



PRACTICAL ANSWERS  
TO POVERTY

## **Guidelines for planning in the re-building process – Resource pack**

**Intermediate Technology Development Group – South Asia  
5, Lionel Edirisinghe Mawatha  
Kirulapone, Colombo 5**

**Fax: 856188    E-mail [itsrilan@ri.lanka.net](mailto:itsrilan@ri.lanka.net)**

# Guidelines for planning in the re-building process

## Resource pack

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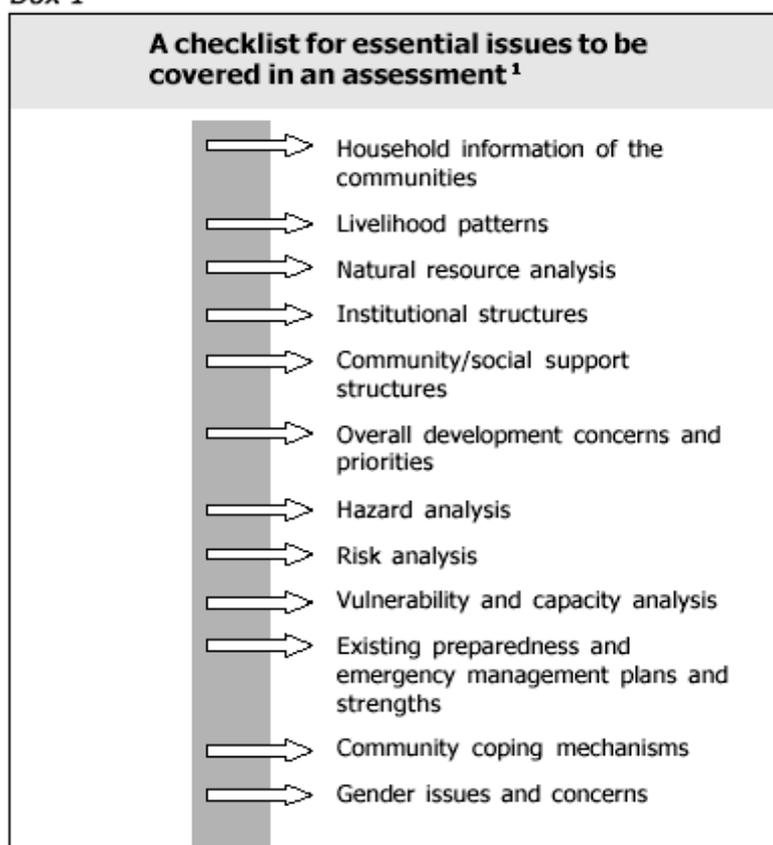
***This pack has been put together by ITDG-South Asia  
to assist those engaged in post-disaster rebuilding.***

## SECTION 1: General points to consider in rebuilding after a disaster

In a post disaster situation, often the scale and urgency mean that despite good intentions, some key issues can get overlooked. This resource pack has been put together to provide guidance on how to ensure that this doesn't happen.

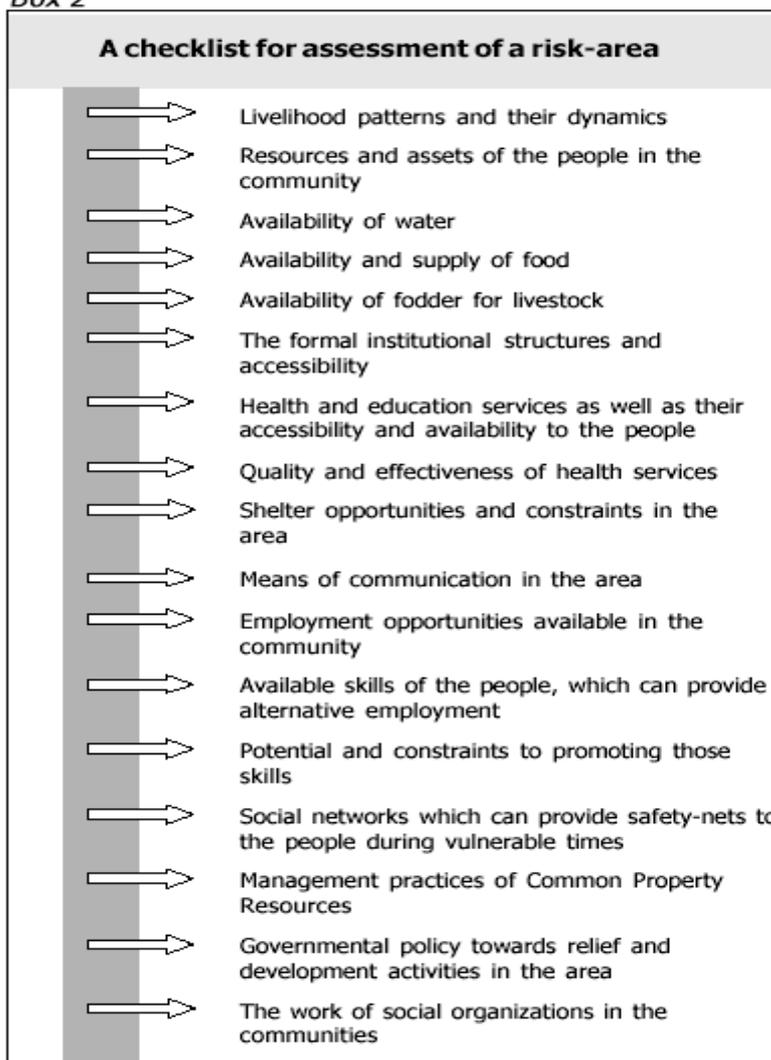
As the urgent and immediate basic needs of affected communities are being met, the process of rehabilitation and reconstruction needs to begin. In order to ensure that rebuilding is done in a way that reflects the needs and capacities of affected communities the following checklists will be helpful:

### Box 1



<sup>1</sup>Techniques and methodologies for conducting hazard, vulnerability, risk, and capacity analysis are available. Some key sources are given in the Bibliography.

