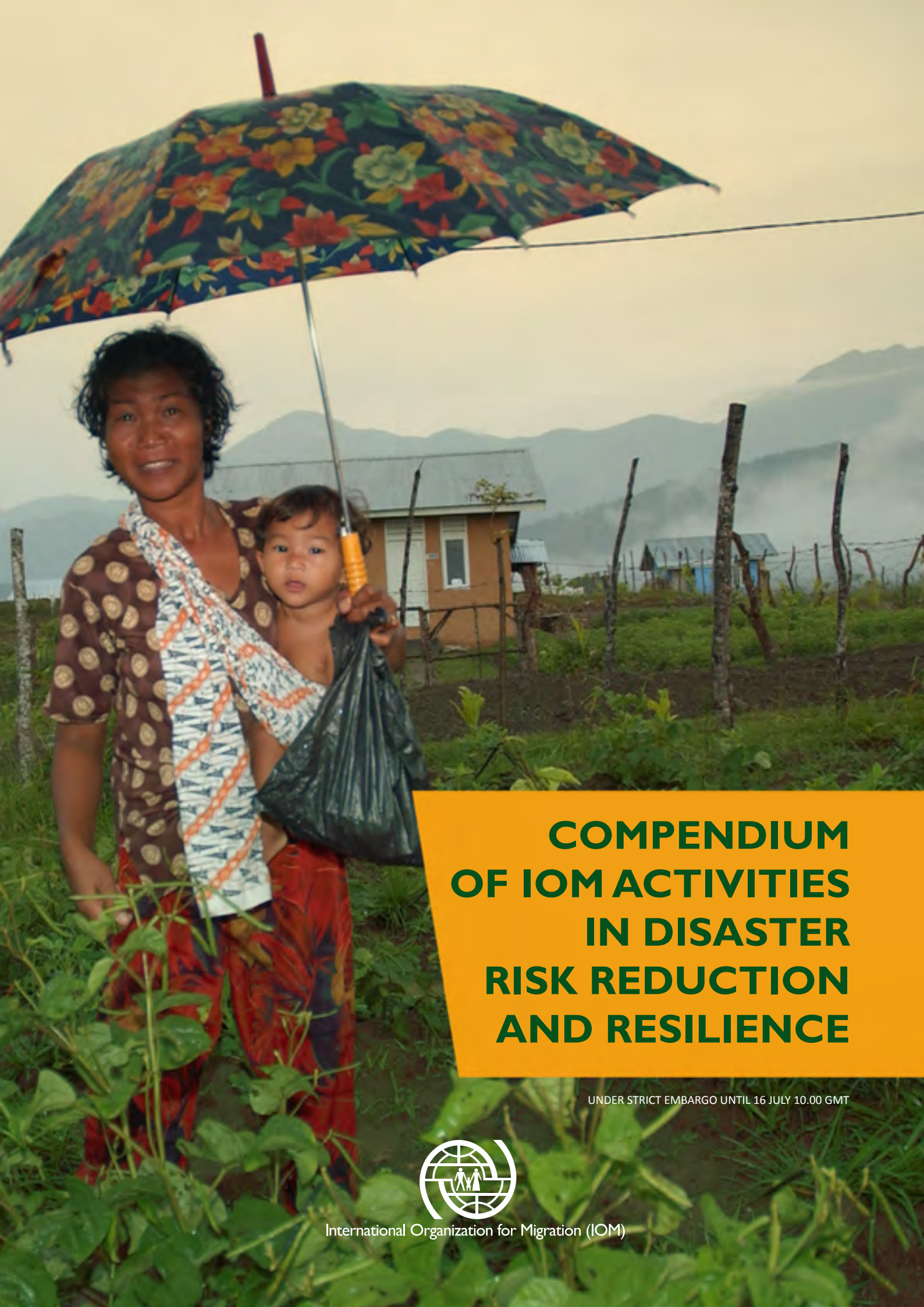

COMPENDIUM OF IOM ACTIVITIES IN DISASTER RISK REDUCTION AND RESILIENCE

UNDER STRICT EMBARGO UNTIL 16 JULY 10.00 GMT

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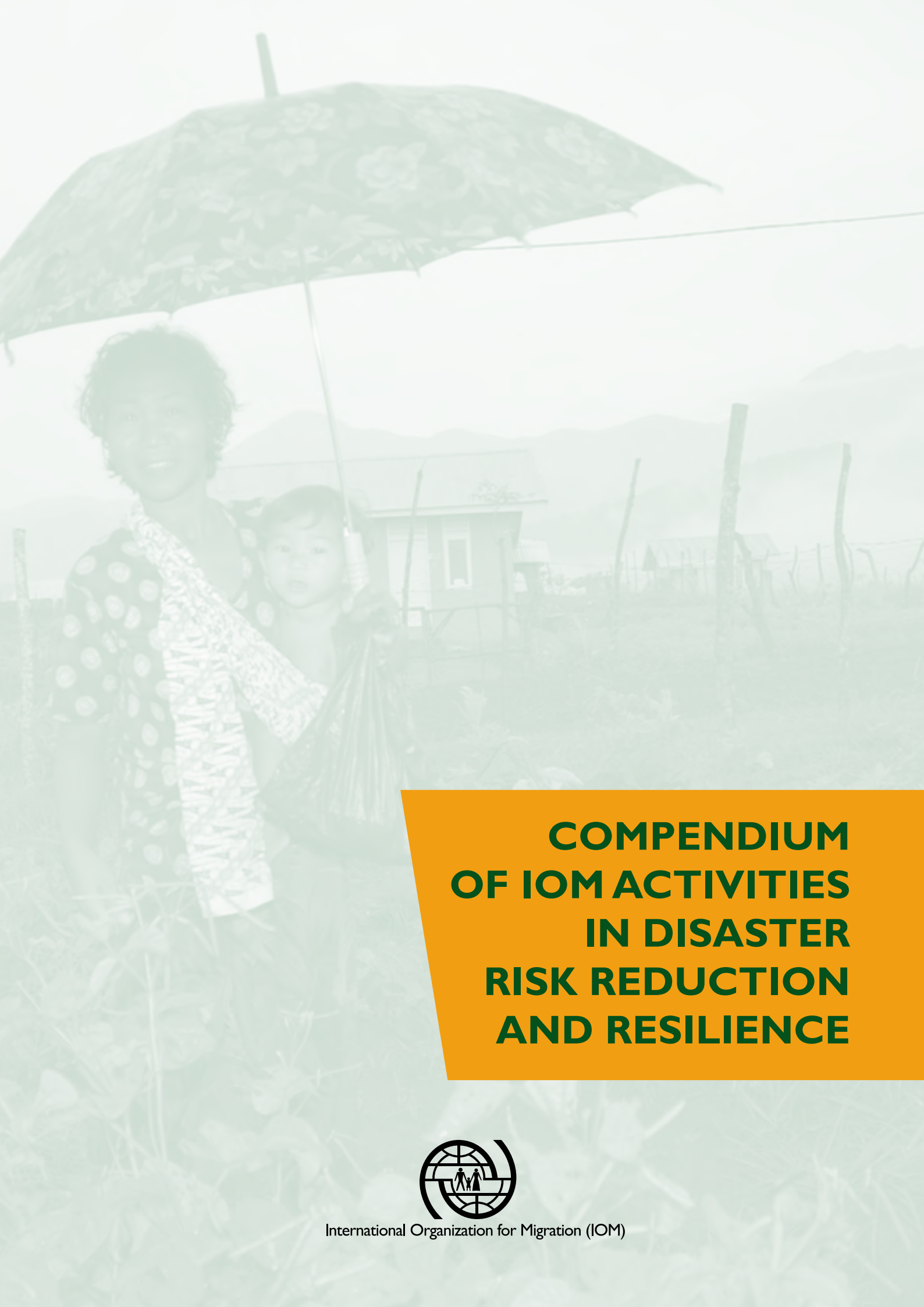

COMPENDIUM OF IOM ACTIVITIES IN DISASTER RISK REDUCTION AND RESILIENCE

International Organization for Migration (IOM)

The Compendium of IOM's Activities in Disaster Risk Reduction and Resilience presents the state of the art approach to mobility and disaster to practitioners and policy-makers in the risk reduction and migration community. The analysis is based on IOM's extensive achievements in the field: 257 disaster-related projects in 31 countries from early 2009 to early 2013 for a total over USD 720 million, supporting at least 23 million individuals exposed to, or affected by, natural hazards.

The Compendium is a timely contribution to the evolution of the Disaster Risk Reduction framework, in particular to the ongoing negotiations for a successor to the Hyogo Framework for Action (HFA) in 2015. It demonstrates how moving influences the vulnerability and resilience of people and communities, and provides innovative solutions to comprehensively address challenges related to disaster risk and mobility. IOM implements programs to support communities and people at risk in collaboration with national and local authorities, as well as with international and non-governmental partners in the development and humanitarian community.

Over the last 5 years disasters displaced over 140 million people, which contributed to jeopardizing hard won development gains of societies all around the world. The urgency of working with practitioners and policy-makers to tackle the root causes of mobility and vulnerability is becoming obvious. For IOM and its partners ensuring proper understanding of the disaster and mobility nexus will help taking the next step towards safer and more resilient societies.

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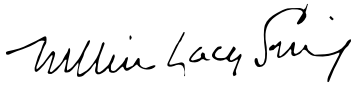
FOREWORD

With an ever-increasing number of people on the move, migration and its effects will be a defining feature of societies and environment in the twenty-first century. Exposing the linkages between human mobility, the environment and disasters is especially relevant in the context of ongoing dialogues on the Post-2015 UN Development Agenda. Facilitating and managing human mobility will be key to reducing an important driver of disaster risk and to ensuring the protection of vulnerable individuals in the wake of a crisis, allowing societies to benefit from mobility's development potential.

This Compendium draws on the wealth of lessons the Organization has learned from its activities in the Field to illustrate the complex nexus between environment and mobility. It builds on the 2009 edition,[1] focusing on activities implemented since then. The Compendium explores the multiple ways in which mobility influences vulnerability and resilience at the individual, community and societal levels. It also highlights and illustrates how innovative and comprehensive solutions can be used to address the different aspects of this issue.

As the world's leading migration agency, the International Organization for Migration (IOM) has sixty years of experience dealing with migration, natural disasters and environmental change. IOM is committed to promoting human mobility within the disaster risk reduction community, using own expertise and resources to help governments and partners reduce disaster risk for vulnerable communities.



William Lacy Swing
Director General

[1] The 2009 Compendium can be downloaded from http://publications.iom.int/bookstore/index.php?main_page=product_info&products_id=540.

PART I

PART I
ANALYTICAL OVERVIEW

Linking migration and disasters

Crises, resilience and sustainable development seen through the prism of mobility

Over the last years, conflicts, political instability, disasters and environmental changes have caused massive migratory movements all over the world and, in some areas, jeopardized hard-won development gains. The mobility consequences of the protracted crisis in the Sahel and the Horn of Africa (2011 to present), the recurring floods in Pakistan (2010–2012) and the earthquakes in Haiti (2010) and Japan (2011) are only a few recent examples of how large-scale population movements can impact extremely diverse social and environmental contexts.

These crises show that population movements are becoming increasingly more common in the context of complex humanitarian emergencies, in which the impacts of natural hazards and environmental degradation cumulate with those of political instability, civil war and conflict. Environmental change is complicating the migration picture – and will increasingly do so – because it brings with it unprecedented uncertainty and variability and puts vulnerable communities and their livelihood options under increased stress.

Key concepts and definitions in Disaster Risk Reduction

As part of the International Strategy for Disaster Reduction (ISDR) System, IOM uses the following shared terminology in disaster risk reduction:

- **Risk** is defined as the potential for the loss of lives, health status, livelihood, assets and services which a community could suffer as a consequence of hazardous phenomena.
- The susceptibility to the damaging effects of a hazard (i.e. the community's **vulnerability**) is determined by various physical, social, economic and environmental factors, such as the strength of buildings and infrastructure, the degree of protection of people and assets, the effectiveness of preparatory measures and the appropriateness of land use and environmental management practices.
- How well a community, society or, more generally, a system exposed to hazards is able to resist, absorb, accommodate to and recover from their effects in an efficient manner depends on its **resilience**.
- At the individual and household levels, vulnerability and resilience depend largely on people's **livelihoods**. Livelihoods comprise the capabilities, material and social assets, and activities required to sustain a means of living (Chambers and Conway, 1991). Livelihood options depend on available capital and on the social, economic and political context in which people live. They determine how people occupy and use their environment; what options they are faced with in the face of hazards; what impacts they suffer from such hazards; and how effectively they recover.

In this context of heightened exposure to disasters of all kinds, IOM coined the term "migration crisis" in order to capture the complexity of population movements following major shocks, which typically involve acute vulnerabilities for affected individuals and communities and which generate deeper and longer-term migration management challenges (IOM, 2012). A migration crisis can be sudden or slow in onset, can have natural or man-made causes and can take place internally or across borders.

By using the migration crisis concept, IOM acknowledges that disasters, conflicts and humanitarian crises all tend to exhibit the same patterns of human vulnerability: they expose the shortcomings of global development processes, political systems and social dynamics, and further exacerbate them by hitting harder those who are not sufficiently protected.

Impact of environmental change on the drivers of mobility

Environmental change is influencing, and will increasingly influence, environmental factors that drive people to move (e.g. site habitability; land productivity; food, water and energy security; and exposure to hazards). At the same time it will affect other drivers (e.g. producer prices, employment opportunities, conflicts and insecurity), both in source and in destination areas, that can have significant mobility consequences. (Foresight, 2011)

Strengthening the resilience of people and communities is essential to ensuring that sustainable well-being enhancements for individuals and communities are effectively achieved.

Attaining this objective depends on reducing poverty and discrimination, both within and across nations, promoting access to human rights and avoiding the degradation of the environment. This translates into allowing people the freedom of choosing a risk-free future, which is the ultimate goal of sustainable development (UN Secretary General's High Level Panel on Global Sustainability, 2012).

Within this broader vision, in which enhancing resilience is essential to creating a better future, and in which crisis management, conflict resolution and sustainable development are elements of the same global agenda, disaster risk reduction (DRR) has an important role to play. DRR provides a theoretical and operative framework for understanding how risk is produced and for addressing its drivers and causes. This empowers people to resist, absorb and recover from shocks of any kind.

Definitions: DRM, DRR and CCA[2]

- **Disaster risk management (DRM)** characterizes activities that aim to avoid, lessen or transfer the adverse effects of hazards through prevention, mitigation and preparedness.
- **Disaster risk reduction (DRR)** includes all efforts that can contribute to risk reduction by analysing and managing the causal factors of disasters, reducing exposure to hazards, lessening vulnerability of people and property, wisely managing land and the environment, and improving preparedness.
- **Climate change adaptation (CCA)** encompasses activities that enable the adjustment to actual or anticipated changes in natural and human systems induced by climate change.

Mobility plays a dual role in determining resilience. It can enable populations to avoid, reduce and recover from the impact of hazards, with those lacking the capacity to move likely to be at the greatest risk. At the same time, mobility can be a disastrous course of action necessitated by a hazard, affecting the ability of both mobile populations and host communities to access and mobilize material assets, social networks and knowledge that are essential to the pursuit of safety and well-being.

In order to highlight all the implications of this nexus and to help guide risk reduction actions on the ground, IOM presents this compendium of activities in disaster risk reduction and resilience. In implementing these activities, IOM pursues three complementary objectives, all in line with its institutional mandate:

1. Promoting and enabling migration as a sustainable livelihood strategy, which maintains and multiplies people's options for prosperity and well-being.
2. Providing individuals and communities the choice not to migrate in the face of natural and man-made hazards, instead enhancing *in situ* livelihood options and well-being.
3. Striving to ensure that migration takes place in a humane and orderly manner and to reduce the risk faced by people on the move, including risk resulting from crisis situations (IOM, 2010a).

These three objectives are strongly interconnected, and all are essential for the reduction of the vulnerability and the improvement of the resilience of communities at risk. Vulnerability and resilience are complex, dynamic and context-specific concepts that inform the IOM understanding of the risk-mobility nexus and which allow for a comprehensive approach to risk reduction. They are central to the IOM theoretical framework, as well as to its policy activities and operations, which will be discussed in the following sections.

A vulnerability approach to the mobility-environment nexus

The environment has always been a driver of human settlement and mobility. In our globalized world, migration is growing in importance as one of the essential features of human interactions with the environment. (IOM, 2011)

Environmental conditions and change have long been recognized as a significant factor in shaping migration and settlement patterns (IOM, 2009). The changing of the seasons and the occurrence of extreme natural events have determined the routes of nomadic peoples across the centuries (Morren, 1983), and access to natural amenities remains a powerful motivation for choosing to settle in a specific location (Hapel and Hogan, 2002). It is through mobility-related choices that people access resources and opportunities and are at the same time potentially exposed to hazardous events and processes. Settlements on fertile flood plains and volcanic slopes and strategically located river crossings and bays provide productive, commercial and military advantages. While they provide opportunities, these locations, however, also tend to be prone to floods, landslides, volcanic eruptions and coastal hazards (UN HABITAT, 2010).

Environmental shocks and changes influence mobility patterns by affecting key drivers of human well-being.

The decision to move is mostly complex and multicasual and involves the consideration of economic, political and social factors (e.g. the availability of material and social resources and opportunities in the place of destination, as well as viable alternatives to migration) (Walsham, 2010b), many of which ultimately depend on environmental variables.

[2] These definitions were taken from the *2009 UNISDR Terminology on Disaster Risk Reduction* (Geneva, United Nations International Strategy for Disaster Reduction, 2009), downloadable from www.unisdr.org/files/7817_UNISDRTerminologyEnglish.pdf.

Environmental processes (both natural and man-made) can therefore have an indirect impact on mobility. The loss of coastal land and the salinization of soil due to sea level rise; the decrease in agricultural production and water availability due to changes in weather patterns; and the loss of biodiversity due to deforestation and ecosystem degradation, for example, are likely to deeply affect commodity prices, wages, political stability and access to markets and, consequently, influence migration patterns (Foresight, 2011).

While those who decide to move because of food insecurity, insufficient incomes or susceptibility to disease might not be easily identified as "environmental migrants," what is clear is that they are all coping with modifications of the intertwined social and environmental components of their ecosystem.

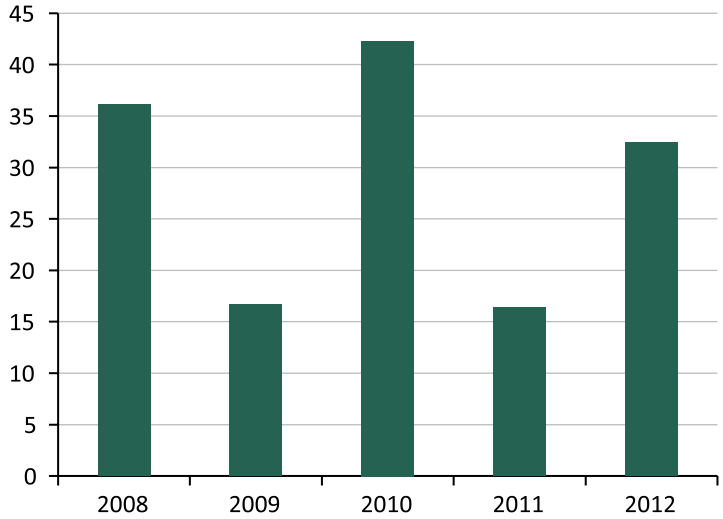
"Environmental migrants": The IOM working definition

"Environmental migrants are persons or groups of persons who, for compelling reasons of sudden or progressive changes in the environment that adversely affect their lives or living conditions, are obliged to leave their habitual homes, or choose to do so, either temporarily or permanently, and who move either within their country or abroad." (IOM, 2008)

It is uncontested that environmental dynamics affect, and will increasingly affect, human mobility in every part of the world (IOM, 2009). However, the environment is only one among other factors influencing mobility.

Extreme natural events – especially, destructive, rapid-onset ones such as cyclones, earthquakes and floods – can be easily identified as immediate tipping points for migration crises. Between 2008 2012, over 140 million people were on the move as a consequence of natural hazards, 42.3 million of them in 2010 alone (IDMC and NRC, 2012). An overwhelming proportion of these movements take place within national borders (possible examples include Haiti, Pakistan and Nargis), while international migration remains relatively rare, even in the wake of the most catastrophic events (Foresight, 2011).

Figure 1. Number of people displaced by disasters, in millions



Source: IDMC

It is essential to acknowledge that the environment-risk-mobility linkage is not a simple matter of cause and effect.

The most vulnerable may be trapped in crisis situations. Environmental shocks and changes can serve as obstacles to population movements, as they preclude access to assets and resources that are essential for mobility. Evidence from the Sahel and Mexico shows that droughts can sometimes reduce migration flows, by causing a reduction in the amount of resources rural households can invest in moving (especially for movement on long-distance and international routes) (Findley, 1994).

Population movements drive exposure and risk. Global demographic dynamics, in which migration plays an increasingly key role, are contributing to the increase in concentration of vulnerable populations and economic assets in hazardous locations, especially in urban areas. Economic, social and environmental factors draw people to cities and towns all around the world; as a consequence, an increasing number of people are exposed to environmental events and processes (UNISDR, 2011) (see box, section 4) . It has been estimated, for example, that by 2050, 870 million people worldwide would be living in earthquake-prone cities and 680 million in areas affected by severe storms (Lall and Deichmann, 2009).

The unprecedented rise of urban centres, where there are high concentrations of people and economic activities, is severely modifying natural landscapes and pressuring the capacities of ecosystems to sustain communities, leading to environmental degradation and increasing the intensity and frequency of potentially dangerous events, such as floods, fires and landslides, increasing the risks related to these so-called "socionatural hazards."

Acknowledging the fact that the links between mobility and disasters cannot be assessed only through the prism of environmental factors (whether their influence on mobility is direct or indirect), IOM endorses a comprehensive approach that looks into social structures to understand how they influence people's capacities and vulnerabilities in the face of hazards.

Vulnerability and resilience are defined by cultural, social, political and economic variables acting at very different scales, ranging from the individual to the community and global levels.

In each society, class, gender, age and the status of one's ethnic, cultural and religious group play a role in determining what rights and opportunities people are entitled to; how healthy and educated they are; and how well they are represented at the institutional level. These factors, in turn, influence where and how people live, how safe they are and how well they will cope with, and recover from, disasters. These factors also limit, to different extents, the freedom of choice and well-being of individuals: one's health status depends on the affordability of health care; one's income on the availability of employment opportunities; and the location and quality of one's home on the effectiveness of land use policies (Wisner et al., 2004). Many of these variables are equally relevant in determining an individual's degree of vulnerability and resilience in the face of a natural or man-made hazard (Schneiderbauer and Ehrlich, 2006).

Policies and investments (e.g. education and health plans, industrial and agricultural development, migration policies, legal frameworks and financial measures) that disregard social impacts and environmental externalities have the potential to produce or redistribute risk (Heijmans, 2004). Hence, risk reduction is only partly achievable through individual and community action alone.

Tackling the drivers of risk, enhancing communities' resilience and providing individuals with sustainable choices (including migration) is the collective responsibility of political and administrative authorities at all levels.

The livelihood approach to resilience from a migration perspective

Expanding on the above-mentioned recognition of the central role of vulnerability, the livelihood approach to resilience posits that by mobilizing capital (e.g. material resources, knowledge and social assets), households pursue various livelihood strategies that they expect to maintain or enhance their well-being, for example, through increased and diversified income, improved security and reduced vulnerability (DFID, 1999) (see Figure 2: Livelihoods, mobility and disasters). Deciding what crops to grow, starting a handicraft business, investing in the children's education, and engaging in circular migration during the dry season can each affect a household's lifestyle and its members' degree of personal satisfaction in the more or less distant future.

Building a sustainable future means assuring that livelihoods are well protected and capable of coping with stresses and shocks without eroding their assets and natural resource base. (DFID, 1999)

The options available to households are constrained by environmental and social factors. Legal and political frameworks, economic dynamics, cultural specificities and the characteristics of ecosystems can either allow or deny access to assets and capacities, determining the choices people are concretely presented with.

The livelihood strategies households decide to pursue determine where and how their members live and work, what their financial and physical statuses are and what support networks they are able to rely on. Hence, livelihood strategies determine:

- The family's likelihood to be impacted by a hazard;
- The degree of damage the family would sustain from the hazard;
- The family's capacity to cope with, and recover from, a shock (Wisner, 2004).

Human mobility plays a role by opening up new livelihood opportunities, as well as by driving vulnerability and risk. This dynamic feature is too often neglected or poorly accounted for in static livelihood modelling.

There is no geographical determinism to being a migrant, as geography alone does not explain mobility. While people's decisions to move and settle depend on the characteristics of their place of origin and of their place of destination, livelihood alternatives (or the lack thereof) and social, political and cultural contexts are the main drivers of the decision to migrate and individuals' capacity to move (Walsham, 2010b).

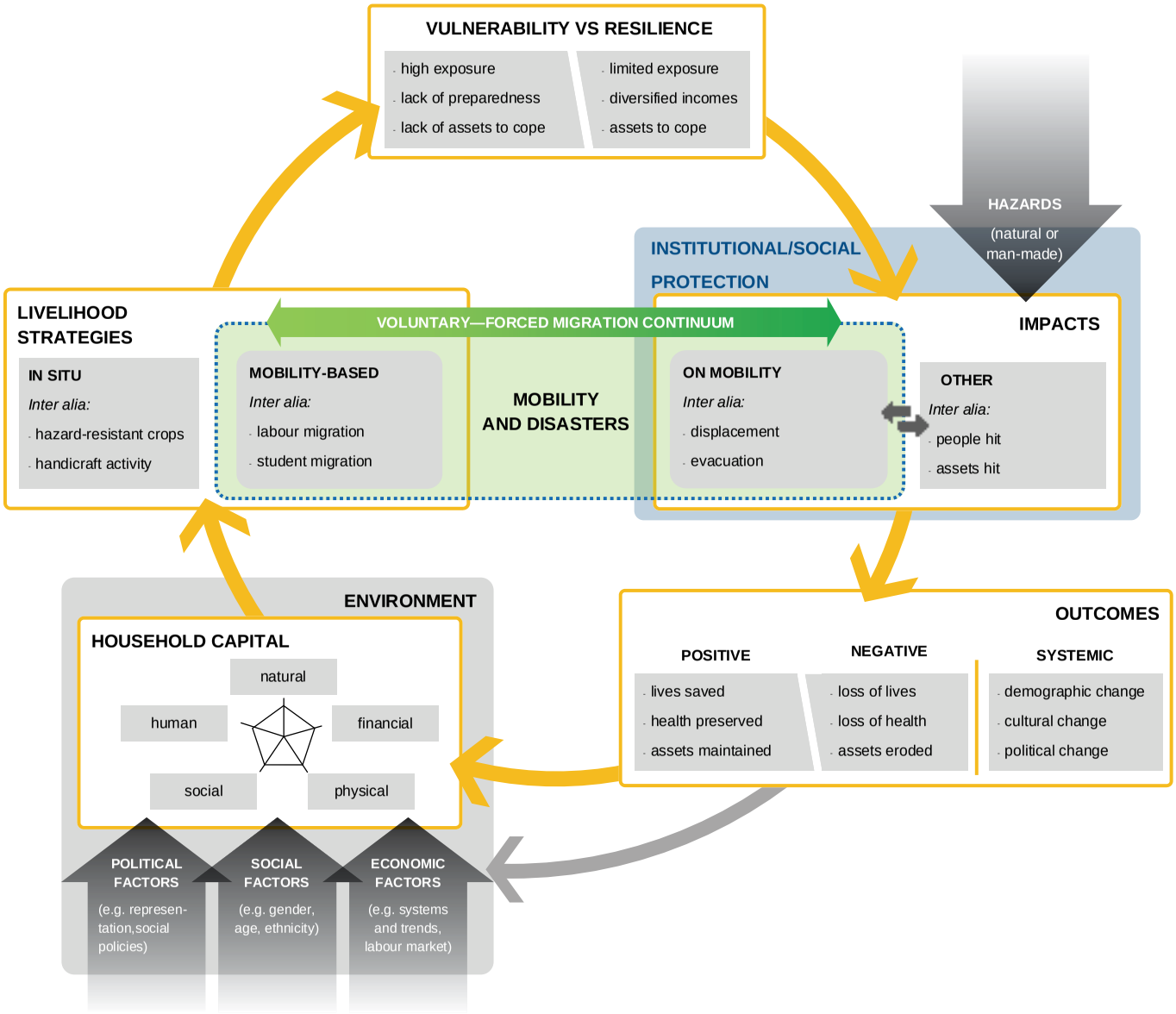
Because it enables access to more and better livelihood choices, migration can help a household meet its needs and objectives, whether during "normal times" or in the face of a natural or man-made hazard (McDowell and de Haan, 1997). For this reason it is often difficult to clearly determine if migration is perceived as "voluntary" or "forced" by the people involved (IOM, 2013).

