

# Seed Aid for Seed Security

ADVICE FOR PRACTITIONERS

## Seed Relief Responses: *an Overview*

**T**his Brief describes the predominant approaches to seed aid used to respond to acute, emergency stresses. Such approaches generally either deliver direct forms of aid and assume a lack of available seed as the driving need, or are market-based and give recipients cash or vouchers to procure seed and hence assume lack of access as the driving need. (These distinctions are discussed in more detail in Brief No. 3.) This Brief looks at the range of interventions, suggests some of their strengths and weaknesses, and highlights how they are evolving over time.

### Direct Aid Approaches

Direct seed aid generally engages implementers in procuring, transporting and distributing seed. Direct Seed Distribution, its main variant, is the oldest form of seed aid and has been practiced, at least in Africa, for more than 20 years. Food aid that is given explicitly to protect seed stocks (known as Seed Protection Rations) might also be included in this category. We briefly discuss these direct aid approaches below.

#### Direct Seed Distribution

Direct Seed Distribution (DSD) is the dominant approach to seed relief. It is sometimes referred to as seeds and tools (S&T) because the distribution of seed is often accompanied by the provision of a hand hoe, and is also known as conventional seed aid, denoting its longstanding position as the standard response. DSD is a classic supply-side approach; the implementing agency decides what quantities of which crops and varieties to purchase and to distribute as a package to farmers. It is based on an assumption that the problem is a lack of available seed or of seed quality; although seed might be available, it is considered to be of inferior varieties or of poor quality. Tenders are issued for commercial seed, if available in the country, or for farmer seed if not. This might be done by the concerned government, by the Food and Agriculture Organization (FAO) or by non-governmental organizations (NGOs). The transport and distribution of the seed is usually undertaken by NGOs who may already be engaged in distributing relief supplies (food and non-food). DSD approaches differ mainly in the source from which they procure seed – the commercial sector or farmer-based systems (see Bramel et al. 2004).

#### Commercial Seed-Based DSD

Direct seed distribution based on commercial seed is widely used in countries with a commercial maize seed sector such as Kenya, Malawi, Tanzania, Uganda and Zimbabwe. This may be because governments use the relief opportunity to promote their seed industry. However, it has also been used in southern Sudan, where there is no formal seed system, with seed sourced in neighboring

Responses to seed relief are changing, from a historic dominance of direct seed distribution (previously called seeds & tools) to market-based options. While direct aid assumes 'lack of available seed' as the driving need, the market-based approaches, focus on concerns of 'lack of access.'

Uganda and Kenya. Seed is procured either from government seed parastatals or from private companies who procure certified seed of varieties that have been developed by private or public sector research.

Commercially-based DSD by its nature is restricted to a narrow range of crops and varieties that the seed business sector has deemed potentially profitable. Many of these crop and variety types have been selected for medium and high potential environments, or may be hybrids, because the commercial sector is geared towards those farmers who can afford to pay for new varieties or who seek to renew their seed stocks regularly.

### Farmer Seed-Based DSD

Direct Seed Distribution is not based on the commercial sector in countries such as Ethiopia, Eritrea and Burundi because the commercial sector there is nonexistent or too small to meet the relief demand or because the government discourages the importation of seed into the country. In these countries, DSD consists of sourcing seed from the farmers directly, via larger-scale traders, or by purchases in grain markets. In farmer-based DSD (as with commercial-based DSD) implementing agencies decide on crops, varieties and their relative quantities. Tenders are issued, seed is purchased, aggregated, transported and distributed to farmers.