Box 2



Planning for reconstruction involves:

**Physical reconstruction:** (e.g. of buildings, infrastructure etc.)

This needs to be based on the hazard risk, vulnerability and capacity assessments. For example planning for housing will need to look at any hazards of the particular location, what kind of resources and capacities people have to be involved in the rebuilding, and what designs are appropriate like flood or drought resistant. Planning should also focus on needs of women, disabled and elderly.

**Community rehabilitation:**

This involves mobilising people and making them comfortable to live in their environment again, such as through setting up support groups, vigilant group for early warning and awareness building. This also means making sure that infrastructure and service plans address needs e.g. buildings are safe, communities have access to information etc.

**Livelihood rebuilding:**

Plans should not only focus on the main affected sectors (fisheries, tourism, agriculture), but should also address the knock-on effects to other sectors. Livelihood rebuilding should recognise the needs and seek ways to support individuals and families with special needs such as where people have to take care of injured or children while also earning a living (e.g. investigate home-based work options for single headed households; make efforts to ensure inclusion of people with disabilities in training).

Rebuilding should also include innovative opportunities for people who didn't have options before, e.g. unemployed youth. The rebuilding process should in fact expand opportunities for poor/marginalized groups through innovative strategies to engage them in infrastructure redevelopment and other rebuilding activities. Rebuilding should also ensure that issues and concerns of communities prior to the disaster are addressed.

## SECTION 2: Using hazard, risk & vulnerability assessment and capacity assessment in planning for rebuilding

In the affected communities:

1. Conduct a hazard risk assessment
2. Conduct a vulnerability assessment
3. Conduct a capacity assessment

The following information is extracted from the *Community based Disaster Management Course – Trainers Guide*, Partnerships for Disaster Reduction in Southeast Asia, Asian Disaster Preparedness Centre and European Community Humanitarian Office.

### Nature and behaviour of a hazard

- Force: wind, water (rain, flood, overflow, run-off, flash flood tidal wave, storm surge, epidemic). Land (slides, deposits by river, lahar, mudflow) fire (forest fire, settlement fire), seismic (earthquake, tsunami, liquefaction), conflicts (civil war, insurgency, other actions leading to displacement and refugees), industrial/technological (pollution, radio-activity, explosions), other human-related (famine, drought, pests, etc.)
- Warning signs and signals: scientific and indigenous indicators that hazard is likely to happen
- Forewarning: time between warning and impact
- Speed of onset: rapidity of arrival and impact. We can distinguish between hazards that occur without almost any warning (earthquake), and hazards that can be predicted three to four days in advance (typhoon) to very slow-onset hazards like drought and famine.
- Frequency: does hazard occur seasonally, yearly, once every 10 years, once in a lifetime, etc.
- When: does hazard occur at a particular time of the year (wet or dry season; in November to December)
- Duration: how long is hazard felt (earthquake and aftershocks; days/week/months that area is flooded; length of period of military operations).

### Guidelines for conducting VULNERABILITY ASSESSMENT

1. Definition of Vulnerability Assessment  
Vulnerability Assessment is the process of estimating the vulnerability to potential hazards by:
  - ⇒ identifying what elements are at risk per hazard type, and
  - ⇒ analysing the root causes of why these elements are at risk.
2. Vulnerabilities can be distinguished in three types (Refer to M2-04 'Disaster Crunch Model')
  - ⇒ Physical/material
  - ⇒ Social/organisational
  - ⇒ Motivational/attitudinal

### **Physical/Material Vulnerability**

- Disaster-prone location of community, houses, farmlands, infrastructure, basic services, etc.
- Insecure sources of livelihood
- Risky sources of livelihood
- Lack of access and control over means of production (land, farm inputs, animals, capital, etc.
- Dependent on money-lenders, usurers, etc.
- Inadequate economic fall-back mechanisms.
- Occurrence of acute or chronic food shortage
- Lack of adequate skills and educational background
- Lack of basic services: education, health, safe drinking water, shelter, sanitation, roads, electricity, communication, etc.
- High mortality rates, malnutrition, occurrence of diseases, insufficient caring capacity
- Overexploited natural resources
- Exposed to violence (domestic, community conflicts, or war)

### **Social/organisational vulnerability**

- Weak family/kinship structures
- Lack of leadership, initiative, organisational structures to solve problems or conflicts
- Ineffective decision-making, people/groups are left out, etc.
- Unequal participation in community affairs
- Rumours, divisions, conflicts: ethnic, class, religion, cast, ideology etc.
- Injustice practices, lack of practices to political processes
- Absence of weak community organisations ( (in) formal, governmental, indigenous)
- No or neglected relationship with government, administrative structures
- Isolated from outside world

### **Motivational/Attitudinal Vulnerability**

- Negative attitude towards change
- Passivity, fatalism, hopelessness, dependant
- Lack of initiative no 'fighting spirit'
- Lack of unity, cooperation, solidarity
- Negative beliefs/solidarity
- Unawareness about hazards and consequences
- Dependence on external support/dole-out mentality