Trapped populations

For some, migration is never really a viable option: significant physical and financial resources are required to move, and cultural obstacles (e.g. discrimination based on gender or ethnicity), the lack of supporting regional or transregional social networks and the absence of adequate infrastructure, institutions and regulations can prevent people or communities from migrating.

Evidence suggests that households lacking the opportunity to migrate – that is, the most vulnerable groups, who have insufficient means for coping with a disaster and are forced to remain in areas exposed to hazards – could represent the biggest humanitarian issue in migration crises (IOM, 2012). Global environmental changes are expected to further exacerbate this vulnerability, both by eroding the resource base required for migrating and by increasing the incidence of natural hazards (Foresight, 2011).

Figure 2. Livelihoods, mobility and disasters[3]



MOBILITY AND DISASTERS

People and households pursue their well-being by choosing different **livelihood strategies**. Available options are determined by their access to material and immaterial assets and by the characteristics of their social and environmental context.

The livelihood options they pursue determine their **vulnerability** and **resilience** to hazards: how much they are exposed to, and protected from, hazards, and if they able to draw on sufficient resources to successfully cope with hardship.

Vulnerability and resilience, in turn, determine what **impacts** a given event will have on affected households and individuals and how it will influence environment and society in the longer term. Impacts can be mitigated if adequate **institutional and social protection** arrangements (e.g. civil protection agencies, early warning systems, contingency plans, temporary shelters) are in place to assist and protect affected populations.

Population movements (voluntary and forced) play a dual role in this context. They represent a strategy people can deploy to diversify their livelihoods, reduce their exposure to hazards and enhance their resilience. But they can also be a consequence of hazards, and a potential cause of further loss of assets and of physical integrity following a disaster.

[3] This Figure is the author's own elaboration, based on the Sustainable Livelihood (DFID, 1999) and the Access (Wisner et al., 2004) models.

Based on the conceptual approach described above, the following principles are an attempt to frame disaster risk reduction objectives linking mobility and livelihoods.

1. *Minimize forced migration as much as possible: livelihood promotion can help prevent displacement and stabilize communities affected by shocks and stresses.*

Capable and informed households can choose to protect their livelihoods through measures aimed at avoiding or mitigating the impacts of hazards. To prevent food scarcity, for example, households can grow drought-resistant crops, choose sheep over cattle or build food reserves. Support networks (e.g. family and the cultural community) and protective institutions can help provide the supplementary resources needed.

In the absence of preventive and support measures, households have to cope with the crisis' negative impacts by giving up some of their assets (e.g. abandoning their homes for a relocation site). In order to satisfy more pressing, immediate needs, such as physical integrity, food and shelter, they might be forced to give up some of their longer-term well-being goals (Clarke, 2005).

2. *Where forced migration does occur, assist the people affected, while looking at durable solutions by protecting and enhancing livelihoods.*

Forced migration, including displacement in the face of environmental degradation and natural hazards, is rarely a first option and complements, whenever possible, other *in situ* coping strategies. Displacement in particular tends to be temporary and to take place along well-known and as short routes as possible (McLeman, 2011).

Reducing risk for the displaced means both addressing their immediate needs while on the move and setting up the conditions that would enable a rapid return to a safer life – that is, by reducing hazard incidence and supporting livelihood options in the area of origin, or else planning for socially and environmentally sustainable settlements in the community of destination or a third area.

The search for durable solutions is a gradual and complex process that involves human rights and humanitarian, development, reconstruction and peacebuilding challenges. It requires both meeting the material and non-material needs of mobile people in a sustainable way and managing the impacts of population influx on the well-being of host communities (e.g. environmental degradation, loss of income opportunities, reduced access to essential services and social instability). The coordinated and timely engagement of all relevant stakeholders is therefore necessary.

3. *Facilitate the role of migration as a sustainable livelihood strategy by looking at how under certain conditions mobility can contribute to the promotion and diversification of livelihood options.*

Mobility can be a sustainable strategy to reduce risk or a catastrophic outcome of a disaster (see Figure 3. Mobility, disasters and resilience). It can serve as a plan for minimizing a household's dependency on locally available natural resources, multiplying its sources of income (e.g. in the case of migration as a livelihood strategy) or at the very least protecting the physical integrity of family members and shortening the post-event recovery period (e.g. in the case of well-managed evacuations). On the other hand, migration may also lead to the loss of various forms of capital, social weakening and disruption, and personal insecurity, for example, by preventing people from accessing key assets that have been left behind and exposing households to a whole array of new risks (e.g. in the case of forced migration).

Pre-disaster vulnerability ultimately determines if and when people choose to move; if and how they would be capable of doing so, and what the consequences of their decision would be. The most vulnerable are those unable to mobilize sufficient assets to move, regardless of the stage of the crisis (see "Trapped populations" on page 18).

While movement out of a community offers advantages to migrant families, too much of it can lead to the depletion of the community's human capital and drive up hazard exposure and vulnerability in the area of origin. The lack of human capital can lead to the insufficient maintenance of ecosystems, causing a reduction of biological diversity, loss of soil and water supplies, and an increase in hazard frequency, especially in fragile, dry and mountainous areas (Benayas et al., 2007). As migrants overwhelmingly are young individuals, migratory movements can radically modify the demographic composition of their communities of origin, which lose their productive population and become disproportionately inhabited by a relatively vulnerable population (i.e. one composed mostly of old people, single mothers and children).

Reducing the need for forced migration, facilitating mobility and ensuring people move in a humane and orderly fashion are all necessary to enhance the resilience of households and communities, and successfully reduce risk. Actions to be implemented depend on the actual exposure and vulnerability of the people at risk.

Key policy messages on migration and disasters

Despite the body of evidence of the multifaceted linkages between disasters and human mobility, including that presented in this Compendium, migration has received only limited acknowledgement in the general DRR discourse. Thus far it has been perceived mostly as the consequence of extreme natural events or of failed attempts of individuals to adapt to their environmental contexts and the changes these undergo.

Measuring up to the challenges posed by crisis situations, with particular focus on the migration angle, IOM acknowledges that further efforts are needed to fully assess and recognize the complex role of human mobility in modifying, both positively and negatively, the vulnerability and resilience profile of both the migrant people at risk and their communities of origin and destination.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Improved understanding of the migration-environment nexus should rely on theoretical models that take into account the socioeconomic costs of displacement as part of the broader analyses of the costs and benefits of mobility. These modeling tools are needed to complement those available for assessing the economic costs of disasters in terms of losses and damages to assets and structures.[4] Evidence-based policies can best compel decision-makers to seek ways to integrate mobility aspects in their strategies to reduce risks and vulnerabilities.

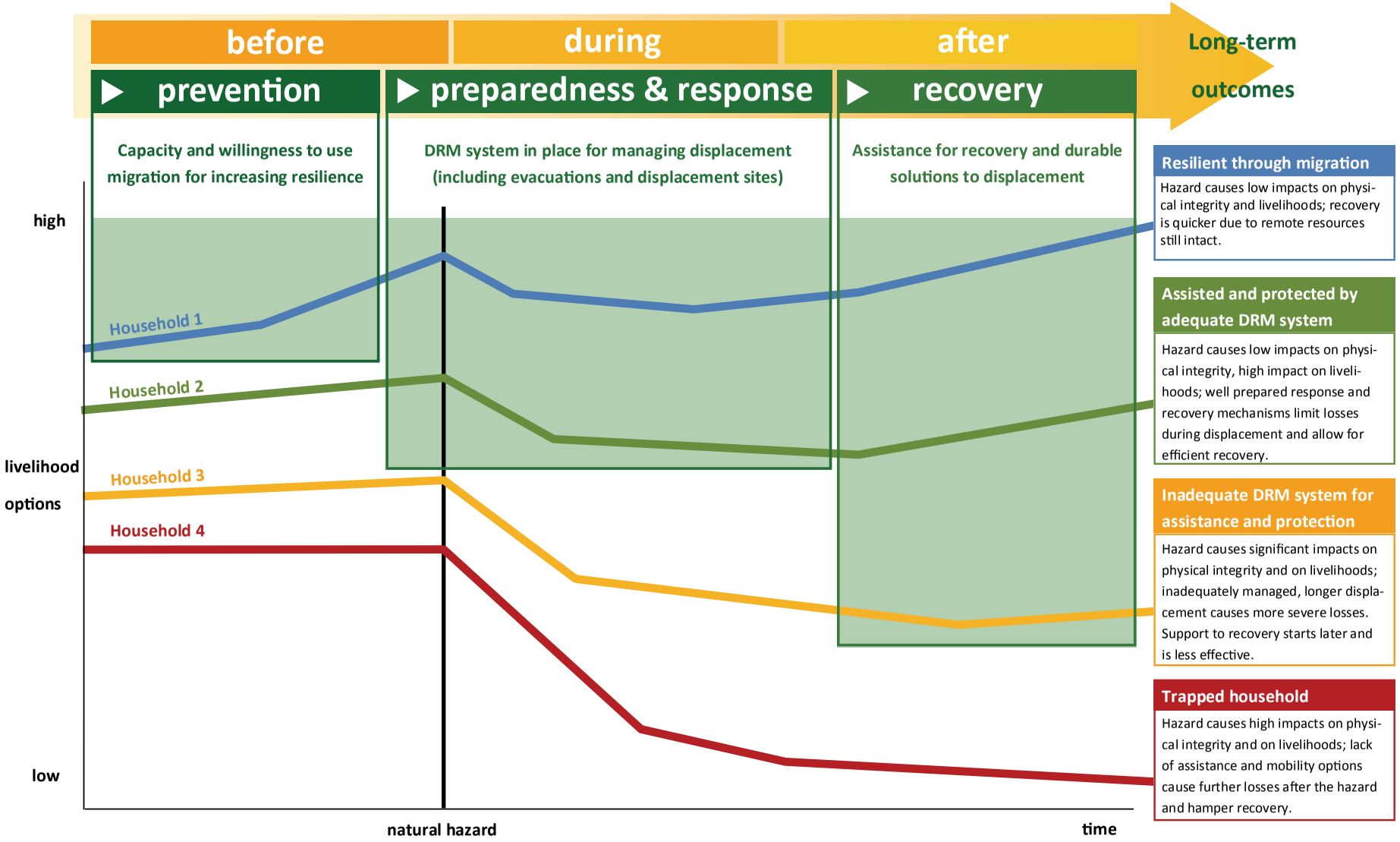
Whatever form the post-2015 global framework on DRR assumes, it should allow for the consideration of migration in a more comprehensive manner, in order to expose and address its risk implications before, during and after a crisis. IOM actively promotes the explicit inclusion of the following issues in the future DRR blueprint:

1. Prevention of forced migration by building resilience and addressing migratory pressures and their underlying factors.
2. Promotion of the mobility of individuals and communities at risk by strengthening their capacity to move and removing obstacles to the freedom of movement, in order to expand their livelihood options and enhance their resilience.
3. Enhancing preparedness for potential migration crises by increasing the capacities of individuals and institutions to cope.
4. Reduction of the negative impacts of crisis situations on both mobile and trapped populations by providing assistance and protection tailored around the different needs of the affected populations.
5. Mitigation of the socioeconomic and environmental impacts of population movements on the host community, through stabilization and attenuation measures in the response and recovery phases.
6. Management of the medium- and long-term consequences of forced migration during the recovery phase and beyond, to transition to sustainable development, including, in particular, by ending displacement through durable solutions.

[4] Widely used methodologies that could be integrated with more comprehensive mobility considerations include post-disaster needs Assessments and ECLAC's disaster and loss assessments.

Figure 3. Mobility, disasters and resilience

This theoretical model describes how mobility can allow households to prevent, mitigate and bounce back from the impact of natural hazards. The four coloured lines represent the evolution of the livelihood options of 4 household with different capacity to move as they are hit by the same hazard. Before, during and after disasters, mobility plays an important role in influencing resilience and the long-term outcomes of hazards.



	Before	During	After
Household 1 **RESILIENT THROUGH MIGRATION**	*Household 1* has sufficient resources (material and immaterial) and willingness to use **migration as a risk reduction strategy**. Under certain conditions, the migration of one or some of its members allows the household to diversify its sources of income and to afford investments in preventive measures (e.g. hazard-resistant housing), that add to existing risk management arrangements.	As distant individuals and resources are not affected when the hazard strike, overall impacts the household suffers are limited. In addition, the household is protected by informal and institutional risk management arrangements that allow for its assistance and protection in the aftermath of the event.	*Household 1* is also assisted through long-term interventions aiming at finding durable solutions to end displacement (e.g. return to the area of origin, relocation). In addition, its members are able to draw on intact, distant resources, which allow for a more spontaneous and effective recovery that starts early and progresses effectively.
Household 2 **ASSISTED & PROTECTED: ADEQUATE DRM**	*Household 2* does not invest in migration as a risk reduction strategy, due to lack of either resources or willingness. However it is **protected by adequate informal and institutional arrangements** (e.g. civil protection agency, social networks) to manage risk (through evacuation procedures, temporary shelters, etc.): their timeliness and effectiveness helps avoid or mitigate the impacts of natural hazards.	Evacuation, in particular when adequately planned and executed, reduces the hazard's impact on the life and integrity of the household's members. Capital losses are only partly mitigated and the household's capacity to access essential goods, services and opportunities is limited as long as the displacement lasts. Nonetheless, efficient social and civil protection systems allow to address the displaced households' essential needs and to avoid indirect, negative consequences.	*Household 2* does not have distant, protected assets to draw upon after the event, but good capacity of the social and civil protection system and the assistance the individuals have enjoyed allow for a rapid recovery. The adequate risk management system is also able to put an early end to displacement through safe return, local integration or relocation. Better planned and more effective response allows for long-term risk reduction through better integration of relief, recovery and long-term development initiatives.
Household 3 **INADEQUATE DRM: NOT PROTECTED OR ASSISTED**	*Household 3* does not invest in migration as a risk reduction strategy and is **insufficiently protected by a disaster risk management system** (e.g. no early warning systems nor evacuation procedures, lack of civil protection agencies, no temporary shelters). Its members will have to flee to avoid the hazard and its consequences. They will only have access to limited means for survival and receive only delayed assistance.	The household's members and their capital are severely affected. Fleeing from the affected area allows people to limit the direct impacts of the hazard but exposes them to the deprivation deriving from unmanaged displacement. Their capacity to access basic goods, services and opportunities is compromised and there is no system in place to assist and protect them in the aftermath of the event. This translates into more severe and longer-lasting indirect impacts.	Due to limited assistance and protection received in previous phases, the members of *Household 3* are likely to have suffered significant losses as a consequence of the hazard and of the displacement, which might strongly limit their capacity to bounce back. External assistance and protection being tardive, recovery will start late, be relatively slow and require much higher investments to restore and improve pre-disaster living conditions.
Household 4 **TRAPPED HOUSEHOLD**	*Household 4* does not invest in migration as a risk reduction strategy and is insufficiently protected by risk management arrangements. In addition, it does not have the resources or the ability to move out of the hazard-affected area. It will be **trapped**, unable to move in search of assistance and protection and out of the reach of providers of life-saving services.	*Household 4*'s capital is severely affected and its members' lives and physical integrity are put at extremely high risk. Unable to flee the hazard-affected area, its members are faced with serious deprivation. They are targeted by very limited relief and recovery activities, and experience insufficient assistance and protection to alleviate both the direct and indirect effects of the hazard.	Recovery for *Household 4* might never start. In addition to facing extremely severe impacts from the hazard, the household endures long-lasting deprivation and lack of assistance after the disaster, which causes further impoverishment and long-term loss of well-being.

Preventing forced migration and enhancing migration as a risk reduction strategy, and mitigating the impact of forced migration and managing its long-term consequences are the main risk reduction objectives of IOM and are in line with the priority areas of the Hyogo Framework for Action (HFA).

DRR provides a framework and working concepts (e.g. vulnerability and resilience) that can help develop better responses to migration crises. As reflected in the IOM Migration Crisis Operational Framework, risk reduction calls for the inclusion of broad perspectives in the operational response frameworks for migration, in order to adequately consider exposure to different hazards, as well as the various issues pertaining to resilience, such as mobility, gender equality, health and security. In this context, IOM seeks to call the attention of the international community on a number of pressing policy and operational issues that need to be taken into account when considering a successor to the HFA:

1. **Unmanaged urbanization**, seen both as a consequence of mobility and as a driver of disaster risk, which calls for better integration of mobility management in urban contexts (Challenges include mitigating the impact of rural-urban migration on unregulated urban growth and managing urban displacement, among others.).
2. Specific **vulnerable groups**, such as international migrants caught in a crisis situation, as well as the important role that disaster risk management platforms and regional consultative processes focusing on migration issues can play to foster mechanisms aimed at managing large population flows and providing adequate humanitarian assistance and protection.
3. The **role of States in steering and facilitating the integration of DRR into response and development strategies** (as they have the primary responsibility to protect and assist affected persons in their territories), while at the same time taking into account the cross-border nature of disasters, climate change and mobility (This calls for the integration of policies and capacities among States by means of regional, and occasionally also inter-governmental, cooperation arrangements.).
4. **Leveraging on the current political momentum to address the funding problem**, specifically, by fostering the convergence of regional and global financing mechanisms and facilitating access for States and other actors as part of a comprehensive approach to disaster risk (As funding mechanisms at the global and regional levels are divided into thematic portfolios – humanitarian, development, adaptation and the environment – they have a limited appreciation of the human mobility dimension, with the probable exception of humanitarian instruments assisting displaced persons. In a context of stretched financial resources and competing priorities, it is also necessary to look beyond traditional donor mechanisms. Best practices demonstrate, for instance, that alternative schemes involving the private sector and local banking institutions tend to be more sustainable in the long run.).

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Migration crises and global policy forums: The IOM comprehensive policy agenda

As the international community goes through a crucial moment in the definition of the policy agenda for the coming decades, IOM is strongly committed to mainstreaming migration in the disaster risk reduction framework, as well as in the debate on development and humanitarian affairs and in the climate change negotiations. Using its "Migration Crisis Operational Framework,"[5] approved by IOM Member States in November 2012, the Organization is involved in the following policy debates:

1. **Disaster risk reduction and resilience:** *Recognizing migration as a main driver of risk, a significant dimension of vulnerability and an effective strategy for building the resilience of individuals and communities.*
   The Hyogo Framework for Action (HFA), the 10-year plan set up in 2005 to guide DRR efforts at all levels, is expiring in 2015. Consultations are already in place on a new global agreement on DRR at the World Conference on Disaster Reduction in 2015 (UNISDR, 2012). In order to inform this process, the UN High-Level Committee on Programmes (HLCP) on DRR and resilience endorsed a UN system-wide Action Plan on DRR and Resilience, a process that IOM has contributed to and will support within UN country teams.

2. **Sustainable development and development goals**: *Establishing migration as an integral part of the global development agenda.*
   Mobility was an integral part of the discussion at the Rio+20 Conference. The outcome resolution adopted by the General Assembly calls upon States to promote and protect the rights of all migrants, especially those of women and children, and to avoid approaches, taken through international, regional or bilateral cooperation and dialogue, that might increase their vulnerability (UNGA, 2012). (The IOM experience in facilitating and managing migration suggests that mobility can be both a powerful enabler of economic and social development and a driver of vulnerability and insecurity.) DRR and migration will receive further attention in the Post-2015 Development Goals dialogue. In line with this, IOM is co-organizing the Global Thematic Consultation on Population Dynamics, which includes an online global conversation on the role of migration in the post-2015 agenda.

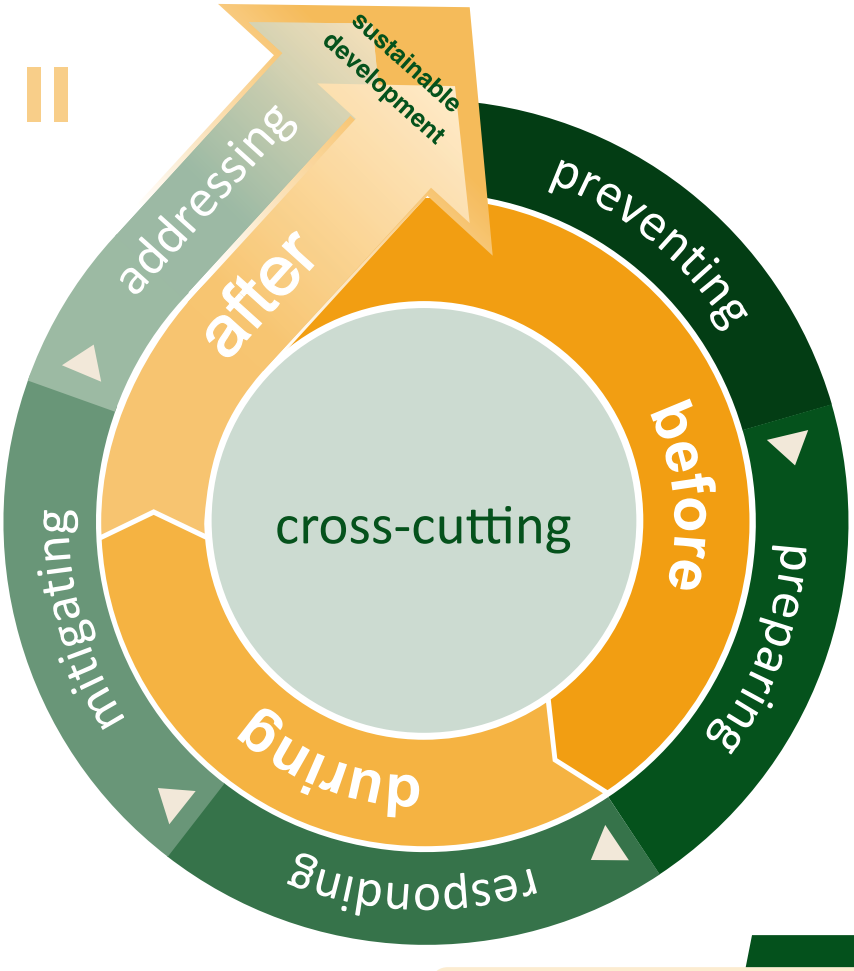
3. **Climate change and adaptation:** *Dual recognition of migration as a possible response to climate change and as an adaptation strategy to local environmental variability*.
   Migration has been a concern in climate change circles ever since the 1990 Intergovernmental Panel on Climate Change (IPCC) report, which brought widespread attention to the anticipated effects of environmental variability on human mobility. IOM is actively engaged in the United Nations Framework Convention on Climate Change (UNFCCC) process. The Adaptation Framework established at the 2010 Conference of the Parties in Cancun, Mexico recognizes the potential of mobility for adaptation by calling upon States Parties to "enhance understanding, coordination and cooperation with regard to climate change-induced displacement, migration and planned relocation." In addition, States Parties have recognized the need to consider rehabilitation and compensation for climate migration, which should be included under the "loss and damage" domain. However, IOM considers that the positive potential of migration as an adaptation strategy is still insufficiently considered in the National Adaptation Programmes of Action.

[5] The paper "IOM migration crisis operational framework" is downloadable from www.iom.int/files/live/sites/iom/files/About-IOM/governing-bodies/en/council/101/MC_2355.pdf.

4. **Humanitarian affairs and disaster risk management**: *Better protecting and assisting vulnerable mobile populations in migration crisis situations.*
   The Organization is focusing its efforts within the Inter-Agency Standing Committee's framework for addressing the humanitarian assistance and protection needs of forced migrants and promoting its Migration Crisis Operational Framework to look – beyond established categories – at vulnerable mobile groups. Further, IOM is also involved in processes such as the Nansen Initiative, which seeks to clarify some of the issues related to cross-border displacement, by participating in its Steering Committee.

5. **2013 High-Level Dialogue on International Migration and Development (HLD)**: *Improving the governance of international migration, including managing the migration dimensions of crisis situations.*
   The HLD provides a significant opportunity to foster responses, at the local, national, regional and global levels, to the growing interrelated challenges affecting vulnerability and mobility, such as shifting demographics, managing inequalities, climate change and humanitarian crises. IOM plays a significant role in supporting UN Member States to reach ambitious consensus on the management of migration.

PART II



PART II
OPERATIONAL OVERVIEW

IOM Strategies, Programmes and Responses

Part I of this compendium exposed the multifaceted linkages between people's mobility and their vulnerability to, as well as resilience in the face of, a disaster, providing a comprehensive analytical overview. It was noted how being able to move and being on the move can significantly influence the risk profile of people before, during and after a crisis.

Based on the analytical overview in Part I, Part II explores the different identified linkages between mobility and disaster from a programmatic perspective. It provides an overview of lessons learned from programme implementations of IOM around the world, divided in thematic sections.

Part II contains 19 thematic briefs that seek to interpret the disaster risk reduction (DRR), disaster risk management (DRM) and climate adaptation frameworks from a mobility perspective. The thematic briefs are organized based on their relevance to each crisis phase (i.e. before, during and after) and in line with the "migration crisis" approach of IOM.[1] Each thematic brief is illustrated with examples drawn from the activities of IOM around the world. A number of thematic briefs have also been highlighted for their cross-cutting nature and their importance at each stage of the crisis.

