

## FINAL PROGRESS REPORT

<b>Organization:</b>	Catholic Relief Services	<b>HQ Contact Person:</b> Martin Hartney
<b>HQ Mailing Address:</b>	209 West Fayette Street Baltimore, MD 21201	<b>Telephone:</b> 410-951-7252
		<b>Fax:</b> 410-234-3189
		<b>Email Address:</b> <a href="mailto:mhartney@catholicrelief.org">mhartney@catholicrelief.org</a>
<b>Field Mailing Address:</b>	60 OAU Boulevard Banjul, The Gambia	<b>Field Contact Person:</b> Benjamin Safari
		<b>Telephone:</b> 220-442-7121
		<b>Fax:</b> 220-442-4652
		<b>Email Address:</b> <a href="mailto:bsafari@crsgm.org">bsafari@crsgm.org</a>

**Date:** April 11, 2005

**Program Title:**

## **Emergency Seed Distribution and Stakeholder Capacity Strengthening in The Gambia**

**USAID/OFDA Grant No:** DFD-G-00-03-00062-00

**Type of Disaster/Hazard:** Natural

**Time Period Covered by the Report:** July 2003 – December 2004

### List of Acronyms

ADWAC	Agency for the Development of Women and Children
AFET	Association of Farmers, Educators and Trainers
AfRGM	African gold midge
AVDRC	Asian Vegetable Research and Development Center
CIAT	International Center for Tropical Agriculture
CRS	Catholic Relief Services
DAS	Department of Agricultural Services
DCD	Department of Community Planning
DOCD	Department of Cooperative Development
DOP	Department of Planning
DOSA	Department of State for Agriculture
DSD	Direct Seed Distribution
DWR	Department of Water Resources
ELP	Economic Liberalization Period
ERP	Economic Recovery Period
GLOS	Grain Legume and Oilseed Program
GMD	Gambian Dalasis
IARCS	International Agricultural Research Centers
ICRAF	International Center for Research in Agroforestry
ICRISAT	International Center for Research in the Semi-Arid Tropics
IITA	International Institute for Tropical Agriculture
LSC	Local Seed Committee
NARI	National Agricultural Research Institute
NARS	National Agricultural Research Systems
NAWFA	National Agricultural Women Farmers Association
NaYAFS	National Youth Association for Food Security
NERICA	New Rice for Africa
NGO	Non-governmental Organization
PI	Pre-independence
SAP	Structural Adjustment Program
WARDA	West African Rice Development Association
WARO	CRS - West Africa Regional Office

## **I. EXECUTIVE SUMMARY:**

In response to the 2002 drought in The Gambia, USAID/OFDA awarded Catholic Relief Services (CRS) \$682,392. The grant enabled CRS to collaborate with community-based organizations, Gambian non-governmental agencies, and The Gambia Government to provide high quality seeds to farm families that were hardest hit by the unseasonable 2002 rains, and to identify short and long-term solutions to seed insecurity in The Gambia.

The program started in July 2003 and final activities were completed in December 2004. During the 18 months CRS assisted 22,014 farm families to have access to high quality seeds for the 2003 and 2004 planting seasons and initiated steps towards transforming seed fairs from an emergency to a sustainable development activity. The five steps that were taken after implementing the seed fairs were:

- Undertaking a *monitoring system* to assess the use of seeds by voucher recipients (it showed that about 98.6% of voucher recipients planted the seeds received);
- Establishing and assisting local seed committees to provide support to seed recipients to ensure the cultivation and good crop management; collect/store seeds repaid by beneficiaries for redistribution to seed insecure farmers in subsequent seasons (about 94% seed loan repayment rate was reported across the country);
- Conducted training on seed multiplication (community-based and on-station) to enable farmers and NARI to multiply seeds to expand the availability of high quality seeds to farmers;
- Initiating steps towards an *integrated seed enterprise* (production, protection, storage and marketing) in The Gambia by organizing joint training for farmers, seed vendors and extension workers to assess production, storage and marketing of seeds and grains through networks of *farmers associations* (consisting of farmers and vendors); and
- Conducting *farmer field days* that served as another avenue for further farmer and seed vendor capacity-building.

