



implementing programs and projects for disaster risk management

design, planning, implementation,
monitoring and evaluation





Chapter Brief

Introduction

Key Words

Activities	Impact	Outputs
Appraisal	Indicator	Project
Assumption	Inputs	Programme
Baseline data	Lessons Learned	Project Cycle
Environmental	Logical Framework	Management
Degradation	(Logframe)	Replication
Environmental Impact	Mainstreaming	Scaling Up
Assessment	Monitoring	Stakeholders
Evaluation	Objective	Work Plan
Gender	Outcome	

Project Management Concepts

- Mainstreaming disaster risk reduction
- Cross-cutting issues for program and project management
 - Stakeholder participation
 - Environmental and Gender Concerns
 - Sustainability, Replication and Up-Scaling
- Implementation and monitoring
 - Implementation
 - Project completion report
 - Why monitor?
 - Evaluation

Project Management Process

Project design and planning	Implementation and monitoring
Problem identification	Cost component of a project budget
Design	Project completion report
Appraisal	Why Monitor?
Approval and baseline study	Evaluation

Tools and Techniques

Case Studies

- ADPC's Asian Urban Disaster Mitigation Program (AUDMP)
 - Development of Proposal
 - Vietnam - Strengthening Homes, Improving Livelihood Checklist

Lessons Learned

Discussion Questions

Challenges

References

Resources



Chapter Brief

- Mainstreaming disaster risk reduction is one major component of the development strategies and plans of international and regional agencies.
- The project management cycle is a methodology that can help development organizations consider issues related to disaster risk reduction and sustainable development in programs and projects.
- The three basic fundamental stages of the project cycle are design and planning, implementation, and monitoring and evaluation.
- Stakeholder participation is important in all stages of the project cycle.
- Linking environmental protection practices in disaster risk management programs and projects is cost effective.
- Vulnerable groups are not victims of disasters. They are a resource to be tapped. They include those who are poor, women, children, aged and physically disabled.
- Project design and planning is carried out in four different stages: problem identification; design; appraisal; and approval and baseline study.
- Technical, as well as, administrative, financial and managerial capacities are required for successful implementation of programs and projects.
- Monitoring involves an ongoing or periodic analysis of information and data to meet the performance of the projects implementation, and to assess whether it is progressing towards achieving the stated objectives.
- While mid-term evaluation is valuable to see if projects are heading towards the right direction and meeting defined results, it is usual to carry out an evaluation at the end of the project to evaluate the overall success of the project.
- Results must be documented, reviewed by stakeholders and widely disseminated.



Introduction

Disaster risk management is no longer left to a few scientists and engineers who have sought to “control” disasters. Nor is it the sole responsibility of relief workers, fire fighters and the army when a disaster strikes. Throughout this volume you will see that disaster risk management encompasses a wider range of interests and abilities, and there is a growing need for more political and professional interaction through multiple and innovative forms of cooperation in the different phases (response, recovery, preparedness, mitigation) and components (policy development, risk assessment, awareness, education) of disaster risk management.

There is no shortage of possibilities for reducing disaster risks. Increasingly, a complement of structural and non-structural risk reduction measures are used. Decision on the appropriate mix of risk reduction options will depend on the area's and organization's policy framework and strategies, and an assessment of risks and the resources available.

Donor and international agencies have begun to contribute to the mainstreaming of disaster risk management by integrating it as part of development strategies and plans. Disaster risk reduction is a priority in the Plan of Implementation of the World Summit on Sustainable Development and the United Nations Millennium Development Goals. Donor agencies such as ADB, AusAID, DFID, DIPECHO, USAID and the World Bank addresses disaster risk reduction in their development agenda. ADPC in collaboration with GTZ and AusAID have recently initiated a project to support the mainstreaming of disaster risk reduction into the housing and infrastructure sectors in selected Asian countries.

At the national, local and community levels in many Asian countries, there have been numerous programs and projects by government and non-government organizations towards reducing disaster risks. However, the impact of these projects and the extent to which they contribute to disaster risk reduction is often unknown. A research study managed by the British Red Cross found that only 12 of the 75 mitigation and preparedness projects implemented by UK-based NGOs assessed or evaluated project impact (*Twigg, 2000*).

In recent years, the increased severity of disasters and a range of public awareness endeavors have raised stakeholders' sensitivity to the need for appropriate interventions to reduce risks. This



chapter introduces the project cycle management as a methodology for effective design, planning, implementation, monitoring and evaluation of programs and projects.

Key considerations at each stage of the project cycle management will be discussed to ensure that programs and projects protect development gains contribute to sustainable development and do not increase risks. The purpose of this final chapter is three-fold. To:

1. emphasize the importance of mainstreaming disaster risk reduction in development programs and projects;
2. highlight key issues to consider when managing disaster risk reduction programs and projects; and
3. introduce key approaches and techniques for managing projects.

This chapter, however, is not a detailed guide on how to manage programs and projects and how to use the different approaches and techniques to manage projects. There is a list of resources at the end of this chapter on this.



Key Words

Activities

The action taken or work performed (training staff, preparing reports, etc.) through which inputs, such as funds, technical assistance and other type of resources are mobilized to produce specific outputs / results.

Appraisal

An overall assessment of the relevance, feasibility and potential impacts and sustainability of a development intervention prior to a decision of funding.

Assumption

An important external factor - i.e. event or action which must take place, or an important condition or decision which must exist, if a project is to succeed, but over which project management has little or no control.

Baseline data*

Data that describe the situation at project start-up of the issues and development conditions that the project or program will address. It serves as the starting point for measuring the performance of the project and is an important reference for evaluations (*ADPC*).

Environmental Degradation*

Processes induced by human behavior and activities (sometimes combined with natural hazards) that damage the natural resource bases or adversely alter natural processes or ecosystems. Potential effects are varied and may contribute to an increase in vulnerability and the frequency and intensity of natural hazards. Examples include land degradation, deforestation, desertification, wildland fires, loss of biodiversity, land, water and air pollution, climate change, sea level rise and ozone depletion (*ISDR, 2004: 39*).

Environmental Impact Assessment*

An assessment that examines the environmental consequences, both beneficial and adverse, of a proposed development project, and ensures that these consequences are taken into account in project design (*OECD DAC, 1992: 7*).



Evaluation

An assessment, as systematic and objective as possible, of a planned, on-going or completed development intervention or policy, its design, implementation and results. The purpose is to determine the relevance and fulfillment of objectives, development efficiency, effectiveness, impact and sustainability. An evaluation should provide information that is credible and useful, enabling the incorporation of lessons learned into decision-making process of both recipients and donors.

Gender*

Refers to socially constructed differences between the sexes and to the social relationships between women and men. These differences between the sexes are shaped by the history of social relations and change over time and across cultures. Gender identity depends on the circumstances in which women and men live, and includes economic, cultural, historical, ideological, and religious factors. Gender relations also vary according to the economic and social conditions of the society and differ between social and ethnic groups.

Source: <http://www.unecce.org/stats/gender/web/genstats/whatisgs/gender.htm>

Impact

Positive or negative, primary and secondary long-term effects produced by a development intervention, directly or indirectly, intended or unintended.

Indicator

Quantitative or qualitative factor or variable that provides a simple and reliable means to measure achievement, to reflect the changes connected to an intervention, or to help assess the performance of a development actor.

Inputs

The financial, human, material and time resources used for the development intervention.

Lessons Learned

Generalizations based on evaluation experiences with projects, programs or policies that abstract from the specific circumstances to broader situations. Frequently, lessons highlight strengths or weaknesses in preparation, design and implementation that affect performance, outcome and impact.



Logical Framework (Logframe)

Management tool used to improve the design of interventions. It involves identifying strategic elements (inputs, outputs, outcomes, impact) and their causal relationships, indicators, and the assumptions or risks that may influence success or failure. It thus facilitates planning, implementation, monitoring and evaluation of a development intervention.

Mainstreaming*

The integration of disaster risk reduction issues across the full range of sectors within existing development strategies and priorities.

Brennan (2003: 24) explains that “mainstreaming disaster risk management into the development planning process essentially means looking critically at each activity we are planning not only from the perspective of reducing the disaster vulnerability of that activity, but also from the perspective of minimizing that activity’s potential contribution to the hazard.

For example, agriculture and aquaculture programs often take into account their vulnerability to floods, and measures to reduce flood vulnerability are often incorporated into development projects. Rarely though, is the agriculture and aquaculture projects assessed from the perspective of the increase it may cause to the flood hazard. Much of the flooding that affects large areas of the Mekong Delta is now seen as being caused by reduced drainage as a result of the expansion of agricultural activities into wetland areas that previously served an important drainage function. Mainstreaming disaster risk management into the development planning process would have assured that compensatory drainage was factored into the agricultural expansion plans - and that would have led to more sustainable development.”

Monitoring

A continuing function that uses systematic collection of data on specific indicators to provide management and the main stakeholders of an ongoing development intervention with indications of the extent of progress and achievement of objectives and progress in the use of allocated funds. The purpose of monitoring is to provide a regular reporting mechanism to the outside bodies and to assist timely decision-making, ensure accountability and provide basis for evaluation and learning.



Objective

A specific statement detailing the desired accomplishments or outcomes of a project at different levels (short to long term). A good objective meets the criteria of being impact oriented, measurable, time limited, specific and practical. Objectives can be arranged in a hierarchy of two or more levels.

Outcome

The likely or achieved short-term or medium-term effects of an intervention's outputs.

Outputs

The products, capital goods and services which result from a development intervention; may also include changes resulting from the intervention which are relevant to the achievement of outcomes.

Programme

An ongoing development effort or plan, which may contain one or many projects.

Project

An activity in which resources are expended in order to create assets from which benefits are derived. A project has specific objectives, a beginning, quantified resources and activities, and an end.

Project Cycle Management

A methodology for deasigning, planning, implementation and evaluation of programs and projects.

Replication*

The *spread* of good practices and lessons learned from the program and project in the design and implementation of other programs and projects (i.e. applied in different geographic areas or scaled up) (*ADPC*).

