



Disaster Risk Reduction:

A Gender and Livelihood Perspective

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In Bangladesh, regular extensive flooding affects women and men differently. Here, a rickshaw driver is thwarted in conducting his daily work – reducing his source of livelihood, with potentially negative consequences for his family. Sunamganj, Bangladesh, 2006. (Photo: Lionel Giron, Intercooperation)

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A growing concern: “Natural” disasters and their impact on women and men

Increasing impact of disasters caused by natural hazards

“The water has never come up so high as during the heavy floods in September/October 2007. Everything was under water; we lost most of our household goods and animals. For almost one month we were forced to stay in the flood shelters. Thanks to having learned how to store vegetables (pumpkins and potatoes) in the soil, we could dig them out when the rains came and had something to eat.”

Konahari Das, village woman in Uzan Jatrapur, Sunamganj, Bangladesh.

Human beings have always had to cope with natural hazards – floods, droughts, earthquakes, volcanic eruptions, too much or too little rainfall, and the like. A natural hazard in itself does not cause a disaster; a disaster results when a natural hazard impacts on a vulnerable, exposed and/or ill prepared community. Indeed, a crucial point about understanding “natural” disasters is that they are not purely the result of natural events, but the product of the social, political and economic context in which they occur.

Disasters are now occurring at a scale and frequency that is causing unprecedented impacts worldwide. One simple reason is that the world’s population is higher than ever before; thus there are more human beings to be potentially impacted, and more are being forced to live in high-risk areas. However, scientific evidence also indicates that weather-related hazards are becoming more frequent and intense due to the impact of climate change. Over the last two decades (1988–2007), 76% of all disasters were hydro-meteorological in nature. Widely-reported examples include the devastating hurricanes Mitch (1998, Central America) and Katrina (2005, USA); the European heat wave (2003); and severe floods in Mozambique (2000) and Northern India (2008).

People in developing countries are particularly vulnerable to disasters as they often live in high-risk areas, have lower coping capacities, and have limited or no risk cover in the form of insurance or other safety nets. Furthermore, they are heavily dependent on climate-sensitive primary industries – notably agriculture, forestry or fisheries. Thus they risk both injury/death and major disruption to their livelihoods. On an average annual basis, one in 19 people living in the developing world was affected by a climate disaster (between 2000–2004). The comparable figure for OECD countries was one in 1,500 affected – a risk differential of 79.

Development efforts wiped out

A disaster can eradicate years of local development efforts in a few minutes or hours. Indeed, the increased number and scale of disasters is recognised as a major threat to the achievement of the Millennium Development Goals (MDGs).

UNISDR Terminology on Disaster Risk Reduction (2009)
www.unisdr.org/eng/library/lib-terminology-eng.htm

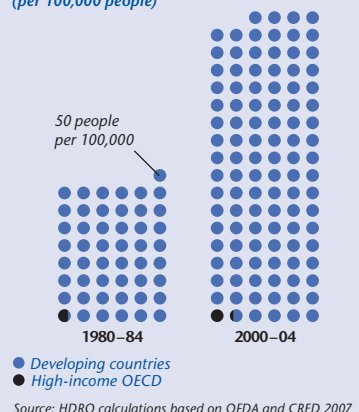
For more information on “natural” disasters, see:

At Risk: Natural Hazards, People’s Vulnerability and Disasters
www.unisdr.org/eng/library/Literature/7235.pdf

International Disasters Database EM-DAT
www.cred.be

Disaster Risks are skewed towards developing countries

Risk of being affected by natural disaster (per 100,000 people)



Human Development Report 2007/2008
<http://hdr.undp.org/en/reports/global/hdr2007-2008/>

Most of the documents mentioned in the margin are annotated in the list of references.



For example, Hurricane Mitch caused economic losses of nearly US\$4 billion in Honduras (corresponding 70% of the GDP of that year) – a set back of the Honduran economy of more than 20 years.

- **Prevention:** avoidance of adverse impacts of hazards and related disasters.
- **Preparedness:** knowledge and capacities developed to effectively anticipate, respond to and recover from the impacts of a hazard event.
- **Mitigation:** lessening or limitation of the adverse impacts of hazards and related disasters. (In the field of Climate Change, mitigation refers to reducing greenhouse gas emissions).

UNISDR Terminology on Disaster Risk Reduction (2009)
www.unisdr.org/eng/library/lib-terminology-eng.htm

Hyogo Framework for Action: Properties for action

- 1 Make Disaster Risk Reduction a Priority**
 Ensure that disaster risk reduction is a national and a local priority with a strong institutional basis for implementation
- 2 Know the Risks and Take Action**
 Identify, assess and monitor risks – and enhance early warning
- 3 Build Understanding and Awareness**
 Use Knowledge, innovation and education to build a culture of safety and resilience at all levels
- 4 Reduce Risk**
 Reduce the underlying risk factors
- 5 Be Prepared and Ready to Act**
 Strengthen disaster preparedness for effective response at all levels

Hyogo Framework for Action 2005–2015
www.unisdr.org/eng/hfa/docs/HFA-brochure-English.pdf

Not only are people in developing countries particularly vulnerable to natural disasters, but it is the poorest and most disadvantaged amongst them who are at greatest risk – a phenomenon also seen in developed countries. Disasters are most prevalent in areas that are marginal for human habitation. These include geologically unstable mountainous areas (subject to earthquakes, volcanic eruptions, glacial lake outflow [GLOFs], landslides, mudflows); riverbanks and alluvial plains (subject to unexpected and severe floods), and estuaries and coastal strips (subject to cyclones and tidal waves). It is here that the poor and disadvantaged tend to congregate, having nowhere else to live.