CRS and partners also identified and described the ten major causes of food and seed insecurity in The Gambia. The findings will assist actors in the agricultural sector in their long-term planning, implementation and monitoring/evaluation of seed and food security interventions in The Gambia.

Another major achievement of the program was the holding of Gambia's first national seed security conference that brought together representatives of all key actors in the agricultural sector. This forum enabled them to: Assess major and historical threats to seed security in The Gambia (causes and impacts); develop a national consensus on strategies for overcoming bottlenecks (recommendations for the way forward); and recommend to the government of The Gambia a framework for a re-vitalized and representative national seed security committee (seed council) as a forum for national consensus on the country's seed policy.

Two other achievements of the program were training of extension agents and senior staff of partner agencies in seed security related assessment, and publication of 25 technical reports focusing on the various themes of research in the project studies and a pictorial report, that shall serve as sources of information and strategies on 'best practices' for interventions in seed security in the Gambia and sister CRS Country Programs in WARO.

## The goal and objectives that guided this program were:

Goal: Improved food security among drought affected farmers in The Gambia.

Strategic Objective 1: Seed insecure farm families in target areas of The Gambia have access to seed of acceptable quality of preferred crops and varieties in time for planting in the 2003 and 2004 rainy seasons.

Strategic Objective 2: Improved capacity of program stakeholders to assess and mitigate food and seed insecurity.

## II. Performance Indicators and Achievement of Performance Indicators

**Strategic Objective 1:** *Seed insecure farm families in targeted districts of The Gambia have access to seeds of acceptable quality of preferred crops and varieties in time for planting in the 2003 and 2004 rainy seasons*

### Performance Indicators

1. Sources of farmer seeds identified and available amounts estimated
2. Overall magnitude of seed deficit estimated
3. Types of crops most needed determined
4. Sufficient information collected to determine appropriate form of seed assistance:
  - a. # of vulnerable drought-affected households identified
  - b. # of households receiving vouchers
  - c. % receiving vouchers that are women
  - d. % of seed suppliers that are women
  - e. % of voucher recipients reporting satisfaction with seed voucher system
  - f. % of seed suppliers reporting satisfaction with seed voucher system
  - g. % of voucher recipients using seed for planting
5. Number of participants in training for seed fairs implementation (seed fairs beneficiaries, seed vendors and other farmers)
6. Number of partner and government staff participating in seed fairs implementation
7. Number of seed fairs implemented
8. Types and amounts of seeds that beneficiaries accessed (i.e. seeds taken to seed fairs by vendors) in 2003 and 2004
9. Production levels for crops supported through assistance (Data provided for three key crops for comparing 2003 and 2004)

**Achievement of Performance Indicators:** Government statistics of 2002 showed about 578,000 people were affected by drought of whom about 363,000 were located in 18 districts described as hardest hit by the drought (i.e. received least amounts of rain and poor harvests). The estimated number of affected households in these districts was 30,221.

A rapid exploratory seed security assessment conducted by the project in 2003 determined that the drought had resulted in about an 85% reduction on groundnut yields, 83% reduction for rice, 57% reduction for early millet, 89% reduction for maize, and 89% in sorghum from normal production. These drastic reductions in

yields had posed great challenges on the farmers' seed security as the little produce achieved was used to meet the immediate food needs of the families.

In normal years, farmers provide 90% to 97% of the millet, sorghum, rice, groundnut and maize seed needs; and 31% of sesame from their own stocks (saved seeds). Farmers then look up to NGOs and government sources (seed aid) to provide the remainder of their seed needs. However, in light of the 2002 drought, farmers needed significantly more seed assistance than in normal years. Results of the rapid assessment showed that households stated that they had 78% less than normal seed requirement for groundnuts, 81% less for rice, 58% less for early millet, 86% less for maize, and 70% less for sorghum. The assessment thus concluded that farmers would need seed assistance focused on groundnuts rice and maize.

