CHAPTER 4: THE AUTHORITIES AS FACILITATORS

Introduction

As the potential for disaster expands, in terms of numbers and impacts, it becomes increasingly critical that governments, at all levels, strive for establishing and improving disaster management capabilities. Governments must be able to provide leadership and assistance for disaster response and recovery. More importantly, governments must go beyond these reactive postures and focus efforts on lessening or preventing disaster impacts through preparedness and mitigation actions. Governments must intervene in the processes that contribute to disaster vulnerability, and substitute proactive policies that will reduce future disaster losses.

Government should therefore stimulate training in disaster management at all levels of society. Disaster reduction training should not only aim at raising awareness, but also try to improve the understanding of the disaster process, develop skills and enhance self-realization.

Planning should also take place at all levels of government and community and lead to the adoption and implementation of measures that aim at vulnerability reduction The dissemination of information on disaster reduction to the public is another important governmental task. For public information campaigns to be effective, close involvement of the local communities is essential.

Mitigation and prevention are the mechanisms par excellence for breaking the cycle of repetitive damage and redevelopment. But disaster planning is still all too often seen as separated from day to day decision making The most effective approach to reducing the long-term impact of disasters is therefore to incorporate mitigation activities into the process of development planning and investment project formulation.

Governments have a wide range of legal instruments at their disposal to mitigate the risk of disaster. Building and zoning regulations are but two examples of this governmental capacity. Administrative weakness and/or lack of political will are however frequently hampering the actual enforcement of these measures.

By providing subsidies and establishing loan and mortgage programs the authorities can play a major role in financing upgrading programs. At the same time, government can facilitate the creation of community-based credit mechanisms, attract international funding for upgrading programs and stimulate the insurance sector to use premium differentials as an incentive.

SESSION 1: DISASTER MANAGEMENT

Topic 1.1 : The Elements of Disaster Management

Disaster Management

The process of disaster management embraces a wide range of linked activities-assessment, decision making, planning, testing, implementation and feedback. It covers the entire disaster spectrum from preventive action to all stages of recovery. Disaster management is not an isolated activity-it is best regarded as an integrated element in many sectors, including health, agriculture, public works and economic activity, as well as within government line ministries that control such activities. It is also an essential element in the envelopment process, for three main reasons:

1. It can create a safe environment for the introduction of development projects;
2. It can assist in the design of development projects that do not increase vulnerability;
3. It can help groups to provide post-disaster assistance in a developmental manner, that does not create dependency.

Since disasters by their nature stretch resources to the limit and beyond, it is imperative to plan for such events in a logical, sequential, comprehensive and clear manner, that is understood and regularly tested by officials. If this planning is undertaken prior to an emergency situation it is certain that risks to persons and property can be significantly reduced, and effective assistance may be provided to those who suffer if a disaster occurs.

Prerequisites For Effective Disaster Planning

A major disaster can affect all sectors of a society which include political, social, cultural, environmental, physical, technological and economic aspects. Therefore attempts to