A general overview of IOM programmes and their relevance to its portfolio of activities, in particular the implementation of its Migration Crisis Operational Framework, is given before the thematic briefs and issues are presented.

[1] "Migration crisis" is a term that describes the "complex and often large-scale migration flows and mobility patterns caused by a crisis which typically involve significant vulnerabilities for individuals and affected communities." See also Part 1 of this Compendium and the IOM Migration Crisis Operational Framework, MC/2355 (IOM, Geneva), available from www.iom.int/files/live/sites/iom/files/About-IOM/governing-bodies/en/council/101/MC_2355.pdf.

The IOM Intervention to Reduce Risk and Build Resilience

Since 2009, IOM has developed standalone policies on disaster risk reduction to guide practitioners who strive to integrate mobility considerations into their programmes. These policies are described in the following IOM documents:

- *2010 Disaster risk reduction, climate change adaptation and environmental migration: A policy perspective*[2]
- *2010 Info sheet: Disaster risk reduction and climate change adaptation in IOM's response to environmental migration*[3]

In addition, IOM plays an increasingly important role in disaster risk management and coordinated humanitarian response to displacement induced by natural disasters. In connection with the Global Humanitarian Response Review 2004–2005, conducted by the Office for the Coordination of Humanitarian Affairs (OCHA), IOM assumed a strategic role as the global Camp Coordination and Camp Management (CCCM) Cluster Lead in natural disasters.[4] Globally, within the Inter-agency Standing Committee (IASC), and at the country level, through the Humanitarian Country Team, IOM is regularly requested to assume stronger operational and strategic roles as a result of its in-country capacity, existing partnerships and well-established credibility. Currently, the Organization plays a role within the Logistics, Emergency Shelter, Protection, Health and Early Recovery Clusters of the IASC, given its institutional and in-country capacity and expertise.

The CCCM Cluster of the IASC is cross-sectoral, in that it facilitates the coordination of services in response to the assistance and protection needs of internally displaced persons (IDPs) in temporary settlements and camp-like situations. CCCM actors play a critical role vis-à-vis populations hosted in temporary settlement sites, and the cluster's functions are dependent on productive relationships of trust and analytical awareness of local dynamics. The CCCM Cluster is thus a well-placed repository of knowledge of displacement dynamics, movement intentions, protection needs and the range of obstacles that may impede durable solutions.

At the request of States, and in line with Priority 5 of the Hyogo Framework for Action, IOM supports emergency preparedness initiatives, namely, consolidating the capacity of national authorities to identify potential crises, develop contingency plans and deploy an effective response in camp coordination and camp management when a crisis unfolds. Preparedness objectives are tied to the reality that complex and unpredictable movements, if not properly anticipated or tracked, can have severe consequences for the delivery of aid, recovery and development. A more precise and highly contextualized understanding of disaster-induced displacement fosters tangible benefits for human security and governance.

The United Nations Country Team (UNCT) plays a critical role in promoting disaster risk reduction at the country level, and IOM, through its participation, has taken the lead in integrating disaster risk reduction for a number of countries, including as part of the UN Development Action Framework (UNDAF). IOM Country Offices – mostly in Asia – have been leading efforts to develop DRR strategies for IOM, highlighting the added value of the Organization to support national and local DRR objectives.


© IOM 2008 (Photo: Piers Benatar).

[2] This document can be downloaded from www.iom.int/jahia/webdav/site/myjahiasite/shared/shared/mainsite/policy_and_research/policy_documents/DRR-CCA-policy-paper-final.pdf.

[3] This document can be downloaded from www.iom.int/Template/migration-climate-change-environmental-degradation/interactive-factsheet/index.html.

[4] More information about the Camp Coordination and Camp Management (CCCM) Cluster is available from www.iom.int/cms/cccm2.

The UN Plan ofAction on Disaster Risk Reduction for Resilience

The UN Action Plan serves as an important basis for addressing the challenges posed by human mobility during times of disaster through concrete and integrated responses that promote resilience and reduce forced migration. To support this, IOM has developed the following targets and indicators:

Target I: Reduce exposure to hazards and lessen the impact of crises on development, including by facilitating mobility that enhances resilience

Preventing forced migration that results from exposure to natural hazards requires strong investment in disaster risk reduction actions. At the same time, mobility can play a fundamental role in reducing the vulnerability of communities at risk. It also enables households to diversify and strengthen their livelihoods, and to anticipate, mitigate and better recover from the effects of a natural hazard. Therefore, exposed people lacking the capacity to move are likely to be among those most at risk when disasters strike.

Migration serves as an indicator of exposure and vulnerability in areas prone to disasters and environmental degradation. To be specific, the following data can be studied:

- Relative percentage of outmigration from affected areas (including permanent, temporary, partial and circular migrations);
- Demographic trends in populations living in high-risk areas, taking into account migrants moving to these areas, especially in urban areas. (The methodology should also measure the impact of incentive and coercive actions for planned relocation out of high-risk areas.)

Migration is also an indicator of resilience, when the following, for example, are considered:

- Percentage of households at risk that have access to outsourced resources;
- Flow of diaspora resources (both financial and human) channelled in recovery;
- Percentage of spontaneous, sustainable returns of the total number of displaced people.

Target 2: Invest in capacity-building for quick and efficient response to disaster-induced displacement,in order to reduce risks for people on the move

As people who leave their areas of origin (whether forcefully or not) tend to have reduced access to essential material assets, social networks and knowledge, investment in disaster risk management is essential. Vulnerable mobile and displaced populations tend to be more exposed and more vulnerable to natural hazards and have specific protection needs while on the move.

Preparedness indicators for managing displacement thus include:

- Percentage of the population at risk covered by an evacuation plan and the percentage of population at risk effectively evacuated ahead of an event;
- Number of national curricula in mass migration management (including the number of trained professionals).

Measuring forced migration and its costs can be done by considering the following data:

- Number of people displaced by environmental factors (including a breakdown by gender and vulnerable categories: migrant workers, internally displaced persons, refugees, unaccompanied minors, victims of trafficking, etc.);[5]
- Mean duration of displacement (by number of people affected);
- Loss of productivity (in working days) due to the displacement.

Source: http://www.preventionweb.net/english/professional/publications/v.php?id=33703.

[5] In collaboration with the Internal Displacement Monitoring Centre (IDMC).

Disaster Risk Reduction in the Migration Crisis Operational Framework of IOM

The DRR interventions of IOM fits within the Organization's broader Migration Crisis Operational Framework (MCOF),[6] which is used to systematize and improve support to Member States and partners, to better respond to the assistance and protection needs of crisis-affected populations.

The MCOF, adopted by IOM Member States in November 2012, provides an analytical and strategic planning tool to deal with the migration dimension of actual and potential crisis situations by focusing efforts on preventive measures to reduce risks linked to natural disasters, including in the context of complex crises where environmental factors compel man-made disasters.

IOM uses the term "migration crisis" to refer to and analyse the often-large-scale and unpredictable migration flows and mobility patterns caused by conflict or natural disasters. IOM views the "migration crisis" concept as analytically useful for identifying all migration-related aspects of conflicts and natural disasters, including patterns of human mobility before, during and after a crisis, whether internal or across international borders. By capturing patterns of human mobility in their full complexity, a migration crisis analysis allows policymakers to develop an integrated response to the crisis that covers humanitarian, as well as migration management, concerns.

Under the MCOF, IOM has developed a coherent framework for DRR intervention during each of the crisis phases, defining for each one of them their particular objectives and actions. Disaster risk reduction and resilience-building are fully integrated into the MCOF, under sector of assistance 8, along other key DRM sectors of assistance ranging from temporary settlement management and shelter, to transport assistance.

[6] The IOM Migration Crisis Operational Framework can be downloaded from www.iom.int/files/live/sites/iom/files/About-IOM/governing-bodies/en/council/101/MC_2355.pdf.

Mobile and Vulnerable Groups

The IOM approach to migration crisis involves identifying mobile and vulnerable groups that pose specific challenges and are exposed to specific risks at each stage of the migration process. These vulnerable mobile groups are as follows:

Trapped populations. People who lack the financial, social, political or even physical assets to migrate from dangerous areas and who become trapped in perilous circumstances. (Foresight, 2011)

Trapped populations' specific vulnerability shows that significant physical and financial resources are required to move, and cultural obstacles, such as discrimination based on gender or ethnicity; the lack of supporting regional or trans-regional social networks; and the absence of adequate infrastructure, institutions and regulations can prevent people or communities from migrating.

International migrants caught in crisis situations. International migrants residing or transiting through a country affected by a crisis situation, such as a natural disaster or a conflict, which leads to a situation of heightened vulnerability. (IOM, 2012b)

Migrant-specific vulnerabilities can include the following: a lack of knowledge of or access to mechanisms of assistance at the national level; heightened exposure to violence and exploitation; a shortage of personal means to escape crisis areas; and a lack of access to travel documents or embassy officials.

Environmentally displaced persons. Persons who are displaced within their country of habitual residence (i.e. internally displaced persons, or IDPs) or who have crossed an international border and for whom environmental degradation, deterioration or destruction is a major cause of displacement, although not necessarily the sole one. (IOM, 2011b)

Most displacement following natural disasters and environmental change takes place within national borders. So far, cross-border displacement induced by natural disasters has been registered only episodically and in most – if not all – cases, neighbouring States have opened their borders on humanitarian grounds. Nevertheless, cross-border movements pose specific protection and assistance questions.

Rural-rural migrants, including pastoralists (as discussed in "Issue 4: Pastoralists"). Migrants who move from one rural area to another, including both short- and longer-distance movements of traders, pastoralists and agricultural workers. (IOM, 2011b)

The vulnerability of pastoralist groups is exacerbated by the fact that migration is central to the livelihood of these societies: obstacles to mobility seriously threaten the capacity of pastoralists to pursue their nomadic lifestyle, as well as the capacity of ecosystems to regenerate. In the context of increasing resource scarcity, intra-communal conflict for water and land is becoming more frequent, especially between agricultural and pastoralist communities that are often ethnically and culturally different.

Sector of Assistance 8 of the Migration Crisis Operational Framework

Sector of assistance 8 of the Migration Crisis Operational Framework (i.e. on disaster risk reduction and resilience-building) aims to reduce and mitigate the risk of displacement and increase the resilience of communities to cope with disasters with a view to achieving sustainable development, by providing the necessary framework, methodology and tools to analyse the causal factors of disasters, reduce exposure to hazards and lessen the vulnerability of people and their livelihoods.

Before the crisis	During the crisis	After the crisis
Support activities for the prevention of forced migration resulting from environmental factors, by building resilience and response mechanisms to disasters (e.g. temporary shelters and planned relocation).	Mitigate the impact of displacement on the receiving communities and their environment and reduce the exposure of displaced populations to hazards in an alien environment.	Address forced migration situations in the medium- and long-term by bridging humanitarian responses with development programming, including in the search for durable solutions. The post-crisis phase often represents a window of opportunity to increase communities' resilience to natural disasters and anticipate systemic changes related to environmental change.

Disaster risk reduction strongly relates with and complements other sectors of assistance, inter alia:

- **(Re)integration assistance**. By reducing risks and vulnerabilities; increasing resilience to natural disasters; and improving the conditions for sustainable return, integration or resettlement, DRR activities contribute to durable solutions.
- **Community stabilization and transition**. DRR activities contribute to community stabilization by reducing the potential for tension, violence and conflict that may arise from the loss of livelihoods and displacement after a natural disaster. This is particularly relevant in the context of a complex crisis where political instability or a conflict situation is compounded by environmental factors such as natural disasters.
- **Shelter and non-food items (NFIs).** DRR techniques in construction, such as those based on the "Building Back Better" concept, contribute to the construction of durable shelters that are more resilient to disasters, thus reducing people's vulnerability in times of crisis, especially of those who have been subjected to forced migration.
- **Land and property support.** DRR considerations are crucial when shaping land and property programmes, in that the land and property that are returned to or are provided to migrant populations (e.g. returnees, IDPs, relocated persons) must not be hazardous areas (e.g. coastal areas prone to erosion, sites where there is volcanic and/or seismic activity), in order to reduce risks to lives, livelihoods and ecosystems, and thus prevent forced migration that may result from environmental factors.
- **Settlement management and displacement tracking.** During an emergency or humanitarian response, DRR activities can reduce risks and prevent major disasters such as cholera outbursts and casualties in temporary settlements due to, for example, flash floods, hurricanes and landslides.
- **Health support.** DRR measures can often include targeted actions in the health sector, be it in the context of mitigation of WASH (water, sanitation and hygiene) risks in temporary settlements, effective communication to communities about risks or investment in Building Back Better facilities.
- **Migration policy and legislation support.** A large component of the work done by IOM in disaster risk reduction is building State capacity, which often involves assistance in implementing DRR-related legislation.

IOM involvement in risk reduction and resilience-building activities

The involvement of IOM in reducing the underlying causes of vulnerabilities that lead to disasters dates back to 1998, when the Organization was first called to support the Honduran Government in dealing with massive displacement as a result of Hurricane Mitch. Besides disaster risk management, IOM supported reconstruction efforts, with a view to reducing vulnerability and exposure to risks (including forced migration). A decade later, while assessing the potential impact of climate change on human mobility, IOM for the first time took stock of its portfolio of activities in disaster response, risk reduction and climate change adaptation and was able to discern a rich and nuanced involvement:

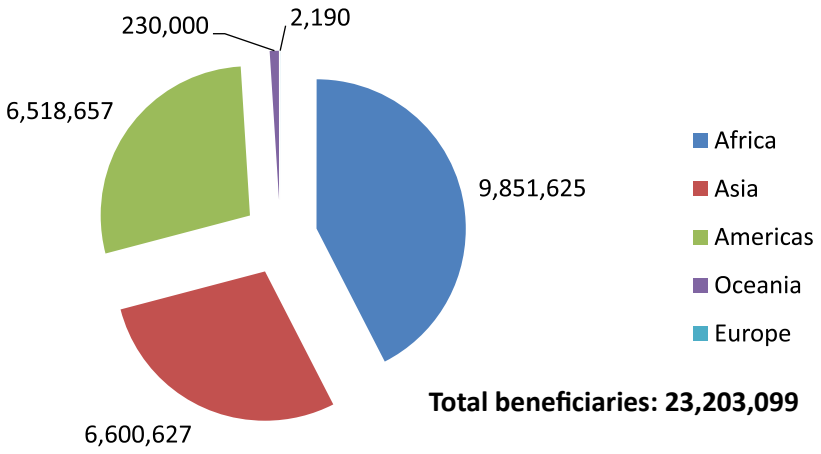
- At different levels, from community to national and regional;
- In response to all types of disasters, from sudden-onset geological disasters like earthquakes, to climate-related, slow-onset disasters such as sea-level rise;
- At different moments of the migration crisis management cycle, that is, before a crisis, in terms of prevention and preparedness; during, through coordinated emergency and disaster response; and after, through recovery and resilience-building.

In implementing DRR and resilience-building activities, IOM mostly uses two approaches:

- Dedicated DRR activities such as prevention and reconstruction projects (e.g. Building Back Better, early-warning/early-action systems, community-based disaster risk management, building preparedness capacities to manage displacement situations);
- Mainstreaming risk reduction and resilience-building in projects supporting affected communities and vulnerable mobile populations, such as the climate-proofing of recovery projects, integration of a DRR component in the management of complex emergencies, community stabilization initiatives, and programmes promoting durable solutions through sustainable livelihoods, among others.

The *2013 Compendium on DRR and Resilience* includes these two approaches, provides a holistic picture of activities in this area of work and illustrates the synergies between the approaches.

Figure 1: Number of beneficiaries, 2009–2013

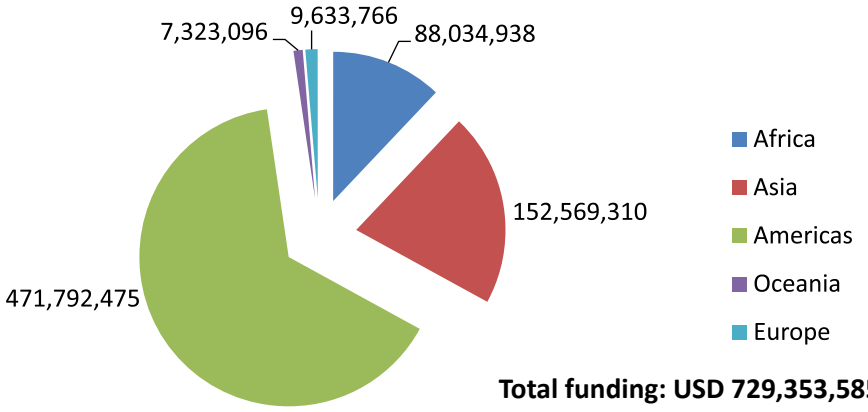


Total beneficiaries: 23,203,099

Since its last stock-taking exercise in 2009,[7] IOM has implemented 257 disaster-related projects in 31 countries across five continents. The activities – which range from hazard mitigation and livelihood support to preparedness and emergency management – directly benefitted at least 23 million individuals, including over 4.8 million women and almost 2 million children, who were the recipients of targeted activities. The amount funded was over USD 720 million, which came from IOM Member States, the European Union, the United Nations and other international institutions and funds, as well as from the private sector.

[7] *Compendium of IOM's Activities in Migration, Climate Change and the Environment* is available from http://publications.iom.int/bookstore/free/Compendium_of_IOMs_Activities.pdf.

Figure 2: Total expenditure on disaster-related projects by continent, 2009–2013



Total funding: USD 729,353,585

Beneficiaries of the various projects included IDPs (who formed the majority) and significant numbers of vulnerable communities and individuals affected by natural disasters. In addition, local authorities and government personnel, as well as staff from non-government organization (NGOs) and civil society organizations (CSOs), benefitted from capacity-building activities.

While the extent of the IOM commitment to disaster-related activities is clearly influenced by the amount of humanitarian aid in the occurrence of major events, the data still show a significant and consistent risk management and risk reduction effort. Figures 3 and 4 illustrate, respectively, the number of disaster-related IOM projects (by type of activity) and the corresponding expenditures. Projects are categorized according to this compendium's thematic areas,[8] grouped in the five main sectors of intervention (preventive action, preparedness, emergency management, mitigation of the consequences of displacement and recovery) and four cross-cutting areas: 1) livelihoods, 2) land and property, 3) heath and 4) infrastructure.


© IOM 2010 (Photo: Daniel Desmarais).

[8] The IOM DRR intervention, illustrated in the succeeding sections, is articulated in the following areas: 1) Reducing the impacts of hazards to prevent forced migration; 2) Planning the relocation of communities to reduce their exposure to hazards; 3) Promoting migration as a livelihood strategy; 4) Preparing societies for disasters and potential displacement (community-based disaster risk management); 5) Building the capacity of institutions to manage disasters and displacement; 6) Bridging the response mechanisms of communities and institutions; 7) Establishing systems that provide timely information (early-warning/early-action and disaster response systems); 8) Managing mass evacuations to reduce the impacts of disasters; 9) Tracking displacement during crises; 10) Assisting affected people in displacement sites; 11) Building DRR into emergency response and early recovery; 12) Reducing the environmental footprint of the displaced; 13) Mitigating the risks associated with large population movements on receiving communities; 14) Implementing durable solutions (return, local integration and relocation); 15) Mainstreaming DRR in the recovery and transition phases of complex emergencies; 16) Promoting sustainable livelihoods; 17) Addressing land and property issues; 18) Building resilience by enhancing health care, psychosocial support and strengthening facilities; and 19) Reducing risk through small infrastructural interventions. The "thematic briefs and the migration management cycle" diagram gives an overview of these activities.

Figure 3: Number of disaster-related projects worldwide by type of activity, 2009–2013

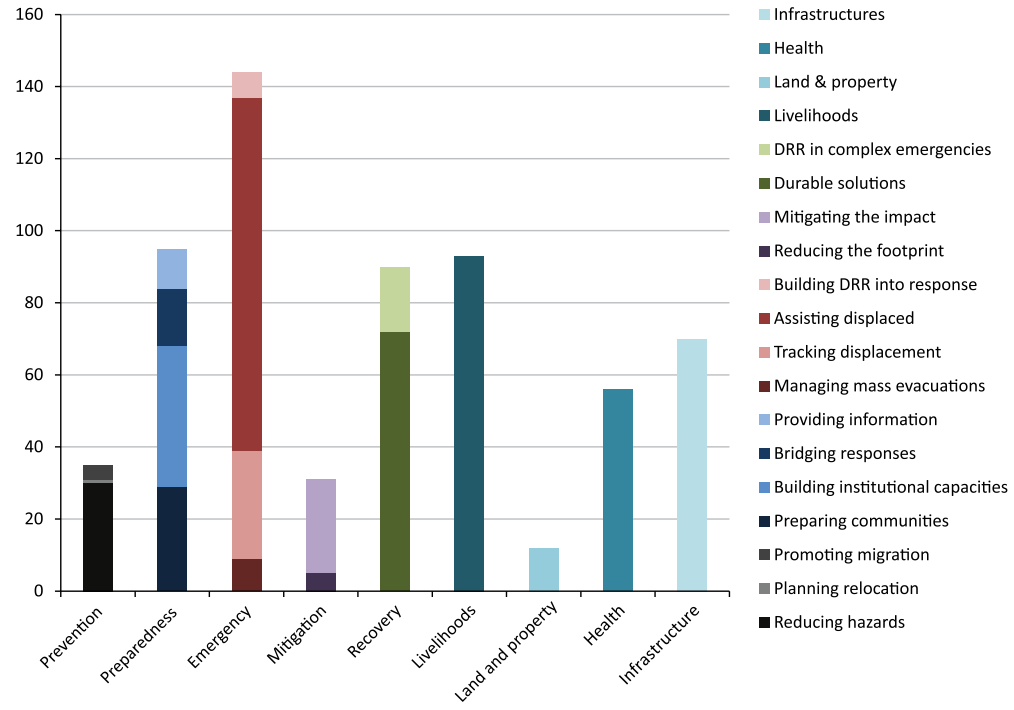
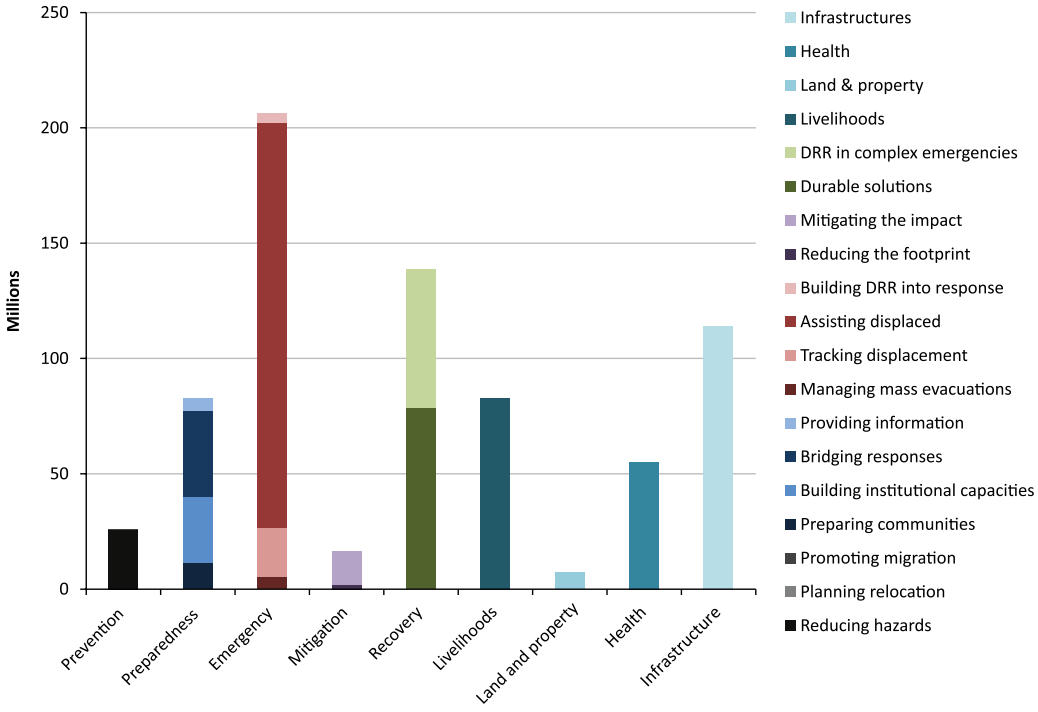


Figure 4: Worldwide expenditure on all disaster-related projects by type of activity, 2009–2013



Both graphs show how, along with significant efforts in emergency management, IOM is highly committed in preparedness (in particular capacity-building and coordination, both at the institutional and grassroots levels) and recovery activities. The Organization supports its disaster interventions with livelihood enhancement, health promotion and infrastructure programmes.

IOM programmes focusing on disaster risk reduction and preparedness

As a subset of its broader disaster-related efforts, in which risk reduction principles are systematically mainstreamed, IOM has implemented 86 dedicated DRR projects (including 14 disaster preparedness programmes), benefitting a total of more than 7.5 million people (including over 1,150,000 women and 55,000 children who received targeted activities). Total funding was more than USD 125 million.

The growth of the IOM commitment in the area of risk reduction becomes even clearer when examining the evolution of primarily-DRR projects. Activities aimed at reducing vulnerabilities and enhancing resilience have been steadily growing over the last years, and IOM is planning on further increasing its commitment in the field.