The assessment further established that seeds were available in the market but at high prices especially for the better seed quality. Thus, an intervention such as the seed voucher and fairs was an appropriate for the seed emergency. Based on this conclusion, CRS in collaboration with partners and government staff carried out sensitization and training of about 25,000 farmers (voucher beneficiaries and local committee members) on the seed fair approach, processes as well as implementing the actual seed fairs. Twenty-six seed fairs were conducted in 2003 and 13 seed fairs conducted during 2004 seasons totaling up to 39 fairs. A total of 22,014 farmers (17,058 in 2003 and 4,956 in 2004) received seed voucher, thus benefited through the thirty-nine seed fairs and vouchers conducted during the project. In 2003 women represented 47% of voucher recipients. In 2004 there was a slightly increased to 51%.

A total of 588,985 kilograms of various seeds were available for purchase in the fairs in both years. Of the total seeds available at the seed fairs for sale, 411,716 kilograms (70%) were purchased with vouchers. Seed supplied to the seed fairs has generally been satisfactory in terms of both quantity and quality as all the seeds were subjected to quality screening by the local seed fair committees with the assistance of seed specialist and/or extension workers. In 2004 seed samples were collected from registered seed vendors prior to and during the seed fairs, and were tested for germination in order to gain greater insight on the seed quality alongside the visual quality check by the local committees.

Male vendors formed the majority of the total of 1289 seed vendors (1146 in 2003 and 143 in 2004) at the seed fairs in both years. However, participation of female seed vendors in the fairs significantly increased from 10% in 2003 to 31% in 2004 in terms of volume of sales. The types and amounts of seeds that beneficiaries accessed (i.e. seeds taken to fairs by vendors); and that were actually exchanged (bought) with vouchers in 2003 and 2004 were as follows:

Crops	Amounts of Seeds Taken to Fairs by Vendors (kg)		Amounts of Seeds Bought With Vouchers (kg)	
	2003	2004	2003	2004
Groundnut	234,487	114,139	157,052	86,321
Early/Late Millet	125,427	6,357	87,884	4,641
Rice	38,539	7,079	30,984	5,168
Sesame	5,299	722	3,647	527
Findo	1,860	2,889	1,393	2,109
Maize	32,430	2,167	17,600	8,227
Sorghum	15,802	0	6,971	0
Beans	1,293	0	610	0
Vegetables	0	495	0	1,582
<b>Total</b>	<b>455,137</b>	<b>133,848</b>	<b>306,141</b>	<b>105,575</b>
<b>Total Voucher Value ( US \$)</b>	----	----	<b>233,519</b>	<b>85,448</b>

An evaluation of beneficiaries and vendors' satisfaction regarding various aspects/parameters (sensitization, beneficiary selection, access to amount/variety/timeliness of seeds, location, prices) of the seed fairs was done on a seed fair day. 673 beneficiaries (consisting of 47% female and 53% males) and 420 seed vendors (71% males and 29% females) were interviewed during the 2003 seed fairs and vouchers. 96% of interviewed beneficiaries and about 94% of expressed satisfaction with the seed fairs. Recorded levels of satisfaction for beneficiaries ranged from 88 – 97 percent for all the parameters assessed, except for prices, which was rated (52%) suggesting less satisfaction, owing to what some beneficiaries attributed to high prices of seeds. Similarly, both the beneficiaries and vendors were generally satisfied the conduct of the 2004 seed fairs, even with the prices. However, there were scores of dissatisfaction with the flexibility of vouchers and less range of crops and varieties brought to the seed fairs for farmers to choose from.

Monitoring activities in 2004 showed that 98.6% of the voucher recipients planted the seeds received. A similar monitoring was not made in 2003, however the impact assessment of the 2003 seed fairs carried out in 2004 showed about 58% of the beneficiaries planted the seeds obtained from the seed fairs. The report also highlighted that seeds obtained from seed fairs contributed about 10% to the seeds planted and from 0-19% of the total production. In 2004, average yields for groundnuts, maize and sesame were 1882, 775 and 458 kg/ha respectively.

