



Drought: Vulnerability and Crisis in Drylands

Societal, institutional and environmental dynamics make drylands populations in Africa vulnerable to climactic fluctuations.

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The more directly dependent a population is on the natural resource base, the greater their vulnerability to a disruption in the productivity of that natural resource base. This scenario is particularly true of drylands, which are occupied by some of the most ecologically and politically marginalized populations on the globe. In the drylands, the most limiting natural resource is water, and therefore an extended disruption in rainfall can trigger a crisis, and sometimes even famine on a catastrophic scale, as in the early 1970s and 80s in Africa. Drought is a normal part of climate and is characteristic of the drier areas of the globe occupied by some 40 per cent of the world's population. It can be thought of as an 'extreme' climatic event, an extended period of unusually low rainfall. Climate modelling exercises indicate that the average level of rainfall in many dry areas will decrease even further.

Drought is the single greatest natural hazard around the globe, on the criteria of mortality rate alone. However, death is simply the most severe consequence of drought. Other less visible but insidious effects such as erosion and loss of livestock can undermine the capacity of a population to recover from a disaster, increasing their vulnerability to subsequent droughts. The degree to which a population will be impacted by a natural hazard depends on their response options or their degree of vulnerability, which in turn can be decreased by prudent pre-drought planning and mitigation of effects during the event or the lack thereof.

Vulnerability to drought is complex, and yet essential to understand in order to design drought preparedness and mitigation strategies and relief policies and programmes. In general, the less prosperous a household or a society, the fewer options it can afford in terms of response. Poverty, however, is not the same as vulnerability. Two households or societies may have similar levels of poverty but different levels of vulnerability. For example, one household or society may be primarily dependent on just one or two forms of income generation, such as monocropping for export, while another may depend on diversified livelihoods. Both groups can have the same level of income, yet when they are both exposed to a shock such as drought, the former will likely become poorer than the latter because there is a greater exposure to risk and/or because they have less response options. The key to designing successful strategies for drought preparedness and mitigation (DPM), therefore, is to understand who is vulnerable and why. Such examination can point to structural, socio-economic issues which present societies with difficult choices between consumption today or investment in crisis prevention for tomorrow. It also raises dilemmas about the redistribution of resources between groups, regions or sectors.

These analyses are locally specific and therefore any DPM strategy - at any scale - must be developed for that locality (community, region, nation, supranational). Unfortunately, the scale at which natural hazards operate often does not correspond to the administrative units which would carry out DPM activities, requiring a high degree of cooperation between administrations. These kinds of cooperations exist in relief efforts where international transfers of 'virtual water' (the water used to grow grain) have occurred from a non-affected area to an affected area. It is now time, however, to move beyond relief, which simply addresses the symptoms of the problem, and turn attention to the underlying problems themselves.

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These problems typically revolve around questions of historic patterns of investment and development policies, which need to be re-examined. It can be tempting to continue to simply address the symptoms, or the crises, rather than the fundamental problem of societal vulnerability since famine relief is typically paid for by external agencies, while investment in new patterns of development to prevent crises may not be. Rather than explaining the crises away as a consequence of natural and by implication unavoidable phenomena (such as drought), bodies which have traditionally supported famine relief should be shifting from symptoms to problems by supporting long term, strategic investments in DPM strategies which address the vulnerability which leads to crises.

The objective of the UNDP Drylands Development Centre's DPM Programme is not to prescribe solutions for any particular country but rather to facilitate a process within countries requesting UNDP support for the identification of vulnerable populations. Dryland populations, which have typically received the least support from both colonial and post colonial administrations in economic development, are often identified in this category. Although, dryland groups use the natural resources they depend upon in an efficient manner, the event of a crisis can overwhelm their internal capacity to rebuild the asset base, and they ultimately respond with migration. Such migrations account for many of the internally displaced persons around the world, who might be termed 'environmental refugees'. These movements, especially when they cross national borders, can spark conflict. Thus the expenditure on increasing the resilience or 'drought proofing' of these livelihood systems can actually be seen as an investment in national security and environmental conservation. It also results in cost savings in famine and resettlement expenses, while at the same time reducing competition for scarce urban employment.

The Drylands Development Centre has worked on climate-triggered crises in vulnerable areas for almost three decades, particularly in Africa. Their operations revealed a need for a more systematic approach that linked environment, poverty, vulnerability, economic development and governance. The Centre's vision for DPM revolves around helping build drought-resilient societies through:

- A country demand driven process based on national priorities expressed in some 60 National Action Plans to Combat Desertification which DDC has helped develop in the context of the Convention to Combat Desertification; a study of PRSP's; and as made clear in national Integrated Drylands Development Programme documents.
- A systematic response based on DPM which examines the problems and opportunities in drought related crises particular to each country, in order to identify the best way to achieve capacity development for timely and effective response to drought situations.
- Linkage of early warning and response at various scales. An initiative has been developed with various partners covering eight African countries has been developed which will link: a) local drought knowledge and practices to 'scientific' early warning b) local level drought coping strategies to district, national and subregional response strategies to phenomena such as El Nino Southern Oscillation (ENSO), and c) early warning to early response at various scales. The degree of integration achievable will be country specific. A mechanism for exchange of best practices, the African Drought Risk Reduction Network, is being put in place in conjunction with UN/ISDR and whose benefit will go beyond the eight countries benefiting from the project.
- Pursuing disaster preparedness as a development strategy. In view of the multiple and recurrent crises in many areas of the world, it is clear that development policy does not seem to have addressed the structural issues which lead to humanitarian crises when a natural hazard strikes a vulnerable population. In Africa, 80 per cent of deaths associated with natural hazards are the result of droughts/famines. Together, these natural and human crises dramatically undermine food security for the individual and undermine the resilience of society as a whole in the face of future shocks. It is critical, therefore, to take a holistic view focusing on the question of who is affected most by natural hazards and why.