The concept of Disaster Risk Reduction

Disaster Risk Reduction (DRR) is a conceptual framework intended to systematically avoid (prevent) and limit (prepare/mitigate) disaster risks with regard to losses in lives and the social, economic and environmental assets of communities and countries. Successful disaster risk reduction must be instigated well before a disaster strikes; in other words, it is crucial to shift the focus away from merely responding to disasters, and to focus particularly on disaster prevention and preparedness activities.

A cornerstone of DRR is the Hyogo Declaration, made at the World Conference on Disaster Reduction in Kobe, Hyogo (Japan). This sets out the Hyogo Framework for Action (HFA) (2005–2015). Signed by 168 countries, its overarching goal is to build the resilience of nations and communities to disasters by achieving substantive reduction of disaster losses by 2015. The framework is organised according to five priorities for action (see margin). Since the adoption of the HFA, many efforts have been made at the global, regional, national and local levels to address DRR systematically. In Poznan at the 14th Conference of the Parties (COP 14), the issue of how DRR and climate change issues can be addressed in a holistic manner was widely discussed.

Why is it important to consider gender issues in DRR?

As mentioned earlier, disasters result from natural hazards impacting on vulnerable communities. The degree of vulnerability, and thus of disaster impact, is defined by social variables such as gender, age, health status, ethnicity, religion and socio-economic status. A full understanding of such social factors is necessary to identify the underlying causes of disasters and thus try to prevent them.

In discussing DRR from a gender perspective, this paper highlights a very important factor determining vulnerability. As will be seen, in many countries, women are particularly at risk from disasters, although this is not true for all parts of the world. Furthermore, understanding why women are often vulnerable and taking appropriate steps can make a huge difference on impact – as has been demonstrated in the case of Bangladesh. In this country, very high mortality rates after the 1991 cyclone, particularly amongst women, prompted a whole series of disaster prevention and preparedness measures. In the following section, the need to adopt a gender approach is outlined. This is then linked in the subsequent section to a livelihoods approach in discussing practical DRR activities.

The need to adopt a gender approach

What is meant by a gender approach

Gender may be defined as the socially or culturally constructed interactions (roles and relationships) between women and men, which are often specific to context and may change in response to changed circumstances. Often women lack power in their interactions with men, although the reverse can also be true. Empowering women does not imply disempowering men; a gender approach entails the promotion of equitable power relations between women and men, based on mutual respect and understanding.

Gender difference in vulnerability

In the first section, it was noted that there are differences in the vulnerability of women and men to disasters and that these demand differentiated responses. Some aspects of gendered vulnerability are biological, whilst others are more culturally determined. Vulnerability in this context is defined as the characteristics of a group/household/individual and their situation which influence their capacity to anticipate, cope with (immediate survival), resist (subsequent survival), and recover from the impact of a natural hazard.

Anticipating disasters

Being well informed about the likelihood of disasters, the reason for them, and what one should do during a hazard event, strongly influences one's chance of survival. In many parts of the world (particularly Africa and Asia), men are better placed than women to anticipate disasters because they are more likely to read information in newspapers and elsewhere, to participate in community meetings, and to have access to other information sources. Women, by contrast, tend to have more limited literacy, and less time to participate in meetings (due to domestic, agricultural and other tasks). Even if they have time, they may be socially constrained from attending. "Informational vulnerability" can be fatal – for example, many people (both women and men) interviewed by researchers after the 2005 Kashmir earthquake in Pakistan considered that "God's will and destiny chooses who survives and what places get destroyed". Similar views have been heard in Bolivia, expressed amongst indigenous communities. Such views can severely constrain disaster prevention and preparation.

Coping with disasters

A disaster of course impacts immediately on those of the community who are present – something that can be strongly influenced by out-migration. In most cases, men are the main group in the population who are absent due to migration – but in a few cases it is women, as in some parts of Central Asia or the Philippines.

Socio/cultural constraints on women's behaviour towards men often contribute significantly to risk of death at the time of a disaster. For example, in Bangladesh hesitation on the part of women to enter mixed gender shelters was identified as an important factor in high women's mortality in the cyclone

"A gender perspective should be integrated into all disaster risk management policies, plans and decision-making processes, including those related to risk assessment, early warning, information management, and education and training."

Hyogo Framework for Action 2005–2015
www.unisdr.org/wcdr/intergover/official-doc/L-docs/Hyogo-framework-for-action-english.pdf

For more information on vulnerability, see:

At Risk: Natural Hazards, People's Vulnerability and Disasters
www.unisdr.org/eng/library/Literature/7235.pdf

In DRR terms, "anticipating" disasters corresponds mostly closely to the phase of mitigation (prevention, preparedness and mitigation measures).

For accounts of gendered vulnerability to the Kashmir earthquake, see:

The 2005 Kashmir Earthquake: A perspective on Women's experiences
www.bioone.org/doi/pdf/10.1659/mrd.0945

In DRR terms, "coping with" corresponds mostly closely to the phase of response (emergency situation).

According to the report by the government of Bangladesh, the death toll of women from villages along the coastal belt was higher than of men after Cyclone Sidr in 2007, due to their reluctance to squeeze into mixed shelters with unwanted physical contact to unknown men.

Women fare worst in Tsunami
www.developments.org.uk/articles/women-fare-worst-in-tsunami

In DRR terms, "resisting" disasters may be seen as bridging the phases of response (emergency situation) and recovery.

"Resilient societies are those able to overcome the damage wrought by the occurrence of natural hazards, either by maintaining their social fabric or by accepting marginal or greater change in order to survive."

Traditional Societies' Response to Volcanic Hazards in the Philippines
www.bioone.org/doi/abs/10.1659/mrd.0949

In DRR terms, "recovering from disasters" corresponds mostly closely to the phase of recovery (including rehabilitation and reconstruction).

