

long-term donor engagement, which is a good illustration of the complementarities between the two communities of practice.

Cross-cutting issues: mainstreaming for a comprehensive response

DRR and CCA activities must consider cross-cutting issues, such as gender, age, ethnicity, health, HIV/AIDS, protection, human rights, human security, security and economic conditions, and must aim at building the capacity of economically and socially marginalized groups within vulnerable communities.

IOM's environmental footprint: building a green corporate identity

Everyone, individuals and organizations alike, has the responsibility to reduce their carbon footprint. IOM's operations and programmes could contribute to global warming in general and to environmental degradation in the area of intervention.

- Environmental considerations can already be integrated into the emergency response stage.
- Environmental impact assessment is a good practice and is increasingly required by donors. It helps inform project implementation and contributes to its environmental sustainability.
- For large operations, environmentally sensitive procurement can help reduce the environmental cost without reducing cost-effectiveness, a consideration that is also valid for any IOM office.
- Environmentally aware programming can help to contribute to sustainable development.

Partnerships and advocacy: working together

IOM is committed to close cooperation and partnerships with international organizations, non-governmental organizations, governments and all relevant stakeholders to develop more comprehensive strategies to better integrate DRR strategies and address the potential impacts of climate change.

- Participation in the International Strategy for Disaster Reduction has allowed IOM to utilize and build on the resources of diverse stockholders (see www.unisdr.org/ and www.preventionweb.net/).
- Information on multilateral funding sources for preparedness is available at: <http://www.preventionweb.net/english/email/url.php?eid=14454>, and on sites that track adaptation funds (e.g. <http://www.climatefund-update.org>).
- In keeping with its mandate, IOM has the responsibility to raise awareness on the potential incidence of disasters on human mobility and the need to factor this into global, regional, national and local DRR, CCA and development strategies.

To support vulnerable and mobile communities affected by environmental hazards and degradation, IOM has developed and implemented a broad range of activities ranging from humanitarian response to promoting migration for development.

For more information on IOM's activities in the areas of climate change and the environment, see the relevant map and the *Compendium of IOM's Activities in Migration, Climate Change and the Environment* available at: http://www.iom.int/Template/gmaps/migration_environmental/



The road in Cambodia being flooded the repatriated irregular migrants and trafficked children will have to walk the last hundred meters to their home or be carried on motorbikes by DSVY (Department of Social Affairs, Veterans and Youth Rehabilitation) staff or relatives. © IOM 2005 - MKH0197 (Photo: John Vink)



One of the first planned transitional settlements, Santo 17, in the town of Croix-des-Bouquets, Haiti, was officially opened on 13 March 2010. It occupies 4.5 hectares and is expected to shelter 1,400 displaced individuals. Zones 1 and 2 of Santo 17 have (as of 26 March 2010) 130 family tents provided by IOM. © IOM 2010 - MHT0493 (Photo: Mark Turner)

Disaster risk reduction and climate change adaptation in IOM's response to environmental migration

IOM is committed to the principle that humane and orderly migration benefits migrants and society. As an intergovernmental body, IOM acts with its partners in the international community to: assist in meeting the operational challenges of migration, advance understanding of migration issues, encourage social and economic development through migration, and work towards effective respect of the human dignity and well-being of migrants.

To foster sustainable development while making migration a choice, IOM is engaged in building the resilience of countries and communities affected by a changing climate, environmental hazards and structural factors of vulnerability.

Why do disaster risk reduction and climate change adaptation matter from a migration perspective?

People have always moved because of their environment: they flee to survive in the wake of natural disasters or, faced with harsh environments, they decide to migrate to seek better opportunities elsewhere. Climate change accelerates environmental degradation and can lead to increased intensity and frequency of hydrometeorological disasters. For this reason, climate change is already influencing environmental migration around the world.

Forecasts of the number of persons forced to move due to climate change and environmental degradation by 2050 vary by a factor 40 (between 25 million and 1 billion) and largely depend on which of the climate scenarios will materialize. While the exact magnitude may be uncertain, the actual impact on people is not.



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The levels of vulnerability and exposure to risk and the capacities of people are determinant factors leading to migration. Disaster risk management (DRM), disaster risk reduction (DRR) and climate change adaption (CCA) provide the necessary framework, methodology and tools to build the

resilience of communities, while contributing to sustainable development.

