**Why research has to be involved in disaster R&D**

There are increasingly compelling reasons for direct public sector research input:

The incidence of disasters is rising (ongoing) in many of our core countries.

Interventions unfolded in more vulnerable social + agricultural systems

$55$ Impressive sums are spent in disaster periods; often more than in routine agricultural development. Research should steer funds to support, not undermine, systems

Much of ‘emergency’ work is not in acute stress or disaster contexts at all. Rather, the lion’s share is in chronic stress, marginal areas, where R&D has failed to have much-needed impact

Example: Ethiopia has received seed aid since 1974, and near continually since 1983-94 years. This has cost an estimated SUS 500 million—and there is modest (if not) evidence of seed system strengthening.

*Sperling et al. 2007.

**What farmers have to say**

Humanitarian practitioners fall into particular ‘camps’ around the aid approaches they favor. Direct Seed Distribution (DSD) proponents praise its ability to access ‘good quality’ seed and its simple logistics of procurement and delivery. Cash or voucher supporters site enhanced farmer choice and greater circulation of project money within local economies.

However, the view from farmers is a much more nuanced one. No one approach is a priori better than another. They seek aid which—has little room for manipulation; gives a product they want; and which especially allows them to strategize.

Studies clearly show how farmers’ strategies with emergency assistance. They may: choose their priority crops and mix modern and farmers varieties, obtain seed for the following season, wait to obtain the correct varieties based on last-moment observations of rainfall patterns, explore new crops/varieties, or obtain specific adapted crop types no longer available locally.

What research highlights especially is the degree to which farmers want and can be engaged as active agents, rather than as ‘victims’ in stress periods.

McGuire and Sperling, (in review, 2008)

**Selected References**


Partners

Society of experts have been involved at different phases of this work, all receiving dan

**How research is improving response in really high stress systems: emergency seed aid in Africa**

**Key researches in improving disaster response**

- Understanding how disasters affect seed systems and farmer vulnerability

  During drought, flood, short war and long-term civil strife, research shows that local seed systems are generally remarkably resilient. Some seed comes from home stocks, and local seed grain markets fill in the rest.

  In fact, even when seed aid is given, farmers often prefer to sow from local sources (including markets) as they know the varieties and trust the sellers. This was true of even in extreme cases, such as post the Rwanda civil war and genocide in 1994, and in Afghanistan, 2002-03.

  Disaster strikes: what happens to seed systems? Common stereotypes assume that systems breakdown and that seed (and varieties) become unavailable and need to be supplied, quickly.

  So the engine of food aid triggers a chain of support activities, including seed aid, and possible germplasm restoration.

  Extensive field evidence shows these assumption on seed systems to be wrong. Rarely do they totally collapse and even more rarely is ‘seed availability’ the problem.

  Remington et al. 2002

- Guiding implementation: what works, what doesn’t, what harms

  For farmers to be seed secure, three conditions must be met: seed has to be available; farmers need to be able to access it; and the quality has to be sufficiently to promote healthy seed system functioning.

  Three essential elements of seed security

  **Element of seed security**

  **Description**

  **Availability**

  In the majority of cases, seed can be obtained within seasonally proximity (spatial availability) and in time for critical growing periods (temporal availability).

  **Access**

  People have adequate cash or other resources to pay seed costs, possible credit or friends and relatives helping to help to buy appropriate seed or better, for their needs. Seed can be available and accessible, in a timely fashion.

  **Quality**

  The supply of clean, healthy and quality, and in some varieties geographic traits like size, shape and taste of traits are acceptable to the farmers.

  Remington et al. 2002

- Stress (i.e. different kinds of disaster) rarely undermines all these conditions simultaneously. By far, the most common post-disaster seed-related problem farmers face is reduced access. This happens as market prices go up, or because farmers no longer exchange seed, or because farmers suddenly have a log of other urgent needs (e.g. crucial medical assistance), just when their assets have gone down.

  An actual scare of seed, a problem of availability, is rare. It may happen when farming systems are wiped out on mass, such as with major floods. Quality concerns usually emerge only with large-scale outbreaks of pests or diseases, such as Cassava Mosaic Disease (CMI) in East Africa. In this case, the varieties routinely planted by farmers may no longer be suited to local biological conditions.

  The immediate challenge is to link specific seed security problems with targeted action. Misplaced responses have had various consequences: e.g. making farmers even more vulnerable, undermining local and formal markets, creating dependencies.

- Developing strategic tools

  - Assessing Seed Security
  - Agricultural Education = Seed Relief
  - New Varieties = Seed Relief
  - Understanding what farmers see: focus on markets
  - The Power of Evaluation
  - Checklist for Seed Aid Proposal Development

  Scientific findings need to be packaged as practical advice, geared for change. These seed aid practice briefs have been downloaded by over 25,000 users: in English French and Portuguese.

In addition USAID/ODA, the world’s major emergency aid donor, has posted this practice brief link on its government website, right next to the grants section.


- Shaping enabling policies: international and national

  - Food Aid Guidance Principles for Seed Relief

  Policies have to enable better practice in concrete ways – and need to keep match state of the art knowledge. Our analyses promoted revised international guidelines for seed aid within the UN system. Adopted 2004, new guidelines advise that (inter alia) the type of aid given should be tailored to the context (drought, war, flood) that aid should be based on understanding of seed systems farmers routinely use (informal as well as formal); and that farmers have the right to choose, even during an emergency.

As of February 2008, the nation government of Ethiopia is also launching a process for seed aid guideline development.