In recent cases the government of India has insisted on transferring compensation to a bank account held jointly by the male and female heads of households. Widows and single headed households continue to face challenges if the property is not registered in their names.

of 1991; despite improvements, this was again the case in 2007. In many societies, particularly in Asia but also Africa, women are handicapped in escaping floodwaters because they cannot swim (learning to swim being taboo), and/or because they are weighed down by heavy clothing to "preserve their modesty". It was widely reported after the 2005 tsunami that women accounted for up to 80% of the deaths in some areas (particularly in Aceh, Indonesia, and in Sri Lanka). Similarly, cultural preferences for men to sleep outdoors in hot weather can mean more women being crushed by buildings when an earthquake strikes (as in some recent Indian earthquakes).

Women's reproductive functions also influence their vulnerability. Pregnant or lactating women, or those with small children, are physically less able to escape disasters, and tend to stay with their children, even if this means that they all die. Widows and elderly women are often physically vulnerable, and unable to gain help from men. An associated risk for women during disasters concerns their vulnerability to rape and domestic violence. Depending on the social context, this risk may be highest immediately around the time of the disaster, or increase after it.

It is not always women who are most likely to die in disasters, however. In Latin America, the strong cultural expectation of men being "protectors" and indulging in risk-taking behaviour can result in higher mortality – as was the case, for example, during Hurricane Mitch in Central America (1998).

Resisting disasters

In many societies, women are more conditioned to self sacrifice (service to others) than men. A generally inferior level of nutrition, or problems related to reproductive health, may also result in them being quickly exhausted and more likely to fall ill. The burden of keeping the family going after a disaster – of meeting needs for food, clean water, energy supply (collecting firewood), etc. also often falls more heavily on women than men. Walking long distances to collect fuel and water may increase the risk of sexual assault, as well as decreasing the time available for other tasks such as food production and preparation.

In terms of dealing with the psychological trauma of a disaster, men and women tend to react quite differently. Women often have to provide psychological support to others (particularly children), but they also tend to have a stronger awareness of social bonds and are able to support each other. Men, by contrast (particularly in Latin American culture) may experience strong feelings of frustration and alienation after disasters. This can be expressed physically, in increased domestic and sexual violence. Earlier marriage of girls and increased prostitution can also be prolonged effects of a disaster if a community is displaced or livelihoods are radically altered.

Recovering from disasters

In recovering from disasters, men often have better access to information and funding – putting women-headed households at a particular disadvantage. Women also commonly have fewer possessions to draw upon for reconstructing their lives – land and house ownership, in particular, often being only with men. For example, it was estimated that female-headed households lost disproportionately more assets in Hurricane Mitch.

Addressing disaster risk reduction through a livelihood approach

Protective measures save lives and livelihoods

"We are poor and depend on livestock and agriculture for our subsistence. We used to lose our homes and livestock almost every year because of heavy rains and floods. In the flood season of 2006, when half of the village was destroyed, I lost my home of four mud rooms and a boundary wall. To cope with these floods we always have to save some money, be vigilant and labour hard to repair our homes with mud. Thanks to the construction of protection measures, our house and livelihoods have not been affected despite the three big floods this year. For the first time we could spend our savings on health, and purchased a few goats instead of incurring costs to repair our house. Now we can sleep at nights and do not need to fear losing our possessions! Even women's workload has reduced: during the flood it was our duty to observe the water level and to store the mud and other material for protecting our homes, which increased our work load tremendously."

Shazado, village woman of Kohawar in North-West Frontier Province (NWFP), Pakistan.

Conditions like those faced by Shazado are commonplace in many developing countries. To reduce women's and men's vulnerability, the underlying causes of disasters need to be carefully analysed in a comprehensive manner.

The Sustainable Livelihood Approach is a tool widely used by development workers for better understanding livelihood strategies and identifying ways to strengthen and improve them. It can also be used in the context of DRR, to analyse vulnerability according to the six different livelihood assets: natural, physical, social, human, financial and political (taken here as a separate asset, although it may also be included in social assets). These assets together determine people's resilience. Resilience is very specific to the community, to household level and indeed to individual women and men.

The following section adopts a livelihood approach in analysing possible responses to natural hazards in a DRR context. Each livelihood asset is considered in turn, using specific case examples to show how DRR measures can be integrated into development initiatives, thus promoting a risk prevention culture. Particular gender considerations are outlined. While the focus of all the initiatives cited is poverty reduction (through the promotion of sustainable livelihoods, improved natural resource management and good governance) many of the projects work in hazard-prone areas and are therefore experienced in dealing with various natural disasters. It is widely recognised that communities practising broadly sustainable livelihoods, with strong local institutions, are better able to overcome disasters than others.

Natural assets: land tenure and droughts

Land, forests and livestock are fundamental assets to the survival of rural communities, but all are strongly affected by weather-related hazards. For example, in the case of droughts and desertification, people are often forced to migrate to other regions or countries if their natural resource base is destroyed.

"It is acknowledged that every dollar spent on risk reduction yields a return of at least four dollars in non-occurring disaster losses."

SDC Guidelines on Disaster Risk Reduction
www.riskandsafetynet.ch/en/Disaster_Risk_Reduction/document.php?itemID=1350&langID=1

The village of Kohawar is supported through the Livelihood Programme, implemented by Intercooperation on behalf of the government of NWFP and SDC.
www.intercooperation.org.pk/earthquake_relief.htm

For more information on the **sustainable livelihoods approach**, see:
www.id21.org/zinter/id21zinter.exe?a=2&i=r5cp1g1&u=4a1ec298
www.poverty-wellbeing.net

Responses to the Gujarat earthquake (2001) provide an example of using a livelihood approach in moving from a humanitarian to a development intervention.
www.iids.in/gujratearthquake.htm

CRISTAL, Community-based Risk Screening Tool, Adaptation and Livelihood, seeks to help project planners to analyse the impacts of climate change and disasters at the livelihood level. For further information and to download the tool:

www.cristaltool.org

Natural disasters are often categorized into sudden onset disasters (e.g. hurricane, earthquake) and slow onset disasters (e.g. desertification, drought). Effective disaster risk reduction needs to respond differently depending on the type of disaster.