## Guidelines for conducting CAPACITY ASSESSMENT

Capacity assessment is the process to determine what people do in times of crisis to reduce the damaging effects of the hazard, and to secure the sustainability of their livelihood by:

- Understanding people's previous experiences with hazards that enabled them to develop coping strategies
- Analysing which resources are available and used by the community to reduce risk, who has access to these resources and who controls them.
- Assessing capacities of people at risk is a very important step in choosing strategies for community disaster risk reduction and capability building. It is a step in the risk assessment process that most people forget. When we leave it out, we can make mistakes in program design and waste scarce external resources. Furthermore, if we ignore rather than support the strengths of the community, the output is that their coping mechanisms might be undermined and weakened, and eventually increase their vulnerability.

Exercise to help participants identify resources available for short-term risk reduction both at the individual and at community level (Kotze & Holloway; pp 127-129) (1 hour). In this activity participants use themselves and the communities where they work as reference point. They brainstorm resources available for reducing risk, categorise them and discuss them in terms of value, access and control.

a) outline the purpose and the process of the exercise

b) ask participants to do brief buzz session with the person next to them, on the following:

- What does 'capacity' mean? Think of M2-03:Definitions and concepts
- What does the term 'resources' mean to you?
- What does 'coping' mean?

In plenary, clarify the term and build on common understanding

- Stress that likewise the vulnerability assessment, we distinguish three kind of capacities: physical/material; social/organisational; motivational/attitudinal (see M2-03: Definitions and Concepts).

Source: Madhavi Malagoda Ariyabandu and Maithree Wickramasinghe (2003) *Gender Dimensions in Disaster management: A Guide for South Asia*, ITDG South Asia Publication

## SECTION 3: Engaging the community

Indigenous and time tested knowledge, informal networks and mechanisms for interaction, community support mechanisms, ways and means of linking community knowledge and capacities with the formal institutional structures, enhancing community capacities to cope need to be incorporated in plans:

### Box 3

#### Engaging the Community

-  Identify and list the most successful strategies used by communities living in disaster-prone areas.
-  In consultation with the community, build on indigenous measures to develop strategies that have already been successful. The following mechanisms are recommended to integrate community participation in the planning process:
  - Include both women and men from the community in the assessment, planning, and implementing of preventive measures.
  - Invite women and men who are leaders in the community to strategic planning meetings and discussions, to enable a better focus on ground realities, leading to more targeted strategies.
  - Identify and plan out the most useful forms of communication that can highlight and address the needs and concerns of women and men.
  - Conduct workshops with children: girls and boys; women and men to devise posters, street drama, songs, plays, etc. on disaster preparedness.
  - Invite schools, community-based organizations, and women's organizations to develop materials to inform the public about disaster preparedness and emergency management.
  - Bring together the different village-level organizations working in the area and share the focus / mandate of these organizations.
  - Make sure that community-level practitioners/ CBOs secure the involvement of both women and men in the community in local organizations.

Source: Madhavi Malagoda Ariyabandu and Maithree Wickramasinghe (2003) *Gender Dimensions in Disaster management: A Guide for South Asia*, ITDG South Asia Publication

## SECTION 4: Paying attention to women's and gender issues in responding to the Tsunami crisis

The recent tsunami disaster has resulted in many deaths, displacement of thousands and destruction of livelihoods, infrastructure and property. Given the scale and complexity of the situation there is a rush to attend to immediate needs to restore to normalcy, to initiate rehabilitation and reconstruction. Numerous agencies; government, UN, INGOs, local NGOs, and individuals are attending to the immediate relief measures, and soon a massive reconstruction and rehabilitation process will begin. Some will have previous experience and be knowledgeable and skilled in disaster situations. There are also many organisations/groups and volunteers new to crisis situations who are trying to help.

Despite good intentions, there is always the risk that important issues get bypassed. Experience shows that gender, in particular addressing women's issues in disaster situations, is a key area where there will be gaps unless given specific attention.

Although women and men have many common concerns, disasters do affect women and men differently: because of the different roles they occupy in society/community; the different and responsibilities given to them in life; and because of the differences in their capacities, needs, and vulnerabilities.

Ignorance of gender differences leads to insensitive and ineffective operations that largely bypass women's needs and their potential to assist in disaster relief and reconstruction activities.

This note highlights important messages about addressing women's concerns and gender issues in relief and reconstruction.<sup>1</sup>

### Making initial disaster responses gender sensitive

#### Relief distribution

Disaster relief that is gender sensitive requires:

- Close interaction with the affected communities during the relief planning process.
- Gender-disaggregated assessments for relief distribution.
- Employment of female relief workers.
  - *eg. distributing provisions through women.*
- Relief workers who are aware and sensitive to gender issues and humanitarian ethics.
- Recognition of skills and capacities of women from affected communities and their involvement in relief planning, distribution of assistance and in other emergency management activities.
- Relief that reaches sub-categories such as widows, old women, female-headed households, single women, disabled etc.
- Attention to the cultural concerns of different communities and elimination of culture/religion/gender based discrimination in registration, compensation and relief distribution.
- Adherence to the minimum standards set for relief distribution (e.g. the SPHERE standards).

#### Basic practical needs

Women have specific needs; and measures should be taken to:

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<sup>1</sup> Information draws from the recommended reading (p13) that is based on research and experiences from disasters in South Asia. The recommended reading contains more information and guidelines about policy and practical approaches for addressing women's and gender issues.

