

**COMPENDIUM
OF IOM ACTIVITIES
IN DISASTER
RISK REDUCTION
AND RESILIENCE**

UNDER STRICT EMBARGO UNTIL 16 JULY 10.00 GMT



International Organization for Migration (IOM)

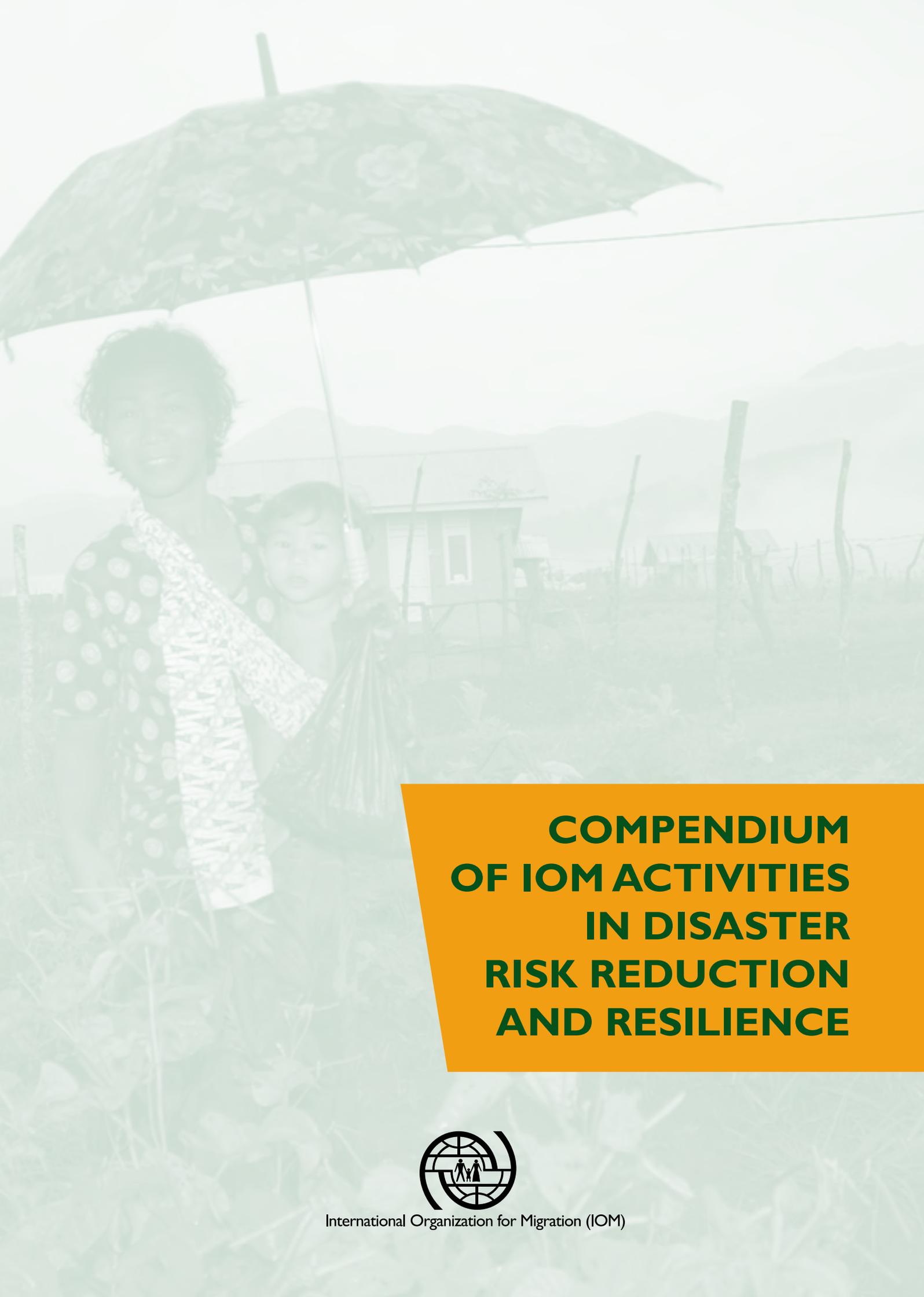
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IOM is committed to the principle that humane and orderly migration benefits migrants and society. As an intergovernmental organization, IOM acts with its partners in the international community to: assist in meeting the operational challenges of migration;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

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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.

11 PART I: ANALYTICAL OVERVIEW

Highlighting the complex role of mobility in influencing people's and communities' vulnerability and resilience to disasters.

Additional features:

- IOM's key policy messages
- IOM's engagement in international policy dialogues on development and environment

27 PART II: THEMATIC OVERVIEW

Unwrapping, for the first time, the mobility and risk reduction nexus in 19 Thematic Brief articulated around the migration crisis management cycle featuring Disaster Risk Reduction, Disaster Risk Management and Climate Change Adaptation from a mobility perspective.

Additional features:

- IOM's programmatic engagement in DRR through its Migration Crisis Operational Framework
- Lessons learned in DRR programme implementation
- Analyzing key disaster and mobility related issues such as urbanization, cross-border movement or gender

119 PART III: GEOGRAPHIC OVERVIEW

Glancing over 33 country profiles from 5 continents showcasing IOM's Country Offices efforts to reduce disaster risk.

Additional features:

- Details on main mobility- and disaster-related challenges at the country level
- Overview on IOM projects and forward looking approach

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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



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

PART I

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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.

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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 CCA²

- ▶ **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 multicausal 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

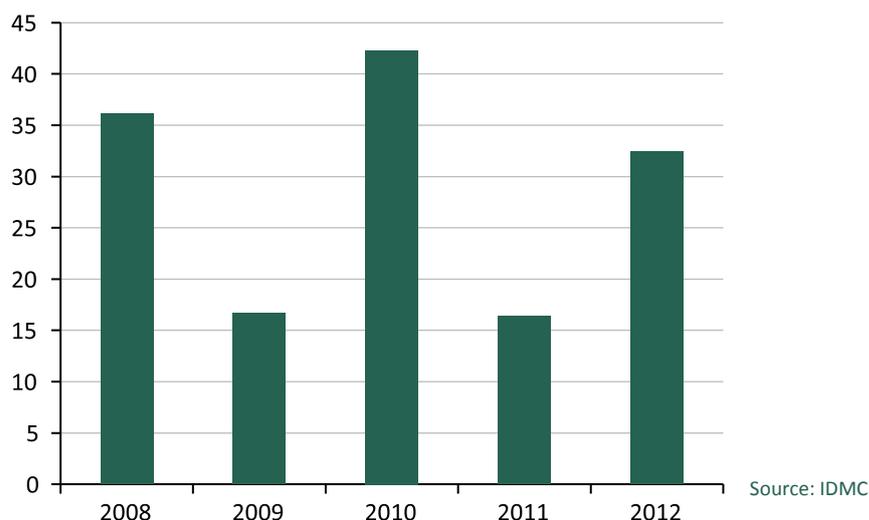
“Environmental migrants are persons or groups of persons who, for compelling reasons of sudden or progressive changes in the environment that adversely affect their lives or living conditions, are obliged to leave their habitual homes, or choose to do so, either temporarily or permanently, and who move 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



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 “socio-natural 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

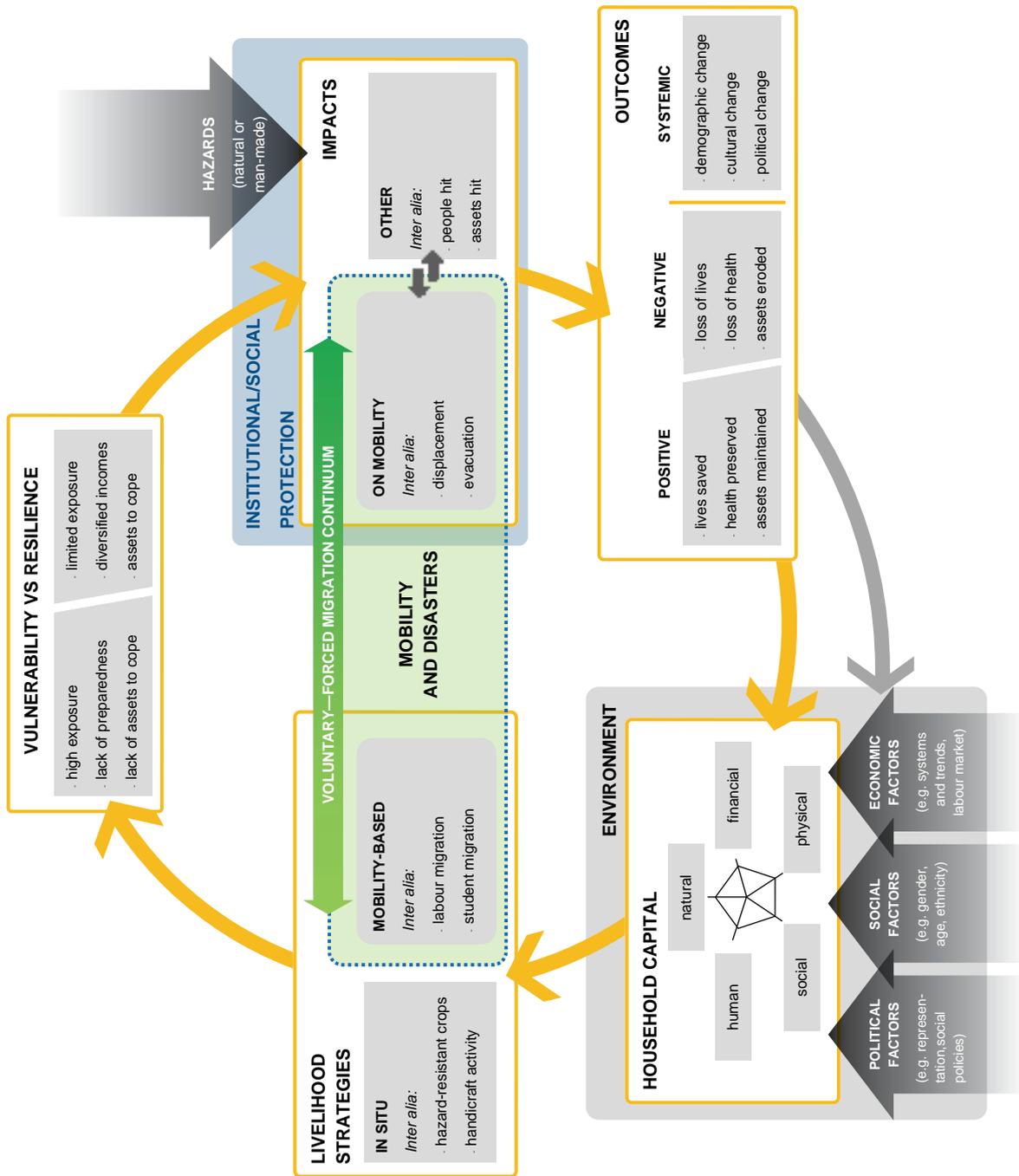
For some, migration is never really a viable option: significant physical and financial resources are required to move, and cultural obstacles (e.g. discrimination based on gender or ethnicity), the lack of supporting regional or transregional social networks and the absence of adequate infrastructure,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

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Figure 2. Livelihoods, mobility and disasters³



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 are 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.