Local convention: is an agreement among various communities within a region that defines and controls access to a given resource.

Highlighting Local Coping Strategies for Drought

www.unisdr.org/eng/about_isdr/isdr-publications/17-Gender.../Gender_Perspectives_Integrating_DRR_CC_Good%20Practices.pdf

UNISDR Terminology on Disaster Risk Reduction (2009)

www.unisdr.org/eng/library/lib-terminology-eng.htm

Structural measures (so called hardware): any kind of physical construction to reduce possible impacts of hazards or engineering techniques to achieve hazard-resistance and resilience in systems.

Non-structural measures (so called software): any kind of measures making use of knowledge, practice or agreement to reduce risks and impacts, especially through policies and laws, public awareness raising, training and education.

Mainstreaming Disasters Risk Reduction in Development Programmes – Experiences and Opportunities:

An assessment in South Asia
www.intercooperation.org.in/images/icindia/ic%20sa%20report.pdf

SDC wins the Holcim Award for Sustainable Construction: prize for the earthquake resistant housing

www.sdc.admin.ch/en/Home/News/Close_up?itemID=172657

In the Sahel region, the process of desertification, cyclical droughts and reduced rainfall has pushed many communities into migrating southwards. This has resulted in a variety of problems, of which a particularly common one is a lack of clarity on tenure and access rights. The usual strategy adopted is the elaboration of “local conventions”. These are of particular importance during periods of food scarcity, in preventing overuse of the natural resource. At the same time, a convention brings together the different interest groups to discuss their rights and needs and to reach an agreement on how to face and reduce their vulnerability. It is recognised that if one group is vulnerable, the whole local ecosystem and livelihood base is threatened.

From a gender perspective, women can be particularly vulnerable with regard to access rights to land, as under customary laws in the Sahelian region, agricultural land, trees and forests can usually only be owned by men. This situation is beginning to be challenged through a number of initiatives which – though still on a small scale – seek to support women in peri-urban areas in forming associations and gaining access to land by renting or purchasing plots (sometimes from their husbands). Providing land titles in the names of both men and women would be another strategy which remains, however, rather a rare one.

Physical assets: buildings, roads and boats

“Thanks to our disaster management training 10 days before the earthquake, we were able to respond quickly to the earthquake: rescuing many from debris of collapsed houses and provide them with first aid.”

A village woman of Batangian in North-West Frontier Province (NWFP), Pakistan.

Poor quality of housing and social infrastructure is a major concern in regions subject to earthquakes and floods. The destruction of buildings not only results in immediate deaths, but in rendering people homeless. Thus can result in subsequent deaths from exposure (to weather extremes) and disease.

In the aftermath of the 2005 Kashmir earthquake in Pakistan, a number of important structural measures were undertaken to strengthen the resilience of remote communities. These included the construction of earthquake-resistant houses (of which various designs were elaborated), the identification of safer locations for building, and the construction of access roads (both for bringing in relief supplies and providing escape routes in the event of future disasters). Non-structural measures included training on science-based awareness of earthquakes, and disaster preparedness.

As noted in the previous section, women accounted for a high proportion of the injury and mortality figures during the earthquake. Measures that can make a significant difference in coping and resisting disasters include gender-segregated bathing and latrine facilities; assistance to women in obtaining compensation because of lost identification cards and relocation; and in the longer term, support for women’s (home-based) income-generating activities.

A specific response in a remote flood-prone area of Bangladesh is the provision of school boats for children. This is a very low-cost measure, with high effectiveness. Without the boats, the children would have difficulty in getting to school. Parents are much more reluctant to send unaccompanied daughters to school. Furthermore, those having limited financial means invest first in the education of their sons. In providing safe transport for all children during the monsoon, the school boats have a special benefit for the girls.

*School boats are supported through the project for Livelihoods, Empowerment and Agro-Forestry (LEAF).
www.intercooperation-bd.org/leaf.php*

Social assets: challenging traditional roles

In times of crisis and disaster the differences between the way in which men and women react in adversity are often reinforced or challenged. This may intensify or reduce inequalities. Gender roles can be different from culture to culture, and it is crucial to avoid stereotypical assumptions.

"Most men...have only one primary role – that of provider – which means that if they are unable to fill that role (which is often the case during crises), they lack other ways of affirming their male identity. This lack of diversity and flexibility in gender roles can lead men to destructive or dysfunctional behavior (violence, alcoholism)."

A detailed analysis conducted in Nicaragua and Honduras after Hurricane Mitch showed some striking issues related to gender and disaster. As a direct result of this disaster, more men than women died. In the aftermath, many more men sought to re-build household assets through migration for wage labour. The result was a significant increase in female-headed households (in Nicaragua: from 24% to 40%). A breakdown in women's and men's traditional roles ensued. During the emergency, women performed traditionally male tasks (eg. clearing roads) and even attended non-traditional training. During the recovery period, women arguably performed a triple role – of reproduction, community organisation, and productive work in the informal sector. This placed women in a favourable position in comparison to men, who retained only their primary role – of provider. Tensions arose at the moment men and women were expected to return to their pre-disaster social role.