**Strategic Objective 2:** Improved capacity of program stakeholders to assess and mitigate food and seed insecurity.

*Intermediate Result 2.1:* Program stakeholders' capacity to carry out food, seed system and security assessments in targeted districts of The Gambia strengthened

*Intermediate Result 2.2:* Role of market in local seed systems strengthened in targeted districts of the Gambia

*Intermediate Result 2.3:* Linkage of small farmers with agricultural research in technology transfer strengthened

### **Performance Indicators for IR 2.1:**

1. Training report produced
2. Rapid assessment reports completed
3. Formal food and seed security assessment reports completed

### **Performance Indicators for IR 2.2:**

1. Integrated seed system report (to identify opportunities to support the privatization of the seed enterprises)
2. Seed enterprise stakeholder workshop conducted
3. Private seed trader training session

### **Performance Indicators for IR 2.3:**

1. Number of specific NARI (National Agricultural Research Institute) linkages
2. Number of crops/varieties in technology transfer
3. Number of farmer managed variety evaluation by crop

### **Achievement of Performance Indicators for IR 2.1:**

Key CRS and NAWFA staff participated in an orientation on the approach and procedures of conducting seed fairs in Senegal facilitated by the CRS Regional Technical Advisor who actually pioneered the seed fairs approach in the East and Southern Africa. On return to the Gambia, the team constituted a working group of staff from five relevant government departments and NGOs, to introduce them to the seed fairs approach as well as worked out modalities for the conduct of rapid food and seed security assessment. The working group reviewed and adapted the CIAT/CRS rapid seed security assessment questionnaire, subjected it to a pretest after which a three-day field assessment was carried out involving 50 households in 12 districts across the country. The findings of the rapid seed security survey was shared with a range of government agencies, UN organizations, NGOs, and farmer associations in a one-day workshop as a way of introducing the seed fair approach to a wider community of development actors as well as solicit their support and participation in the conduct of the seed fairs.

A formal seed security survey was conducted in March 2004 under the supervision of an external CRS consultant. The survey was preceded by a seed security assessment-training workshop held in Senegal for staff of CRS/Senegal and The Gambia and seed fair implementation partners. The assessment was conducted in collaboration with NAWFA, NARI, DOP, and DAS through which 561 individuals representing households were interviewed, with 46% of the respondents being women. The findings of the survey indicated that respondents generally planned to obtain from 16% to 44% of their total seed needs from NGOs, government and research agencies. The need for seed assistance was more acute in the Upper River Division where about 26% of the respondents would require seed assistance.

### **Achievement of Performance Indicators for IR 2.2:**

The project undertook some key steps initiating an integrated seed system in The Gambia. These involved a nation-wide survey that assessed seed marketing problems, opportunities and threats in The Gambia spanning from pre-independence period to now. Key informants in the survey included farmers, farmers associations; village, district, and divisional leaders; formal and informal seed vendors; NGOs; government departments with mandate in the agricultural sector; and multilateral agencies. Among other things, the study highlighted opportunities to support the privatization of seed enterprise in The Gambia. Two other key activities which were undertaken towards a seed enterprise in The Gambia were: training workshops for farmers, seed vendors and extension workers to assess production, storage and marketing of seeds

and grains through networks of farmers associations (consisting of farmers and vendors); and conducted two farmer field days that brought together between 80 and 100 participants to serve as an avenue for further capacity-building in agricultural production of farmers and seed vendors. A third intervention focused on registering 143 formal and informal seed vendors (39% females and 61% males) throughout the national territory, training them for participation in seed fairs, collecting and assessing the quality of their seeds (e.g. purity, germination and seedling vigor) to be sold at fairs, and sensitizing them on the importance of selling seeds of proven quality.

