

properly thought of as complex emergencies, as much to do with human as environmental processes, why not other disasters associated with tropical cyclones, earthquakes or floods?

Regional losses in Latin America and the Caribbean are dominated by disasters triggered by tropical cyclones and flooding. Africa and West Asia also suffer from high losses from flooding. Europe and North America show lower absolute and relative numbers of deaths to all hazard types, with the highest impact for these regions being registered by Europe's relative losses to earthquakes.

The severe famines associated with drought that unfolded in sub-Saharan Africa in the 1980s are shown by extending drought losses to a time period of 1980–2000.

1.4 Disaster Risk and the Millennium Development Goals: A Framework for Action

A considerable incentive for rethinking disaster risk as an integral part of the development process comes from the aim of achieving the goals laid out in the Millennium Declaration. The Declaration sets forth a road map for human development supported by 191 nations. Eight Millennium Development Goals were agreed upon in 2000, which in turn have been broken down into 18 targets with 48 indicators for progress. Most goals are set for achievement by 2015.⁸

The MDGs contain cross-cutting themes in development and disaster risk policy, each tied to specific targets and indicators for progress. They require international collaboration to be met. All signatory countries now claim to be working toward these goals and donors are providing sharply focused aid packages to support their endeavours.

The risk to development stemming from natural disaster is recognised in the Millennium Declaration in Section IV, entitled “Protecting Our Common Future”. Within this section is stated the objective: “to intensify our collective efforts to reduce the number and effects of natural and man-made disasters”.⁹

Natural disasters occur when societies or communities are exposed to potentially hazardous events, such as extremes of rainfall, temperature or wind speed or tectonic movements, and when people are unable to absorb the impact or recover from the hazardous impact. While it is commonplace to talk about natural disasters, both vulnerability and hazard are conditioned by human activities. Reducing the number and effects of natural disasters means tackling the development challenges that lead to the accumulation of hazard and human vulnerability that prefigure disaster.

The accumulation of disaster risk and the unequal distribution of disaster impacts prompt a questioning of the development paths that have been taken by countries more or less at risk from disaster. Natural disasters destroy development gains, but development processes themselves play a role in driving disaster risk. To follow the example quoted earlier, when a school built without earthquake resistance collapses during a tremor, is this an example of disaster risk undoing development, or of inappropriate development prefiguring disaster risk?

The MDGs direct development planning towards priority goals. Each of these goals will interact with disaster risk. On the surface, these goals will contribute to a reduction of human vulnerability to natural hazard. But it is the processes undertaken in meeting each goal that will determine the extent to which disaster risk is reduced. Building schools is not enough for a sustainable and long-term development gain, schools exposed to natural hazard must be disaster resistant, and people using them need to prepare for disaster.

This implies a two-way relationship between the kind of development planning that can lead to the achievement of the MDGs and the development processes that are currently associated with an accumulation of disaster risk. Unless disaster risk considerations are factored into all development related to the MDGs, well-meaning efforts to increase social and economic development might inadvertently increase disaster risk. At the same time, the realisation of existing (let alone future) levels of risk will slow down and undermine efforts to achieve the MDGs.

The primary responsibility for achieving MDGs lies with individual countries. To date, 29 countries have published Millennium Development Goal Reports.¹⁰

BOX 1.2 THE MILLENNIUM DEVELOPMENT GOALS AND DISASTER RISK REDUCTION

The Millennium Declaration contains a statement of values and objectives for the international agenda for the XXI century. Eight Millennium Development Goals, based on the Millennium Declaration, have been approved by the General Assembly as part of a road map for the implementation of the Declaration. These are set out below and each one's relationship with disaster risk is highlighted.

1. Eradicating extreme poverty and hunger

- i) To halve the proportion of people whose income is less than one dollar a day
- ii) To halve the number of people who suffer from hunger

The DRI proves through statistical analysis a long-held theoretical position that human vulnerability to natural hazards and income poverty are largely co-dependent. At the national level, reducing disaster risk is often contingent upon alleviating poverty and vice versa. Exposure to hazards can play a critical role in places where poverty expresses itself as a lack of entitlement to acquire basic nutritional needs. Hunger reduces individual capacity to cope with disaster stress and shock and disasters can destroy assets leading to hunger. The economic and political underpinnings of hunger, particularly within complex political emergencies, are well documented.¹¹

2. Achieving universal primary education

- i) To ensure that children everywhere — boys and girls alike — complete a full course of primary education

Educational attainment is a fundamental determinant of human vulnerability and marginalisation. Basic literacy and numeric skills enable individuals to become more engaged in their society. Broadening participation in development decision-making is a central tenet of disaster risk reduction.