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:

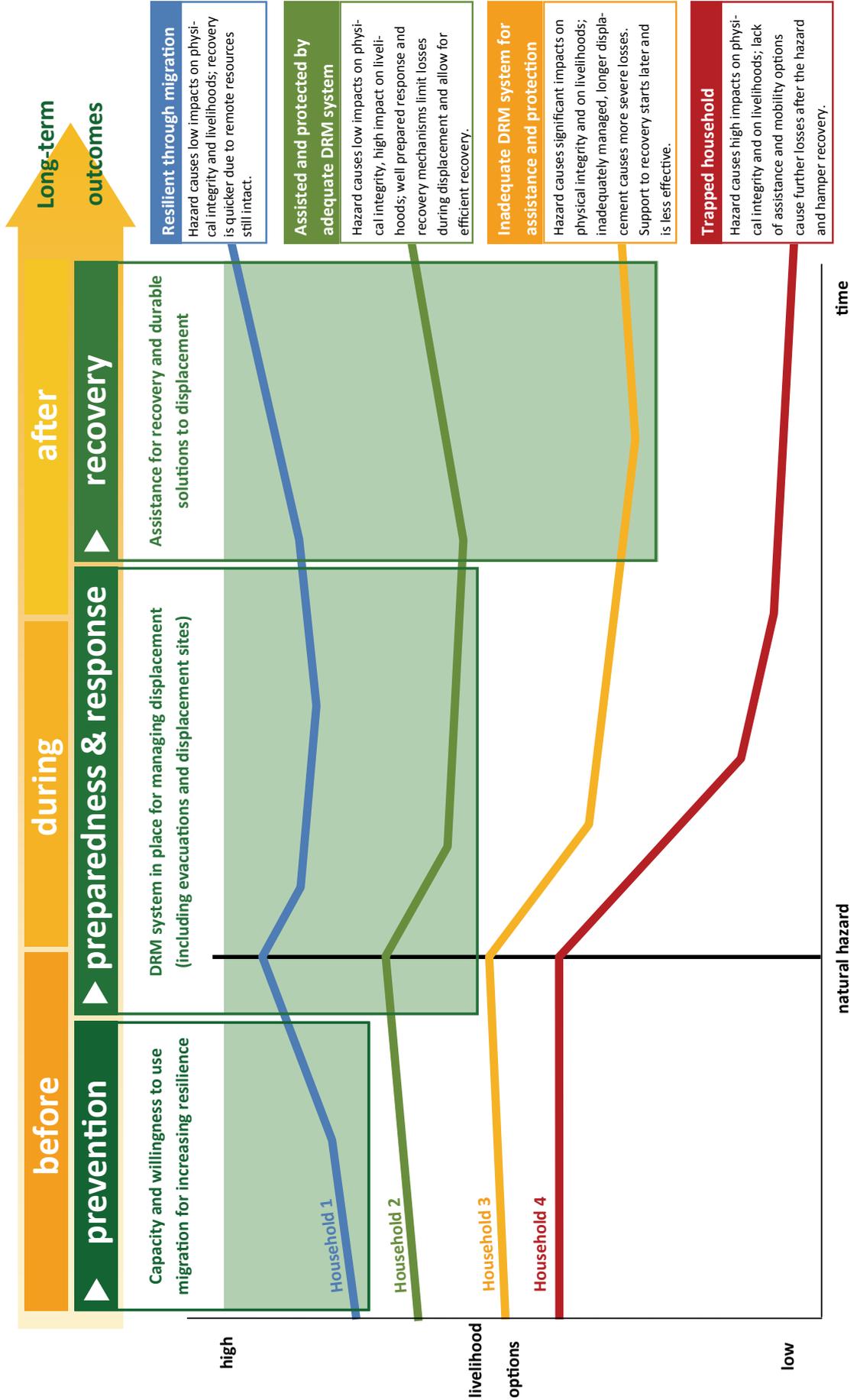
1. Prevention of forced migration by building resilience and addressing migratory pressures and their underlying factors.
2. Promotion of the mobility of individuals and communities at risk by strengthening their capacity to move and removing obstacles to the freedom of movement, in order to expand their 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 households 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.

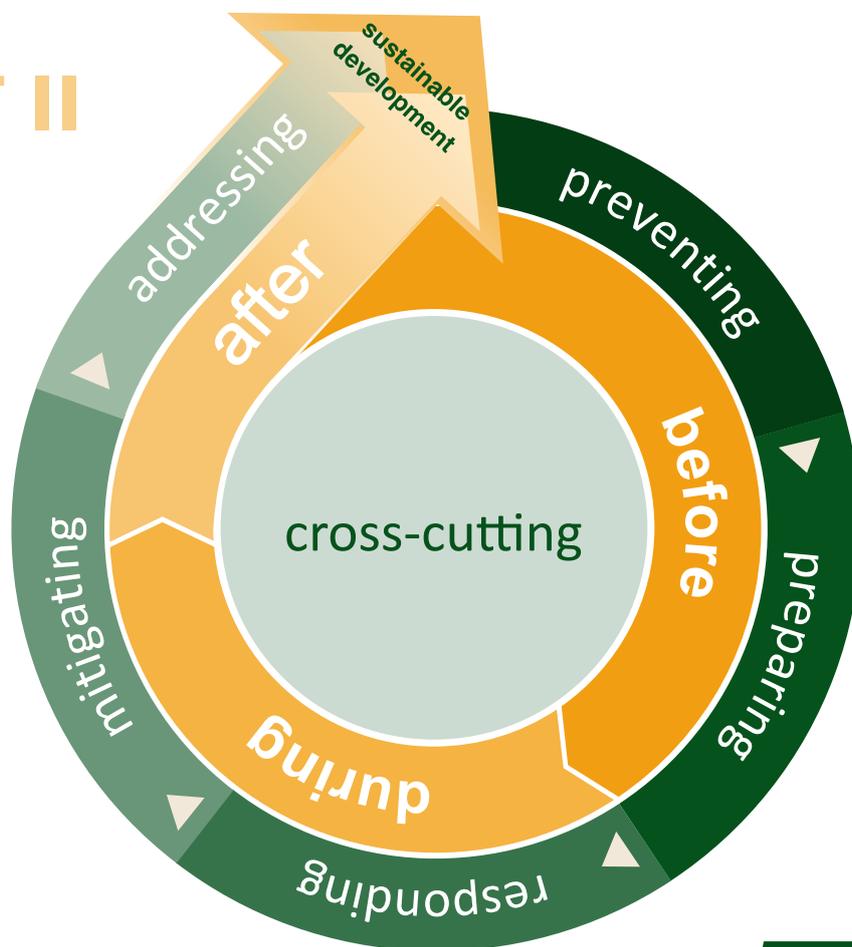
5. 2013 High-Level Dialogue on International Migration and Development (HLD): *Improving the governance of international migration, including managing the migration dimensions of crisis situations.*

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.

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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.



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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.

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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 of Action 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 1: 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.



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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:

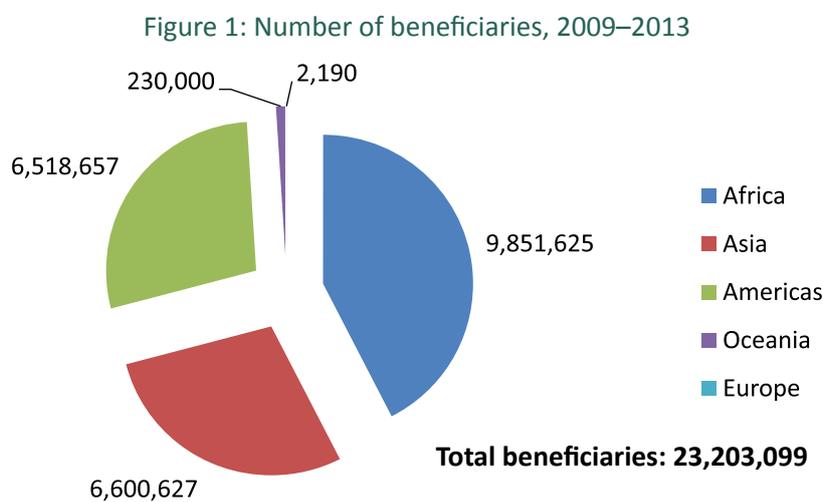
- ▶ At different levels, from community to national and regional;
- ▶ In response to all types of disasters, from sudden-onset geological disasters like earthquakes, to climate-related, slow-onset disasters such as sea-level rise;
- ▶ At different moments of the migration crisis management cycle, that 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.

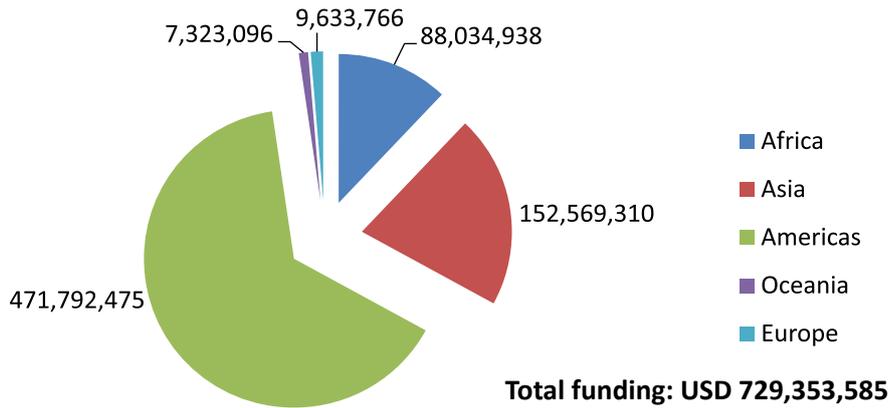


Since its last stock-taking exercise in 2009,⁷ IOM has implemented 257 disaster-related projects in 31 countries across five continents. The activities – which range from hazard mitigation and livelihood support to preparedness and emergency management – directly benefitted at least 23 million

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



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) health and 4) infrastructure.



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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

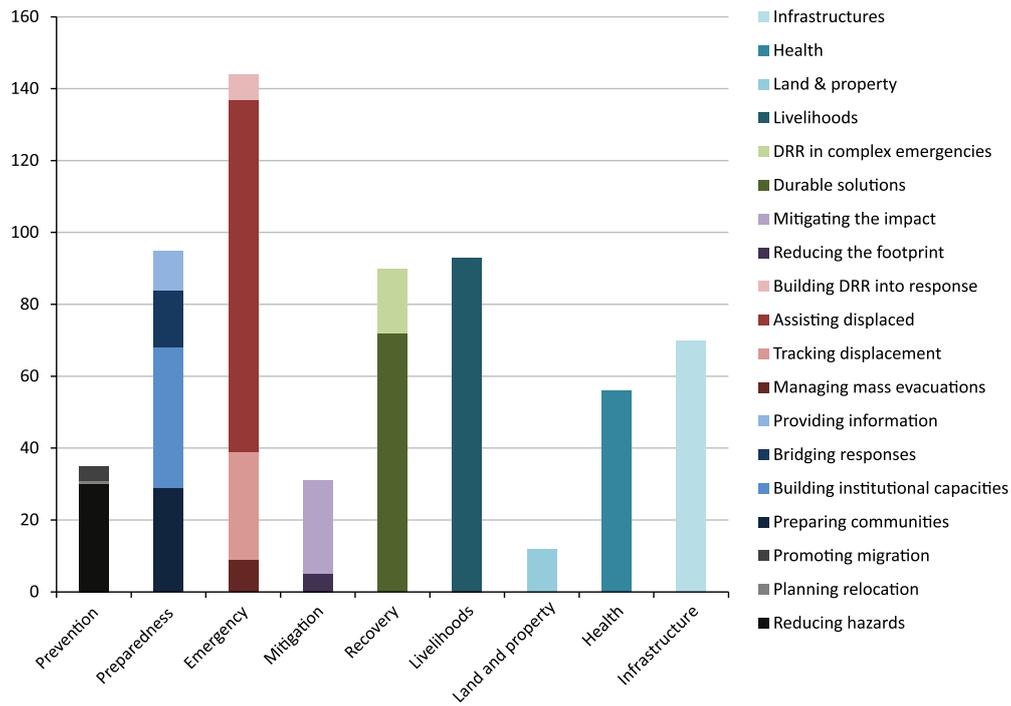
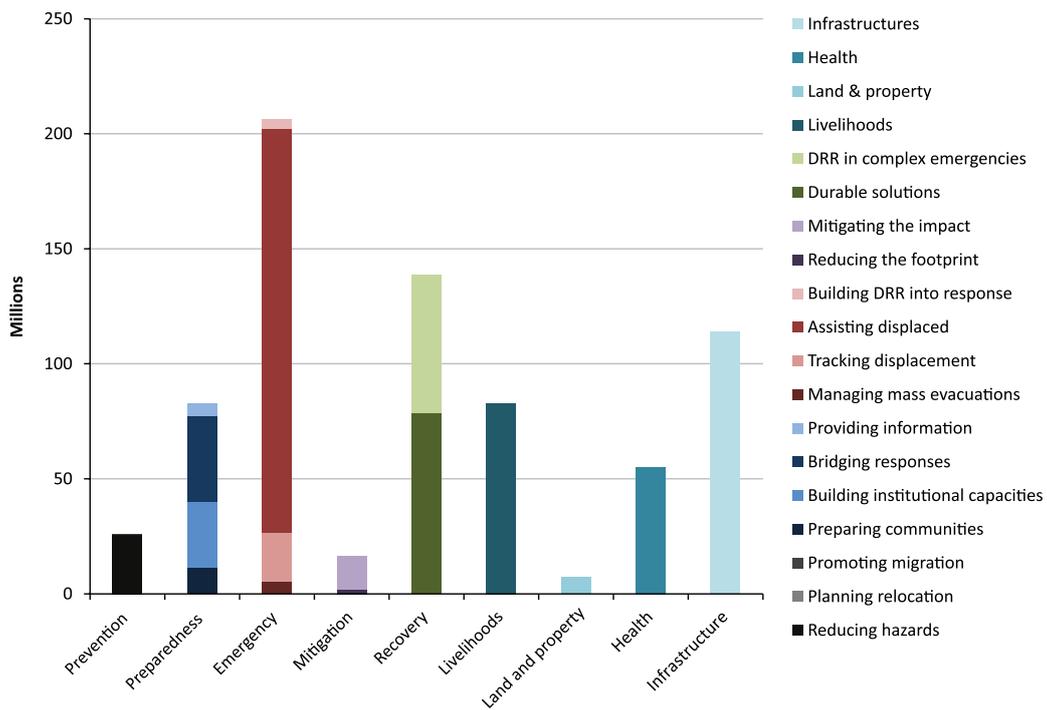


