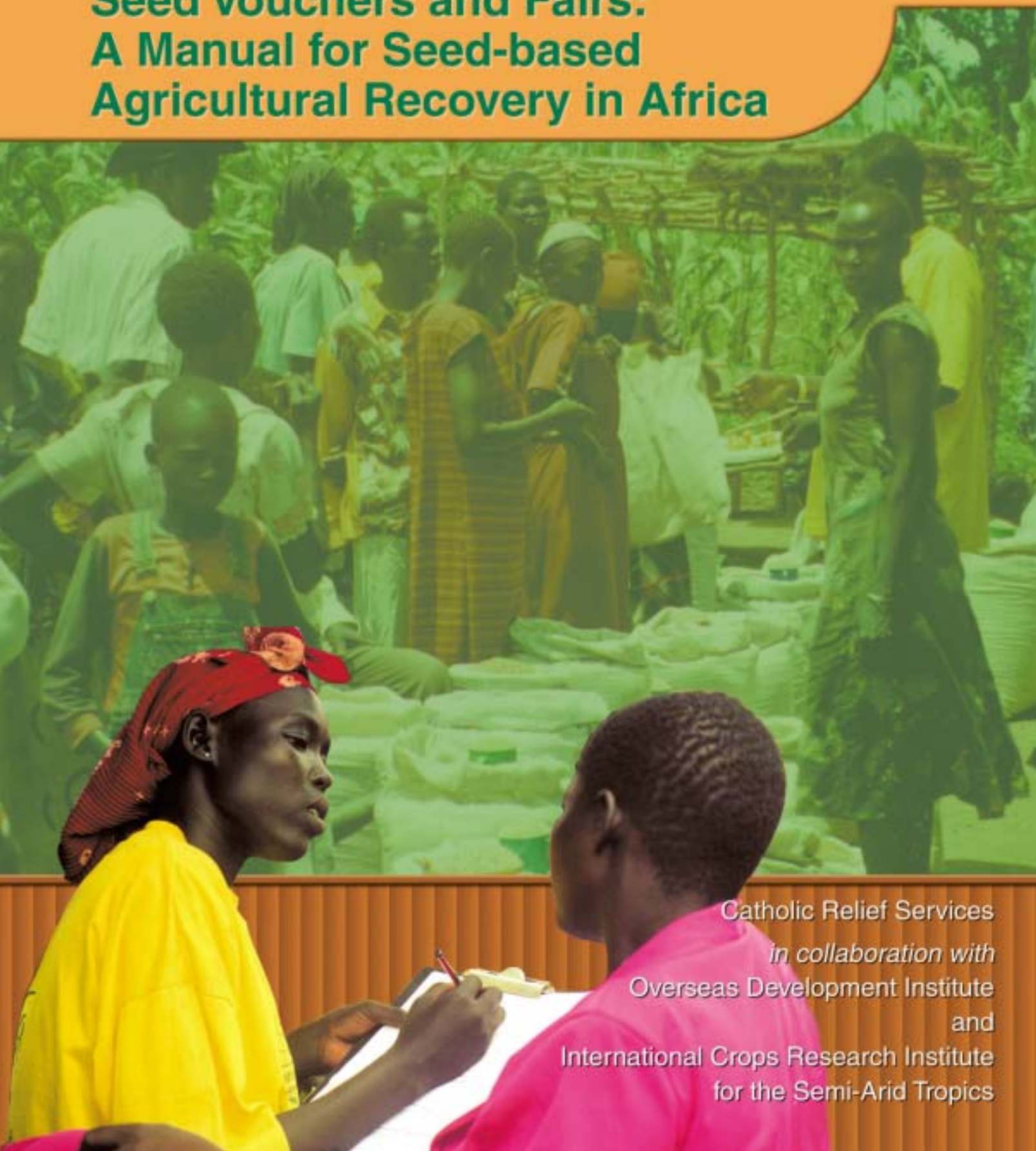
CRS
CATHOLIC RELIEF SERVICES

Seed Vouchers and Fairs: A Manual for Seed-based Agricultural Recovery in Africa



Catholic Relief Services
in collaboration with
Overseas Development Institute
and
International Crops Research Institute
for the Semi-Arid Tropics

Citation: CRS, ICRISAT, and ODI. 2002. Seed vouchers and fairs: a manual for seed-based agricultural recovery after disaster in Africa. PO Box 49675, Nairobi, Kenya: Catholic Relief Services; PO Box 39063, Nairobi, Kenya: International Crops Research Institute for the Semi-Arid Tropics; and Westminster Bridge Road, London, UK: Overseas Development Institute. 72 pp.

Abstract

This manual describes a new approach to post-emergency seed distribution in Africa, where farmers receive not free seed but vouchers that can be exchanged for seed at a specially organized seed fair. Seed fairs rely on commercial seed firms (where they are in operation), as well as local seed producers and traders. This approach allows farmers to choose what crops/varieties and quantities they want.

The manual provides an overview of seed systems and their components, and describes how to plan and implement the seed voucher/seed fair approach. The examples quoted are from southern Sudan, but the approach can be adapted for use in other disaster-affected areas as well.

Seed Vouchers and Fairs: a Manual for Seed-Based Agricultural Recovery after Disaster in Africa

Catholic Relief Services
PO Box 49675, Nairobi, Kenya

Developed in collaboration with

ICRISAT

International Crops Research Institute for the Semi-Arid Tropics
PO Box 39063, Nairobi, Kenya

Overseas Development Institute
Westminster Bridge Road, London SW7JD, UK

2002

Preface

The idea for this manual evolved during the course of field research in northern Uganda and southern Sudan undertaken by a team from CRS, ICRISAT, and ODI. Both regions are affected by chronic disaster primarily from civil conflict, and in some years compounded by drought. Free distribution of seeds and tools to assist in agricultural rehabilitation has been widely implemented in many places and over multiple seasons, but discussions with field staff implementing these programs and with beneficiaries indicated that the implementation of these programs had become somewhat ritualized.

CRS has had very positive experiences with an alternative approach, which uses seed vouchers and seed fairs. However, neither field staff nor personnel in headquarters from a range of organizations had the knowledge or experience necessary to diagnose problems related to seed security, nor to articulate an effective response based on the strengths and resilience of the farmer seed system.

This manual aims to inform field-based staff about seed systems and the impacts of disaster (Part 1). It also provides detailed instructions on how to plan and implement a seed fair (Part 2). This format was adopted because CRS, which pioneered the seed fair approach, wanted to avoid a situation where seed fairs become institutionalized – as 'Seeds and Tools' distribution has become in many disaster recovery situations.

Part 1 is designed to help field staff think through whether seed-based interventions are really necessary. If, after reading Part 1, field staff conclude that a seed-based intervention is necessary, Part 2 will guide them on how to implement a seed fair. Combining Parts 1 and Part 2 in one manual is not meant to be an endorsement of the need for seed fairs in all situations, but to assist field staff in deciding on what is appropriate.

Acknowledgments

This manual is the result of partnership between three organizations: CRS, ICRISAT, and ODI. Parts 1 and 2 have both benefited from extensive inputs and review by field staff from CRS and other organizations who face, on a daily basis, many of the challenges described in the manual. We wish to acknowledge the organizations, staff, and farmers who participated in the use of seed vouchers and fairs in northern Uganda and especially in southern Sudan. We also want to thank Ajay Varadachary and the staff of the ICRISAT Public Awareness Office for their hard work in editing and publishing this document.

This manual was made possible through the generous financial support of the United States Agency for International Development/Bureau for Humanitarian Response/Office of Foreign Disaster Assistance (Grant No. LAG-G-00-93-00042).

Contents

Appendices. Forms Useful in Planning and Monitoring a Seed Fair

Part 1. Seed Systems and Disaster Relief – An Overview

Authors

Paula Bramel	ICRISAT
Richard Jones	ICRISAT
Tom Remington	CRS East Africa Regional Office
Catherine Longley	Overseas Development Institute

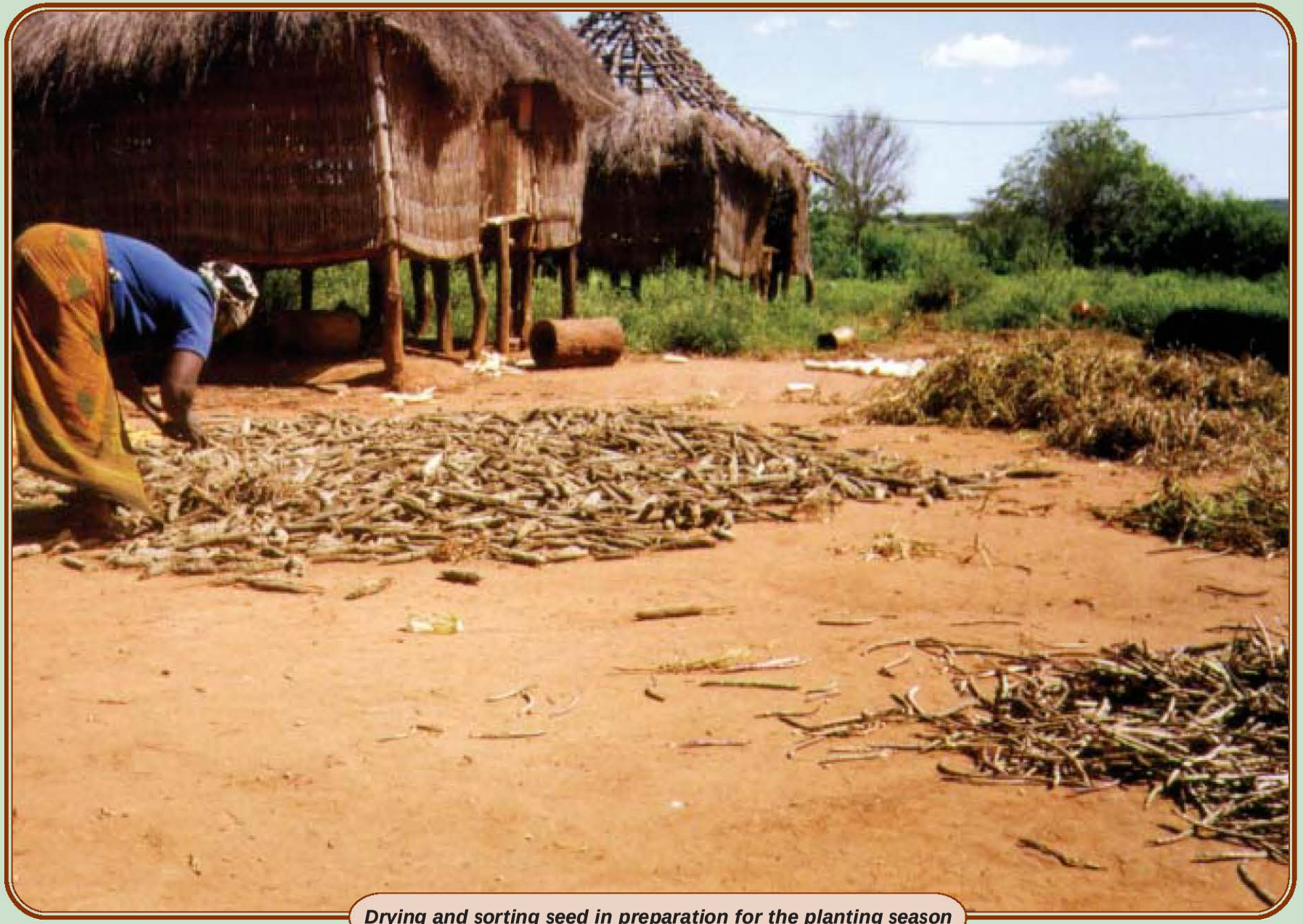


Photo: Paul Omanga

Drying and sorting seed in preparation for the planting season

1. What is a Disaster?

Scope and Scale of the Disaster

Disasters are unusual events that have a serious negative impact on livelihoods. These events may be social (war, civil conflict) or climatic (drought, flood). Disasters often impact most heavily on rural communities. They may trigger famine, as shown by experiences in Eastern Equatoria, southern Sudan. A whole cropping season was lost, farm families were displaced, food stores and cattle were lost. The Wau and Juba markets were disrupted, effectively closing trading throughout southern Sudan.

To assess the impact of a disaster, we must first understand its nature, scale, and scope.

- Is it a social or a climatic event? or a complex disaster involving both factors, e.g. war + drought? Relief efforts and recovery are more difficult in complex disasters
- Is it an acute or a chronic disaster? Acute disasters are unpredictable and very severe; chronic disasters are less severe, but the problem may have existed for many years
- Did the disaster happen suddenly (e.g. earthquake) or develop slowly (drought)
- What is the scale of the disaster, i.e. how many people were affected
- What is the scope of the disaster, i.e. how much area was affected
- Is the affected population concentrated or dispersed.

Using these parameters, the disaster in southern Sudan would be characterized as follows:

- Mainly social factors, but additional climatic factors (poor rainfall) in some areas
- Chronic disaster, has been ongoing for 20 years. This chronic problem is compounded by acute (unpredictable) events in some areas
- Scale and scope – need to conduct rapid surveys to estimate size and scope of the disaster
- Affected population is dispersed, not concentrated.

Phases of a Disaster

It is useful to “split up” the disaster and subsequent relief efforts into three phases:

- Emergency phase
- Care and maintenance
- Durable solutions phase.

Phase 1, Emergency. Immediately after the disaster, relief is provided directly to the victims. Relief usually consists of food and nutritional supplements, as well as health care services, temporary shelter, water, and sanitation facilities.

Phase 2, Care and Maintenance. Once the immediate emergency needs have been met, the focus shifts to care and maintenance of the victims, e.g. establishing logistics to ensure a further, continuous supply of food, medicines etc. Relief activities undertaken in Phase 1 will continue in Phase 2. It is difficult to predict how long the first phase will take, and when the transition to Phase 2 can be made. Similarly, it is difficult to predict how long Phase 2 will last, and when Phase 3 can begin. The duration of Phase 2 can vary from weeks (many communities in Rwanda and Burundi) to years (northern Uganda, Eastern Equatoria). The transition depends on many factors, e.g. victims' perception of the risks of returning to their homes, and setbacks and reversals, if any.

Phase 3, Durable Solutions. This is also known as the Return and Reintegration phase. In Phase 3, victims begin the task of re-establishing their livelihoods. Phase 3 can be divided into two stages: Rehabilitation, where the objective is to restore the agricultural system to its pre-disaster state; and Reconstruction, where the objective is to strengthen the agricultural system in order to create the conditions for sustainable development. Donors and relief agencies drive the Rehabilitation phase, while governments and civil society begin playing bigger roles in the Reconstruction phase. Past experience has shown that serious mistakes are often made during the Rehabilitation phase.

Planning for Phase 3 should begin as early as possible, and no later than early in Phase 2. Increasingly, agencies are attempting rehabilitation and reconstruction in some areas even as the disaster continues elsewhere. One example is development work in Western Equatoria, which is more peaceful and stable than other parts of southern Sudan.

2. Understanding the Agricultural System

Throughout Africa, and particularly in southern Sudan, rural households depend almost entirely on farming and livestock. Relief work must therefore be based on a clear understanding of the farming system in the affected area, and how it is similar to, or different from, farming systems in other areas. A questionnaire covering the following parameters will be useful:

- Livestock kept: rank three most important
- Food crops cultivated: rank three most important
- Cash crops cultivated, main source of income (most important)
- Cropping intensity: years cultivated, years fallow
- Method of land preparation: no tillage, hand hoe, animal traction
- Source of labor: family or hired
- Types of inputs purchased: fertilizer, seed, pesticide, tools.