Although the linkages between migration, climate change and the environment are complex, the following typology highlights the principal correlations.

Typology of environmental migration

Impact of Process and events		Environment on migration				Migration on the environment	
		Non-forced	Forced	Internal	External	Origin	Destination
Environmental degradation	Early stage	Majority of EM (temporary and permanent)	n.a.	Majority of EM (e.g. rural-urban migration)	Primarily regional, with incidental impact on international migration	Enables environmental recovery	Both positive and negative impacts possible, depending on the level of socio-economic integration of EM
	Irreversible stage	n.a.	Usually permanent (potential need for planned relocation)			n.a.	
Events (natural disasters)		n.a.	Usually large-scale and temporary	Vast majority of displaced are IDPs	Possible but limited cases of cross-border movements (mainly temporary)	Opportunity for sustainable return and reconstruction	Negative impact on environment and host communities if massive and not mitigated

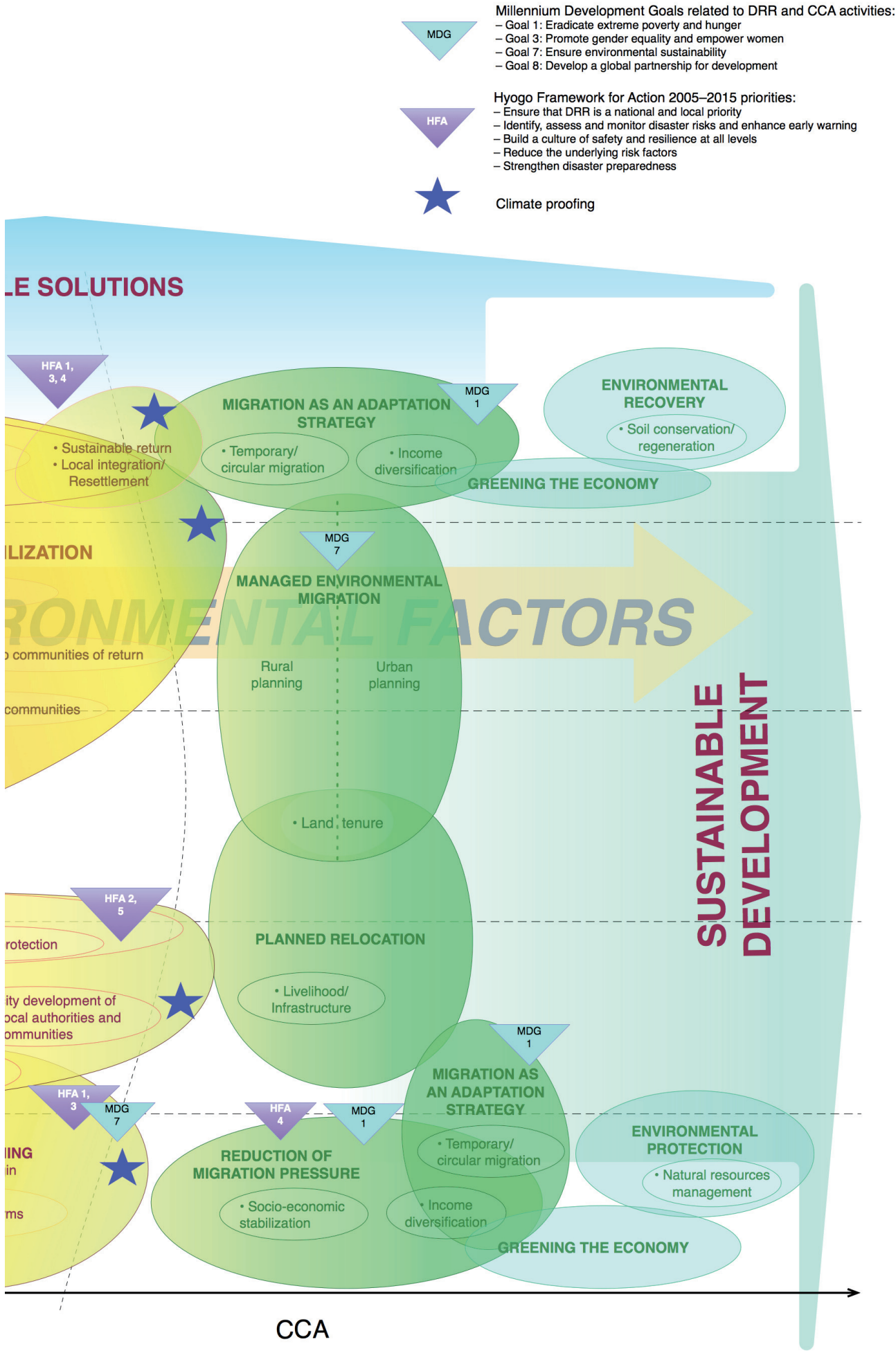
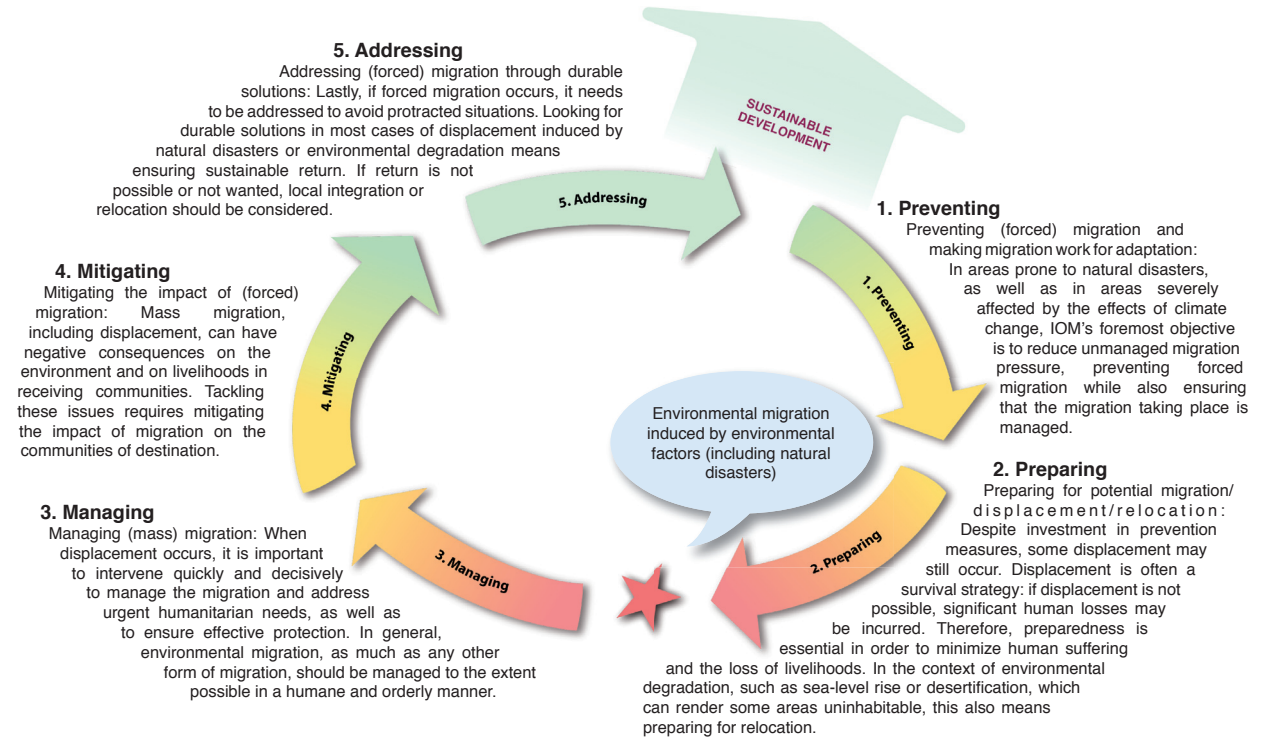
Source: Adapted from Climate Change, Migration and Displacement: Who will be affected? A working paper submitted by the Informal Group on Migration/Displacement and Climate Change of the IASC (available at: <http://unfccc.int/resource/docs/2008/smsn/igo/022.pdf>). EM: Environmental migrants; n.a.: Not applicable; IDPs: Internally displaced persons.

Environmental migration can best be pictured as a continuum ranging from clear cases of forced migration in response to environmental disasters to voluntary migration that can contribute to adaptation. It is important to note that the use of migration as a coping strategy is not an option open to everyone. Often, the most vulnerable and severely affected people are those who are not in a position to migrate.

What is IOM doing to help environmental migrants and vulnerable communities?