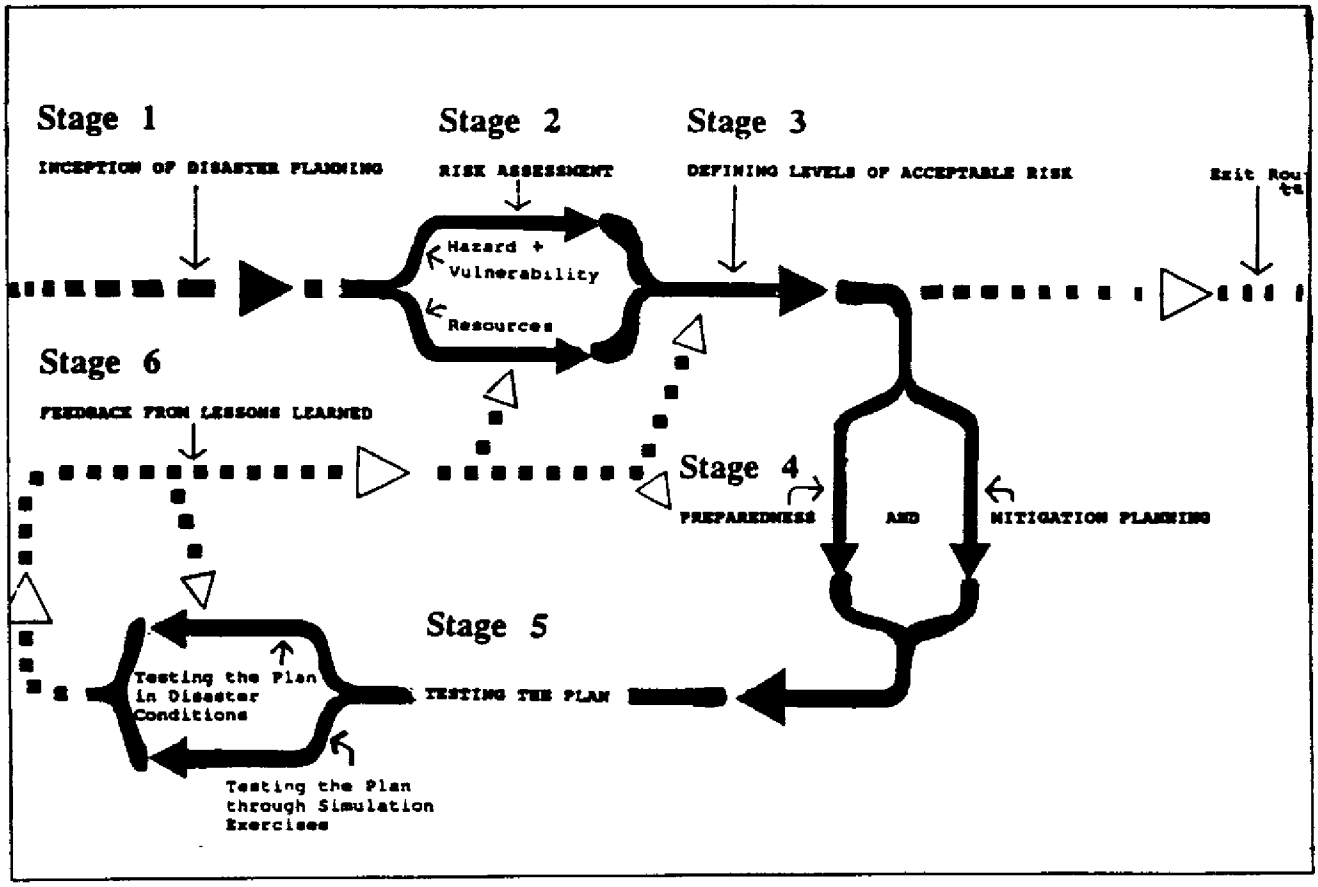

Figure 1.1-1 The six stage cycle of Disaster Planning

reduce risks through effective disaster preparedness, mitigation measures and efficient emergency management are dependent on a number of factors:

1. Political commitment at all levels of national and local government;
2. A governmental structure with clearly defined authority and an appropriate budgetary commitment to maintain effective disaster planning;
3. An up-to-date, well rehearsed preparedness plan that is comprehensive in scope, operational at all levels [central, provincial and community] and accepted by the relevant authorities as well as the affected population;
4. A mitigation plan, leading to its application with a wide diversity of structural and non-structural measures.
5. An emergency management system, ideally the responsibility of the National Disaster Coordinating Council [NDCC] under the chairmanship of the National Disaster Coordinator [NDC].

Therefore, to serve these plans and procedures for protection and emergency management a comprehensive disaster planning system is required. This will require information from a wide diversity of sources. The basis of such a system is the identification, acquisition, verification, storage, maintenance, synthesis, analysis and application of data. All of the above requirements are needed at some stage in the planning process.

The Sequence of Disaster Planning

Disaster management is split into pre and post disaster contexts, and the flow chart below represents the ideal sequence of actions. This sequence embraces pre-disaster actions which are concerned with the six stages of inception of disaster planning, risk assessment, defining levels of acceptable risk, preparedness and mitigation planning, testing the plan and feedback from lessons learnt. The essence of such planning is therefore represented as a cycle to represent the need for continual development as opposed to a non-recurring linear process.

Stage 1 Inception Of Disaster Management

The normal process is for disaster planning to begin after a major event. Is also clear that further disasters can act as a powerful stimulus to maintain the planning process.

Stage 2 Risk Assessment

Physical and Social Data

This base-line data is needed to provide a solid 'chess board' on which all subsequent hazard, vulnerability and resource data has to stand. This has to include topographical maps at appropriate scales, census data etc. The aim of this diagnostic process is to balance known risks against available resources This process starts with the assessment of potential disaster risks through a combination of hazard mapping and vulnerability analysis Measures to reduce risks begin with accurate assessment, yet this vital process is often omitted, or tackled half-heartedly so that authorities may be planning their economy or infrastructure to resist threats that may not be serious, or conversely that may well exceed expectations. Risk assessment is ideally a three part process that has to be undertaken in the following sequence.

Hazard Mapping

Hazard mapping reveals the areas which are particularly susceptible to seismic, volcanic, flood, drought, avalanche and high wind forces. Hazard information is needed in spatial and temporal terms on such matters as location, frequency, duration and severity [ie wind speeds, water flow data etc]. The data is obtained through local scientific analysis as well as historical investigation of past hazard incidence. With this information it will be possible to develop contours that indicate the severity of risk [ie a map that indicates a 200, 100, 50, 20 and 10 year return period for a flood event]

Vulnerability Assessment

The next stage is to assess the vulnerability of persons or property to the hazard which has been mapped. This is another complex data collection process to determine elements 'at risk'. These include social, economic and natural and physical environmental factors. Vulnerability analysis is always a 'site-specific' process with a concern for unique characteristics of a local situation.

Resource Assessment

Assessment of hazards and vulnerabilities will reveal a range of critical problems which precedes the final analysis, that of available resources, often termed an 'assessment of capacities'. These local strengths can cover a wide diversity of elements: community coping mechanisms that help them to survive under hazard conditions, local leaders and institutions that can fulfil a vital role in times of acute need, community facilities, cash, credit, the location and quantity of goods that may be needed in an emergency etc. Undertaking a resource assessment after analysing hazards and vulnerability is a therapeutic process that looks for solutions to all the risks that have been identified.

Stage 3 Defining Levels Of Acceptable Risk

The information gathered through the various processes in Stage 2 is then passed to political leaders in a suitable format to enable them to decide on a responsible course of action. Typical questions include

* Should they initiate risk reduction measures to protect their citizens or are there other more pressing risks to address such as road safety or AIDS public information programmes?
* If they decide to proceed with risk reduction against natural hazards what level of protection is required? For example, should infrastructure be planned or

upgraded to resist a flood that recurs every 20, 100 or 200 years?

* Should certain critical elements such as schools and hospitals be given extra levels of safety than say individual dwellings?
* What is the 'perception of risk' of the affected community?