- Ensure privacy for women in common areas of camps.
  - *eg. provide women's "corners", separate toileting and bathing areas.*
- Provide sanitary ware and rags for menstruation, and clothing such as undergarments.
- Attend to needs of pregnant and nursing mothers.
  - *eg. provide infant milk powder, feeding bottles, infant clothing, nappies and mosquito nets.*

### **Security and safety**

It is a fact that in displaced situations, in temporary shelter and in camps, women and children are often subject to sexual harassment, abuse and violence. Specific measures need to be taken to secure women and children's safety:

- Take practical measures to protect them from abuse;
  - *eg. secure sleeping arrangements, adequate lighting and safe location of toilets.*
- Take steps to ensure that the community is responsible for the safety of children
- Where possible, assist and accompany women/children going in search of loved ones.

### **Health concerns**

Women keep families healthy after disasters. As caregivers to the young, old, sick, disabled, and injured, women tend to put their own needs last. Relief and reconstruction efforts need to pay attention to women's health and ensure specific health concerns and needs are being addressed:

- Measures are needed to tackle the increased risk and incidence of sexual and/or domestic violence associated with major disasters.
  - *eg. medical assistance should be available to women and children victims of physical or sexual abuse. Some women may need the morning after pill.*
- Reproductive and family planning health services should be included in general health work.
  - *eg. provision made for antenatal and postnatal care; pregnant and lactating women who may need nutritional supplements.*
- The different physical and mental health needs of women and men need to be recognised and addressed.
  - *eg. people with disabilities, elderly people and family care givers.*

### **Trauma counselling**

Members of relief teams need to be aware and sensitive to the issues of trauma:

- Gender differences in psychological impacts of disasters should recognise that women's anxiety also stems from fear and risk to their family/children.
- Training for mental health providers should address problems of highly vulnerable groups such as women headed households, grandmothers caring for orphans, battered women, women with disabling injuries, newly widowed women and men, women at risk of suicide.

## **Gender sensitive planning for rehabilitation/reconstruction**

In many communities, women take an active part in community disaster initiatives. Yet in larger, more formal planning, women are scarcely represented and markedly absent from decision-making. Not being sensitive to gender issues in development planning and disaster mitigation means that interventions are often only targeted at men. Sensitivity to gender is vital in order to empower a community to successfully move on and move up from the abyss of disaster.

Rehabilitation/reconstruction should promote post-disaster development that reduces risk of communities to disaster and empowers local communities. This means tackling the reasons why certain sections of society and community are more vulnerable to disasters. Rebuilding should happen in ways that address the root causes of vulnerability, including gender inequalities.

Women's local knowledge and expertise are essential assets for communities and households struggling in to rebuild. To capture these capacities, disaster responders must work closely with women. In planning and implementation of rehabilitation/reconstruction, practical steps should be taken to:

- Ensure the needs, skills and capacities of affected communities are incorporated in planning and implementing rehabilitation work.
  - *eg. include women in housing design as well as construction; recognise and incorporate women's traditional knowledge and experience in managing natural resources.*
- Establish on-going consultation with women in affected areas, women's bureaus, and women's advocacy groups.
- Evaluate and take measures to ensure women can participate in reconstruction and benefit from economic recovery packages
  - *eg. Ensure that women have the mobility to participate in reconstruction and rehabilitation activities. Ensure meetings and events are held at times and places where women can participate; Ensure family caregivers have access to access to support.*
- Strengthen informal social networks and link them to disaster-responding agencies and offices.
- Fund women's groups to monitor disaster recovery projects.
- Identify and respond to women's needs for legal services in the areas of housing, employment, and family relations
  - *eg. Deed newly constructed houses in both the names of husband and wife, and land rights for women.*
- Give priority to social services, children's support systems and women's centres.
- Target highly vulnerable women such as single mothers, widows, below-poverty, unemployed women and socially marginalized women in reconstruction of damaged and new houses.
- Monitor relief and rehabilitation for possible gender bias and inequities that may develop over time.
  - *eg. avoid unintentional overburdening of women with multiple responsibilities at home, work, and in the community.*
- Monitor as far as possible the degree to which relief and recovery assets are equitably distributed.

## Re-building livelihoods

Reconstruction must fully engage women and ensure that women benefit from economic recovery and income support programs. Women's limited income generation and employment opportunities should be expanded in the process of developing local economies. In re-building livelihoods, practical steps should be taken to:

- Ensure rehabilitation and reconstruction target economically active women of all ages and social groups.
- Incorporate gender analysis into all empirical assessments.
  - *eg. collect or generate gender-specific data; conduct a thorough analysis of damaged economic sectors (e.g. fishery, tourism, agriculture) that identifies roles of women and identify areas for their participation.*
- Support income-generation projects that build non-traditional skills among women.
  - *eg. provide women with fair access to construction-related and other non-traditional employment; include employment-relevant job training; seek out women with technical qualifications for training on specific projects such as overseeing housing construction.*