### **Achievement of Performance Indicators for IR 2.3:**

A study was conducted by NARI and CRS in April and May 2004 which assessed NARI's past and present contacts (linkages) with international agricultural research centers (IARCs) and national agricultural research systems (NARS); and on the outcomes of NARI's crop varietal testing. The study was conducted on five programs at NARI, namely: Cereals, Grain Legumes and Oilseeds (GLOS), Agro-forestry, Horticulture and Pest Management. The study showed that through these programs, NARI has or has had contacts with six IARCs, namely: the International Center for Research in Agroforestry (ICRAF), West African Rice Development Association (WARDA), International Center for Research in the Semi-Arid Tropics (ICRISAT), International Institute for Tropical Agriculture (IITA) and the Asian Vegetable Research and Development Center (AVRDC).

The study showed that NARI does not have strong contacts with other NARS in Africa. The only contacts made so far are with the Crops Research Institute of Ghana, the Senegalese Institute for Agricultural Research and the Institute of Agricultural Research in Sierra Leone. Much of the varietal testing was done in the 1980s and 1990s, and a few between 2000 and 2002. The outcomes of the varietal testing from the above contacts were as follows:

- 1. Agroforestry:** Seeds of multipurpose trees, especially for live-fencing, fodder and soil fertility improvement were tested. Live-fencing technology was widely adopted by farmers.
- 2. Cereals:** 15 varieties of lowland rice were studied through a participatory varietal selection program between 1999 and 2004. Maize, millet and sorghum varieties were tested. Farmers' best choices were the NERICA varieties that are now gradually being grown by farmers in The Gambia. Farmers adopted five varieties of maize, three of millet and six of sorghum.
- 3. GLOS:** Varieties of cowpea, groundnut and sesame were tested on-station and on-farm. Farmers adopted three varieties each of cowpea, groundnut and sesame.
- 4. Horticulture:** Cassava and sweet potatoes varieties from IITA and AVRDC; and tomato and pepper seeds from Sierra Leone were tested on-farm. High yielding varieties were identified, promoted, and subsequently adopted by farmers.
- 5. Pest Management:** Two improved varieties of early millet and five varieties of rice were tested for resistance to blast, and rice varieties against African Gold Midge (AfRGM). All early millet and rice varieties were found to be resistant against blast. Farmers adopted the varieties of millet and rice.

Aspects of two of the project investigations (project studies) that were conducted between July and August 2004 (discussed against SO2 and IR2.2 in Section IV below) assessed the impacts of NARI's contributions to agricultural research and development in The Gambia. One of the issues that were assessed in this connection was the type of crop varieties, which had been tested by NARI and adopted by farmers throughout the country. More than 90% of individual farmers and farmer groups that were interviewed indicated that they either had not seen those improved varieties or that they no longer had them. The

findings indicated that financial and other constraints facing NARI had not enabled the institution to conduct the appropriate follow-up activities that could have enabled farmers to retain and multiply the varieties, which had been tested and adopted by a small segment of the agricultural community in the country.

This program achieved much with respect to farmer managed variety evaluation. In this connection, NARI and CRS/NAWFA collaborated in the planning, implementation and monitoring of community-base multiplication of NERICA, groundnut, maize and sesame seeds involving 15 farmer groups with a total membership of about 3,000 people about 99% of whom are women. Farmer groups will repay the same quantities of seeds received to their local seed committees (LSCs) for pass on to other farmers in 2005. NARI and CRS/NAWFA collaborated in the production of seeds of a foundation sesame variety, which was produced through research in Senegal.

### III. Demographic Profile, Number of Beneficiaries and some key Qualitative Data

**1. Strategic Objective #1:** Seed insecure families in targeted districts of The Gambia have access to seed of acceptable quality of preferred crops and varieties in time for planting in the 2003 and 2004 rainy seasons.

*Intermediate Result:* 20,000 seed insecure families participate in seed vouchers and fairs in targeted districts of The Gambia.