Such decisions are always difficult judgements concerning what is essential, acceptable, affordable or politically expedient. In the cycle an exit route has been included in stage 3. This is to recognise that the elected leaders of some countries may decide that in the light of the diagnostic data on potential risks presented through Stage 3, as well as other pressing demands on the public purse that it will not be realistic to undertake protective planning.

Stage 4 Preparedness And Mitigation Planning

These processes include measures that are aimed to reduce disaster of events in three ways:

1. Through methods to reduce hazard impact.
2. Through preparedness measures that emphasize short term activities. These can prepare officials for all the stages of recovery
3. through longer term mitigation measures.

Hazard Reduction Measures

The power of certain hazards can be reduced through the development of protective infrastructure. For example, dams or levees can be built to control flood waters. Diversion channels can be constructed and areas can be designated to store excess flood water. An example of a measure to reduce bush fire damage is controlled burning off prior to high risk season. In the case of tropical cyclones the planting of shelter breaks in coastal zones can reduce wind forces to provide localised protection. Similarly the planting of mangroves can reduce wave forces in flood surge conditions.

However there are no hazard reduction measures currently available to reduce earthquake impact.

Preparedness

Measures which enable governments, communities and individuals to respond rapidly to disaster situations to cope with hem effectively. Such measures include the formulation of viable disaster plans, the development of warning systems, and the maintenance of inventories and the training of personnel. These include relief measures to satisfy the basic needs of survivors of shelter, water, food, medical care and psychological support. They may also embrace search and rescue measures as well as evacuation plans to vacate areas that may be 'at risk' from a recurring disaster. Preparedness will need to cover the assessment of damage and needs and emergency repairs to critical facilities. To summarise, preparedness measures are aimed towards saving lives and protecting property. They range from ways to cope to the immediate impact as well as indirect effects off a disaster. All preparedness planning needs to be supported by appropriate legislation in the form of a nation disaster law, often leering to a disaster plan.

Mitigation (1)

Actions taken to reduce the effects of a disaster on a nation or community. The term normally implies that whilst it may be possible to prevent some disaster effects, other effects will persist and can be moderated or reduced if appropriate action is taken. For instance the development and application of building codes can reduce damage and loss in the event of earthquakes and cyclones.

Rehabilitation (2)

The interventions taken after a disaster with a view to restoring the stricken community to its normal living conditions. In many ways, the rehabilitation period is the most difficult for the victims. The most appropriate type of aid during the rehabilitation phase is cash and credit, job producing activities and construction projects. Such inputs can all be incorporated into a comprehensive preparedness plan.

Reconstruction

The actions taken to re-establish a community after a period of rehabilitation subsequent to a disaster. During this period people reconstruct housing and other buildings, and repair roads and other community facilitates Agriculture returns to normal during this phase Mitigation measures can effectively be incorporated into reconstruction.

Notes

1. UNDRO has used mitigation in a broader sense, encompassing allocations taken prior to the occurrence of a disaster.
2. Recovery, a term used by some authors and institutions, includes both rehabilitation and reconstruction.

Stage 5 Testing The Plan

In the representation of Stage 5 two ways are indicated to test the plans that are developed in Stage 4. One way is through simulation exercises and public drills. This approach is obviously a rather inadequate method to determine whether a preparedness plan will work or not and such plans do not begin to address the effectiveness of structural mitigation measures.

The acid test of protective measures will be an actual disaster situation. Following such events there is a requirement for accurate information on the impact of the

event in terms of deaths, injuries and damage to property as well as the specific needs of the surviving population. Such impact data must include knowledge of the developing disaster event, including any new threats that may be emerging as a secondary impact such as earthquake aftershocks. Data is also needed on the character, scale, location, timing and impact of assistance. Such information has to be given in precise spatial terms as well as severity of impact [ie scale of injury, level of building damage etc]. In the past there has been much confusion concerning the value in using such vague classifications as 'injured', 'affected', 'homeless' etc and a valuable attempt has recently been made by the Federation of Red Cross Societies and the Centre for Research in the Epidemiology of Disasters [CRED] to provide a set of much more precise definitions that replace such vague terms.

Stage 6 Feedback From Lessons Learned

Information on changes needed in preparedness and mitigation planning as well as on risk assessment will need to be passed back to an appropriate stage in the cyclical planning process.

Conclusions

1. The Importance of Risk Assessment
   Experience indicates that whilst the above sequence is an ideal, the reality is all too frequently very different. In many countries disaster planning, incorporating very elaborate preparedness processes, is undertaken with only a vague understanding the precise nature of hazards and vulnerabilities.
   The result is that much planning is wasted since it relates in a haphazard manner to *assumed* risks, as opposed to *actual* threats. Thus there is a need for governments to allocate resources for this critical diagnostic process

2. The Technical and Political Interface
   Whilst the various elements in risk assessment comprise a complex stage, designing levels of acceptable risk is essentially a political process. The decision whether to protect area A rather than area B may relate to available resources political demands, etc. Therefore joint training is needed to develop a common understanding of respective technological and political roles, and how both can be optimised to reduce risks.

3. Assumptions
   For the six stages of disaster planning outlines in this session to be in place and operationally effective, there are certain important assumptions:

* Political commitment from the highest level
* An integrated governmental disaster planning system with good inter-departmental co-ordination. This is discussed in topic 1.2, *Key Actors in Disaster Management*.
* Effective leadership

4. Feedback
   As already noted, disaster planning is cyclical, not linear. Once started the process must be continuous with feed back from each event in testing risk assessment, planning, etc. The implication is the need for continual support to protect the process against apathy and political indifference which can often occur in the lull between major disasters.If disaster planning is restricted to a preparedness plan it is most unlikely to work effectively. A wider range of tasks is needed, as indicators in the planning sequence. Each grows out of the stage before it and leads to further action. Together the sequence can build up a planning/ implementation system which can become a powerful risk reduction tool.