Scaling Up*

The process where a local initiative is taken up and institutionalized at the provincial, national, regional and even international levels by government departments or an organizations' headquarters. This means that disaster risk reduction issues are incorporated in the policies, strategies and systems of the institution. At the same time, personnel at the institution are adequately trained and committed to implement disaster risk reduction (*ADPC*).



Stakeholders

Agencies, organizations, groups or individuals who have a direct or indirect interest in development intervention or its evaluation, or who affects or are affected positively or negatively by the implementation and outcome of it.

Work Plan

A detailed document stating which activities are going to be carried out and by whom in a given time period, how the activities will be carried out and by whom in a given time period, how the activities will be carried out and how the activities relate to the common objectives and vision. The work plan is designed according to the logical framework.

*(UNDP, undated, except those marked *)*



Project Management Concepts

Mainstreaming disaster risk reduction

Programs and projects are never developed in isolation from the wider context of events, societies and institutions. United Nations' global frameworks and declarations are key influences of national development agendas.

- The Millennium Development Goals, of which 191 United Nations Member States have pledged to meet by 2015, resolve to “*intensify cooperation to reduce the number and effects of natural and man-made disasters.*”
- The Johannesburg Plan of Implementation of the World Summit on Sustainable Development held in 2002 has secured a place for disaster risk reduction on the development agenda (*UNISDR, 2003b*).
- The United Nations' International Strategy for Disaster Reduction (*UNISDR*) provides a global Framework for Action 2005-2015 which was recently reviewed and adopted at the World Conference on Disaster Reduction held from 18 to 22 January 2005. One of the key strategic goals is the “*effective integration of disaster risk considerations into development policies, planning and programming at all levels,*” (*UNISDR, 2005*).

Through its “Framework to Guide and Monitor Disaster Risk Reduction” *UNISDR (2003a)* aims to identify common strategies, guide implementation and develop a way of capturing progress qualitatively and quantitatively.

In addition, ISDR promotes linkages and synergies between disaster risk reduction and other cross-sectoral issues including climate change, environment and gender.

International and regional agencies have begun to mainstream disaster risk reduction as part of the development strategy and plans. UNDP, UN-Habitat and the World Bank have established units to make sure that disaster risk reduction is an integral part of their development programs.



UNDP's Bureau for Crisis Prevention and Recovery is contributing to global advocacy to reduce disaster risk in order to meet the Millennium Development Goals. UNDP has also begun development of a Disaster Risk Index (DRI) in order to improve understanding of the relationship between development and disaster risk. DRI compares countries according to their relative risk levels over time. Findings from developing the DRI are reported in their latest report, "Reducing Disaster Risk: A Challenge for Development" (see *UNDP, 2004*).

UK Government's DFID has recently published a policy paper stating that: "Disasters should be a core development concern."

"Disasters hold back development and progress towards achieving the Millennium Development Goals. Yet disasters are rooted in development failures. This is the core rationale for integrating disaster risk reduction into development." (DFID, 2005: 2)

ADB adopted a water policy in 2001 reflecting the urgent need to formulate and implement integrated cross-sectoral approaches to water management and development. Flood management is incorporated in the water policy.

In MRC's goal to promote sustainable development of the Mekong River Basin's water resources for social and economic development, flood management and mitigation is one of the programs in MRC.

ADPC, in collaboration with GTZ and AusAID is working to develop guidelines to mainstream disaster risk reduction in the sectors such as housing, infrastructure development and urban development, etc.

To summarize, the achievements highlighted above are moving towards:

- A common global framework
- Indicators to measure progress
- Functional mechanisms for cooperation
- Integration of disaster risk reduction in sector policies, plans and programs
- Establishing linkages and synergies between disaster risk reduction and other cross-sectoral issues including gender, environment, rural and urban development, and climate change.



The challenge is now putting these concepts, strategies and plans into **coordinated actions** across all levels and sectors that will contribute to reduced risk and sustainable development.

Cross-cutting issues for program and project management

Project cycle management is a methodology that can help development organizations consider the issues of disaster risk reduction and sustainable development in programs and projects.

There are different versions of the project cycle but they all follow three basic fundamental stages:

- Project design and planning
- Implementation and monitoring
- Evaluation

The section on “process” provides details of the three stages. Case studies of programs and projects in Asia are presented to draw out the lessons learned and key considerations at each stage of the project cycle management.

Across all stages of the project cycle management, it is important to:

- Ensure stakeholder participation;
- Incorporate environmental and gender perspectives; and
- promote sustainability, replication and up-scaling.

Stakeholder participation

The methodology for ensuring stakeholder participation in all stages of the project cycle management is detailed in Chapter 7: Bringing Risk Management to the Local-Level.

Why stakeholder participation is important?

- Enables people to explain their vulnerabilities and priorities, allowing problems to be defined correctly and responsive measures to be designed, implemented and reviewed;
- Can empower stakeholders if the participation process emphasizes awareness raising and capacity building; and



see chapter 7
page xxx



- Promotes effective implementation and sustainability because stakeholders' involvement in decision-making can lead to the ownership of the project and its continuation after the project ends.

(Twigg, 2004: 114)



see chapter 6
page xxx



see chapter 7
page xxx

Who should participate?

In addition to the participation of relevant government and non-government organizations, it is important to include vulnerable groups in the process. They include those who are poor, women, children, aged and physically disabled. There are a number of useful guides on the participation of vulnerable groups in disaster risk reduction.

Vulnerable groups are not victims of disasters. They are a resource to be tapped. Women and the elderly from many communities are often most effective at mobilizing the community to plan and implement disaster risk reduction projects. Women also often lead savings and micro-finance schemes.

Environmental and Gender Concerns

Environment and gender are cross-cutting issues in the sustainable development agenda. Most development organizations recognize the importance of incorporating environmental and gender perspectives in program and project management. At both the design and evaluation stages, many development organizations require analyses of environmental and gender impacts.

The links between disasters and environmental degradation are well documented. For example, hilly and mountainous areas (in China, India, Nepal, Philippines, Sri Lanka and Thailand) that are aggravated by deforestation and cultivation that destabilizes slopes, are most prone to flash flood and landslides.

There is a general consensus that environmental degradation, caused by demographic pressures and misuse of natural resources, alters the resource base and increases vulnerability. Practices that protect the environment and promote sustainable use of natural resources can provide solutions to reduce vulnerability.

It is therefore important to include natural resources and environmental components in disaster management projects. It is



also important that risk issues are incorporated in natural resources and environmental management projects. CARE International has a multi-year program to integrate environmental perspectives in their disaster preparedness and response programs. The World Wide Fund for Nature (WWF), through USAID-supported Biodiversity Support Program is also addressing links between disasters and the environment (*Kelly, 2001*).

Environmental management can be a cost-effective tool while serving many other objectives including conservation of biodiversity, mitigation of adverse global environmental changes and poverty alleviation. Currently, a joint initiative of the Benfield Hazard Research Center and CARE International with support from OFDA/USAID UNEP/OCHA and the Royal Norwegian Ministry of Foreign Affairs has developed guidelines and training materials for incorporating environmental issues in emergency response assessments, planning and operations (*Kelly, 2003*).

UNISDR (2004: 29) suggests ways of linking the environment and disaster reduction activities. It includes:

- Assessment of environmental problems linked to hazards based on reliable sources of existing information with the related evaluation of impacts and the need for additional data.
- Mapping of environmentally sensitive areas, description of characteristics of the environment and development trends in these areas.
- Examination of environmental benefits to be drawn from disaster reduction activities throughout various sectors.
- Monitoring to provide information for decision-making purposes (for example, suitability of land for development).
- Environmental tools for disaster reduction purposes: regulations, incentives, conservation programs, hazard control and mitigation, water/watershed, and coastal zone management.

From a study commissioned by the World Bank (*Van Aalst & Burton, 2002*), it is recommended that the linkages between environmental degradation and disaster risks be identified and best addressed at the local level. The involvement of local communities ensures that underlying problems like poverty driving people onto steep mountain slopes are identified and taken into account in the design process.



Communities are comprised of different groups of people that can be distinguished by gender, age, socio-economic and political systems, language, religion and/or ethnicity. Relationships between and among these groups are embedded in unequal power relations. Gender relations represent a set of power relations. It is based on an understanding of women and men's roles, responsibilities and access to and control over resources.

Environmental conditions and disasters affect women, girls, men and boys differently. Women and girls, in general, are more vulnerable because they often have less access to resources, including social networks and influence, transportation, information, skills (including literacy), control over land and other economic resources, personal mobility, secure housing and employment, freedom from violence and control over decision-making.

One study on a 1991 cyclone in Bangladesh noted that many women perished with their children at home as they had to wait for their husbands to return and make an evacuation decision (*WHO, 2002*).

Women's vulnerability is exacerbated by their multiple roles and responsibilities which often go unrecognized. They have a 'productive' role (such as farming or employment). They have a 'reproductive' role (involving domestic work such as cooking, cleaning, fetching water, rearing children and caring for other family members). They also have a role in community tasks.

A sociological study on gender dimensions of floods in Northern Bangladesh showed that while women's lives were primarily restricted to homesteads, they were engaged in economic activities such as tending to gardens and livestock. During floods, many animals drowned and home gardens washed away. Women, unlike men could not seek work outside. They also had to meet their responsibilities for acquiring fuel wood and water, which became almost impossible for them. Cultural restrictions also prevented women from participation in distribution of relief supplies or economic assistance (*Kumar-Range, 2001*).

However, as mentioned previously, women are not merely victims of disasters. Their multiple roles and responsibilities and their active role in community mobilization and development also means that they can and have often played an active role in all phases of disaster risk reduction. Swayam Shikshan Prayog (SSP) recognizes the importance of involving women in the recovery process (see example, Box 8.1).



Box 8.1

Swayam Shikshan Prayog, India

Swayam Shikshan Prayog (SSP or Self-learning for empowerment) is an NGO in India aiming to transform crisis situation into an opportunity for mobilizing communities, especially women. SSP has gained substantial experience in working with women after the 1993 earthquake of Latur, Maharashtra, India.

After the Gujarat Earthquake in January 2001, SSP facilitated the exchange of experience between women's groups in Latur and over 200 villages in Gujarat and built capacities of women in Gujarat in participating in the recovery process, forming savings and credit groups, improving access to basic services such as water supply, health and education, and creating a platform for women to dialogue with local government officials.