Figure 4: Worldwide expenditure on all disaster-related projects by type of activity, 2009–2013



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

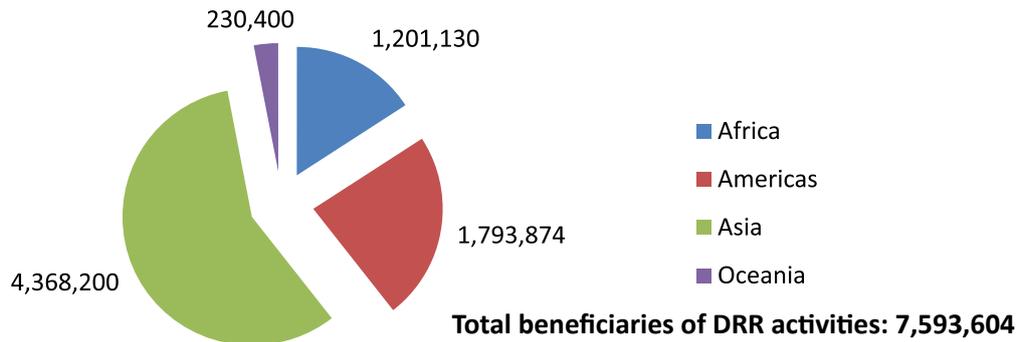


Figure 6: Expenditure on DRR and preparedness projects by type of activity, 2009–2013

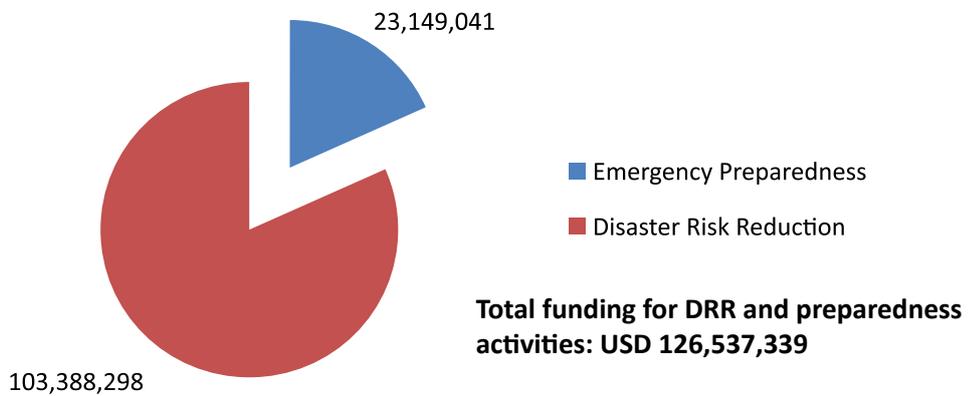


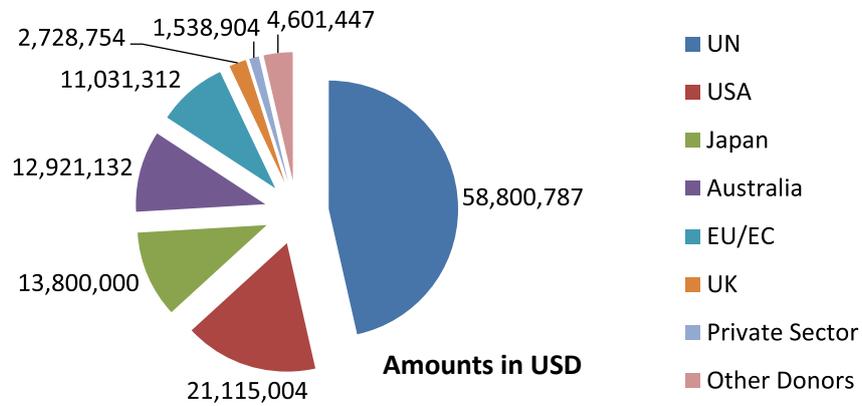
Figure 7: Number of active and completed DRR and preparedness projects, 2009–2013



The major donor for DRR-related project was the United Nations, through different institutions and funds. The United States (through USAID and

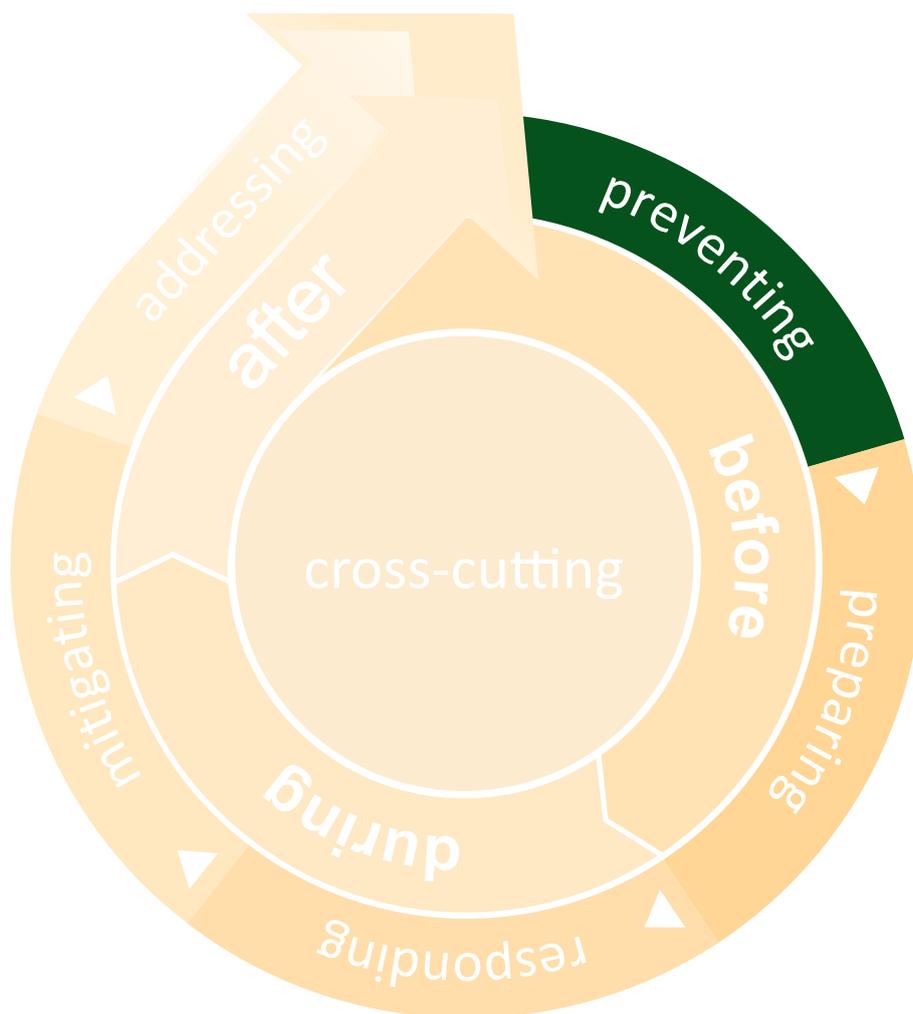
OFDA), Japan, Australia and the European Union (both through its institutions and its member States) were also among the main contributors.

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



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PREVENTING

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

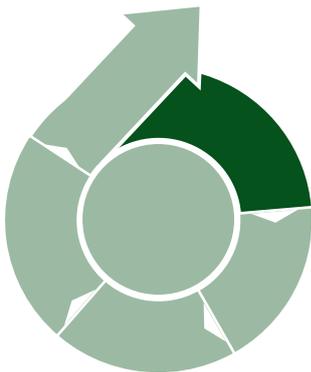
Forced migrations, including those induced by natural hazards, undermine the well-being of households and individuals by reducing access to assets, social networks and services. At the same time, in the context of limited livelihood options and deprivation that often characterize crises, and under certain 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 I: Reducing the impacts of hazards to prevent forced migration

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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 I: 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.

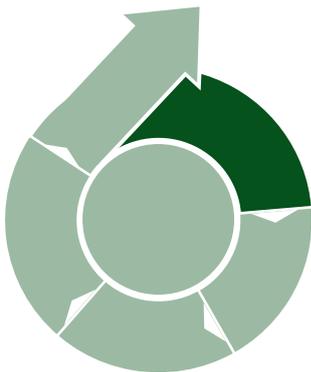
In order to support the hazard mitigation intervention, IOM has started to systematically map risks at the community level. The local DRR team created a methodology combining field-level and remote sensing data, with inputs from community members, to create community risk maps. As of this writing, work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

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

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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

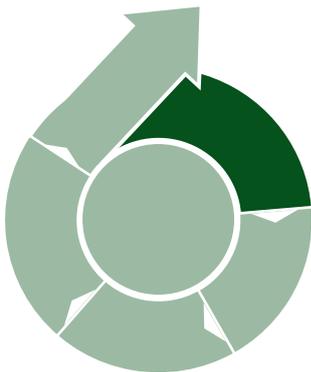
Parts of Sri Lanka are frequently hit by heavy landslides as a consequence of strong precipitation events. Recently, in 2007 and 2008, landslides affected 4,000 families and displaced 219 households. In addition to supporting the Sri Lankan Government in the aftermath of disasters by providing humanitarian 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

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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.

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ISSUE I: 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 concentrate 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.

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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.