Rainfall. Both amount and distribution are important. For example, Bahr el Ghazal receives adequate amounts of rainfall, but the distribution is poor – heavy rains from May to November, no rains during the rest of the year. Maize is not grown (although rainfall amount is adequate) because fields become waterlogged during the rainy season. Cassava and sweet potato are not widely grown, because of the prolonged dry season.

Infrastructure. One major problem is lack of infrastructure. The road network in southern Sudan is primitive, there is no public transport, and the communications infrastructure has been destroyed by war. Together with the ongoing conflict, this lack of infrastructure has made local populations very vulnerable to stress. For example, trade networks, which moved grain from surplus to deficit areas, have largely disappeared.

Farming system. The farming system is not fixed or static. It is continually being altered by external and internal factors such as production constraints, changes in environment, adoption of new crops or varieties, new economic opportunities etc. The system is complex and diverse – genetically diverse crops, plus livestock, plus fishing and gathering of wild foods. This diversity ensures that productivity remains stable, and that the system can cope with climatic shocks. To ensure food security in a variable, drought-prone environment, households try to maximize the productivity of the entire system, not any single component.

Biodiversity. The farming system is genetically diverse: many crops, and several varieties of each crop. A single field will contain a range of crops and varieties. For example, farmers in Bahr el Ghazal grow long-, medium- and short-duration sorghum, long- and short-duration groundnut, pearl millet, long-duration okra, “UN” okra, black sesame, local pumpkin, and “UN” pumpkin.

A farmer may point to a sorghum field and talk about the variety he is growing – it is actually a mixture of many different landraces. A field of Kec (long-duration

sorghum) may contain short, medium and tall plants, the individual plants might mature at very different dates, they may have red or black awns, the leaves might range from short and thick to long and thin. Yet all the seeds will be yellow and hard-grained. All the heads might be open and medium to long.

In other words, the farmer maintains consistency for the specific traits that describe Kec – long duration, yellow seed, hard grain, semi-open head type – but not genetic "purity". There is consistency for important characteristics, but great diversity for less important characteristics such as plant height, maturity (so long as it lies within an acceptable range), awn color, leaf length/width etc. This diversity increases resilience of the system. It also allows farmers to select and "breed" to improve a specific trait.

New varieties and management practices. Farmers in Bahr el Ghazal are exposed to a number of new technology options through relief programs and other agencies. However, adoption of these technologies has generally been lower than expected. Why? These cropping systems have evolved as a result of experimentation by many generations of farmers. Each area may have slightly different landraces, adapted precisely to local conditions. When offered a new variety or management practice, farmers must be sure it will not clash with local practice, and give fairly stable yields in this highly variable environment. When they do adopt a new technology, they do not abandon the old one. A new variety may initially be planted on a small area, along with traditional varieties, and the area gradually increased depending on its performance. Adoption of new crop management practices will take even longer, because crop management methods, even more so than varieties, are embedded into local culture and practice, which are not easy to change.

Once you have broadly understood the farming system, go into more detail. Ask the following questions:

- What is the normal crop output, i.e. quantity of each crop produced for the last 2 years
- List the major and minor crops and varieties planted in the last 2 years
- Describe the cropping sequence and field locations for the last 2 years
- Describe the field preparation, planting process, and other cultural practices for each crop and variety separately
- Describe the harvest process and storage of grain and seed
- Describe the use and household value of each crop and variety
- Describe the crops, varieties, cultural practices, and household use in earlier times, i.e. before the disaster
- Describe farmers' experience with seed of new varieties obtained from different sources – other farmers, relief programs, markets.

A number of participatory tools – PRAs, group discussions with the community, transect walk, resource mapping, etc – can be used to obtain answers to these questions.

3. Seed Systems

The seed sector in developing countries consists of two components – the formal seed sector (commercial companies, parastatals, regulatory agencies, registered cooperatives etc) and the farmer seed system, i.e. seed saved by farmers for their own use, or exchanged/traded within the community. In countries affected by conflict, a third component is equally important – emergency seed programs, often implemented by NGOs and other relief organizations.

Formal seed system. New varieties are developed, produced, and distributed through this system, which involves state, parastatal, and private sector organizations. In many African countries, the formal seed system is poorly developed and supplies less than 10% of the seed planted by farmers. In crisis situations both private and public sector agencies may shut down, either temporarily or permanently. Seed production and supply will stop. But even more serious for the long term is the effect on research and development.

Farmer seed system. This broadly refers to the system that farmers use to obtain, produce, conserve, improve, and distribute seed. Planting seed is obtained mostly from the previous harvest; but also through loans, gifts, barter with other farmers, or purchased at local markets. Unlike the formal system, farmer seed systems often continue to function even in disaster situations.

Unlike the formal seed system, the farmer seed system does not usually distinguish between seed and grain. Unless there are specific reasons, seed is not grown in separate plots, but simply selected from harvested grain.

In this system, crop production and seed production are essentially the same – farmers with good harvests will have enough seed. Some farmers in the community may produce too little, so they are forced to consume seed stocks when they run out of food, and must obtain seed from others, or purchase grain from the market to use as seed. In most communities there are a few "expert" farmers who usually have spare seed, which they give or sell to others. Thus, some farmers are inherently food-insecure and seed-insecure even under normal conditions, but the system provides them seed in times of need. Wealth is an important factor. Wealthy farmers can usually save seed from one season to the next, whereas poorer farmers often have to borrow or purchase seed, often incurring debts that must be repaid at harvest time. Generally, farmers who are seed-insecure in normal times are the ones who suffer the biggest seed shortages in times of crisis.

Relief seed system. Frequent emergency situations and seed demand from relief and rehabilitation projects have created this "new" system. It involves many different players: governments, donor agencies, NGOs and implementing agencies, private and parastatal seed companies, seed procurement agencies, contract seed growers, and eventually the farmer beneficiaries.

This system focuses on procurement rather than marketing. Often, relief agencies, donors or the FAO speak on behalf of disaster-affected farmers, and express a need

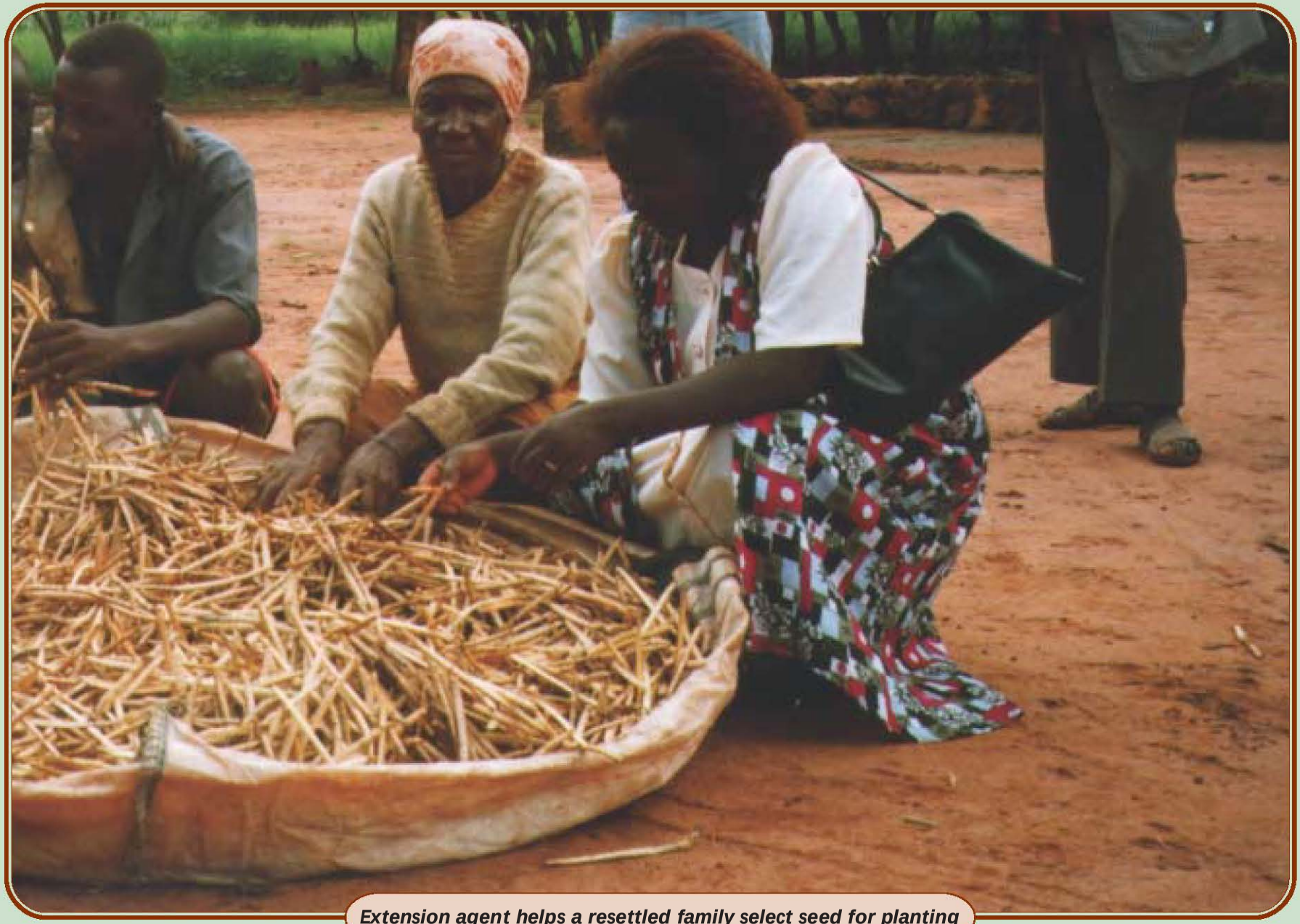


Photo: Paul Omanga

Extension agent helps a resettled family select seed for planting

for seed. What seed is supplied depends on what is available from seed companies, procurement agencies, or international and government agencies. The program may distribute new varieties developed by research institutes, but there is no direct interaction between research and seed distribution. Usually, the relief program purchases certified seed from a large seed company. Sometimes, seed is procured from contract growers (sometimes seed grower cooperatives), markets, or even from large farmers, i.e. the seed comes from both the formal and informal systems. In some cases, this seed is distinct from grain, i.e. produced on separate fields with stricter quality control. In other cases high-quality grain is distributed as seed.

Comparison of Systems

There are three key differences between the farmer system and the formal seed system. In the farmer system, there is no clear distinction between seed and grain – clean, healthy looking grains are selected from the harvested grain, and used as seed. Farmers who have no planting seed will borrow or buy grain to use as seed. In the formal seed system, there is a clear distinction between seed and grain. Seed is produced on specifically designated fields, using recommended production methods and strict quality control. There are laws and penalties (fines, even jail terms) to enforce these standards.

Another difference is in the mechanisms through which seed can be acquired. In the formal seed system, farmers can get seed only on payment (usually cash, sometimes on credit), and the number of suppliers is limited. In the farmer system, farmers can get seed in many different ways – retain seed from their harvest, obtain it from other farmers, buy from local markets, etc. They can even get seed from the formal system, i.e. buy from seed stockists.

How are new varieties brought into the seed system? In the farmer seed system, farmers can obtain seed of new varieties from other farmers, develop "new" varieties by themselves by selecting novel types that may appear in their fields, or buy seed of modern varieties from seed stockists. In contrast, the formal seed system depends on plant breeders and other scientists for the supply of new varieties.

Understanding the Local Seed System

In order to implement an effective disaster recovery program we must first understand the structure and functioning of the local seed system. Four main questions must be answered.

- What crops and crop varieties are grown, how are they used?
- What are the main features of the cropping system, e.g. environment, cropping calendar, responsibilities?
- Do farmers normally save seed from the previous harvest? How is seed saved, main constraints, seed quality
- If seed is not saved, how do farmers get seed? What is the quality of off-farm seed?

Q1. What crops and crop varieties are grown? How are they used (for food, for sale, as forage, etc)?

It is important to understand how farmers use different crops and varieties. Usage is a major factor in seed availability, and in determining how farmers respond to insecurity and changing market conditions associated with disasters. If a crop is sold, even in very small quantities, planting material will be available in local markets. Farmers tend to take much greater care to retain and preserve seed of crops that are not normally sold.

The ability of farmers to save seed or planting material depends partly on which part of the plant is consumed. In cassava or sweet potato, for example, planting material comes from the stems, which are rarely eaten, even in times of food shortage. In many vegetables (pumpkin, cucumbers, tomatoes), the seeds can be removed before consumption. Although many varieties of cowpea are grown for the peas, some varieties are grown for their leaves, so seed of these varieties can easily be retained. Similarly, the seeds of forage crops and "sweet stalk" sorghum varieties are rarely consumed.

Seed systems can recover very quickly after a disaster, particularly if there is sufficient and timely rainfall to allow for a good harvest. Some cereals (millet, sorghum, maize, rice) can recover within a single season, because they have low seeding rates and high seed-to-grain multiplication ratios (Table 1). Legumes, on the other hand, have high seeding rates and low multiplication rates, so it may take several seasons for the seed system to fully recover. Often, farmers continue farming even in situations of chronic conflict, but they may have difficulties in maintaining or accessing legume seed. Not only do legumes have low multiplication rates and high seeding rates, the stored seeds are generally more susceptible to pests such as weevils. Projects supporting the recovery of local seed systems should give priority to crops that have high seeding rates and low multiplication rates, e.g. beans, groundnut, barley, cowpea.

Table 1. Seeding and multiplication rates of different crops

Crop	Seeding rate (kg/ha)	Multiplication rate
Maize	20	100
Sorghum	10	100
Pearl millet	5	200
Wheat	100	25
Barley	100	15
Rice	20 (upland) 80 (swamp)	50
Beans	100	8
Groundnut	120	6-10
Cowpea	90	15

Source: ODI Seeds and Biodiversity Programme, 1996: 41

Production systems in Bahr el Ghazal

Agricultural land in Bahr el Ghazal is plentiful, but the soils are very sandy and infertile. Farmers therefore practice shifting cultivation. The major cereal crop is sorghum. Maize is not grown because it is susceptible to waterlogging (which is common during the heavy rains), and cannot give yields on these poor soils. The production system has four components – livestock, crops, honey collection, and fishing

There are two major ethnic groups, Dinka and Jur, which specialize in different activities, with some overlap. The Dinka specialize in livestock, the Jur in honey collection, while both groups fish and grow crops. The two groups barter cattle and beehives/honey, as well as crops, with each other. Within each ethnic group there are strong social networks, and villagers assist each other with food, seed, or animals in times of need.

Dinka measure their wealth in terms of number of cattle owned, Jur measure it in terms of number of beehives. There is considerable variation in wealth within each group, but in general, Dinka are considered wealthier than Jur.

Traditional cropping systems

Farmers grow traditional landraces, adapted to local conditions. The primary aim is to meet household food needs and maintain a fairly steady food supply throughout the year, despite the highly variable environment. Thus, crop farming is integrated with livestock farming, fishing, and collection of wild foods. In other words, during any particular month, one component of the system will provide at least a certain minimum food supply. Small amounts of sorghum, sesame, and groundnut may be sold for cash in a good year, but this is not a major goal.

Fertility is managed through long rotations of 10 to 20 years, mixed-cropping (generally sorghum and groundnut in the same field), and crop rotation. Land near the house is maintained at high fertility levels, often to grow vegetables, by incorporating animal droppings and household food waste.