There is a growing literature on gender and disasters (see resources on gender in section 8.10). Most development organizations have gender policies but few incorporating gender and disaster risk reduction. *CIDA (2003)* has produced specific guidelines on gender equality in humanitarian assistance. It highlights reasons for using a gender perspective in relief efforts, draws attention to current issues, sets out questions to ask in designing, monitoring and evaluating projects, and includes a list of tools.

WHO (2002: 4) proposes ways of incorporating gender in risk reduction activities:

- Pre-disaster activities such as hazard mapping and vulnerability analysis should integrate gender considerations.
- Community-based disaster risk reduction projects and disaster training and education programs should include women as well as men, and address their respective needs and concerns. For example, training courses should be held at times of day when women are free from domestic chores and other tasks. Child care facilities may be needed to encourage attendance.
- Information collected should be sex-disaggregated and include a gender analysis.
- Women and men should participate in the project design, planning, implementation, monitoring and evaluation processes.
- Gender training of disaster managers should become an integral part of staff training in all development organizations.



Sustainability, Replication and Up-Scaling

Almost all development organizations emphasize the importance of project **sustainability**. It is the degree to which the beneficial outcomes will continue after the completion of the program or project.

The disaster risk reduction program or project is more likely to be sustainable when it:

- Is relevant to stakeholders' needs
- Complement other development goals
- Involve stakeholders in the decision-making process at all stages of the project cycle management
- Make effective and efficient use of resources (including human, financial, information and material resources) that are available locally
- Allow stakeholders to learn from the project cycle management process
- Stimulate interdisciplinary and intersectoral partnerships. Partnerships can bring together the skills, expertise and experience of a broad range of groups to achieve a common vision for the community, province, state or country

Replication involves the *spread* of good practices and lessons learned from the program and project in the design and implementation of other programs and projects (i.e. applied in different geographic areas).

Scaling up refers to the process where a local initiative is taken up and *institutionalized* at the provincial, national, regional and even international levels by government departments or an organizations' headquarters. This means that disaster risk reduction issues are incorporated in the policies, strategies and systems of the institution. At the same time, personnel at the institution are adequately trained and committed to implement disaster risk reduction.

Stakeholder participation across different sectors; the inclusion of cross-cutting issues such as environment and gender; and project sustainability, replication and scaling up, all contribute to the process of mainstreaming disaster risk reduction.

ADPC with support from USAID has piloted projects with country partners that contribute to disaster risk reduction mainstreaming in some development organizations and programs.



CARE Bangladesh implemented pilot community-based projects to reduce risks. In the process a methodology for community-based risk assessment was developed. CARE Bangladesh now conducts a community-based risk assessment in the planning stage of all their community development projects.

Indonesia's Ministry of National Education has incorporated education on earthquake safety as part of primary school student's extra-curricular activity, with support for Bandung's Institute of Technology (ITB). This initiative grew from the Indonesian Urban Disaster Mitigation Project implemented by ITB.

The Philippine Atmospheric Geophysical and Astronomical Services Administration (PAGASA) have been working with the agriculture, public health and water resources departments in making climate forecasts relevant to these sectors. This began as an Extreme Climate Events Project.

Sri Lanka's National Building Research Organization developed a methodology for production of landslide hazard zonation maps using GIS to serve as tools for planning of settlement and infrastructure development in the hill country. This was initially a UNDP initiative and was further developed under the Sri Lanka Urban Multi-Hazard Disaster Mitigation Project with pilot studies in Colombo, Kandy, Nawalapitiya, Ratnapura and other cities along the Kelani River. It is now sustained through government funds.

The next section looks at how projects and programs can be managed to promote stakeholder participation across different sectors; the inclusion of cross-cutting issues such as environment and gender; and project sustainability, replication and scaling.



Project Management Process

The project cycle management (PCM) obliges program and project managers to understand the problem and focus on the needs of the beneficiaries right from the beginning. The PCM provides a standardized sequence of actions that cover all relevant issues (including sustainability, stakeholder participation, etc.). These issues are examined and revised where necessary and carried forward to the next stage.

The PCM also helps to manage stakeholders involved in the program or project. This is done by guiding the project with a clear and concise plan made up of concrete goals, objectives and methods that convey to all involved the clear boundaries of the project. This process makes the project clear and visible and therefore, enables monitoring and evaluation.

As mentioned above, there are different versions of the project cycle but they all follow three basic fundamental stages:

- Project design and planning
- Implementation and monitoring
- Evaluation

Each stage of the PCM has specific priorities and requires specific inputs to produce relevant outputs for assuring sustainability of all consequent steps. This section looks at the processes in each of these stages.

Project design and planning

This stage could be divided into four sub-stages which, in reality takes place simultaneously:

i. Problem identification

It is important to understand a problem and its cause before attempting to design a project.

The first sub-stage in any project is an assessment of the problems and needs to be addressed. These are then matched with opportunities for work within the strategies of the region, country



or locality; the implementing organization(s); and the potential donors. Opportunities for partnerships and financial commitment should also be identified.

Problems have many effects and causes. There are many methodologies for assessing problems, needs and situations. A risk assessment to understand the hazards, vulnerability and capacity of the area should be conducted. Many assessment tools are used in a risk assessment, including mapping, participatory methods, questionnaire surveys, wealth ranking and direct observations.



see chapter 3
page xxx

Gosling & Edwards (1995: 69) provides a good general guide to an initial assessment. They state that assessment at this stage is needed to:

- Analyze the situation in which the implementing organization(s) will be working
- Help identify a suitable area or sector for the implementing organization(s) to work in
- Understand the complexities of a problem, its causes and how it is already being tackled
- Understand how different problems affect the groups in which the implementing organization(s) has a particular interest
- Analyze the constraints and opportunities for development work

Problems identified need to be matched with opportunities for “solving” them. Very often, the success of a program or project depends on involving the right people at the right time. An analysis of the stakeholders is essential. Stakeholders range from: national and local government officials; NGOs involved in similar initiatives; academic, research and training institutions; community groups; vulnerable groups; donor agencies; the private sector; to staff of the implementing organization. It is important to explore *perceptions of risk* by different groups.

Opportunities could come from: Member States’ commitment to the UNISDR; Asian senior-level government’s commitment to the priorities identified at Asian Disaster Preparedness Center’s Regional Consultative Committee (RCC) on Disaster Management (*ADPC, 2004b*); donor agencies’ risk reduction strategies (e.g. *DFID, 2005*) and country strategies; countries’ national plan for disaster risk reduction; the implementing organization(s) comparative advantages in specific sectors or skills; and local capacities.



Questions to Ask:

- A. What are we trying to achieve?
- B. What is our starting position?
- C. How are we going to get from A to B?

From the analyses of problems and opportunities, ideas for projects could be identified and prioritized.

ii. Design

Once a specific area or set of areas are identified, objectives should be set to help guide the work. At this sub-stage, appropriate indicators and targets need to be selected for measuring progress, and a plan of action drawn up, including decisions on how best to monitor and evaluate the activities.

For guidelines on developing objectives and indicators see page xxx.

In practice, the process of developing objectives can be difficult because there are different levels of objectives, from the specific to the more general. One way to sort out the different objectives and their relationship to the aims and activities of a project is to construct an 'objective tree'. An example of an objective tree is illustrated in Case Study 1 on the Asian Urban Disaster Mitigation Program.

Each objective requires a clear work plan of action designed to meet it.

Things to illustrate in a work plan:

- What activities will be undertaken
- How they will be carried out
- Who will be responsible for what and when
- What resources or inputs (human, financial, information and material) are required
- The intended result, or output of each activity
- How the output will help achieve the objective
- How, who and when will monitoring and evaluation of project be undertaken

(adapted from *Gosling & Edwards, 1995: 73*)

The extent to which project outputs are achieving the objective can be measured by developing indicators. The development and use of indicators is central to monitoring the implementation progress and evaluating the outcomes and impacts of programs and projects. Indicators provide a means of measuring, qualitatively and quantitatively, actual accomplishments against what has been



planned in terms of deliverables, resources, milestones, costs and time. In their practical application, indicators are:

- Quantitative and qualitative variables that provide a simple and reliable basis for assessing performance, achievement or change.
- Performance standards or benchmarks to be reached and maintained in order to achieve the objectives; and to gauge the extent of progress (or lack thereof) towards these objectives.
- The basis for before-and-after analyses and describe the effects (positive and negative) of program and project interventions – anticipated and unanticipated, intended and unintended.

Indicators may be changed over time if they are found to be too difficult. Depending on the program and project's objectives, impact indicators are used to measure the development and strengthening of:

- Individual and institutional capacity / services / processes - enhancement of the disaster management capacity and capability of relevant governmental, public and private agencies and organizations.
- Policies - implementation of effective plans, policies, legislations, statutes and communiqués that enforce sound disaster management regulations, practices and processes.
- Awareness and knowledge - general public awareness, knowledge and understanding of disaster management technologies / practices / processes that empower them.
- Financing mechanisms - availability of funding / financing to sustain disaster management initiatives / activities through annual government budgetary provisions, recurring donor contributions, private sector participation, etc.

Box 8.2**Project Proposal Format**

Information gathered in the project design and planning phase often needs to be put together in a proposal for approval by the national government, donor agencies or headquarters of an organization.

A project proposal is normally comprised of the following sections:

- Introduction to the problem
- Justification for developing this program or project (including results of the risk assessment)
- Details of the objectives, activities and expected results, target stakeholders, indicators and means of verification, resources required, assumptions and risks (often including the Logical Framework Matrix)
- Profile of the implementing organization(s) and capacity / arrangements, existing and planned, for implementing the program or project
- Work plan / time line
- Budget (including requested amount and counterpart contributions by the implementing organizations)

Note: It may also be required to have plans with budget for personnel; material and equipment; procurement; staff training; and monitoring and evaluation.



**see Tools and
Techniques**
page xxx

iii. Appraisal

At this third sub-stage, the project proposal is studied by a third party (for example, national government, donor agency or headquarters) to assess the proposed activities – including its ability to solve the problem; appropriateness in relation to organization's priorities; and costs in relation to the expected outcomes'– and decide whether to implement the project.