The destruction of schools is one very direct way in which disasters can inhibit educational attainment, but perhaps more important is the drain on household resources that slow and sudden-onset disasters inflict. Households frequently have to make difficult decisions on expending resources on survival and coping with poverty, or on investments (such as education and health care) to alleviate human vulnerability and enhance longer-term development prospects. Unfortunately, for the poorest, there is no choice and human vulnerability deepens as resources are targeted towards survival.

3. Promoting gender equality and empowering women

- i) Eliminate gender disparities in primary and secondary education, preferably by 2005, and in all levels by 2015.

Facilitating the participation of women and girls in the development process, including efforts to reduce disaster risk, is a key priority. Women across the world play critical roles in the shaping of risks in development. In some contexts, women may be more exposed to and vulnerable to hazards. For example, those with responsibilities in the

household may be more exposed to risk due to unsafe building and from local hazards stemming from inadequate basic services or exposure to smoke from cooking fuel. At the same time, women are often more likely than men to participate in communal actions to reduce risk and enhance development. Orienting disaster risk policy so that it builds on the social capital represented by women can enable a more informed development policy. As criticisms of participatory development indicate, achieving such a model will not be easy, but best practice does exist to point the way.

When women face barriers in participating at higher levels of decision-making, this severely limits the skills and knowledge available for sustainable development and risk reduction. Overcoming disparities in access to education is a fundamental component of the disaster risk reduction agenda.

4. Reducing child mortality

- i) Reduce infant and under-five mortality rates by two-thirds

Children under five years of age are particularly vulnerable to the impacts of environmental hazards ranging from the everyday risks of inadequate sanitation and drinking water to death and injury following catastrophic events and their aftermath. The loss of care givers and household income earners and the stress of displacement can have especially heavy tolls on the psychological and physical health of children under five years of age. Policies aiming to support sustainable development paths by reducing child mortality need to build in strategies to limit or reduce disaster risk.

5. Improving maternal health

- i) Reduce maternal mortality ratios by three-quarters

As environmental hazard stress or shock erodes the savings and capacities of households and families, marginal people within these social groups are most at risk. In many cases it is women and girls or the aged who have least entitlement to household or family assets. Maternal health is a strategic indicator of intra- and inter-household equality. Reducing drains on household assets through risk reduction will contribute to enhancing maternal health. More direct measures through investment in education and health will similarly contribute to household resilience as maternal health indicators improve. Children have already been identified as a high-risk group and maternal health plays a part in shaping the care received by young children.

6. Combating HIV/AIDS, malaria and other diseases

- i) Halt and begin to reverse the spread of HIV/AIDS
- ii) Halt and begin to reverse the incidence of malaria and other major diseases

The interactions between epidemiological status and human vulnerability to subsequent stresses and shocks are well documented. For example, rural populations affected by HIV/AIDS are less able to cope with the stress of drought because of a shortage of labour. Individuals living with chronic terminal diseases are more susceptible to the physiological stress of hunger. For diseases

transmitted through vectors, there is a risk of epidemic following floods or drought, similarly the destruction of drinking water, sanitation and health care infrastructure in catastrophic events can increase the risk of disease.

7. Ensuring environmental sustainability

- i) Integrate the principles of sustainable development into country policies and programmes and reverse the loss of environmental resources
- ii) Halve the proportion of people without sustainable safe drinking water
- iii) By 2020, achieve a significant improvement in the lives of at least 100 million slum dwellers

Major disasters, or the accumulation of risk from regular and persistent but smaller events, can wipe out any hope of sustainable urban or rural environments. Again, the equation works both ways. Increasing destruction due to landslides, floods and other disasters related to environmental and land-use patterns are a clear signal that massive challenges remain in achieving this MDG. The target of achieving a significant improvement in the lives of at least 100 million slum dwellers by the year 2020 will be impossible without developing policies to confront their currently high risk from earthquake, tropical cyclones, flooding and drought.