**Gender and Post-Disaster Reconstruction:
The case of Hurricane Mitch in Honduras
and Nicaragua**
www.sheltercentre.org/sites/default/files/
WB_GenderAndPostDisasterReconstruction.doc

By comparison with this Central American example, it has already been noted that women in Asian countries have higher mortality and injury rates in disasters than men. Nevertheless, some common gender-specific features may be observed.

- Female survivors are often at the front line of relief and reconstruction efforts even in countries where women's responsibilities are primarily home-based. External interventions should specifically recognise and support women in reducing the burden of this role.
- An important coping mechanism of women is the mobilisation of formal and informal social networks to meet their needs. This offers an opportunity for catalysing self-help activities (most obviously, through self-help groups).
- Women and girls are more likely to become victims of domestic and sexual violence after a disaster, particularly when families have been displaced and are living in overcrowded emergency or transitional housing where they lack privacy. The increase in violence is often partly attributed to stress caused by men's loss of control in the period following a disaster, compounded by longer term unemployment or threatened livelihoods. External interventions should both seek to minimise women's risk of exposure to sexual violence (for example, in gender-segregated accommodation where necessary) and to work with men to support them in a constructive post-disaster role.

PROSUKO (Program for Suka Kollus) is a rural development program aiming to support rural farmers in the Altiplano. The programme is financed by the Swiss Agency for Development and Cooperation (SDC) and is implemented by Intercooperation.

For Systematisation of DRR practices in Bolivia (SDC), see: www.sgc-grcosude.com/prosuko.htm

Milk producers are readily exploited by animal buyers, milk vendors and money lenders during times of stress. Following heavy floods, this society extended credit to its flood affected members, who used the money to purchase grain and fodder. Later, the loan amount was recovered from the milk sale amounts in easily paid instalments. The society also extended the milk route to flood affected regions, collecting milk by boat, and organised veterinary services for its members. **Economic disaster risk strategies in flood affected areas of Bihar (India) by a women's dairy cooperative** (Baghani Mahila Milk Cooperative Society, Sitamahri). For more information, please contact: Rupa Mukerji, rmukerji@intercooperation.org.in

Limitations of micro-insurance:

- Some assets are more readily quantified for insurance than others;
- Detailed meteorological data is required by insurers but is often unavailable;
- Where disasters occur regularly (every year or two), insurance is expensive or unavailable;
- Given the specificity of vulnerability (to household/individual level), devising insurance is very challenging;
- Verification of losses is often difficult, especially for people with few assets and no documentation.

Bangladesh, National Disaster Management Policy, 2006

Between 1991 and 2007, 95 major disasters were recorded in Bangladesh, resulting in nearly 200,000 deaths and causing an estimated US\$ 5.9 billion in damages.

Human assets: building knowledge and skills

“Unfortunately, only extreme events (like Mitch) teach us how to react and force us to respond! From such events, we learn how we need to prepare better and to build up a risk preventive culture for the next event.”
Representative of a Honduran NGO.

Human assets refer to knowledge and skills – whether acquired through formal education or through experience and non-formal learning. It has already been noted that being literate can be a significant asset in reducing vulnerability to disasters – from being informed and prepared to being able to access support after a disaster. Yet communities in high-risk areas often have significant local knowledge and skills that help them to deal with disasters. An example comes from the Bolivian highlands, where small-scale natural disasters – cold waves, unseasonal hail, etc. – can have a major impact on the livelihoods of poor communities and individual households. A programme called PROSUKO is working to strengthen local capabilities in disaster risk management by consolidating and spreading indigenous knowledge on land management in fragile environments. Lead farmers, so called Yapuchiris, are supported in spreading their traditional knowledge. This has resulted in significant reduction of crop losses from drought, hail, frost and flooding, and has also meant the stabilisation of market access for local crops. The particular inclusion of women's expertise in this initiative has been in recognising their traditional skill and role in crop and seed storage, and in accessing markets. Validating women's knowledge in this respect has also led to their increased self esteem and confidence.

Financial assets: supporting local markets after a cyclone

Disasters with dimensions like those of hurricane Mitch or the Asian tsunami have a fatal impact on a nation's economy; at the same time, they also generate a huge input of support and financial contributions from the international community. A common response is the distribution of assets such as food and shelter materials, followed by seeds and animals. The import of large quantities of such products can have a destructive impact on national and local markets. It is better if the products can be mobilized within the country itself – as was the case after Cyclone Gafilo in Madagascar (March 2004). Further, the distribution of seeds and other planting materials from unaffected regions enabled families to start cultivating immediately after the disaster. This avoided malnutrition amongst particularly vulnerable groups and indeed halted the potential slide of whole villages into the poverty trap. An example of another interesting economic disaster risk strategy is provided by India. Micro-insurance is a widely discussed mechanism for reducing vulnerability, but has various limitations, especially as far as the poorest sectors of the community are concerned.

The gender relations in markets need to be carefully analysed in interventions, as they can be highly varied and complex. The stereotypes of men dominating markets in Asian countries and women in African ones cannot be taken for granted. In micro-insurance, the fact that men often have title to assets means that women may be excluded from claims, unless specific provision is made.

Political assets: establishing effective institutions

In areas susceptible to rapid onset and seasonal disasters, there is a substantial inflow of resources for emergency relief, reconstruction and rehabilitation. Good governance and transparency are essential to ensure that this is handled correctly; in its absence, rampant corruption is likely to lead to increased inequities and entrenched poverty.