- Incorporate women's income generating options in livelihood rebuilding plans.
  - *eg. make provision for self-employed /home-based women workers in plans.*
- Ensure access to grants and loans to re- build lost livelihoods to replace damaged or destroyed tools, workspace, equipment, supplies, credit, capital, markets and other economic resources.
- Include measures to support women's multiple responsibilities as economic providers and family workers.
  - *eg. work with employers to develop or strengthen "family friendly" policies for those needing time to apply for assistance, cope with trauma and help injured family members'; provide assistance to family care givers to support them economically and ensure continued care to the injured, children, and disabled.*
- Develop and commit to gender accountability and monitoring measures.
  - *eg. monitor the percentage of women and men in construction, trade, other employment; the numbers of disabled women trained; the proportion of economic recovery grants and loans funds received by women; the working conditions in private and public relief work projects etc.; monitor and assess long term impacts on women and girls of disrupted markets, forced sale of assets, involuntary migration, increasing proportion of female-headed households etc.*

### **Recommended reading:**

Elaine Enarson (March 2001) *Promoting Social Justice in Disaster Reconstruction: Guidelines for Gender Sensitive and Community Based Planning*, drafted for the Disaster Mitigation Institute of Ahmedabad, Gujarat

Available from: [http://online.northumbria.ac.uk/geography\\_research/gdn/resources/gender-sensitive-planning.doc](http://online.northumbria.ac.uk/geography_research/gdn/resources/gender-sensitive-planning.doc)

Gender and Disasters Network (January 2005) *Gender Equality in Disasters: Six Practical Rules for Working with Women and Girls*

Available from: Gender and Disaster Network (GDN)  
[http://online.northumbria.ac.uk/geography\\_research/gdn/](http://online.northumbria.ac.uk/geography_research/gdn/)

Madhavi Malagoda Ariyabandu and Maithree Wickramasinghe (2003) *Gender Dimensions in Disaster management: A Guide for South Asia*, ITDG South Asia Publication

Available from: ITDG South Asia, 5 Lionel Edirisinghe Mawatha, Colombo 5, Sri Lanka  
 Tel: +94 11 2829412, Fax: +94 11 2856188, Email: [general@itdg.slt.lk](mailto:general@itdg.slt.lk)

- Pay special attention to extremely vulnerable groups such as the following:

Highly vulnerable women<sup>1</sup>

- **Poor or low-income women**
- **Refugee women and the homeless**
- **Elderly women**
- **Women with cognitive or physical disabilities**
- **Women heading households**
- **Widows and frail elderly women**
- **Indigenous women**
- **Recent migrants**
- **Women with language barriers**
- **Women in subordinated cultural groups**
- **Socially isolated women**
- **Caregivers with numerous dependants**
- **Women in shelters/homeless women**
- **Women subject to assault or abuse**
- **Women living alone**
- **Chronically ill women**
- **Undocumented women**
- **Malnourished women and girls**

<sup>1</sup> Enarson E, Gender and Natural Disasters, Working paper 1, InFocus Programme on Crisis Response and Reconstruction, Recovery and Reconstruction Department, ILO, Geneva, 2000, p 6

## **SECTION 5: Disability Sensitive Planning for relief / rehabilitation / reconstruction**

### **Introduction**

The tsunami disaster is unprecedented, the most devastating natural disaster Sri Lanka has ever faced.

Apart from the loss of lives and property there will be more long term social catastrophes that will add to the tragedy such as the increased number of persons with disabilities (PWDs) and other vulnerable groups of such as single parented families, infants, children, and young adults left hopeless in these areas.

It is reported that there are more than 16,000 survivors with injuries. Though the number is not certain many of these people will sustain visible physical disabilities. Moreover estimated 15,000 pregnant mothers affected by the disaster are, now living in refugee camps. The trauma they under go, lack of proper nutrition and inadequate medical facilities will have a greater possibility for them to end up with a baby with a disability. Other concern would be the illnesses people suffer and diseases spreading in the affected areas which could lead to disability conditions. All these would add up to make the number of PWDs a phenomenal figure if these issues are not addressed in the in the immediate relief efforts as well as the long-term prevention plans.

The survivors sustaining disabilities would also be in a depressed mental condition due to their situation and the feeling of they have become a burden to the remaining members of their families. They will require support to overcome the distress of the dramatic change in their lives in addition to the medical services and assistive devices to improve their mobility. In the wake of more urgent and basic needs there might be the possibility of PWDs being neglected. On a longer term they will also need to acquire skills to engage in new livelihood activities in order to be a productive part of the society.

The situation would be the same among single parented families, children and young adults who have lost their breadwinners. Therefore the key issues of the more vulnerable groups in the long run, such as the persons with disabilities, women, children and single parented families should also be taken in to account in the immediate relief plans and in long term rebuilding and strengthening plans in order for them to relive their lives with out being neglected in the overall development process.

The marginalized communities' project of ITDG-South Asia, aims to propose strategies to address the key issues of the more vulnerable groups of the disaster affected communities.

### **Guidelines for paying attention to persons with disabilities in disaster relief**

#### **Relief distribution**

Identification of persons with disabilities (PWDs) in the relief planning and distribution process

Collect information on:

- Number of people
- Type of disability
- Specific requirements of PWDs - Medical services, assistive devices, Nutrition

Relief workers made aware of the disability conditions and paying attention to avoid possible marginalization of these groups in a disaster situation

Getting the support of the community (women, men and children affected) to assist the PWDs.  
Educate the community in order for them to be sensitive to issues of disability

Attention to see that relief reaches the PWDs to avoid discrimination

In the process: registration, distribution of relief

Special attention focusing different disability groups to provide services assistance and care

- Children with disabilities
- Women with disabilities

Efforts to communicate directly with PWDs as much as possible to identify their basic and specific needs

e.g. Come up with simple methods for communication. Try writing down or get the support of a family member to communicate a deaf person.