? a. At the outset of this session there is a list of five prerequisites for effective disaster planing. Within your own organization which of these are strongly in place, vaguely present or absent? What are the implications of: your organization and its future policies yourself?
   b. Reflect on the six stages of disaster planning. In your organization which stages are strongly in place, vaguely present or absent? Consider the implications for your organization and yourself.

disaster management, disaster planning, risk assessment, hazard assessment, resource assessment, vulnerability assessment, acceptable risk, preparedness-definition, mitigation-definition, hazard reduction, rehabilitation-definition, reconstruction-definition, disaster plan-testing, disaster planning-feedback

Topic 1.2 : The key actors in disaster management

In this topic there will be a consideration for the range of participants or 'actors' who perform in disaster situations. They may proceed a crisis or they may follow it during the recovery process.

All the 'actors' have three points in common, and they are dependent on each being effective:

1. Each 'actor' needs an effective organizational structure and mandate.
2 Each 'actor' need a series of effective policies to pursue that are focused, realistic and based on current information.
3. Each 'actor' is made up of people who need to be committed to the task, knowledgeable, possessing appropriate skills.

It is important to note that these variables can be interdependent. Thus a good organizational structure may not produce effected policies but there are reliable staff able to perform well.

The essence therefore is to aim for effectiveness in structure, policy and personnel through training, careful planning and co-ordination.

Disaster reduction can be seen as a culture that is shared by a variety of actors. Although their perspectives and approaches may differ, it is only through their coordinative efforts that disaster reduction programs will have a chance of being successful. The people are organized at various levels in the community, in non-governmental, formal and non-formal organizations. The government is involved through local authorities, national planning bodies and ultimately in the national leadership. For this reason the actors are identified as:

- community organizations
- local government
- national planners and
- policy makers

Community

Actual disaster management takes place at the local community level, be this a city, town or village. Human beings everywhere are organized at the community level to carry out collective tasks. Different social conditions in different societies might lead to a different order of priority, but in most cases the community level is the appropriate primary focus for disaster management effort.

While emphasizing the role of the community it can not be forgotten that any such program must be supported by the government, and should be part of community development policy.

Policy level support not only ensures legitimacy of community programs, but also enables the integration of reduction measures into community development. Furthermore, disaster management should not be approached in isolation when it is being introduced at the community level, links should be made to the daily life of the community. The links between sound environmental practices, safe location for houses and other buildings and safe construction should be emphasized. This can be done by taking into account the particular hazard to which the community is exposed.

The sequence of disaster planning can also be adopted at the level of a community in a simplified form. They need to assess their own risks and resources, decide on local levels of protection. Local communities can plan simple preparedness and mitigation measures as well as practice their plans (such as local evacuation procedures). However it is important to note that when the local community assesses its risks the process is most affected when all points are considered together.

Therefore floods, earthquakes, etc. can be evaluated with everyday problems, such as lack of medical dispensaries, etc. If a multi-hazard approach is followed then the community can develop protection against potential hazards, and relate problems together to achieve a tactical primary list of what concerns them most. Put another way, natural hazard mitigation needs to be seen within the broad context of development seen in its widest terms.

Non Governmental Organizations (NGOs)

In many countries NGOs are making an important contribution to socio-economic development. Considering the important role they play in different disaster phases every country should decide how to utilize their existing potentialities. In some countries, NGOs play an effective role not only in the distribution of relief but also in the aftermath of disaster. Their roles in relief, rehabilitation and reconstruction are quite noteworthy. Some NGOs were imaginative in introducing novel ideas in areas like construction of houses on an efficient and low cost basis and the distribution of credit to the poor. Their efforts supplemented the work of governments in reducing the debilitating effects of the natural disaster.

In spite of the important role of NGOs, the effectiveness of their operation will depend upon to what extent they can utilize the indigenous strength of people to fight disasters. NGOs play a special role in disaster response and development programming. Varied as they are, they work "on the ground", close to the local people, providing relief and development assistance. Most believe that this closeness increases the likelihood that their assistance will

really support local development. However, most also see a division between their relief and development work. They have established certain principles for development work which they frequently abandon in the face of a perceived urgency for disaster relief.

The result has been that opportunities for harnessing emergency work for development have been missed. Too often, disaster responses in the form of relief aid have not contributed to long term development and, worse, actually subverted or undermined it. From another perspective, even international organizations that do explicitly see a link between their own developmental planning and the disaster assistance they provide, have sometimes been criticized as failing to ensure the two efforts converge. However, there are many countries with severe disaster threats that do not have an NGO presence, eg Turkey, many former Soviet Union states. Other countries in political transition to democracy, eg Angola, Ethiopia, Tanzania are in the process of inviting international NGOs to operate in their countries.

In such countries, governments are faced with the problem of filling in the gaps of their own systems which are well covered by NGO presence in other countries. In countries that are in the process of establishing NGOs, there is a need to explore how they can integrate their work with disaster planning at all levels.

Other formal and non-formal organizations

In recent years, various formal and non-formal organizations have played an increasingly important role in disaster reduction. Because of their significant links with grassroots development, these organizations often perform complementary roles with other established organizations. The role of school teachers, social welfare workers, women groups, and other socio-cultural organizations in disaster reduction should not be underestimated. Religious institutions have also been involved in a number of ways. Immediately after the impact, many people look to religious organizations for guidance, emotional support and comfort. The 'coping abilities' of communities under severe pressure are mainly linked to their religious beliefs. At the same time, religious institutions often provide more functional assistance in the form of shelter and burials.

