Chapter 1
Introduction

1.1 Disaster reduction: a challenge for everyone

As this Good Practice Review was being drafted, a series of news stories demonstrated why such a book is needed.

On 23 May 2003, the BBC News website reported that at least 200 people had died from dehydration and sunstroke in a heat wave in the southern Indian state of Andhra Pradesh. Temperatures had soared to 47.2°C. The previous year, a heat wave had killed more than 1,000 people in the state and caused widespread drought. In the northern state of Rajasthan, which was suffering its fourth consecutive year of drought, all 32 districts were declared drought regions, and the state’s Chief Minister asked the national government for $1.5bn of aid. Two weeks later, the government of Sri Lanka appealed for nearly $30m in international aid as monsoon rains caused the worst floods in the country’s history. Two hundred and thirty-five people died, 108,000 families were affected, and 9,000 houses and 90 schools were destroyed. Hundreds of kilometres of power lines needed replacing.

Elsewhere in the world, other natural hazards were exacting their toll. In late April, a mountain hamlet in Guatemala was destroyed by a landslide. At least seven people were killed, a dozen were missing and 250 made homeless. Residents said they had been urged to evacuate the area some time before, because the mountainside was unstable, but they were so poor they could not afford to move. In early May, a 17-second earthquake flattened a school boarding house in Turkey, killing 83 children. On 21 May, earth tremors killed over 2,200 people and injured 10,000 in Algeria; the government authorised a $1.8bn rebuilding package.

There was encouraging news too. The BBC’s correspondent in Cameroon reported that ten new seismographs costing over $300,000 had been installed on Mount Cameroon, an active volcano, to monitor its activity and give warning of future eruptions. Meanwhile, an NGO worker in Malawi was recording that the response to the country’s food crisis had averted a major disaster. She described visiting a village whose harvest had been damaged by floods as well as drought. The villagers were concerned that their intensive farming practices were eroding the riverbanks, and so they had started a tree nursery, planting saplings along the banks to help bind the soil.
These examples illustrate two important points.

First, natural disasters – that is, disasters resulting from natural hazards such as cyclones, droughts, floods, earthquakes, landslides and volcanic eruptions – are widespread and numerous in developing and middle-income countries. They can cause great loss of life and immense damage to communities, infrastructure and national economies. Ethical, humanitarian considerations oblige us to act to protect human life and prevent suffering. Many researchers and aid institutions have identified natural disasters as a major threat to sustainable development (see Chapter 2).

Second, there is much that can be done to protect vulnerable communities against disasters. The good news stories from Cameroon and Malawi exemplify the range of different approaches to disaster reduction, from scientific and high-tech to community-managed with local resources. This book presents many other examples.

1.2 The risk management approach

The literature on hazards and disasters is full of technical terms. Two – mitigation and preparedness – are commonly used to categorise the main methods of protecting communities against hazards and disasters. They appear in the title of this book for that reason. ‘Mitigation’ is any action to minimise the impact of a potential disaster; ‘preparedness’ refers to specific measures taken before a disaster strikes, usually to issue warnings, take precautions and facilitate a rapid response.

These and other key terms, such as disaster, hazard and vulnerability, are explained more fully in Chapter 2. However, this Review sidesteps the technical jargon as far as possible because many people working in aid and development find it off-putting. A related problem is that use of the emotive word ‘disaster’ automatically conjures up images of emergency relief and often leads to disaster reduction work being viewed solely as an aspect of humanitarian aid, when it should also be a central component of development programmes.

The basic principle underlying this Good Practice Review is that programming should adopt a risk management approach – a systematic approach to identifying, assessing and reducing risks of all kinds associated with hazards and human activities. Risk management should be an integral part of the way organisations do their work, not an add-on or a one-off action. The modern risk management approach recognises that a wide range of geological, meteorological, environmental, technological and socio-political hazards threaten
society – individually and in complex interaction. Risks are located at the point where hazards, communities and environments interact, and so effective risk management must address all of these aspects. Hence disasters are no longer seen only as unfortunate one-off events to be responded to, but also as deep-rooted and longer-term problems that must be planned for.

Historically, disaster mitigation and preparedness have tended to fall into the gap between development cooperation and humanitarian assistance. In one sense the distinction between relief and development is artificial in that risk is not a distinct sector. It should be everyone’s business and, as this review shows, an extensive range of options and approaches is available. Project planners and managers should take a very broad view of the options available to them, and they should be imaginative in their approach.

Nevertheless, the principles and activities of humanitarian agencies differ from those of development agencies in some important respects. The primary goals of humanitarian action are distinctive: to protect life, where this is threatened on a large scale, and to reduce excessive human suffering. Some elements of risk management fit more naturally into one sphere or another – for example, disaster preparedness is closely linked to emergency response, whereas longer-term mitigation approaches tend to have much in common with development processes. Greater coherence between developmental and humanitarian interventions is essential, but this must be based on a realistic assessment of the purpose and limits of the different agendas.

1.3 Readership

This Good Practice Review is intended for practitioners: principally project planners and managers working at sub-national and local levels, mostly in NGOs but also in local government and community-based organisations (CBOs). It is also aimed both at people working on long-term development programmes and those involved in emergency management. The book is for those working with vulnerable people, wherever they may be, and before, during and after disasters.