What makes the system so resilient?

This drought-prone area is inherently risky. Farmer practices have evolved accordingly, to minimize risk and quickly recover from a bad period. The aim is to ensure minimum food security, not to maximize yields or production.

- Biodiversity – risk of crop loss is minimized by planting a mixture of crops and varieties
- Diversity of overall system, e.g. different food sources such as crops, animals, fish, wild foods.

Q2. What are the main features of the cropping system, i.e. nature of environment, cropping calendar for each crop/variety? Who (men or women) is responsible for various agricultural tasks?

The impact of a disaster will depend on the type, timing, duration, and extent of the disaster in relation to local crop calendars and cropping patterns. For example, drought or flood will damage all crops in the affected area, but the damage will depend on the crop stage at which the disaster occurs, e.g. emergence stage, flowering stage. In war situations, the broad scale of crop and seed losses can be assessed in terms of how long, and during which crop stages, farmers are prevented from taking care of their fields. If farmers are able to harvest their crops, then at least some seed will be available, even if the harvest is very low.

Labor is often the main constraint to agricultural production, both in "normal" situations and in times of stress. In situations of chronic conflict, some household members are displaced, conscripted, or killed, so the household finds it difficult to do weeding or pest control, and the harvest is poor. Also, household composition may change during a disaster, e.g. men may go away to fight. This change in composition will affect farming activities because men and women are responsible for different tasks, e.g. weeding and seed selection/storage are done by women, seed acquisition is done by men. Understanding this division of responsibilities will help predict how seed systems will be affected by the disaster.

Q3. If farmers have no own-saved seed, how can they obtain seed – how, where, from whom?

Wealthier farmers are usually able to save their own seed; they may look for seed from outside only when they want a specific new variety. But poorer farmers often run out of seed, and have to acquire seed from others. It is therefore important to know where, how, and from whom they can obtain seed.

Where	Is seed obtained within the community, from neighboring communities, or from local markets
How	Is seed bought for cash, exchanged for labor, for grain or for other seed, borrowed (to be repaid either with or without interest at harvest time), or provided as a gift
From whom	Relatives, other farmers, petty traders, or (rarely) from extension agents, seed stockists or projects. Are the seed suppliers male or female?

Farmers with very small farms may find it difficult to produce enough for both food and seed. Theft – both from fields and seed stores – can be a problem in situations of conflict or displacement.

4. Describing the Impact of the Disaster

This section explains how to describe and diagnose the problem in order to develop a project plan. Avoid the temptation of pre-selecting a specific problem and designing a project to address that problem. You must first define the problem properly because the solution(s) will depend on how the problem is defined.

Description of the Problem

Begin the problem description by identifying all assets that have been lost. The following checklist can help.

- Lives
- Houses and other buildings
- Land and land improvements: leveled, terraced, bunded, drained, irrigated etc
- Equipment (tools)
- Production (in storage, in the field, or lost cropping season)
- Seed and planting material
- Livestock.

An effective way to identify lost assets is to focus participant interviews on what was lost rather than what is needed. Start with a general discussion of the impact of the disaster on the family. Then ask the question, "What did you lose because of the disaster?" This will help ensure that the affected family or group will list and rank lost assets. It will also reduce their temptation to try and guess what the NGO is likely to provide, and answer accordingly.

For example, following flooding along the Tana river in Kenya in 1997, several families requested "kitchen sets." We later learned that this request was not based on what was lost in the floods, but on the knowledge that kitchen sets were being distributed by a different NGO.

In Burundi, both men and women listed housing (roofs, doors, windows) and livestock as the most common assets lost. No one mentioned bean seed or sweet potato cuttings. Nevertheless, most relief agencies were distributing seed and planting material. Why distribute bean seed or sweet potato cuttings if these were not lost and are not needed?

Never ask "What do you need?" This is a common mistake in needs assessment exercises. Instead, focus on what assets were lost and what opportunities the communities can seize to rehabilitate themselves. Farm communities in southern Sudan are poor, but they are also very resourceful.

Development of a Strategy

The first step in recovery is to restore the agricultural system, i.e. the focus should be to help families acquire/recover lost productive assets. This can be done by analyzing the:

- Magnitude of the loss
- Ability of the household and community to reacquire the lost asset independently
- Feasibility and cost of helping to restore that asset
- Role of that asset in the recovery process.

If it is a crop-based system, the focus should be on restoring crop production. In a livestock-based system the focus should be on restoring livestock production. In southern Sudan it is important to not promote a "favourite" strategy such as Serena sorghum or the *jembe*. Rather, a range of strategies should be rigorously analysed and the best chosen.

These steps will help identify the problem, i.e. a lost asset, and thus decide on the right objective, i.e. to restore that asset.

Restoring the System Versus Strengthening the System

The above approach is an effective way to restore the system to its pre-disaster state. But it is *not* the best way to plan how to strengthen and improve the agricultural system in the affected area. To strengthen the agricultural system we must focus not on problems but on internal strengths and external opportunities.

Most persons working in agricultural recovery would agree that *rehabilitation/reconstruction can be used as a chance to jump to a higher state of technology*. This leads to an important question. Should recovery strategies seek a return to the pre-disaster state, or should they seek to introduce new technologies to improve productivity or sustainability?

For example, should we assist communities to shift from subsistence agriculture to more commercially-oriented agriculture? Subsistence agriculture is maintained by farmers for ecological reasons, socio-economic reasons, and to meet strong traditional and culinary habits. A shift to market-driven agriculture is due to better infrastructure, stronger institutions, population pressure, land use changes, monetary considerations, or changes in socio-economic or cultural values. This shift is more than increased crop production and must be linked to sustainable changes at all levels.

In some countries, such as Afghanistan, Angola, Cambodia, Eritrea, Laos, Mozambique, and Vietnam, wars have lasted 10 to 20 years. There is no question of returning to the pre-war state because technology, markets, and populations have changed dramatically in the meantime. Is the situation similar in Africa? Some recent examples from Uganda and Sudan will help clarify the question.

- In the Acholi farming system in northern Uganda, sorghum, finger millet, groundnut, and pigeonpea were the traditional crops. After 14 years of conflict and insecurity, should relief agencies try to restore the pre-conflict state or should they introduce improved varieties of maize and beans?
- The traditional planting method used by the Dinka in southern Sudan is to direct-seed groundnut, broadcast millet and sorghum over the top, and then incorporate the millet/sorghum seed with a shallow weeding, using the traditional push-hoe (*maloda*). Should relief agencies assist farmers to obtain *malodas* or should the plowing hoe (*jembe*) or the ox-plow be introduced?

Only after assessing the strengths of the system, should we try to identify opportunities for change and improvement. These opportunities can come from two sources:

- Practices used by farmers operating in a similar agricultural system but undisturbed by disaster
- Innovation and adoption/adaptation of new practices by farmers within the affected farming system.

Two examples will help explain these two sources of innovation:

- Agricultural systems in northern Mozambique all but collapsed during the prolonged civil war. Meanwhile, in neighboring Malawi, pigeonpea was emerging as an important cash crop for small farmers. Following the peace agreement, farmers in Mozambique have been able to access pigeonpea technologies and the export market; with the result that Mozambique is now a leading producer of pigeonpea for export.
- Farmers in Gulu District, northern Uganda, have lived in insecurity for 14 years. In spite of the danger and frequent displacement, rainfed rice has emerged as an important cash crop without formal research and extension support. Rice millers have come up in Gulu and the rice is marketed throughout East Africa.

If we can identify these spontaneous changes, we can build on them further, to help affected communities recover.

The two objectives – restore the system to pre-disaster state, versus strengthen and improve the system – are not necessarily contradictory. In fact they can be complementary, if the project is well planned. What is important is that objectives are defined through a rigorous and open process – identify problems caused by the disaster, analyze strengths and opportunities, analyze alternative strategies, and finally define objectives that are logical and achievable.

Impact of the Disaster on Seed Security

Before launching any humanitarian intervention, we must clearly define the problem that needs to be addressed. Our aim is to ensure food and seed security by rehabilitating and strengthening the farming system. We can understand fairly well

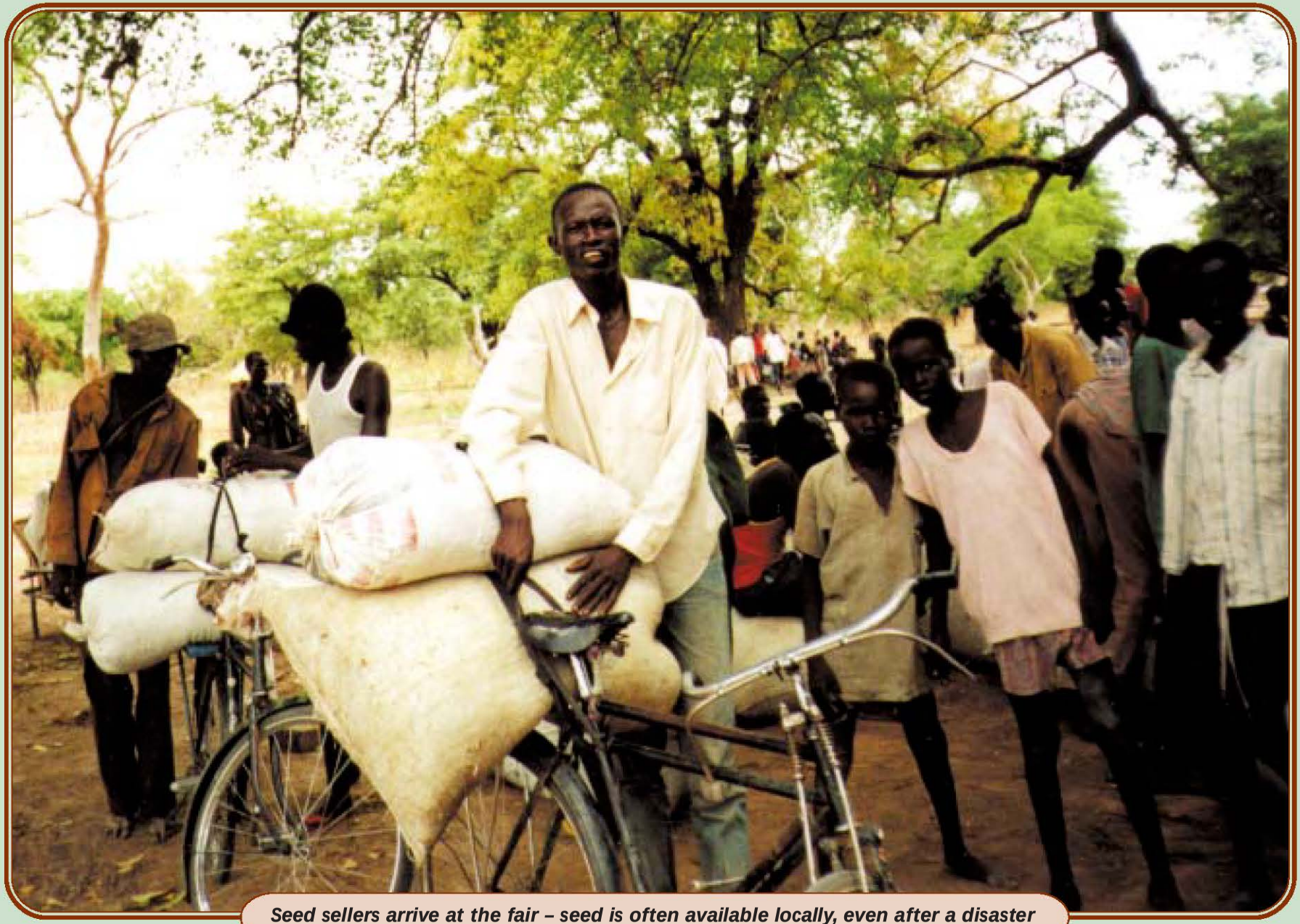


Photo: Paul Omanga

Seed sellers arrive at the fair – seed is often available locally, even after a disaster

Table 2. Seed security framework		
Parameter	Food security	Seed security
Availability	Sufficient quantity of appropriate foods, within reasonable proximity to people	Sufficient quantity of seed of desired crops, within reasonable proximity to people, available in time for planting
Access	People have adequate income or other resources to purchase or barter for appropriate foods	People have adequate income or other resources to purchase or barter for seed
Utilization	Food is properly used (food processing, storage, nutrition, child care, health and sanitation practices)	Seed is of acceptable quality and of desired varieties (seed health, physiological quality, varietal purity)

what is food security. But what exactly is seed security, and what issues must be addressed in order to improve it? To understand this, we use a Seed Security Framework developed with inputs from USAID, CRS, ICRISAT, CIAT, and others. In this framework (Table 2) we look at the three components of seed security: availability, access, and utilization.

To understand this framework, we ask three questions:

- Have farmers lost their seed or been forced to eat their seed?
- Has the disaster affected the quality of seed produced by farmers or the quality of seed available from markets?
- Has the disaster disrupted marketing of local crops or exchange of seed between farmers?

Q1. Have farmers lost their seed or been forced to eat their seed?

Availability is defined as absolute availability of seed of the target crops, regardless of the quality of the seed or the desirability of the varieties. If seed is available but is of unacceptable quality or of unwanted varieties then the problem lies with utilization, not availability. Farmer practice (seed quality) and preference (varieties) are critical issues in utilization, but less important for assessing availability per se. Many relief agencies come to the wrong conclusion that seed is unavailable, i.e. farmers have either lost their seed or been forced to eat it. This can happen, of course. In a drought year the farmer may lose his crop entirely, so no seed is available for the next season; or harvest very little, so grain that could have been used as seed, is eaten. But in fact, absolute unavailability of seed rarely happens.

We often hear that farm families have eaten their seed, but there is virtually no documentation of this. In fact, following displacement from conflict and drought in Bahr el Ghazal, southern Sudan, there was no evidence that seed stocks were consumed. Farmers know that even if they eat their entire seed stocks, it will feed the family only for a few days. So they resist eating their seed even during food shortages.

Conflict and displacement does result in a loss of assets, including seed. Some families do lose their seed stocks. But in most cases, seed is still available in the community, i.e. some farmers still have seed, and will provide it to others. Total lack of seed within a community is very rare, and occurs only when farmers did not plant anything at all in the previous season. For example, in southern Somalia there was widespread displacement in 1992-93; farmers were living in the bush and it was not possible to farm for a period of two years, so seed was completely unavailable.

Q2. Has the disaster disrupted marketing of local crops or exchange of seed between farmers?

Seed may be available. But "access" means being able to obtain this seed through social networks, local markets etc. Lack of access is a common problem, but relief agencies often mis-diagnose the problem as lack of availability. In fact, seed is available, but farmers are unable to obtain it for various reasons:

- Collapse of social networks through which farmers exchange seed
- Lack of money or goods to buy/barter seed
- Markets are no longer functioning.

One strength of the voucher and seed fair approach is that it recognizes that the problem is often lack of access, rather than seed unavailability per se. With this understanding, we focus on improving access to seed by distributing vouchers to the most needy families; and tap local sources of seed to create a market (the seed fair) that brings buyers and sellers together.

Q3. Has the disaster affected the quality of seed produced by farmers or the quality of seed available from markets?

Seed and varietal quality can be judged in terms of physical, physiological, and genetic characteristics, as shown in Table 3. There are two distinct quality characteristics to consider – seed (physical and physiological) and variety (genetic).