8. Developing a global partnership for development

- i) Address the least developed countries' special needs and the special needs of landlocked and small island developing states
- ii) Deal comprehensively with developing countries' debt problems
- iii) Develop decent and productive work for youth
- iv) In cooperation with pharmaceutical companies, provide access to affordable essential drugs in developing countries
- v) In cooperation with the private sector, make available the benefits of new technologies — especially information and communications technologies

Efforts to enhance sustainable development and reduce human vulnerability to natural hazard are hampered by national debt burdens, terms of international trade, the high price of key drugs, lack of access to new technology and new hazards associated with global climate change.

Difficulties in reaching international agreement on a range of issues, for example at the World Summit on Sustainable Development in Johannesburg in 2002 and the World Trade Organisation meeting at Cancun in 2003, highlight the efforts needed to build a global partnership for development that might contribute to disaster risk reduction.

Examples of progress at the international level include cooperation between states at high risk from natural disaster that has increased their negotiating power. In the case of small island developing states, the Association of Small Island States has been active in climate change talks. Within the machinery of international organisations, the ISDR Task-Force constitutes a good example of global partnership for development and disaster risk reduction.

While the MDGs have galvanised international development efforts, progress has been slow and this has direct implications for global levels of disaster risk.¹² The most far-reaching opportunities for disaster risk reduction within the MDGs relate to MDG8 — developing a global partnership for development. This requires that developed countries meet their commitments to trade reform, debt relief and aid. The lack of consensus on international trade, particularly in agriculture that brought the World Trade Organization talks in Cancun in 2003 to a halt, shows the amount of work that still needs to be undertaken in building an international agenda for trade reform. Without such reform, developing countries will have little chance of generating higher economic growth. At the same time, however, because trade reform has such far-reaching implications for patterns of economic, social and territorial development, by definition it will change the distribution of disaster risk. Once again, the two-way relationship between disaster risk and development becomes apparent. Trade reform may stimulate more *risk generating* development, unless disaster risk reduction becomes an integral part of development planning.

Issues of environmental sustainability were discussed in the World Summit on Sustainable Development, held in Johannesburg, South Africa in 2002. The Johannesburg Plan of Implementation encourages public-private sector partnerships in managing environment and development challenges. The ways in which partnerships operate in terms of wealth generation and distribution, stakeholder participation and the environmental impacts of development, will also potentially contribute to the shaping of disaster risk. These need to be critically reviewed in the face of disaster risk, stemming from the ongoing degradation of the natural environment from deforestation, natural resource extraction (including oil), soil loss, biodiversity loss and growing concerns for access to water for drinking and agricultural use.

Alongside the use of the MDGs in focusing development aims, the international community is also changing its way of delivering development support. This too has implications for the shaping of disaster risk and the way in which strategies for enhancing security will need to be framed.¹³ In particular, the use of national Poverty Reduction Strategy Papers (PRSPs) to better define priorities for public expenditure and the role of aid within these priorities. This rethinking of aid applies

not only to governments, but also to civil society and the private sector.

With disaster risk increasingly recognised as one way in which economic poverty is felt or expressed,¹⁴ PRSPs need to take this into account. They also provide an opportunity to bridge the ministerial and bureaucratic divides that have in the past so often resulted in disaster risk reduction falling in the cracks between development planning and disaster response.

1.5 A Changing Debate: Bringing Disasters and Development Together

A developmentally informed perspective on disasters lies at the intersection of work normally undertaken by two different communities: development planners and disaster risk reduction practitioners. This Report hopes to contribute by catalysing both communities to rethink their responsibilities. It follows previous initiatives that have paved the way for this argument. Important in this regard has been the United Nations International Decade for Natural Disaster Reduction, 1990-1999 (IDNDR).

A number of very large-scale disasters occurred at the end of the IDNDR. The 1997-1998 El Niño led to flooding in East Africa, Latin America, the Caribbean and South and Southeast Asia. It was followed by hurricanes Georges and Mitch hitting Central America and the Caribbean. These events were succeeded by mudslides and debris flows in Venezuela, a cyclone in Orissa, India, and earthquakes in Turkey, El Salvador and Gujarat, India. All this occurred in the four years between 1997 and 2001 and all contributed to a more articulated and serious consideration of the disaster-development relationship.¹⁵

The declaration of the IDNDR helped raise the profile of discussions surrounding the social and economic causes of disaster risk. In acknowledging this came the realisation that mitigating losses through technological and engineering solutions dealt with the symptoms rather than with the causes of the problem and that reducing disaster risk required a long-term engagement with processes of international development. The major disasters occurring at the end of the 1990s helped to galvanise support for this view.