Government

It is universally accepted that governments must have the main responsibility for managing disasters. It is one of the governmental tasks to ensure that the national resources, of which the majority is under governmental control, are utilized (both before, during and after a disaster) in the best possible way. The organizational structures needed for managing disasters are best founded on the existing government structure. It has proven rather ineffective to create ad hoc arrangements for disaster purposes.

Local authorities and project staff are the implementers at the community level of the development programs of the government. It is this group that is actually coordinating most of the disaster reduction work. The national and regional planners have also a major influence on the reduction or development of disasters. But it is ultimately at the policy making level that the decisions are taken when and how national disaster management programs are developed.

Governments should, while formulating disaster reduction programs, take into consideration the roles played by these different actors. By making loss reduction programs accessible to broad categories of people, these programs will have a higher chance of being successful.

The role of government in improving disaster management

To public policymakers and administrators the question is reframed afresh with each event. What is the public interest? What should the government do? Are there alternatives for public action that are more effective in protecting lives and property?

The sobering fact is that such events are not unexpected in a complex, interdependent world. As the numbers of people, structures, and technologies increase and interact in vulnerable physical environments, particularly in metropolitan areas, the likelihood of natural hazards or technological failures becoming catastrophic events in these environments escalates rapidly. The traditional explanation that such events are "acts of God" beyond human control appears less plausible when sophisticated technologies, communications networks, and organizational capacities offer new possibilities for mobilizing public action in response to the multiple demands of a disaster.

In policy terms, the government has three basic strategies that it can mix and vary to create the desired organizational and social action in event of disaster.

1. Assisting individuals and organizations to improve their capacity to achieve policy goals, that is, to protect lives and property within their own homes, workplaces, and communities.
2. Allocating resources, tasks, and time to establish continuity in organizational structures and procedures across changing budget years, personnel assignments, and administrative regions.
3. Establishing integrated patterns of communication to link individuals and organizations engaged in disaster reduction activities to one another as well as to relevant clientele and resources in the environment.

The following list represents the range of groups who can participate in disaster planning.

Community Level
- Local community leaders.
- Voluntary Fire Brigades.
- Red Cross/Crescent Societies.
- Community Groups (youth, women, farmers, self help...).
- Church/religious organizations.
- Local builders/craftsmen.
- Housing Cooperatives.
- Private sector: suppliers of materials, equipment.
- Volunteers.
- School teachers.

Local Government And Project Staff
- Town or District Architect/Planner
- Town or District Engineer
- Housing Officers
- Building Inspectors
- Contractors
- Public Health Officers
- Medical Staff
- Public and Finance Administrators
- Transport Departments
- Public Utility Staff
- Teachers/Adult educators
- Social (and relief) workers
- Agricultural extension workers
- Information workers/media
- Local Administrators
- Police and Army

National Level
- National Politicians
- Lawmakers
- Civil servants (public works, planning, health, water, education, agriculture, defense, social workers)
- Mapping Agencies
- Development planners
- Regional Planners
- University Faculty
- Research Institutes
- Employers Associations
- Professional Organizations
- Trade Unions
- National Relief Organizations
- National NGOs
- Media
- Bank & Insurance Staff

Decision Makers
- National Politicians
- International Agencies (World Bank, Development Banks...)
- International Relief Agencies
- Foreign Investors, Multinational Corporations

Summary

In session 1 topics 1.1 and 1.2 there has been a focus on these areas of disaster management::
- prerequisites for effective disaster planning
- a six part sequence of actions for planning/implementation
- a review of key actors

The broad emphasis of these topics has been on the:
- importance of pre-disaster planning
- need for integration of all sectors and all actors in the process.
- necessity of governments linking control of the consolidation process providing the necessary management and perhaps most important exercising leadership with a vision of what needs to be done.
- requirement for planning to proceed in a logical manner from assessment to planning to testing to implementation to feedback.

Disasters can be reduced through careful planning-this is the message to communicate at all levels. Lives can be saved and property losses reduced.

? a. Recognizing the diversity of actors in disaster planning consider in practical terms how this 'army of supporters' can be best mobilized at local community level:
Who should lead?
When should action take place?
What resources are needed for this to occur?
How can lessons from one disaster be preserved and incorporated into a preparedness plan?
What should be the link with local preparedness planning, and levels above, ie district, province and the centre?

b. Recognizing the value of the NGO pressure on disaster reduction, what: should governments expect from NGOs (draft basic term of reference)? should NGOs expect of government in terms of authority, resources, co-ordination?

c. How can 'political will' be established and maintained in order to keep disaster planning active? Consider the roles of:
media
public information campaigns
school curricula
local institutions
NGOs
political institutions

disaster management-actors, community, NGOs, formal organizations, government, disaster managment, local government, policy makers

SESSION 2: TRAINING FOR DISASTER REDUCTION

Topic 2.1 : Focus and Objectives

Focus
In order to achieve effective disaster reduction, training is vital. The existing training programs however have a number of weaknesses, that need to be addressed

The focus of most training is mainly on *emergency management* rather than on disaster reduction and the information gives little attention to multi-disciplinary development. It is equally striking that much of the training has a "top down" approach.

1. most courses are sectoral: addressing specific groups such as technicians, health staff etc.
2. the number of introductory courses have increased with respect to awareness raising for politicians and planners while these contain very little "how to" information.

In other words existing programs give rather little disaster reduction information and that information is emergency focused. Disaster reduction is above all needed before the events occur and the following - different approach-is therefore called for:

1 multi-disciplinary
2. aiming at vulnerability reduction
3. audience focused, and
4. a bottom up priority.