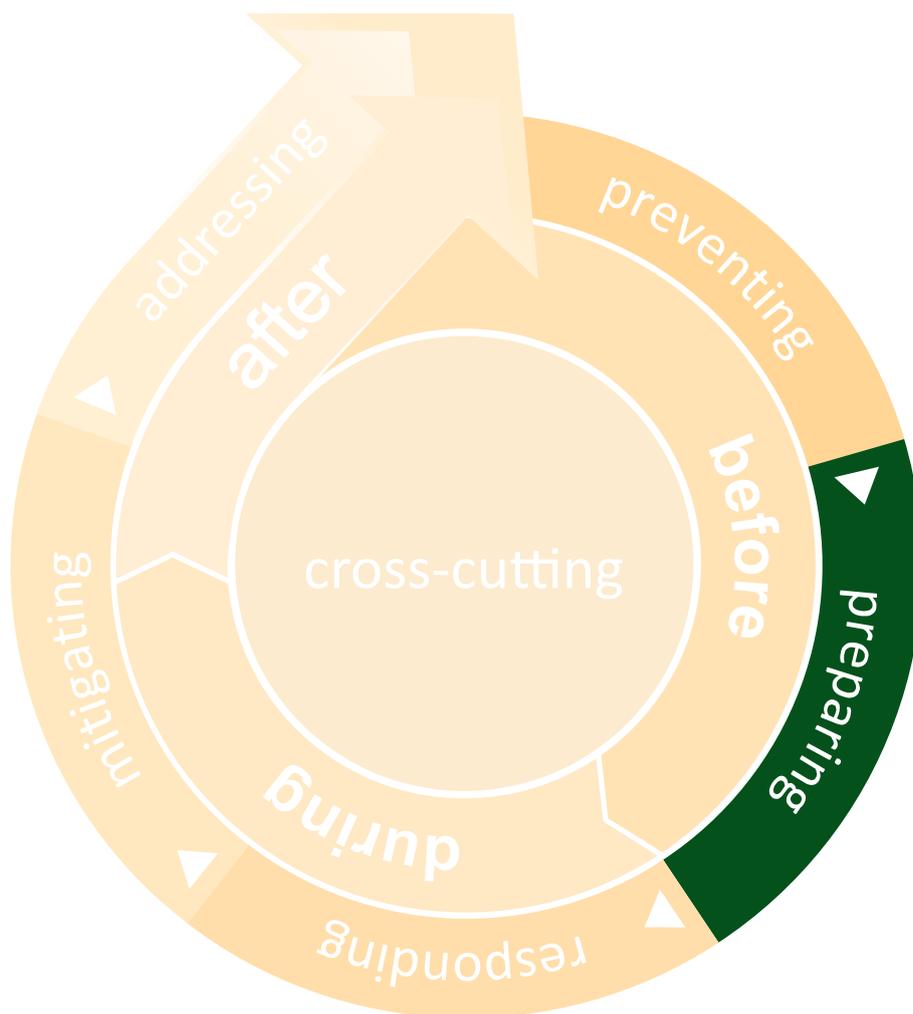
As local resources are scarce and rarely protected from the main risk factors, relocation (both internal and across national borders) is often considered a risk reduction option for many SIDS (see Thematic brief #2) despite posing serious challenges to the livelihoods, land tenure, legal statuses and 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).

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- 10. Two-way communication in Haiti
- 11. The humanitarian communications project in Pakistan



BEFORE THE DISASTER

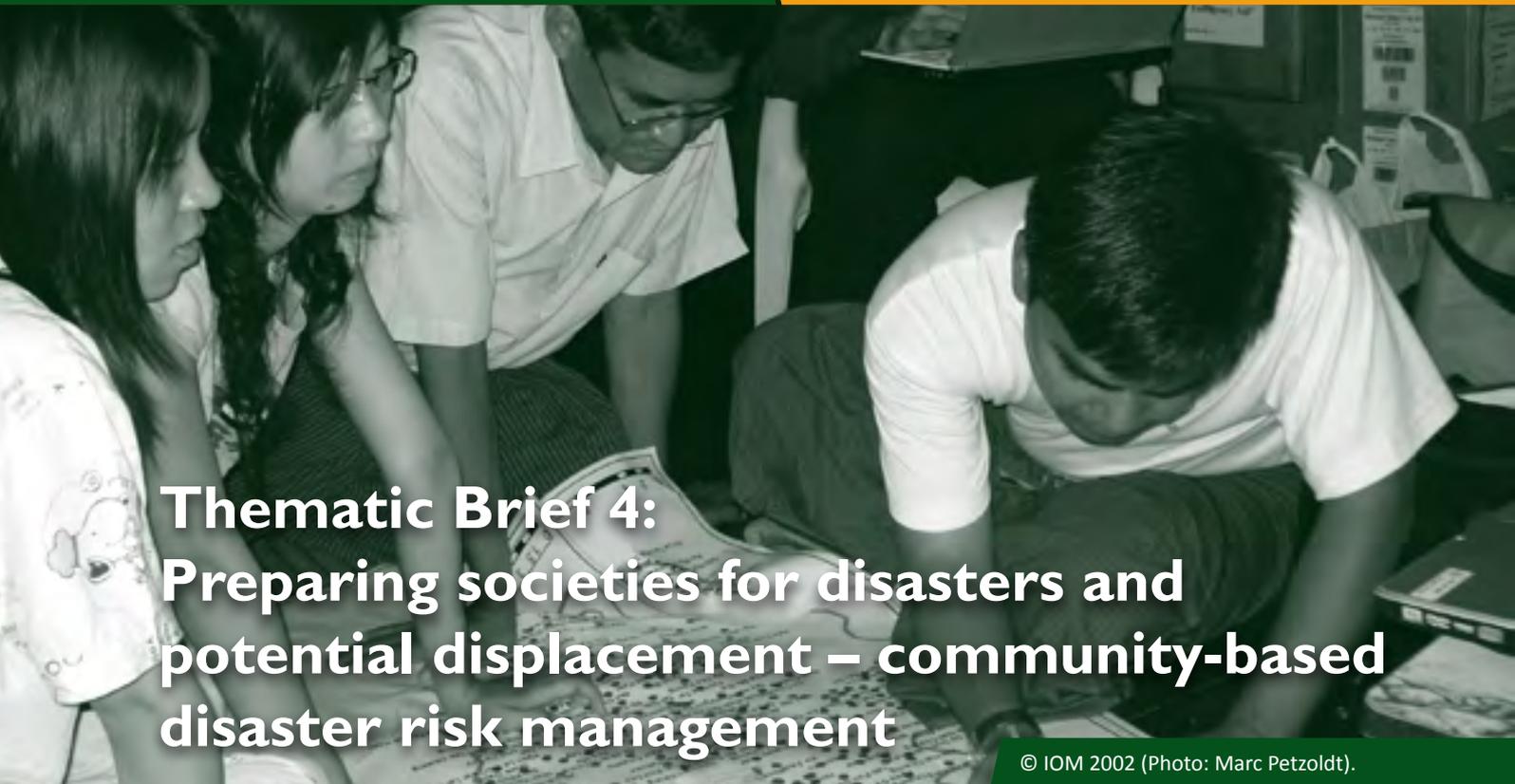
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PREPARING COMMUNITIES FOR POSSIBLE DISPLACEMENT

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.

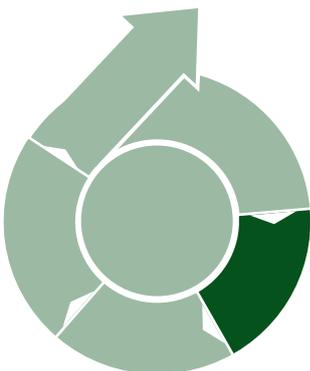
In order to adequately prepare for forced migration countries should focus on:

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

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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.

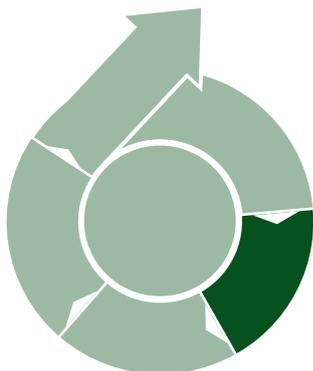
In addition, the programme allowed for the establishment of the community DRR teams, village contingency plans and standard operating procedures and included disaster response simulations to provide a chance to test the contingency plans and measure the level of preparedness that the community had achieved.

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.

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

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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.

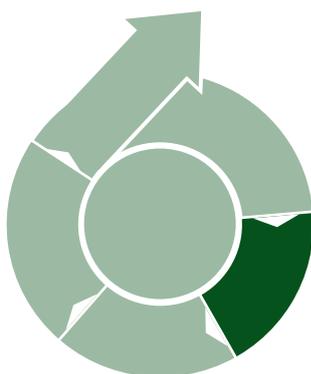
In 2011, with the support of the Namibian Red Cross Society, IOM trained officials of the Government of the Republic of **Namibia**. Temporary settlement management is now an integral part of institutional DRM initiatives and has been identified as one key area in the new National Disaster Risk Management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

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

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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.

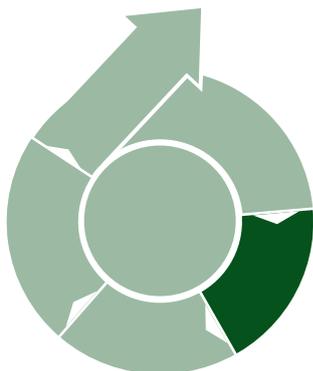
In each of the provinces, IOM is also developing a disaster management information system that is integrated with national systems and harmonized with reporting standards, as well as an operational platform, composed of both State and non-State actors, with a strong disaster coordination and response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



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

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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 Haiti¹⁰

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 Pakistan¹¹

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.

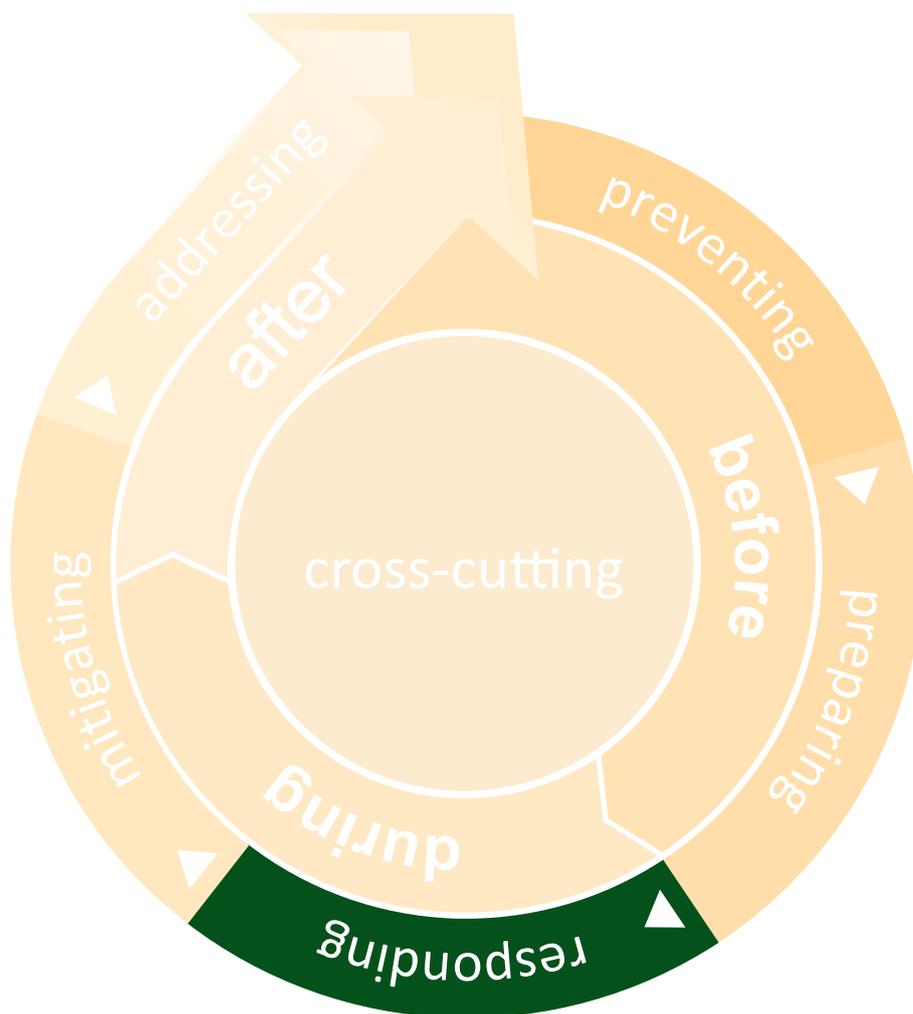
Participation has a specific relevance in risk identification and risk management processes at the local level, as it can contribute in revealing small-scale exposure and vulnerability patterns, and in designing risk reduction measures and systems that give adequate consideration to the situational specificities 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.