One of the challenges here is to convince development agencies of the threat that disasters pose to achieving overarching goals such as sustainable development and poverty reduction, and to convince finance authorities, national planning agencies and the donor community of the need to make resources available for disaster risk reduction.



In response to this challenge, UNDP in collaboration with UNESCAP will be introducing a methodology to Asian countries to identify and quantify disaster impact in socio-economic terms, to implement some socio-economic studies of disaster impact, and to present the findings and implications of these studies to national planning and development agencies. UNDP and UNESCAP will also seek to modify on-going household surveys to identify more accurately the linkages between disaster vulnerability and poverty in selected Asian countries and to monitor whether disaster risk reduction significantly reduces poverty among rural households (*Brennan, 2003*).

On the other hand, in response to the lack of evidence to prove the net benefit of risk reduction, the Provention Consortium has developed guidelines on how project appraisal methodologies, including economic cost-benefit analysis, environmental and social appraisals can be adapted to consider risks from natural hazards, and on appropriate ways of monitoring the impact of risk reduction (*Benson & Twigg, 2004*).

For example, economic cost-benefit analysis (CBA) examines a project proposal in terms of its projected costs compared with its projected financial benefits, or other benefits converted to financial terms. It is used to assess large-scale structural mitigation projects. But it can also be used to assess policy initiatives such as the implementation of mitigation policies for the control of specific types of pollution, the recycling of waste or the retrofitting of buildings. It can make a convincing case for risk reduction but is very difficult to conduct – particularly in pricing environmental, social, political and psychological costs and benefits (*Twigg, 2004: 358-362* for the advantages and disadvantages of CBA).

Environmental impact assessments (EIAs) are required by most donor agencies and many national governments in the appraisal stage. A study commissioned by the Provention Consortium found that donor agencies are beginning to realize the importance of disaster risk assessment. For example, the Caribbean Development Bank is currently developing guidelines for natural hazard impact assessment and their integration into its EIA procedures. Other agencies working along similar lines include DFID and the World Bank (*Benson & Twigg, 2004*).

iv. Approval and baseline study

Once official approval and funding is obtained, it is useful to carry out a baseline study so that the data collected could be compared



later. Baseline data can be collected by quantitative and/or qualitative methods depending on the nature of the indicators.

For disaster risk reduction programs and projects, *Twigg (2004)* suggests using vulnerability / capacity analysis methods and tools for the baseline study, and application of the same method and tools for project monitoring and evaluation.

Baseline data is collected prior to the start of the project but it can also be collected during project implementation and monitoring missions. Often, project objectives and indicators will change and baseline data may not be relevant. This needs to be recognized and adjusted accordingly.



see chapter 3

For more information on data collection for the baseline study and other assessments in the design, monitoring and evaluation phases, see Chapter 3: Risk Assessment.

Implementation and monitoring

Implementation

Implementation is the major stage of the project cycle, when plans are executed. The work plan will help to manage the implementation and monitoring processes.

Inputs to the project, which are often items mentioned in the project budget, will need to be managed.

Cost component of a project budget

- Personnel (management, technical, administrative, financial staff and volunteers/interns)
- Contracts (for consultants, partners)
- Training (for staff, partners)
- Equipment (computers, furniture, vehicle, etc.)
- Communications (the Internet, phone, fax, mail)

Regarding personnel, there are four main capacities required for implementation:

Technical Capacity

With skills and experiences in the relevant aspects of disaster risk reduction and other project components (e.g. community development, health, awareness raising, training, information management and engineering).



Managerial Capacity

With skills in project management and the ability to plan, monitor, evaluate and coordinate people, resources and activities.

Administrative Capacity

With the ability to provide logistical support to project staff and other stakeholders including staff recruitment, contract development, procurement of goods, maintenance of inventories, arrangements for travel and filing.

Financial Capacity

With the ability to manage project budget and develop a transparent financial reporting system.

When employing staff for projects and seeking appropriate partners, it is important to consider project sustainability. Existing local resources and capacities should be used and strengthened, thus, building a cadre of personnel with knowledge in disaster risk reduction in-country.

Personnel will need clear job descriptions with details of their roles and responsibilities, and capacity building opportunities. Contracts are often drawn out for partners. Where consultants are required, it is necessary to develop clear terms of references. Depending on donor agencies' policies and regulations, competitive bidding practices may be required in procuring services and goods, with clear selection criteria and several persons participating in the decision-making process.

Good filing system of all correspondence, documents, reports, financial records, stakeholders' contact information and project outputs; and documentation of processes in the form of weekly and monthly reports on activities, constraints, opportunities and lessons learned, are recommended. They would be useful not only for monitoring, financial audits and evaluations but also for organizational learning, ease in continuing the work initiated by the project when there is a change of personnel, or when the implementing organization (or other organizations) plan to replicate a similar project in other areas.

Project completion report

A comprehensive project completion report generally has to be prepared at the end of the project providing information on:

- Process
- Difficulties, constraints
- Lessons learned
- Opportunities
- Results achieved
- Recommendations for future interventions



However, ways to maximize the impact and sustainability of the outputs or outcomes should be considered. The experiences gained in planning and implementing the project, including strategies, processes and approaches used and the lessons learned should be documented and products packaged in user-friendly and accessible forms for wide dissemination. This is important in advocating for disaster risk reduction and promoting replication of similar projects in other areas. It is also useful for promoting the work of the implementing organization(s).

Outputs and outcomes can be disseminated using a range of different media: in print; audio-visual means; electronically through websites, emails and distance learning platforms; face-to-face in meetings and training courses; and folk media in drama, dance and song. Advancements in information and communication technology can help to manage information and make them readily accessible to stakeholders and the wider community.

Monitoring involves an ongoing or periodic analysis of information / data to measure the performance of a project's implementation status (e.g. deliverables, milestones, cost, schedule) in order to assess its progress towards achieving the stated objectives. A well-established and ongoing project monitoring system is essential for improved project planning, implementation and project management.

Why Monitor?

In summary, monitoring can:

- Ensure project is on target and improve programmatic and financial planning and management decision making
- Demonstrate accountability to those they seek to help, as well as those who support them
- Improve understanding of how disaster risk reduction works in practice
- Be the time to reflect, analyze, learn and fine tune projects to improve performance as appropriate
- Provide opportunity to foster good rapport with partners and other stakeholders
- Be used to collect data that can be used for reporting and development of new projects



Monitoring (and evaluation) needs to be carefully planned in order for it to be useful. Their purpose and methods need to be clear and agreed by the stakeholders. Key issues to consider include:

- Resources (human, financial, information and material) available for monitoring.
- Choice of coverage: Depending on the size of the project, it may not be possible to cover all project locations or interventions.
- Choice of data collection methodology, e.g. questionnaire survey, focus group discussions, observations, participatory methods, secondary data collection, development of case studies, etc.
- Scheduling - who, when, will do what? It is useful to plan well ahead and have a multi-disciplinary team, especially when the project involves multiple project locations and interventions.
- How the analysis of the findings be reported back to all stakeholders and how will they be acted upon.

To the extent possible, participatory monitoring and evaluation mechanisms should be used to enable stakeholders to provide feedback. This is one way of promoting learning among those involved in the program or project.

Monitoring results are often presented in the form of reports to donors on a monthly and quarterly basis. However, to generate a learning environment, reporting to donors alone is not sufficient. Monitoring results can be documented in the form of newsletters, electronic newsletters sent by email, series of case studies, and on videos. They can be presented in meetings and workshops or on the Internet where feedback on the results could be received.

Evaluation

Monitoring usually addresses inputs, activities and outputs. Most monitoring systems are designed to meet the ongoing information needs of project managers and provide information for donor reports. Evaluations focus on outputs and especially impact, and are intended for a wider audience within and outside the organization.

Monitoring should be frequent, throughout the project. Evaluation is infrequent. It can take place at any point in the project cycle. It is usual to carry out evaluations towards the end of the project, or

Who monitors?

Project Managers
Project Staff
Project Partners
Community groups
Donors
Consultants



the end of a phase in the project. Mid-term evaluations are valuable in identifying if projects are heading in the right direction and meeting the desired results.

In summary, evaluation can:

- Determine the full extent of positive and negative outcomes and impacts, usually at the end of a project or program
- Identify lessons that can be applied to future program strategies and improve effectiveness of interventions
- Be used to advocate for policy change and institutionalization of disaster risk reduction by demonstrating to donors, policy makers and practitioners that it works
- Reveal program or project quality and effectiveness that can be used for institutional marketing
- Demonstrate accountability

Many factors combine to make people vulnerable and create situations of risk. No program or project can address all these factors, but they are influenced by them. This influence must be understood in order to assess a project achievements and impact. *Twigg (2004: 351-2)* has a good section on Monitoring and Evaluation of disaster risk reduction projects. He brings forward some challenging questions for evaluators:

- To what extent are particular changes due to the project itself or its environment?
- How can one assess the results arising from one particular type of intervention against another when good risk reduction work should comprise a diverse range of activities – organizational, educational, structural and economic.
- Especially where hazards are infrequent (e.g. earthquakes, volcanic eruptions), what indicators can be used to measure impact?
- Within a community, there is differential vulnerability due to gender, ethnicity, age and disability differences. How will the impact of different groups of people be measured?

Using different stakeholders or evaluators to assess the same issue, and the cross-checking (or triangulation) of different data sources and sets can help to identify factors affecting success of failure.

Depending on the purpose of the evaluation and resources available, evaluation can be conducted in several ways:



- Internal or self evaluations by implementing agency
- External evaluations by independent agencies or experts not directly associated with the program
- Collaborative team evaluations that include internal and external parties
- Participatory evaluations that are conducted with multiples stakeholders

Key stakeholders can be involved in the evaluation process in two ways. First, by ensuring that senior representatives from partner organizations take part in the mission, either as full members or as resource people. This is important when strategic decisions will be made. Second, by holding workshops, meetings and interviews with all stakeholder groups.

It is essential that staff and partners in a program or project and other key stakeholders have a sense of ownership of the evaluation process from the start. Terms of Reference for evaluations should be formulated jointly with them and they should be involved in identifying key strategic issues such as the scope of the evaluation, who will be involved in what way, and what indicators will be used to measure change.