Seed quality (physical and physiological). Table 3 shows the criteria used by the formal seed sector (e.g. seed companies, government regulatory agencies) to judge the quality of certified seed. If we use the same criteria to judge seed produced by the farmer seed system, we will conclude that the quality is poor. However, farmers use their own criteria to judge seed quality. Their criteria are different from Table 2. For example, farmers assessed quality of bean seed in the Great Lakes Region (Rwanda, Burundi, Congo), as follows (Sperling et al. 1996):

- Absence of broken seed, weed seed and inert matter was not important as women hand-sorted seed before planting, and discarded inferior material.
- Germination was not a problem as farmers' germination rates were usually high. When germination rates were low, farmers compensated by increasing seeding rate
- Seedling vigor was not a problem – farmers felt vigor was sufficiently high.

Table 3. Indicators of seed and varietal quality		
Physical	Physiological	Genetic
Uniform and large seeds	Absence of diseased seed	All seed is of the same variety
Absence of broken seed	High germination	Variety is adapted to local conditions
Absence of weed seed	Seedling vigor	Variety is preferred by farmers
Absence of inert matter		Pest resistant
		High yielding
From Chemonics (1996)		

Varietal quality (genetic). As with seed quality, indicators of varietal quality depend on who is doing the evaluation. Many criteria – desirability, appropriateness, adaptability, preference – are subjective. Other criteria, such as high yield and genetic purity, may be more important to commercial farmers and markets than to smallholder farmers, who are more concerned about stability. For example, bean farmers in Rwanda did not consider varietal purity to be important, for the following reasons (Sperling et al. 1996):

- Planting a mixture of varieties increases production stability
- Different maturity dates is not a problem as farmers hand harvest
- There is no market premium for a uniform product.

Conclusion

To understand the impact of a disaster on the local seed system, the following aspects must be considered.

- The characteristics of the disaster
- Which crops have been affected
- Whether seed will be available at planting time
- Whether farmers will have access to locally available seed
- What specific problems need to be addressed.

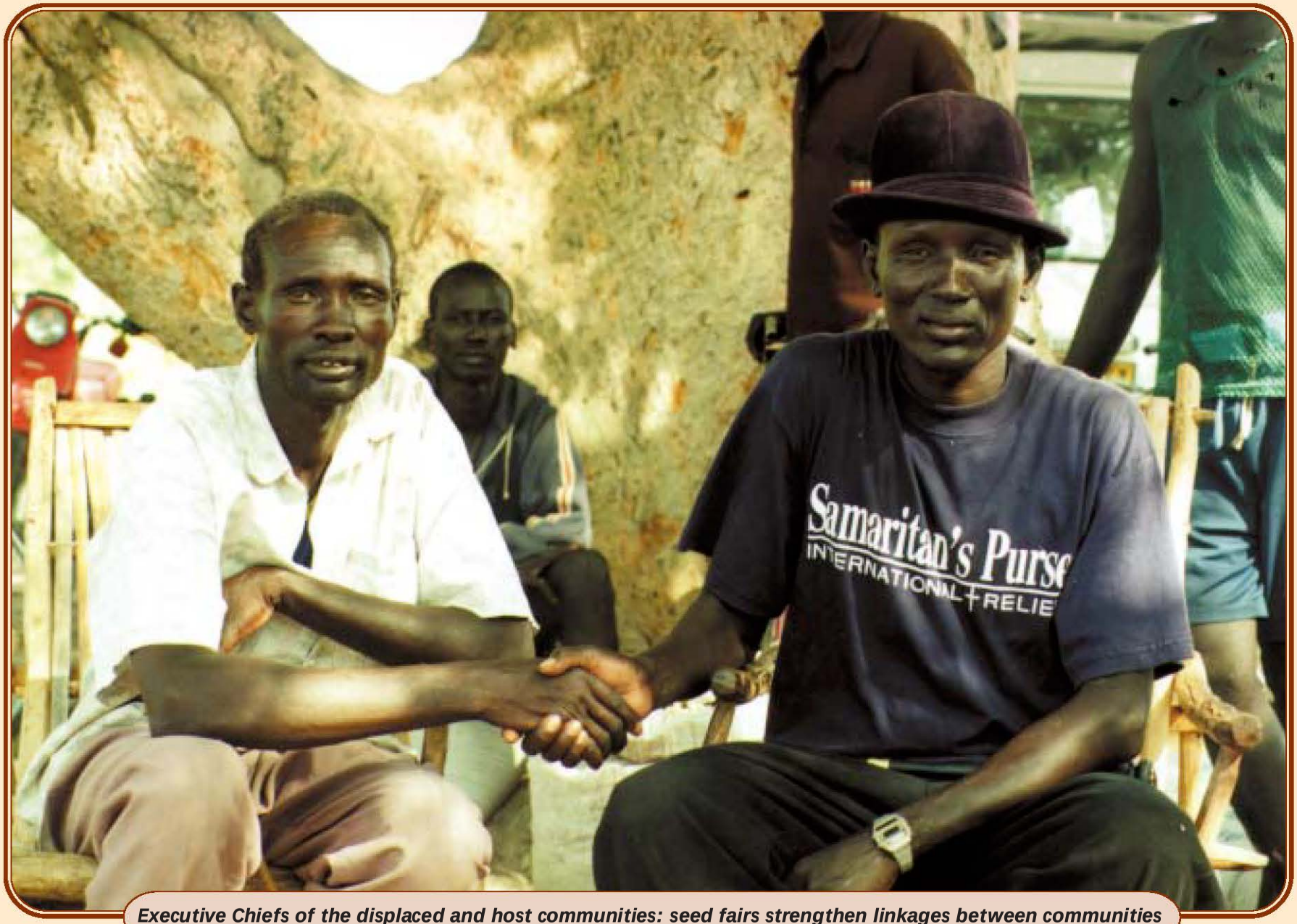
The seed voucher and fair approach is not necessarily applicable under all disaster situations – indeed, relief agencies must first determine whether seed-based interventions are in fact necessary in a given situation. Once this has been determined, and the nature of the local seed system and the impact of the disaster understood, it will be possible to design interventions that target the neediest families quickly and effectively.

Part 2. Planning and Implementing a Seed Fair

Authors

Jeremiah Maroko — CRS East Africa Regional Office
Alisha Myers — CRS Sudan

Photo: Steve Walsh



Executive Chiefs of the displaced and host communities: seed fairs strengthen linkages between communities

1. Introduction

Purpose and Overview

This handbook has been designed to assist agencies in conducting seed fairs in situations where farmers are suffering from a lack of seed. Catholic Relief Services has implemented seed fairs in Uganda, Tanzania, Burundi, Kenya, and southern Sudan, to help farmers who faced seed shortages due to natural disasters, instability, conflict, and/or displacement. The handbook aims to share these experiences. Situations and locations will of course differ; the seed fair methodology is flexible and the steps suggested here are guidelines and procedures based on the CRS experience.

To help you better understand the role of seed in rural livelihoods, Part 1 of this handbook gave an overview of disasters, seed systems, and different emergency situations in which seed fairs can assist in agricultural recovery. Part 2 of the handbook is divided into four sections. Section 1 is an introduction. Section 2 discusses when, where, and why seed fairs can be implemented. Section 3 describes the four steps to conducting a seed fair:

- *Assessment* to determine if seed vouchers and fairs are the most appropriate and feasible intervention
- *Planning* – how to lay the groundwork for the seed fair, steps in planning and preparation
- *Implementation* – practical guidance for the day of the fair
- *Evaluation* – methods to monitor and evaluate the seed fair.

Section 4 discusses constraints and challenges to the seed fair and voucher methodology. The appendices contain sample data collection forms and questionnaires used in conducting a seed fair.

Justice and Empowerment

Injustices in society – whether due to violence, civil conflict, or structural or social factors – are the basis of inequity. One way to reduce injustice is to devolve decision-making responsibilities to the level where their effects are felt most directly. Seed fairs promote justice in agricultural recovery by drawing on locally available resources, while also supporting farmer crop production. Seed fairs also facilitate the acquisition of seed locally, so that beneficiaries (farmers) have more choice, and sellers have a market outlet. The success of the seed fair methodology is rooted in beneficiary and host community cooperation, participation, planning, and implementation.

Previous seed distribution systems (seeds and tools) have not taken into consideration farmers' requirements during times of disaster. The agencies, not the target population, often decide what varieties or tools to provide. The decision might not take into consideration whether the community has the knowledge to

manage the crops being given to them, or use the tools being provided. In contrast to the seeds-and-tools approach, seed fairs improve access of beneficiaries to seed of preferred crops and varieties. This means the varieties distributed are adapted to the location, and people are familiar with them. Each beneficiary can decide for himself/herself how much seed of each crop or variety to obtain. Planning and decision-making responsibility is transferred to the disaster-affected and host communities, empowering them to participate in their agricultural recovery.

2. Using the Seed Fair Methodology

What is a Seed Fair?

A seed fair is a market where households purchase seed through a voucher system. It is organized on a specific day at a specific location, announced in advance. At the seed fair vulnerable households are provided vouchers worth a specific cash value to purchase seed and tools[1] from registered sellers in the community. Seed fairs aim to:

- Create awareness of alternative seed sources and varieties
- Enable disaster-affected farmers to access crops/varieties in quantities of their choice
- Strengthen and stimulate linkages and information sharing among farmers.

After a disaster or displacement, farmers often lack access to seed. The common assumption is that seed is not available within the community. Seed fairs challenge this assumption. The seed fair approach recognizes that farmer seed systems are robust and resilient, and can provide seed even in emergency situations. This approach to seed aid focuses on the farmer seed system and involves farmers in the procurement of seed.

When to Conduct a Seed Fair

As discussed in Part 1, seed aid is appropriate when populations are displaced, and/or do not have their own seed stocks. Seed purchase through seed fairs and vouchers can be used when:

- Farmers have suffered total crop loss as a result of conflict or natural disaster
- Farmers were displaced due to conflict and were not able to harvest their crops
- Farmers were unable to sow their crops due to an emergency-related disruption
- Farmers' food and seed stocks were stolen as a result of rebel attacks
- Internally Displaced Persons (IDPs) are returning to their homes or refugees are settling on land allocated to them.

Under normal conditions, farmers do not eat their seeds. However, in an emergency situation, seed stocks may be eaten if no other food is available. Therefore, if the affected households are food insecure, both seed and food must be distributed, i.e. seed fairs and food distribution must go together in such situations. Provision of food reduces the pressure on farmers to consume their seed stocks, and also provides them something that can be used to barter for seed.

The decision to conduct a seed fair should be based on a proper assessment of the disaster-affected location, including the need for seed, availability of seed in the area, and overall security in the area.

1. Vouchers were also exchanged for hand tools in southern Sudan.

Photo: Steve Walsh

CRS seed fairs in Sudan, Kenya, and Uganda have proved popular and effective for rehabilitation as well as introduction of new varieties

Why Conduct a Seed Fair?

Until now, the usual procedure has been to provide disaster-affected communities with food, health care, and agricultural inputs. In southern Sudan, these inputs usually consist of seed and implements from neighboring countries, with which beneficiaries are usually not familiar. Such varieties have not always performed well due to difference in climatic and soil conditions, beneficiaries' lack of knowledge of crop management practices for these varieties, and poor seed quality. The only reliable source of seed in such situations is the farmer seed system itself. Local cropping systems are strong because they are diverse, with a range of crops and multiple varieties of each crop. Any relief seed intervention must take this into account.

Advantages of the seed fair and voucher methodology:

- Farmers access seed of their preferred crops and varieties
- Seed quality is left to the judgment of farmers
- Vouchers are cost effective, simple to implement, monitor, and evaluate
- The process is open and transparent
- Local crop production is supported
- Distribution of resources is more equitable
- Fairs can be planned and implemented in a short period of time
- Communities are actively involved in planning and implementation
- They serve the needs of large numbers of families who find it difficult to access seed
- The approach can be modified to suit the level of seed insecurity (e.g. slightly scarce, very scarce).

In short, seed fairs allow beneficiaries to access seeds and varieties that are locally available, of their preference, and meet their immediate needs.

The CRS Experience with Seed Fairs

Since 2000, Catholic Relief Services has conducted seed fairs in Uganda, Tanzania, Kenya, Burundi, and Sierra Leone. The fairs proved successful, and CRS extended them to southern Sudan as an alternative to conventional seeds-and-tools distribution.

Responding to displacement: the Karamojong Incursion Project

The first seed fairs were conducted in Uganda in response to displacement. In early 2000, Karamojong pastoralists in search of pasture displaced an estimated 100,000 persons in Lira and Kitgum districts in northern Uganda. In addition to assisting displaced families with shelter, clothing, and household items, CRS/Uganda developed a plan to help 12,000 families obtain seed to plant when they returned home.

The problem was not lack of availability, but lack of access to seed. Although concerns were raised about seed viability and the need for crops/varieties that could be planted late (as families could not return to their farms until the middle of the rainy season), the USAID's Office for Disaster Assistance (OFDA) agreed to fund the project. This was the first time that OFDA funded, or CRS implemented, a voucher system.[2]

The Karamojong Incursion Project was a success:

- 12,000 families accessed over 200 tons of seed of 10 different crops and 30 different varieties
- Farmers and traders were empowered to organize procurement, transport, marketing, and purchase of seed
- Almost half the participating grain traders were women
- Farmers obtained seed of crops/varieties that are traditionally planted late, e.g. short-duration beans and sesame.

CRS discovered that some traders manipulated the voucher holders, highlighting the need for closer supervision of the process – resulting in the seed fair approach. At the suggestion of the grain traders, special market days were organized, at which beneficiaries could redeem their vouchers for seed.

Responding to drought: combining seed vouchers and seed fairs in eastern Kenya

Eastern Kenya has never really recovered from the devastating 1997 drought. The region was hit hard by the El Nino floods of 1998 and then by consecutive years of drought.

In late 2000, with the short rains approaching, CRS/Kenya approached FAO for funding for a project that combined seed vouchers and seed fairs. The objective was to help farm families obtain seed of preferred crops and varieties in time for planting. With funding from FAO, CRS/Kenya and its partners, the Dioceses of Embu and Meru, organized 14 seed fairs at which over 8000 farm families were able to exchange vouchers for seed of their choice. There were 275 participating grain traders, over 75% women. Within a 3-week period, CRS/Kenya and its partners were able to identify target farm families, inform grain traders, and organize seed fairs. Farm families got the seed before the rains began. In contrast, many relief agencies that ordered seed from commercial seed companies did not receive it in time for planting. In addition to getting seed on time, farmers acquired larger quantities than through traditional distribution. In seed fairs they were able to obtain up to 14 kg of seed in exchange for their $8 vouchers, which would have purchased only 4 kg of commercial maize seed.

Based on the performance of the 14 seed fairs held in 2000, FAO asked CRS/Kenya to develop a follow-up project in 2001 to strengthen seed systems and increase

2. The suggestion to use seed vouchers to buy local seed was first made by Louise Sperling in her evaluation of the Rwanda Seeds of Hope project.

agricultural resilience in six districts in eastern Kenya, using the same approach. With funding from DFID through FAO, CRS/Kenya and its partners, the Dioceses of Embu, Meru, Machakos, Muranga, and Kitui, organized 56 seed fairs over a 2-week period. Over 27,000 farm families were able to obtain seed of their choice before the rains.