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DURING THE DISASTER

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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.

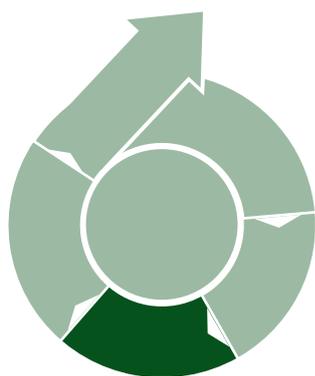
Displaced people are generally disempowered and have a limited range of survival and livelihood options. Humanitarian assistance and protection are therefore needed to make sure people continue to be able to meet their basic needs. At the same time, post-disaster relief and recovery often represent a 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

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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.

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Thematic Brief 9: Tracking displacement during crises

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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 Pakistan¹³

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

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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 2012¹⁴

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.globalccmcluster.org/>.

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

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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.

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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.

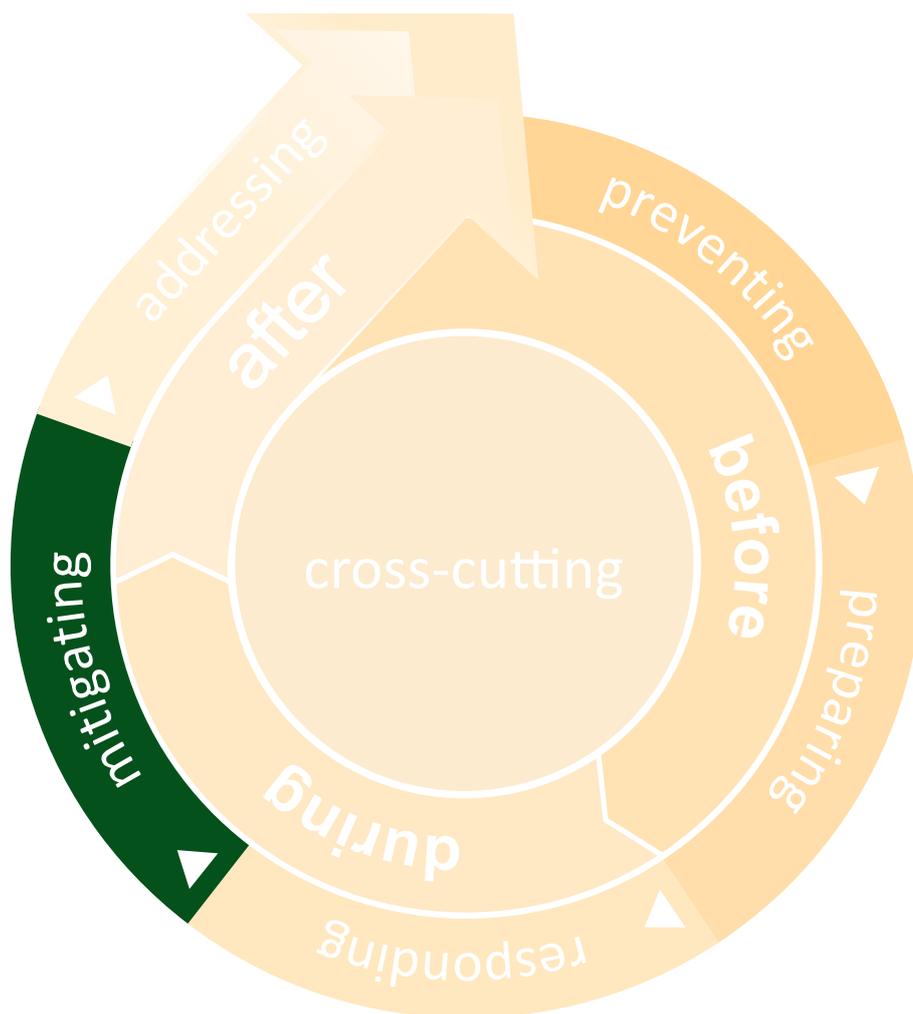
While the country of origin does not lose its responsibility to protect its displaced nationals, receiving States can decide whether they can manage the displacement with their own resources or if they are overwhelmed and need to call for international assistance. DRM and civil protection agencies, as 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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DURING AND AFTER THE DISASTER

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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

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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 burnt 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.

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

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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.

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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.

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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.

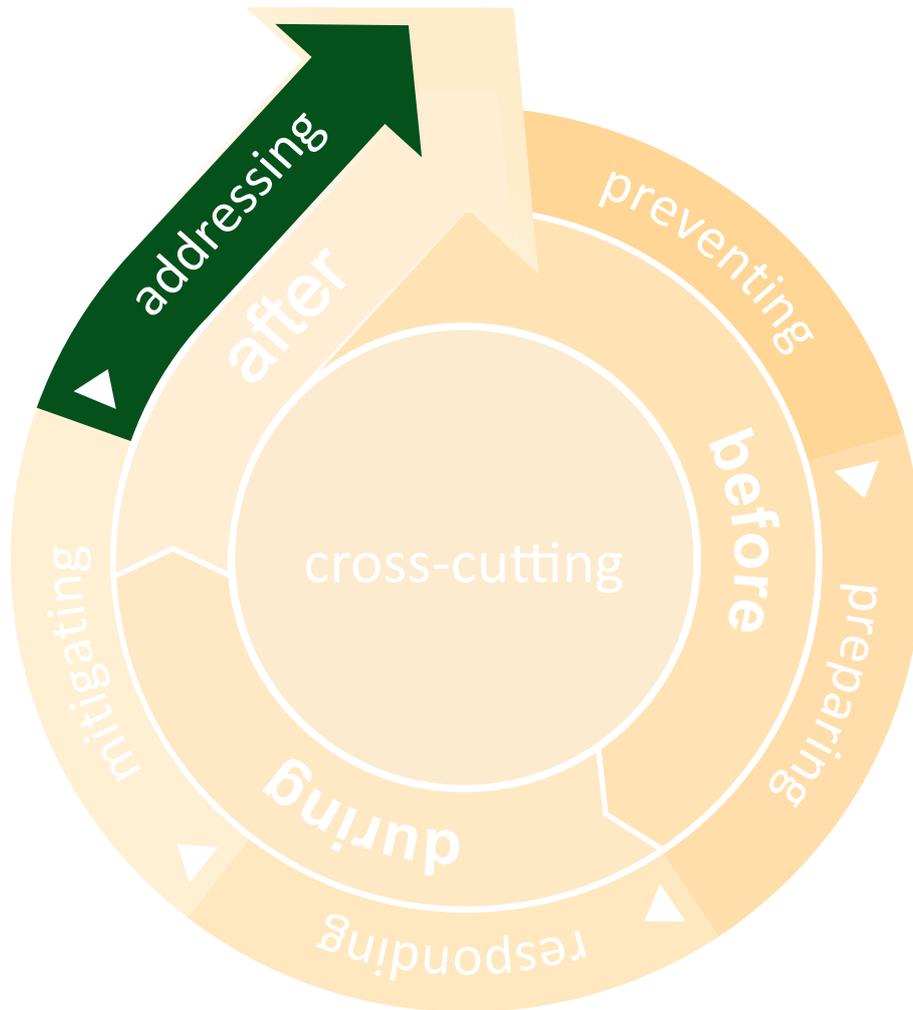
Northern Kenya is an arid, drought-prone area heavily affected by the effects of climate change on precipitation patterns. It is home to numerous groups of nomadic pastoralists. The region, bordered by Kenya, Uganda, South Sudan, Ethiopia and Somalia, is susceptible to ethnic tension and political insecurity. 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.

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AFTER THE DISASTER

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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:

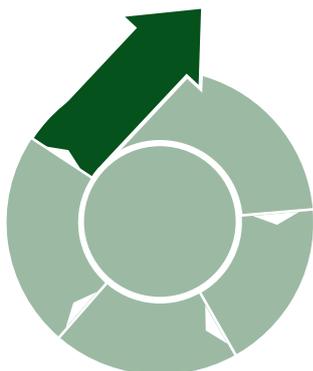
1. Managing the return of affected communities to their areas of origin, whenever possible (see thematic brief 14);
2. Promoting local integration and relocation to a third area in case the conditions for sustainable return are not in place (see thematic brief 14);
3. Addressing the multiple causes of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

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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 through 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.

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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.

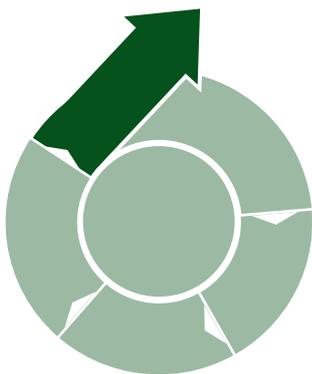
The majority of the affected people are willing to return to their communities; however, with houses, assets and basic infrastructure destroyed and services disrupted, return to high-risk areas is not always a safe choice. The Government has therefore proposed a relocation option to displaced households, 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

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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.

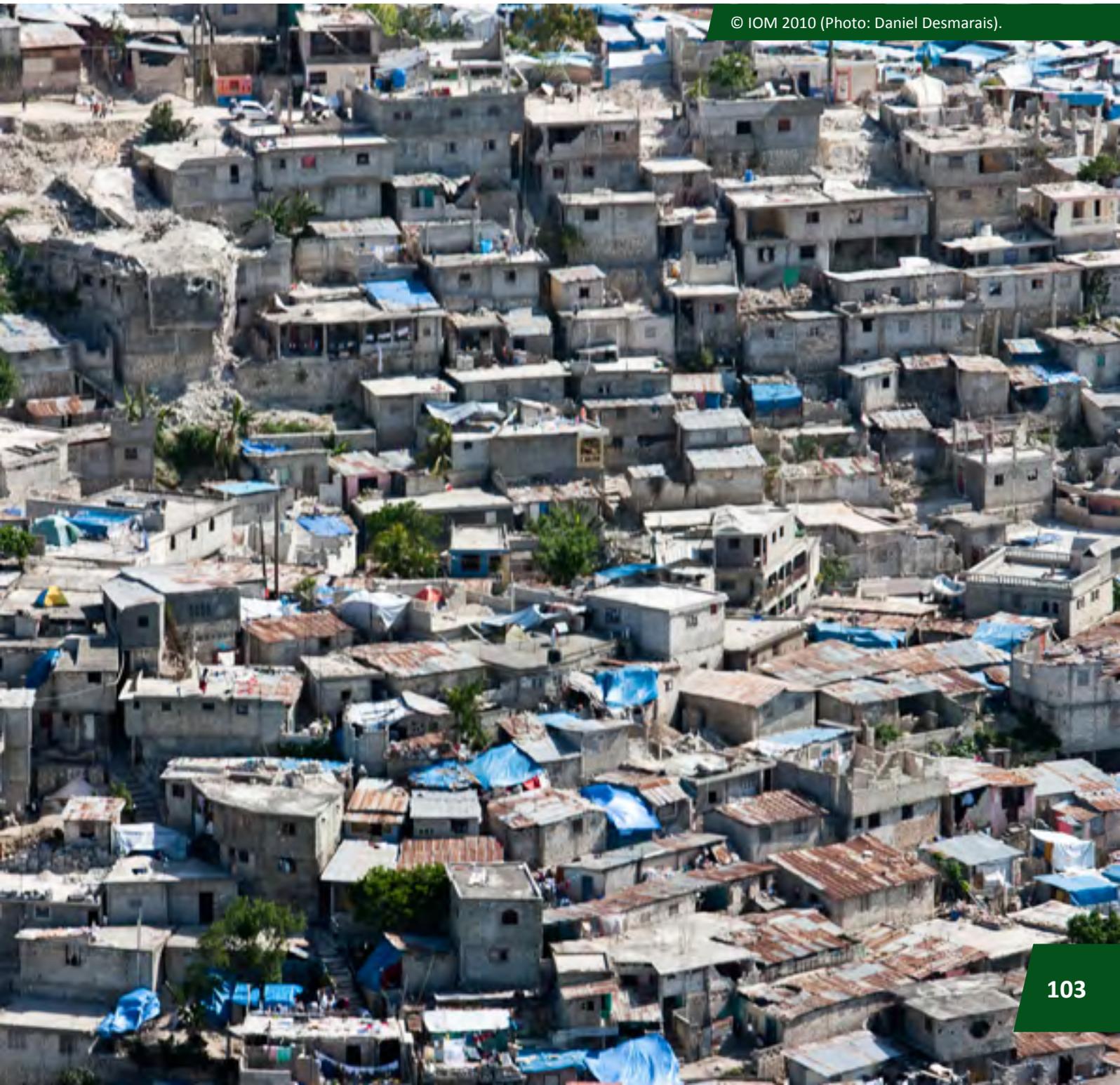
Building on these findings, IOM Kenya has prepared the "Mini-strategy on Resilience" for regional activities that will support mobile communities in Kenya and, more generally, in East Africa.