All evaluation teams should include:

- Professional expertise relating to disaster risk reduction and other issues being evaluated
- Knowledge of the country/region
- Multi-disciplinary skills e.g. social, economic and institutional

At the start of the evaluation, project reports should be distributed in advance and a brief presentation of the project logical framework and key issues made. Projects with clear objectives, targets and a hierarchy of indicators that link process to impact make monitoring and evaluation more coherent (see Case Study 1 on ADPC's Asian Urban Disaster Mitigation Program). Having baseline data for comparison is also important. Field visits and workshops are important for the evaluation team to meet with key stakeholders, show project outputs and discuss different issues.

Twigg (2004) found that most disaster risk reduction projects report on outputs rather than impact. For example, projects tend to measure the number of training courses conducted or the number of awareness posters distributed, rather than the number of trained staff using the skills learned in their work or signs of changed attitudes in community groups protecting themselves from future



see AUDMP case study
page xxx



disaster risks. This is largely because projects are for short periods, making it too soon to measure impact. Post-project impact assessments after one or two years are rare.

Monitoring and evaluation is worthless unless it leads to improvements in organizations' work to reduce disaster risks. Once the findings of the evaluation have been documented, it is important to provide a forum to reflect, review and comment on the findings. Evaluation reports are useful knowledge resources which should be disseminated to the wider disaster risk reduction community.

Evaluation Report Format:

- Executive Summary
- Project Background (development context, project overview, achievements, performance measurement information, inputs)
- Evaluation Background (methodology used and evaluation team)
- Evaluation Findings
- Conclusion and Recommendations
- Lessons Learned
- Appendices (list of acronyms, terms of references, logical framework, references, list of consultations, minutes of key meetings, photographs, maps, data, analytical results)



Tools and Techniques



All the information collected and analyzed up to this point can be organized into a **Logical Framework**. A Logical Framework is a **project design and management tool** for systematically establishing and monitoring the logical relationship between the inputs, outputs and objectives / goals of a project, in relation to the risks, assumptions (or factors necessary for project success), resources and costs. These relations are summarized in a Logical Framework Matrix. Typically, all projects should have a Logical Framework Matrix prepared at this stage to guide and support project implementation and evaluation.

Although risks that may impede project implementation are considered in the Logical Framework, very rarely is it used to examine and address disaster risks (*Benson & Twigg, 2004*). When disaster risks were mentioned, there were no explicit efforts indicated to reduce those risks. Benson and Twigg (2004) calls for revision of Logical Framework guidelines to include more explicit guidelines on when and how to take into account disaster risk-related issues.

A Logical Framework Matrix is a useful tool. It will provide a summarized description of the project, including:

- Why a project is carried out
- What the project is expected to achieve
- How the project is going to achieve its results
- Which external factors are crucial for the success of the project
- How can project progress be assessed
- What data is used to assess progress

Details of developing a Logical Framework can be found in *AusAID (2000)*, *DFID (2003)*, *EC (2003)*, *Gosling & Edwards (1995)*, *Jackson (undated)*, *UNDP (2003)* and *UNDP (undated)*.

The main strengths of the Logical Framework are the structure it provides to test and clarify means, ends and assumptions, and its potential as a collaborative consensus building exercise. In addition, the Logical Framework describes a proposed operation and provides a framework for determining how performance should be measured (through the development of indicators), providing the foundation for monitoring, reporting and evaluation.

The main limitations are that the Logical Framework is time-consuming to develop and requires a good understanding of the principles involved, and once completed tends to become frozen in time.



Case Studies



ADPC's Asian Urban Disaster Mitigation Program (AUDMP)

The Asian Urban Disaster Mitigation Program (AUDMP) is a ten-year program (1995-2005) with projects in eight countries. With support from OFDA USAID, it is designed to respond to the need for safer cities.

Program and Project Design

The design and initial implementation phases were set at the start of the United Nations IDNDR when a relatively small group of academics, development professionals and practitioners were aware of the large sums of money spent on disaster relief and response and the need for a shift in approach to focus on mitigating the potential effects of disasters.

In Asia, the focus was chiefly on response and recovery after disasters. The tools, methodology and process to mitigate disaster risk were neither widely known nor practiced, and what little mitigation work was being practiced focused primarily on structural and technical solutions rather than on making those solutions an integrated part of the development process.

The economy in Asia was booming, urban population growth and rural to urban migration was increasing. Industrialization and infrastructure investment was at an all time high. At that time, ADPC was the only regional center providing disaster management training and technical assistance. ADPC was pointing out over and over in its training courses, the exponential increase in Asia's vulnerability to disaster risks.

At the same time, the evaluation of OFDA USAID's programs recommended that a Prevention, Mitigation and Preparedness Office (PMP) be set up. Through this office, OFDA signed an MOU with USAID's Office of Housing and Urban Development (RHUDO) through which they had agreed to jointly fund urban mitigation initiatives.

Between October 1994 and October 1995, a program design team was assembled consisting of staff from ADPC, OFDA/PMP, RHUDO/Asia and three international disaster risk reduction experts. The



team designed a regional program through country visits to India, Indonesia, Sri Lanka, the Philippines and Nepal, identified (by OFDA/PMP and RHUDO/Asia) as the five initial target countries.

The ultimate **goal** of the program was to reduce the disaster vulnerability of urban populations, infrastructure, critical facilities, and shelter in targeted cities throughout Asia. Working in conjunction with collaborating institutions in each target country, it was decided that the program **strategy** would take a three-tiered approach:

1. **National Demonstration Projects** in each of the target countries would serve to provide a working example of urban hazard mitigation. In a selected urban area in each country, a hazard or set of hazards would be assessed, followed by the design and implementation of appropriate disaster mitigation measures.
2. The **Information and Networking** component aimed to help build public and private networks as a forum for exchanging information and experience on urban disaster mitigation, with the goal of replicating successful hazard mitigation practices from the demonstration projects throughout the region.
3. The **Training, Resource Materials, and Continuing Education** component provided an opportunity to further institutionalize hazard mitigation practices through seminars for national level decision makers, as well as by using an in-country and regional “train the trainers” approach for passing on technical skills via a core curriculum in risk assessment and mitigation. Courses would be offered by in-country partner institutions and on a distance learning basis.

At the national level, each project design began with joint visits to USAID Missions by representatives from ADPC, OFDA and RHUDO. From this visit, potential collaborating organizations from government, NGOs and the private sector were preliminarily identified and project partner(s) selected to design and implement the national demonstration project.

One of the key challenges in this process was balancing the in-country needs; and the goals and objectives of the project, USAID Mission, OFDA, RHUDO, ADPC and the selected project implementation partner. This did not always lead to the best selection of partners.



Regarding selection of the partner institution itself, the biggest challenge was finding an institution with the correct mix of community, local government, national government and NGO contacts along with enough combined urban development and disaster risk reduction knowledge and expertise to be able to quickly learn how to successfully implement the demonstration project. Finding such an organization was almost impossible because most organizations had either a relief and response orientation, or a development focus with knowledge of a very limited technical part of disaster mitigation.

Once local partner(s) were identified, target cities were identified and hazard mapping and vulnerability / capacity assessments conducted in order to formulate specific mitigation measures. The Program examined the high-risk areas more closely to determine several mitigation options and selected the most cost-effective of the options.

Program and Project Implementation and Monitoring

The country projects mirrored the regional strategy and followed a three-tiered approach – (1) the demonstration projects; (2) information dissemination and networking; and (3) training. The three components reinforced one another. The communities required training to implement the demonstration projects, and the demonstration projects provided lessons learned and case studies that were incorporated in training courses and widely disseminated to advocate for disaster risk reduction. The information campaign helped raise the awareness of the public and mobilized support for the demonstration activities.

Program partners were requested to send progress reports on a monthly and quarterly basis. They were also encouraged to document the project implementation process. From these reports, AUDMP published monthly highlights and disseminated information on the project through newsletters distributed to a wider audience. While the early newsletters were published in hard copy for USAID, an electronic version was launched in 2003 that was meant for a wider audience. All monitoring and evaluation documents were made available on the ADPC website for transparency, information sharing and knowledge building.

On a quarterly basis, AUDMP prepared detailed reports to USAID, on regional and national progress, achievements, problems and lessons learned against the objectives and indicators set. Simultaneously, program staff and USAID/OFDA representatives conducted regular monitoring visits to partner countries.



The program organized annual working group meetings to discuss issues related to program implementation. The working group meetings brought together representatives from project partner institutions and subject experts in disaster management and urban development in the region to review progress of the program, share knowledge and experience and discuss future directions.

The period 1998-2001 focused on documenting experiences of ongoing projects and learning lessons so that experiences could be used in advocating for disaster risk reduction, identifying needs and designing future projects. In 2002, AUDMP developed case studies documenting the strategies, processes, achievements, problems and lessons learned in each country projects. The case studies, unlike report to donors, were developed in an easily digestible, user friendly form for the wider community. These case studies were made available in print form and electronically on the ADPC website and CD-ROM.

Project experiences and lessons learned were also documented in other forms: in project reports; working papers; workshop proceedings; and on video; most of which are available on the ADPC website < <http://www.adpc.net/AUDMP/library.html>>

Program and Project Evaluation

The objectives of AUDMP in the original 1995 proposal were to:

- Reduce the natural disaster vulnerability of urban populations, infrastructure, lifeline facilities and shelter in targeted cities in Asia.
- Promote replication and adaptation of successful mitigation measures within the countries where demonstration projects are carried out and in the region.

The mid-term evaluation in 1998 shifted the emphasis towards building public and private capacity to plan and implement mitigation measures. The objectives were revised to:

- Establish sustainable public and private sector mechanisms for disaster mitigation that will measurably lessen loss of life, reduce the amount of physical and economic damage, and shorten the post-disaster recovery time.
- Promote replication and adaptation of successful mitigation measures within target countries and throughout the region.