The migration management cycle illustrates the type of programmatic intervention for each of the phases (see Figure 1).

Figure 1: Understanding the migration management cycle



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Disaster risk management

In response to emergency and post-crisis situations, IOM is guided by the two objectives contained in point 9 of the IOM Strategy, adopted by its membership in 2007:

Durable solutions for internally displaced persons

- IOM has consequently developed a comprehensive DRM framework of intervention in response to emergency and post-crisis situations with the overall objective of ending displacement through durable solutions and creating an environment conducive to sustainable development.
- The framework contains different phases, starting with the emergency response phase to save lives and provide protection, and moving towards post-crisis phases, including recovery and reconstruction and mitigation and preparedness.

To participate in coordinated humanitarian responses

- Since the humanitarian reform process in 2005, IOM has been the Global Cluster Lead for Camp Coordination and Camp Management in natural disasters and is actively contributing to the Logistics, Emergency Shelter, Protection, Health and Early Recovery Clusters.

△ Better integrating environmental factors into humanitarian response is essential and contributes to the recovery process. IOM has developed a strategic partnership with the United Nations Environment Programme to support operational efforts (see <http://postconflict.unep.ch/humanitarianaction/purpose.html>).

Disaster risk reduction

- DRR supports IOM's objective of ending displacement by supporting durable solutions and preventing (or preparing for) future displacement.
- Through its presence on the ground in the immediate aftermath of an emergency – and often before the emergency occurs – and its initial engagement in the emergency phase, IOM finds itself in a position to implement DRR activities.

¹ In different parts of the world, disaster risk management (DRM) and disaster risk reduction (DRR) are used interchangeably. Although the two concepts are indeed very similar, the latter emerged from development considerations, and the former from the humanitarian community.

- DRR stemmed from the need to integrate disaster risk into sustainable development in order to better bridge humanitarian emergency response with development efforts. Extensive resources are already available for this well-established field of work (see www.preventionweb.net/english/).
- The Hyogo Framework for Action 2005–2015 is the main policy tool for the promotion and implementation of DRR (see Figure 2). It consists of five priorities for action for States and a set of indicators (see www.unisdr.org/eng/hfa/hfa.htm).
- The DRR agenda encourages each country to address the root causes of disasters in a broader sense within and through its development strategy. It includes creating links with poverty reduction strategies and other longer-term development plans such as the Millennium Development Goals (see Figure 2). At the country level, IOM, as a member of the United Nations Country Teams, can contribute to this agenda by participating in the United Nations Development Assistance Framework process (see www.undg.org/index.cfm?P=232).

△ It has often proved valuable to build on the trust and network established during the emergency phase to help authorities gain the support of the donor community to engage in DRR and develop national strategies.

Climate change adaptation

CCA encompasses activities that contribute to adjustment to actual or expected changes in the system induced by climate change.

- CCA emerged from the United Nations Framework Convention on Climate Change (UNFCCC) negotiation process. Parties to the Convention recognized the need to focus efforts simultaneously on preventing – or at least reducing – global warming and adapting to its unavoidable consequences on human life.
- Adaptation is broadly defined as a set of actions “to reduce the impacts of climate change that are happening now and increase resilience to future impacts”. It encompasses a wide range of activities that have the common objective of focusing entirely or partially, but explicitly, on the impacts of climate change (see <http://unfccc.int/adaptation/items/4159.php>).
- In addition to the global negotiation process under the UNFCCC, a wide range of regional and local initiatives have been created to assess the potential consequences of climate change and how to address them through CCA and

DRR measures. IOM has a role to play in raising awareness in these forums on the impact of climate change on human mobility and its potential for adaptation and has increasingly been doing so in a number of countries, including Bangladesh (see <http://www.iom.org.bd/publications/Assessing%20the%20Evidence:%20Environment,%20Climate%20Change%20and%20Migration%20in%20Bangladesh.pdf>).

△ Of the agreements reached at the United Nations Climate Change Conference, held in Cancun in November/December 2010, the element of main interest to IOM was the decision to adopt the text of the Ad Hoc Working Group on Long-term Cooperative Action, which includes a paragraph on migration.²

The adopted text can be found at: http://unfccc.int/files/meetings/cop_16/application/pdf/cop16_lca.pdf

Migration as an adaptation strategy

While migration can be a manifestation of acute vulnerability, it can also represent an adaptation strategy since it can:

- help to reduce risk to lives, livelihoods and ecosystems;
- contribute to income diversification;
- enhance overall capacity of households and communities to cope with the adverse effects of environmental and climate change.