Disaster training is based on general principles, but has also to be based on specific local conditions. Disaster training should focus on the local hazards.

The protection of human lives is the basic objective of disaster reduction and for each of the main disaster types specific steps must be indicated and developed to achieve this. It is not just the effect of the forces of nature, but rather the interaction of human activities and natural conditions that sets the scene for the development of disasters.

The leading principle should be action oriented training. The training should increase the ability of the target audience to use the skills and information from the training course for fulfilling specific tasks within a disaster reduction program.

National manpower planning has generally ignored the need to build skills and awareness. Attention is focused almost exclusively on trying to match the number of diploma and degree holders with the number of posts that carry such requirements. Little attention is paid to upgrading the skills of those who are actually performing the work because it is not generally recognized that even university degree holders need to be specially trained to fulfill specific developmental task.

The basic disaster sequence must be fully understood by all, but then each trainee must be prepared for a specific task. The focus of training differs therefore for each target group and for each disaster type.

For a disaster reduction training program to be effective, first of all a multi-sectoral approach is needed. Moreover training should be focused on reducing vulnerability, be demand driven and action oriented.

Objectives
The overall objectives of disaster reduction training programs are:

1. awareness raising
2. skill development
3. process learning
4. self-realization

Sensitization or awareness training
Sensitization or awareness training shows the basic dynamics of disasters and disaster reduction. It aims at developing awareness of the overall conditions and the dynamics of the situation, covering both the natural conditions and the human role in development In relation to floods for example it includes knowledge of the physical conditions, hydrology and the effects of human settlements, tree felling, erosion and social conditions Awareness training also reviews the social and economic constraints in disaster work and the managerial options for interventions.

Skill development
Skill development intended is to disseminate the knowledge and skills necessary to execute disaster reduction projects. It is sharply focused training aiming at developing specific abilities needed for clearly identified tasks. It concerns practical and technical tasks rather than planning or managerial work.

Process learning
Process learning explains the different phases of disaster reduction and the technologies and resources required for each phase.Disaster reduction must be understood as a sequential and repetitious process of development, involving a series of incremental stages with standards, required resources, technologies and social interactions adapted to each stage. All actors with co-ordinative functions must understand this process of development so that they will be able to get the right person for the right job at the right time in this complex process of development.

Self-realizanon.
This concerns the organizational framework for the mobilization and co-ordination of all participants in disaster reduction implementation. Self-realization is mostly needed at the community level to enable individuals and groups to act independently for disaster reduction in their home area as the front-line workers. Maintenance, inspection, early warning and emergency interventions usually take place at this level and becomes effective when the people concerned have been prepared to act and interact

The objectives of training for disaster reduction are manifold. Raising awareness is the most obvious goal. However disaster reduction must also be seen as a sequential process of development, understood by all actors in the disaster process. Furthermore disaster training must aim at the development of specific abilities necessary to execute disaster reduction projects. Finally, training must also aim at self-realization and capacity building in management on the local level.

? a. Review the shortcomings of current disaster reduction training programs.
b. Are these strategy elements applicable to your situation?
c. What does "bottom-up" training mean for you?

disaster training

Topic 2.2 : The Key Actors in Training

The target groups for disaster reduction training fall into five distinct groups. Each of these has specific training needs related to its particular role in the system.

Policy makers, national planners, project staff, community groups, NGOs, and trainers themselves all have different training needs. Once they are all brought into play as a team with a common goal it becomes necessary for them to understand how they can best relate to each other. Each will bring a different range of skills with them and the use of these should be optimized. This requires a dove-tailing of efforts and training will be geared to enabling this to take place. People have to be trained as working groups and not simply as isolated individuals.

Disaster reduction requires the collaboration of institutions and groups of people at various levels in society. National decisions are vital to set the national framework and local communities are vital at the base of the disaster reduction process. Five target groups appear essential for integrated training programs: four groups of actors with distinct roles in disaster reduction and, in addition to these, their trainers:

1. Local Government staff: 'the builders'
2. Community Organizations: 'the people'
3. Policy makers: 'the decision makers'
4. Regional and National planners: 'the professionals'
5. The teaching staff to train the groups above: 'the trainers'

Each target group has its own very specific needs for creating awareness about the possibilities for disaster reduction and for planning and implementing appropriate action. These needs may vary from a brief information session to an actual short course training program.
The training methodology and the type of training materials varies also with the needs of all the above target groups.

Once the different actors in disaster reduction have been identified, it is essential that they interact as working groups and not as isolated individuals. Each category has however its own specific needs. Therefore the training methodology and materials have to be adapted to these needs.

Government
Much of the technical disaster reduction work has to be executed by professionals working in local government, industry, education or for national or international agencies. This group is co-ordinating most of the actual disaster reduction work

Local Government staff and field personnel are possibly the most important group to be trained. At the same time they are the direct link of the government with the communities. This group consists of project implementors and local government staff. However, local agencies often depend on large numbers of untrained personnel. They are often directed by a few graduates of formal courses in traditional disciplines who are untrained in the management of development efforts.

These are the people at the local level who implement the development programs and who in reality execute the work that changes conditions in the area. There is a dire need for practical disaster reduction knowledge at this level. Skill development is a central element in this. Still vesting project operations in local government and community stands as the main defence against disasters. Selfrealization techniques are therefore another important training focus at this level. For their grassroots work project staff will need additional training in participatory techniques. Most officials know how to tell the poor what to do; fewer can engage them in joint undertakings. Community development principles will be a significant part of any training syllabus covering a diversity of subjects from how to hold meetings to the establishment of effective and responsible work groups. Since these areas are also the central concern of communities themselves officials will need an understanding of self-realisation, from how to stimulate it to which areas such stimulation is most appropriately addressed.

