

Supporting community seed multiplication

The 'Rescue from the Pot' project



Rice seed in Sierra Leone: many varieties are usually found within the same family farm.
Photo: Ivan Kent

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After a decade of civil war, access to a sufficient diversity of seed material is difficult for the small-scale rice farmers of **Sierra Leone**. Valuable stocks have been destroyed, and the disruption of national, regional and community level trading networks has hampered the spread of new technologies and their adaptations. After many years of attempts to provide planting material through emergency large scale aid distributions, there is now a need for a more subtle approach to support the recovery of local seed stocks and the social networks upon which they depend. With these aims in mind, the 'Rescue from the Pot' project, a joint initiative between local communities and the international NGO, Action Against Hunger, was started in March 2000, in the Southern Province of Sierra Leone, an area recovering from conflict.

Rice cultivation in the forest zone

Rice cultivation within the forest-zone of Sierra Leone takes place in a variety of ecological conditions, with upland and swamp environments often found within the same farm (Richards 1986). Farmers often plant several varieties of rice to match a range of soil and moisture conditions. The use of varied environments and cultivars of different cycle lengths allows the harvest to be spread over several months, thus reducing bottlenecks in labour and providing a variety of grains for the household,

community and market. Although formal seed markets play an important role in the distribution of the more popular and widespread varieties, many landraces are distributed through informal channels and social networks.

Seed stocks lost due to conflict

Since the beginning of the civil war in 1991, almost all parts of the country have at one time or another suffered conflict or brutal rule by armed factions. Where fighting takes place, stocks of rice seed are lost as a result of looting, extortion and arson; markets and social mechanisms for exchanging seed are invariably disrupted. Maintaining access to particular varieties becomes difficult, especially when traditional source areas become 'off-limits' as a result of on-going conflict. In addition, continuing food insecurity means that seed stocks are often used for consumption.

Emergency distributions

External interventions in the agricultural sector in Sierra Leone, as in other war-torn countries, have been largely based on the delivery of seeds and tools. Dealing with tens of thousands of farming families, these operations provide basic, standardised inputs during the planting season in an attempt to replace lost quantities of seed and to prevent further population displacement or long term dependency on food aid.

Due to their sheer size and logistical requirements, it is not possible for these

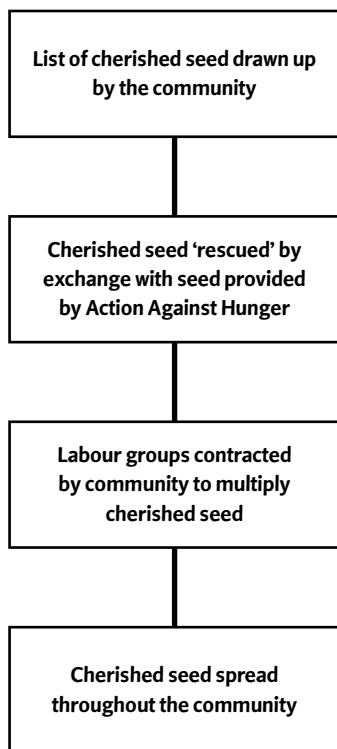
operations to take into account the agro-ecological diversity of each area, or the varied preferences occurring at the village or farm level. In Sierra Leone, programmes are therefore limited to the distribution of a few improved types, notably Rok3, a popular variety developed at the national Rice Research Station at Rokupr, tolerant to both swamp and upland conditions.

The versatility of such varieties make them a good option for large-scale emergency operations aimed at meeting immediate shortages of seed. However, aid agencies face difficulties in sourcing enough seed of sufficiently high quality, and repeated distributions of the same variety over several years do little to encourage the multiplication of more locally adapted and preferred landraces.

Cherished landraces

Three chiefdoms in the Southern Province of Sierra Leone were selected for the pilot phase of the project. After two years largely free of conflict, much of the population that had earlier fled had since returned home. While Rok3 and a handful of popular local landraces were generally available to most farmers, many 'cherished' landraces, suitable for particular ecological niches or cultural functions, were hard to come by.

