



An integrated approach needed for the growing threat of climate-related insecurity

Disasters and Development

The threat to economic security from natural disasters is increasing: four times as many occurred annually during the period 2000-2006 as during the 1970s, with annual damages increasing sevenfold to \$83 billion per year, and a quadrupling of the number of persons affected (see figure 1). What role of global warming in these trends is difficult to say, though the scientific consensus is that climate change will increase the intensity and incidence of such disasters in coming years. On some estimates future damages could top \$1 trillion in a bad year.

Natural hazards are ubiquitous. However, the likelihood that the threats they carry will turn disastrous is much greater in poorer countries; a particularly stark contrast is the 130,000 fatalities caused by cyclone Nargis in Burma in 2008 compared to just 30 fatalities during a similar strength windstorm, Hurricane Charley, in the US in 2004. More generally, a flood disaster risk index—measured as a weighted average of the number of people killed and affected by floods relative to the median population during 1960-2007—suggests that the threat is 26 times higher for low income than for high income countries (see figure 2) and 95 percent of deaths from all natural disasters occur in developing countries.

Figure 2 suggests a strong inverse relation between vulnerability to natural hazards and level of economic development: widespread poverty, ineffective institutions, information deficits, poor social networks, weak coping

mechanisms, all multiply the downside risks from exposure to natural hazards and create feedback mechanisms that can trigger a vicious circle between shocks and insecurity. Lack of economic diversification at the household and national level increases vulnerability, even to milder shocks, while fragile food, health and employment conditions slow recovery and increase exposure to the next hazard.

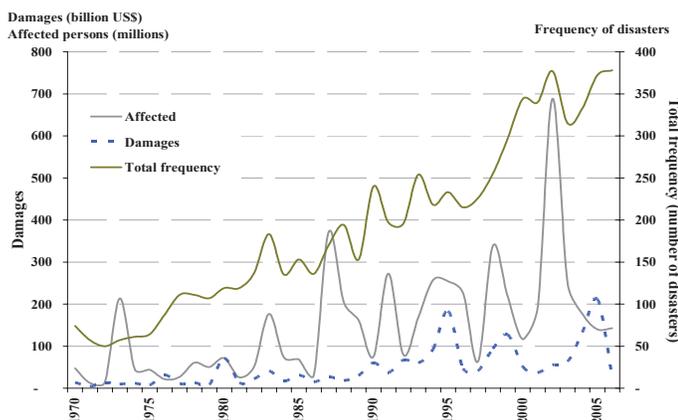
Investing in mitigation and prevention

Much attention, particularly by the donor community, has been given in recent years to strategies for pooling and transferring disaster risk and smoothing incomes through market-based financial instruments, such as crop and livestock insurance and catastrophe bonds. At the regional level some innovative efforts, such as the Caribbean Catastrophe Risk Insurance Facility, have also explored this option.

In most cases, providing such protection tends to be costly and hence not affordable for many developing countries. Moreover, even in developed economies, financial markets have not been able to cover the costs of large-scale disasters. Disaster insurance mechanisms are therefore unlikely to provide the basis for effective responses in low-income countries; at best, they should only be considered as one element in a broader approach dealing with disasters, even in more developed countries.

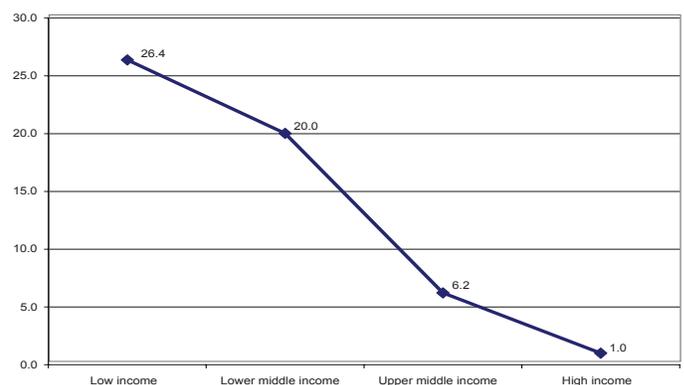
The highest priority in managing disasters must be to reduce the risk of natural hazards turning into disasters. The

Figure 1 - Magnitude of disasters



Source: UN/DESA based on data from the OFDA/CRED International Disaster Database (EM-DAT) (available at www.emdat.net), Université Catholique de Louvain, Brussels.