Seed fairs in southern Sudan

In previous years, CRS imported more than 150 tons of seeds from Kenya and Uganda to help Sudanese farmers recover from displacement and disasters. Through the seed fair approach, CRS is now facilitating the purchase of seeds and tools locally. The first seed fairs were conducted in 2001 at multiple locations in Rumbek County, Lakes Region, Bahr el Ghazal, Labone, Ikotos, and Nimule corridors in eastern Equatoria as well as in southern Bor County, Jonglei. Working with local partners, CRS was able to conduct seed fairs in current operational areas as well as locations where CRS/Sudan does not currently operate. Twelve fairs were implemented in southern Sudan in 2001, and lessons learned from previous seed fairs in other East African countries helped ensure they were successful.

The results:

- Facilitated the purchase of 104 tons of seed from local farmers valued at over $23,350
- Mobilized 1181 local seed sellers (50% women)
- Met the seed needs of 4037 vulnerable households.

Summary

The seed fair approach allowed CRS and its partners to make seed available to over 74,000 disaster (drought or conflict) affected families in five East African countries, efficiently and in time (Table 4).

Beneficiaries had a wide choice of crops and varieties; more so than in the traditional seeds-and-tools programs. Beans, sorghum, and maize were exchanged in all five countries. Other crops bought and sold at the fairs included sesame, okra, green gram, groundnut, sunflower, cowpea, rice, cassava, and sweet potato. The

Table 4. Summary of CRS seed fairs

Location, year	Disaster	No. of households
Uganda 2000	Conflict	12,000
Kenya 2000	Drought	8,000
Kenya 2001	Drought	27,000
Tanzania 2001	Drought	13,500
Sudan 2001	Conflict	4,000
Burundi 2001	Conflict	500
Burundi 2002	Conflict	10,000

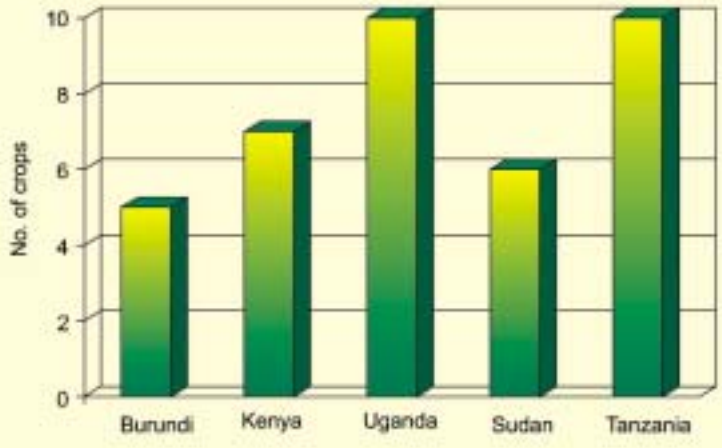


Figure 1. Number of crops obtained at seed fairs

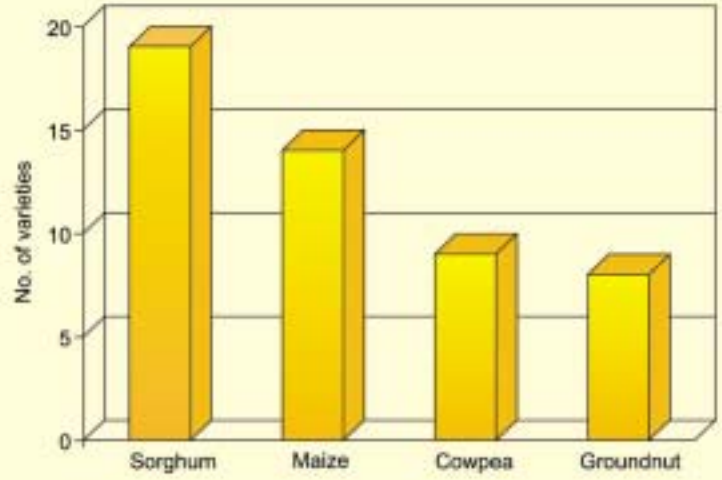


Figure 2. Number of crop varieties exchanged for vouchers

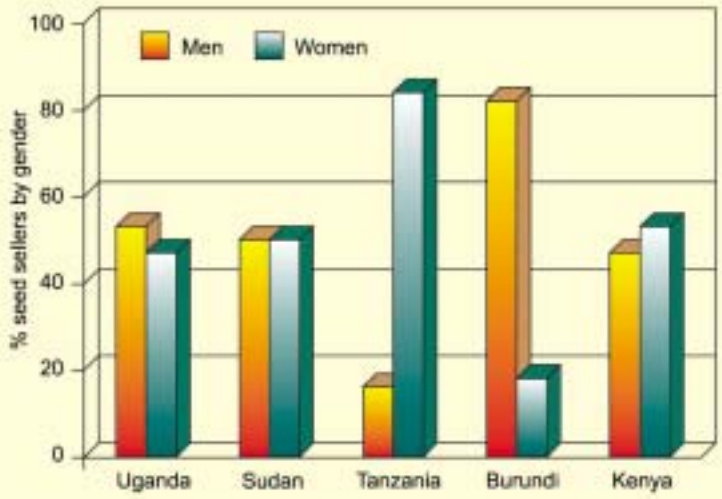


Figure 3. Gender distribution of seed sellers

number of crops ranged from 5 in Burundi to 10 in Uganda and Tanzania (Fig 1). The number of varieties was highest in Kenya, where the 2001 seed fairs covered six districts: 8 bean varieties, 7 cowpea varieties, 6 sorghum varieties (Fig 2).

Women were equal participants as seed sellers (Fig 3). In Kenya, Uganda, and Sudan, half the seed sellers were women. Reflecting gender roles in marketing, most of the sellers in Tanzania were women; most sellers in Burundi were men.

3. Conducting a Seed Fair

Four Steps to Conducting Seed Fairs	
1. Assessing the need	Identify region/location of the disaster Establish the problem of seed Targeting beneficiaries Assess availability of seed
2. Planning	Sensitization Community participation Preparation by implementing agency
3. Implementation	Registration of sellers Voucher distribution Seed fair (seed exchange, evaluation) Payment to seed sellers
4. Evaluation	During the seed fair – Debriefing session After the seed fair – Qualitative and quantitative analyses – Post-seed fair monitoring

Step 1. Assessing the Need

Objective. To determine whether or not a seed fair is feasible and the most appropriate intervention for the target community following a disaster.

Who	Implementing agency, local authorities, community leaders
What	Using a checklist, assess the following: need for seed, effects of the disaster, beneficiary population, logistic feasibility of conducting seed fair
When	After a disaster or emergency, before implementing seed fair
Where	In identified region/location affected by disaster
Why	To ensure that there is an identified need for seed; that a seed fair is an appropriate intervention, and is logistically and administratively feasible

Assessment involves four activities:

- Identify region/location of the disaster
- Establish the problem of seed
- Targeting beneficiaries
- Assess the availability of seed.

Activity 1. Identify location of the disaster (scale and scope)

The regions or districts where seed fairs will be conducted should be identified and selected jointly by the implementing agency, the civil administration, and the community. In conflict areas, assess the security situation to judge whether it is feasible to implement a seed fair.

Assess the impact of the disaster on the target community. Survey the area to understand the physical conditions in which the beneficiaries are living. For example:

- Composition of the affected people – numbers of men, women, and children
- Health and nutritional status, especially children
- Do they have food and other essential items? If not, will they be provided?

This assessment will tell you the scale (number of people affected) and scope (size of area affected) of the disaster, the overall condition of the affected community, the level of insecurity, and what assistance has already been provided.

Activity 2. Establish the problem of need for seed

The need for seed aid following a disaster can be determined based on an assessment involving local leaders, civil authorities, the community, and the implementing agency. The critical questions are: how long has the affected community lived in the area? how long will they be staying? do they have land for planting? can the affected households access seed without NGO intervention? The timing of the seed fair in relation to the planting season must be considered, so that targeted households will be able to plant their crops on time.

Many factors should be taken into account when determining the overall need for seed and the approximate quantity needed per household. These factors include: quantity and type of seed households might have brought with them, or have stored; household labor capacity, what tools are available. Under normal circumstances, households can access seed through friends, relatives and similar societal networks; these networks may be able to provide seed even after a disaster.

Coordination with other agencies is important because another agency may be planning, or may have already conducted, an intervention in the community. If seeds and tools have been distributed, then families may not need seed. If distribution has been done, it is important to know what types of seed and tools were distributed, and to how many households. A well planned, targeted seed fair can complement previous interventions.

Activity 3. Targeting beneficiaries

The main objectives of targeting are to:

- Ensure that the neediest are given priority and are adequately assisted
- Maximize impact and reduce costs
- Minimize dependency and economic disincentives.

National to regional	Within regions	Within communities – beneficiaries
• Identify and prioritize areas needing seed aid • Determine quantities • Determine when	• Divide numbers among regions, districts • Beneficiary targeting (set general criteria)	• Define location-specific criteria • Select and identify households

Targeting is done in three stages.

- *Stage 1.* Geographical area targeting at the national level. This may involve donors, national governments, and NGOs. Basic planning and allocation questions must be answered: what is needed? where? how much? for how many people? when?
- *Stage 2.* Targeting at the regional or district level – involves local authorities and implementing agencies.
- *Stage 3.* Selection of beneficiaries (individuals or households) within targeted areas and communities. This is usually done at village level, jointly by community leaders/representatives and field staff from implementing agencies.

This section will focus on the third stage, beneficiary targeting.

Staff from the implementing NGO, partner agencies operating in the area, civil authorities, and community leaders should be involved in establishing and verifying the number of beneficiary households. Most displaced communities move as a whole, including traditional leaders and local authorities who need to play a role in identifying households during the registration process. If all stakeholders participate, the number of beneficiary households can be established fairly accurately.

Many households may be eligible and/or receiving food aid. Among these, the most vulnerable households should be identified using a participatory method. The team involved in selecting households should be responsible for developing the criteria to identify the neediest families. Criteria should be location-specific, i.e. different for different regions and circumstances. The criteria should be clearly understood by the community so the process is transparent. When the community participates actively in targeting needy households, conflict can be minimized, and the process is open and fair. For example, you would exclude households who have:

- Other sources of income
- An employed member
- Seed and food grains, and/or
- More than 5 goats, sheep, or cattle.

Once beneficiary households are selected and confirmed, the final list of names is registered, and submitted to the implementing agency to issue vouchers.

Activity 4. Assessing the availability of seed

To assess seed availability, several questions must be answered. Is there surplus grain in the area? Who has the surplus grain? Will it be possible and desirable for the targeted households to use this grain as seed? Most important, is seed of locally adapted varieties available, either with farmers or from the market? Conduct a preliminary survey to determine whether farmers, stockists, local grain traders, and shopkeepers have grain in their stores and what varieties are available.

Displaced communities often travel long distances, so the target families might find themselves in a climatically different region with crops or varieties they are not familiar with. While assessing the availability of seed in the host community, establish which varieties are known and used by the new arrivals to the region. Pass on this information to seed sellers, so that beneficiaries receive the type of seed they need.

Once the number of displaced households is known, the amount of seed required can be estimated. The quantity of seed needed at the fair will depend on the value of vouchers given to each household, total number of beneficiaries, and the extent of their need for seed. This estimate may not be exact, since ultimately every household will decide what seed and what quantities they need.

Market price of crops. Finally, as part of the overall pre-seed fair assessment, survey the price of grain in the market. This information is crucial in setting seed prices at the fair. The market survey should answer the following questions:

- What crops are available in local markets, shops, and with farmers?
- Sources of these crops – are they local or have they been brought from outside the area?
- The market price of these crops.

This information can be gathered from visits to local markets and informal discussions with the local authorities and grain traders.

Summary

The success of a seed fair depends on proper planning. The implementing agency should ensure that there is a clear need for seed. Assess whether appropriate varieties are available, and in adequate quantities. Also assess the security situation in the area. Poor planning can lead to several complications: a shortage of seed sellers at the fair, inappropriate varieties sold at the fair, not enough choice of varieties, and inflated seed prices.

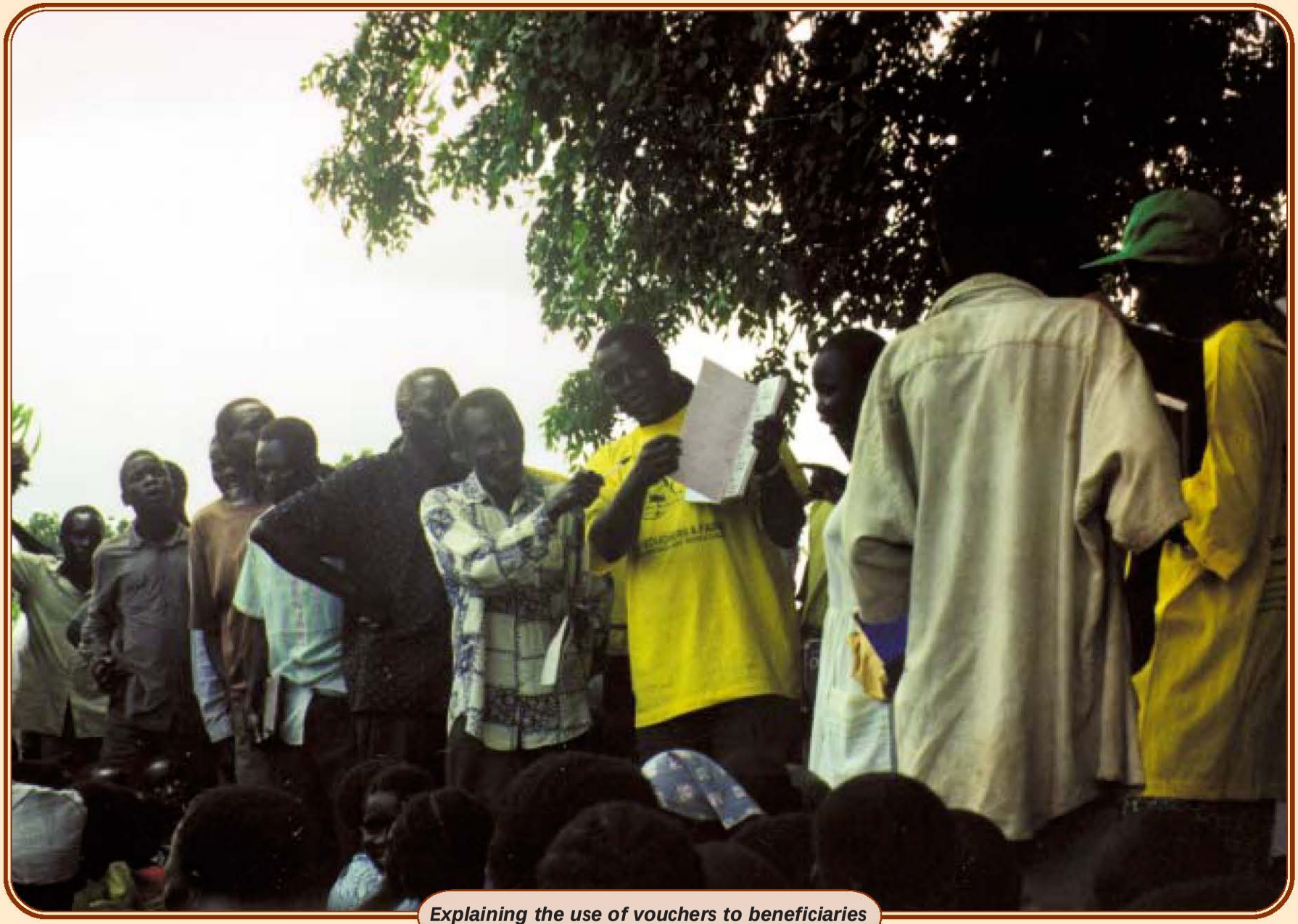


Photo: Steve Walsh

Explaining the use of vouchers to beneficiaries

The pre-seed fair assessment should address the following questions:

Feasibility of conducting a seed fair in the targeted location

- Is the location appropriate, convenient to the beneficiaries, and secure?
- Are implementing partners available on ground?
- Where are potential sellers located in relation to the beneficiary community?
- Is this the appropriate time for planting?