**TABLE 1**  
**Range of seed relief approaches used in periods of acute emergency stress**

DIRECT AID APPROACHES	
1. Direct Seed Distribution: Commercial-Based a.k.a Convention Seed Aid, Seeds and tools.	Procurement of quality seed from outside the region, for delivery to farmers. The most widely used approach to seed relief.  Short-term response best suited to address problems of seed availability especially in situations of total crop failure and long-term displacement of farmers.
2. Direct Seed Distribution: Farmer-based or Local procurement and distribution of seed.	Procurement of quality seed from within the region, for delivery to farmers, a variant of 1.  Short-term response to address problems of seed access or highly localized problems of seed availability.
3. Food aid, Seed Protection Ration.	Food aid is often supplied in emergency situations alongside seed aid so that the farming family does not need to consume the seed provided or to eat their remaining seed stocks.
MARKET-BASED AID APPROACHES	
4. Vouchers and cash to farmers.	Vouchers or cash are provided so as to give farmers the means to access seed where it is available, from local markets or the commercial sector. Farmers can access crops and varieties of their choice.  Short-term response to address problems of seed access especially in situations of local seed shortages where local markets or barter between farmers are normally used.
5. Seed Fairs.	Seed fairs provide an <i>ad hoc</i> market place to facilitate access to seeds of specific crops and varieties, from other farmers, traders, and the formal sector. Usually used in conjunction with vouchers to provide poorer farmers with purchasing power.  Short or medium-term response to address problems of seed access especially for subsistence crops, and where local markets are normally used.
6. Trade-Input, Multi-Input, Livelihood Fairs.	A variant of 5. In addition to seed, such fairs facilitate farmers' access to inputs such as small livestock, animal feed, fertilizer and tools.

The fact that seed can be successfully sourced from the farmer seed system during direct seed distributions provides *prima facie* evidence that there is no problem of seed availability in the countries and regions in question, although there may be pockets of problems, for which local procurement is necessary. Supply-side interventions like DSD are generally misplaced in such situations.

### Food Aid and Seed Protection Rations

The delivery of food aid may be underrated as a seed relief strategy. Delivery of food aid can allow farmers to retain, rather than eat, their remaining seed stocks. The rationale for the Seed Protection Ration is that such food aid is given particularly for the months prior to sowing, during the lean times.

### Market-Based Approaches

Market-based approaches focus on giving farmers the means to obtain seed. They are based on the assumption that seed access, not seed availability, is the primary constraint. The use of seed vouchers, coupled with seed fairs, is the most common response in this genre. The seed focus has also recently expanded to embrace 'Trade-Input' or 'Multi-Input' or 'Livelihood' Fairs. Furthermore, giving vouchers or cash alone, without an accompanying fair, is increasingly being practiced as a seed aid strategy.

### Seed Vouchers and Fairs

Seed vouchers are coupons or certificates with a guaranteed cash value that can be exchanged for seed from approved sellers. Seed sellers then redeem their vouchers for cash from the issuing agency. The Seed Voucher and Fair approach (SV&F) brings seed sellers together on a specific set of days and in a well-advertised local venue and then allows farmers who need seeds to select the crops and varieties they want. The SV&F approach is fairly recent in terms of an emergency response and was first implemented in July 2000 in Kenya (see Remington et al. 2002). However, its use has been scaled up quickly and as of 2005 had been implemented in some 30 African countries.

### Trade-Input, Multi-Input or Livelihood Fairs

Several variants on seed fairs give farmers access to a range of inputs beyond seed, such as small livestock, animal feed, fertilizer and tools. Vouchers are issued, and sellers and buyers come together in dedicated aid events.

### Cash or Vouchers Alone

Voucher distribution alone has been used in a range of aid contexts, for services as well as goods: medicines, tools, food and other items vulnerable

populations might need. Their use linked to seed is somewhat more recent, and ultimately allows the recipients to decide whether seed of any kind is a priority for them.

Cash-based aid also has been around for decades, but work comparing the effectiveness of cash to vouchers and to direct aid approaches is fairly new. The first conclusions suggest that direct cash compares favorably with all alternatives, including food aid itself (see Harvey 2005).

Table 1 summarizes the range of seed relief approaches used in periods of acute emergency stress. (Modified from Anon. 2004 FAO).

## Comparing the Dominant Forms of Aid: DSD and SV&F

No one approach to seed aid is inherently better than another. Much depends on features such as the nature of the emergency (man-made or natural), the seed security problems encountered and the capacities of the implementing agencies. Below we outline some of the salient advantages and disadvantages associated with the two dominant forms of seed aid: Direct Seed Distribution and Seed Vouchers & Fairs.

### Advantages

#### Main advantages of Direct Seed Distribution:

- 1. It exploits the existing disaster relief system and capacity.**  
Governments, donors and relief agencies have well established procurement processes and accountability systems. Seed can be treated as any other commodity, such as food, blankets, tarpaulins etc. Tenders are issued, sealed bids accepted, seed is purchased, transported and distributed.
- 2. It is easy to scale up quickly.**  
If seed is available, it can be sourced, transported and distributed to large numbers of farmers in a short period of time.
- 3. It supports the formal seed system.**  
The purchase of commercial seed is very profitable to seed companies because orders are large, NGOs pay up front and they also handle transport and distribution. It is especially lucrative when seed companies can purchase and condition grain to sell as 'emergency grade' seed.
- 4. It is an opportunity to finance the large scale dissemination of seed of new promising research varieties.** Seed of new varieties reaches many more farmers more quickly than through the commercial channels.

