

Disaster Risk Reduction: Addressing the longer term issues



The Horn of Africa is currently dealing with the after-effects of one of the worst droughts in a decade. Although the recent onset of the rains has brought respite to many parched areas, food security continues to deteriorate throughout the region. Worse, meteorologists predict a period of intense rainfall due to the El Niño weather phenomenon, which could trigger massive flooding in several countries before year-end. Analysts are concerned that heightened vulnerability levels in many drought-stricken communities will exacerbate the impact of flooding. In this issue of CAN, we report on the ways in which research by CGIAR centres – through Disaster Risk Reduction – is enhancing the ways in which relief and development agencies respond to natural hazards such as drought and floods.

In the Horn of Africa, more and more people are affected each time a drought occurs. Drought is becoming more frequent, allowing less time for recovery in between droughts, and increasing the vulnerability of local populations. Emergency food security interventions implemented in response to drought tend to involve the distribution of seed, water, fodder and veterinary inputs. The Food and Agriculture Organization (FAO) estimated that, by the mid-1990s, more than US\$10 million per year was being spent on procuring seed for emergency projects in the Greater Horn. Yet a number of studies conducted by ICRISAT, CIAT, IITA and others have shown that the impacts of conventional seed aid (as implemented throughout the 1990s) were not as positive as assumed. In Kenya, for example, a review of seed aid distributed in response to the droughts of 1996-97 and 1998-99 found that agencies were generally vague about the aims of seed aid, which had done little, if anything, to strengthen farming systems (Sperling, 2002).

More recently, aid agencies responding to drought have begun to understand the need to address the longer-term issues relating to chronic vulnerability, rather than just the immediate emergency needs. The Kenya Emergency Humanitarian Response Plan for 2010, for example, proposes the distribution of seeds of drought tolerant crop varieties, the protection of livestock assets and restocking with relevant species, the promotion of improved water harvesting, and soil and water conservation, as well as training on issues relating to resilience, improved crop production technologies and linkages to markets. This illustrates a much better grasp of the technological issues relating to emergency agricultural interventions, and integrates Disaster Risk Reduction approaches into relief responses to enhance preparedness and resilience to shocks, and ensure linkages to development priorities.

This shift in response allows aid agencies to draw on the technologies available through CGIAR research. Out of the 55 'best bet' CGIAR technologies compiled in a report to World Bank (Ortiz, 2008), over 20 are considered as relevant to preparing for, and responding to the impacts of, drought and floods among farming and pastoral populations. These include breeding crops for drought tolerance, forage and fodder development, and technologies for soil and water conservation. But – perhaps more importantly – aid agencies must be able to access the information and inputs associated with these technologies. The DFID-funded Protracted Relief Project (PRP) in Zimbabwe (Phase I: 2003/4 – 2006/7 and Phase II: 2007/8 – 2010/11) provides a model of successful collaboration between NGO aid agencies and CGIAR centres that can be replicated elsewhere.

The PRP is implemented by more than 10 major international NGOs plus numerous sub-contracted local NGOs and is designed to ensure that all relief interventions are consistent with a long term developmental agenda. Whilst NGOs have the capacity needed to deliver inputs and technologies, they often lack good technical advice and skills. DFID therefore directly contracted CIAT, CIMMYT, ICRAF and ICRISAT to provide technical advice and support to the PRP. CIMMYT and ICRISAT were initially involved in the design and content of the agricultural components of the PRP. Under Phase II, CIAT and others have been providing more rigorous forms of assessment, including seed security assessments, to help the PRP in better understanding actual constraints and opportunities. ICRISAT has become more active in various working groups and steering committees, particularly in the promotion of conservation agriculture, to farmers facing draft power constraints. ICRISAT is seeking to influence the adoption of a market based agricultural relief input distribution system, compared to the traditional direct seed and fertilizer deliveries that have been criticized of undermining input markets. Evidence now shows that an increasing number of donors in Zimbabwe are now supporting this initiative to move toward market-based relief input supply.

Many agencies, including UNDP, the World Bank and many donors, are now convinced that it is more cost-effective to invest in preventative steps to mitigate the effects of disasters, rather than deal only with their aftermath. Disaster Risk Reduction can be defined as the development and application of policies, strategies and practices to minimise vulnerabilities and disaster risks through mitigation and preparedness. *Disaster mitigation* includes actions taken to minimise the extent of a potential disaster, and *disaster preparedness* are measures taken to forecast or warn against disasters, take precautions when they threaten and arrange for appropriate response. Up until recently, development actors have been slow to incorporate DRR into their work, and DRR has fallen into the gap between development and relief. However, with the increasing frequency of climate-induced natural hazards such as droughts and floods, development actors are now beginning to recognise the urgency with which DRR needs to be addressed. The cases described here show that there is considerable potential for agricultural researchers to contribute to DRR planning and strategies, and the increasing frequency and impacts of natural hazards makes this all the more urgent.

Contact the author: **Kate Longley**, [k.longley@odi.org.uk]

References

- Ortiz, R. 2008. Alliance of CGIAR Centers' Best Bets to Boost Crop Yields in Sub-Saharan Africa – Data entry sheets responding to a request from the World Bank
- Sperling, L. 2002. Emergency Seed Aid in Kenya: Some Case Study Insights on Lessons Learned During the 1990s. *Disasters* 26(4): 329–342.

Come drought or flood, aquaculture builds resilience

Smallholder farms in Malawi that include fish ponds were found to be more efficient than others under drought (www.youtube.com/TheWorldFishCenter). WorldFish research on resilience in emergencies also found small ponds to be great assets following floods. Fish hurriedly harvested from damaged ponds after a devastating cyclone in Bangladesh provided food in the first days following the disaster, when households needed it most. Farmers were able to repair their ponds without assistance and, with a starter pack of fish seed and lime, restore their ponds' productivity in the next cycle (www.worldfishcenter.org/wfcmcs/HQ/article.aspx?ID=719).

COLLECTIVE ACTION NEWS is a periodical e-publication of the CGIAR's Regional Plan for Collective Action in Eastern and Southern Africa, hosted at the International Livestock Research Institute and the World Agroforestry Centre, both of which are supported by the Consultative Group on International Agricultural Research (CGIAR)

Newsletter team:
Kate Longley, Michael Hailu, Rebecca Selvarajah-Jaffery, Susan MacMillan and Reagan Sireng

Questions, comments, feedback? Please email: r.selvarajah-jaffery@cgiar.org

© 2008 Copyright and Fair Use.
ILRI and World Agroforestry Centre encourage fair use, without alteration, of these materials for non-commercial purposes. Proper citation is required in all instances. Information owned by other providers and requiring permission is marked as such. Website links provided by our sites will have their own policies that must be honoured. The information provided by ILRI and World Agroforestry Centre is, to the best of our knowledge, accurate although we do not guarantee the information nor are we liable for any damages arising from its use.

Visit our websites:
<http://www.ilri.org>,
<http://www.worldagroforestry.org> and
<http://www.ilri.org/regionalplan/index.php>