Very early in the program, the Monitoring and Evaluation system was developed based on the required “Managing for Results”



process used at the time throughout USAID. This system documented measurable results based on the stated program goals and objectives. Although it did not perfectly capture all the nuances of the project's success, unintended successes or the intangible results that had to do with institutional development in the countries, it did document regularly achieved results of targets set initially and then revised after the mid-term project evaluation.

The achievements were measured by the agreed upon performance indicators. Unlike many program indicators that only measured outputs (e.g. number of plans developed or number of training courses conducted), AUDMP attempted to measure whether or not these outputs led to changes. Below are examples of selected AUDMP indicators:

- The number of operational plans developed with resources from national collaborating institutions to carry out mitigation measures and demonstration activities after the program ends.
- The number of replications or adaptations of mitigation skills and procedures promoted in AUDMP demonstration activities by other organizations, community or countries in Asia.
- The number of new or improved assessment methods and guidelines/standards used for public and private sector development.
- The number of public and private sector professionals with AUDMP initiated disaster mitigation training who are employed and using the knowledge gained in fields impacting disaster management or urban development.
- The number of AUDMP initiated training and professional development courses institutionalized in training centers and universities.

The gathering of data to measure results set by these indicators was not easy and required significant commitment and resources from AUDMP in providing training and regular support. About 10 per cent of the program budget was set aside for monitoring and evaluation.

These quantitative results are supplemented with qualitative information on intended and unintended outcomes and impacts. For example, the AUDMP had at least influenced or sometimes played a significant causal role in the development and implementation of disaster mitigation policy.



Institutional Learning

What became obvious to ADPC from the AUDMP experiences is that institutionally ADPC support for disaster mitigation needs to continue. In anticipation of this ADPC developed a Strategy Asia 2020 to continue providing support in the ways that worked the most effectively and based on what it learned from its partners throughout Asia.

New projects in line with Strategy Asia 2020 emerged from the AUDMP. They include an EU-supported project where ADPC partnered with 15 universities and training institutes in Asia to incorporate disaster risk management in their urban planning courses through an Internet-based platform for e-learning. ADPC implemented this project in collaboration with the *International Institute for Geo-Information Science and Earth Observation* in the Netherlands and the *Ecole Nationale des Sciences Géographiques* in France. ADPC also collaborated with universities worldwide to conduct action research on disaster risk reduction.

In another project supported by UNDP, ADPC is developing a Primer on slow onset flood risk management. The primer will serve as a comprehensive and practical “How-To” guide designed to serve as a daily reference tool for development practitioners working in flood-prone areas. This is one volume in a series. This general volume on disaster risk management was developed under the AUDMP, and ADPC continues to seek support for volumes on rapid onset flood, earthquake, landslide, drought and hydro-meteorological disaster risk management.

Source: ADPC, 2004a

Development of Proposal

This case study shows a simple example of a logical framework matrix developed by ADPC to seek funding support for two Primers – on “Disaster Mitigation in Asia” and “Community-Based Disaster Risk Management (CBDRM) Practices”.

The need for these two Primers emerged because Asia, in particular, lack well-resourced comprehensive reference documents which could be used by professionals and practitioners for understanding disasters in their own geographical, social, economic and cultural contexts.





To fill the gap, ADPC proposed to develop the Primers to foster better understanding and knowledge of disaster risk management practices and methodologies by making accessible experiences and lessons learned on disaster risk reduction. These Primers would contribute to the integration of disaster risk reduction into development planning and practice.

Objectives	Measurable Indicators	Means of Verification	Assumptions
<p>GOAL To mainstream disaster risk management into development practices to achieve sustainable development at all levels</p>	<ul style="list-style-type: none"> - Enactment / revision of policies and national / provincial / local levels internalising the concepts of disaster risk reduction mitigation and CBDRM in overall development planning. - Risk focused development plans of governments, NGOs, UN and donors - Presence of institutional structures at various levels to address the need of disaster risk reduction. 	<p>Publications, newsletters of various national, regional and international agencies, government ministries / departments, UN, NGOs & other agencies</p>	<p>The officials from government departments, NGOs, INGOs, UN and donor organisations are interested of the need for integration of disaster risk management in development planning</p>



Objectives	Measurable Indicators	Means of Verification	Assumptions
<p>PURPOSE Enhance understanding of tools, methodologies, successful practices for disaster risk reduction and of CBDRM to amongst the stakeholders at various levels</p>	<p>Documentation and dissemination of tools, methodologies, successful practices is being made available to stakeholders and opportunities for face-to-face interaction are provided</p>	<p>Overall increase in integration of disaster risk management in development planning which will be reflected in the review of on-going projects at various levels and also increase in the number of institutions/agencies having incorporated the concepts of disaster risk management in their development projects</p>	<p>The lack of knowledge about disaster risk management and community based approaches (activities and processes) to disaster risk management hinders the officials of NGOs/INGOs, UN, donors and governments from incorporating risk reduction measures in their programs</p>
<p>OUTPUTS - Primer on Disaster Risk Mitigation in Asia - Primer on CBDRM Practices</p>	<p>- One Primer on Disaster Risk Mitigation in Asia published - One Primer on CBDRM practices published</p>	<p>- One Primer on Disaster Risk Mitigation in Asia published - One Primer on CBDRM practices published - Financial records for conducting research, writing, editing and printing of publication</p>	<p>Donor agencies are interested to support the process towards sustainable development through integration of disaster risk reduction</p>



Objectives	Measurable Indicators	Means of Verification	Assumptions
<p>ACTIVITIES Research, documentation and interactive consultations with subject experts from throughout the region on one hand and consultations with stakeholders on the other hand</p>	<ul style="list-style-type: none"> - Collection, collation and analysis of published, unpublished & web based literature on the subject areas of the two resource books - Consultations with selected subject experts - Field visits to selected organisations, communities & countries; - Staff hired for the activities undertaken as per the given budget 	<ul style="list-style-type: none"> - Reports on review of literature - Mission reports on field visits & research - Reports on interview & survey - Staff job descriptions - Work plans - Financial reports 	<p>Respective organisations and individuals are willing to cooperate in research & compilation about their work</p>



Vietnam

Strengthening Homes, Improving Livelihood



Vietnam

This case study shows an innovative way of documenting monitoring and evaluation results in the form of a story giving a personal account of one of the project's beneficiaries. This story is extracted from Development Workshop France's website. It is a story that is easy to read and relate to. However, it is not comprehensive enough for readers to fully understand and learn from the experiences and lessons learned of the project. It also only shows readers the project success but does not provide information on the problems encountered and the project's weaknesses:

“Married at the age of 17, Madame Yêm assures us that this was not considered young at the time, but life was really hard” – difficult to express how hard. To begin with, the young couple were farmers, and were able to feed and bring up their children. Then her husband went off in 1963 to fight in the Resistance. He was killed in May 1963 in a ghastly massacre. This was a terrible blow, leaving her with 5 young children, the eldest 13 and the youngest only 3 years old. With meagre savings from making straw hats, like others in the village, she was able to pay for her children to attend school. But once basic needs were met, she could only afford to live in a poorly maintained bamboo shelter. Using savings scraped together and with manual help from cousins and neighbours, in 1974 she managed to build a cement block house with a tin roof, but no reinforcement. Only to find herself homeless in 1985, when the typhoon ripped off all the roofing and she was forced to purchase fibro-cement sheets to replace it. “That’s why when I hear a typhoon warning, I’m absolutely terrified,” she adds.

Asked about strengthening houses against storm damage, she says she had heard about this and was most interested. Which is why when the village meeting to decide which families should benefit from the damage prevention project was held, Madame Yêm took an active part. In the event she met all the conditions for becoming a beneficiary. She assures us that if the project can make her a loan, she will do everything she can to help improve her house as required by the Project. Before strengthening, her house was built of cement blocks, with a tin roof and very rudimentary tin panel doors.

All her children are married and have work, but at some distance, except for her youngest daughter who still lives with her. So she hopes her house can be finished before the Têt [Vietnamese New Year] holiday so that she can celebrate with her neighbours. The total budget for the work is 4.2 million dongs, of which Madame



Yêm is contributing 200,000 dôngs, and the Project has agreed to loan her a further 1.5 million dôngs at an interest rate of 0.3% per month. She receives a State pension of 120,000 dôngs (as a Revolution widow) and this together with her income from raising animals will enable her to make the monthly repayments of 57,000 dôngs. Before, she used to borrow from the Women's Union for her farming activities, but until now no organisation used to provide loans for strengthening homes against storms. She is delighted with the new loan scheme and is determined to save and repay on time so that others can also benefit. At the time of writing, the walls of her house have been carefully rendered and eight iron reinforcements have been added to the roof, making it both attractive and strong.

Greatly moved, Madame Yêm tells us that although her children have grown up now, none of them are in a position to help her. Thanks to the help she has received from the Project as well as from her cousins and neighbours, her house is now comfortable and strong. She is grateful to the project and hopes that others like her will be able to benefit."

*Source: Development Workshop France's website
http://www.dwf.org/Vietnam/preventdamage/v_case.htm*



Checklist

1. It is commonly advised that **objectives** and **indicators** be SMART:
 - Specific
 - Measurable
 - Achievable
 - Relevant
 - Time based

In addition, objectives and indicators should be:

Defined by stakeholders. Different stakeholders may have different objectives and they should be recognized throughout the PCM stages.

Empowering. The objectives and indicators should allow stakeholders to reflect critically on their changing situations.



Flexible. Vulnerability is not static. Therefore, objectives need to be reviewed and changed if it is no longer relevant. Data to show achievements made in each objective or indicator should be feasible to collect and use.

2. Program management should consider:

- What and who is available in terms of staff, resources, skills, management capacity – locally and from elsewhere
- Priorities of people involved, including government officials, donors, communities, groups within communities including children, women, people with disabilities and different ethnic groups, and their participation in the decision-making process
- Assumptions being made in suggesting that the activities will achieve the objectives
- Risks (including disaster risks) that could affect the success of the activities
- Negative impact of project activities, e.g. on the environment
- Likely cost and cost-effectiveness of the activities
- Building local commitment and capacities
- Promoting project sustainability, replicability and upscaling
- Ensuring accountability to beneficiaries as well as partners and donors.