Availability of seed in the area

- Is there high quality grain in the market?
- Was there a harvest the previous season?
- What crop types and varieties are available, in what quantities?

Step 2. Planning

Objective. To ensure that all stakeholders understand and support the seed fair and voucher methodology, and participate in planning and implementation.

Who	Implementing partners, local authorities, community leaders, beneficiaries, seed sellers
What	Sensitization, advertising, planning
When	At least 3 weeks prior to the seed fair
Where	At locations where seed fair is to be held
Why	To ensure buy-in, understanding, cooperation, and participation from all implementing parties.

Planning involves three activities:

- Sensitization
- Community participation
- Implementing agency planning.

Activity 1. Partner NGO, civil authority, and community sensitization

Seed fairs can be successfully implemented only with the co-operation, "buy-in", and support from civil authorities and grain traders. People are more accustomed to the seeds-and-tools system, which has been widely used in areas affected by civil conflict and instability. Also, those who benefited from seeds-and-tools purchases in the past (seed companies, procurement agencies, seed cooperatives) could lose business, because seed fairs benefit farmers and small seed traders. The expectations of all seed fair participants, planning timeframe, and extent of need should be clearly discussed.

Sufficient time should be spent sensitizing partners because the seed fair is a new concept. During the sensitisation process, both the conceptual and operational aspects of a seed fair should be explained. The decision to conduct a seed fair should be made together with the civil authorities after they understand and agree

on why a seed fair is appropriate for this location, and the pros and cons of conducting a seed fair.

Community sensitization at the initial stage of planning is crucial. The recipient community (who will receive vouchers) and the community from which the seed sellers will be drawn, must both be sensitized. Because the seed fair concept is new, both the community and local authorities may be sceptical. They will, however, appreciate the "double benefits" that a seed fair offers: the community receives not only seed but also money (paid to seed sellers) that can be "reinvested" in the community.

Community sensitization sessions should be participatory and led by the civil authorities and the implementing agency. The discussion leaders should introduce the seed fair concept, describe the operational aspects, and encourage people to ask questions. The discussion leaders should clearly:

- Explain why it was agreed that a seed fair is the most appropriate intervention
- Review the merits of conducting a seed fair
- Explain the steps involved
- Describe the process for registering beneficiaries
- Jointly develop a plan for conducting and evaluating the seed fair.

The roles and responsibilities of each stakeholder should be reviewed during this sensitization session.

Activity 2. Community participation

Community project team. It is important to set up a community project team to assist with planning and implementation. The team should include all partners – civil authorities, extension agents, chiefs, parish representatives, crop monitors, staff from cooperatives, and other community stakeholders. The team will be responsible for carrying out specific tasks assigned to the community:

- Develop the criteria for identifying beneficiaries
- Confirm and register the beneficiaries
- Identify suitable sites and dates for seed fairs
- Advertise the seed fairs to potential sellers.

The role of each participant must be clearly defined and agreed upon by civil authorities, the implementing partner, and community leaders.

Location and date of seed fair. The seed fair location should be convenient to both beneficiary households and sellers; they should be able to reach the fair on foot or by bicycle without difficulty. If the beneficiary community is far away from potential sellers, bring the fair closer to people by organizing smaller fairs.

The site should be identified jointly by local authorities, sellers, and the community project team. It should be easy to monitor; large enough to accommodate both sellers and beneficiaries; with adequate shade and a water point. It should also be secure.

Beneficiaries, seed sellers, and the local authorities should decide and agree upon the dates for the seed fair. Seed fairs should be conducted just before or during the planting season so that seeds are planted immediately. Where possible, the dates should not coincide with the local market day, any other community activities, or food distribution days. During market days traders often come with grain (to be sold as food) from different regions of the country, and this grain may not be suitable for planting in the area. The date should be communicated to other agencies working in the area to avoid potential conflicts with other activities.

The duration of the seed fair will depend on the number of beneficiaries. There should be enough time to distribute vouchers, register seed sellers, and allow beneficiaries to exchange their vouchers for seed. If there are many beneficiaries, several days may be needed. The first seed fair should be small (about 100 beneficiaries), then gradually increased depending on the supply of seed. The first seed fair should serve as a pilot so that traders, beneficiaries, local leaders, and the civil authorities can see how it works. More sellers are also drawn to the fair after the first day, as word spreads. Often the fair begins quite late on the first day, and it can take up to a half day to distribute all the vouchers. If there are many sellers, it will take several hours to pay them at the end of the fair. Therefore, the schedule should allow for several days at each location and be flexible enough to handle delays or setbacks.

Advertising the seed fair. Advertising for the seed fair should begin at least three weeks before the scheduled date of the first seed fair. Advertising the fair is key to its success. It will minimize seller collusion and monopolies by attracting a large number of sellers with diverse crops. Sellers should, however, be forewarned that the implementing agency cannot guarantee that they will sell all their seed. Beneficiaries decide the type, quantity, and quality of seed they want – some sellers may not be able to sell any seed at all.

The fair can be advertised in various ways – handwritten posters and announcements in chief's meetings, local markets, churches, and in strategic places in the villages. The posters should mention the dates, place, and time of the seed fair. They should remind farmers and seed traders to bring quality grains produced locally, and briefly summarize what a seed fair is and how the voucher system works. While advertising, remember that many people may be illiterate. It is therefore important to supplement written publicity material with announcements.

Once the dates and venues have been communicated to the various stakeholders, the community project team should continue sensitizing seed sellers and beneficiaries. Aggressive advertisement through multiple channels is necessary. How much time is needed for sensitization and planning will depend on the scale of the fair. The implementing agency should interact regularly with civil authorities and community leaders to answer questions and resolve issues arising during the planning process.

Security arrangements. Adequate security arrangements should be made in advance, in consultation with the civil authorities. There will be many people and

large amounts of cash at the seed fair, so civil authorities must ensure the safety of the implementing agency staff and partners.

Recruitment and training of enumerators. During the seed fair, beneficiaries and sellers should be interviewed to evaluate the success of the seed fair. Before the fair, the community project team should identify suitable enumerators who are familiar with local crop varieties and the local languages. Plan on interviewing about 10% of participants. Each enumerator can normally interview about 10 beneficiaries.

Enumerators can be selected based on a test to assess the following:

- Clear handwriting
- Arithmetic skills
- Language skills
- Knowledge of agriculture
- Ability to extract information
- Ability to approach problems.

Enumerators should be familiar with the evaluation format; during enumerator training, discuss each question on the evaluation form.

Activity 3. Implementing agency planning

Finances (mode of payment). The mode of payment should be decided well in advance and agreed by all stakeholders. Consult with the civil authorities about what currency should be used. The currency to be used for paying seed sellers should be the same as the currency printed on the voucher, to avoid confusion. Be sure to bring enough change and small denominations to pay seed sellers, as it may be difficult to find change in the market.

Voucher design and printing. The implementing agency is responsible for the design and printing of the vouchers in consultation with other stakeholders. The voucher should clearly show the agency logo and the value. If vouchers are time-bound, i.e. to be used only at a specified place within a specified period, the date could be printed on the voucher. If vouchers are of different denominations, make sure illiterate people can distinguish between them. For example, print in different colors, or simply mark the vouchers with different colored marker pens. Alternatively, have only one denomination.

Based on the market assessment and pricing strategy, the denominations should be as small as possible. With small denomination vouchers, beneficiaries can acquire seed of different crops and varieties from many different sellers as desired. If the voucher value is too high, the beneficiary may have to spend it all with one seller, because the seller will not give back change. Circulate sample vouchers during the sensitization process, so that all parties understand and accept the process.

How much (i.e. what voucher value) should each beneficiary receive? This will depend on various factors: the price of grain in the local market; number of beneficiaries; the market value of seed and tools given to each household in previous seeds-and-tools distributions; and budget available for the seed fair.

A seed voucher, value 500 Ugandan shillings

Appropriate forms and materials. Various forms are needed at the seed fair. The implementing agency should arrange for:

- Registration forms for seed sellers
- Vouchers
- Beneficiary evaluation forms
- Seller evaluation forms.

During the sensitization process, distribute sample forms to the community and civil authorities so that their use is understood.

Additional materials needed for the seed fair are weighing scales (for seller registration), ink and ink pads (for seller payment), clipboards, pens and pencils. See Appendices for sample forms and a list of items needed to conduct a seed fair.

Step 3. Implementation

Objective. To hold a well planned seed fair where targeted needy households use vouchers to obtain seed from local sellers.

Who	Community project team, implementing agency, civil authorities
What	Voucher distribution, seller registration, seed inspection, monitoring and evaluation, troubleshooting, seller payment
When	Day of seed fair
Where	At the seed fair site
Why	To organize a successful fair, and collect information needed to ensure accountability, evaluate the fair, and plan future fairs.

Implementation involves four activities:

- Seed seller registration
- Voucher distribution
- Seed fair (seed exchange and evaluation)
- Seller payment.

Photo: Steve Walsh

Weighing of seed during seed seller registration

Activity 1. Seed seller registration

All seed traders should be registered before participating in the fair. Registration is done to assess the amount, type, and varieties of seed brought to the market, and to ensure that only registered seed traders are redeeming cash for vouchers. The registration form can be designed in a number of ways, depending on several factors: how much information the implementing agency wants; what information is needed to monitor financial accountability; and the number of sellers expected.

To prevent beneficiaries from "cashing in" vouchers, every seed seller should be given a ticket with his/her name and registration number during the registration process. This ticket must be returned to the implementing agency during the payment process – sellers cannot redeem vouchers for cash without the ticket. To limit the possibility of forgery, the ticket could be signed and/or stamped. This system helps ensure that only registered sellers participate, and that only sellers – not beneficiaries – redeem their vouchers for cash. The system used to register sellers and minimize fraud should be decided upon by the implementing agency in advance, and clearly explained to all sellers before the seed fair and at the time of registration.

Seed quality examination. At the time of registration, the civil authorities or the community project team may also decide to examine the quality of seed, and accept or reject seed brought by sellers. Alternatively, beneficiaries can check quality when they are purchasing seed. Remember that farmers do understand seed quality and prices.

Activity 2. Distribution of vouchers

To avoid losses and cheating, distribute vouchers on the day of the seed fair, not in advance. Before vouchers are distributed, all participants should be re-sensitized about how the seed fair will operate, prices of the various crops/varieties, and the value of the vouchers. Before (and during) voucher distribution, check how much seed is available, and whether there are enough sellers. It is important to regulate the market in order to maintain the bargaining power of the beneficiaries. For example, if only limited quantities of seed are available, then distribute fewer vouchers, otherwise prices might increase. If needed, give beneficiaries only part of their eligible vouchers; they can collect their remaining vouchers on the next day of the fair, when more seed is available.

The community project team should either distribute or assist with voucher distribution. It is important that a local leader or representative be available to identify beneficiaries and resolve any conflicts.

Once the vouchers have been distributed, farmers can exchange vouchers for seed. If it seems that the fair will not end in one day – which is very likely if there are many beneficiaries – then make arrangements to continue the following day.

Photo: Steve Walsh

CRS staff distribute seed vouchers

Activity 3. Seed fair (seed exchange and evaluation)

Pricing. The pricing strategy should be based on local market prices, and should be decided jointly by traders, beneficiaries, and civil authorities. CRS found that at most fairs, seed is generally sold at higher than market price. Seed prices at the fair will depend on:

- Price of corresponding grain
- Premium because grain sold as seed is perceived to be different from grain sold in the market (although they may be identical)
- Whether demand exceeds supply
- Collusion among grain/seed sellers.

Grain sold as seed at the seed fairs is normally costlier than grain sold in the market. However, the difference should be no more than 20-25%. If it is higher, then it means demand exceeds supply, i.e. too many vouchers have been distributed. Sellers may collude among themselves to charge high prices. Where there is evident collusion, issue of vouchers should be suspended until a solution is found.

Transport costs, the creation of a "market", NGO involvement, and the quality of the grain sold as seed can all contribute to higher seed prices.

Whether seed prices will be fixed or variable, must be discussed in advance. Ultimately, the pricing strategy will depend on many factors: the season, transport costs, availability of seed, beneficiary households' familiarity with the local crops and currency, presence/absence of farmer associations, and language barriers. It is crucial that sellers and local authorities agree on the pricing strategy. Once the pricing is established, this information should be communicated to all potential sellers and beneficiary households.

Pricing is without doubt the most challenging aspect of the voucher approach. To ensure equity and prevent profiteering, the implementers on the ground should be flexible and creative, and should have the authority to make changes on the spot if needed.

Even when the decision is made to not fix the price of seed, by allowing sellers to charge a variable (negotiated) price, it is important to define a "threshold" price in advance. If seed price exceeds this threshold, it indicates collusion or profiteering by sellers. At this point the organizers could stop issuing vouchers or even stop beneficiaries from exchanging vouchers.

Supervising the market. With many sellers and beneficiaries, it is necessary to monitor/supervise the market. This can be done by the community project team, extension agents, or representatives of the implementing agency. Both sellers and beneficiaries may need assistance or direction. People may have questions, or conflicts may arise. Local leaders or authorities and staff of the implementing agency must be available to assist and troubleshoot. Positive interaction between beneficiaries and seed sellers leads to a successful seed fair. Supervision can also minimize collusion among sellers, or between sellers and beneficiaries.

Seed sellers receive payment after the fair

Photo: Steve Walsh

Evaluation. During the seed fair, the fair is evaluated by a randomly selected sample of beneficiaries and seed sellers. The evaluations are conducted by pre-trained enumerators. Beneficiaries should be interviewed after they purchase seed and before they depart. Seed sellers should be interviewed during or after payment. The evaluation questionnaire should capture basic information about the variety, quantity, and quality of seed purchased at the fair; and about how beneficiaries used their vouchers. This will help the agency better understand beneficiary needs. For example, did people purchase mainly sesame or groundnuts? Is there a demand for cassava? How did the beneficiaries find the quality and availability of seed?

Comments from interviewees also help the agency assess the adequacy of sensitization, the location, timing/organization, and selection of items at the fair. This feedback can be used to better plan future seed fairs in the area. Information from the evaluation questionnaire is incorporated into the seed fair summary form (see Appendix).