Figure 5: Number of DRR and preparedness project beneficiaries by continent, 2009–2013

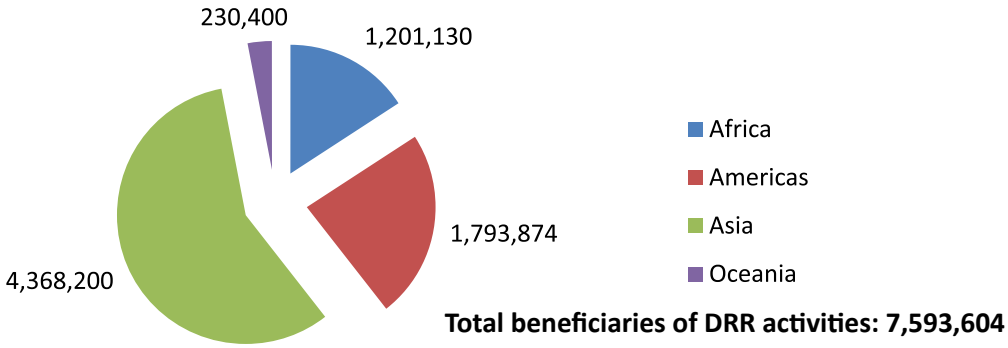


Figure 6: Expenditure on DRR and preparedness projects by type of activity, 2009–2013

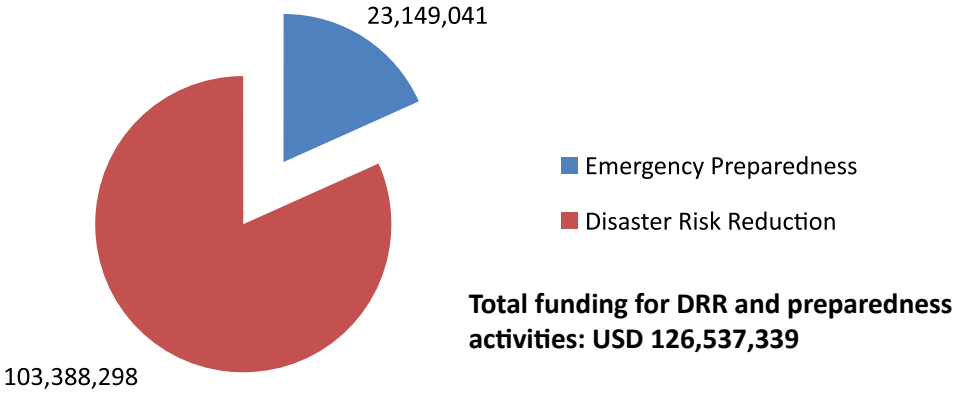
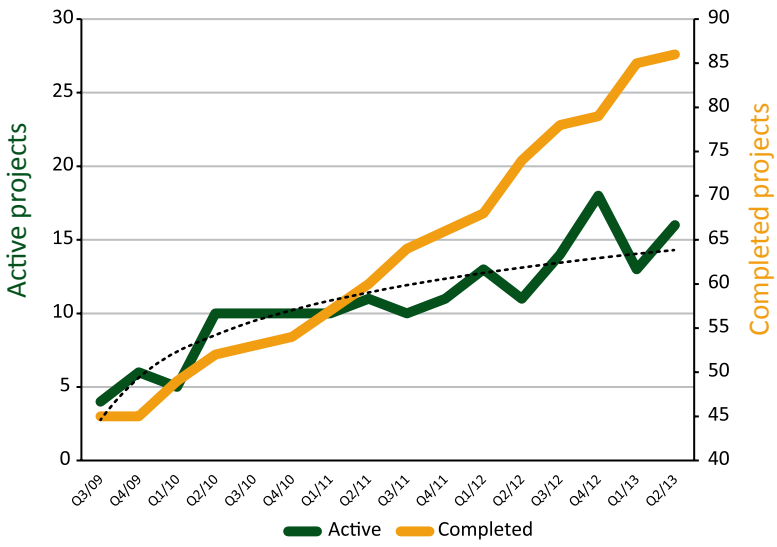
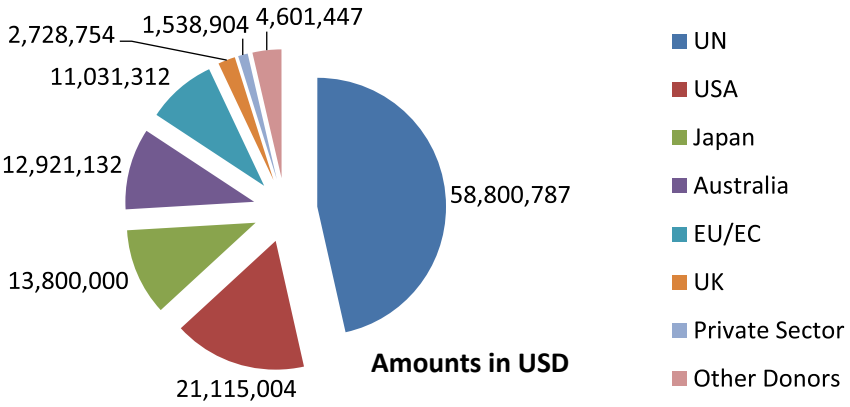


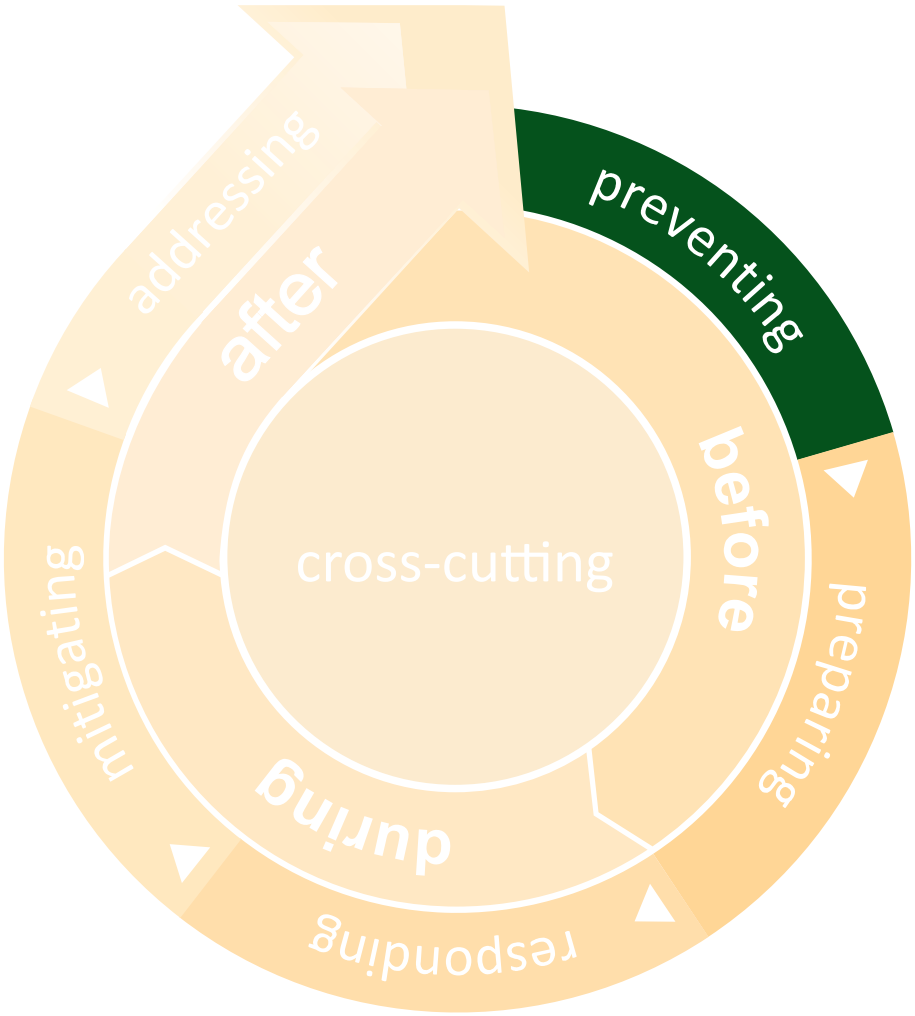
Figure 7: Number of active and completed DRR and preparedness projects, 2009–2013



The major donor for DRR-related project was the United Nations, through different institutions and funds. The United States (through USAID and OFDA), Japan, Australia and the European Union (both through its institutions and its member States) were also among the main contributors.

Figure 8: Amount funded by donors to DRR and preparedness projects, 2009–2013





PREVENTING

LIST OF CASE STUDIES

PREVENTING FORCED MIGRATION AND PROMOTING MANAGED MIGRATION AS A STRATEGY TO BUILD RESILIENCE

Forced migrations, including those induced by natural hazards, undermine the well-being of households and individuals by reducing access to assets, social networks and services. At the same time, in the context of limited livelihood options and deprivation that often characterize crises, and under certain favourable conditions, properly managed and planned migration can actually enhance the well-being of people, their families and communities.

In order to reduce risk, and thereby prevent forced migration, countries should combine different strategies which reduce people's vulnerability, enhance their resilience and promote their sustainable development:

1. Reducing exposure to, and the impacts of, natural hazards (see thematic briefs 1 and 2);
2. Protecting and diversifying livelihood options, especially for the most vulnerable groups (see thematic brief 16);
3. Promoting voluntary migration as an effective livelihood and coping strategy (see thematic brief 3).

Thematic Brief 1: Reducing the impacts of hazards to prevent forced migration

Reducing the impacts of environmental changes and shocks and enhancing the well-being of people exposed to hazards can go a long way in tackling *in situ* migration pressures. Impact reduction helps prevent forced migration, thereby reducing the risks associated with mobility.

Actions

- Assess the risks (including the risk of displacement as a consequence of environmental shock) in order to inform risk reduction actions. *Example: Haiti*.
- Secure and multiply access to resources (e.g. water, food, employment opportunities and safe shelter), to make sure people have sustainable alternatives to migration. (See thematic brief 16.)
- Reduce the frequency and magnitude of hazards through engineered and natural infrastructure such as slope stabilization works, reforestation and wetland restoration. *Example: Haiti*.
- Reduce the impacts of hazards on buildings and infrastructure, by adopting and implementing hazard-resistant construction standards. *Examples: Haiti and the Philippines*.
- Improve the at risk population's understanding of disaster risks by promoting public awareness campaigns and including risk information in school curricula. *Examples: Federated States of Micronesia and the Republic of the Marshall Islands*.
- Redistribute disaster losses by implementing disaster insurance schemes.
- Modify the population's geographic distribution – to reduce its exposure to hazards – through land use planning and relocation measures. (See thematic briefs 2 and 15.)
- Consider the present and future effects of environmental change and implement a climate-smart DRR programme, to ensure that hazard prevention and mitigation measures will be effective in the long term. *Examples: Egypt and Mauritius*.

CASE STUDY 1: Preventing forced migration in Haiti

The mitigation intervention programmes that IOM carries out in Haiti focus on reducing the risk from hazards faced by the local population, particularly in urban communities and rural areas surrounding IDP (internally displaced person) settlements. All activities are carried out in collaboration with the Civil Defence Direction and with local authorities at the commune and neighbourhood levels.

Most of Haiti's recurrent disasters are caused by hydro-meteorological events associated with storms and hurricanes. Therefore, the DRR intervention that IOM has developed for the country focuses on structural and non-structural measures that prevent and mitigate hazards, for example, by building flood and landslide mitigation structures, enhancing water drainage, reforesting slopes and promoting sustainable watershed management. Beginning in 2010, the Organization has constructed 187,748 metres of stone check dams, excavated 322,988 metres of contour canals and micro-basins, planted 1,392,725 trees and constructed or rehabilitated 157,099 metres of drainage canals.

In close coordination with the Ministry of Public Works, Transportation and Communication, IOM Haiti is also executing soil conservation projects. These labour-intensive cash-for-work projects employ IDPs who fled Port-au-Prince following the 2011 earthquake. By stabilizing slopes with a number of micro-interventions, the IDPs build infrastructure that will reduce flooding for many decades to come.

In order to support the hazard mitigation intervention, IOM has started to systematically map risks at the community level. The local DRR team created a methodology combining field-level and remote sensing data, with inputs from community members, to create community risk maps. As of this writing, work on the pilot study in Cité Soleil has been completed.

Thematic Brief 2: Planning the relocation of communities to reduce their exposure to hazards

In contexts where forced migration is not preventable, planned relocation can be an effective measure for reducing the exposure of the vulnerable population and capital to disasters. This strategy is ideal for high-risk areas prone to either foreseeable (e.g. storms) or non-foreseeable (e.g. earthquakes) natural hazards, as well as for regions facing irreversible ecosystem degradation, be it induced by development projects (e.g. dam construction or mining projects), pollution (e.g. nuclear contamination) or environmental change (e.g. sea level rise, in the case of so-called "sinking States").

Planned relocations, however, are complex processes that often have multiple implications on aggregate risk levels. They are highly costly and have the potential to deplete the human, social and economic capital of both the relocated and host communities, thereby causing impoverishment and further vulnerability. Past experiences and success stories demonstrate that adequate participation of concerned households in the decision-making process and in the long-term support of their livelihood options is essential in designing and implementing relocation plans that can effectively reduce risk.

Actions

- Evaluate coercive (e.g. land use regulations) and non-coercive (e.g. financial incentives) measures to decrease the concentration of people and assets in the areas at risk.
- Make sure to prevent possible discriminations that policy- and market-based measures (e.g. disaster insurance cover) can induce, based on, for example, different access to assets, political representation and legal entitlements.
- Consider land tenure and property regimes in both the community of origin and in the community of destination, in order to avoid conflict and make relocation just. *Example: Papua New Guinea*. (See thematic brief 17.)
- In the case of cross-border relocation, adequately consider the issue of legal status and rights of the relocated population. (See issue 1.)
- Ensure that relocated households have sufficient access to resources and services for them to pursue safe lives, by restoring their livelihood options and community life, and by building their knowledge of the new context. *Example: Sri Lanka*. (See thematic brief 16.)

- Whenever the relocated households' previous assets cannot be restored, provide adequate compensation, taking into account the longer-term consequences of relocation.
- Make sure both the relocated and the host communities are involved in the decision-making process, in order to better prepare them for change, as well as minimize intra-communal tension. *Example: Papua New Guinea*. (See thematic brief 13, issue 2.)

CASE STUDY 2: Relocation of the Bougainville Atoll communities in Papua New Guinea

The atoll communities of north-eastern Bougainville in Papua New Guinea reside on isolated and remote low-lying islands. They are faced with slow-onset changes to their environment, including seawater intrusion, salinization of soil, soil erosion, land loss and climate variability, leading to, among others, food insecurity and increased vulnerability to natural disasters. While climate change might have played a role in the degradation of the islands' ecosystems, human activities, in particular dynamite fishing, are mainly responsible for the destruction of the natural barriers provided by local coral reefs.

In 2005 it was officially decided that the 1,000 residents should be evacuated, 10 families at a time, to the larger island of Bougainville, 100 kilometres away. IOM assisted with the relocation of the affected population. Plans to evacuate the local population were already being discussed in the early 1980s, but were interrupted by the war in Bougainville.

Finding land in Bougainville for the resettlement of evacuees was challenging: the island had just emerged from a civil war, and 96 per cent of the land area was governed by customary ownership and often subject to competing claims by landowners. Establishing clear titles was a complex process, mostly because the Government lacked the political will and financial resources to drive the resettlement process. Neither did the Carteret Islanders have sufficient resources to buy land for themselves.

It was only through the community-driven initiative Tulele Peisa that the issue could be addressed, and the relocated islanders were allocated enough land – most of the resettlement land was donated by the Catholic Church – to support sustainable crop production.

IOM is now assisting the Autonomous Bougainville Government in assessing the remaining communities' (i.e. the Carterets, Fead, Tasman and Mortlock Atolls) vulnerability to environmental change and climate variability, as well as the need for them to relocate –temporarily or permanently – within the Autonomous Region of Bougainville. IOM will develop and test research methodologies and tools and train researchers on the field to allow for the production of vulnerability and resilience maps of atoll communities. The data will be used to provide guidance on the identification of resettlement priorities, as well as identify other government-led and community-based mitigation and adaptation measures for the communities who wish or are able to remain, temporarily or permanently, on the targeted atolls. In addition, the data will allow for establishing baselines to track future impacts and trends in environmental change and climate variability in the targeted atolls.

CASE STUDY 3: Relocating population at risk of landslide in Sri Lanka

Parts of Sri Lanka are frequently hit by heavy landslides as a consequence of strong precipitation events. Recently, in 2007 and 2008, landslides affected 4,000 families and displaced 219 households. In addition to supporting the Sri Lankan Government in the aftermath of disasters by providing humanitarian assistance to the affected populations and ensuring access to basic goods and services in IDP settlements, IOM also intervenes to create safer settlement options for at-risk communities.

In order to reduce the concentration of populations and assets in areas exposed to hydrogeological hazards, the Government considered the relocation of some settlements to a new area. A former tea plantation was identified and acquired, and the relocation of communities was duly arranged. IOM supported institutional efforts by constructing access roads, stormwater canals, culverts, water supply systems, community halls and sanitation facilities. In addition, the Organization provided vocational training and resources to promote adequate livelihood options, and trained relocated families and people on soil and water conservation practices, in order to reduce future landslide risk.

Thematic Brief 3: Promoting migration as a livelihood strategy

Under certain conditions and circumstances, migration can be used as a livelihood or coping strategy that has the potential to greatly reduce the exposure and vulnerability of families and communities. Making mobility an option for these vulnerable households gives them an opportunity to multiply and diversify their incomes, secure resources in the face of hazards and generally enhance their resilience. Effectively managing migration can therefore prevent subsequent, larger and more permanent movements.

Actions

- Protect traditional, mobility-based strategies by ensuring the safety and freedom of circulation of mobile communities and freeing their migration routes from material and political obstacles. *Example: Kenya*.
- Promote labour migration schemes to prevent the loss of livelihood associated with environmental degradation and natural hazards by facilitating institutional arrangements, transportation and access to labour markets. *Example: Colombia*.
- Enhance and protect the livelihoods of migrants in their community of destination (e.g. through the provision of technical assistance, financing, tools and other assets, and insurance schemes). (See thematic brief 16.)
- Maximize the impact of diasporas on the well-being of migrant-sending societies, by mobilizing remittances to improve living conditions in the source community, for example, by enhancing health care, education and income opportunities. (See thematic brief 19.)
- Implement, whenever possible, policies for the return of qualified nationals and facilitate the dissemination of know-how acquired by mobile individuals, in order to enhance human capital in the community of origin. *Example: Colombia*.
- Facilitate leveraging diaspora resources during and in the aftermath of crises, to allow for better relief and recovery.
- Promote research on migration patterns, in order to better understand the complexity of its implications on the levels of disaster risk in the community of origin. *Example: Tajikistan*.

CASE STUDY 4: Labour migration in Tajikistan (IOM, 2012c)

In recent years, the population of Tajikistan has been experiencing some negative consequences of environmental degradation: droughts and floods, salinization, erosion and depletion of local water resources. In addition, warm winters have led to the spread of agricultural pests and inadequate irrigation, and the lack of new resources for land cultivation is threatening agricultural productivity. Rapid demographic growth and the unsustainable exploitation of ecosystems are adding further pressure on rural populations.

The IOM experience shows a higher-than-average rate of migration in districts affected by natural hazards and environmental degradation. The mobility observed also takes different forms, from short-term, cyclical labour migration, to permanent resettlement, which often coexist at the household level and even during the lifetime of a single individual. Labour migration is a very well-established phenomenon in Tajikistan, which, during the last decades has created an immense social network for migrant families, and in areas affected by natural hazards over 80 per cent of families participate in this kind of movement.

Distinguishing the drivers of mobility in Tajikistan is almost impossible, but environmental factors definitely play a role in a household's decision to move. Most families send out young men for periods of 3 to 10 months before returning home for the winter. Those who can raise enough money send family members to Russia; otherwise, migration is directed to cities in the region. In both cases, migrants mostly engage in low-skilled manual labour – for example, in construction, mining, industry and agriculture. Unmarried migrants tend to stay in the host community for longer periods.

There also exist examples of livelihood and coping strategies based on rural-to-rural mobility. Some migrants from areas exposed to environmental hazards and degradation move to nearby regions to engage in primary sector activities (e.g. apricot-drying and livestock pasture). Others lease productive land in other regions, thereby diversifying risk to agricultural production. Risk considerations often lead more affluent households to settle in urban areas.

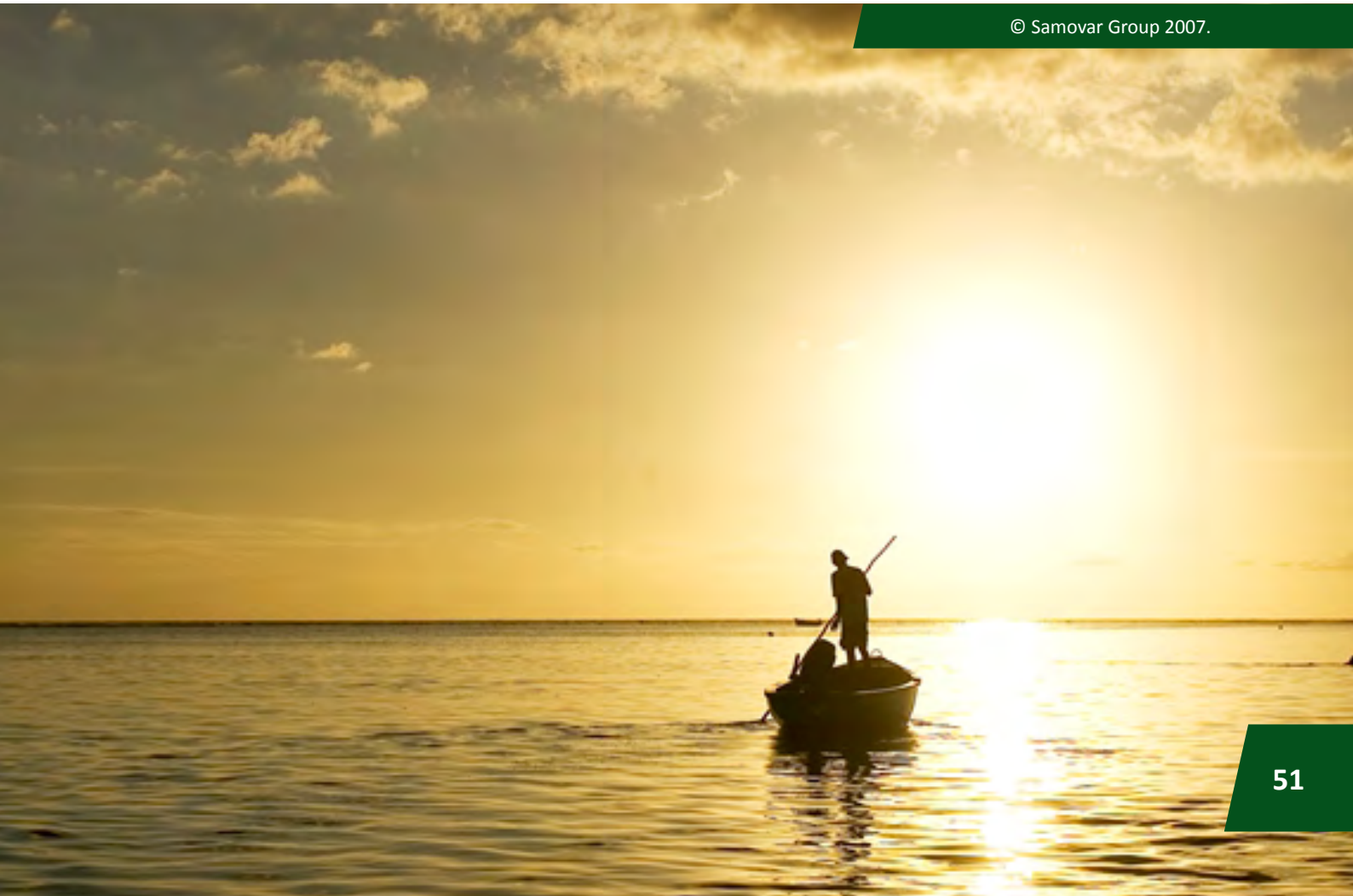
Secondary migration is experienced by some households who have previously resettled due to environmental factors. Economic factors and the lack of participation in decision-making processes often cause the spontaneous return of resettled households to their communities of origin.

ISSUE 1: Small island developing States

"Small island developing States" (SIDS) were first identified during the Rio Earth Summit in 1992 as a distinct group of countries that share unique development challenges. Today, these countries host a total estimated population of 50 million people, disproportionately concentrated in coastal areas, and are facing rapid population growth, which increases pressure on an already-overexploited and narrow resource base. Small island States tend to have small economies that are highly dependent on foreign resources, with limited prospects for economic growth due to the high costs of infrastructure, communication and transportation associated with their isolation.

Around 90 per cent of SIDS lie in tropical areas, exposed to seasonal weather extremes and susceptible to the variability of atmospheric and oceanic circulation. Over the last decades, climate change has been driving the increase in the frequency and intensity of natural hazards and eroding the natural resource base, upon which local agriculture, fisheries and tourism rely. Along with recent global economic crises, this has greatly increased the vulnerability of SIDS.

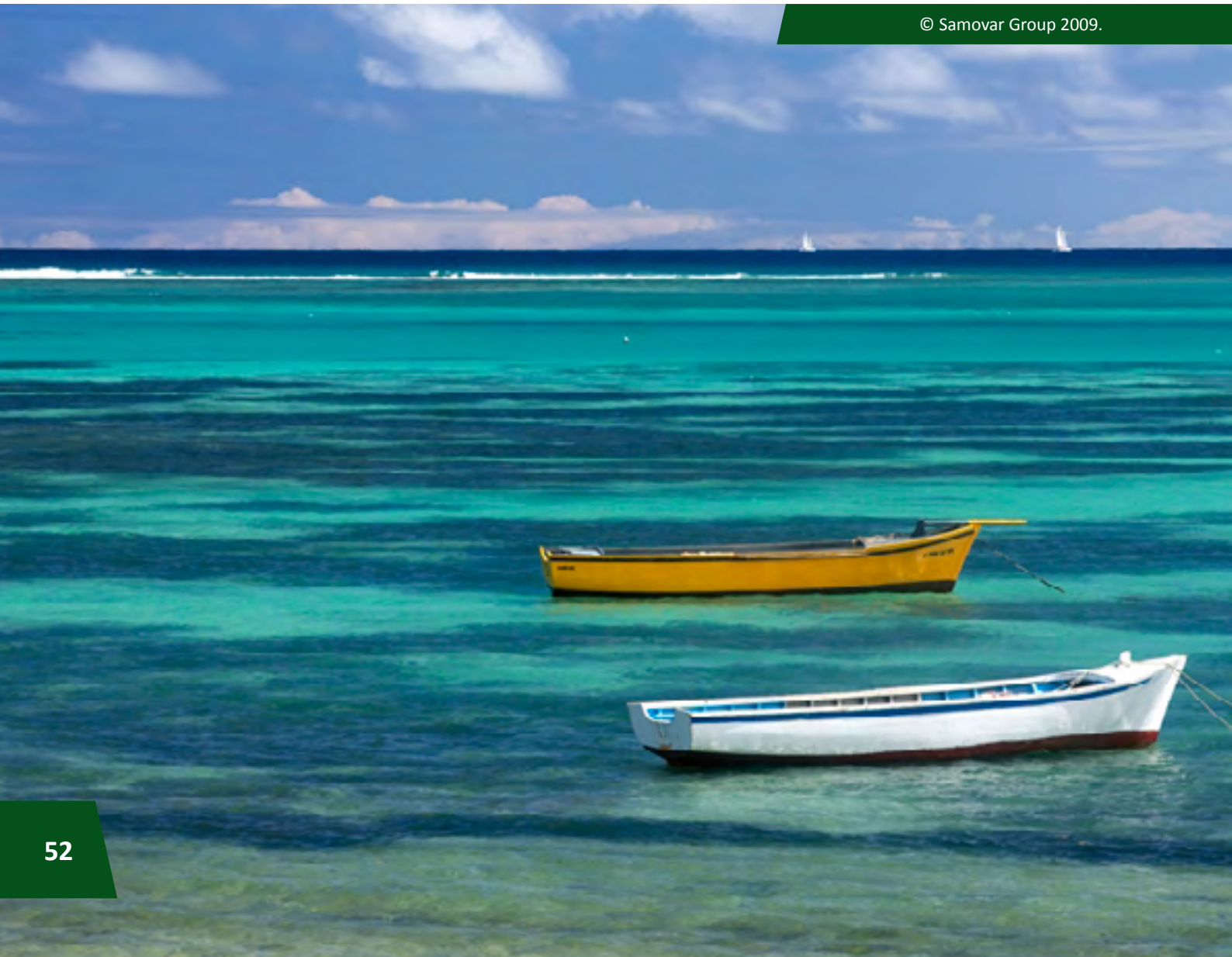
Island people have a long tradition of migration. Polynesian culture is common to islands throughout the Southern Pacific and extensive familial networks link islanders in the Caribbean and the Pacific with North America, Australasia and Europe. This has allowed for the diversification of exposure and income opportunities at the household level and the enhancement of community development and recovery through remittances and foreign assistance. Nonetheless, the utilization of coping strategies based on mobility in the face of natural hazards can be problematic, due to the small size of affected populations and the remoteness of their communities or origin, which increase the risk of these populations of becoming trapped in unsafe areas. Small island nations have relatively small populations which tend to concentrates in few settlements. Disasters, therefore, have the potential to affect disproportionate shares of the national community. This poses specific challenges when managing emergencies, especially because the capacity of local civil defence institutions is usually limited.