Local government staff and field personnel are co-ordinating most of the actual disaster reduction work. At this level there is a dire need for skill development, selfrealization and participatory techniques.

Community Groups

The victims of disasters are the people and the disaster reduction actions at the community level are of the utmost importance. Their training needs include awareness raising, skill development and strengthening the selfrealization capacity. Disaster reduction actions at the local level are very practical steps and the knowledge needed for the community participation is therefore foremost in skill development and self-realization: self-management capacity is here a main aim in disaster reduction training. It is after all voluntary work that carries the brunt of any disaster reduction program. Here we find fire fighters, rescue organizations, environmental action groups, youth organizations and many other non-government organizations in the forefront of local development.

As has been found in other areas of social development community participation is at its most effective when it covers the spectrum of activities from planning and decision making to implementation and maintenance. Communities are most likely to maintain that which they have helped construct and are happiest to assist in the construction of that which they have had a part in planning. An example of how this might apply in the disaster field is planning for disaster resistant housing and infrastructure installation, an activity which is undertaken between residents and officials and, perhaps, members of NGOs. Implementation will follow the commonly agreed plan and will involve a greater or lesser degree of community labor, supervision and management.

The agreed maintenance plan will define responsibilities of community, local authority, other government agencies and NGOs. The overall plan will thus contain an agreed set of actions to be taken by various actors at specified times. Where these activities are new for the actors concerned training will be required to allow them to discharge their duties satisfactorily. For communities this might typically involve rapid survey methods, the reading of basic housing layout plans and the production of improved building materials. Since tasks will potentially range from the physical to the organizational and managerial, all these areas will need to be considered for inclusion in training courses. Similarly, it is essential to see training as related to decision making skills at the local level as well as those skills needed for execution and maintenance.

As one observer stated: 'Ultimately, training at community level is likely to yield the best results. In a disaster situation the community itself will make the first response to the crisis, sometimes up to 72 hours or more after the initial strike and before outside assistance. Outside of the disaster per se, the community will have an awareness of its vulnerability related closely to reasons for living in the particular location.

Community knowledge of disaster potential is likely to be comprehensive and can be linked to training that is concerned with overall consciousness raising of the population. Despite the fact that the knowledge is obviously present in the community, consciousness of the ways to reduce vulnerability must be absent because vulnerability has been absorbed into everyday responses, and is thus accepted as a norm.'In low-income housing delivery popular involvement in design, implementation and post-project activities has become virtually axiomatic. The reasons for this are essentially that target groups know a great deal about their needs and resources, they are willing and able to contribute to the improvement of their problems and, because they have invested so much in the design and management phases are prepared, in principle, to help maintain any achievements made.
This knowledge and commitment is of a different and more grassroots kind to that which authorities may have. However, the most productive approach to housing and disaster management would be to see the community and officials as acting complementary: each has skills, experiences and concerns which the other does not. To

pool them can only be beneficial. Thus, for example, while intended beneficiaries know best what their housing problems are after a disaster, the technician can offer advice on how these might be overcome, doing so with the collaboration of the people concerned. From the preceding paragraph it should be clear that there is a need for training and that this has to take place with different actors in the disaster-housing situation. First, where community participation in all stages of the project cycle is new to government officials and academics, they need to be trained in the new techniques of cooperative action. This will range from how to introduce and discuss ideas on problem solving to developing a joint community-government management system which eventually becomes a largely community operation. Secondly, what residents know and professionals do not has its mirror image in that which residents need to know which professionals already do. Thus, training is necessary for a diverse number of participants in the process, although the methods will often vary greatly according to participants as well as to subject.

Training at the community level has its own specific needs and methodology. If this training covers the whole disaster spectrum and stresses the need of effective links between the different actors in the disaster process, community level training is likely to produce excellent results.

Policy Makers

Training for actions to reduce the chance of a disaster should be directed to the planning and policy making level. Here conflict of interests may play an important role and decision making and weighing processes require awareness of consequences, on the one hand, and technical information about options and countermeasureson the other.National decision and policy makers are at the heart of the national disaster management programs and need to have knowledge of the causes of disasters and the elements of disaster reduction. The training program needed by this group is above all in the areas of awareness training and process learning, because at this level two qualities have to be developed: awareness of the mechanics behind natural disasters and knowledge of the processes that can be developed to counter these. Policy makers must establish linkages and both awareness and process learning are essential for formulating viable policies. Policy makers must therefore understand not only the disaster cycle but also the actors and resources available to deal with it. *Since policy makers play a major role in developing disaster reduction programs, the importance of training central authorities in disaster reduction cannot be underestimated. The training needed by this group is above all process learning and awareness training.*

Planners

Town planners, industrial developers and agricultural planners have a major influence on the reduction or development of disasters Planners from coordinating levels of government should have some basic understanding of disaster reduction processes. They will need some of the same understanding as policy makers and be able to translate this knowledge into action plans. Their training needs are in the fields of awareness training, process learning and skill development. This group requires a detailed understanding of the balance between interventions and hazards.

Planners both at the national and regional level have an important co-ordinative role to play in disaster reduction. Awareness raising, skill development and process learning are their main training needs.