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.

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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).

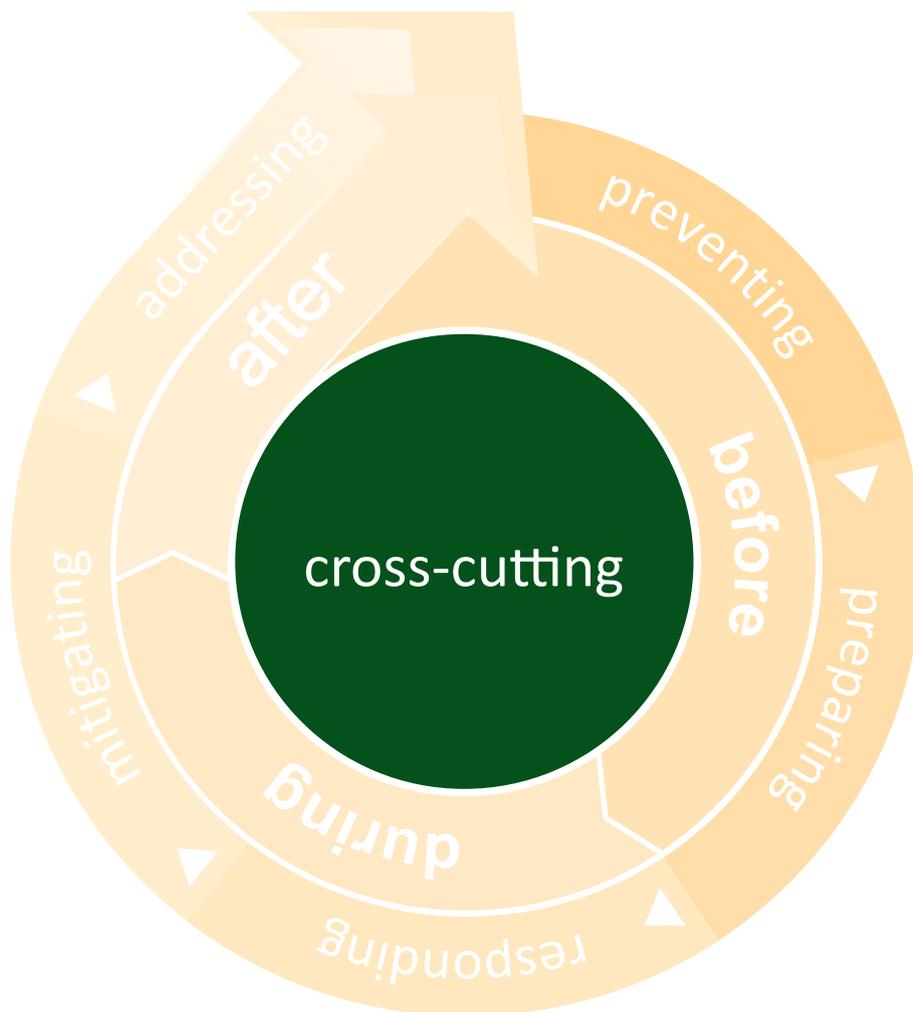
Environmental degradation induced by poorly managed urbanization (also deriving from migration to urban areas) is a key driver of hazard occurrence. Buildings and infrastructure deeply affect air and water circulation and soil stability, reducing the local ecosystem’s capacity to control floods, fires, 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

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- 26. Overcoming land tenure barriers in Haiti
- 27. Supporting health services before, during and after crises in Haiti
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CROSS-CUTTING ACTIVITIES

© IOM 2005 (Photo: David Lang).

REDUCING RISK AND BUILDING RESILIENCE ACROSS THE MIGRATION CRISIS PHASES

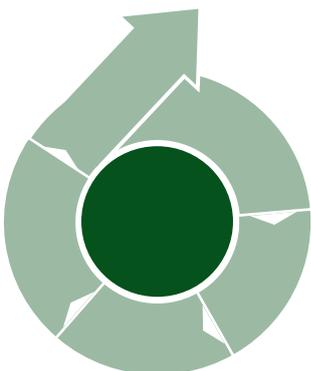
The durable reduction of risk depends largely on identifying and addressing issues that affect the well-being, vulnerability and resilience of a community before, during and after a crisis. Some of these issues are especially relevant in determining a disaster's negative impacts on human mobility, and 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

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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.

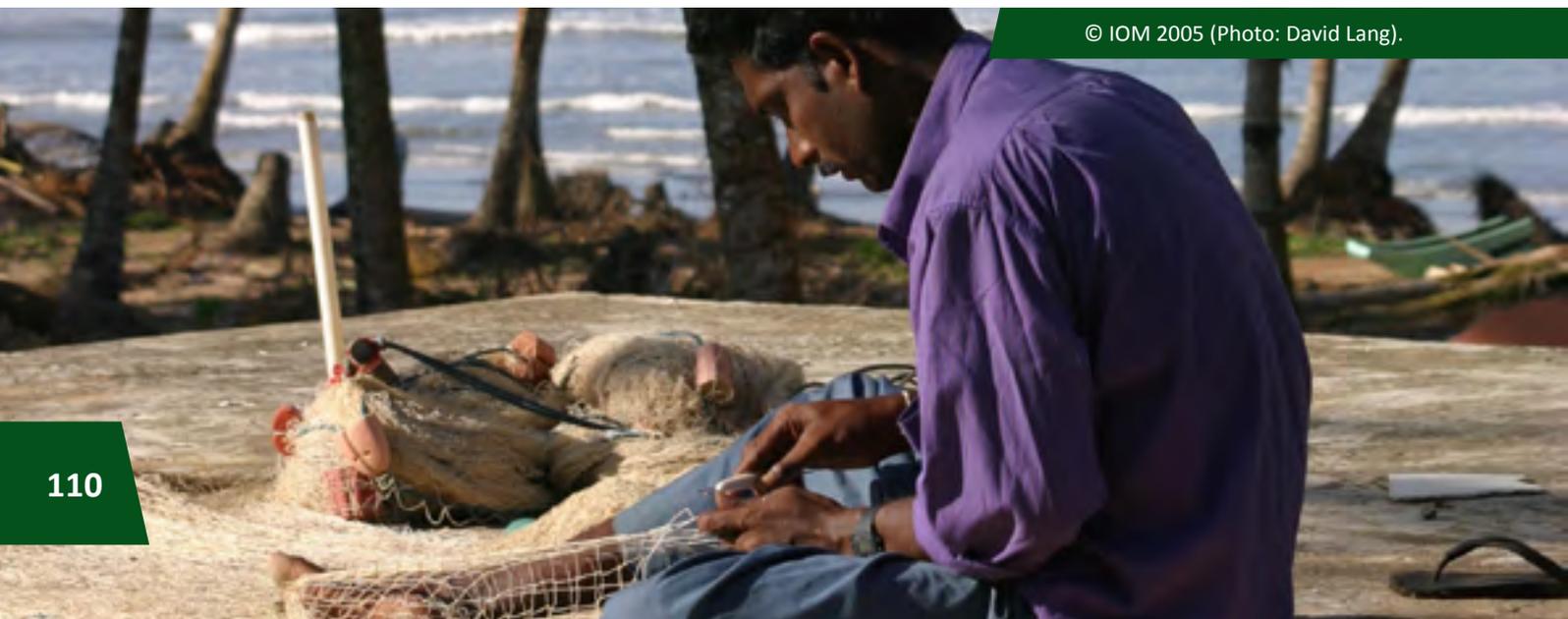
Kebon Village was a beneficiary under the Livelihood Recovery Programme of IOM, which was funded by the multi-donor Java Reconstruction Fund. The project benefited from an established network of key stakeholders, including the private sector, media, business associations, universities and the local government. 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.

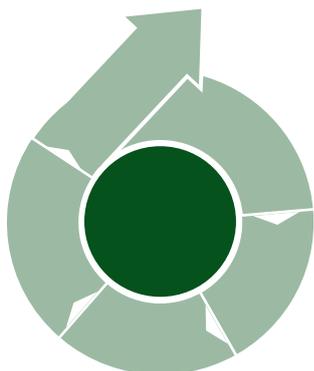
The negative impact of the coffee production process on the local ecosystem was reduced through shade growing, biodiversification and the use of organic fertilizer, while the environmental footprint of the supply chain benefitted from improved resource efficiency and the reduction of toxic material usage 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.

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Thematic Brief 17: Addressing land and property issues

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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

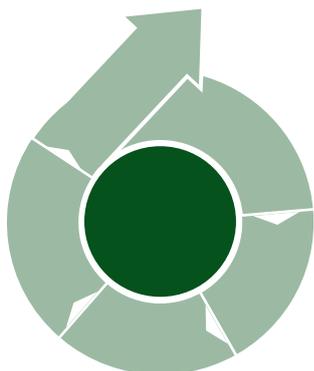
The lack of clear land tenure information is one of the most significant challenges to post-earthquake reconstruction and rehabilitation efforts. Land tenure information was incomplete, unclear and outdated even prior to the 2010 earthquake due to insufficient institutional arrangements and the prevalence 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

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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

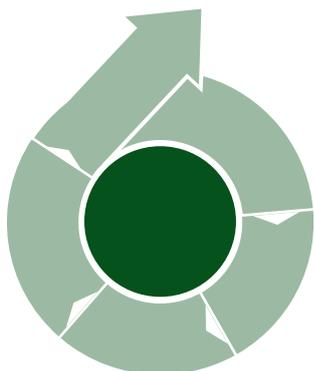
Over the past three years, Haiti was struck by a destructive earthquake (2010), a cholera epidemic (2010–2013) and several tropical storms and hurricanes (2010 and 2012). The combination of these disasters, widespread poverty and a protracted displacement crisis has resulted in acute vulnerabilities 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

© IOM 2007 (Photo: Katsui Kaya).



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.

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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.