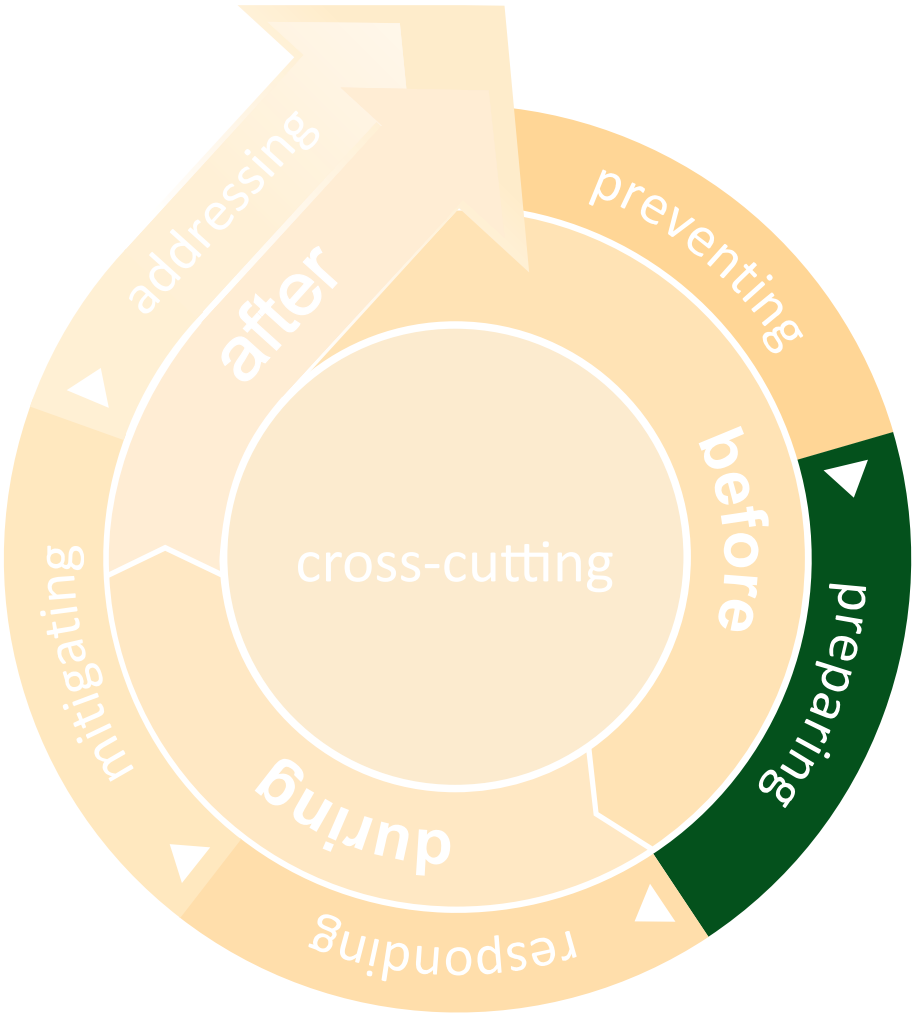


Environmental change impacts are particularly acute in SIDS: sea-level rise results in the loss of land, erosion, salinization and increased coastal hazard risks; and the acidification and warming of oceans are degrading coral reefs, leading to a loss of biodiversity and the depletion of hazard buffers. All small island States will suffer losses from damages to assets and activities located in coastal areas, and the most vulnerable are those whose territories are entirely low-lying, such as Kiribati, Tuvalu and the Maldives.

As local resources are scarce and rarely protected from the main risk factors, relocation (both internal and across national borders) is often considered a risk reduction option for many SIDS (see Thematic brief #2) despite posing serious challenges to the livelihoods, land tenure, legal statuses and rights of the affected populations. In future sea-level rise scenarios, though, it is possible that low-lying island States could completely disappear, making international migration inevitable. Identifying responsibilities for such movements and providing settlement and assistance to stateless migrants would pose unprecedented legal, ethical and political issues.

Successful risk reduction and adaptation practices are growing increasingly essential for small island States. International collaborations have been promoted through the Barbados Programme of Action and, more recently, through the Mauritius Strategy of Implementation, which identifies 19 priority areas of development interventions (e.g. waste management, water and energy, tourism and institutional capacity-building). In order to overcome financial constraints, SIDS are calling for the pooling of resources and capacities and are looking to obtain privileged access to GEF resources (which has been proposed in the Rio Summit outcome document).





PREPARING

LIST OF CASE STUDIES

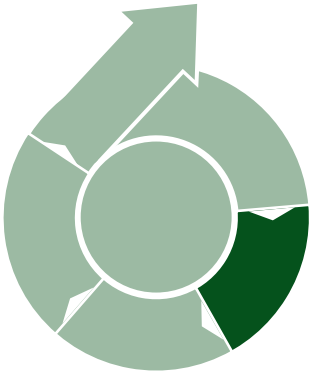
PREPARING COMMUNITIES FOR POSSIBLE DISPLACEMENT

Preparing institutions and communities for possible displacement necessitated by disaster is an essential part of disaster risk management (DRM) efforts. In prepared societies, ordered evacuations are an effective strategy for protecting the lives and health of individuals and to ensure that their essential needs are met after a disaster. A prepared society recovers more quickly from the disruptive effects of natural hazards, allowing its members to avoid the deprivation and suffering linked with protracted displacement.

In order to adequately prepare for forced migration countries should focus on:

1. Enhancing capacities for risk management at all levels through institutional capacity-building and community-based disaster risk management (CBDRM) (see thematic briefs 4, 5 and 6);
2. Clearly distributing responsibilities across institutional levels and actors (see thematic briefs 5 and 6);
3. Making sure decisions and activities at all levels are coordinated (see thematic brief 6);
4. Producing and distributing timely information on hazards and life-saving actions through early-warning/early-action (EWEA) systems (see thematic brief 7).

Thematic Brief 4: Preparing societies for disasters and potential displacement – community-based disaster risk management



Before and during disasters and crises, mobility may be considered as an effective survival option that allows people to flee to safer places, far from hazard-affected areas and where basic needs (e.g. shelter, water and food supply) are available and accessible. People who lack the capacity to move in the face of hazards and man-made crises (i.e. trapped populations) are therefore among the most vulnerable. Adequate preparedness is essential to ensuring that mobility can be tapped as a viable life-saving strategy for all the people at risk and that these people only remain mobile the minimum time necessary for a swift recovery.

Actions

- Involve community members in hazard and vulnerability assessment and mapping exercises, in order to better expose local risk conditions and capacities. *Example: the Philippines*.
- Build on existing indigenous knowledge, embedded in local cultures and lifestyles (e.g. language, customary land use practices and pre- and post-event behaviours), to define a set of disaster management actions that is better understood and trusted by target communities.
- Ensure that everybody in the target community is prepared and mobile, by identifying those who might not receive or understand warnings and targeting them with awareness-raising and education measures and by supporting those who might be unable or unwilling to move (e.g. due to physical status, gender and cultural or ethnic discrimination).
- Make use of existing local capacities in order to make communities at risk as autonomous as possible before and during disasters.
- Integrate technical and community-based approaches to empower individuals, better identify risks and increase preparedness at the community level (e.g. through community-based mapping exercises). *Example: Indonesia*.

CASE STUDY 5: Community-based disaster risk management in Indonesia

The community-based disaster risk management initiative of IOM in Indonesia was aimed at creating the conditions for protecting and sustaining livelihoods once the IOM projects are completed. In addition, it aimed at demonstrating viable and low-cost approaches to DRR programming.

The programme consisted of a series of training sessions addressing risk reduction at the household and community levels. Beneficiaries were instructed on DRR principles; housing and environment from a DRR perspective (including safe construction techniques, domestic risks and preparedness measures); disaster risk reduction and preparedness of affected households; and basic response, evacuation and first aid measures.

In addition, the programme allowed for the establishment of the community DRR teams, village contingency plans and standard operating procedures and included disaster response simulations to provide a chance to test the contingency plans and measure the level of preparedness that the community had achieved.

The simulation involved a range of local stakeholders, including the newly established community DRR teams, the local branch of the Indonesian Red Cross (PMI, or Palang Merah Indonesia), the Social Department, the subdistrict Security and Community Protection Forum (Muspika), local health centres (*puskesmas*), heads of villages and other institutions. The community DRR teams led the simulation, which included early-warning activities, evacuation, administration of first aid, logistics, public kitchen mobilization, security and information management. A public debriefing session allowed for the definition of a set of measures the community DRR teams should implement to better prepare for disasters.

Thematic Brief 5: Building the capacity of institutions to manage disasters and displacement

While displacement is often a consequence of disasters and conflicts, effective institutional preparedness can go a long way in protecting people at risk, mitigating the impacts they suffer from hazards and reducing the need for, and the duration and consequences of, forced migration.

As the Camp Coordination and Camp Management (CCCM) Global Cluster Lead in natural disasters, IOM is committed to building the capacities of national and international authorities to anticipate, and respond to, disruptive events, by preventing displacement and, when it occurs, by addressing the needs of the people living in temporary settlements and relocation sites.

Actions

- Tailor capacity-building interventions to make use of the human, technical and financial resources already existing in the country, by conducting explorative capacity assessments. *Example: Pakistan*.
- Build in-country capacity at all levels by strengthening national and subnational risk management agencies, to allow them to better fulfil their mandate and contribute to DRR goals. *Examples: Indonesia and Namibia*.
- Integrate relevant political and administrative institutions not directly involved in disasters into disaster management frameworks, by mainstreaming risk reduction and preparedness considerations. *Example: Indonesia*.
- Foster ownership of preparedness and CCCM programs by involving representatives of national institutions in active roles (e.g. through "Training of Trainers" programmes). *Example: Pakistan*.
- Establish systems to monitor the movements and needs of the displaced population following a disruptive event, in order to allow for a more effective response (e.g. the Displacement Tracking Matrix system). *Example: the Philippines* (see also thematic brief 7).
- Plan for evacuations to last only the minimum time required for life-saving assistance, in order to allow affected people to regain access to their houses, communities and livelihoods, and to avoid impoverishment, deprivation and secondary displacement. *Example: the Philippines*.

CASE STUDY 6: Capacity-building of national authorities to manage displacement

The capacity-building efforts of IOM in the area of camp coordination and camp management contribute to the expansion of information management, coordination and operative capacities of governments, OCHA, CCCM partners and other humanitarian actors.

Following targeted engagement by IOM, the UN High Commissioner for Refugees (UNHCR) and the Norwegian Refugee Council, a grant was issued by the Humanitarian Aid and Civil Protection Department of the European Commission for 2012–2013 to enhance the capacity of the CCCM Cluster. Currently, IOM is implementing its project components, focusing primarily on building the capacity of national authorities and chairing the Steering Committee of civil protection members to develop guidance on displacement and evacuation during natural disasters. In 2012 alone, CCCM trainings were extended to over 3,400 humanitarian counterparts, community members, national authorities and IOM staff members in 10 countries (specifically, Pakistan, the Philippines, Haiti, Colombia, Namibia, Nigeria, Nicaragua, Guatemala, Thailand and the Dominican Republic). IOM works closely with national authorities and has adapted its modus operandi in situations where government institutions are taking a lead role. In **Colombia**, for example, the national Government has endorsed the CCCM methodology and tools and has allocated USD 9.8 million to expand the CCCM capacity-building programme of IOM countrywide.

In **the Philippines**, one of the most disaster-prone countries in the world, training of national authorities, in coordination with the Department of Social Welfare and Development (DSWD), has been a key aspect of the Organization's activities in the country. Following the 2011 north Mindanao floods, IOM hired and trained full-time camp managers to be deployed in all existing collective centres. In the aftermath of the Manila flooding in August 2012, IOM conducted temporary settlement management and Displacement Tracking Matrix (DTM) trainings with DSWD camp managers in the areas most heavily affected. Around 300 local government officials from the municipal and *barangay* (community) levels were trained in camp coordination and camp management after Typhoon Bopha; they will conduct further trainings at the regional and provincial levels in affected areas. In January and February 2013, IOM held workshops for 43 DSWD senior management staff from the national headquarters and from the offices in the most disaster-prone regions.

In 2011, with the support of the Namibian Red Cross Society, IOM trained officials of the Government of the Republic of **Namibia**. Temporary settlement management is now an integral part of institutional DRM initiatives and has been identified as one key area in the new National Disaster Risk Management Plan.

Thematic Brief 6: Bridging the response mechanisms of communities and institutions

Building the preparedness of grassroots actors allows for a rapid and autonomous response by affected communities. However, crises often overwhelm the coping capacity of small groups of individuals. Making sure that coordination mechanisms are in place, which allow for the scaling up of responses by calling on wider institutional systems that can mobilize more resources, helps protect and assist victims, mitigate losses, avoid massive displacement and accelerate recovery.

Actions

- Clearly identify roles and responsibilities, to ascertain and address weak spots and bottlenecks in the institutional arrangements and allow for more effective action.
- Foster a culture of risk awareness in the affected community through training and education and by encouraging institutional commitment to learning. (See thematic briefs 4 and 5)
- Allow communities to actively participate in local disaster management and preparedness planning and implementation. *Example: Indonesia*.
- Build the capacities (e.g. through drills and simulations) of civil protection agencies, people at risk and institutions at all the levels of the disaster management chain, to make sure they know how to respond in times of disaster.[9] (See thematic brief 8)
- Engage communities at risk in training in managing displacement (e.g. on displacement site selection and organization of access to essential support), so that they are prepared to respond even before an institutional presence has been established. (See thematic brief 5)
- Promote communication systems and infrastructure that allow for disaster coordination, in order to establish channels that are more likely to be trusted by target communities and have a bigger impact in preventing and mitigating disasters. (See thematic brief 7)

[9] Guidelines for collective centre management and coordination are available for download from http://sheltercentre.org/library/Collective%20Centre%20Guidelines.

CASE STUDY 7: Multiple levels of disaster risk management in the Federated States of Micronesia and the Republic of the Marshall Islands

In the small island developing States (SIDS) of the Federated States of Micronesia and the Republic of the Marshall Islands, efforts to reduce disaster risk have to take into account a wide series of natural hazards, as well as the effects of environmental change. The United States Agency for International Development (USAID) is responsible for disaster mitigation, humanitarian relief and reconstruction activities, and IOM is active as an operational partner for the actual implementation of institutional DRM activities in these two countries.

At the same time, IOM works with civil society organizations at the municipal and local levels in the six main population centres (i.e. Majuro, Ebeye, Kosrae, Pohnpei, Chuuk and Yap) to increase their disaster response capacity and coordination mechanisms. The Organization also assists local organizations in conducting hazard, vulnerability and capacity assessments and in compiling multi-hazard DRM plans that are linked to state-level plans.

In order to further support government efforts in the implementation of the climate change agreement and DRR national policies and strategies, IOM is targeting approximately 10,000 school-age students in 50 schools with the Climate Adaptation and Disaster Risk Reduction and Education (CADRE) Programme. CADRE aims to support the adaptation and preparedness strategies of schools and communities that are vulnerable to climate change and natural hazards, and at empowering them to independently cope with and respond to natural disasters.

CASE STUDY 8: Planning evacuations sites in Nepal

It is estimated that up to 900,000 people will be displaced by a major earthquake in the densely populated and highly vulnerable Kathmandu Valley alone. Disaster risk in the country is driven by poverty, illiteracy, rapid population growth and unplanned urbanization. Being prepared for population movements in the aftermath of natural disasters is therefore an absolute priority for the Government and other emergency actors.

IOM has been supporting local institutions in providing assistance to the victims of natural disasters ever since the 2008 Koshi floods. Aware of the challenges posed by seismic risk, the Organization is now committed to enhancing local preparedness for earthquakes and has helped drafting emergency and response plans for the municipalities of Kathmandu, Lalitpur, Kirtipur and Madhyapur.

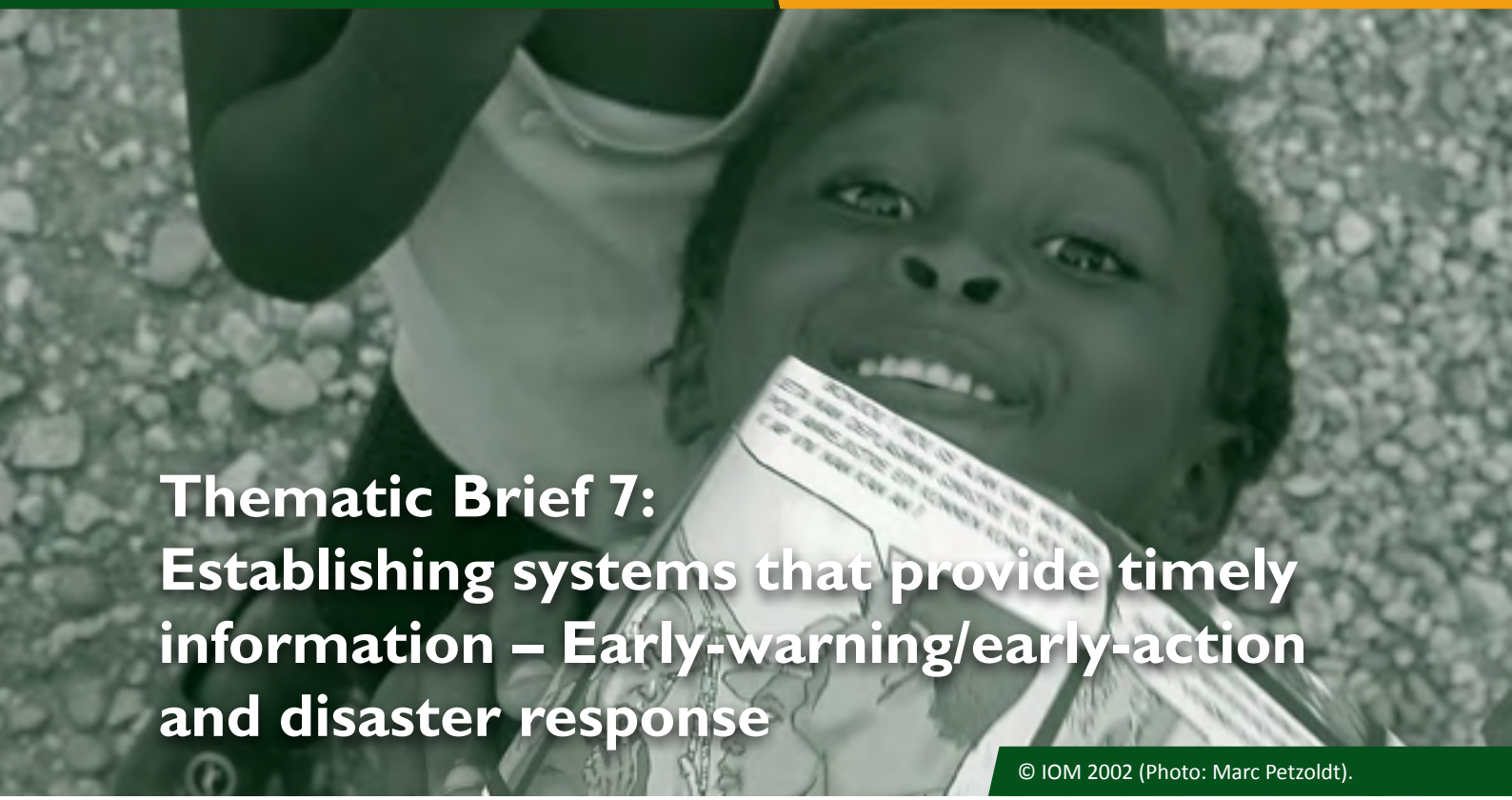
IOM has identified and prioritized 83 open spaces in Kathmandu Valley that can be used for humanitarian purposes following a disaster. These sites have been endorsed by the Ministry of Home Affairs (MoHA) and now enjoy specific protection from further encroachment. The Organization is also coordinating with State and non-State humanitarian actors in defining the functions and purposes of each of these sites. For large and medium IDP sites, IOM has prepared detailed plans to ensure that space is effectively used, based on a series of workshops and on the work on a common mapping platform performed by all stakeholders in collaboration with the MoHA. Maps with logistic and planning information of each identified site can then be used by all humanitarian stakeholders to plan for a more effective emergency response.

CASE STUDY 9: Emergency operation centres in Indonesia

In order to strengthen disaster preparedness and response capacities and coordination, IOM is supporting the establishment of an emergency operation centre (EOC) in each of two provinces in eastern Indonesia. Within Indonesia's disaster management framework, EOCs serve as permanent support facilities that focus on emergency operation management, making use of modern information and communication systems, as well as specific standardized procedures and working mechanisms. At the provincial level, an EOC acts as an information and coordination hub that assists the Commander of Operations in the coordination, command and control of operations before, during and after an emergency.

Each EOC structure is designed to be earthquake-resistant and completely autonomous in terms of electricity (i.e. it has its own power generator) and water supply (i.e. it has an independent well and water tank on the roof). The buildings are equipped with up-to-date information and communications technology systems (in the form of computers, radio, telephones, Internet and satellite phones), which are used to maintain an efficient and reliable network of partners and experts, even in crisis situations. The EOCs are operated by trained Government staff and local partners.

In each of the provinces, IOM is also developing a disaster management information system that is integrated with national systems and harmonized with reporting standards, as well as an operational platform, composed of both State and non-State actors, with a strong disaster coordination and response preparedness capacity.



Thematic Brief 7: Establishing systems that provide timely information – Early-warning/early-action and disaster response

Timely and accurate information on hazards, exposure and vulnerability is essential for institutions to plan for disasters and roll out an efficient response, and allows individuals to react properly to dangerous events. Communication and information management systems that take into account the capacities of local institutions and communities, and which allow coordination between the affected population and concerned authorities, enable better risk identification and more efficient responses.

Actions

- Establish scientifically sound systems to monitor foreseeable hazards (e.g. storms and droughts) and gather and analyse data on exposure and vulnerability.
- Establish the use of tools that contribute to the gathering of timely and accurate information on population displacement during crises in preparedness mechanisms and disaster management training programs (e.g. by using the Displacement Tracking Matrix). (See thematic brief 9)
- Use hazard and risk (including risk of displacement) data to inform EWEA systems.
- Incorporate communication systems into EWEA systems that are able to convey hazard warnings to the most isolated communities and individuals (e.g. by using multiple channels such as mobile phones, television, radio and sirens). *Example: Haiti*.
- Make sure people are aware of the risk they face and how they should react to warnings, and that everybody is able to understand alerts and take action as expected, by considering possible hindering factors (e.g. linguistic and cultural barriers; obstacles to mobility linked to physical status and social roles; and the lack of trust). *Example: Pakistan*. (See also thematic brief 4)
- Establish two-way communication and information systems that allow communities to communicate with authorities in charge of risk reduction and disaster management, in order to expose existing needs and gaps and to allow for better institutional response and support. *Examples: Haiti and Pakistan*.

CASE STUDY 10:Two-way communication in Haiti[10]

In Haiti – a country exposed to a multitude of different hazards – communication is hindered by language and education barriers. Some 50 per cent of the population is illiterate, and Creole is the language most commonly spoken, which makes much of the available information on hazards and risk – published in either French or English – inaccessible to much of the population.

In order to overcome these challenges, IOM developed a comprehensive two-way communication strategy, based on a set of different media, which greatly expands the number of Haitians who can access information before, during and after a disaster (e.g. awareness campaigns, alerts and warnings), and who can reach out to risk reduction and emergency management institutions.

Radios broadcast locally produced educational programs in Creole on public transportation networks; and videos and comic strips in Creole target low-literacy individuals with information on preparedness and hazard mitigation measures and procedures. In addition, SMS transmission campaigns, public service messages, community suggestion boxes and a dedicated call centre allow for information on the population's concrete situation to feed back to the authorities. The system is complemented by opportunities for one-to-one communication between individuals and disaster management workers at the field level.

CASE STUDY 11:The Humanitarian Communications Project in Pakistan[11]

The Humanitarian Communications (HComms) Project of IOM supports the humanitarian community and the Government of Pakistan by providing timely, accurate and relevant information to affected populations and highlighting the gaps and needs of aid providers. The HComms Project has designed and implemented numerous disaster information campaigns for flood-affected and conflict-stricken populations across the country. It has managed to fill the knowledge gap during emergencies, by collecting and sharing information with government departments (e.g. the National Disaster Management Authority and the Provincial Disaster Management Authority) and UN agencies (e.g. OCHA, WHO, UNICEF and the UN High Commissioner for Refugees).

The HComms Project provides real-time, two-way communications to and from the field, enabling governmental and humanitarian actors to better target their activities and receive accurate feedback from affected communities. In collaboration with technical experts, information specialists from IOM issue and translate public service messages that are then disseminated through formal (e.g. radio and TV broadcasts, newspapers, leaflets and banners) and informal (e.g. awareness sessions for community leaders and spontaneous information circulation, such as word of mouth) channels. The project also produces guidance documents on thematic topics and/or concerns raised by affected populations and updates its humanitarian service directory on a regular basis. The dedicated, toll-free "Humanitarian Call Centre," dozens of field staff deployed countrywide and a human network of volunteers ensure that feedback from the field reaches the concerned parties as quickly as possible and allows for an effective communication cycle.