Migration has been used for millennia as an adaptation strategy and is likely to be of growing importance in the future (see www.iom.int/climateandmigration).

Complementarities between DRM, DRR and CCA

DRM, DRR and CCA are complementary and have a cumulative effect, reinforcing each other in building the resilience of affected communities and their capacity to cope with adverse conditions. They also have a number of important differences that explain why they remain distinct, while acknowledging the need to strive for increasing synergies:

- DRM has a more immediate impact, whereas DRR, and CCA in particular, has more midterm to long-term impact.

² For further information on IOM involvement in the UNFCCC process see the following: <http://www.iom.int/Template/migration-climate-change-environmental-degradation/interactive-factsheet/index.html>

- DRR goes further than DRM in addressing the root causes of vulnerability and in establishing links with developmental objectives.
- CCA goes beyond DRR (and DRM) by addressing the role of changing climate in exacerbating the vulnerabilities of populations now and in the future.
- While CCA offers a longer-term perspective, DRR and DRM are broader in scope as they look not only at hydrometeorological hazards, but also at other natural hazards (including geophysical hazards, such as earthquakes or volcanic eruptions) and all other types of hazards (including man-made disasters, such as chemical, biological, radiological and nuclear incidents).

△ Beyond the issue of terminology, from a policy and operational viewpoint, it is essential for practitioners from each community of practice to be aware of the basic elements that constitute disaster risk (through multi-hazard assessments) and of how to address them in the most efficient, cost-effective and sustainable manner. Vulnerability and capacity assessment tools are available upon request.

What are the programmatic implications for IOM in implementing DRR and CCA to respond to environmental migration?

CCA for DRR and DRM: climate proofing and climate-smart risk reduction

One concrete outcome of synergies between DRM, DRR and CCA is the climate proofing of DRM and DRR, on the one hand to prevent activities that would increase vulnerability to the effects of climate change in the midterm and long term, and, on the other hand – and when possible and relevant – to take into account the potential additional risks induced by a changing climate.

- Practitioners are strongly encouraged to consider potential climate risks in their assessments. For instance, models of expected sea-level rise in urban coastal areas can enable city planners to identify vulnerable areas and plan accordingly in order to reduce future risks.

DRM and DRR for CCA: working at the front line

DRM and DRR are the first line of defence against the adverse effects of climate change on the frequency and intensity of hydrometeorological disasters. When addressing climate variability, DRR is an essential part of adaptation.

- To guarantee comprehensiveness, DRR should be systematically integrated into projects developed to address CCA. This is particularly

evident with regard to adaptation to sudden-onset hydrometeorological disasters, such as floods, where DRM and DRR are at the front line for building communities' resilience.

Migration and development: increasing climate and risk resilience

IOM is the leading organization in promoting linkages between migration and development. In strongly advocating for the inclusion of migration in the development agenda, IOM has demonstrated that orderly and managed population movements can be a win-win situation for migrants and also for countries of destination and origin.

- Programmes range from circular migration schemes to support for return migration or engaging the diaspora in investing in productive development in their countries of origin.
- Other programmes focus on socio-economic stabilization and support efforts to reduce forced migration from environmentally affected areas.
- These programmes have the common objective of increasing community resilience through income and opportunity diversification, contributing both to DRR and CCA.

Capacity-building: supporting all stakeholders

Capacity-building at all levels is at the heart of both CCA and DRR. The objective in both cases is to increase the resilience of economic and social systems, communities and individuals.

- Capacity-building, including awareness-raising and training, should be mainstreamed in all thematic activities (from disaster preparedness to migration management) and be directed towards the local authorities and the communities at large in order to ensure sustainability and empowerment beyond the lifespan of the project.
- Community-based activities can improve levels of preparedness and response, while communities can also provide invaluable contributions to the assessment and identification of hazards and risks.

△ Capacity development of national and local authorities requires a longer-term engagement from international partners, which is often a limitation in the context of short-term humanitarian financing. Furthermore, capacity development plans must be consistent with the broader development framework. While humanitarian agencies can bring their expertise to DRM, development actors can play a crucial role in securing political support and