(adapted from Gosling & Edwards, 1995: 73)



Lessons learned

- There are a wide range of mitigation measures to choose from. Selecting the appropriate mix of options will depend on a number of factors including your organization's goals and objectives, an assessment of risk and needs in the area or sector you are planning for and the resources available.
- Partner selection is the most significant step in the project design process that will determine the success or failure of the project.
- Consider program and project sustainability, replicability and upscaling right from the start in the design phase
- A program or project success is based on developing sustainable strategies e.g. establishing mechanisms and implementing activities that could be continued in the future by the communities themselves. The strategies should also be focused on people's livelihood and are relevant to their needs.
- A program or project should aim to use local resources. For example, a project should not only focus on building a safer home for beneficiaries, but also, employ locally available materials and construction methods, produce designs based on forms understood by people in the area, allow for future improvements based on people's needs and resources, provide technical training and resources, conduct regular demonstrations and awareness-raising events, create employment and generate income.
- Some people are more vulnerable than others. They include those who are poor, women, children, aged and physically disabled. Plans should include the needs of these vulnerable groups.
- Vulnerable groups are not victims of disasters. They are a resource to be tapped. Women and the elderly from many communities are most effective at mobilizing the community to mitigate and prepare for disaster risks. Women also often lead savings and micro-finance schemes.
- Include as a budget line item, 5 to 10 per cent of total program or project funds for monitoring and evaluation.
- Mid-term evaluations are useful for re-assessing the objectives, strategies and progress of programs and projects.



- Supplement quantitative results with qualitative accounts of intended and unintended achievements, opportunities and problems, as well as lessons learned.
- Be creative in the documentation of monitoring and evaluation results.
- Long-term support allows the program to make significant impacts and institutional learning to be fully absorbed.

Discussion Questions



- Is disaster risk reduction part of your organization's development strategy?
- Is your organization's strategy for risk reduction in line with the national disaster risk reduction strategy/plan (if they exist)?
- Do your projects contribute to greater understanding, appreciation and commitment to disaster risk reduction among government, donor, community and/or private sector representatives?
- How do you ensure that the development projects you are managing are not increasing your people's risk to disasters?
- How can you motivate all stakeholders to take responsibilities for reducing disaster risk?
- Does your organization conduct risk assessments for all development projects?
- Does your organization have strong relationship with the disaster risk reduction organization and committees?
- Can the projects implemented be sustained?
- Can the projects implemented be replicated and scaled-up, forming mechanisms large enough to protect all those living in areas of risk?
- How can you promote and guide the integration of disaster risk reduction in development policy and practice across sectors and levels?



Challenges

Disasters can disrupt development programs. Likewise, development programs can trigger disasters. There is a growing awareness that organizations need to incorporate disaster risk reduction as part of their development strategy.

While this new environment provides an opportunity for more cost-effective and sustainable efforts to reduce disaster vulnerability, the increased awareness of governments, NGOs and donors has yet to translate into tangible action that is focused on comprehensive risk reduction across all sectors and levels.

The “How-To” guides and mechanisms for this transition from concept to action remain limited. This Primer attempts to fill this gap. It is also important to note that UNDP has established two technical support offices, one for South Asia and one for Southeast Asia to provide technical assistance through its Missions in the region to ensure that national development programs it supports have an integrated disaster vulnerability reduction component. Along with this the EU has established programs and fielded program officers to support disaster mitigation in Asia.

Government, NGOs and Donor agencies should develop or revise assessment and appraisal guidelines to incorporate consideration and analysis of disaster risks and options for reducing vulnerability. There also remains a need for”guidelines and mechanisms to link disaster risk reduction to related strategies in the context of sustainable development, poverty eradication, the protection of natural resources and gender equity. ADPC, in collaboration with GTZ and AusAID is attempting to fill this gap by developing guidelines to mainstream disaster risk reduction in development of infrastructure and housing in Asia.

To convince government, NGOs and donors that mitigation “pays”; that mitigation is a cost-effective strategy; a framework and guidelines for monitoring and evaluating disaster risk reduction projects are fundamental. A wide range of pilot risk reduction projects have been developed and implemented in Asia, but rarely are these projects adequately monitored and evaluated. Standard guidance on generic disaster risk reduction indicators at project level is also lacking.



There remains a need for: regional and national monitoring frameworks that are designed to assess progress by governments and other actions, although some proposed frameworks for monitoring disaster risk reduction at the national level have been developed by UNISDR, World Bank's Caribbean Country Management Unit and Mitchell (2003) but they have yet to be tested in the field (Benson & Twigg, 2004). Benson & Twigg (2004) suggests developing a methodology for assessing the quality of pre-disaster reduction measures through evaluations of post-disaster relief operations; and developing new tools specifically for evaluating the "mainstreaming" of disaster risk reduction within organizations' systems and structures.

Asian organizations also need to develop a culture of documentation, learning and partnership building. For example, in the aftermath of disaster events, agencies should collaborate in undertaking risk analyses, focusing on lessons learned in order to further knowledge on forms and levels of vulnerability and the adequacy of existing risk management practices.



References

ADPC, 2004a, **Program Completion Report: Asian Urban Disaster Mitigation Program**, Bangkok: Asian Disaster Preparedness Center (ADPC).

ADPC, 2004b, **Report of the 4th Meeting of the ADPC Regional Consultative Committee on Disaster Management**, held in Dhaka, Bangladesh, 29-31 March 2004, Bangkok: Asian Disaster Preparedness Center (ADPC)
<http://www.adpc.net/pdir/consult/default.html>

AusAID, 2000, **AusGUIDELines**, Australian Agency for International Development (AusAID).
<http://www.usaid.gov.au/ausguide/ausguidelines/index.cfm>

Benson, C., & Twigg, J., 2004a, **'Measuring Mitigation': Methodologies for assessing natural hazard risks and the net benefits of mitigation – A scoping study**, Synthesis Report, Geneva: ProVention Consortium.
http://www.proventionconsortium.org/files/measuring_mitigation/MM_sythesis.pdf

Benson, C. & Twigg, J., 2004b, **'Measuring Mitigation': Methodologies for assessing natural hazard risks and the net benefits of mitigation – A scoping study**, Geneva: ProVention Consortium.
http://www.proventionconsortium.org/files/measuring_mitigation/Measuring_Mitigation_report.pdf

Brennan, T, 2003, **Mainstreaming Disaster Risk Management: Some Possible Steps**, Paper for the International Conference on Total Disaster Risk Management, held in Kobe, Japan, 2-4 December 2003, Kobe: Asian Disaster Reduction Center.
http://www.adrc.or.jp/publications/TDRM2003Dec/09_TOM%20BRENNAN,%20%20DECEMBER%202003.pdf

CIDA, 2003, **Gender Equality and Humanitarian Assistance: A guide to the issues**, Quebec: Canadian International Development Agency (CIDA).
[http://www.acdi-cida.gc.ca/INET/IMAGES.NSF/vLUIImages/Africa/\\$file/Guide-Gender.pdf](http://www.acdi-cida.gc.ca/INET/IMAGES.NSF/vLUIImages/Africa/$file/Guide-Gender.pdf)



DFID, 2005, **Disaster Risk Reduction: A Development Concern**, London: Department for International Development (DFID).
<http://www.dfid.gov.uk/pubs/files/disaster-risk-reduction.pdf>

EC, 2003, **Manual: Project Cycle Management**, Brussels: EuropeAid Co-operation Office, European Commission.
http://europa.eu.int/comm/echo/pdf_files/partnership/pcm_echo_en.pdf

Gosling, L. & Edwards, M., 1995, **A Practical Guide to Assessment, Monitoring, Review and Evaluation**, Development Manual 5, London: Save the Children.

Jackson, B., undated, **Logical Framework Analysis**, New York: United Nations Development Program.
<http://www.undp.org/seed/unso/capacity/documents/lfafinal.pdf>

Kelly, C, 2003, **Guidelines for Rapid Environmental Impact Assessment in Disasters**, Version 4.01, London: Benfield Hazard Research Center.
http://www.benfieldhrc.org/SiteRoot/disaster_studies/rea/rea_index.htm

Kelly, C, 2001, **Rapid Environmental Impact Assessment: A Framework for Best Practice in Emergency Response**, Disaster Management Working Paper 3, London: Benfield Hazard Research Center.
http://www.benfieldhrc.org/SiteRoot/disaster_studies/working_papers/workingpaper3.pdf

Kumar-Range, S., 2001, **Environmental Management and Disaster Risk Reduction: A Gender Perspective**, Paper presented at the United Nations Expert Meeting on Environmental Management and the Mitigation of Natural Disasters: A Gender Perspective, held in Ankara, Turkey, 6-9 November 2001.
http://www.un.org/womenwatch/daw/csw/env_manage/documents/BP1-2001Nov04.pdf

OECD DAC, 1992, **Guidelines on Aid and Environment, Good Practices for Environmental Impact Assessment of Development Projects**, No. 1, Paris: Organization for Economic Co-operation and Development, Development Assistance Committee (OECD DAC).

Twigg, J., 2004, "Disaster risk reduction: mitigation and preparedness in development and emergency programming", in



Humanitarian Practice Network's Good Practice Review, No. 9, March 2004, London: Overseas Development Institute, Chapters 3, 4, 12 and 18.

<http://www.odihpn.org/publistgpr9.asp>

Twigg, J. et. al., 2000, **NGO Natural Disaster Mitigation and Preparedness Projects: A Study of International Development and Relief NGOs Based in the UK**, London: British Red Cross Society.

UNDP, 2004, **Reducing Disaster Risk: A Challenge for Development**, New York: United Nations Development Program (UNDP).

<http://www.undp.org/bcpr/disred/english/publications/publications.htm>

UNDP, undated, **Introductory Notes about Project Cycle Management**, New York: United Nations Development Program (UNDP).

<http://www.undp.sk/uploads/IntroductoryNotesaboutProjectCycleManagement.pdf>

UNDP, 2003, **UNDP Programming Manual**, New York: United Nations Development Program (UNDP).

http://www.undp.org/osg/pm/pm_body.htm

UNISDR, 2005,

Building the Resilience of Nations and Communities to Disasters: Hyogo Framework for Action 2005-2015, draft program outcome document for the World Conference on Disaster Reduction, held in Kobe, Japan, 18-22 January 2005, Geneva: United Nations International Strategy for Disaster Reduction (UNISDR).