Give them time to express their needs

### **Fulfilling basic needs**

Arranging separate areas of the camp if the PWDs are not comfortable being in the crowds or in common areas. Let them interact with the crowds, gradually.

Provide assistance for PWDs without life skills

eg. Eating, using toilets and cleaning themselves

Make the common facilities and area accessible for PWDs as much as possible, with the available resources. If not possible arrange separate private areas for PWDs fulfil their basic requirements

Relief registration and distribution areas, Toilets, Bathing areas

Provide required assistive devices for PWDs in order them to be independent in their work

### **Security and safety of PWDs**

PWDs have a grater chance for harassment, abuse or being neglected in camps and temporary shelters. In order avoid this sort of a situation:

Educate the community to understand the disability condition of the PWDs in the camp and promote them to assist PWDs instead of teasing, sympathizing or neglecting

Form care-taking groups to assist PWDs and ensure their security including family members, relatives and volunteers

PWDs may also get frustrated or violent in an unfamiliar situation in the camps which may cause difficulties for the other residents. Try to make arrangements to avoid such situations.

Finding people that they trust as caretakers

Providing facilities to comfort PWDs in the camps (calm surroundings, adequate light)

Providing medical precautions if possible

Measures to protect incidences of sexual harassment of PWDs.

### **Health needs of PWDs**

Immediate medical attention to PWDs in the camps and provide with drugs and therapy required.

See the requirement of assistive devices and to provide appropriate assistive devices in order to prevent the severity of the disability condition

### **Prevention of future disability**

Poor nutrition, sanitation and medical attention could result many of the vulnerable groups to ended up with disability conditions if not the situations are addressed properly.

Attention to vulnerable groups including infants, children, pregnant/ lactating mothers, sick, injured

- Providing nutritional supplements

- Medical attention

- Sanitation and hygiene measure to prevent diseases spreading

### **Rehabilitation and reconstruction work focusing PWDs**

Ensure the issues of disability are incorporated in the rehabilitation and rebuilding work.

- Getting the inputs of the experts in disability sector in the planning process

- Representation of the disability sector organizations in field implementation and monitoring

Take measures to ensure that PWDs are benefited from the rehabilitation and reconstruction programs

- Increase the awareness on the compensation programs/ economic recovery

- packages among PWDs, their family members, care takers, and organizations engaged in the rehabilitation work

- Increase the accessibility of PWDs to these supports (Time, place and mode of communication to ensure the participation of PWDs)

Improving the mobility and accessibility of PWDs through appropriate designs

- Providing options of disability friendly houses, toilets

- Common compounds, public places, play areas etc. reconstructed with the consideration of accessibility for PWDs

Facilitate PWDs to obtain legal services required

- Obtaining lost legal documents

- Priority in housing and rights for the lands (to secure future of some PWDs and as an asset to economically active PWDs)

Disability specific rehabilitation programs to increase the mobility and level of independency of PWDs, in order to make them economically productive

- Medical treatments and therapy required (Physiotherapy, Speech therapy)

- Appropriate assistive devices

- Training on mobility

- Counselling

(\*Immediate attention of rehabilitation for people acquired disability due to the disaster would result a higher improvement)

Strengthen the organizations and local networks engage in the rehabilitation and reconstruction work to establish on-going consultation with the PWDs

- Training programs to sensitize issues of disability in their line of work

- Develop links with disability sector organizations for expertise and support required

- Provide a platform for PWDs to voice their needs in through these networks (formation of community groups including PWDs to voice their needs)

## **Improving livelihoods of PWDs**

Identification of different income generation options in the area where PWDs could involve fully or for a part of the process

Training programs for PWDs to develop their skills for employment (Self employment/ home based production/ other employment)

Promote PWDs to move to viable lively hood options from the traditional self employment work

- Provide technological support

- Adaptation of equipments and production process to be applicable to different disability conditions

Improve the access to loans, grants and other technological facilities by advocating respective organizations

## SECTION 6: Community early warning systems in place

Copied from: <http://www.unisdr.org/ppew/whats-ew/basics-ew.htm>



The screenshot shows the top section of a website. On the left, there is a logo for the International Strategy for Disaster Reduction (ISDR), featuring a globe and the text 'International Strategy for Disaster Reduction'. To the right of the logo, the text reads 'Platform for the Promotion of Early Warning' in a large, bold, red font. Below this, there is a navigation bar with links: 'PPEW Home', 'UN/ISDR headquarters', 'UN/ISDR Africa', 'UN/ISDR Latin America and the Caribbean', and 'ISDR Asia Partnership'. The background is white with a blue and orange color scheme.

### What's early warning

[Basics of early warning](#) - [How early warnings are made](#)

#### Basics of early warning

##### Hazards, vulnerability and disasters

Natural hazards, such as storms, droughts, volcanic eruptions, or earthquakes, need not spell disaster. A disaster occurs only if a community or population is exposed to the natural hazard and cannot cope with its effects. Torrential rain in the middle of an ocean will not cause a disaster, but the same heavy rainfall on a vulnerable population – say a shanty town on the side of a hillside stripped of trees – may result in landslides and a huge loss of life. A minor drought may cause a famine if a region's agricultural production is highly stressed by civil war. A community that lacks an early warning system may sleep while volcanic ash clouds bear down upon them. Vulnerability is the potent additive that mixes with natural hazards to cause disasters.