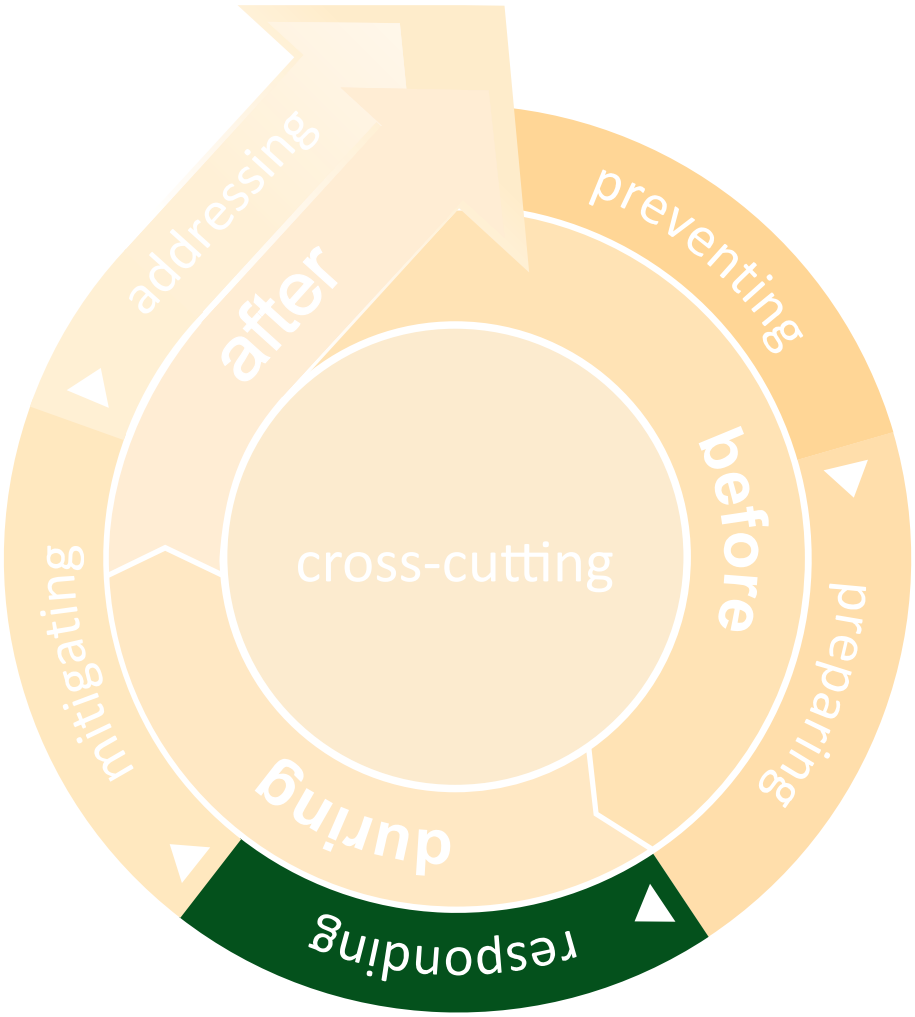
[11] For more information about the HComms Project in Pakistan, visit http://hcomms.iomapps.org.

ISSUE 2: Participatory processes

IOM considers participation as a key element of every stage of its DRR programming and operative intervention. By involving a multitude of stakeholders throughout the migration management cycle, participatory approaches allow for more informed decision-making and more efficient implementation of projects. They also allow for better protection of the weakest, less represented individuals and for the design and implementation of more equitable interventions. They enhance the beneficiaries' ownership of activities and foster collaboration and trust among community members, institutions and external actors.

Participation has a specific relevance in risk identification and risk management processes at the local level, as it can contribute in revealing small-scale exposure and vulnerability patterns, and in designing risk reduction measures and systems that give adequate consideration to the situational specificities of individuals and households. Similarly, when managing displacement, tailoring protection interventions according to the actual needs of affected populations is essential, and this is best achieved when beneficiaries are adequately consulted.

Participatory approaches can help design durable solutions to displacement situations, by allowing for a better understanding of the priorities and expectations of the displaced. In addition, such approaches can contribute to reducing conflicts between mobile people and their host communities in displacement, relocation, local integration and return contexts. Participation can help inform both groups on how to minimize risks and take advantage of opportunities stemming from mobility, and can help authorities to better enforce land use planning and development measures. By improving participation in decision-making processes, IOM tries to improve access to representation and raise the quality of local governance in the longer term, *ipso facto* tackling one very significant driver of disaster risk.



RESPONDING

LIST OF CASE STUDIES

MANAGING DISASTER RISK THROUGH MOBILITY AND MANAGING MOBILITY INDUCED BY DISASTERS

In times of disasters, mobility is often the only safe option open to victims. At the same time, displacement as an extreme form of mobility is often a major driver of vulnerability. It tends to reduce access to assets and services for people who are alien to the environment they are moving through or settling in.

Displaced people are generally disempowered and have a limited range of survival and livelihood options. Humanitarian assistance and protection are therefore needed to make sure people continue to be able to meet their basic needs. At the same time, post-disaster relief and recovery often represent a valuable window of opportunity for risk reduction measures, as institutions, the media and the general public are acutely aware of the urgency of addressing existing hazards, vulnerability and risk.

In the face of disasters, countries should therefore focus on the following:

1. Rolling out orderly evacuations to reduce the impact of disruptive events (see thematic brief 8);
2. Supporting mobile populations, addressing urgent humanitarian needs, ensuring effective protection and ensuring that movements only last a minimum period of time (see thematic briefs 9 and 10);
3. Integrating long-term risk reduction considerations from the earliest stages of the emergency response (see thematic brief 11).

Thematic Brief 8: Managing mass evacuations to reduce the impacts of disasters

Organized population movements can be an integral part of institutional DRM efforts. Responses to events for which forecasts are possible (such as cyclones and storms, droughts and, to a certain extent, volcanic eruptions and tsunamis) usually include evacuations to temporary settlements, which are extremely effective in preventing human losses to hazards, as they minimize the exposure of the affected population.

Planning for adequate evacuation sites is also essential for communities exposed to non-foreseeable hazards (such as earthquakes), as it allows the immediate needs of the affected population to be addressed in the aftermath of an event.

The way in which people are evacuated greatly impacts how they can be assisted afterward. As part of the technical expertise and tools required by governments of disaster-prone countries, IOM, in collaboration with UNHCR, OCHA, the Internal Displacement Monitoring Centre (IDMC) and different civil protection authorities, is currently compiling guidelines for preparing for and conducting evacuations in disaster situations.

Actions

- Plan evacuations in advance, identifying potentially affected areas, escape routes, means of transportation and evacuation sites. *Example: Indonesia*.
- Move the population at risk to a site that is safe, adequately equipped and sufficiently accessible to actors providing life-saving goods and services.[12] *Example: Nepal*. (See also thematic briefs 4 and 6)
- Make sure evacuations rely on transportation systems that are adequate, safe and resilient (e.g. those that rely on multiple, alternative routes and means, are hazard-resistant and avoid bottlenecks).
- Make evacuations work for all by taking into account individual obstacles to mobility based on physical status (e.g. young and old age, sickness, injuries and handicaps), social roles (e.g. family caretakers, especially mothers, who might stay behind to protect weaker household members), cultural features (e.g. different language or different understanding of risk) and availability of material and financial resources (e.g. ownership of a car or some other equipment that allows mobility). *Example: Haiti*.
- Ensure that evacuations take place in an orderly manner, in order to allow for more effective assistance and protection to the mobile population.

[12] Guidelines for collective centre management and coordination are available for download from http://www.iom.int/cms/drr.

CASE STUDY 12: Evacuating at-risk populations in Haiti

In October 2012, when Hurricane Sandy hit Haiti with heavy rains, an estimated 370,000 people displaced by the 2010 earthquake were still living in the 541 remaining IDP settlements; many more were in informal settlements and unprotected locations. With the storm approaching, IOM decided to conduct sensitization campaigns in 176 settlements and deployed operative teams to prepare the most vulnerable individuals for the storm, including for a potential evacuation.

When the storm struck Port-au-Prince, IOM directly moved 1,250 vulnerable people from 12 of the most at-risk settlements to six shelters in other parts of the city. Exposure to hazards (particularly, floods) and vulnerability profiles had been assessed beforehand, which led to the identification of 343 individuals with specific health and protection needs (which included pregnant and lactating mothers, children under five, elderly persons and mobility-impaired individuals). IOM staff assisted the evacuated individuals both at the sites of origin and at the sites of destination.

The intervention was supported by the Department for Civil Protection of the Haitian Government, the Haitian Red Cross, the Ministry of Social Affairs and the National Water and Sanitation Authority, with food assistance provided by the UN World Food Programme.

CASE STUDY 13: Emergency transportation for Somalis entering Kenya

In August 2011, at the peak of the Horn of Africa humanitarian crisis, Somalis were fleeing their country to seek assistance in the settlements across the Kenyan border.

In order to enhance the timeliness and effectiveness of protection and assistance provided to the displaced, IOM established an organized transportation system to the Liboi Reception Centre. Partners on the ground referred the most urgent cases to IOM, allowing priority to be given to especially vulnerable individuals escaping on foot along the route (e.g. women, children and the elderly).

Mobile populations were supported during the travel and, upon clearance by Kenyan Government authorities, received immediate medical screening and care. They were then transported on the 90-kilometre journey to the Dadaab settlements, where they received further assistance. The project contributed significantly to reducing the mortality rates among people on the move and newcomers to the displacement sites.

Thematic Brief 9: Tracking displacement during crises

Accurately locating populations in need of assistance and protection – especially those that are highly mobile – is essential in the response to humanitarian crises. In order to address this challenge, IOM developed the Displacement Tracking Matrix (DTM), an information management tool which regularly captures, processes and disseminates complex information to provide a clear understanding of the changing locations, vulnerabilities and needs of populations in crisis situations.

The DTM has a modular approach that makes it adaptable to response and recovery efforts in disaster and conflict settings. It has been deployed and refined in numerous operations over the last decade and is now a standard resource for government agencies and humanitarian actors responding to crises.

Actions

- Adapt the Displacement Tracking Matrix to the specificities of the particular crisis context and of the information needs of the different humanitarian actors.
- Monitor the entire displaced population by covering all accessible sites and drawing on all reliable sources of information, such as NGOs, government authorities and humanitarian actors.
- In coordination with other relevant actors, distribute reports, maps and raw data in the public domain, in order to make them accessible to other clusters and partners, and to better inform their actions and analyses. *Examples: Afghanistan, Haiti, Iraq, Nepal, Pakistan, the Philippines, South Sudan and Sudan*.
- Regularly repeat monitoring exercises to capture the dynamic aspects of displacement and the evolution of a population's needs. *Examples: Democratic Republic of the Congo, Ethiopia, Haiti, Iraq, Mali, Mozambique, Nepal, Pakistan and the Philippines*.
- Use DTM data to enhance assistance and support interventions in the early stages of a crisis, as well as to inform return, integration and relocation choices when planning for recovery. *Examples: Colombia, Democratic Republic of the Congo, Haiti, Iraq, Mali, Mozambique, Nepal, Pakistan, the Philippines, South Sudan and Sudan*.
- Draw on the wealth of detailed information stored in the DTM to identify local risk factors (e.g. presence of vulnerable groups and land and property issues) and better plan future DRR interventions. *Examples: Haiti, Mozambique, Nepal, Pakistan and the Philippines*.

CASE STUDY 14: The Temporary Settlement Support Unit in Pakistan[13]

The Temporary Settlement Support Unit (TSSU) used the Displacement Tracking Matrix (DTM) to map displacement, assess needs and provide coordination support for humanitarian assistance activities following the monsoon floods that affected the provinces Sindh, Punjab and Balochistan in early September 2012. Through the DTM, TSSU was able to capture information on the mobility and needs of affected populations; their displacement and return patterns; and the type of assistance they required from the humanitarian sectors, both in temporary settlements and in areas of return.

In October 2012, TSSU profiled the situation of 32,269 individuals in 201 settlements (the majority of which were spontaneous sites) in flood-affected areas of Sindh Province, identifying their needs by sector (e.g. food, health and shelter). This first phase of the assessment highlighted that many affected families initially identified in the Multi-sectoral Initial Rapid Assessment (MIAR) in September 2012 had already been forced to leave temporary settlements by certain circumstances. Reasons cited for the premature return to areas of origin included the following: concern for assets left behind (including crops for harvesting); insufficient access to humanitarian assistance in camp-like settings; and eviction from temporary settlements.

TSSU conducted six rounds of assessment between September 2011 and February 2012 in 11 severely affected districts (Badin, Sanghar, Mirpurkhas, Umerkot, Dadu, Matiari, Hyderabad, Tando Allah Khan, Tando Muhammad Khan, Shaheed Benazirabad and Tharparkar). Overall, 8,879 temporary settlements were assessed by IOM and its partners, with the initial three assessments covering 83.34 per cent of all temporary settlements visited. These communities faced prolonged displacement, primarily due to the continued presence of standing water in their areas of origin, which hindered access and recovery.

While a consistent trend to return was observed, humanitarian needs in return areas were high, with returnees and host families often facing conditions similar to those faced by internally displaced persons. Around 66 per cent of affected families assessed in temporary settlements and return areas reported serious losses of livelihood and the deterioration of their economic condition, with access to health and education still very limited. To complement its assessment activities, TSSU also conducted capacity-building activities throughout the flood response to train government and humanitarian actors to better manage the displacement of populations.

CASE STUDY 15: Enhancing displacement tracking in Haiti

Haiti's 2010 earthquake resulted in the largest urban displacement ever documented: 1.5 million IDPs at the height of the crisis and 82,000 IDP households remaining in temporary settlements as of March 2013. The DTM was used throughout the emergency phase to manage humanitarian assistance and is now informing longer-term development and recovery programmes.

In order to respond to the challenges posed by such a massive displacement in a dense urban context, the DTM repeated assessments were improved through a combination of innovative technologies (e.g. unmanned aerial vehicles, geographic information systems and low-cost handheld devices for data collection and displacement tracking) and traditional monitoring methods (e.g. field teams). This allowed for better efficiency in the enumeration and identification of displaced people.

The Government of Haiti is now using displacement data to evaluate housing needs and land use planning options and priorities, which led to the establishment of a series of return, reconstruction and public housing projects (e.g. the FAES [Economic and Social Assistance Fund]–Zorange, USAID–Caracol and UCBLP [Housing Construction and Public Buildings Unit]–Morne Cabrit housing projects).

Thematic Brief 10: Assisting affected people in displacement sites

Displacement following disasters often reduces the capacity of affected people to access essential assets and services. People on the move tend to be less self-sufficient in meeting their needs and will often look for external assistance. Depending on their mobility, available assets, social networks and protection, the concrete displacement and assistance options people are presented with vary widely (e.g. temporary accommodation at a relative's place, a dedicated shelter structure in the community of origin and an IDP settlement).

Global and field-level coordination is essential for effectively providing nutrition, water and sanitation, non-food items, shelter and health services to displaced populations. IOM participates in the Emergency Shelter, Logistics, Health, Protection and Early Recovery Clusters, and leads the CCCM Cluster for natural disaster situations, which aims to achieve an effective and efficient coordinated humanitarian response in situations where displaced populations are forced to seek refuge in temporary settlements or camp-like situations.

The cluster system sees camps as a last resort and prefers to address displacements through the promotion of durable solutions. However, humanitarian actors are often required to centralize assistance in formal displacement sites, including camps. The effective management of these displacement sites is essential in avoiding the disastrous consequences of displacement, such as starvation and disease outbreaks, and in allowing for more effective recovery.

Actions

- Track, register and profile displaced populations through the use of monitoring tools (e.g. the Displacement Tracking Matrix), to ensure adequate assistance and identify vulnerable individuals and groups needing specific protection. (See thematic brief 9)
- Provide life-saving services (e.g. food; water, sanitation and hygiene, shelter; health care; psychosocial support; and transport) in a context-sensitive manner.
- Ensure that minimum standards are met in the provision of services, in order to effectively address the displaced population's urgent needs and respect their fundamental rights.

- Address specific protection issues, for example, control violence (particularly, acts of gender-based violence, which are more frequent in displacement sites due to the disruption of social norms and the precariousness of living conditions) through the gender-sensitive planning of facilities, among others; identify and assist unaccompanied children; and promote family reunification activities (e.g. through profiling of displaced individuals).
- Reduce health risks in displacement sites, where crowded and precarious living conditions often allow for the rapid transmission of communicable, including water-borne, diseases (e.g. by arranging for adequate sanitary facilities, as well as targeted health care and health education). (See thematic brief 18)
- Adequately respond to the challenges posed by the density and complexity of urban contexts. *Example: Haiti*. (See also issue 5)
- Engage local and external stakeholders, coordinating their activities to facilitate the provision of services and improve the efficiency of the assistance intervention.
- Make sure that the duration of the displacement lasts only the minimum time necessary for life-saving assistance and ends as soon as a durable solution is available, in order to limit the displacement's impact on both the affected population and on the host community. (See thematic brief 14)

CASE STUDY 16: Camp coordination and camp management in disaster contexts in 2012[14]

As the camp coordination and camp management (CCCM) Cluster Lead in disaster situations, IOM is tasked with ensuring strategic, coordinated and effective humanitarian responses in camps and camp-like settings. Over the last year, it has been active in a number of emergencies all over the world, mobilizing agencies, NGOs and national authorities in response activities.

In **Cambodia**, where flooding from August to December 2011 added to the displacement toll of ongoing conflicts on the Thai border, the CCCM Cluster provided emergency shelter materials and toolkits to 5,800 households in three southern provinces in the Mekong basin.

In **Colombia**, the Cluster partnered with the Government to respond to the needs of those displaced by the 2010–2011 floods (the most severe of the last three decades with over 4 million people affected). The Cluster remained active, assisting the victims of the 2012 floods, as well as supporting preparedness initiatives and building CCCM capacities in the country.

In **El Salvador**, the CCCM Cluster was activated following Storm Ida in 2009 and Storm DT 12-3 in 2011. In the latter emergency, the CCCM Cluster assisted over 56,000 displaced individuals in 630 collective centres. The Cluster has also established partnerships with International Plan, Lutheran World Federation, World Vision and the Coordinator of Salvadoran Women.

As a result of the 2010 Port-au-Prince earthquake, the CCCM Cluster is assisting about 400,000 IDPs in 575 spontaneous and planned sites all over **Haiti**. In addition, it has distributed 1 million tarpaulin sheets in spontaneous sites, built over 110,000 transitional shelters and distributed 17,000 rental subsidies. The CCCM and Emergency Shelter Clusters merged in order to better focus on maintaining decent living conditions for the displaced while creating conditions for durable solutions.

Following the 2011 floods, the CCCM Cluster intervened in **the Philippines**, in partnership with the Department of Social Welfare and Development, in order to respond to the massive displacement. It now continues to coordinate humanitarian assistance to people displaced by the 2011 tropical storm Washi. Currently, 55 camp management committees are collaborating in the management of collective centres. Capacity-building activities are being rolled out at all levels in order to support future humanitarian and preparedness efforts.

In 2011, 65 of **Thailand**'s 77 provinces were affected by floods. The cluster system was informally activated, and the CCCM, Shelter and NFI Clusters convened weekly meetings to share information, identify gaps and coordinate responses. The CCCM Cluster acted as the focal point for vulnerable groups.

[14] For more information about the CCCM Cluster, visit http://www.globalcccmcluster.org/.

Thematic Brief 11: Building disaster risk reduction into emergency response and early recovery

Activities performed during the early phases of a crisis response, both in the displacement site and in the area of origin, have long-term effects that can contribute to reproducing (or even increasing) disaster risk conditions. By taking into consideration long-term disaster trends and environmental change from the very early stages of humanitarian interventions, it is possible to maximize the positive effect of reconstruction and recovery on the resilience of the affected population. Increasing emphasis is therefore being placed throughout the humanitarian system on preparing for a relief and early-recovery phase that accelerates the transition to recovery and rehabilitation and allows for the creation of a safer community in the long term.

Actions

- Make sure to use the attention dedicated to the disaster by institutions, the media and the general public to promote awareness of vulnerability and risk reduction needs, gaps and opportunities, including among mobile and displaced populations.
- Make sure displacement sites are safe, by identifying and mapping hazard exposure, and that emergency shelters are hazard-resistant, in order to minimize further disaster risk during the emergency and reconstruction phases. *Examples: Timor-Leste and Haiti*.
- Exploit, to the extent possible, the potential for local economic development of relief and reconstruction operations through local procurement of workforce and materials, which can stimulate rehabilitation and diversification of local income opportunities. *Example: Indonesia*.
- Avoid the negative effects of emergency activities on local livelihoods and ecosystems, by protecting and enhancing existing assets and resources, which can also help relieve the tensions within and among communities, especially in complex situations. (See thematic brief 12)
- Pursue shared, long-term well-being objectives – in order to foster trust between the community, local institutions and humanitarian actors – which can facilitate further interventions to achieve longer-term development goals.

CASE STUDY 17:The One-room Shelter Programme in Pakistan

In order to address the displacement resulting from the 2010 and 2011 floods in Pakistan, IOM targeted 60,900 of the most vulnerable households among the affected population through the One-room Shelter Programme, in line with the strategy developed by the Shelter Cluster and endorsed by the National Disaster Management Authority.

IOM prioritized its intervention by identifying the most severely affected districts and, particularly, those villages and households whose coping strategies had been exhausted. The identification of vulnerable households was made by newly established village committees, in order to allow for transparent and community-participated decisions. The main criteria for classifying a household as vulnerable, aside from having its shelter fully or severely damaged by floods, were the following conditions: 1) lack of an adult male member, 2) having elderly, disabled or chronically ill members, 3) very large size or low income and 4) lack of livestock property.

Support was provided jointly to groups with a maximum of 25 beneficiaries each, as represented by a community focal point (who managed the distribution of conditional cash transfers to the beneficiary households following the achievement of specific construction milestones). All beneficiaries were registered with the commitment to reconstruct their own shelters under IOM technical guidance and manage the funds they received. This system provided a positive social pressure on, and served as a form of regulation of, the beneficiaries, ensuring that available resources were pooled for an efficient recovery process. Cash transfers to beneficiary households allowed for the customization of reconstructed buildings and supported local income-generating activities and markets. By prioritizing self-reconstruction and targeting support to some of the most vulnerable households, IOM allowed communities to grow more resilient. This is fundamental to reducing vulnerability to recurrent floods and helping affected households avoid further impoverishment and loss of assets, providing the basis for a safer and more sustainable community in the long term.

ISSUE 3: Cross-border movements

Most displacement following natural disasters and environmental change takes place within national borders. Cross-border displacement induced by natural disasters has thus far been registered only episodically, and in most – not all – cases, neighbouring States have opened their borders on humanitarian grounds. Cross-border movements, however, pose certain protection and assistance questions and therefore require consideration from a humanitarian and development point of view and, in particular, from a DRR perspective.

A decade-long debate at the academic, political and operational levels has focused on identifying definitions and a legal status applicable to those forced to cross a border because of a natural disaster or environmental change. Understanding of the issue is now progressing under the Nansen Initiative, a consultative process launched in October 2012 to build consensus among States about how best to address disaster-induced, cross-border displacement. IOM is taking part in this process upon the request of its Member States.

There have already been a number of instances where people displaced by environmental factors have been allowed to cross borders to seek shelter and health care. At the same time, States have provided temporary protection to foreign nationals, so they would not have to be sent back if they were to face a state of emergency in their country of origin.

While the country of origin does not lose its responsibility to protect its displaced nationals, receiving States can decide whether they can manage the displacement with their own resources or if they are overwhelmed and need to call for international assistance. DRM and civil protection agencies, as in the context of disaster-induced internal displacement, play a key role in assisting and protecting vulnerable, displaced populations; hence, their capacities to manage displacement should be reinforced. (See thematic briefs 5 and 8)

DRM platforms and the Hyogo Framework for Action have the potential to provide some ground for a push on regional and bilateral agreements to open borders for humanitarian reasons and for granting temporary protection to disaster victims until return is possible.

Specific challenges are also posed by issues regarding migration as an adaptation and coping strategy, in particular, the planned cross-border relocation of disaster victims from areas anticipated to be rendered inhospitable or exposed to high levels of risk (e.g. small island developing States, as a consequence of environmental changes such as sea level rise, salinization and erosion; see thematic brief 2).

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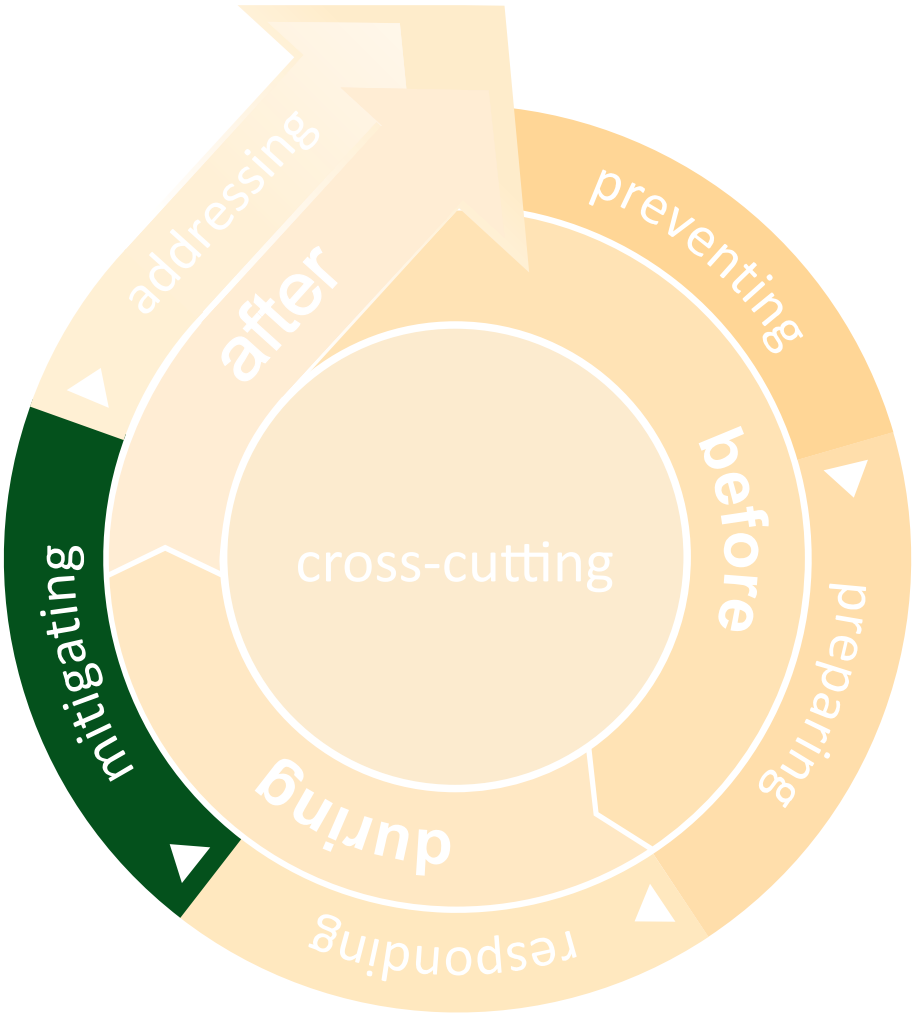


MITIGATING

LIST OF CASE STUDIES

DURING AND AFTER THE DISASTER

MITIGATING THE IMPACTS OF DISPLACEMENT

Migration crises produce sudden shifts in the demographic balance of the areas that population flows are directed towards. These shifts modify the patterns of exploitation of natural resources and put under increased stress local provision of services in the receiving communities, affecting the natural environment and social institutions that sustain them. The massive influx of migrant populations can induce scarcity and intra-communal tensions and potentially translate into hardship and discriminations for both locals and newcomers. In order to mitigate the impacts of displacement, countries should therefore focus on the following:

1. Minimizing the negative impacts of displaced populations on the environment in their areas of destination, in order to avoid ecosystem degradation and the creation of new hazards (see thematic brief 12);
2. Reducing the impact of mobility-induced demographic change on people's livelihoods and social cohesion in the host community (see thematic brief 13).