<b><u>Demographic Profile and Number of Beneficiaries:</u></b>		
Estimated population of affected farmers in hardest hit areas:		363,000
Estimated number of households in hardest hit areas:		30,221
Targeted population of affected farmers in hardest hit areas:		264,168
Targeted number of households in hardest hit areas:		25,600
Estimated population of affected farmers reached:		264,168
Number of households reached in hardest hit areas:		22,014
Proportion of farmers reached by gender:	Males	54%
	Females	46%

The project assisted about 73% of the population hardest hit by the 2002 drought. The impacts of seed fairs on helping farmers to restock their seeds and on increasing agricultural production were widely acknowledged in the country. For example, Gambian farmers are now knowledgeable about seed fairs and have expressed satisfaction as they were given the opportunity to choose seeds of their own choices in addition to the timeliness accessing seeds before the start of the planting seasons. Seed vendors' interest in seed fairs has also been increased because the fairs have provided them with access to good markets. Communities, government agencies and other project partners would therefore like CRS to assist with

transforming seed fairs into an annual, nationwide event, implemented largely as a national self-help activity.

**2. Strategic Objective 2:** Improved capacity of program stakeholders to assess and mitigate food and seed insecurity.

*Intermediate Result 2.1:* Program stakeholders' capacity to carry out food, seed system and security assessments in targeted districts of The Gambia strengthened.

**Demographic Profile and Number of Beneficiaries:**

Strong local seed committees in all targeted seed fair villages:	1,095
Estimated number of members:	13,954
Number of local seed committees established:	321
Number of members reached:	2,247

Empowerment of village or local seed committees was demonstrated through their capability to efficiently carry out their seven functions as listed below:

- Use an objective set of criteria to select needy farm households to benefit from the seed fairs
- Serve as village-based trainers and extension workers (or 'contact farmers') by visiting fellow farmers, monitoring their progress towards the cultivation of seeds received from the fairs and offering advice as needed. It is hoped that such extension activities would eventually evolve into a farmer-driven system of extension follow-up whereby extension supervisors (e.g. from DAS, DCD and NAWFA) and technical extension staff from CRS and partner agencies could have a lower level of involvement in extension delivery than farmer leaders.
- Hold regular meetings to receive seed recipients' reports on the progress of their farms, discuss repayment of seed loans, and the community sanctioned ways of penalty for defaulters of the revolving seed loan system, and many other farm-related issues<sup>1</sup>.
- Receipt of seeds recovered from the repayment of seed loans. For the repayment of their seed loans, farmers in most communities agreed to a markup of up to 30% margin over the quantities of seeds received. For example, since each farm household received vouchers worth D500, they would give to their local seed committees good quality seeds valued at D650\*.
- Store the seeds received from farmers in community-based seed stores. The seeds could either be given to farmers for the ensuing farming season (see f below) or sold and the funds received saved with local financial institutions for future use in agriculture-related emergencies facing the community.
- Use objective criteria (built upon those used in 2003 and expanded upon in 2004) to identify needy farm households that could be recipients of seed loans for each ensuing agricultural season.

<sup>1</sup> It should be noted that the seeds provided to farmers in 2003 and 2004 under this program were given as an emergency assistance (subsidy). However, farmers in all communities decided, in 2004, that one step towards reducing their dependency on seed aid was for all seed recipients to repay to payback the quantity of received from the program plus an agreed margin (of 10 – 30%) to their local seed security committees. The LSCs would then store the seeds and make them available to new or previous seed recipients, as seed loans. In other words, the seed loan scheme was a community-driven and community-managed scheme.

- Conducting seed multiplication (community-based and on-station) to capacitize farmers to multiply seeds and research to expand the availability of good quality seeds to farmers.

Intermediate Result #2.2: Role of market in local seed systems strengthened in targeted districts of the Gambia

<b><u>Demographic Profile and Number of Beneficiaries:</u></b>		
Targeted seed vendors for fairs		--
Number of vendors participated in seed fairs		1289
Number of vendors formally registered		143
Proportion of vendors by gender:	males	65%
	Females	35%

The project raised awareness in the farming community in The Gambia on the storage, transport and marketing of seeds; and on the widespread failure of communities to manage seed banks and cereal banks. Seed vendors and farmers were enlightened about strategies for them to collaborate through farmers associations (consisting of farmers and vendors) with roles which assured mutual benefit.