##### More than just a prediction

A complete and effective early warning system comprises a chain of four elements, spanning a knowledge of the risks faced through to preparedness to act on early warning. Failure in any one part can mean failure of the whole system.

### The Four Elements of Effective Early Warning Systems

<p>Prior knowledge of the risks faced by communities</p> <p>Risks arise from both the hazards and the vulnerabilities that are present – what are the patterns and trends in these factors?</p>	<p>Technical monitoring and warning service for these risks</p> <p>Is there a sound scientific basis for predicting the risks faced? Are the right things being monitored? Can accurate warnings be generated in timely fashion?</p>	<p>Dissemination of understandable warnings to those at risk</p> <p>Do the warnings get to those at risk? Do people understand them? Do they contain useful information that enable proper responses?</p>	<p>Knowledge and preparedness to act</p> <p>Do communities understand their risks? Do they respect the warning service? Do they know how to react?</p>
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#### Pulling it all together

Good early warning systems have strong linkages between the four elements. The major players concerned with the different elements meet regularly to ensure they understand all of the other components and what other parties need from them. Risk scenarios are constructed and reviewed. Specific responsibilities throughout the chain are agreed and implemented. Past events are studied and improvements are made to the early warning system. Manuals and procedures are agreed and published. Communities are consulted and information is disseminated. Operational procedures such as evacuations are practiced and tested.

Behind all of these activities lies a solid base of political support, laws and regulations, institutional responsibility, and trained people. Early warning systems are established and supported as a matter of policy. Preparedness to respond is engrained in society.

[TOP](#)

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## **SECTION 7:**

### **Understanding concepts on hazards, disasters and vulnerability**

#### **Seeing disasters differently**

Disasters are usually seen as sudden events that result in death and destruction; and which require immediate, emergency relief. Natural hazards are usually cited as the cause of disasters and are sometimes viewed as 'acts of the gods' and divine punishment. To date, disasters have largely been the concern of environmental and geological scientists who study natural hazards, and the humanitarian institutions that have to deal with the human costs.

The term 'natural hazard' is often confused with the term 'natural disaster'. In order to understand disasters better, the relationship between these two key concepts and other related ideas must to be explored.

A hazard can be defined as a phenomenon that has the potential to cause injury to life, livelihoods and habitats. High winds, floods, landslides, droughts and earthquakes are all natural hazards. If unmanaged, that is, if natural hazards and their potential consequences are not prepared for, they become disasters that take lives and damage livelihoods.

Vulnerability is a set of conditions that affect the ability of countries, communities and individuals to prevent, mitigate, prepare for and respond to hazards. High levels of vulnerability increase the likelihood that natural hazards will be unmanaged and result in disaster.

Although most natural hazards have the potential to be very destructive, they do not always turn into disasters. It is the combination of a natural hazard and vulnerability that leads to a disaster.

“A disaster occurs when a significant number of vulnerable people experience a hazard and suffer severe damage and/or disruption of their livelihood system in such a way that recovery is unlikely without external aid.”

As disasters continue to affect more and more people, it becomes increasingly clear that the social, economic and political forces of development processes contribute to disasters. Aside from the sudden hazards that arise from nature, people may also be made vulnerable due to the changes wrought by the unequal distribution of resources, social and political processes that perpetuate inequality, global macro-economic forces, and uncoordinated, ill-planned development. Consequently, there is growing recognition of a need to re-examine how we view and act towards disasters.

#### **Understanding vulnerability to disaster**

Some groups are more vulnerable than others. Vulnerability is not just poverty, but the poor tend to be the most vulnerable due to their lack of choices. The influences of both poverty and development processes on people's vulnerability to disasters are now well established. Class, caste, ethnicity, gender, disability and age are other factors affecting people's vulnerability.

Because vulnerability plays such an important part in why natural hazards become human disasters, it is worth spending some time to examine the characteristics of vulnerability.

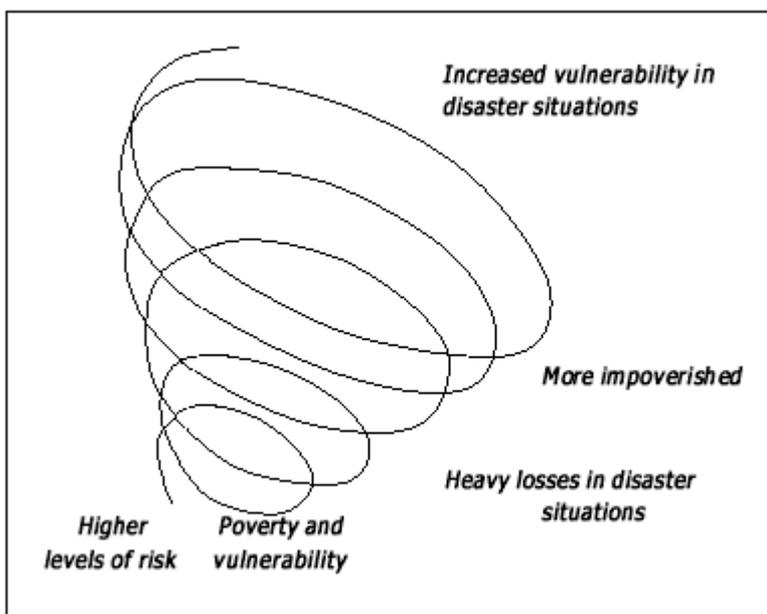
Conditions of vulnerability are a combination of factors that include poor living conditions, lack of power, exposure to risk, and the lack of capacity to cope with shocks and adverse situations. It can be helpful to think of vulnerabilities in the following way:

- Physical vulnerabilities are the hazard prone locations of settlement, insecure and risky sources of livelihood, lack of access to basic production resources (such as land, farm inputs, and capital), lack of knowledge and information, and lack of access to basic services.
- Social vulnerabilities are reflected in the lack of institutional support structures and leadership, weak family and kinship relations, divisions and conflicts within communities, and the absence of decision-making powers.
- Attitudinal vulnerabilities are seen in dependency, resistance towards change, and other negative beliefs.

