

# 3 DISASTER RISK REDUCTION IN THE PASTORAL CONTEXT

On a global scale, disasters have risen dramatically in the past four decades. An estimated 60,000 people die and a quarter of a billion people are affected each year by disasters. More than half of global fatalities occur in the least developed countries. Poorer countries suffer far higher economic losses caused by disaster in proportion to their gross domestic product, undermining hard-won development gains and further weakening the potential for development. Poorer countries lack the resources and have weaker capacity to mitigate potential disaster impacts or respond when a disaster occurs.

## Distribution of Natural Disasters by Origin (1900-2005 by decade)

	1900-1909	1910-1919	1920-1929	1930-1939	1940-1949	1950-1959	1960-1969	1970-1979	1980-1989	1990-1999	2000-2005	Total
Hydrometeorological	28	72	56	72	120	232	463	776	1498	2034	2135	7486
Geological	40	28	33	37	52	60	88	124	232	325	233	1252
Biological	5	7	10	3	4	2	37	64	170	361	420	1083
<b>TOTAL</b>	<b>73</b>	<b>107</b>	<b>99</b>	<b>112</b>	<b>176</b>	<b>294</b>	<b>588</b>	<b>964</b>	<b>1900</b>	<b>2720</b>	<b>2788</b>	<b>9821</b>

Source: [www.unisdr.org/disaster-statistics/occurrence-trends-century](http://www.unisdr.org/disaster-statistics/occurrence-trends-century)

The upsurge in the incidence of disasters means that governments and aid agencies devote increasing time and resources responding to them. However analysts now recognise that disasters can be reduced and in some instances even prevented by supporting people's ability to plan for and cope with predictable hazards. In recent years many agencies have started to expand their focus beyond simply responding to the consequences of disaster and are integrating disaster risk reduction (DRR) into their policies and programmes. Oxfam recognises that it will be unable to fulfil its mission to overcome poverty and suffering if it cannot comprehensively address chronic and acute vulnerability to disasters.

### Oxfam's Pledge - How we reduce the risk of disasters

In all our work we aim to ensure that poor communities are less at risk from future natural hazards, and better able to cope should disaster strike. We identify and assess the risks, and allocate our resources appropriately. Disaster risk reduction encompasses prevention, mitigation and preparedness work. Natural hazards are often predictable, such as yearly floods, and cyclical droughts. We are working with communities to help them adapt to their situations. Oxfam GB (2008)

## Understanding Disasters

Disasters are caused by rapid onset natural hazards such as tropical storms or earthquakes and slower-onset or man made hazards such as drought or war. Disaster is defined as "a serious disruption of the functioning of a community or a society causing widespread human, material, economic or environmental losses which exceed the ability of the affected community or society to cope using its own resources"<sup>(1)</sup>.

The causes of disasters are frequently the result of a complex combination of factors. Factors such as HIV/AIDS, climate variability, environmental degradation and inequitable terms of trade can all exacerbate natural events such as drought or floods and cause chronic suffering in their own right.

### What is Disaster Risk Reduction (DRR)?

DRR encompasses all actions taken to reduce disaster losses by addressing, not only, the hazards themselves, but also people's vulnerability to them. Disaster risk reduction interventions need to build resilience to a hazard both before and after it occurs. Although there are distinct DRR interventions and activities, DRR is also about systematically incorporating risk reduction considerations into all development and humanitarian policy and practice. Mainstreaming DRR is essential if the vicious spiral of poverty and vulnerability to disasters is to be broken.

(1) UN International Strategy for Disaster Reduction [www.unisdr.org](http://www.unisdr.org)



## Disasters in the Horn And East Africa

Drought and other hazards represent a major threat to livelihoods and development in the ASAL. Recent decades have seen an unprecedented growth in the numbers affected by drought and food insecurity.

Numbers Affected by Drought in Kenya (1975 – 2006)

Year	Number of People Affected
1975	16,000
1977	20,000
1980	40,000
1984	200,000
1992	1.5 million
1995/96	1.4 million
1999/2000	4.4 million
2004/06	2.5 – 3.5 million

Source: Disaster Management Policy, Government of Kenya, 2004: Rapid food security assessments by Kenya Food Security Steering Group