The crucial need for good local and national governance in implementing DRR is recognised in the Hyogo Framework for Action, which makes this a top priority. The governments of countries such as Bangladesh and Honduras have placed particular focus on this issue. For example, in 2003 the government of Bangladesh approved a Comprehensive Disaster Management Programme (CDMP) as a key strategy to advance whole-of-government and agency risk reduction efforts. The coordinating bodies are national, district and village level (the latter being titled Union Parishad disaster management committees, UDMCs). The composition of the UDMCs is required to be representative of the local community (and includes representatives of the district government, NGOs and women). In most parts of the country the UDMCs are operational, but considerable capacity building is still needed to bring the national DRR perspective into practice at the local level. This is seen, for example, in the tendency of UDMCs to focus primarily on hardware support (requiring high investment which is often unavailable), rather than acknowledging the need for software support (non-structural measures). The latter is increasingly being provided by NGOs in the region.

It is crucial that any kind of DRR activity is linked to local governance. Only then are the governmental bodies at all levels prepared and able to respond quickly and efficiently during a crisis. Development interventions can seek to support this through complementary activities, as illustrated by SDC's programme in Bangladesh. Two projects, one focusing on sustainable livelihoods (LEAF), and the other on local governance (SHARIQUE), operate in synergy to promote a disaster preventive culture.

Furthermore, it is important that disasters are considered not as an external threat, but as a part of regular existence and thus integrated into national planning – including specific poverty alleviation measures. For example, in Mali this has been very much the case ever since the severe droughts of the 1970s, with drought being clearly considered in the national poverty alleviation strategy. The government is thus demonstrating a preventive culture instead of only responding during and after a disaster.

Last but not least, the role of national governments is crucial in all phases of the disaster cycle. This is made most starkly obvious on the occasions that a government, for internal political reasons, deliberately seeks to downplay a disaster and/or deny support from the international community, as was the case with Cyclone Nargis in Myanmar in May 2008 and the drought in Niger in 2007.

*"Communities who have weak institutions are particularly weak respectively vulnerable."
Johan Schaar, Director Commission on Climate Change and Development in Poznan during the 14th Conference of the Parties.
(Personal note from the main author of the present Focus).*

The Humanitarian Department of SDC has selected a number of DRR priority countries, of which Bangladesh is one. Good practices in current SDC-supported projects in Bangladesh will be captured and scaled up in subsequent DRR activities. For more information regarding DRR and Humanitarian Aid, see: www.riskandsafety.ch

Lessons learned from experience

These conclusions first set out general points on DRR and livelihoods, and then consider gender aspects specifically.

"We need to focus on the overall goal of how we can reduce the vulnerability of communities and enhance the resilience of these communities."
Margareta Wahlström, UN Assistant Secretary-General for Disaster Risk Reduction at a side event in Poznan, COP 14.
(Personal note from the main author of the present Focus).

"Development has always been about how people manage many risks. Climate change is changing these risks, especially those faced by the poor and vulnerable."

The Human Dimension of Climate Adaptation
www.ccdcommission.org/Filer/report/HUMAN_DIMENSIONS.pdf

The Programme on Adaptation to Climate Change (PACC) in Peru – financed by SDC and implemented by a consortium (Intercooperation, Predes, Libélula) – is a pioneering programme combining DRR and climate change measures by strengthening the resilience of communities through developing local responses to face climate variability and limiting the adverse impacts of natural hazards.
www.sdc.admin.ch/en/Home/Projects/Climate_Change_Action_Plan

"Nothing in disaster work is gender neutral."
Gender equality in disasters: six principles for engendered relief and reconstruction:

- Think big
- Get the facts
- Work at grassroots level
- Resist stereotypes
- Take a human rights approach
- Respect and develop the capacities of women

For further reading, see:

Gender & Humanitarian Aid
Can be ordered at: info@deza.admin.ch

A risk-aware approach to development is needed

Disasters have to be viewed as a part of regular existence, not as an external threat. As such, they need to be integrated into national development planning and specific development initiatives – including poverty alleviation measures.

Changing funding priorities

Despite growing international recognition of the need for DRR, most funding still flows into disaster relief. A clear, new focus on prevention/preparedness is needed at all levels.

Promoting a continuum

DRR and Adaptation to Climate Change are often viewed as two separate issues, each with their own set of specialists. Yet practical reality demands an overall approach, combining "mitigation (enhancing resilience), recovery and response". Workers in humanitarian aid and development cooperation need to coordinate and harmonize their activities.

Building human capacities

The examples in this text show that both structural and non-structural measures, introduced in synergy, are needed to strengthen livelihood resilience. Structural measures alone are insufficient – if they are introduced without fully informing people or consulting them on the design, etc., they are unlikely to be effective. Capacity building needs to focus on building a preventive culture within the population.

Gender-sensitive DRR

In the context of DRR planning and implementation, gender analysis is clearly not an option, but an essential part of good practice. The following should also be borne in mind:

- *Stereotypes should be avoided*; social contexts can vary considerably between and within countries, and thus should always be investigated locally.
- *Baseline data* must be gender-aggregated, to allow gender-sensitive strategies to be integrated into the response and recovery phase.
- *Prevention and preparation*: both women and men should be involved in any kind of preventive/preparatory measures, (emergency plans, capacity training, being part of local rescue teams)
- *Response (during and immediately after a disaster)*: psycho-social counseling and support to men and women should be provided according to their specific needs. Particular attention is needed to women's workloads.
- *Recovery phase (rehabilitation/reconstruction)*: income-generating opportunities need to be developed for men and women; where possible (depending on social context) they should not be limited to/by traditional gender roles.
- *Disasters are also an opportunity* to re-negotiate traditional gender roles and gain greater mutual respect and understanding between women and men.

Recommended reading

The following list features a documented and targeted selection of print documents and Internet sites of relevance to "Disaster Risk Reduction: A Gender and Livelihood Perspective". The documents are listed by title in alphabetical order. Most of them are available online (accessed on 4th August 2009).