Figure 2: Human damage risk index for floods



Source: UN/DESA, based on Wheeler, David "The IPCC Predicts Future Flood Disasters—Who will Bear the Risk?", April 06, 2007. For the index, a weight of 100 is given for each death and 10 for each affected person.

returns from disaster risk reduction are high. As the *World Economic and Social Survey (WESS) 2008* notes, an additional \$4 billion invested annually in disaster risk reduction projects in the 1990s would have prevented \$280 billion in damages. Unfortunately, such preventive investments have not been a priority in many vulnerable countries, nor for donors: only 2 per cent of disaster management funds are spent on preventive disaster risk reduction by bilateral and multilateral donors. The remaining 98 per cent is spent on disaster relief and reconstruction.

While effective relief measures in the immediate aftermath of disasters are crucial to saving lives, it is essential to link these to medium-term development strategies aimed at reducing vulnerabilities. Increased investment in preparation and mitigation—such as strengthening infrastructure and on effective land-use planning, as well as providing affordable credit—must form a fundamental component of disaster risk reduction. Likewise, new institutional arrangements are needed to respond to emergencies through more effective monitoring and warning systems, and better-trained and equipped personnel. Lack of systems for reliable weather forecasting and early hazard warning highlight the need for infrastructure investment as an important step in moving from relief to medium-term recovery. While measures designed to deal with food vulnerability are crucial in disaster preparedness and recovery activities, so are measures to deal with chronic vulnerabilities. Housing crises and damage to transportation infrastructure, schools, hospitals and basic sanitation systems result from lack of planning, underinvestment, and absence or weak enforcement of building codes.

A Global Disaster Mechanism

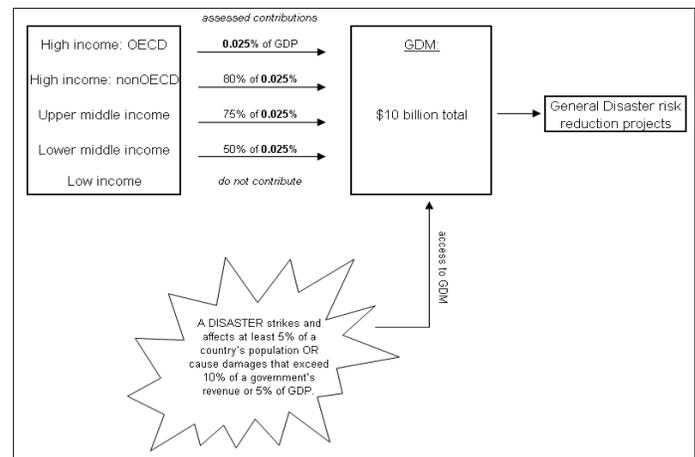
The international community, including through voluntary contributions, is often quick to respond to emergency calls following large-scale disasters. However, actual contributions often fall short of initially pledged amounts as urgency wanes. Funds frequently come from existing budgets, implying only a reallocation of resources rather than additional resources made available to affected countries. Moreover, political considerations and geographical bias continue to have a bearing on the direction of such aid.

An integrated policy approach is needed to ensure sufficient, fast and effective assistance to countries affected by disasters. The international community is beginning to explore such approaches to disaster management, and several multilateral mechanisms have been created to underpin these efforts. However, as many of these are either insufficiently funded, or do not provide automatic assistance, the *WESS 2008* proposes creating a *global disaster mechanism* (GDM) to act as an umbrella: unifying existing responsibilities and providing predictable funds rapidly and automatically to regions affected

by disasters for reconstruction, risk mitigation and recovery from disasters would go a long way in reducing the impact of natural hazards on economic insecurity.

The *Survey* argues that countries that are *significantly* affected by a disaster require rapid and automatic external financing to be able to deal with the impacts. Defining disasters as events that affect at least 5 per cent of a country's population or cause damage that exceeds either 10 per cent of a government's revenue or 5 per cent of GDP, the *Survey* shows that if \$2.5 billion per annum would have been available in the GDM, the eligible countries affected by disasters between 2000 and 2006 could have received immediate coverage for a quarter of the damages they suffered. Scaling the GDM up to \$10 billion per year would create a fully-funded program, including ample post-disaster financing and substantial funds for disaster risk reduction (see figure 3).

Figure 3 – Mechanics of the GDM



The main responsibility for strengthening economic security ultimately lies with governments. However, it is clearly in the international community's interest to create a well-endowed GDM to provide automatic and rapid assistance to vulnerable and affected regions and to strive to break the vicious circle keeping countries in a vulnerable and aid-dependent growth trap. Given that past threats are likely to be amplified by climate change, moving towards a global integrated response to disasters is more urgent than ever. ■

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