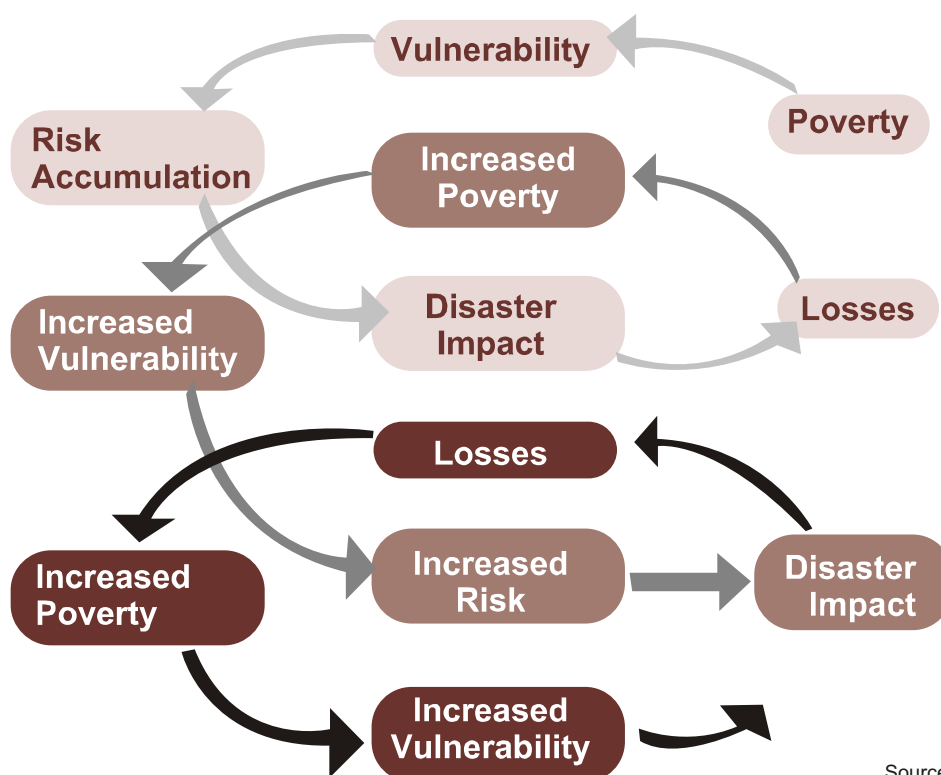
## The Hyogo Framework for Action (2005-2015)

Priorities for action

- « Ensure that disaster risk reduction is a national and a local priority with a strong institutional basis for implementation
- « Identify, assess and monitor disaster risks and enhance early warning
- « Use knowledge, innovation and education to build a culture of safety and resilience at all levels
- « Reduce the underlying risk factors
- « Strengthen disaster preparedness for effective response at all levels

These are all essential components to deliver if a reduction in disaster risk is to be achieved. We can see that in its broadest sense DRR relates to all the ways that Oxfam tries to address poverty and suffering.

## Negative Spiral of Risk, Vulnerability and Poverty



Source: Marilise Turnbull, Oxfam GB

It is important to remember that vulnerability is not the same as poverty although the two often go hand in hand. For this reason DRR emphasise the integrated analysis of risk, vulnerability and capacity in order to identify the most vulnerable to different hazards rather than simply identifying the poorest. Disaster Risk Reduction is not necessarily about establishing new or distinct DRR projects. Disaster risk is most effectively reduced when DRR principles are internalised into wider programming such as Ethiopia's Productive Safety Net Programme (see box next page).



### Box 1 - Risk, Hazards, Vulnerability and Capacity – Key Concepts

Risk, hazard vulnerability and capacity are key terms with distinct meanings:

- « Risk is the probability of harmful consequences, or expected losses (deaths, injuries, property, livelihoods, economic activity disrupted or environment damaged) resulting from interactions between natural or human-induced hazards and vulnerable conditions.
- « Hazards are potentially damaging physical events, phenomenon or human activities that may cause the loss of life or injury, property damage, social and economic disruption or environmental degradation. Hazards can be natural e.g. drought; man-made e.g. conflict; or a combination of both e.g. livestock disease.
- « Vulnerability describes a community's inability to cope with, withstand and recover from hazards. If people can be made less vulnerable or non-vulnerable to disaster risk, then a hazard may still occur but need not produce a disaster. The major determinants that make people vulnerable are the social, economic, political, environmental and ecological factors which determine the level of resilience of people's livelihoods. Vulnerability is always to a specific hazard.

- « Capacity describes all the strengths and resources available within a community, society or organization that can reduce the level of risk, or the effects of a disaster. Capacity may include physical, institutional, social or economic means as well as skilled personal or collective attributes such as leadership and management. Capacity may also be described as capability.

The Risk Management Formula illustrates their interaction:

$$\text{Disaster Risk (R)} = \frac{\text{Hazard (H)} \times \text{Vulnerability (V)}}{\text{Capacity (C)}}$$

The formula illustrates that the greater the magnitude of a hazard and the lesser the capacity to cope, the greater the risk. It makes clear that risk can be reduced either by the reduction of the effects of a hazard or the vulnerabilities of communities to it.