Thematic Brief 12: Reducing the environmental footprint of the displaced

Massive population movements, including those induced by disasters and environmental change, produce significant shifts in the management of ecosystems in the areas of destination. Newcomers will have to depend on local ecosystems to meet their need for essential resources (e.g. water, fuel and food) and for absorbing their waste, potentially impacting negatively the environment upon which local communities already depend for sustainment.

Reducing the ecological footprint of people on the move is an essential part of respecting local carrying capacity and avoiding secondary displacement due to environmental degradation and related hazards. Environmental concerns should be taken into account when planning and managing displacement sites, from the moment a site is selected until after it has been responsibly closed.[15]

Actions

- Respect principles and procedures that minimize the environmental impact of migration management measures at each stage of the crisis.
- Carry out an environmental assessment as soon as a location is selected to be a displacement site.
- Ensure that the procurement and disposal of materials necessary for constructing settlements and the provision of water, sanitation and energy facilities are performed in environmentally-friendly ways. *Example: Pakistan*.
- Ensure that measures to support livelihoods and income opportunities respect the limit of the carrying capacity of host ecosystems.
- Make sure that, upon closure of temporary settlements, any waste produced is disposed of responsibly and the sites where these settlements were located are environmentally rehabilitated.
- Reduce the exploitation of host ecosystems, in order to prevent conflict over resources between newcomers and the host community. This particularly benefits vulnerable individuals, in particular young people and women, who are usually in charge of natural resource extraction activities (e.g. provision of water and gathering of fuel wood). *Example: Somalia*.

[15] More information on environmental concerns in camp and camp-like contexts can be found in the Camp Management Toolkit (available for download from www.nrc.no/arch/_img/9295458.pdf) and the IOM Camp Closure Guidelines (in publication).

CASE STUDY 18: Local procurement for reconstruction in Pakistan

Following the 2011 floods in Pakistan – which destroyed more than 690,000 houses according to the National Disaster Management Authority – millions of people were left homeless. Providing assistance to the affected communities and enabling their recovery proved financially challenging due to the limited resources for financing emergency and temporary shelter provision and concrete building construction.

In order to provide culturally fit, eco-friendly and financially viable options for large-scale community self-reconstruction activities, IOM promoted seven vernacular shelter types, all of which featured disaster-resistant improvements on traditional low-cost mud shelter forms (the so-called "*katcha* houses"). The construction methods for the identified types, with their improvements, were compiled into a construction manual produced by a local organization for heritage conservation and development. The manual was the key technical guide for the implementation of the programme, which assisted 22,900 families in reconstructing their own shelters with minimum external input. The main objective of this "reverse" approach was to de-centralize the construction and material procurement process into the hands of the selected communities and markets, allowing better use of locally available resources and supporting the recovery of the local economy and livelihoods. By strengthening foundations, walls and roofs, the improved units were made rain- and flood-resistant. Foundations were reinforced by using lime, sand, stone or brick crush. For the shelters' walls, sand, mud, lime, straw and cow dung were used in cob or adobe forms. The roofs used bamboo, plastic sheets, straw mats, lime and sand to achieve weather- and load-resistance.

The improved *katcha* houses use natural, abundant and locally sourced materials (such as bamboo and straw mats). Overall, the new shelter designs allow for the construction of safer homes, which can guarantee the protection of people, assets and livestock in hazard-prone communities, while at the same time significantly reducing the environmental footprint of reconstruction (by relying on local brunt brick production). IOM committed to the reconstruction of more than 1,000 villages in the Mirpur Khas, Tharparkar, Umerkot and Tando Allahyar districts and has already observed some positive results in terms of building resistance to weather in recent heavy rain events.

Thematic Brief 13: Mitigating the risk associated with receiving communities engaged in large population movements

Rapid mass population movements have the potential to negatively affect well-being, stability and safety in the receiving communities by modifying existing socioeconomic and cultural balances. Receiving communities often suffer the arrival of newcomers as a burden, as the influx of the foreign population results in competition for scarce resources, services and income opportunities, potentially leading to impoverishment, tension and conflict. Active efforts are therefore required to adequately manage mobility (especially sudden, large-scale population movements), in order to preserve the living standards of the receiving communities.

Actions

- Plan for the arrival of mobile people in the host community, in order to prepare adequate facilities and avoid the creation of informal settlements that put both newcomers and receiving individuals at risk. (See thematic brief 19)
- Support the capacities of local institutions to provide basic services, in order to avoid a drop in the existing standards of health care, education, transportation and water and energy provision of the receiving community.
- Multiply income opportunities, taking into account that the influx of population fuels the local market and economy. (See thematic brief 16)
- Address tensions stemming from cultural and ethnic differences, by building reciprocal trust between communities (e.g. by bringing communities together around small infrastructure projects). (See thematic brief 19)
- Adequately address existing conditions of need and deprivation to prevent situations of inequality that put the most vulnerable in the host community at a disadvantage when support and assistance are given to the newcomers.

CASE STUDY 19: Relocating cross-border migrants in Kenya and Ethiopia

In August 2012, IOM started relocating Somalis affected by drought and famine who had moved *en masse* to the refugee camp in Dadaab, northern Kenya. About 30,000 displaced individuals were living in deplorable conditions on the overcrowded outskirts of the camp, overwhelming the response capacity of host communities and humanitarian actors.

The work of IOM in the region focused on relocating displaced Somalis to an extension site in Ifo, which the Organization had been preparing for weeks and is capable of hosting 7,500 tents. The relocation enabled aid agencies to rationalize their provision of essential services, better assisting the drought-affected population.

Similarly, IOM relocated the displaced population to Ethiopia from the transit centre in Dollo Ado, where a measles outbreak was further aggravating the living condition of a congested population. Migrants were relocated to a new camp at Halewiyn, where additional shelter and other life-saving services and facilities had been established. The transport assistance provided by IOM helped to reunify families separated by the drought and the distance between Kenya and Ethiopia.

ISSUE 4: Pastoralists

Pastoralist communities observe a traditional lifestyle based on mobility. They herd livestock over long distances, looking for fresh pastures in typically harsh ecosystems. They tend to occupy dry, barely fertile regions, especially in West and East Africa and Central Asia. In such areas, rotating pastures helps avoid the depletion of local natural resources due to overgrazing, by allowing ecosystems to regenerate between grazing seasons. Drylands such as scrub and steppe are among the geographic regions that are most vulnerable to environmental change, and it is expected that nomadic communities, highly dependent on natural resources, will be among the most affected by future changes in precipitation patterns and desertification.

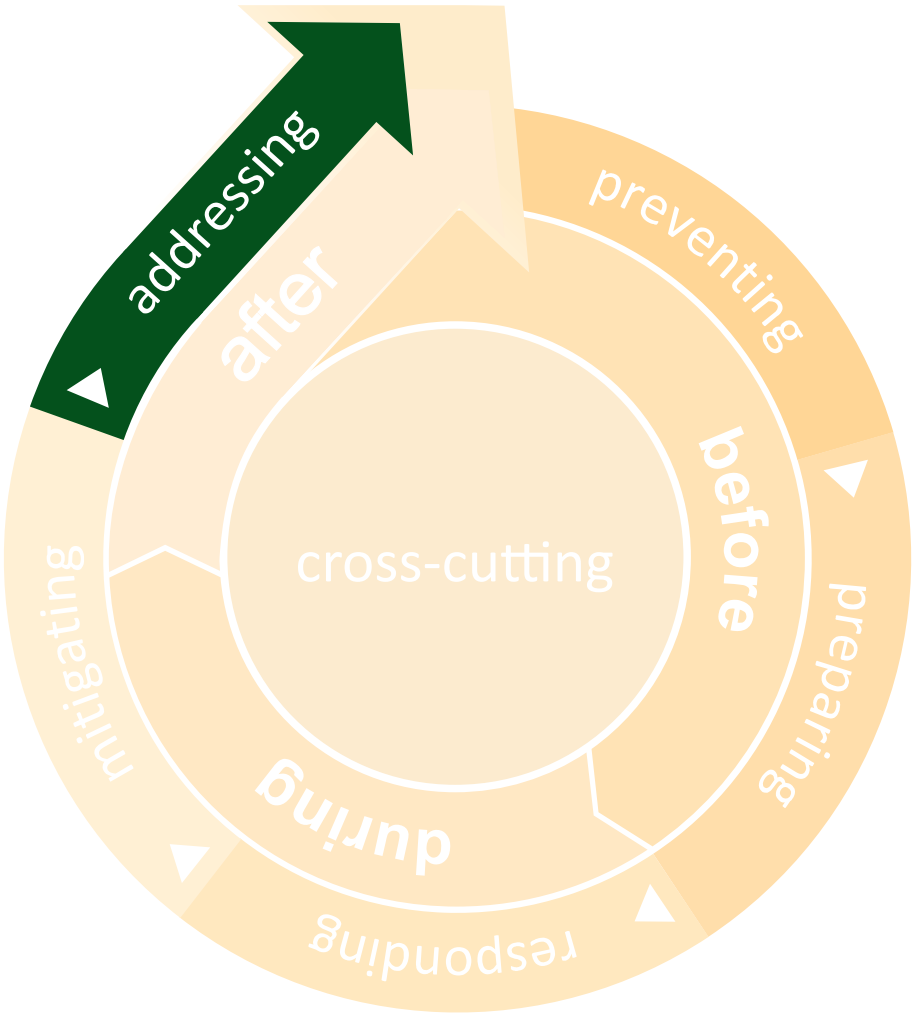
Pastoralist communities have often practiced nomadic lifestyles for thousands of years, and the pattern of ecosystem exploitation observed in moving herds has been in use ever since the domestication of the first animal species. Pastoralist groups have often evolved alongside more permanent settlements, which host the markets for trading livestock and animal products for agricultural produce and manufactured items. As migration is central to the livelihoods of pastoralist societies, obstacles to mobility seriously threaten their capacity to pursue a nomadic lifestyle, as well as diminish the capacity of ecosystems to regenerate. In a context of increasing resource scarcity, intra-communal conflict for water and land is growing frequent, especially between agricultural and pastoralist communities, which are often ethnically and culturally different.

Open routes available for nomadic movement are often threatened in conflict situations, where military confrontations can lead to border closure and hamper the access to grazing areas. In some cases, conflict has led to the destruction of water points along nomadic routes, hampering access to an essential resource for communities on the move. As such, movement across national borders is often seen as a driver of tensions by national governments, in particular because it tends to happen in informal, unregulated ways. While positive for promoting local economic growth, food security and local integration, movements, when uncontrolled, can cause loss of tax revenue and the spread of disease.

Efforts to promote the mobility of nomadic pastoralists often need to factor in conflict resolution measures and intra-communal natural resource management practices that promote the sustainable exploitation of ecosystems and avoid tension over scarce resources. Collaboration among border authorities and the establishment of common cross-country frameworks can help create positive legal and political mechanisms to facilitate the movement of pastoralist communities across national borders.

Northern Kenya is an arid, drought-prone area heavily affected by the effects of climate change on precipitation patterns. It is home to numerous groups of nomadic pastoralists. The region, bordered by Kenya, Uganda, South Sudan, Ethiopia and Somalia, is susceptible to ethnic tension and political insecurity. Frequent droughts deplete water supplies and pastures, greatly reducing the capacity of the local environment to sustain livestock and reducing the livelihood options of pastoralist communities. These conditions increase the need for mobility of local nomadic population and further fuel inter-communal conflicts over resources, especially along the often-insecure borders. The past experience of IOM suggests that supporting pastoralists in this area requires protecting host communities' assets and allowing peaceful coexistence among and within the communities.

IOM is promoting sustainable ecosystem exploitation and conflict resolution through a variety of youth-led capacity-building initiatives focusing on safe migration, as well as the promotion of sustainable livelihoods and community-based natural resource management for increased productivity. The activities have so far included the following: 1) building the capacity of community members, especially the young, for strengthening rural livelihood and diversifying income sources; 2) developing small-scale markets; 3) drilling boreholes and rehabilitating smallholder irrigation schemes; and 4) providing credit for youth-friendly community stabilization projects. In addition, the Organization supported the development of community partnerships for the management of natural resources within and across districts, and encouraged a gradual change in land utilization and towards resilient livelihoods.



ADDRESSING

LIST OF CASE STUDIES

BUILDING RESILIENCE THROUGH DURABLE SOLUTIONS TO DISPLACEMENT

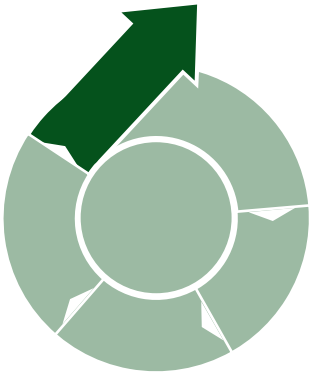
Durable solutions to displacement – the objective of mobility management in crisis situations – are achieved only when people no longer have specific assistance and protection needs that are linked to their displacement.[16] From a DRR perspective, such solutions must involve the following: providing durable settlements; adequately reducing hazards and vulnerabilities; promoting the sustainable management of natural resources; ensuring empowerment and participation of displaced people and receiving communities; resolving intra- and inter-communal conflicts while adapting to both current and future effects of environmental change.

In order to implement durable solutions to the consequences of migration crises, countries should focus on:

1. Managing the return of affected communities to their areas of origin, whenever possible (see thematic brief 14);
2. Promoting local integration and relocation to a third area in case the conditions for sustainable return are not in place (see thematic brief 14);
3. Addressing the multiple causes of a crisis when confronting complex emergency situations (see thematic brief 15).

[16] The Inter-agency Standing Committee (IASC) Framework on Durable Solutions for Internally Displaced Persons is available from www.brookings.edu/~/media/Research/Files/Reports/2010/4/durable%20solutions/04_durable_solutions.PDF.

Thematic Brief 14: Implementing durable solutions – return, local integration and relocation



In most cases of mobility induced by environmental factors, population movements tend to be reversible. Preventive migration is usually a measure people adopt on a temporary, often seasonal, basis, and displacement induced by disasters mostly leaves the door open for the return of the affected population to their area of origin.

Return should take place in a sustainable fashion, especially when the source area is undergoing a process of environmental degradation, in order to avoid secondary displacement. Whenever the conditions for the return of displaced individuals and communities are not in place (e.g. due to irreversible environmental degradation that has made the source area inhospitable or the presence of risk factors that cannot be adequately reduced), however, other options, such as their integration with the local host population or their relocation to a third area, must be considered.

Return, local integration and relocation should always be chosen freely. Displaced persons should not be coerced into, or prevented from, accepting any solution through the use of physical force, restriction of movement or intimidation. Neither should indirect coercion be applied (e.g. by providing misleading information or setting arbitrary limits to assistance).

Governmental, humanitarian and other actors in the recovery process should make sure that the conditions for a safe life are in place in the destination site when planning for the closure of camps, collective centres, transitional shelters and other receiving facilities. Sustainable solutions to displacement should lead to a safer, more resilient community, which can rely on sustainable livelihoods and effective social protection measures, and in which culture and practices change as people and institutions are committed to education, training and awareness campaigns on environmental risks and their reduction.

Implementing durable solutions is therefore a complex, long-term process of gradually reducing the needs of the displaced population. Unless they have long-term positive implications on the well-being of affected communities, return, local integration and relocation risk depleting the displaced population's social networks, local knowledge and capacities. Therefore, solutions should take into account existing socioeconomic and legal issues (such as the availability of income opportunities and the accessibility to basic services and land), as well as the evolution of ecosystems, including the current and future effects of climate change.

Actions for return

- Support spontaneous return as soon as the environmental and material conditions for safe reconstruction and recovery are in place.
- In case no durable solution to displacement is immediately available, support displaced households through the deployment of transitional shelters, which allow for improved dignity and well-being and reduce the negative effects of displacement.[17]
- Identify and address the main risk factors that pressure people out of their settlements in the first place.
- Prevent and mitigate hazards in the source area, in order to avoid putting at risk the lives and the safety of returnees.
- When confronting progressive ecosystem degradation, establish adequate measures to preserve and restore the local environment.
- Restore and enhance essential assets and livelihoods, by building back safer houses and infrastructure, revitalizing local productive activities and markets and re-establishing local services.
- Promote new settlement and ecosystem management practices though education and training, in order to create safer and more sustainable living conditions.

[17] To learn about the Transitional Shelter Guidelines Project, visit http://sheltercentre.org/node/4063.

CASE STUDY 20: Enhancing the livelihoods of internally displaced persons and returnees in Afghanistan

In Afghanistan, in 2012, hydro-geological hazards affected approximately 40,000 households, displacing about 3,600 families. Most of the families were willing to immediately return to their communities. However, with houses, assets, basic infrastructure and services destroyed, return was not always an option, and many had to remain displaced for a long period.

The post-flood intervention activity of IOM took into account the potential negative impacts of protracted displacement, which included uncontrolled urbanization, risky irregular migration and the loss of livelihoods. The Organization set up specific measures aimed at enhancing the long-term well-being of beneficiaries and at minimizing the effect of displacement on future disaster risk.

IOM assisted community members in building 200 permanent shelters for vulnerable households. About 100 families displaced by the floods received livelihood start-up packages, while family heads were trained in starting up businesses. IOM also supported community representative bodies in implementing community development projects, including infrastructure for hazard mitigation.

Actions for local integration

- Strengthen local capacities through training and education, in order to provide adequate services to a rapidly increasing population (e.g. shelter, health care, water and power provision) and avoid marginalization of newcomers. (See thematic brief 13)
- Promote sustainable livelihoods in the host community to avoid impoverishment; improve the well-being of both communities; and avoid overusing local resources. (See thematic brief 12)
- Ensure that mobile communities enjoy legal status and political representation in relation to the displacement context.
- Prepare and assist receiving communities, political and administrative authorities and civil society organizations for and in confronting and resolving inevitable friction (e.g. by using conflict prevention and management tools to enhance cooperation and fair sharing of assets), in order to avoid hostility, xenophobic violence and discrimination.
- Adopt community-based and participatory approaches in order to allow for dialogue and mutual accountability between newcomers and the host communities. (See issue 2)
- Promote the co-development of the displaced and host communities, by maximizing the contributions of the former to the local economy and making full use of their skills and culture

CASE STUDY 21: WASH services in communities of return in Sudan, South Sudan and Abyei

According to a series of IOM assessments carried out between 2010 and 2013, communities in the Sudan-South Sudan border (including the contested area of Abyei), have limited or no access to safe water and suffer from inadequate sanitation and hygiene conditions. Many villages do not have access to safe drinking water, often sharing a the limited water source with other villages or using it for both human and animal consumption. These limited resources are further strained by the large influx of migrants, beginning in the lead-up to the 2011 Disaster Referendum and continuing today.

IOM estimates that more than 1.8 million individuals have returned to South Sudan since 2007, most through the Sudan-South Sudan borders. Ongoing WASH interventions by IOM aim to reduce the strain on the resources of receiving communities and contribute to the sustainable reintegration of returnees, while also reducing the risk of further (secondary) displacement for the overall community. The WASH interventions include the construction and rehabilitation of water points, to improve access to safe water; the establishment of water management committees, to ensure sustainability of these water points; and the facilitation of community dialogues, to promote peace between conflicting groups, including nomadic pastoralists from Sudan. These WASH interventions are carried out in communities receiving the largest numbers of returnees; at present, they are being implemented in over 11 counties in the states of Northern Bahr el Ghazal, Western Bahr el Ghazal, Warrap, Lakes, Upper Nile and Jonglei.

In Sudan, IOM intervened to enhance the capacity of communities to maintain water resources and, ultimately, improve access to clean water sources for at least 20,000 individuals, especially vulnerable returnees. Activities targeted returnees, IDPs and nomads and allowed for the rehabilitation, maintenance and sustainable operation of existing water supply systems and sanitation facilities in IDP sites. In addition, the Organization provided WASH services to vulnerable people in underserved rural areas. Training activities in hygiene promotion also targeted IDP communities in areas experiencing frequent disease outbreaks.

Actions for relocation to a third area

As opposed to preventive relocation, described in thematic brief 2, relocation to a third area follows displacement induced by a crisis and, therefore, concerns people who have already been affected by a disaster. In addition to the issues confronted under local integration, relocation to a third area involves the following actions:

- Minimize the impact of a second displacement, by adequately protecting people on the move.
- Ensure that access to livelihoods, services and infrastructure is sufficient, to guarantee adequate living conditions, and avoid the production of new vulnerabilities for the relocated population, thereby preventing further displacement.

CASE STUDY 22: Relocation sites in Gaza Province, Mozambique

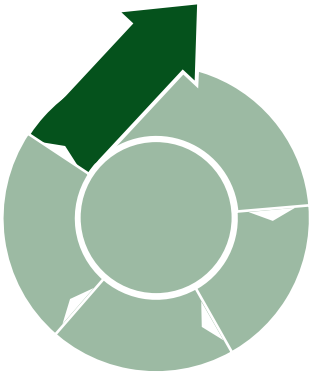
In January 2013, heavy rains fell for over one week in Mozambique, killing 46 and affecting more than 300,000 persons throughout the country. Gaza Province was the hardest-hit area, with some 130,000 displaced persons sheltered in 23 different sites. Dwellings and infrastructure, including roads and bridges, were severely damaged. On January 30, the Government requested the assistance of national and international humanitarian partners.

The majority of the affected people are willing to return to their communities; however, with houses, assets and basic infrastructure destroyed and services disrupted, return to high-risk areas is not always a safe choice. The Government has therefore proposed a relocation option to displaced households, offering them new plots of land on which to settle. To date, 3,500 families have accepted to relocate and are currently living in camp-like settlements inhabited by a combination of permanently relocated and temporarily displaced households.

IOM is conducting displacement monitoring in multiple districts in the province of Gaza. The main objective of displacement monitoring is to ensure timely and accurate data on population needs, as well as to track the caseloads of flood-affected communities and ensure timely humanitarian response. The Internal Displacement Monitoring Centre of IOM captures information on the needs and gaps of disaster-affected communities in both origin and resettlement sites, in order to ensure a more targeted, coordinated and needs-based response and avoidance of duplication. At the same time, data collected through the Displacement Tracking Matrix helps to identify longer-term durable solutions for these affected communities.

IOM is currently coordinating relief distribution in the field and works with the National Institute for Disaster Management to ensure that assistance reaches those most in need. In addition, the Organization plans to assist affected communities by supporting government action to improve services in 25 communities in the areas covered by minimum Sphere standards (these include water, sanitation, lights, safe structures and accessibility, among others). IOM is further supporting the Government of Mozambique and Red Cross Mozambique through training actions in camp coordination and camp management, with a focus on upgrading resettlement sites (software and hardware) and creating planned evacuation sites with basic infrastructure in safe zones.

Thematic Brief 15: Mainstreaming disaster risk reduction in the recovery and transition phase of complex emergencies



In responding to complex emergencies, where natural disasters and environmental degradation compound the problems brought about by political and social upheaval, challenges linked to reconstruction and recovery intertwine with the need to provide assistance and support to local institutions for restoring stability and security. In similar situations, it is useful to adopt a holistic approach to recovery and transition to a safer life. The DRR perspective provides useful tools and concepts to address the complexity of factors that hamper well-being and development.

As part of its community stabilization portfolio of activities, IOM implements risk reduction and resilience-building activities in post-conflict contexts. The Organization recognizes the potential of these activities in protecting vulnerable communities, preventing further displacement and building trust among local communities and authorities.

Actions

- Reduce the risk of future displacement and adequately manage population movements in order to avoid inter-communal tensions linked with mobility and resettlement.
- Multiply and protect livelihood options in order to avoid conflict over scarce resources and opportunities. *Examples: Kenya and Sudan.*
- Make sure economic and social revitalization measures following conflicts take into account natural hazards and the effects of climate change, in order to allow for long-term individual recovery and collective regeneration.
- Prevent conflicts from hampering disaster management and emergency operations by adequately protecting and multiplying essential assets and arrangements and by adequately planning interventions.
- Whenever possible, build on risk reduction, relief and reconstruction activities, to build trust in institutions, overcome inter-communal tensions and pursue shared development goals.

CASE STUDY 23: The use of village assessments to promote sustainable return in Sudan and South Sudan

According to the tracking of spontaneous returns by IOM in 2009, an estimated 10 per cent of the returnees from Darfur and other regions in Sudan to South Sudan were liable to secondary displacement due to the lack of services (e.g. schools, health care and water provision) and job opportunities in their respective areas of origin.

In order to promote sustainable return, reduce the risk of displacement and improve the capacity of receiving communities to adapt to a sudden increase in population, IOM performs Village Assessments both in Sudan and South Sudan, as well as in areas with high returnee caseloads. These assessments provide a detailed understanding of the availability of, and access to, basic services and resources in target areas and can be used to design and prioritize interventions that improve the conditions in these villages for the benefit of the entire community, including the host population, returnees, IDPs and nomadic pastoralists that come through the area seasonally. Moreover, the assessments allow for identifying the risk of conflicts over limited resources, and can therefore support the peace-building process. In addition, they expose existing protection gaps resulting from social and political factors (e.g. age, gender, ethnic and cultural diversity), allowing local drivers of marginalization and discrimination to be identified and addressed.

CASE STUDY 24: Kenya's Security in Mobility assessment

Together with the Food and Agriculture Organization, the UN Development Programme, OCHA and the Institute for Security Studies, IOM conducted a joint assessment to identify the needs for safe and secure mobility of the pastoralist communities in four clusters of arid and semi-arid land shared by Kenya, Tanzania, Uganda, Ethiopia and Somalia.