Activity 4. Payment to seed sellers

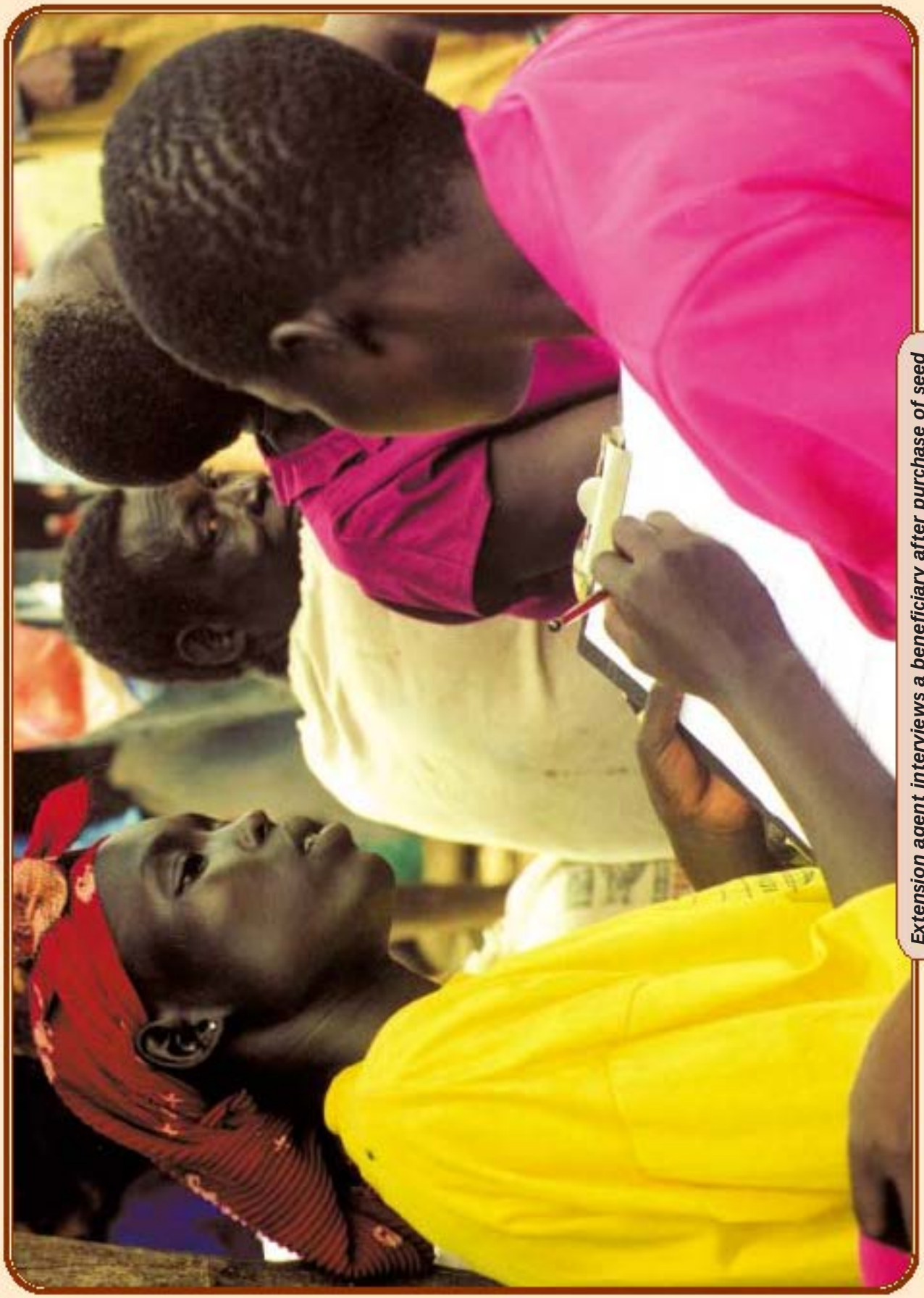
The payment system should be established and agreed upon in advance. Points to consider: currency of payment, documentation (ID) required, when payment will be made – at the end of each day or at the end of all the seed fairs – and where sellers will be paid. The same form used for seller registration can be used for payment. Sellers should be paid at a secure location with few people around. To collect payment, sellers must submit the vouchers they have collected, along with the registration ticket issued to them during registration. After receiving the cash, they should sign their name or fingerprint, indicating that they have received the specified cash amount. The implementing agency can then use this form to account for the cash distributed during the seed fair.

Step 4. Evaluation

Objective. To evaluate the seed fair by gathering feedback from beneficiaries, seed sellers, and other stakeholders during and after seed fair implementation.

Evaluation of beneficiaries and seed sellers – during the seed fair

Who	Trained enumerators. Representative sample (minimum 10%) of beneficiaries (voucher recipients) and seed sellers
What	Basic one-page questionnaire
When	Day of the seed fair
Where	On site at the seed fair
Why	Primary evaluation tool to assess what vouchers were used for, quality of seed, general comments on what beneficiaries and seed sellers liked and disliked about the fair.



Extension agent interviews a beneficiary after purchase of seed

Photo: Steve Walsh

Post seed fair monitoring – after the seed fair	
Who	Staff trained in Microsoft Excel
What	Quantitative and qualitative analysis of seed fair
When	After the seed fair
Where	Any location where a computer is available
Why	To track varieties, germination rates, area planted, and yields of varieties; track price trends over time; obtain feedback from beneficiaries.

Evaluation involves the following activities:

- During the seed fair – beneficiary and seller evaluation, debriefing session
- After the seed fair – qualitative and quantitative analyses, post-fair monitoring.

Activity 1. Evaluation on the day of the fair

Debriefing session. After the fair, all participants should gather for a debriefing session. The best time to hold this informal assessment is either the evening after the seed fair or the following day, while ideas and information are still fresh in people's minds. Minutes should be taken. The purpose of this meeting is to discuss observations about the seed fair, what went well, what needs improvement, ideas for future planning; and undergo a self-evaluation of how well the seed fair was conducted. It is also an opportunity to assess seed prices and comments from beneficiaries. Feedback gathered during this debriefing will help in planning and organizing future seed fairs.

Activity 2. Evaluation after the seed fair

Analysis of beneficiary questionnaires and seed seller registration forms. Feedback obtained at the fair (beneficiary evaluation questionnaires and seed seller registration/payment forms) should be analyzed qualitatively and quantitatively. This information will help track crop trends and improve future seed fair implementation. The analysis is summarized in the seed fair summary form (see Appendix), which can be used for record keeping, reporting to donors, and to help agriculture staff assess the availability of crops and varieties in the area. The design of the summary form is based on the needs of the organization (e.g. reporting requirements) or desired information on crop availability for agriculture initiatives. The summary analysis should include:

Background

- Seed fair location and date
- Number of beneficiaries, by gender
- Number of sellers, by gender
- Total cash value of the seed fair.

Seller analysis

- Average/median earnings per seller
- Maximum and minimum earned per seller
- Total quantity and monetary value traded for each crop and percentage of sellers dealing in each crop.

Beneficiary analysis

- Sample size: number and percentage of beneficiaries interviewed
- Value of vouchers received by each beneficiary
- Average/median price paid for each crop (data from beneficiary evaluation or from seed seller payment form)
- Tabulation and analysis of beneficiary comments.

This data can be easily analyzed in Excel.

Seed fair summary sheets help to compare various parameters: what varieties are available in different areas; seed prices in different areas; seed prices at the fair compared to normal market prices; number of sellers who participated versus the number who actually made a profit.

Final report. It is important to prepare the final Seed Fair Report soon after the fair is completed. The longer the delay, the more information is lost. The report should include the following:

- Background
- Location of seed fairs
- Number of beneficiaries and traders, by gender
- List of beneficiaries
- Value of vouchers issued per beneficiary
- Crop and varieties available at seed fair
- Seed prices and how they were determined
- Quantity and value of seed brought for sale, quantity and value actually sold
- Information obtained from the debriefing session
- Challenges and constraints, and how they were dealt with.

Post seed fair monitoring. Post seed fair monitoring is undertaken during the cropping season and after harvest, to assess how beneficiary households used the seed they obtained. This survey also provides information on the communities' seed systems. Important questions to ask: why they selected certain crops, how they used the seed they purchased, what other items they would like to see at a seed fair, whether they had their own seed before they arrived. This information will help in planning extension support, or future seed fairs. It also helps to assess whether or not the seed fair was an appropriate intervention and how beneficiaries/sellers understood the concept. Equally important, the survey tells you how the seed performed, what yields and quality farmers obtained. The implementing agency should decide what kind of information they want, and design the survey questionnaire accordingly. Sample questionnaires for both sellers and voucher recipients are shown in the Appendix.

4. Constraints and Challenges

Targeting

Targeting can be problematic. Poor targeting leads to distribution of small quantities of seed to a large number of households (more households than the implementing agency expected). When undertaken in consultation with local authorities, traditional chiefs, and the implementing agency, the team can ensure that the most vulnerable households are targeted. Whenever possible, existing distribution lists (e.g. compiled by the World Food Program and other NGOs) should be used to cross-check the beneficiaries.

Pricing Strategy

Setting prices is another challenge. Seed sellers tend to exploit beneficiaries or want to take advantage of NGO resources. Maximum prices should be set based on market prices, but beneficiaries should be able to negotiate with seed sellers for lower prices. In some cases, it might be appropriate to fix the prices beforehand, in consultation with local authorities, chiefs, and seed traders. The implementing agency should intervene if seed fair prices exceed normal market prices by more than 50%.

Why Vouchers and Not Cash?

CRS uses seed vouchers rather than cash for several reasons. The seed fair and voucher methodology is still being tested in different locations to address different circumstances, so vouchers are a more efficient means of tracking quantities and types of crops purchased, and identifying where surplus seed is available. Purchases made with vouchers are easily analyzed and there is greater control over the market environment.

It is almost impossible to monitor cash, because cash can be exchanged for anything, not necessarily seed. Cash given to assist in agricultural recovery could be used for unintended purposes, e.g. the cash is given to the woman but the male in the household uses it for a different purpose. Although cash transfers have been used in emergency situations, vouchers are easier to track and monitor, provide better accountability, and satisfy donor regulations.

Changing Attitudes

The seed fair approach will not be always well received or understood by civil authorities or grain traders. For example, they may argue that it would have been easier for the agency to purchase seed locally and then distribute it. Local authorities and partners must be adequately sensitized about the concept and operation of seed fairs, well in advance. Attitudes can be changed through

Photo: Steve Walsh

Vouchers allow farmers to decide for themselves what crops/varieties they need, and in what quantities

sensitization and sharing the implementing agency's previous experiences with seed fairs. It is advisable to hold a "pilot" seed fair, with a small number of beneficiaries. This "pilot" fair can serve many purposes. Seed sellers, civil authorities, and the implementing agency can gauge the potential success of a full-scale fair, recruit additional sellers, intensify sensitization, or make any other necessary adjustments before conducting a large fair with many beneficiaries. Generally, after the first day of a seed fair, all participants better understand the concept and know what to expect.

Location

In selecting a location for the seed fair, availability of seed is important. Equally important is the distance that beneficiaries and seed sellers must travel. Beneficiaries may be willing to travel long distances, but seed sellers might not be able to transport their seed to the fair. Some sellers, like commercial farmers or associations, are used to farmers coming to their stores to purchase seed. They may be reluctant to bring large amounts of seed, citing transport and security problems. All options should be reviewed in the initial planning stage to avoid conflicts and delays. Security must be guaranteed at the site of the fair.

Collusion

Various forms of collusion between beneficiaries and sellers may occur. For example, non-seed vendors may obtain vouchers and try to redeem them for cash; beneficiaries themselves may try to sell their vouchers for cash (instead of using them to buy seed), or resell the seed for cash. This can be a problem particularly in areas where hard currency is scarce. The implementing partner should closely monitor transactions to limit collusion. Ideally, adequate arrangements should be made so that it is possible to service all beneficiaries within one day – if the fair is extended to a second day, beneficiaries might become seed sellers, i.e. seed purchased on day one is resold on day two, to obtain cash for other uses. Registration of seed sellers at the beginning of the seed fairs help to limit seed resale.

During the sensitization phase enough time should be spent explaining to beneficiaries how to use vouchers, and avoid being cheated by traders. They should be aware of the voucher value so that they can negotiate with traders to get the best value for money. If collusion is a major problem, the local authorities may need to intervene or the seed fair may have to be delayed or cancelled. Cancellation should be reserved as a last resort.

Appendices: Forms Useful in Planning and Monitoring a Seed Fair

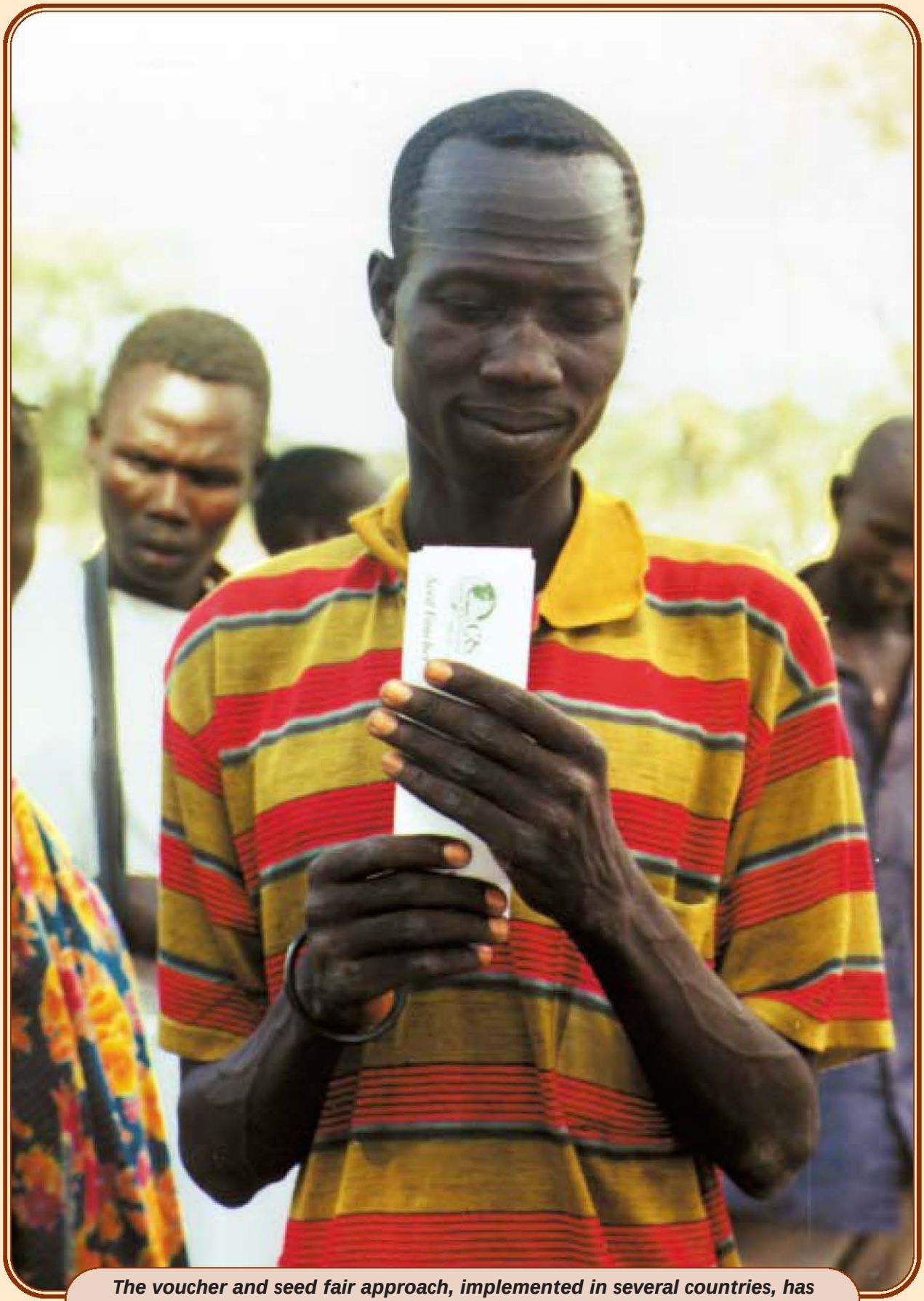


Photo: Steve Walsh

The voucher and seed fair approach, implemented in several countries, has proved an effective alternative to traditional seeds-and-tools distribution

Appendix 1. Seed Fair Kit

Items Needed to Conduct a Seed Fair

1. Forms
   - Seller registration and payment form
   - Beneficiary evaluation form
   - Seed seller evaluation form
2. Ink pad and ink
3. Clipboards
4. Pens/pencils
5. Rubber bands
6. Voucher books
7. Weighing scale
8. Camera and film (optional)
9. Calculator
10. Cash box

Appendix 2. Seed Seller Registration Form

Seed Fair Registration and Payment Form

Location of seed fair _____ Date _____

No.	Name of trader	M/F	Crop	Variety	Qty brought (kg/mug size)	Qty. sold (kg/mug size)	Amount received	Signature

Appendix 3. Beneficiary Evaluation

CRS/Sudan Seed Fair Evaluation

Name of voucher recipient: _____
Current location: _____
Home area: _____

1. What seed did you purchase with your vouchers?

Crop	Variety	Quantity	Price

2. How would you rate the quality of seed purchased?

Crop/Variety	Good/ Average / Bad	Comments

3. How could CRS make today's seed fair better? Please explain.

- Were you adequately sensitized?
- How was the timing and organization of the seed fair?
- How was the selection of items in the seed fair market?
- Was there a range of crops and varieties to choose from?

