

CLIMATE CHANGE AND DISASTER RISK REDUCTION



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Climate change is no longer a long-term environmental issue. The first impacts are already with us, and bound to get worse. In terms of natural hazards, this includes increases in heat waves, floods, droughts, and in the intensity of tropical cyclones, as well as higher sea levels. Developing countries, and particularly the poorest people, are most affected.

We are already witnessing an increase in the number of natural disasters, from around 200 annually in the period 1987–97 to about double that in the first seven years of the 21st century. This rise is caused almost entirely by an increase in weather-related disasters. Floods, for instance, are not just occurring more often, but also damage greater areas than they did two decades ago. And these increases are accompanied by a rapid increase in socioeconomic losses and in the number of people affected.

Mega-disasters also are occurring more often; examples include the European heat wave of 2003, which killed over 35,000 people; Hurricane Katrina in the United States, which caused over \$125 billion in damage; and the massive flooding during the Asian monsoon of 2007. However, the statistics also show a particular increase in smaller disasters. These events do not make it onto the headlines, but do have tremendous impacts on lives and livelihoods, particularly of the poor.

The disaster statistics primarily reflect a growing vulnerability to natural hazards that are intimately tied to development patterns, notably

unsound environmental practices, population growth, urbanization, poverty, and economic shortsightedness. And there is the risk that disasters themselves trap people in vicious circles: the most vulnerable become even more vulnerable to new disasters.

Climate change brings an additional challenge, and is likely already a factor in the increase in disasters. It aggravates the intensity and frequency of many hazards, but it also creates surprises, such as hazards occurring in succession, or in places where they had never been experienced before. In terms of planning, past experience no longer guides what we can expect in the future. Those who depend on natural resources for their livelihoods are hit worst. Many are also finding it harder to rely on seasonal climate patterns; for example, changes in the timing and intensity of rainfall affect decisions about what and when to plant and harvest. One of the few assets of poor farmers, traditional knowledge about their environment, is no longer reliable.

Unfortunately, disaster impacts and the accompanying humanitarian response have often been seen in isolation from broader development patterns. Efforts to integrate disaster risk reduction into development planning are only gradually capturing more attention. And something similar applies to climate change. Despite overwhelming evidence about its potential impacts on development and poverty reduction, climate change has long been restricted to the corner of environmental issues, to be dealt with in terms of greenhouse gas emissions reductions, and primarily by environment ministries.

Studies of the extent to which climate risks are factored into development plans and projects (for example, Burton and van Aalst 1999; van Aalst, Agrawala, and Moehner 2005) found that little attention was paid to changes in risks, but also that little attention was paid to current climate-related hazards, even in countries and sectors that are highly vulnerable. World Bank project documents typically include due diligence on robustness in the light of currency fluctuations, changing market conditions, political unrest, and other factors, but not on the risk that the investment could be hit by a flood or storm. As shown by an IEG evaluation entitled *Hazards of Nature, Risks to Development*, countries affected by disaster, as well as the Bank and other donors that try to help them, have generally treated disasters as interruptions in development rather than as a risk that is integral to development assistance (IEG 2006).

To that end, disaster management and climate change adaptation cannot be tackled by stand-alone projects or by specific agencies with client-country governments. Instead, they require an integrated approach as part and parcel of regular development planning and project preparation. Such planning should be based on an analysis of risks facing a country or sector and the specific program—including direct risk, the risk of underperformance, and the risk that the project could trigger broader vulnerabilities, such as when new infrastructure fosters population growth in unsuitable areas. Rather than another burden on project planners, such risk management is actually an opportunity to enhance the robustness of programs and to achieve more effective and efficient poverty reduction.

Besides a responsibility for the effectiveness of its own investments, the World Bank also has a comparative advantage in helping client countries tackle these challenges by (a) engaging finance and planning agencies in debates about climate and disaster risk reduction; (b) integrating risk reduction into sectoral programs, with spin-offs in terms of capacity building on risk reduction within sectoral agencies; and (c) streamlining and enhancing the effectiveness of existing coordination mechanisms, such as the national climate change focal points and disaster management agencies, which often lack political clout in terms of pushing adaptation and risk reduction in major line agencies.



Rough terrain and a lack of paved roads make access difficult for Red Cross vehicles trying to reach remote villages in Marsabit, Kenya.

Innovative projects such as the Kiribati Adaptation Program, now in its pilot implementation phase, demonstrate such integrated climate risk management, ranging from national budgets and planning in all key ministries to consultation with local communities and NGOs. This engagement with stakeholders is a key element. In the end, a lot of climate risk management can and must be done by people, communities, civil society (including humanitarian organizations such as the Red Cross/Red Crescent), and the private sector. Their role is not just to disseminate climate risk information to the local level, but also to foster dialogue, trigger action, and provide feedback on priorities and the effectiveness of interventions.

Within the Red Cross/Red Crescent, we have been mapping out the consequences of climate change for our humanitarian work in a growing number of developing countries. Red Cross/Red Crescent volunteers and staff all around the world are getting a close-up look at the impact of changing climate risks, and realize they need to enhance their assistance to the most vulnerable. They also realize that relief and reconstruction are not enough and are helping vulnerable communities to adapt to the changing risks. As demonstrated by these experiences, integrating climate change into their humanitarian work is not rocket science, but it is not business as usual either—changes are needed. And partnerships are key—among various government departments, the private sector, individuals, communities, civil society, and national and international providers of scientific information.

Climate change is a very serious challenge for development. While funding for climate risk management is expanding, it does not come close to what is needed to fully address the rising risks, so we have to be smart and efficient. Precisely in that sense, however, climate change also brings opportunities to enhance development by integrating risks that have been neglected for too long and to engage a broad array of actors, foster enhanced coordination, and strengthen partnerships at all levels.

References

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