Trainers

Where local government staff, community groups, policy makers and planners are the actual actors in disaster reduction programs, without trainers to disseminate the relevant information, these groups cannot be reached. The training of those who do the training is a special task inherent in the improvement of training institutions and activities in developing countries. Training however requires special skills and talents that are not common, and competent persons with a good deal of practical experience are therefore required. Trainers need to be made familiar with the entire range of training material and become proficient in all the four areas of awareness training, process learning, skill development and self-realization. Their training should strengthen their strategy analysis capacity and their knowledge of the general understanding of disaster reduction through an emphasis on case studies. The entire subject of Disaster Reduction is so wide that it would require enormous efforts to train specialized trainers from scratch in all the relevant subjects. The most effective way of developing a core of trainers is to build on the professional expertise of educational staff within these disciplines. Training the Trainers programs should therefore recruit experienced lecturers and help them to focus their professional knowledge on disaster issues. A lecturer in building construction for example will need to understand the basic principles of seismic engineering and the technical means to make buildings earthquake resistant. Once that link has been made he will be able by himself to develop lectures and exercises around such interventions. The same is true for lecturers in public administration, in sociology, in public health etc. A Training the Trainers program should therefore only add disaster specific information to the basic teaching capacity of specialized lecturers.

The purpose of a Training the Trainers program is not to train specialized trainers from scratch, but to build on the professional knowledge of educational staff. By adding disaster specific information to the normal educational capacities of the trainers, the problem of how to develop

a core of trainers can be overcome.

? a. Different audiences have different training needs. List those needs for each category:
   - Local government staff & Development Project staff
   - Community groups
   - Policy Makers
   - Planners
   - Trainers

   b. Are there other ways than in-service training for achieving vulnerability reduction?

   c. What about improved professional education or the training of scientists?

disaster training-actors, government, community, policy makers, planners, trainers

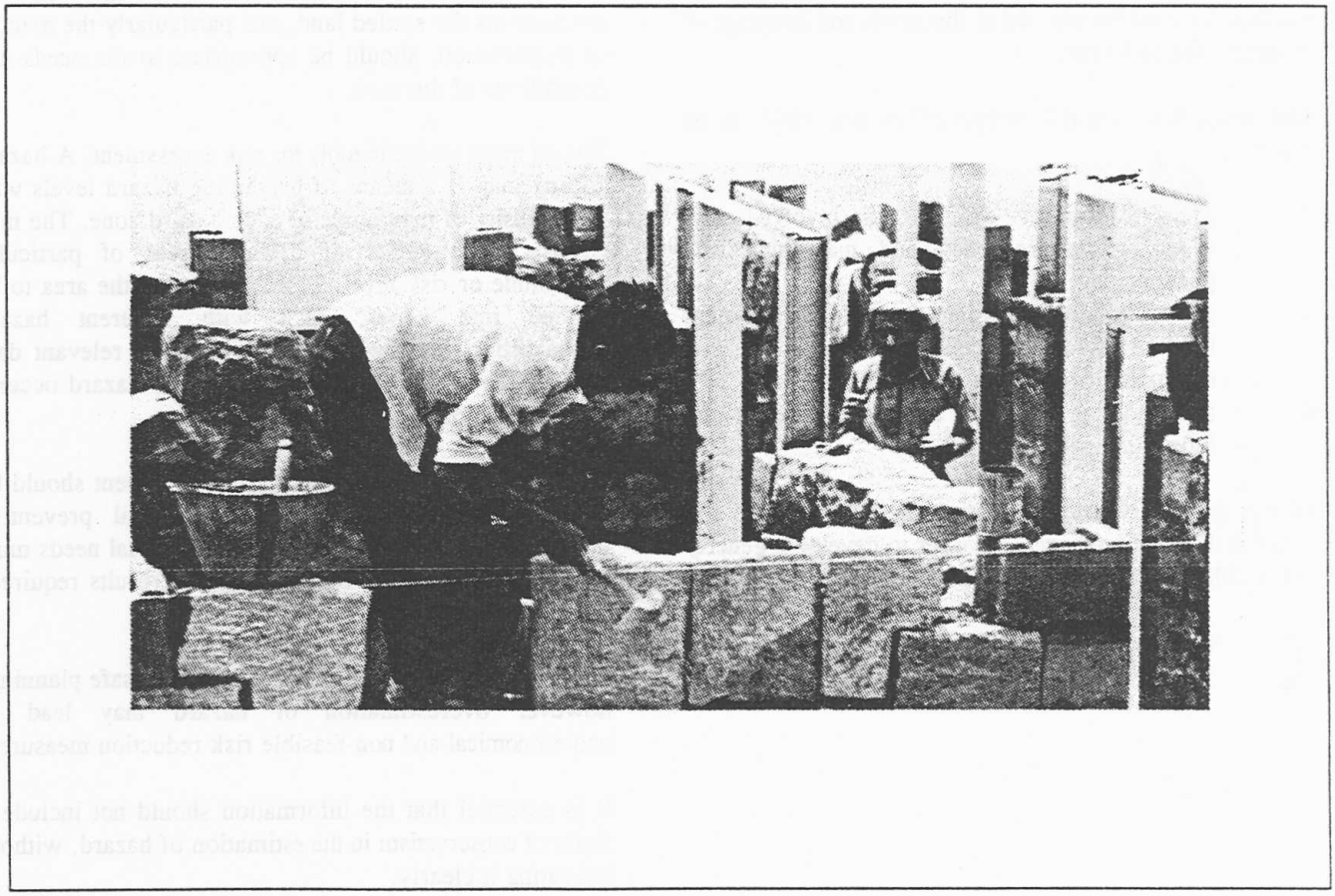

Figure 2.2-1 Training in skill development for community groups: builders on show-projects of earthquake resistant construction in Yemen.