Appendix 4. Seed Fair Evaluation Form – Seed Sellers

Seed fair site: _____

Name of seed vendor: _____ Sex: _____

1. Would you consider yourself (tick one)

❑ A farmer
❑ A full time seed/grain seller
❑ A part time seed/grain seller
❑ A commercial seed company
❑ A stockist
❑ A trader market

Types of vendors

Farmers: bring seed to sell at seed fairs, to known grain buyers and markets
Commercial seed company: commercial producers of seed
Part time seed/grain seller: sells seed or grain during certain times of the year, especially at planting or harvest
Full time seed/grain seller: main occupation is selling seed or grain
Trader in market: normally sells other goods except grain or seed
Stockist: sells other goods like veterinary drugs, insecticide etc

2. Where do you obtain seed?

Crop	Variety	Source of seed (see below)

Possible seed sources: own farm, purchased from other farmers, purchased from market, purchased from seed company

3. How long have you sold seed?

❑ First time
❑ 1-3 years
❑ 4-7 years
❑ More than 8 years

4. What crop do you specialize in?

5. What crops and varieties do most farmers buy at planting time?

Crop	Variety

6. How do you intend to use the money obtained from seed sales at the fair? (most important use)

_____

_____

7. How do you rate the seed fair?

❑ Very satisfied
❑ Satisfied
❑ Unsatisfied
❑ Very unsatisfied

Why?

_____

_____

Appendix 5. Seed Fair Summary Form

Seed fair location: _____ Dates: _____
Number of beneficiaries: _____ Number of sellers: _____
Total value of seed fair: _____

A. Seed Seller Summary

Number of males:		Average earning per seller:		Maximum earned:	
Number of females:		Median earning per seller:		Minimum earned:	

Crop ranking by value traded

Crop	Total value traded	Total qty traded (kg)

B. Beneficiary Evaluation of Seed Fair

Number of males	Number of females	Total sample size	Value of vouchers received by each beneficiary

Crop prices

Crop	Median price	Average price

C. Summary of Comments (N =)

1. Adequately sensitized?
2. Timing/organization
3. Range of crops/varieties available
4. Prices
5. Seed quality
6. Other comments

Appendix 6. Post-Fair Monitoring Questionnaire: Beneficiary Evaluation

Evaluation by Voucher Recipient

Questionnaire # _____
Enumerator name: _____ Date: _____
Region: _____ County: _____
Camp: _____ Seed fair venue: _____

A. Background Information

Name of voucher recipient interviewed (optional)

1. Gender of farmer ❑ Female ❑ Male

2. Is voucher recipient the head of the household? ❑ Yes ❑ No

3. If yes, number of people in household (including interviewee)
❑ 1- 3 ❑ 8 or more
❑ 4-7 ❑ Other _____

4. Age of voucher recipient
❑ under 15 ❑ 31-45
❑ 16-30 ❑ over 45

5. When did you first arrive at this camp?
Date: _____ Month: _____ Year: _____

B. Seed Availability

6. Did you receive enough seed from the seed fairs? ❑ Yes ❑ No

7. What crop seeds did you buy using the vouchers? Please fill in variety name (multiple answers possible)
Sesame var: _____ Sweet potato var: _____
Groundnut var: _____ Okra var: _____
Maize var: _____ Onions var: _____
Sorghum var: _____ Green gram var: _____
Beans var: _____ Cucumbers var: _____
Bulrush millet var: _____ Other _____
Finger millet var: _____

8. Why did you choose the crops and varieties listed above? (multiple answers possible)
❑ Crop was available at fair ❑ High market value
❑ Familiar with variety ❑ Early maturation
❑ Season for crop/variety ❑ Needed seed
❑ Affordable ❑ Other _____

9. Did you have a wide variety of crops to choose from? ❑ Yes ❑ No

10. What crops and varieties did you want to plant but were not available?
❑ All crops/varieties were available
❑ No, all seed was not available (fill in table below – multiple answers possible)

Crop	Variety

11. How did you use the seed you purchased from the seed fair?
(multiple answers possible)

❑ Planted as seed
❑ Eaten as food
❑ Given away
❑ Exchanged for other seed
❑ Exchanged for other items, e.g. food, clothes, tools
❑ Sold for cash
❑ Stored for future use
❑ Used for yeast/brewing
❑ Other _____

12. For which crops did you have your own seed from the last harvest?
(multiple answers possible)

❑ Did not have any seed
❑ Yes, had seed (circle crops and fill in appropriate varieties)

Sesame var: _____
Groundnut var: _____
Maize var: _____
Sorghum var: _____
Beans var: _____
Bulrush millet var: _____
Finger millet var: _____
Sweet potato var: _____
Okra var: _____
Onions var: _____
Green gram var: _____
Cucumbers var: _____
Other _____
No seed

13. If yes, where did you get this seed?

❑ Own saved seed
❑ Relative
❑ Another farmer
❑ Purchase
❑ In-kind payment for labor
❑ Borrowed
❑ Relief seed
❑ Local market
❑ Exchanged with my seed
❑ Other _____

C. Overall Seed Fair

14. Were you satisfied with the seed voucher system? ❑ Yes ❑ No

15. Was the seed fair organized in time for the planting season?

❑ Too early
❑ On time
❑ Too late
❑ Other _____

16. How was the quality of the seed you purchased?

❑ Good
❑ Dusty
❑ Moldy
❑ Moist
❑ Mixed
❑ Harvested too early
❑ Don't know
❑ Other _____

17. How was the performance of crops grown from seed purchased at the seed fair?

Crop	Variety	Germination Satisfactory/Not satisfactory	Growth Excellent/Good/Bad	Yield High/Normal/Low

18. What other items should be distributed at seed fairs?
(multiple answers possible)

❑ Small livestock (goats/chickens)
❑ Cattle
❑ Fishing equipment
❑ Tools
❑ Don't know
❑ Other _____

19. How were the prices at the seed fair?

❑ Negotiable prices
❑ Fixed prices (pre-established)
❑ Don't know
❑ Other _____

20. How did prices at the seed fair compare to normal market prices?

❑ Same as market prices
❑ Slightly higher than usual
❑ Very expensive
❑ Don't know
❑ Other _____

21. What tools should be distributed at future seed fairs?

❑ No other tools
❑ Pangas
❑ Hoes
❑ Slashers
❑ Axes
❑ Don't know
❑ Other _____

22. Was the voucher value flexible enough to buy several types/amounts of crops and varieties?

❑ Yes ❑ No ❑ Don't know

If no, why not _____

Appendix 7. Post-Fair Monitoring Questionnaire: Seed Seller Evaluation

Evaluation by Seed Seller

Questionnaire # _____
Enumerator name:_____ Date: _____
Region: _____ County: _____
Camp:_____ Seed fair venue: _____

A. Background Information

Name of seed vendor interviewed (optional) _____

1. Gender of seed vendor ❑ Female ❑ Male

2. Is seller the head of the household? ❑ Yes ❑ No

3. If yes, number of people in household (including interviewee)
❑ 1- 3
❑ 4-7
❑ 8 or more
❑ Other _____

4. Age of seed vendor
❑ under 15
❑ 16-30
❑ 31- 45
❑ over 45

B. Seed Fair

5. Were you satisfied with the seed voucher system? (If yes, go to # 7)
❑ Yes ❑ No

6. If not, why not?
❑ Bad timing
❑ Inconvenient location
❑ Did not sell any seed
❑ Prices were low
❑ Not a good system
❑ Other _____

7. What crop seeds did you sell at the fair? What were the quantities and prices?
❑ Did not sell any seed
❑ Sold seed (fill in the following table)

Crop	Variety	Quantity sold	Price

8. How did you decide which crops and varieties to sell at the fair? (multiple answers possible)

❑ Surplus
❑ Season for crop/variety
❑ High market value
❑ Don't know
❑ Other _____

9. How were seed prices decided at the fair?

❑ Normal market prices
❑ Through a meeting with other sellers
❑ By the civil authorities
❑ Don't know
❑ Other _____

10. How did you transport your seed to the fair venue?

❑ Walked/carried
❑ Bicycle
❑ Vehicle
❑ Other _____

11. How far was the seed fair venue from your home?

❑ Less than 1 km
❑ 2-5 km
❑ 6-9 km
❑ Over 10 km
❑ Don't know
❑ Other _____

12. What other agricultural items would you be interested in selling at the seed fair?

_____

_____

C. Seed Source

13. Did you plant any crops in the last planting season? (If no, go to # 15)

❑ Yes ❑ No

14. Where did you get seed to plant last season? (multiple answers possible)

❑ Relief seed
❑ From a relative
❑ Own saved seed
❑ From neighbor
❑ Exchange
❑ Borrowed
❑ Other _____

15. Do you usually plant crops for sale as seed? (If no, go to # 17)

❑ Yes ❑ No

16. If yes, what seeds do you usually grow for sale? (multiple answers possible)

Sesame var: _____
Groundnut var: _____
Maize var: _____
Sorghum var: _____
Beans var: _____
Bulrush millet var: _____
Finger millet var: _____
Sweet potato var: _____
Okra var: _____
Onions var: _____
Green gram var: _____
Cucumbers var: _____
Other _____

17. Do you usually buy seed from other farmers to sell? (If no, go to # 19)

❑ Yes ❑ No

18. If yes, what seeds do you buy? (multiple answers possible)

Sesame var: _____
Groundnut var: _____
Maize var: _____
Sorghum var: _____
Beans var: _____
Bulrush millet var: _____
Finger millet var: _____
Sweet potato var: _____
Okra var: _____
Onions var: _____
Green gram var: _____
Cucumbers var: _____
Other _____

19. Did you purchase some local or certified seed for resale at the fair? (If no, go to # 21)

❑ Yes ❑ No

20. If yes, where did you get the seed, and at what price?

Crop	Variety	Quantity sold	Price

21. How did you use the money you obtained from sale of seed at the fair? (multiple answers possible)

❑ Purchased more seed
❑ Purchased household assets, e.g. livestock, fishing equipment, crockery
❑ Bought non-food items, e.g. soap, salt, oil
❑ Family expenses, e.g. school fees, bride price
❑ Money was saved
❑ Other _____

About CRS

Catholic Relief Services is the official international humanitarian agency of the U.S. Catholic community. CRS was founded in 1943 by the Catholic Bishops of the United States to assist the poor and disadvantaged outside the country. The fundamental motivating force in all CRS activities is the Gospel of Jesus Christ as it pertains to the alleviation of human suffering, the development of people and the fostering of charity and justice in the world. CRS provides direct aid to the poor, and involves people in their own development, helping them to realize their potential. And CRS educates the people of the United States to fulfill their moral responsibilities toward our brothers and sisters around the world by helping the poor, working to remove the causes of poverty, and promoting social justice.

The agency provides assistance to people in more than 87 countries and territories on the basis of need, not race, creed or nationality. CRS works in over 30 countries throughout Africa and strives to enhance human dignity, empower the people that it helps, and strengthen and support partner organizations. CRS achieves this by working in the areas of agriculture, emergency, micro finance, HIV/AIDS, peace building and health, among others.

CRS has supported relief and development programs in Sudan since the end of the first major civil war in 1972 when the agency helped to resettle internally displaced Sudanese. Our work in Sudan aims to improve the lives of resident and displaced populations in areas of relative stability as well as chronic emergency.

The ultimate goal of CRS in Sudan is to restore livelihoods disrupted by war, conflict, or natural disasters, and involve Sudanese communities in their own long-term development. CRS is expanding its efforts in education and agriculture, with particular emphasis on facilitating peace and reconciliation efforts, with the understanding that a peaceful and just environment is a vital prerequisite for the implementation of sustainable development programs.

About ICRISAT

The semi-arid tropics (SAT) encompasses parts of 48 developing countries including most of India, parts of southeast Asia, a swathe across sub-Saharan Africa, much of southern and eastern Africa, and parts of Latin America. Many of these countries are among the poorest in the world. Approximately one-sixth of the world's population lives in the SAT, which is typified by unpredictable weather, limited and erratic rainfall, and nutrient-poor soils.

ICRISAT's mandate crops are sorghum, pearl millet, chickpea, pigeonpea and groundnut – five crops vital to life for the ever-increasing populations of the SAT. ICRISAT's mission is to conduct research that can lead to enhanced sustainable production of these crops and to improved management of the limited natural resources of the SAT. ICRISAT communicates information on technologies as they are developed through workshops, networks, training, library services and publishing.

ICRISAT was established in 1972. It is supported by the Consultative Group on International Agricultural Research (CGIAR), an informal association of approximately 50 public and private sector donors. It is co-sponsored by the Food and Agriculture Organization of the United Nations (FAO), the United Nations Development Programme (UNDP), the United Nations Environment Programme (UNEP) and the World Bank. ICRISAT is one of 16 nonprofit CGIAR-supported Future Harvest Centres.

About ODI

The Overseas Development Institute is Britain's leading independent think-tank on international development and humanitarian issues. Our mission is to inspire and inform policy and practice which leads to the reduction of poverty, the alleviation of suffering and the achievement of sustainable livelihoods in developing countries. We do this by locking together high-quality applied research, practical policy advice, and policy-focused dissemination and debate. We work with partners in the public and private sectors, in both developing and developed countries.

ODI's work centers on five research and policy programs: Poverty and Public Policy, the International Economic Development, Humanitarian Policy, Rural Policy and Environment, and Forest Policy and Environment. ODI publishes two journals, the Development Policy Review and Disasters, and manages three international networks linking researchers, policy-makers and practitioners: the Agricultural Research and Extension Network, the Rural Development Forestry Network, and the Humanitarian Practice Network. In addition, it hosts the Secretariat of the Active Learning Network for Accountability and Performance in Humanitarian Assistance. ODI also manages the ODI Fellowship Scheme, which places around twenty young economists a year on attachment to governments of developing countries.

Catholic Relief Services
PO Box 49675, Nairobi, Kenya

ICRISAT
International Crops Research Institute for the Semi-Arid Tropics
PO Box 39063, Nairobi, Kenya

Overseas Development Institute
Westminster Bridge Road, London SE1 7JD, UK

545–2002