As noted earlier, poverty does not equal vulnerability, but being poor makes people more vulnerable to disasters because poor people lack the resources (physical, social, and knowledge based), to prepare for and respond to such threats and shocks as natural hazards.

Poor people often get locked in a cycle of vulnerability. Because they are poor, they become vulnerable. Because they are vulnerable, they are at great risk in the face of a natural hazard – leading to disaster. Because they suffer greater losses from a disaster, they become even poorer, more vulnerable, and are at an even greater risk of another disaster.

### **The spiral of poverty, vulnerability and disaster risk**



**Figure 1**

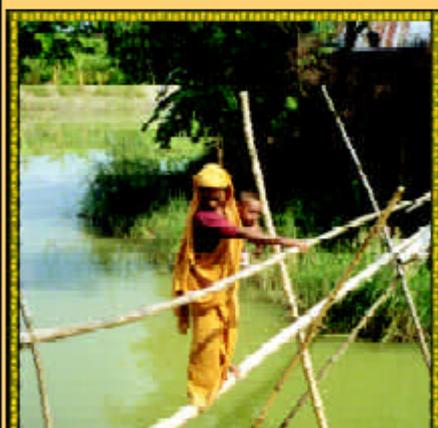
- Regardless of location, there is a direct link between poverty and powerlessness, and the severity of the impact of a disaster.
- Socially and economically vulnerable groups in any society are worst affected by natural hazards.
- There is a cycle of vulnerability to disasters – vulnerable groups are made even more vulnerable by disasters. This reduces their ability to pick up the pieces after a disaster and makes them further vulnerable in the face of another disaster.

Source: Madhavi Malagoda Ariyabandu and Maithree Wickramasinghe (2003) *Gender Dimensions in Disaster management: A Guide for South Asia*, ITDG South Asia Publication

Some examples of the responses developed in areas affected by floods are given in the box below.

### Box 7.1 Key Infrastructural Indicators of Livelihood Protection in Flood Areas

- **House Construction:** Raised plinth heights, cement or baked brick instead of mud walls, and flat roofs on which temporary or permanent protective structures can be built play a major role in enabling households to cope. Secure flat roofs are of particular importance as places to store assets (grain, farming tools, etc) away from flood waters. Similarly, house designs which are a mixture of concrete poles and locally available material such as bamboo poles and treated jute sticks (a design adopted in Faridpur, Bangladesh) can withstand seasonal flooding.
- **Island design for villages:** Throughout the Ganga basin, increasing village heights above normal inundation levels is a traditional response to floods. This approach was mentioned by villagers in many case study areas and presented in direct contrast to approaches relying on the building of embankments.
- **Construction of water supply systems that are resilient to contamination:** Sealed wells accessible by hand pumps at roof level.



*The need to construct structures to meet local flood conditions*

- **Flood drainage systems (or the lack thereof):** In many cases, villagers in flood-affected areas identified poor drainage as a major factor contributing to flooding and the negative impacts associated with it. It is important to develop designs for roads, railways and other infrastructure that encourage drainage rather than restrict it.



- **Construction of structures which meet local flood conditions:** Often simple structures such as small culverts, bridges and drainage canals at the village level can regulate seasonal, monsoon flooding. The investment for such structures is not high, and the villagers have the basic knowledge of construction and design.



*Faridpur, Bangladesh - a model house built to withstand seasonal flooding*

- **Construction of irrigation systems that are resilient to flood damage:** In many areas, damage to permanent diversion structures is difficult to repair and can cause streams to shift. Traditional systems often use structures such as brushwood dams, which, while they easily get damaged, are also easily repaired and do not cause permanent changes in stream morphology.
- **Manufacture of feed blocks to maintain cows and buffaloes with minimum fodder:** Feed blocks made out of locally available produce (which includes sugarcane residue and molasses) can be stored for use during floods. The blocks can support a few animals for a week or so in the absence of fodder.
- **Community managed early warning systems** which are specific to the local flood situation, and information relayed in ways easily understood by the community

Adopted from: Moench M, Dixit A, 2004, *Adaptive Capacity and Livelihood Resilience : Adaptive strategies for responding to floods and drought in South Asia*, The Institute for Social and Environmental Transformation, Colorado, USA and Nepal pp 158-171  
 ITDG Bangladesh, 'An Attempt on Application of Alternative Strategies for Community Based Flood Preparedness in South - Asia' October 2002, unpublished paper, and the project reports of ITDG South Asia's LODRR programme

Source: ITDG-South Asia and Rural Development Policy Institute (2005) *A Livelihood Centred Approach to Disaster Management: A Policy Framework for South Asia*, ITDG South Asia Publication

Available from: ITDG South Asia, 5 Lionel Edirisinghe Mawatha, Colombo 5, Sri Lanka  
 Tel: +94 11 2829412, Fax: +94 11 2856188, Email: general@itdg.slt.lk, Web: www.itdg.org