Intermediate Result #2.3: Linkage of small farmers with agricultural research in technology transfer strengthened.

<b><u>Demographic Profile and Number of Beneficiaries:</u></b>	
Targeted number of villages for monitoring (2004 only)	21
Targeted number of beneficiaries in targeted villages	450
Targeted number of villages for seed multiplication	15
Targeted estimated population	3000
Number of villages reached through monitoring	21
Number of beneficiaries reached by the monitoring system	450
Number of villages reached by the seed multiplication	15
Targeted population reached	2944

Linkages between research and extension services, and farmers were strengthened through community-based and on-station seed multiplication activities. These activities increased collaboration between research (NARI) and extension (DAS, DCD and NAWFA). Staff of these agencies visited seed multiplication sites according to previously agreed upon work plans. Reports submitted by the extension staff were consolidated by some staff of NARI, in collaboration with NAWFA and CRS.

#### **IV. Achievements, Constraints Encountered, Adjustments Made to Objectives and Success Stories**

##### **Achievements:**

The original project target of 20,000 seed insecure families was exceeded by 10% (i.e. 22,014 vs 20,000). This was possible due to the no-cost extension of the project granted for the conduct of additional seed fairs in 2004. 85% of the target was achieved in during the initial project period, while 88% of the 5600 targeted beneficiaries were reached in allowed extension.

The capacity of senior staff of six partner agencies in conducting seed security needs assessment and analytically reporting on development studies was strengthened. The project monitoring activities involved farmers, extension and research personnel; and showed how the current relatively weak research - extension - farmer linkages could be strengthened. Informal training sessions on development studies were conducted for 20 senior staff of partner agencies.

The program registered 143 seed vendors and conducted activities to help them organize them and farmers into farmers associations. It also conducted nation-wide workshops involving farmers, seed vendors and extension agents covering ten requirements for an integrated seed enterprise for The Gambia:

Community-based and on station seed multiplication, and voucher recipient monitoring were use as initial step to involving researchers and extension workers to jointly participate in agricultural extension delivery. Such efforts were steps towards resolving the long-term and grave problem of weak research-extension-farmer linkages in The Gambia.

##### **Constraints Encountered:**

The greatest constraints encountered in implementing the seed fairs were bad roads, infrequent ferry services across River Gambia (which resulted in long wait periods and delays), and poor phone networks in rural areas. The long distances between some seed fair locations and beneficiary villages, and the poor internal transport networks limited the participation of selected some household beneficiaries from participating in the seed fairs.

Delays in report completion and submission, difficulties in meeting deadlines for project activities. Deficiencies in the quality and completeness of reports submitted by extension agents and other partner agency staff caused significant delays and too much professional inputs before acceptable documents were obtained.

##### **Success Stories:**

**a. The Seed Vouchers and Fairs Approach Evolved From Unknown to Being the Best Known Seed Aid Strategy in The Gambia:** The advantages of the *seed vouchers and fairs* (SVF) approach in promoting national seed marketing, enabling farmers to assess and purchase seeds of their choice, quality testing of seeds before seed fairs (and sale of only those seeds that had been quality-tested) over direct (conventional) seed distribution (DSD) were seen by farmers, seed vendors and the general public. The differences were made especially clear because of two successive years of failure of nationwide seed aid through DSD. In those cases, seeds were bought from neighboring countries by the central government and distributed to farmers without first carefully assessing seed quality attributes. Disappointment and

anger arose when many farms throughout the country failed because of poor germination rate and growth. In contrast to those failures, farmers that benefited from the seed fairs had two successful cropping years. The majority of them were satisfied with the performance (germination, establishment and yields) of the seeds received through seed fairs

**b. Strategies for Transforming Seed Vouchers and Fairs From Emergency to a Long-term Intervention Were Initiated:** Four practical steps were taken towards the subject matter which included :