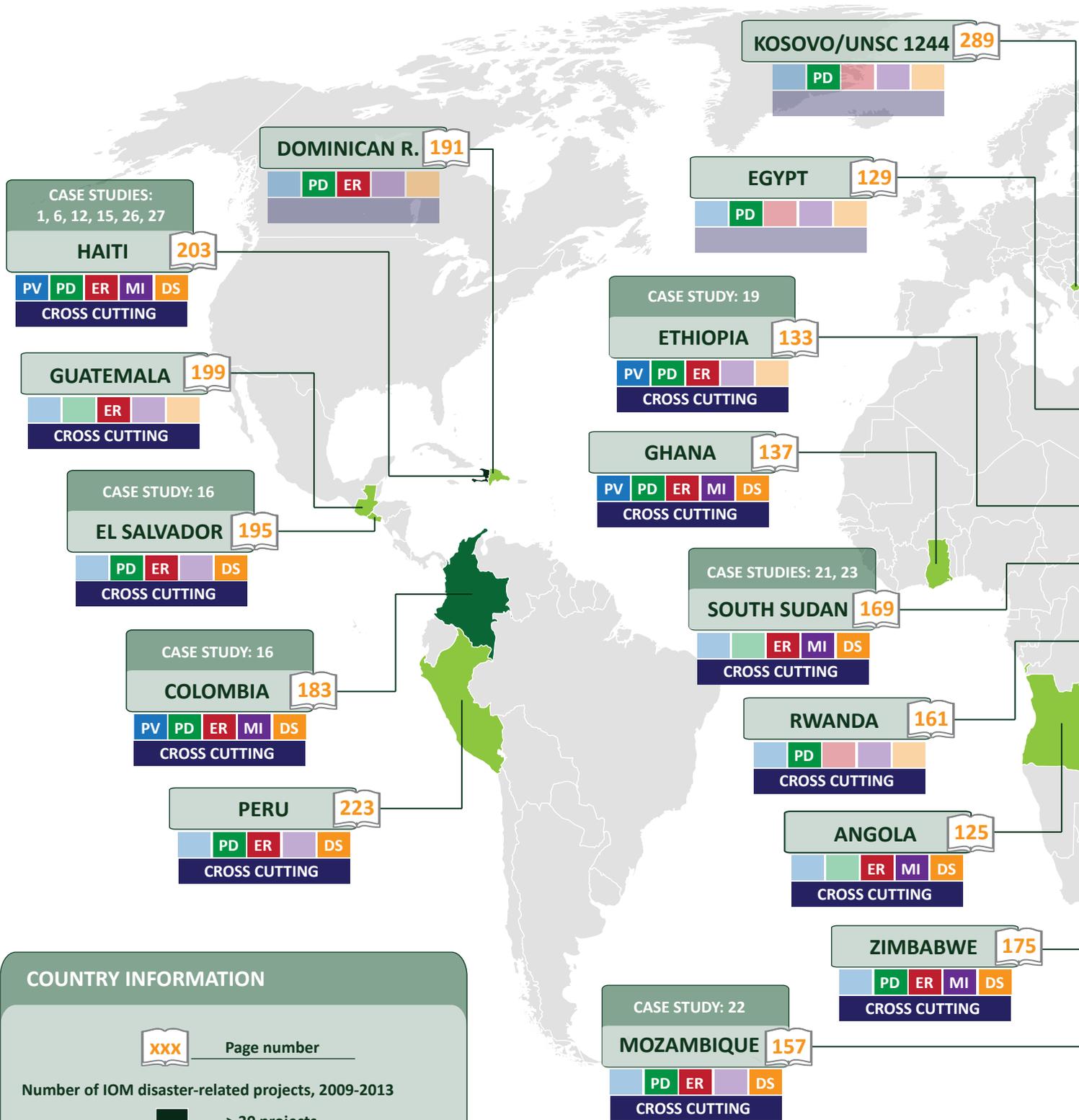
© IOM 2008 (Photo: Piers Benatar).



PART III

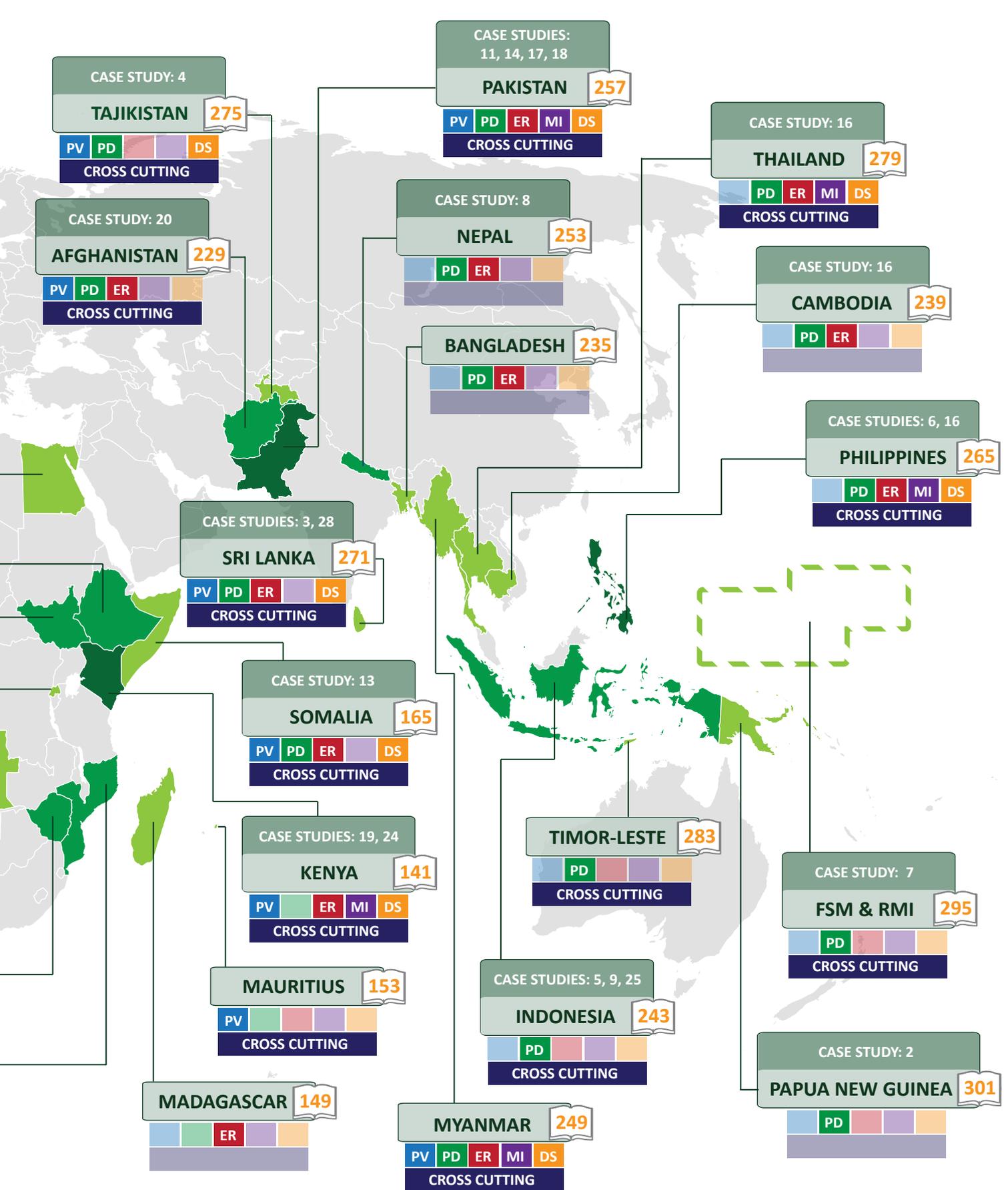
COUNTRY PROFILES





CASE STUDIES INCLUDED IN PART II

1. Preventing forced migration in Haiti
2. Relocation of the Bougainville atoll communities
3. Relocating communities at risk in Sri Lanka
4. Labour migration in Tajikistan
5. CBDRM in Indonesia
6. Institutional capacity building to manage displacement
7. Multilevel DRM in Micronesia and the Marshall Islands
8. Planning evacuation sites in Nepal
9. Emergency operation centres in Indonesia
10. Two-way communications in Haiti



- 11. Humanitarian communications in Pakistan
- 12. Evacuating at-risk populations in Haiti
- 13. Emergency transportation for Somalis entering Kenya
- 14. The temporary settlement support unit in Pakistan
- 15. Enhancing displacement tracking in Haiti
- 16. Camp coordination and management in disasters in 2012
- 17. The One-Room Shelter Programme in Pakistan
- 18. Local procurement for reconstruction in Pakistan
- 19. Relocating cross-border migrants in Kenya and Ethiopia
- 20. Enhancing livelihoods of IDPs and returnees in Afghanistan

- 21. WASH services in communities of return in South Sudan
- 22. Relocation sites in Gaza province, Mozambique
- 23. Village assessments for sustainable return in South Sudan
- 24. Kenya's Security in Mobility assessment
- 25. Promoting sustainable livelihoods in Indonesia
- 26. Overcoming land tenure barriers in Haiti
- 27. Supporting health services in Haiti
- 28. DRR and community stabilization for farmers in Sri Lanka

Data used for the **COUNTRY PROFILES**

Surface area: km²

Source: United Nations Statistics Division, Demographic Yearbook 2011

Population, 2010 (est.): million

Source: United Nations Department of Economic and Social Affairs, Population Division, World Population Prospects: The 2010 revision

Density, 2010: inhabitants/km²

Source: United Nations Department of Economic and Social Affairs, Population Division, World Population Prospects: The 2010 revision

GDP in USD, 2011: billion

Source: The World Bank - <http://data.worldbank.org/indicator/NY.GDP.MKTP.CD>

GDP per capita in USD, 2011:

Source: The World Bank - <http://data.worldbank.org/indicator/NY.GDP.PCAP.CD>

Remittances in USD, 2011:

Source: World Bank staff estimates based on the International Monetary Fund's Balance of Payments Statistics Yearbook 2011

HDI:

Source: UNDP - <http://hdr.undp.org/en/data/profiles/>

Net migration rate 2010–2015:

Source: United Nations Department of Economic and Social Affairs, Population Division's World Population Prospects: the 2008 Revision Population Database

People displaced by disasters, 2008–2012 (est.):

Source: Source: Internal Displacement Monitoring Centre (IDMC), Data version as of 1 May 2013.

Top 10 natural disasters by population affected, 1980–2013

EM-DAT: The OFDA/CRED International Disaster Database – www.emdat.be, Université Catholique de Louvain, Brussels (Belgium). April 15, 2013. Please refer to the website for more details on terminology and categories

Natural disaster occurrence, 1980–2013

EM-DAT: The OFDA/CRED International Disaster Database – www.emdat.be, Université Catholique de Louvain, Brussels (Belgium). April 15, 2013. Please refer to the website for more details on terminology and categories

Types of movement, types of response, IOM staff working on disasters, location of IOM offices, total DRR funding for 2013 in USD:

Source: IOM internal information

AFRICA

- 
- 125** Angola
 - 129** Egypt
 - 133** Ethiopia
 - 137** Ghana
 - 141** Kenya
 - 149** Madagascar
 - 153** Mauritius
 - 157** Mozambique
 - 161** Rwanda
 - 165** Somalia
 - 169** South Sudan
 - 175** Zimbabwe

ANGOLA



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Surface area	1,246,700 km ²
Population, 2010 (est.)	19.1 million
Population density, 2010	15.3/km ²
GDP in 2011	USD 104.3 billion
GDP per capita in 2011	USD 5,318
Remittances, 2011	USD 533.3 million
HDI	0.508
Net migration rate, 2010–2015	0.8 migrants/1,000 population
Types of movement	Rural-to-urban migration, permanent migration, internal displacement
Displaced by disasters, 2008–2012	430,291
Number of IOM staff working on disasters	2
Location of IOM offices	Luanda
Total DRR funding for 2013 in USD	Data not available

IOM site: www.angola.iom.int

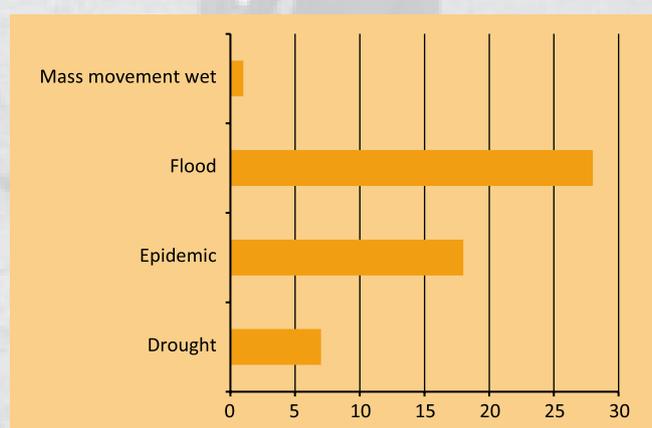
IOM DRR responses

Emergency	Mitigation	Recovery	Cross-cutting
Assisting the displaced Building DRR into the response	Mitigating the impact	Durable solutions	Livelihoods Health Infrastructures

Top 10 natural disasters by size of affected population, 1980–2013

Disaster	Date	Affected
Drought	1989	1,900,000
Drought	1985	500,000
Flood	2004	331,700
Flood	2009	220,000
Flood	2010	110,886
Drought	1997	105,000
Flood	1989	100,000
Flood	2008	81,400
Drought	1981	80,000
Flood	2010	75,000

Natural disaster occurrence, 1980–2013



Background

Angola achieved independence in 1975, after almost 15 years of liberation war, and was ravaged by internal conflict from 1975 to 2002. Despite going through unprecedented institutional development and economic growth, Angola still faces many development-related challenges, including significant disaster risk.