1.4 Aims and scope

This Review aims to help project planners and managers to:

- appreciate the significance of hazards (primarily natural hazards) and the risks associated with them;
Figure 1.1
A framework for disaster risk reduction

Context: Sustainable development
- Socio-cultural
- Political
- Economic
- Ecosystems

Risk factors
Vulnerability
- Social
- Economic
- Physical
- Environmental

Hazards
- Geological
- Hydrometeorological
- Biological
- Technological
- Environmental

Disaster impact

Awareness for change in behaviour

Knowledge development
- Education, training
- Research
- Information

Risk assessment and analysis
- Hazard analysis and monitoring

Application of risk reduction measures
- Environmental management
- Land use planning
- Protection of critical facilities
- Networking and partnerships
- Financial tools

Response

Recovery

Preparedness
Early warning

Case Study 1.1
An integrated approach to local risk management

The Lower Lempa River Valley in El Salvador covers 850 square kilometres and has a population of 30,000–40,000 people, living in nearly 90 villages and small towns. It is fertile and agriculturally productive. Seasonal flooding is a regular feature, but few reports of disastrous floods were recorded before the 1990s. Since the end of hostilities between the government and the Farabundo Marti National Liberation Front (FMLN) in 1992, land in the area has been given over to ex-combatants, and many poor families have been relocated there. Many of the new inhabitants are from urban centres and were put in flood-prone areas. Institutional and political divisions led to quite different approaches to environmental management being adopted on opposite banks of the river.

In 2000, a project began to coordinate disaster risk reduction and sustainable development in the valley. Its starting-point was that disaster risk could only be addressed holistically, in the context of the everyday insecurity experienced by over 70% of the local population who lived below the poverty line.

A broad-based diagnosis of the situation, with extensive community participation, led to a portfolio of project proposals that addressed disaster and development needs. It included:

- improved woodland management as a natural buffer to floods and for sustainable economic exploitation;
- a training programme on risk management for local organisations and communities;
- strengthening local early-warning systems;
- land planning and community reorganisation, including improved access to public services and work places and for emergency operations;
- construction of safer housing and relocation of people living in particularly hazardous areas; and
- clean water supply systems and hygiene projects.

disaster risk reduction: mitigation and preparedness

• appreciate the need for risk management in project planning and implementation, and the value of such efforts;
• recognise the main issues that must be understood and addressed when carrying out risk reduction or disaster mitigation and preparedness initiatives; and
• understand – at least in broad terms – how to address these issues in practice, throughout the project cycle.

It is easy to be intimidated by the scale and extent of the problem, and the variety of counter-risk approaches that can be taken. But lasting protection against disasters will not be reached overnight. It is a long-term goal to be attained through a continuous process of improvement. Community resilience to hazards can be built up incrementally over time, as long as the basic approach is sound.

This Review is above all a practical document. However, it is not a manual. Its emphasis is on the process of planning and implementing risk reduction initiatives. It focuses on key issues and decision points and how to address them. Readers are referred to more detailed technical manuals and studies where appropriate. It has been difficult to present a balanced coverage of such a broad and diverse subject, and there are inevitable gaps. Nevertheless, the book is evidence-based. The descriptions and discussions are supported by case studies, which aim to give a sense of the range and diversity of practical approaches that can be used.

1.5 Contents and structure

The approach taken in the following chapters is based upon the ‘project cycle’, highlighting issues that appear at stages in the cycle and giving guidance on how to deal with them. Hence, there are chapters on planning (3 and 4), implementation (5–17) and monitoring and evaluation (18).

Every operating manual seems to have its own formulation of the ‘project cycle’, but most contain the following four main features, outlined here in simplified form (the cycle is shown diagrammatically in Figure 1.2).

• Policy-making and general programming. An organisation’s policies and strategies (thematic or geographical), country plans and the like, which guide the general direction of its work and approach taken.
• Project planning. Identifying needs, defining approaches, setting objectives and designing a scheme of work, obtaining formal approvals and resources to carry out the work.
Implementation. Carrying out the planned activities over a set period of time to achieve the desired outputs, monitoring activities and results, and making appropriate modifications to the project.

Evaluation. Analysis of the outputs and impact of the project during its lifetime, when it finishes and – ideally – some time after it has finished; feeding the findings of the evaluation into future projects and into general policy and programming guidelines.
A similar cyclical approach is used in the risk management process, although the terminology and focus are different from that of development programming. It can be seen as a five-stage process:\(^1\)

1. Establish the context (strategic, organisational, other).
2. Identify potential risks.
3. Analyse the risks by assessing the likelihood and impact of an event.
4. Set priorities for addressing the risks (which can include a decision not to address some risks).
5. Treat the risks (identify, plan and implement activities).

Stages 1–4 are equivalent to project identification; stage 5 comprises both project formation and implementation. Monitoring, review and feedback comprise an additional element that operates throughout the project cycle.

The approach adopted in this Review does present some problems, however. The first is that real-life initiatives never fit neat ‘project cycle’ concepts. For the sake of analytical clarity, this Review has adopted a schematic approach, while recognising the limitations. Second, one could go further and argue that, because risk reduction is an ongoing process, it should not be artificially ‘projectised’. This is a sound argument, and the following chapters illustrate problems that project-based approaches can cause. However, the aim is to present an approach that will be readily understood by people working in all fields of development or humanitarian work. Viewing risk reduction as a goal or ongoing process means that organisations can make the standard project cycle approach progressively more ‘risk-aware’ or ‘risk-oriented’ over time. This pragmatic approach is particularly helpful when it comes to incorporating mitigation features into development planning.

Notes