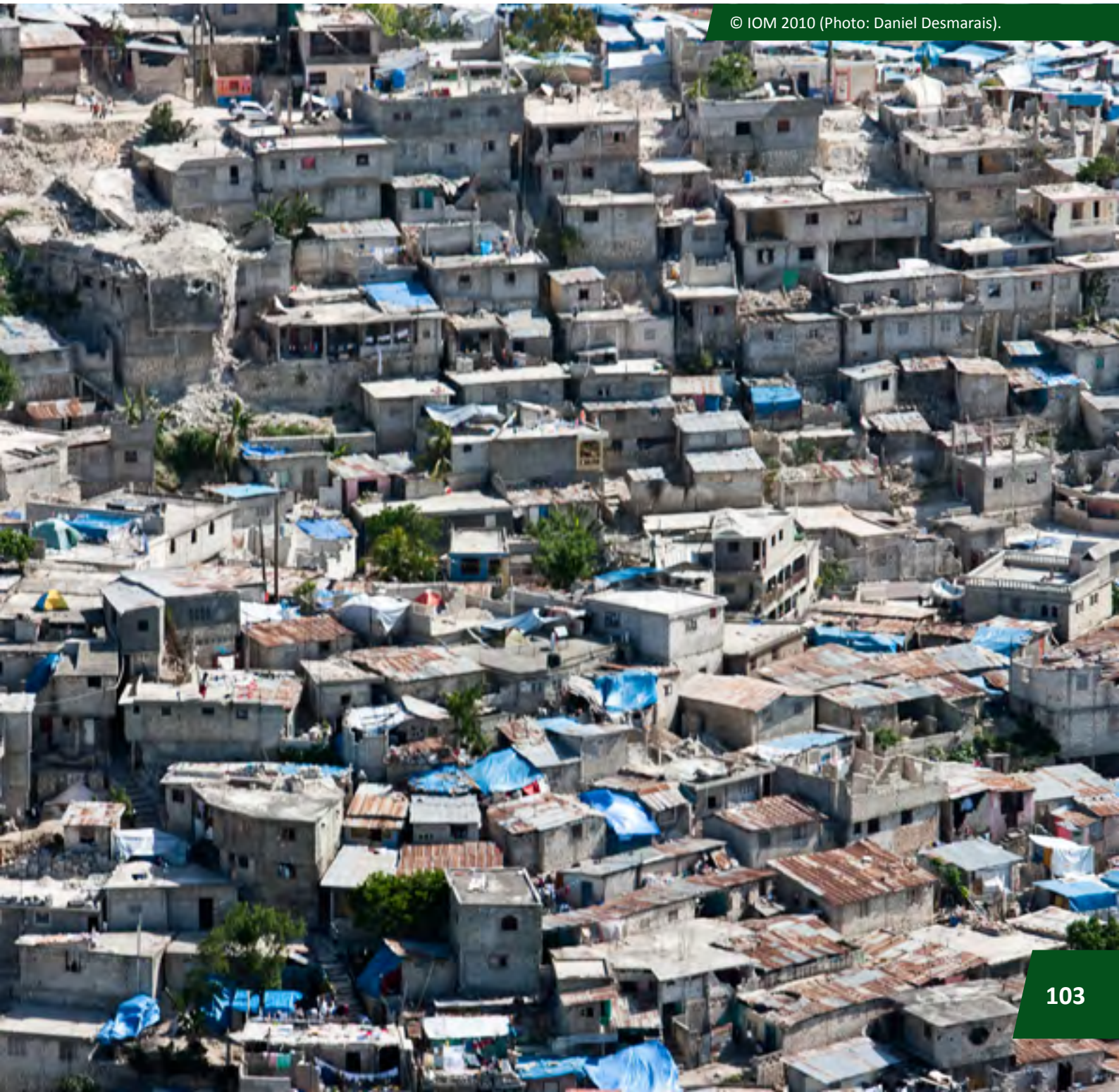
The assessment was completed in mid-2011 and its findings indicated the need to improve water supply and manage the pasture range, to sustain the pastoralists' livelihoods; support and strengthen the local governance systems, to maintain the peaceful movement of pastoralists; and prepare communities for environmental stresses, by strengthening the linkages with community-led groups and organizations and making better use of technology.

Building on these findings, IOM Kenya has prepared the "Mini-strategy on Resilience" for regional activities that will support mobile communities in Kenya and, more generally, in East Africa.

ISSUE 5: Mobility, urbanization and risk

During the last century, population growth has increasingly been concentrated in cities. Today, urban areas are home to over 50 per cent of the world's population and will host about 90 per cent of the total demographic increase over the next decades. This trend is driven more by internal growth than by in-migration; yet, according to IFRC, 10.5 million refugees and 13 million IDPs, along with hundreds of million migrants, live in cities around the world.

Disasters, environmental degradation and conflict are drivers of rural-to-urban and urban-to-urban migrations. Cities tend to offer stronger assistance and protection systems and markets that continue to provide goods, even in times of hardship. They provide better access to education and health care and diversification of income opportunities. They allow for a way of life less dependent on locally available natural resources and can multiply people's capacity to cope with both natural and man-made hazards.



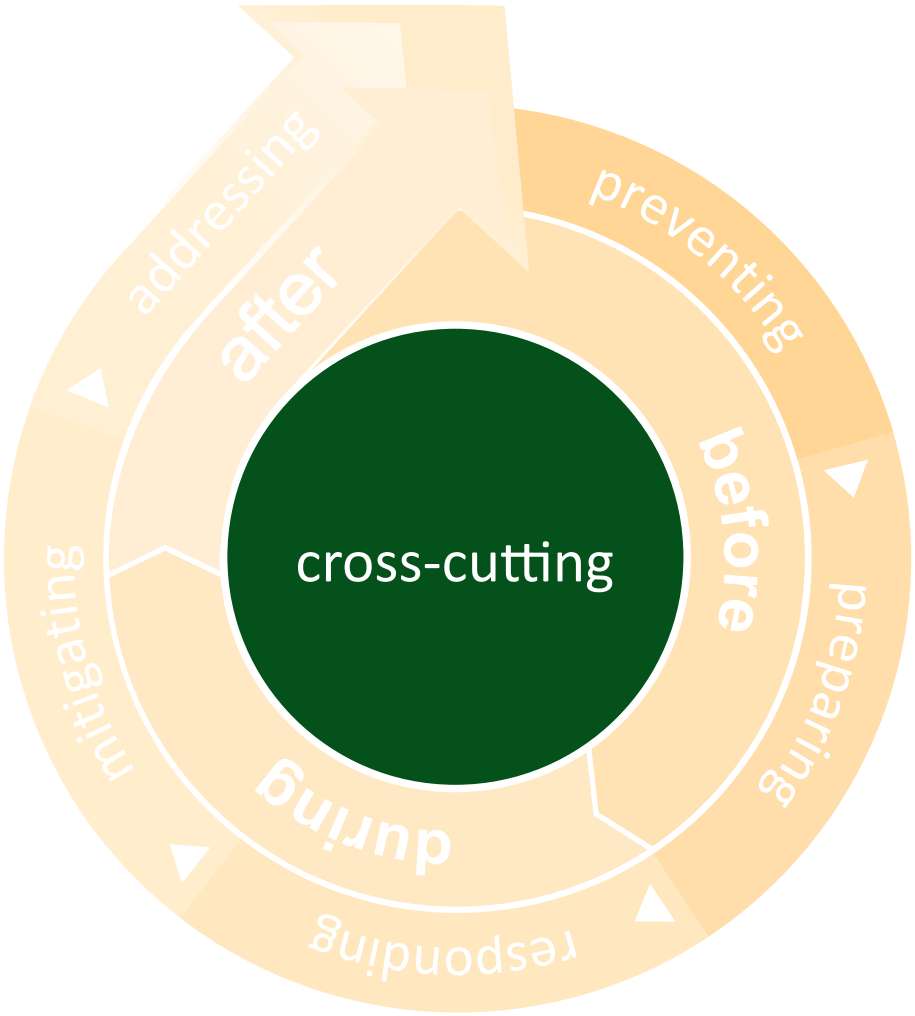
Nonetheless, with vulnerable populations and unprotected capital increasingly concentrating in cities, urban development also drives disaster risk. In dense urban areas, hazards – even small, localized ones – threaten large populations and substantial economic assets and can have enormous impacts on the population's settlement and mobility (e.g. displacement of the urban population in Port-au-Prince following the 2010 earthquake). Due to the heavy concentration of different land uses, natural events often trigger secondary hazards (e.g. fires, explosions, spills), resulting in a catastrophic chain of effects (e.g. evacuation and prolonged displacement of the population of Namie-machi following the Fukushima triple disaster in 2011).

Environmental degradation induced by poorly managed urbanization (also deriving from migration to urban areas) is a key driver of hazard occurrence. Buildings and infrastructure deeply affect air and water circulation and soil stability, reducing the local ecosystem's capacity to control floods, fires, landslides and weather extremes. Insufficiently planned development that does not meet the population's demand for essential services also produces risk, inducing poor and marginal groups, which often cannot rely on effective coping mechanisms for recovering from shocks, to live in unsafe conditions. Risk finds spatial expression in informal settlements of substandard buildings located on land prone to hydro-geological hazards and rarely served by essential services and welfare systems.

Recognizing the central role of urban governance in reducing disaster risk, the UN International Strategy for Disaster Reduction (UNISDR) launched its "Making Cities Resilient" campaign in 2010, in order to raise the awareness of urban risk and disaster risk reduction among actors at all administrative levels and to support the implementation of resilience-building initiatives in cities around the world.

While many of the risk factors faced by mobile populations are shared by certain local groups, being a migrant is often a condition that restricts access to resources, political representation and opportunities for formal housing and services, all of which are key determinants in the shaping of risk in urban areas. In Rio de Janeiro, over the last decades, most *favelas* have undergone institutionally supported urbanization processes that have steadily improved the living conditions of their more ancient settlers. Still, newcomers and poorer households tend to occupy marginal, non-urbanized areas prone to mudslides and rockfalls.

Migrants to urban areas pose significant issues to urban authorities, especially in developing countries, as they put pressure on local resources and on the capacity of institutions to plan and manage urban development. This is also true for humanitarian actors who face urban migration crises. The dispersion of migrants, the presence of strong administrative authorities and the heavy density of the population and its assets are unprecedented challenges for a traditionally camp-based crisis response system. Insufficient support to a population displaced to an urban area can lead to the creation of permanent, vulnerable settlements. Migrants, however, can also serve as a valuable resource to a city's life. Their presence drives the demand for goods and services and has the potential of expanding the local labour market and economic activity by multiplying the available human capital. They can enrich a city's cultural life and foster innovation and intellectual vitality.



CROSS-CUTTING

LIST OF CASE STUDIES

CROSS-CUTTING ACTIVITIES

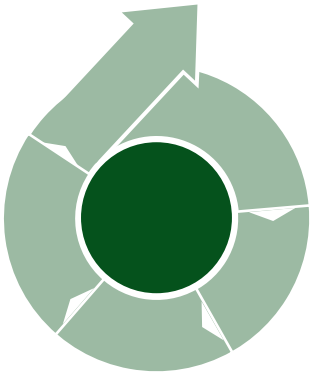
REDUCING RISK AND BUILDING RESILIENCE ACROSS THE MIGRATION CRISIS PHASES

The durable reduction of risk depends largely on identifying and addressing issues that affect the well-being, vulnerability and resilience of a community before, during and after a crisis. Some of these issues are especially relevant in determining a disaster's negative impacts on human mobility, and should therefore be integrated in mobility management interventions at all stages of the migration management cycle.

In order to adequately tackle these drivers of risk, countries should focus on:

1. Adopting policies and actions that promote sustainable livelihoods (see thematic brief 16);
2. Guaranteeing tenure of land and property rights, as well as resolving conflicts stemming from return, integration and relocation processes (see thematic brief 17);
3. Enhancing the affected population's living conditions by providing better access to WASH facilities, health care and psychosocial support (see thematic brief 18);
4. Improving the quality of key infrastructure, making full use of the potential of construction and reconstruction activities for the stabilization of communities (see thematic brief 19).

Thematic Brief 16: Promoting sustainable livelihoods



Access to diverse, sustainable livelihood options is essential, as it gives communities at risk the freedom of choice before, during and after the crisis. It can provide affected people with the assets necessary to use mobility as a preventive strategy; present them with alternatives to displacement when hazards strike; and is a condition for recovering quickly and effectively, achieving durable solutions to displacement and avoiding secondary displacement. Sustaining livelihood options, especially of the most vulnerable, is therefore effective in reducing risk in the long term and in avoiding the disasters' negative impacts on human mobility.

Actions

- Multiply and broaden access to essential assets, services and income-generating activities, especially for the most vulnerable.
- Address conflicts related to the preferential support of the most vulnerable population, by enhancing dialogue and participated decision-making.
- Make livelihoods resilient to hazards and environmental change (e.g. through ecosystem conservation, structural protection measures, insurance, education and capacity-building), in order to protect investments and well-being gains in the long term.
- Preserve key material and non-material assets during and after disasters and crises, by securing their physical and legal protection and safeguarding community institutions and social bonds.
- Adequately assist and support households and communities responding to disasters, in order to avoid livelihood-depleting coping strategies.
- Restore and enhance assets, services and income-generating activities as soon as possible in the recovery process (e.g. by building on emergency management, through rubble removal activities and local procurement), in order to accelerate the transition to a productive life and tackle pre-existing conditions of vulnerability.
- Protect and multiply the livelihood options of communities receiving a planned or a sudden and massive population influx, in order to minimize inter-communal tension and conflict.

CASE STUDY 25: Promoting sustainable livelihoods in Indonesia

Many of IOM Indonesia's activities have been focusing on improving the living conditions of local communities by supporting sustainable livelihoods, in order to tackle the drivers of forced migration and reduce disaster risk.

In collaboration with Bank Mandiri's Corporate Social Responsibility Division, IOM supported micro- and small batik producers in the earthquake-affected province of Central Java. Under the Mandiri Bersama Mandiri ("Self-Reliant with Mandiri") Programme, the pilot project supported Kebon Village, a strong natural dye batik-producing community in Klaten District. The intervention assisted members of the Kebon Batik Cooperative through business development, business resilience, production capacity-building, direct market access and networking support.

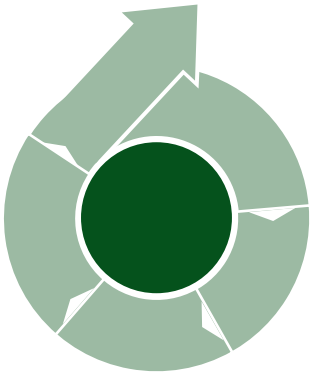
Kebon Village was a beneficiary under the Livelihood Recovery Programme of IOM, which was funded by the multi-donor Java Reconstruction Fund. The project benefited from an established network of key stakeholders, including the private sector, media, business associations, universities and the local government. The project was a pilot initiative to support the Indonesian Government's efforts to address the livelihood recovery needs of disaster-affected communities, and lessons learned from the project were applied to livelihood assistance provided to populations affected by different disasters.

In Aceh, IOM supported the coffee production chain, which serves as the main source of income for at least 60,000 households. Over the last years, climate trends, combined with coffee farmers' limited knowledge of sustainable farming techniques and the decreasing mean size of coffee farms, have been important drivers of rural-to-urban migration and of the related poverty, marginalization and risk in urban areas.

With an ever-growing global demand, there is a window of opportunity to invest in the development of a sustainable coffee industry. In particular, consumers are increasingly interested in distinctive varieties grown in specific conditions (so-called "specialty coffees"), sustainable produce and the traceability of the product, from the seed all the way to the final cup. IOM mobilized key stakeholders in the supply chain in order to help Indonesian small and medium enterprises produce and distribute sustainable Aceh Gayo Arabica Specialty Coffee.

The negative impact of the coffee production process on the local ecosystem was reduced through shade growing, biodiversification and the use of organic fertilizer, while the environmental footprint of the supply chain benefitted from improved resource efficiency and the reduction of toxic material usage and waste generation. The investments have increased local incomes, contributed to prosperity in the target area and made local livelihoods more resilient, thereby tackling some of the most important drivers of out-migration.

Thematic Brief 17: Addressing land and property issues



Land issues – such as security of tenure, land use, land access and land administration – are fundamental for a safe life, as they directly affect the sustainability and resilience of settlements, the quality of shelter and access to livelihoods and basic services. Land loss and property destruction, both caused by environmental change and man-made processes, often require the permanent relocation or resettlement of the affected population (see thematic briefs 2 and 14).

Addressing housing, land and property challenges is the key to ensuring that relocation and evacuation effectively reduce risk; that displacement only lasts the minimum time necessary for providing life-saving assistance; and that solutions to displacement are rapid and durable. Unresolved land issues (e.g. unclear occupancy rights due to the loss or destruction of land ownership certificates or registries, physical boundary markers or of actual land) can hinder the deployment of mobility-based coping strategies in the face of disasters and the sustainability of solutions to disaster-induced displacement.

Recognizing and protecting property rights, particularly for the most vulnerable individuals, as well as implementing fair and adequate compensation schemes, including finding alternative settlement solutions, if necessary, are key factors in ensuring the long-term recovery and well-being of communities affected by disasters and environmental change.

Actions

- Recognize and address the property rights and needs of all individuals, in order to reduce the vulnerability related to insecurity of tenure.
- Guarantee adequate access to information, legal counselling and representation, in order to secure everyone's rights.
- Identify and assess potential obstacles in addressing land, property and housing issues, taking into account existing and potential conflicts over land and local natural resources.
- Build the capacity of government authorities, communities and other key stakeholders to ensure the transfer of land information, tools and functions to local actors. *Example: Haiti*.
- Include land and property issues in the disaster response as early as possible, in order to allow for a quick reconstruction and recovery process in a coordinated manner.
- Restore and improve land administration systems based on a thorough understanding of existing land and property practices (especially customary tenure systems) and dispute resolution mechanisms, in order to avoid conflict. *Example: Haiti.*
- Avoid and manage intra- and inter-communal conflicts stemming from land distribution, by promoting dialogue and participatory decision-making processes.
- Take into account context-specific issues, such as the relocation of landless squatters and informal settlers displaced by disasters, especially in urban contexts (e.g. 2010 Port-au-Prince earthquake), and of rural populations depending on land exploitation for their livelihoods. *Example: Pakistan*.

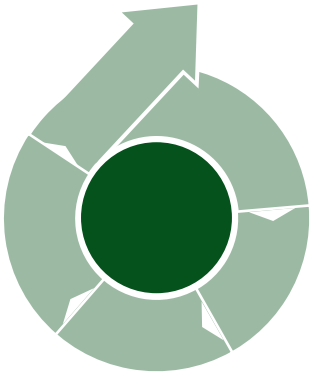
CASE STUDY 26: Overcoming land tenure barriers in Haiti

The lack of clear land tenure information is one of the most significant challenges to post-earthquake reconstruction and rehabilitation efforts. Land tenure information was incomplete, unclear and outdated even prior to the 2010 earthquake due to insufficient institutional arrangements and the prevalence of informal housing solutions. The devastation caused by the earthquake further complicated the picture by destroying existing archives and documents. Reconstructing housing is proving very difficult in the absence of adequate information about who owns which parcel of land, which is slowing down the efforts to normalize the lives of more than 350,000 people who remain displaced.

To overcome the obstacles posed by the land tenure situation, IOM and the Government of Haiti have adopted a community-based approach to identify land ownership and tenancy.

Following a public information campaign to make communities aware of the aims and the methodologies of the project, IOM has been gathering data on 10,695 plots, buildings and households within the neighbourhoods of Delmas 32 and Carrefour Feuilles and is now working on an additional 10,000 parcels. The Organization consolidated the information on building damage, land tenure and occupancy status. Land tenure was then verified through community validation, as well as through intensive research with national authorities and public notaries. The collected information was then shared with partners and other authorities and has been used to plan and reconstruct three areas in metropolitan Port-au-Prince. The methodology of this initiative has also been used for the census of earthquake-affected areas.

Thematic Brief 18: Building resilience by enhancing health care and psychosocial support and strengthening facilities



Health conditions and psychosocial well-being are key determinants of the resilience of individuals and communities. Healthy people are more productive, more self-reliant and more mobile, and, therefore, more able to anticipate, resist and recover from the impacts of natural and man-made hazards. With more and more people settling in urban and densely populated areas, pressure on limited health infrastructure and exposure to health risks is increasing.

Disasters and disaster-induced displacement can represent a major obstacle to accessing essential preventive, curative and rehabilitative health services and facilities and, therefore, can impact the physical and psychological status of the affected population. Preventing and mitigating the impacts of disasters on health facilities and preparing health systems for emergency situations is critical in reducing risk.

Actions

- Reduce disaster risk by strengthening the capacities of health systems, enhancing access to water, sanitation and hygiene facilities and increasing awareness of health risks and prevention measures before, during and after migration crises.
- Prepare health systems for disaster situations by ensuring that key facilities are safe from hazards and that they have sufficient capacity to address the increased demand for services in times of crisis (e.g. by pre-positioning supplies in partnership with other health actors).
- Identify vulnerable individuals whose health status represents an obstacle to mobility (e.g. people living with disabilities and chronic illnesses) and adequately assist them in managing their relocation or evacuation, whether planned or spontaneous.
- Assist people on the move by providing adequate access to health care, facilities and education, especially in displacement sites, where crowded and often precarious living conditions can allow for the rapid transmission of communicable diseases, including waterborne diseases and sexually transmitted infections.

- Ensure continued health care for people on the move with chronic medical conditions and disabilities throughout all phases of a crisis.
- Address and prevent malnutrition in emergencies; ensure access to vaccinations; and link health with protection issues and the prevention of sexual and gender-based violence.
- Confront the psychosocial and well-being impacts of disasters and displacement by providing adequate assistance, counselling and referral to support services during and after crises, especially to the most vulnerable individuals.
- Ensure the adequacy of health care and facilities (and restore and enhance existing ones) when planning for solutions to displacement, in order to provide sufficient assistance to returnees and newcomers; maintain the quality of the services provided to the host community; and, ultimately, to avoid the creation of vulnerability conditions.

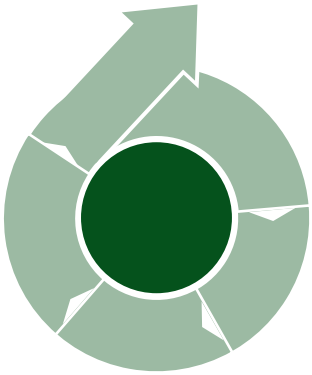
CASE STUDY 27: Supporting health services before, during and after crises in Haiti

Over the past three years, Haiti was struck by a destructive earthquake (2010), a cholera epidemic (2010–2013) and several tropical storms and hurricanes (2010 and 2012). The combination of these disasters, widespread poverty and a protracted displacement crisis has resulted in acute vulnerabilities and significant exposure to health risks among the Haitian population, specifically IDPs living in camps in urban areas.

IOM supports the efforts of the Ministry of Health in bridging critical gaps in public health and psychosocial support services. As the lead agency of the Camp Coordination and Camp Management Cluster, the Organization uses a "continuity of care" approach by providing preparedness, prevention, health care and psychosocial support to vulnerable persons remaining in camps and those returned to their communities of origin. During the 2012 hurricane season, and, specifically, during Hurricane Sandy (in October 2012), the IOM Haiti Health Unit played an essential role in supporting IDPs before, during and after the hurricane struck.

Such support took many forms: training of community health workers in the preparation for, response to and surveillance of cholera outbreaks; referral to health-care facilities for the treatment of other health issues; identification of vulnerable persons living in camps; provision of effective needs-based assistance such as transportation; and improved access to health-care services for treatment and follow-up. Additional assistance was provided to the population – including women – through preventive measures, for example, by conducting health education sessions and distributing health messages in the *Chimen Lakay* brochures and pamphlets (see the Haiti country profile for more information on this). This comprehensive approach allowing for the provision of health assistance before, during, and after a crisis has proven particularly effective in reducing health risks faced by disaster-affected populations.

Thematic Brief 19: Reducing risk through small infrastructural interventions



The enhancement and protection of infrastructure are essential to fostering economic and community development, and are a major component of the IOM intervention to build resilience before and after disasters. Adequate and hazard-resistant transportation networks, water and power grids, and soil and water management works, as well as schools, hospitals and governmental buildings, sustain livelihoods, strengthen communities, allow for improved access to essential assets and services, and help manage the economic and environmental drivers of displacement. Infrastructural development is especially critical to support durable solutions to displacement and has proved effective in pursuing the stabilization of communities torn by violence and tensions.

Actions

- Assess the feasibility of infrastructural development by surveying local environmental, social and political conditions.
- Adopt participatory approaches when planning and implementing projects, in order to better identify development needs, avoid conflicts and tensions, sustain local income-generating activities through the construction process and improve community governance.
- Build infrastructure that can withstand environmental hazards and change, in order to protect investments and sustain local well-being in the long term.
- Integrate key infrastructure development in programmes aimed at mobilizing diasporas or donors' cash spending, in order to maximize their impacts on the well-being of the whole community.
- Build back better when rehabilitating and reconstructing infrastructure after a disaster, in order to create safer communities and tackle the social drivers of vulnerability (e.g. discriminations based on gender, ethnicity, age and physical status).
- Use the full potential of participatory infrastructural development initiatives to stabilize communities torn by violence and tension, building on the positive effects of collective well-being enhancements and multi-stakeholder consultations and implementation processes. *Example: Sri Lanka*.

CASE STUDY 28: DRR and community stabilization project for farmers in Sri Lanka

The Jaffna Peninsula has an ecologically rich and environmentally sensitive coastal area where salinization threatens arable land and freshwater sources. To mitigate the negative impact of saltwater on the soil in the area, local communities developed systems that use stormwater to flush out the salt accumulated in the land during the dry season. Such systems optimize the quantity and retention time of stormwater, increase the ground water recharge rate and minimize floods. In the Chavakachcheri area, when the population was displaced by conflict in 2008 and 2009, the saltwater extrusion system could not be maintained and the flood control embankment was damaged, resulting in the abandonment of 252 hectares of previously productive land due to salinization and the scarcity of irrigation water.

Rehabilitation of the 7-kilometre-long saltwater extrusion bund was identified as paramount to the restoration of the affected land. The project benefited 1,170 families, including 175 women-headed households in four divisions (Thanankilappu, Chavakachcheri Town, Maravanpulavu and Nunavil East). The rehabilitation of the saltwater extrusion bund is now allowing the gradual restoration of the salinization-affected land. Aquifers alongside the coast increase water table recharge and soil moisture and reduce flooding, thereby protecting 1,500 hectares of productive land, increasing local food security and reducing disaster risk.

ISSUE 6: Gender, mobility and risk

Women's and men's responsibilities, values and rights are grounded in the specificities of each cultural, political and economic context. Gender creates differential entitlement to opportunities among individuals and is a key element in shaping one's vulnerability to disasters.

Because of the gender divide, women and men of different ages experience environmental shocks and their aftermaths in distinct ways. The differences in their exposure to, perception of, and preparedness for, disasters, as well as the impacts they suffer and their capacity for recovery, are due to the corresponding differences in their access to income opportunities, medical care, education and physical security. Social norms and discriminations, a recurrent feature in both developed and developing countries, make women and girls systematically more affected by natural disasters than adult men. Nonetheless, some anecdotal evidence suggests that on occasion, men are more exposed to hazards, including secondary hazards related to emergency assistance; might be less aware of risks; and are less ready to mobilize social capital to initiate a migratory movement.

Men and women have differences in employment opportunities, roles inside the household, cultural norms and societal expectations, affecting their capacity or ability to move. As such, there are observed differences in migration patterns, which in turn determine their exposure to natural hazards, accidents and dangerous social and environmental processes. In addition, migrating men and women tend to have different access to information; likelihood to be involved in trafficking, violence and exploitation; and health and assistance needs. Likewise, an individual's access to recovery, relocation and reconstruction activities also tend to be dependent on gender considerations.

While in most cases addressing discriminations based on gender involves promoting the protection of women's rights, gender considerations need to be integrated in risk assessment, risk reduction, disaster response and recovery measures, in order to adequately consider and address the different vulnerabilities of men and women. In the long term, gender relationships can be changed, as they are socially and historically determined. In fact, the very process of migration can prove a powerful agent of change – by modifying cultural, demographic and social features both in the place of origin and in the place of destination.