### Main advantages of Seed Vouchers & Fairs:

- 1. SV&F builds and strengthens local farmer systems.**

Although recovering from disaster, demand by farmers for seed is usually constrained by their lack of financial capital. Increasing demand by issuing vouchers enables farmers to access seed from a range of sources such as other farmers, market traders and the commercial seed sector. When managed by competent staff, seed fairs provide an opportunity to identify ways to strengthen seed systems by supporting seed production, marketing and system integration.
- 2. SV&F increases financial and social capital in the target communities.**

Unlike DSD, where seed companies, procurement agencies, large traders and transporters capture most of the benefit, the proceeds from the sale of seed is shared mostly among community-based traders (many of whom are women). This results in increased financial and social capital in the communities.
- 3. SV&F strengthens the integration of the formal and farmer seed systems.**

SV&F provides an opportunity for sellers of commercial and farmer seed to compete for customers. Where commercial seed companies or stockists have been represented at fairs, farmers have often opted to spend at least a portion of their vouchers on commercial seed, for example on hybrid maize or on a new variety of bean or pigeonpea.
- 4. SV&F gives farmers relative choice of crop and varieties.**

A diversity of crops and varieties are on offer at seed fairs, usually reflecting the predominant crops sold also at local seed/grain markets. Farmers have the option to use their vouchers to obtain crops and varieties of particular interest and to access multiple types of seed.

### Disadvantages

#### Main disadvantages of Direct Seed Distribution:

- 1. The approach tends to be top down and centralized.**

DSD is generally not planned and implemented with communities. As a supply-side approach, the implementers tend to make the major decisions on seed procurement and distribution.
- 2. There are important risks of wrong varieties or crops.**

Because seed is sourced either commercially or in bulk, a narrow range of crops and varieties

tend to be on offer in DSD. Particularly where companies and seed parastatals are targeted towards medium and higher potential farming areas, the crops and varieties on offer for emergency may not be suitable for the conditions of vulnerable or marginal small farmers.

- 3. The large scale of seed acquisition results in a skewed distribution of benefits.**

Mega-tendering (that is purchasing large amounts of seed) means mega-profit for the successful bidders and transporters. The value of the seed received by farmers is but a small fraction of the total project cost.
- 4. Emergency DSD purchase undermines market functioning.**

The free delivery of seed, directly and on a large scale, undermines the functioning of local seed/grain markets and compromises the development of longer-term more commercial seed supply systems. Furthermore, while DSD can be quite profitable for seed companies, such enterprises often opt for sales to emergency NGOs after a disaster and may neglect their network of rural stockists and customers.

### Main disadvantages of Seed Vouchers & Fairs:

- 1. The approach is difficult to implement quickly and to scale up.**

SV&F is decentralized and management intensive. Many NGOs have never implemented SV&F and so they require training, which takes time. Each fair can serve on average only 500 farmers – which means that multiple teams have to operate concurrently and for several weeks to reach even 10,000 farmers.
- 2. SV&F requires knowledge and capacity of seed systems.**

Unlike DSD, SV&Fs are not once-off distributions. Rather they are the start of a process of relief, recovery and development that spans three years or more. This process requires competent and dedicated agriculture staff, which most relief agencies currently lack.
- 3. SV&F practitioners have less access to seed of commercial and researcher varieties.**

Given a choice, seed companies will prefer DSD over SV&F. In DSD the relief agency is the customer and relief agencies are ideal customers because they place large orders, always pay on time and rarely complain. In contrast, reaching rural farmers is expensive and risky because smallholders may decide not to purchase the more expensive commercial seed.

### Concerns Common to Both: Seed Quality

It is essential that the seed delivered by seed aid is of acceptable quality, so that it can hasten the process of recovery. Concerns about quality are often at the heart of critiques of both approaches, DSD and SV&F.

Stereotypes often judge seed from the formal or commercial sector as high quality, healthy and having high germination, while seed from the informal sector (home-produced and procured from the market) is deemed of poor seed quality.

