |
| 1991 | 3318 | 3648 | 7544 | 4479 | 2860 |
| 1992 | 5514 | 4678 | 12606 | 5878 | 4001 |
| 1993 | 6606 | 6620 | 18184 | 10404 | 9920 |
| 1994 | 6315 | 6833 | 21999 | 9100 | 1234 |
| 1995 | 15738 | 16733 | 34603 | 21272 | 20605 |

Source: Commercial Bank of Nigeria (Annual report and statement of accounts).

Annex 1.

Criteria for selection proposals of small grants

i) Type of Program

- Relevance to objectives of the project
- Private sector orientation
- Objectives achievable
- Sustainability

ii) Choice of Technology

- Simplicity to transfer
- Income generation potential
- Demand for technology

iii) Work Plan

- Activities address achievable objectives
- Schedule of plan attainable within indicated time frame (2 years)
- Attainment of expected output

iv) Linkages and Partnership

- Potential for establishing functional linkages
- Private sector involvement
- Sharing of responsibility and complementarily

v) Preparedness for Implementing Proposal

- Human resources and infrastructure
- Enterpreneurship
- Matching fund
- Revolving fund
- Partnership between technology transfer organizations and users
- Innovative approaches for implementing proposals.
- Established mechanism for monitoring and implementation of projects.

Annex 2.

<u>Tentative Plan for Implementing the USAID Supported Agricultural Technology</u> <u>Transfer and Commercialization Project in Nigeria</u>

| Activity | Period of Implementation | Output | Follow-up Mechanism |
|---|-----------------------------|---|---|
| Completion conceptual framework document for developingand implemen - ting project. | January/ February 2001 | Draft document made available to partners | Document completed |
| 2. Stakeholders consultation workshop | 9 to 11 April 2001 | i)The identification areas of program intervention and plan of action. ii)The establishment of National Steering Committee to provide an Oversigt on project implementation. iii) Identification needs for capacity building to enhancethe commercialization of agricultural. | Report of the stakeholders workshop report. Functioning of the national committee. |
| 3. Rapid Appraisal Survey | April 2001 | i) Key stakeholders and beneficiaries identified. ii) Gaps for enhancing technology transfer documented. iii) Market outlets to small-farmholders established iv) On-going farm related enterprises. | - Survey report - Projects proposals developed. |
| 4. Elaboration of project proposals | May / June | At least 5-10 small grants submitted. | _ |
| 5. Steering Committee Meeting | 17 / 18 May | Approval of some proposals | Field supervison by focal units.Steering Comm. Report |
| 6. Establishing SAFGRAD Liaison Office in Lagos at OAU/STRC | July / August | Coordination the implementation of project activities in Nigeria. Liaison projects activities with SAFGRAD. | Operational by August. |

AFRICAN UNION UNION AFRICAINE

African Union Common Repository

http://archives.au.int

Department of Rural Economy and Agriculture (DREA)

African Union Specialized Technical Office on Research and Development

2001-04

FRAMEWORK FOR DEVELOPING AND IMPLEMENTING THE PROJECT ON THE TRANSFER AND COMMERCIALIZATION OF AGRICULTURAL TECHNOLOGIES IN NIGERIA

OUA/CSTR-SAFGRAD

OAU/SAFGRAD-STRC

http://archives.au.int/handle/123456789/5655

Downloaded from African Union Common Repository