Adapted from UN International Strategy for Disaster Reduction - [www.unisdr.org/eng/library/terminology](http://www.unisdr.org/eng/library/terminology)

### Box 2 - Integrating DRR – Ethiopia's Productive Safety Net Programme

Ethiopia is one of the most chronically food insecure countries in the world. Repeated drought and environmental degradation combined with increased population have resulted in annual "emergency" appeals for food and other assistance. Humanitarian response operations have saved many lives but done little to reduce the vulnerability of food insecure people to further shocks. Humanitarian assistance was unpredictable and ineffective. As a result the numbers seeking food relief and being classed as 'destitute' were actually increasing.

The Productive Safety Net Programme (PSNP), launched in 2005, was an attempt to break this destructive cycle. The programme provides predictable and timely cash and food transfers to up to 7.2 million Ethiopians each month. The transfers are made to vulnerable households even when the harvest is good. This enables the vulnerable to build assets in good years and improves their ability to cope in bad ones. Families who are able to work get cash or food in exchange for participating in public works. Those who cannot work such as the elderly, are given direct help. By guaranteeing

that cash or food will be provided, the Programme protects people from the adverse effects of shocks and gives them the means to plan for the future. It is proving far more effective than annual emergency assistance and is already having a significant impact on the lives of many Ethiopians. It is helping families to:

- « Get the food they need when they need it.
- « Avoid selling their productive assets to buy food.
- « Continue to send children to school even during drought periods.
- « Take out loans which they had previously found too risky.

Source: [www.dfid.gov.uk/casestudies/files/africa/ethiopia-psn](http://www.dfid.gov.uk/casestudies/files/africa/ethiopia-psn)

## Disaster Risk Reduction in the Pastoral Context

The drought cycle management (DCM) model was developed to guide both humanitarian and development programming in pastoral areas by recognising the centrality of drought as a factor affecting pastoral livelihoods. Consequently DCM is an excellent model for mainstreaming DRR in the pastoral context. The DCM model emphasises the need to prepare for and mitigate the impact of drought. The table below explains what some of the common DRR terms mean in the pastoral context. The interventions listed are not exhaustive and some overlap as the same activities, done well, can work to prepare for, prevent and / or mitigate disasters.

### Understanding and Applying Key Disaster Risk Reduction Terms in the Pastoral Context

#### Disaster Prevention

Although it is possible to prevent many natural hazards e.g. floods through the construction of flood defences, little can be done to prevent drought itself. However much can be done to prevent other hazards that exacerbate the impact drought. Activities include:

- « Peace building and conflict resolution
- « Supporting animal health services, e.g. vaccination campaigns
- « Improving livestock marketing policies or trade restrictions
- « HIV/AIDS interventions
- « Advocacy and campaigning

#### Disaster Mitigation

This term is used to describe activities that help to moderate or reduce the impact of droughts and other hazards before they arise.

- « Water – maximising the number and reliability of water sources e.g. rehabilitating boreholes, construction of water catchment systems, training water user associations
- « Livestock – Improving markets; facilitating animal off-take before livestock condition and prices decline.
- « Livelihoods – cash or other social transfer programmes, establishing grain banks, fodder stores, saving / credit associations
- « Education – supporting mobile / alternative education systems
- « Human health – consistent EPI, hygiene and sanitation promotion
- « Advocacy on key policy issues e.g. land use planning, environmental protection

#### Disaster Preparedness

Ensuring people are prepared for hazards before they occur. It entails ensuring plans are in place to implement timely responses when an emergency arises. Good contingency planning and early warning information systems are central.

- « Establishment and capacity building of Disaster Management Committees and other structures – development of contingency plans by all parties
- « Supporting key stakeholders and communities to establish / improve EW information Policy advocacy on DRR /DCM with partners
- « Development of internal organisational contingency plans that set out the resources (including staff), systems and structures required to scale up response during the drought cycle.

#### Disaster Response

Activities that take place after the disaster hits. Interventions should ideally have been previously identified in contingency / preparedness plans and based on sound analysis of risk, capacities and vulnerability. Actions include:

- « Food or cash for work programmes (ideally geared towards risk reduction e.g. dams or de-silting water pans)
- « Water tankering and borehole maintenance
- « Supplementary / therapeutic feeding programmes
- « Emergency (EPI) immunisation campaigns for humans and livestock
- « Livestock off-take

#### Disaster Recovery

This involves activities that promote recovery from the drought to “build back better”. The aim is to use the experience of the drought to identify where communities coping mechanisms were weakest and effects felt hardest. Recovery activities should build resilience to beyond pre-drought levels

- « Restocking livestock – ensuring most appropriate animals / breeds
- « Promotion of drought resistant seeds, training and market linkages
- « Continuation of cash for work programmes until viable herds re-established / crops harvested or other income sources re-established