Overview

Hoyois, P.; Scheuren, J.-M.; Below, R. and Guha-Sapir, D. 2007

Annual Disaster Statistical Review: Number and Trends 2006

www.preventionweb.net/english/professional/publications/v.php?id=1080

In 2006 there were 427 reported natural disasters that killed more than 23,000 people, affected almost 143 million others, and caused more than US\$ 34.5 billion in damage. A return to "normality" has been observed after the major of the last few years. Analysis of this sort, which compares disaster figures over several years, is a useful task carried out by the Annual Disaster Statistical Review.

Overview

Wisner, Ben; Blaikie, Piers; Cannon, Terry; Davis, Ian. 2003

At Risk: Natural Hazards, People's Vulnerability and Disasters

www.unisdr.org/eng/library/Literature/7235.pdf

This book aims to show how disasters are perceived within the broader patterns of society. This participatory analysis of disasters may provide a much more fruitful way of developing policies that can help reduce disasters and mitigate hazards, while at the same time improving living standards and opportunities more generally.

Instruments

International Institute for Sustainable Development (IISD); Intercooperation;

Stockholm Environment Institute (SEI); International Union for Conservation of Nature (IUCN)

Community-based Risk Screening Tool, Adaptation and Livelihoods (CRiSTAL)

www.cristaltool.org

The CRISTAL Website provides explanations of the community-based risk screening tool, the contexts in which it can be used, and how it can be applied. Written resources and experiences can be downloaded, and an interactive forum offers the opportunity to share opinions.

Instruments

Swiss Agency for Development and Cooperation (SDC). 2008

Disaster Risk Reduction in Project Cycle Management

www.riskandsafetynet.ch/en/Disaster_Risk_Reduction/document.php?itemID=1322&langID=1

Disasters normally have a natural trigger. However, damage or destruction is often the result of inappropriate development that creates highly vulnerable structures, institutions or networks. Integrating risk management at the moment of identification, preparation, implementation and evaluation of a project contributes to the sustainability of projects in disaster-prone areas.

Instruments

Brody, Alyson; Demetriades, Justina; Esplen, Emily. 2008

Gender and Climate Change: Mapping the Linkages

www.bridge.ids.ac.uk/reports/Climate_Change_DFID_draft.pdf

The paper outlines key linkages between climate change and gender inequality, focusing on adaptation and mitigation policies and practices. It seeks to identify gaps in the existing body of work on gender and the environment, which has focused primarily on women's agricultural livelihoods, access to natural resources, and disaster risk reduction.

Case studies

Dankelman, Irene; Alam, Khurshid... [et al.]. 2008

Gender, Climate Change and Human Security. Lessons from Bangladesh, Ghana and Senegal

www.gdonline.org/resources/WEDO_Gender_CC_Human_Security.pdf

The paper recommends that to better analyze the impact of climate change on women, studies should be undertaken in the sectors where women are most active, such as water and fuelwood collection, agriculture, fishing and forestry. In the example given in Senegal, the relationship between gender and climate change can be assessed best through a development approach because it takes account of data related to health, education, and women's training to improve their socio-economic conditions.

Policy

Swiss Agency for Development and Cooperation (SDC). 2008

Gender & Humanitarian Aid: Why and How Should SDC Integrate Gender into Humanitarian Aid?

Some humanitarian programmes have been guided by the idea that women and men experience crises the same way and react identically and with the same needs. This paper states that neglecting the social realities that account for differences between the sexes and the specific needs of women can lead to an unbalanced approach that often fails to fulfill objectives. It is also crucial to give training to and employ women and men in the different tasks of humanitarian aid.

Case studies

Delaney Patricia L.; Shrader, Elizabeth. 2000

Gender and Post-Disaster Reconstruction: The case of Hurricane Mitch in Honduras and Nicaragua

www.sheltercentre.org/sites/default/files/WB_GenderAndPostDisasterReconstruction.doc

The authors affirm that disaster on a tremendous scale creates an opportunity to literally re-write the history of development in a region. The high profile of specific vulnerabilities, such as gender and environment, provides government and civil society with a unique opportunity to address the root causes of environmental degradation and gender inequity. The personal experience of women and men working side-by-side in collaborative fashion creates an opening for the transformation of gender roles and responsibilities.

Instruments

Clot, Nicole. 2008

Highlighting Local Coping Strategies for Drought

Perspectives In: Gender: Integrating Disaster Risk Reduction into Climate Change Adaptation: Good Practices and Lessons Learnt (p. 57)

www.unisdr.org/eng/about_isdr/isdr-publications/17-Gender_Perspectives_Integrating_DRR_CC/Gender_Perspectives_Integrating_DRR_CC_Good%20Practices.pdf

The community-based risk screening tool – adaptation and livelihoods (CRISTAL) – was used in Mali in a way that allowed project planners to better understand vulnerabilities and the susceptibility of local livelihoods to climate hazards. From the lessons learned reported in this paper, it was clear that sharing the risks of production between all members of a household (men and women) is a strategy for dealing with climate insecurity. In addition, gender inequity in tenure and propriety rights has a negative impact on the management of the land and agroforestry parks.

Policy

United Nations Development Programme (UNDP). 2007

Human Development Report 2007/2008. Fighting Climate Change

<http://hdr.undp.org/en/reports/global/hdr2007-2008/>

This UN report asserts that climate change challenges us to reflect on social justice and human rights across countries and generations. Political leaders and people in rich nations must acknowledge their historic responsibility for the problem, and initiate deep and early cuts in greenhouse gas emissions. The entire human community is challenged to undertake prompt and decisive collective action based on shared values and a shared vision.