<http://www.unisdr.org/wcdr/official-doc/programme-outcome.pdf>

UNISDR, 2004, **Living with Risk: A Global Review of Disaster Reduction Initiatives**, Geneva: United Nations International Strategy for Disaster Reduction (UNISDR), Sections 1.2 and 5.1.

http://www.unisdr.org/eng/about_isdr/basic_docs/LwR2003/lwr-03-table-contents-eng.htm

UNISDR, 2003a, **A Draft Framework to Guide and Monitor Disaster Risk Reduction**, Geneva: United Nations International Strategy for Disaster Reduction (UNISDR).

<http://www.unisdr.org/dialogue/basicdocument.htm>



UNISDR, 2003b, **Disaster Reduction and Sustainable Development: Understanding the links between vulnerability and risk to disasters related to development and environment**,

Background document for the World Summit on Sustainable Development, held in Johannesburg, South Africa, 26 August-4 September 2002, Geneva: United Nations International Strategy for Disaster Reduction (UNISDR).

<http://www.unisdr.org/eng/risk-reduction/wssd/DR-and-SD-English.pdf>

Van Aalst, M. & Burton, I, 2002, "**The Last Straw: Integration Natural Disaster Mitigation with Environmental Management**", Disaster Risk Management Working Paper Series No. 5, Washington, D.C.: The World Bank

www.proventionconsortium.org/files/last_straw_final.pdf

WHO, 2002, **Gender and Health in Disasters**, Geneva: World Health Organization (WHO).

http://www.who.int/gender/other_health/en/genderdisasters.pdf

Development Workshop France's Website

http://www.dwf.org/Vietnam/preventdamage/v_case.htm



Resources

General

Abarquez I. and Murshed Z. (ADPC 2004): Community Based Disaster Risk Management – field practitioner’s handbook,

ADPC (2002): Regional Workshop on Best Practices in Disaster Mitigation – Lessons Learned from the Asian Urban Disaster Mitigation Program and other initiatives

ADPC’s Safer Cities Case Study Series

<http://www.adpc.net/audmp/library.html>

Safer Cities 1: Community-Based Initiatives in Katmandu Valley, *Pioneers in earthquake mitigation and preparedness*, January 2002.

Safer Cities 2: Coping with Flood in Cambodian Communities, *Enhancing community solidarity through capacity building* June 2002.

Safer Cities 3: Mitigation Flood Risk in Cambodian Communities, *Empowering communities to manage disaster risk*, July 2002.

Safer Cities 4: The School Earthquake Safety Program in Kathmandu Valley - *Building safer communities through schools*, January 2003

Safer Cities 5: Community-Based Disaster Risk Reduction in Central Sri Lanka, June 2003.

Safer Cities 6: Promotion of Disaster Mitigation in Sri Lanka, *Piloting disaster risk communication through empirical approach*, October 2003.

Safer Cities 7: Can Small Be Beautiful? Community-Based Flood Mitigation in Bangladesh, *Community based flood mitigation in Bangladesh*, February 2004.

Safer Cities 8: Channels of Commutation – a Challenge, *Public awareness for flood preparedness in Bangladesh*, March 2004

Safer Cities 9: Reducing Fire Threats to Homes: *Piloting Community-based Fire Risk Assessment in Ban Hatsady Village*, July 2004

Safer Cities 10: Creating Earthquake Preparedness in Schools *A Case Study of Mitigation Efforts in Indonesia*, April 1004

Asian Disaster Preparedness Center (ADPC)

<http://www.adpc.net>

Mainstreaming Disaster Risk Reduction

Benson, C., & Twigg, J., 2004c, **Integrating Disaster Reduction into Development: Recommendations for Policy-Makers**, Geneva: ProVention Consortium.

http://www.proventionconsortium.org/files/measuring_mitigation/MM_Policy_Brief.pdf

Brennan, T, 2003, **Mainstreaming Disaster Risk Management: Some Possible Steps**, Paper for the International Conference on Total Disaster Risk Management, held in Kobe, Japan, 2-4 December 2003, Kobe: Asian Disaster Reduction Center.

http://www.adrc.or.jp/publications/TDRM2003Dec/09_TOM%20BRENNAN,%20%20DECEMBER%202003.pdf



Kreimer, A. et. al. (eds.). 2003, **Building Safer Cities: the Future of Disaster Risk**, Washington, D.C.: World Bank.

http://www-wds.worldbank.org/servlet/WDS_IBank_Servlet?pcont=details&eid=000012009_20031205154931

Mitchell, T., 2003, **An Operational Framework for Mainstreaming Disaster Risk Reduction**, Benfield Hazard Research Center Disaster Studies Working Paper 8, November 2003.

http://www.benfieldhrc.org/SiteRoot/disaster_studies/working_papers/workingpaper8.pdf

Environment

Kelly, C, 2003, **Guidelines for Rapid Environmental Impact Assessment in Disasters**, Version 4.01, London: Benfield Hazard Research Center.

http://www.benfieldhrc.org/SiteRoot/disaster_studies/rea/rea_index.htm

Kelly, C, 2001, **Rapid Environmental Impact Assessment: A Framework for Best Practice in Emergency Response**, Disaster Management Working Paper 3, London: Benfield Hazard Research Center.

http://www.benfieldhrc.org/SiteRoot/disaster_studies/working_papers/workingpaper3.pdf

Van Aalst, M. & Burton, I, 2002, **The Last Straw: Integration Natural Disaster Mitigation with Environmental Management**, Disaster Risk Management Working Paper Series No. 5, Washington, D.C.: The World Bank

www.proventionconsortium.org/files/last_straw_final.pdf

Gender

CIDA, 2003, **Gender Equality and Humanitarian Assistance: A guide to the issues**, Quebec: Canadian International Development Agency (CIDA).

[http://www.acdi-cida.gc.ca/INET/IMAGES.NSF/vLUIImages/Africa/\\$file/Guide-Gender.pdf](http://www.acdi-cida.gc.ca/INET/IMAGES.NSF/vLUIImages/Africa/$file/Guide-Gender.pdf)

Enarson, E. & Hearn Morrow, B., eds., 1998, **The Gendered Terrain of Disaster: Through Women's Eyes**, Connecticut and London: Praeger Publishers.

Kumar-Range, S., 2001, **Environmental Management and Disaster Risk Reduction: A Gender Perspective**, Paper presented at the United Nations Expert Meeting on Environmental Management and the Mitigation of Natural Disasters: A Gender Perspective, held in Ankara, Turkey, 6-9 November 2001.

http://www.un.org/womenwatch/daw/csw/env_manage/documents/BP1-2001Nov04.pdf

PAHO, 2001, **Fact Sheet: Program on Women, Health and Development**, Washington, D.C.: Pan-American Health Organization.

http://online.northumbria.ac.uk/geography_research/gdn/resources/paho-gender&disasters.doc

WHO, 2002, **Gender and Health in Disasters**, Geneva: World Health Organization (WHO).

http://www.who.int/gender/other_health/en/genderdisasters.pdf



Gender and Disaster Sourcebook

http://online.northumbria.ac.uk/geography_research/gdn/sourcebook.htm

Gender and Natural Disasters Site

http://online.northumbria.ac.uk/geography_research/gdn/resources/

Gender-Sensitive and Community-Based Planning.

http://online.northumbria.ac.uk/geography_research/gdn/resources/gender-sensitive-planning.doc

UNISDR's resources on Gender and Disaster Risk Reduction

<http://www.unisdr.org/eng/risk-reduction/gender/rd-gender-eng.htm>

Other Social Groups

American Red Cross, undated, **Disaster Preparedness for People with Disabilities**, Washington, D.C.: American Red Cross.

http://www.redcross.org/services/disaster/0,1082,0_603_,00.html

HelpAge International, 2000, **Older People in Disasters and Humanitarian Crises: Guidelines for best practice**, London: HelpAge International.

<http://www.helpage.org/images/pdfs/bpg.pdf>

General Tools for Program and Project Management

Anderson, M. B. & Woodrow, P. J., 1998, **Rising from the Ashes: Development Strategies in Times of Disaster**, London: I.T. Publications, pp. 9-25.

Carter, N., 1990,

Disaster Management Handbook, ADB. See appendix.

Chinman, M., et. al., 2004, **Getting To Outcomes 2004: Promoting Accountability Through Methods and Tools for Planning, Implementation and Evaluation**, Santa Monica: RAND Corporation.

<http://www.rand.org/publications/TR/TR101/>

DFID, 2003, **Tools for Development**, London: Department for International Development (DFID).

<http://www.dfid.gov.uk/pubs/files/toolsfordevelopment.pdf>

Kusek, J. D. & Rist, R. C., 2004, **Ten Steps to a Results-Based Monitoring and Evaluation System: A Handbook for Development Practitioners**, Washington, D.C.: World Bank.

OECD, 1998, **Best Practice Guidelines for Evaluation**, Puma Policy Brief No. 5, Paris: Organization for Economic Co-operation and Development (OECD).

<http://www.oecd.org/dataoecd/11/56/1902965.pdf>

World Bank, 2004,

Project Cycle, Washington, D.C.: World Bank.

<http://web.worldbank.org/WBSITE/EXTERNAL/PROJECTS/0,,contentMDK:20120731~menuPK:41390~pagePK:41367~piPK:51533~theSitePK:40941,00.html>



World Bank, 2004, **Monitoring and Evaluation (M&E): Some Tools, Methods and Approaches**, Washington, D.C.: World Bank.

<http://www.worldbank.org/oed/ecd/tools/>

Active Learning Network for Accountability and Performance in Humanitarian Action

<http://www.alnap.org>

Eldis Participation Resource Guide: Participatory Monitoring and Evaluation

<http://www.eldis.org/participation/pme/index.htm>

Humanitarian Practice Network

<http://www.odihpn.org>

Monitoring and Evaluation News Service

<http://www.mande.co.uk>

Overseas Development Institute

<http://www.odi.org.uk>

World Bank's Operations Evaluation Department

<http://www.worldbank.org/oed/>