However, grounded analyses show that such labels can be deceptive (see Brief No. 2). The health quality of formal-sector seed may not be as advertised, while at the same time select laboratory analyses have demonstrated good quality in farmer seed and market seed (western Kenya case). Overall, emergency-grade seed is variable in health and genetic quality (eastern Kenya case). The point is not to assume the quality of seed from a given source because of the source. Other methods may be needed to verify standards.

The focus on seed health as a measure of quality in emergency seed aid has diverted attention from what is probably the more important quality issue: suitability. The seed on offer must be adapted to the growing and stress conditions at hand, and should have generally acceptable crop characteristics. It is puzzling that genetic quality has in practice been given second priority in emergency responses. While relatively few crops and varieties are multiplied by the formal sector, those emerging from formal research sectors or on offer from commercial companies are assumed to be good enough for emergency distribution, regardless of whether they have been selected for use in the regions of stress, can be grown under the management conditions actually practiced by farmers, or are acceptable to those preparing food. On this last point, farmers may be given orange-fleshed sweet potatoes or yellow maize when cultural preferences abhor such choices, preferring white sweet potatoes or white maize. In the relief business there are often trade-offs between accessing seed with locally-accepted agronomic and consumer qualities *versus* seed with highly defined health and viability standards.

### Looking Forward: Direct versus Market-Based Aid

Concern has been growing among donors, agriculture researchers and NGO practitioners that Direct Seed Distribution has become repetitive and is expensive, with little impact beyond the few kilograms of seed received by farmers. In addition, evidence is accumulating that the seed security problem is often not one of seed availability or

quality, but rather of lack of access to seed. Hence there is now increased interest in the use of a range of market-based approaches to emergency seed aid.

With growing donor support (particularly from the Office of Foreign Disaster Assistance/ USAID), large NGOs such as CRS, CARE, World Vision International, and Save the Children UK are increasingly using Seed Vouchers & Fairs in their relief and recovery efforts. One of the more dramatic shifts to date has been in Mozambique, where the government has dropped DSD and shifted to vouchers with support from the International Center for Research in the Semi-Arid Tropics (ICRISAT) and FAO.

There are a number of important challenges related to SV&F implementation, including the requirement for increased agricultural technical competence, the need to engage the formal seed sector – especially agricultural research – to enable farmers to access seed of new and promising varieties, and the pull for SV&F to remain innovative and not become stagnant or repetitive. Relief agencies that want to implement SV&F need to hire, train and retain competent agricultural staff. This will not be easy as many agencies have no agriculture capacity and treat seed as they would any other relief commodity. Furthermore, in order to give farmers access to seed of new and promising varieties at seed fairs, research organizations will also need support to ensure that seed is multiplied and on offer at the fairs. Finally, effective monitoring and evaluation and

Direct seed distribution is easy to scale up, supports the formal sector and can be used to disseminate new varieties widely. Seed vouchers and fairs strengthen local systems and strengthen social and financial capital in communities. They offer farmers more choice (of both local and new crops and varieties) and can pave the way for integration between formal and informal systems.

timely reporting are needed to continue to capture opportunities created by SV&F.

The increasing use of vouchers and direct cash approaches more generally to address the problem of lack of access is both a promising sign and a strong signal. Homing in on the problem of access and letting farmers make their emergency choices should enhance the odds that immediate aid meets priority needs. However, the recognition that concerns about access are central should serve to help shift aid away from emergency responses altogether for seed and non-seed. The inability to access a good is one of the problems of basic poverty. Hence, the scope of assistance needs to go well beyond emergency aid, and towards approaches that strengthen basic livelihood strategies, for example agro-enterprise and income generation programs.

## References

- Anon 2004. Summary Tables: seed relief interventions and tools and guidance. In. L. Sperling, T. Osborn and D. Cooper eds. Towards effective and sustainable seed relief activities. Report of the Workshop on Effective and Sustainable Seed Relief Activities, Rome 26-28 May 2003. Rome: FAO Plant Production and Protection Paper 181.
- Bramel, P., Remington, T. and McNeil, M. CRS Seed Vouchers & Fairs, 2004: Using markets in disaster response. Nairobi, Kenya: CRS East Africa.
- Remington, T., Maroko, J., Walsh, S., Omanga, P. and Charles, E., 2002, Getting off the seed and tools treadmill with CRS seed vouchers and fairs. *Disasters* 26(4):
- Harvey P, 2005, Cash and vouchers in emergencies, HPG Discussion Paper, February 2005. London: Overseas Development Institute.