Policy

Christoplos, Ian; Anderson, Simon; Arnold, Margaret... [et al.]. 2009

The Human Dimension of Climate Adaptation: The importance of local and institutional issues

www.scribd.com/doc/15615285/Human-Dimensions-Climate-Adaptation#lan

Overview

This paper brings together elements that are often separated and identifies issues that will be critical for poor communities' adaptation to climate change. The integration of risk analysis and assessment in development planning, the inclusion of targeted social protection measures as part of adaptation, and the need for locally owned capacity-building processes are the most important ones.

Policy

United Nations International Strategy for Disaster Reduction (UNISDR). 2005

Hyogo Framework for Action 2005–2015

www.unisdr.org/wcdr/intergover/official-doc/L-docs/Hyogo-framework-for-action-english.pdf

Instruments

The World Conference on Disaster Reduction held in 2005 provided the opportunity to promote a strategic and systematic approach to reducing vulnerabilities and risks to hazards and to identify ways of building the resilience of nations and communities to disasters. Governance, risk identification, knowledge management, reducing underlying risk factors, and preparedness for response and recovery are the key areas for developing a relevant framework.

Instruments

**Centre for Research on the Epidemiology of Disasters (CRED)
International Disasters Database EM-DAT**www.cred.be

CRED's research focuses on health aspects and on the burden of diseases arising from disasters and complex emergencies. The initiative for the database was to rationalise decision-making for disaster preparedness, as well as to provide an objective base for vulnerability assessment and priority setting. For example, it allows decisions about whether floods in a given country are more significant in terms of human impact than earthquakes, or whether one country is more vulnerable than another in terms of computing resources.

Case studies

Intercooperation. 2008**Mainstreaming Disaster Risk Reduction in Development Programmes
– Experiences and Opportunities: An assessment in South Asia**www.intercooperation.org.in/images/icindia/ic%20sa%20report.pdf

This publication asserts that improving synergies between development and humanitarian aid is important for improved outcomes and their sustainability. Development workers in hazard-prone areas should be trained in DRR, and project plans must provide the space to support the immediate needs of the affected community. In the recovery phase, it is important to ensure that the core development approaches of participation and community empowerment are adopted for better outcomes. During the mitigation phase, it is essential to put in place platforms for good communication between humanitarian aid, development actors, line departments, and community organizations.

Instruments

ProVention Consortium

Overview

www.proventionconsortium.org

Addressing disaster reduction requires a collaborative approach, involving different and diverse sectors and organizations, where managing risk is seen as everyone's business. The main goal of the ProVention Consortium is to provide a forum for dialogue and a framework for collective action. Under the umbrella of ProVention, partners have a space to work together to identify strategic issues, priorities and gaps in the field of disaster risk management and, thus, play an important agenda-setting role.

Policy

United Nations Development Programme (UNDP). 2009**Resource Guide on Gender and Climate Change**

Instruments

http://content.undp.org/go/cms-service/download/asset/?asset_id=1854911

The motivation to prepare this document was not only the wish to support the work of planners and policy-makers who strive to mitigate climate change, but also the wish to promote gender equity and equality in this process. If men and women are not just to have equal rights in theory but also to exercise them in practice, specific measures are needed that take their respective gender-differentiated conditions into account.

Policy

Swiss Agency for Development and Cooperation (SDC)**Risk and Safety Net**

Instruments

www.riskandsafetynet.ch

The SDC platform provides insight into current activities and important background information. The platform provides a comprehensive overview of concepts and strategies relevant to SDC. Selected tools, publications and training opportunities in the field of Disaster Risk Reduction (DRR) are presented as well.

Policy

Swiss Agency for Development and Cooperation (SDC). 2008**SDC Guidelines on Disaster Risk Reduction**www.riskandsafetynet.ch/en/Disaster_Risk_Reduction/document.php?itemID=1350&langID=1

These guidelines focus particularly on risks arising from a sudden onset of disasters such as earthquakes or hurricanes, and risks arising from a slow onset of disasters such as desertification, climate change and deforestation. Induced technical disasters, e.g. a fire in an oil refinery caused by an earthquake, are also considered. The Guidelines are intended for SDC staff in Cooperation Offices and Headquarters, as well as international organisations and NGOs.

Case studies

Parker Hamilton, Jennifer; Halvorson, Sarah J. 2007

The 2005 Kashmir Earthquake: A perspective on Women's experiences.

www.bioone.org/doi/pdf/10.1659/mrd.0945

In this paper, a situation analysis was undertaken in order to document and make recommendations on the significant challenges and concerns facing women who survived the earthquake in Kashmir in 2005. Mitigation strategies need to focus on reducing women's vulnerability and increasing their resilience. The main elements should include pre-disaster vulnerability assessments, support for women in accessing resources and science-based earthquake education, active roles for women in relief, rehabilitation, and rebuilding efforts, and gender training.

Case studies

Gaillard, Jean-Christophe; Le Masson, Virginie. 2007

Traditional Societies' Response to Volcanic Hazards in the Philippines

www.bioone.org/doi/abs/10.1659/mrd.0949

The authors underline the fact that in the case of the rehabilitation of the Aeta territory affected by the 1991 Mt Pinatubo eruption, lack of involvement by the victims at different stages of the rehabilitation process meant that they had limited control over their own fate. This delayed the resilience process and compelled cultural change.

Overview

United Nations International Strategy for Disaster Reduction (UNISDR). 2009

UNISDR Terminology on Disaster Risk Reduction

www.unisdr.org/eng/library/lib-terminology-eng.htm

The UNISDR terminology aims to promote common understanding and common usage of disaster risk reduction concepts and to assist disaster risk reduction efforts undertaken by authorities, practitioners, and the public. The 2009 version is the result of an ongoing process of review by the UNISDR and consultations with a broad range of experts in various international venues, regional discussions, and national settings.

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