However, some local landraces could still be found; a survey of 105 farmers carried out in three villages after the 1999/2000 harvest revealed that 16 rice varieties with distinct names were being used. Unfortunately, many of the sought-after or 'cherished' varieties were held only in small amounts by a few families and remained inaccessible to the majority of farmers. Furthermore, because of the still precarious food security situation, little of the cherished seed was saved for the next season. While it was recognised that the resources for multiplying the seed could be found locally, the disruption of social networks caused by the war meant that mechanisms for widening access to seed were missing. In response, chiefdom authorities decided to work with Action Against Hunger in order to rescue some of these cherished varieties.



Preferred characteristics

Once the outline of the project had been agreed upon, meetings were held to draw up lists of the most sought after seed. Through a system of matrix ranking, which included gastronomic as well as agronomic criteria (see box), several varieties were prioritised by each chiefdom. It was agreed that the varieties targeted for multiplication would be limited to those that were highly valued, but in short supply. The three chiefdoms involved in the project selected different varieties for multiplication, reflecting local preferences and varying degrees of scarcity.

Rescued for multiplication

The next stage of the project was to locate the cherished varieties within the

community so that they could be 'rescued' for multiplication. It was agreed that cherished seed could be exchanged at a set ratio of 3:2 for a more common variety provided by Action Against Hunger, at designated trading points throughout the project area. Rice was 'exchanged' rather than bought for cash, in order to maintain the food security of households giving up their cherished varieties. At first, farmers were slow to come forward with their rice. However, after 2 weeks, a total of 6.5 metric tonnes of seeds had been exchanged for 9.8 metric tonnes of Rok3 seeds donated by Action Against Hunger.

Labour groups were then invited to grow the cherished varieties on behalf of the community. An agreement was collectively developed and signed by the group leader and master farmer in each group, and witnessed by the Paramount or Regent Chief - the chief custodian of land. A total of 42 labour groups, each with up to 25 members, were formed to multiply the cherished seed in the three chiefdoms. They were paid for their labour with food, and allocated a small percentage of the harvest. During the growing period, field extension officers and community counterparts made farm visits to monitor progress and estimate potential yield. In addition, regular village meetings provided an opportunity for group leaders to give updates on their progress to the chiefs.

Project not without difficulties

At the seed exchange stage, some field extension officers were unable to identify the 'cherished' varieties and some farmers donated and received the wrong type of seed. In one area, seed earmarked for multiplication was eaten on the order of the town chief during a village construction project, and in another the project was suspended indefinitely because armed militia looted the food

stocks reserved for the workgroups multiplying the seed. Not all parties agreed on who should benefit from the scheme; displaced populations were not always able to take part in the project, since chiefdom authorities sometimes limited participation to long-term residents. Despite these difficulties, it is estimated that 35.5 metric tonnes of 'cherished' seed were made available to the wider community by the end of the first harvest.

Many lessons learned

The 'Rescue from the Pot' project illustrates the potential for incorporating local knowledge and capacities into the more common distribution-oriented seed programmes of aid agencies. But the transition from emergency seed distribution to community-based seed multiplication requires a set of new skills and a different mode of engagement between local communities and implementing agencies. Extension staff require more locally adapted skills (in both agronomy and conflict resolution); while farmers can benefit from training in seed multiplication and storage to produce good quality material. More importantly, regular contact between all parties is essential to nurture mutual trust and activities such as football matches and music events, as well as seed fairs and formal meetings can play an important role.

In an unstable post-conflict environment, communities are wary of investing in longer-term collaborations with aid agencies that may leave an area suddenly if fighting resumes or funding dries up. But frequent meetings with all actors help to enhance a sense of ownership as well as to re-establish traditional civilian structures disrupted by conflict. Although still in its early stages, farmers in the project area already have access to a broader range of seed types and even after a single season requests have been made for an extension of the 'Rescue from the Pot' project into the following year.

Characteristics of preferred varieties

- high tillering ability & large panicle formation
- adaptability to various soil conditions
- high yields
- tolerance / resistance to iron toxicity (for swamp varieties)
- good performance on short fallow bush
- quick maturity (thus shortening the 'hunger-gap')
- palatability
- high swelling during cooking
- attractive grain colour (red or brown pigmentation is preferred in local dishes);
- good storage after cooking



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Reference

- Richards P, 1986. **Coping with hunger: hazard and experiment in an African rice farming system.** Boston, Allen and Unwin.

Luseni Cafenor - one of the project farmers with a field having a cherished variety 'rescued from the pot'.

Photo: Ivan Kent