- *Establishment and building the capacity of local seed security committees (LSCs) in each project village (the functions of LSCs as highlighted above)*
- *conducting seed multiplication (community-based and on-station) in an effort to improved farmers assess to improved crop varieties*
- *registration and joint training of seed vendors and farmers towards initiating steps for an integrated seed enterprise that would be mutually beneficial to farmers and seed vendors,*
- *conducting farmer field days to as another forum for capacity and relationship building involving farmers and seed vendors.*

*Discussions* were also held during which project partners also *requested that CRS consider playing the lead role* in working with governmental and non-governmental agencies engaged in agricultural in The Gambia to *transform seed fairs into annual agricultural events in the country*. The conduct of the annual agricultural forum would be decentralized in that it would be implemented at many central locations throughout the country for farmers, seed vendors, research and extension institutes, development organizations and policy makers to assess the 'state of agriculture' in The Gambia and propose short- and long-term solutions to the key problems. The agricultural fairs would also be *a marketing forum* during which research and extension institutes, and progressive farmers can showcase and discuss key characteristics and other issues on high-performing and weather-resilient crop varieties and to sell quantities that would enable other progressive farmers to test the germplasm under field conditions. Livestock and livestock products, agricultural inputs (e.g. seeds, tools, fertilizer, pesticides) and agricultural and non-agricultural commodities could also be sold at the agricultural fair. Farmers and seed vendors hoped that transforming seed vouchers and fairs as indicated could contribute to seed and food security in at least three key ways:

- a. Seed fairs not being limited as an intervention in response to national emergencies, but becoming an annual strategy for the distribution of good quality seeds within the farming community.
- b. Seed fairs being an integral part of long-term strategies for national seed security (i.e. part of the 'state of agriculture' in the country)
- c. Seed fairs being transformed from largely a donor-driven (subsidy) to a nationally-driven (self-help) intervention.

**c. Proposals for a National Seed Policy Evolved Through Key Program Interventions:** Consultations among project partners, the nation-wide project study on *national seed policy* and papers presented during the national seed security conference proposed specific issues on the development of a national seed policy; and the composition and terms of reference of a re-vitalized national seed security council. The project therefore provided impetus towards a national seed policy for The Gambia, which does not yet have a national seed policy nor a functioning national seed security council.

**d. Mutually Beneficial Relationships Between Farmers and Seed Vendors Were Initiated:** Training activities, workshops, farmer field days and seed multiplication activities brought together farmers and vendors to begin building mutually-beneficial relationships between farmers and seed vendors as members of farmers associations. Those initial efforts contributed towards a potential integrated seed enterprise in The Gambia. Before then, farmers and seed vendors in The Gambia primarily worked at cross purposes with respect to the storage and marketing of seeds.

**e. Strengthening on research- extension-farmer linkages:** The program used activities connected with community-based and on-station seed multiplication, and monitoring of the agricultural activities of a representative sample of the 2004 seed fairs beneficiaries to strengthen research-extension-farmer linkages. A key outcome of these efforts was that a majority of seed recipients (98.6%) was able to plant seeds received from seed fairs. Farmers also multiplied seeds that will be passed on to other farmers for planting in 2005, as steps towards building self-reliance for a national stock of good quality seeds.

#### **IV. Overall Performance of the Project and Summary of Cost Effectiveness**

**Overall Performance of the Project:** The project over achieved this outcome in that 22,014 seed in-secured families were assisted as against a target of 20,000 families. Resource constraints of a wide variety have rendered research-extension-farmer linkages greatly ineffectual in The Gambia. The project studies that were conducted on the history and impacts of research-extension-farmer linkages in The Gambia; and on crop varietal testing and adoption by Gambian farmers; and analyzed strengths, weaknesses, opportunities and treats to the impacts of research and extension on

**Summary of Cost Effectiveness:** Total amount spent on direct project implementation amounted to about US \$536,371 (about 78% of the total budget). The balance is used to cover overhead costs. Since these activities benefited about 25,824 direct beneficiaries (22,014 voucher beneficiaries, 2247 local seed committees, 1289 seed vendors and 274 partner staff), it can be said that the cost of these interventions was about US \$20.77/direct beneficiary.