The two most common natural disasters in Angola are dry spells, with cyclical droughts mainly affecting the southern and south-western part of the country, and flooding, which has gotten stronger and more destructive during the last six years. Of all the provinces of Angola, Cunene has been the most affected by floods, with 75 per cent of its territory under water in 2007 and 2008. The Angolan capital, Luanda, faces flood-related problems stemming from the prevalence of informal settlements and poor land use practices. Local slums are extremely vulnerable to flash floods, which can often be triggered by even just a few hours of intense precipitation, as drainage systems are non-existent.

Floods and droughts regularly result in massive damage to infrastructure and livelihood and in deaths and injuries, as well as occasional outbreaks of waterborne and hygiene-related diseases such as cholera. Destruction of economic assets and infrastructure affects food security and socioeconomic development in the long term, and is a significant factor triggering internal migrations.

In 2011 alone, there were 227,000 IDPs because of extreme natural events, making Angola the first-ranking African country (and the twelfth worldwide) in terms of displacement induced by natural disasters.

The Government enacted a national four-year civil protection strategy in 2009 – the first of its kind – focusing mostly on improving emergency response capacity at all administrative levels, though progress remains limited due to the lack of trained human resources, quality hazard data and nationwide disaster statistics.

Responses

The emergency response by IOM in recent years has focused on the distribution of tents and relief items, for example, during the early 2011 flooding episode in Cunene Province. Taking into consideration the socioeconomic drivers of risk in Angola, IOM is now concentrating on long-term projects that tackle the underlying factors of vulnerability and build the resilience of communities to natural hazards, with the aim of preventing forced migration, as well as building the capacity of national actors involved in disaster management and prevention.

Between 2009 and 2012, the Organization supported the development of rural livelihoods in the Huambo Province, in order to improve local food security and provide alternatives to migration in the face of natural events and, ultimately, to improve resilience to natural disasters within the communities.

In addition, IOM took part in the implementation of two joint One UN Programmes due to close in 2013 and which focused on nutrition and health initiatives for children in the Bié and Moxico Provinces and on the creation of sanitation structures and improving the access to clean water in peri-urban Luanda and rural Moxico, to reduce vulnerability to floods and epidemic outbreaks.



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Results achieved

IOM activities allowed for the extension of cultivation areas and the introduction of new crops in rural communities. Beneficiaries were also trained in honey production, animal husbandry and product transformation activities. IOM further supported rural livelihoods by establishing seed conservation banks and reimbursement schemes, and by improving local capacity for water resource management.

As a consequence, greater agricultural outputs have been achieved, allowing for qualitative and quantitative improvements in the beneficiaries' diet.

IOM also set up 115 micro-businesses in peri-urban and rural areas, particularly targeting women and vulnerable persons, whose incomes are expected to increase by 25 per cent over the first three years.

Further, the Organization carried-out a training and sensitization campaign for 1,200 community health

workers in Bié and Moxico, to promote and support key nutrition and food preparation practices in households, and capacity-building activities on food and nutrition education, as well as HIV/AIDS prevention, for 600 community activists.

Future objectives

IOM will continue to engage in DRR activities in Angola, in particular by planning a series of activities to build the capacity of local institutions and communities to prepare for and cope with recurrent natural hazards (e.g. on camp coordination and management).

As agriculture remains the principal source of income for vast segments of the local vulnerable population, IOM will focus on making rural livelihoods hazard- and climate-resistant. In addition, it will undertake community stabilization activities in urban and rural areas of destination following migratory movements, including displacement.

List of projects

Urban and Peri-urban Water and Sanitation Joint Programme Management (PUWS)

Project status	Completed
Project period	1 April 2009 to 20 March 2013
Beneficiaries	520,000 people
Donor	MDG Achievement Fund
Amount funded (in USD)	1,150,000

Community Stabilization Programme – Food Security and Agricultural Development in Return Areas of Huambo Province of Angola (FSSC 2)

Project status	Completed
Project period	18 December 2009 to 31 March 2012
Beneficiaries	Refugees, 1,015 families of affected communities, former combatants
Donor	Spain, Agencia Española de Cooperación Internacional para el Desarrollo
Amount funded (in USD)	1,298,701

Children, Food Security and Nutrition in Angola (CFN)

Project status	Completed
Project period	1 January 2010 to 1 January 2013
Beneficiaries	700,000 people, At-risk youth
Donor	MDG Achievement Fund
Amount funded (in USD)	579,451

Disaster Assistance to Angolan Returnees in Uige Province (ASEPU)

Project status	Completed
Project period	4 January 2010 to 3 March 2010
Beneficiaries	800 families of affected communities
Donor	USAID, OFDA
Amount funded (in USD)	50,000
Partners	Ministry of Assistance and Social Reinsertion (MINARS), Ministry of Health (MINSa), National Commission for Civil Protection (NCCP), UCTAC, different UN agencies, International and National NGOs



EGYPT



© Reuters 2008 (Photo: Nasser Nouri).

Surface area	1,002,000 km ²
Population, 2010 (est.)	81.1 million
Population density, 2010	81.0/km ²
GDP in 2011	USD 229.5 billion
GDP per capita in 2011	USD 2,781
Remittances, 2011	USD 8 billion
HDI	0.662
Net migration rate, 2010–2015	-0.9 migrants/1,000 population
Types of movement	Internal displacement
Displaced by disasters, 2008–2012	3,000
Number of IOM staff working on disasters	2
Location of IOM offices	Cairo, Abu Qir East and West
Total DRR funding for 2013 in USD	USD 200,000

IOM site: www.egypt.iom.int/

IOM DRR responses

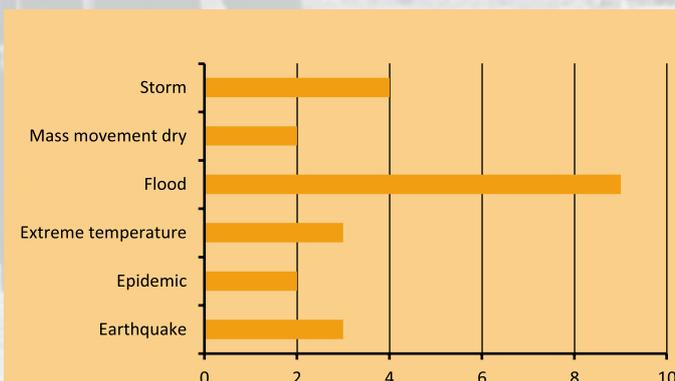
Preparedness

Preparing communities
Building institutional capacities

Top 10 natural disasters by size of affected population, 1980–2013

Disaster	Date	Affected
Flood	1994	160,660
Earthquake	1992	92,649
Flood	2010	3,500
Flood	1995	3,000
Flood	2002	800
Mass Movement Dry	2008	697
Mass mov. dry	1993	300
Flood	1996	260
Earthquake	2002	250
Flood	1991	208

Natural disaster occurrence, 1980–2013



Background

Egypt is among the countries most vulnerable to the effects of rising sea levels. The most affected areas in the country are those that are densely populated, such as the Nile Delta, which has densities of up to 1,600 inhabitants for every square kilometre and is home to half of Egypt's 80 million people. Rising waters threaten Egypt's entire coastline up to 40 km inland, as it is less than two metres above sea level and is protected from the sea by a thin sand strip. The eastern and western corners of the Nile Delta are in a particularly precarious situation, with elevations below sea level and a population of more than a million residents. Along the delta's coasts lie numerous inundated areas and lagoons, whose surfaces are expanding as a consequence of more frequent flooding.

According to conservative estimates by the Intergovernmental Panel on Climate Change (IPCC), Alexandria (Egypt's second largest city) is expected to be 30 per cent flooded if sea levels rise by 50 cm. This is expected to result in the displacement of 1.5 million people.

Like many arid areas elsewhere, Egypt is also susceptible to flash flooding when sudden streams quickly run off baked earth. In 2006, Nile River floods killed 600 people and left another 35,000 homeless. Current climatic and meteorological trends show both an increase in flooding and a decrease in overall mean annual rainfall, which, in turn, affects economic development and livelihood options.

The scenario is further complicated by the current political situation in the country, which remains highly volatile and unstable, making it difficult for IOM and other international agencies to work with communities and authorities. In addition to facing internal turmoil since the start of the Arab Spring, Egypt has been a major destination of population flows during both the Libya (mostly migrants and Egyptian returnees) and the ongoing Syria crises.

Responses

Sea level rise is the main risk reduction and adaptation concern for the Government of Egypt. Upon consultation with Egypt's Ministry of Environment, IOM started supporting the Government's sea level rise preparedness and risk reduction activities.

After conducting a strategic planning exercise, IOM identified in Abu Qir East and West two of the most vulnerable communities in the country and resolved to implement there a pilot initiative for sea level rise response.

IOM is building the capacities of a range of stakeholders (local authorities, the youth sector and media, among the others), as well as raising awareness to improve preparedness on sea level rise and other disaster-related topics.

In order to strengthen regional capacities for DRR, the Organization is working closely with the UN International Strategy for Risk Reduction (UNISDR). The Organization contributed to the drafting of the Arab Strategy for Disaster Risk Reduction (2010–2020), adopted by the League of Arab States in 2010, and participated in the First Arab Regional Conference for Disaster Risk Reduction (DRR) – which discussed regional progress towards risk reduction and HFA implementation, as well as the regional input towards the post-2015 DRR Global Framework – in March 2013.

Results achieved

A geographic information system, which keeps data on land use, demography, natural resources and hazard exposure, is in use in the Qir East and West areas to help plan and implement current interventions. Training courses target local populations and the authorities by introducing risk reduction concepts, including those on natural phenomena (e.g. tsunamis and other coastal hazards), early warning and preparedness.

IOM has also established a partnership with the Centre for Enterprise Development and Action Research (CEDAR) to implement activities that reduce risk, such as awareness-raising campaigns and resilience-building interventions in vulnerable communities.

Future objectives

Work on the pilot project has started, but access to the project site has been discontinued because of the security situation in the country. Building on the experience from this initiative will allow scaling up of the scope of work on disaster risk reduction and climate change adaptation (CCA) in Egypt, with the objective of including regions and risks not currently addressed (e.g. floods in the Sinai).

IOM aims at supporting the development of an early-warning/early-action system for pilot areas, which would eventually be rolled out to the rest of the country. The disaster preparedness activities should be supported by livelihood enhancement interventions that help increase the resilience of populations at risk.

Better collaboration with local partners will be needed for the Organization's work in Egypt to be successful. For the past two years, DRR and CCA have not been seen as priorities by the national Government, which is still facing civil unrest and undergoing deep political change. To compound the

matter, the Ministry of Social Solidarity has shown some reluctance towards registering NGOs as a part of the new regulations concerning foreign funds. As the country's political situation progressively normalizes, conditions are expected to become more favourable for long-term risk reduction efforts.

Relevant materials

- The Arab Strategy for Disaster Risk Reduction 2020, available from www.unisdr.org/we/inform/publications/18903.

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ETHIOPIA

© USAID 2010 (Photo: Nena Terrell).

Surface area	1,104,300 km ²
Population, 2010 (est.)	82.9 million
Population density, 2010	75.1/km ²
GDP in 2011	USD 30.2 billion
GDP per capita in 2011	USD 357
Remittances, 2011	USD 387 million
HDI	0.396
Net migration rate, 2010–2015	-0.1 migrants/1,000 population
Types of movement	Rural-to-urban and rural to rural migration, temporary migration, internal displacement, cross-border displacement, secondary displacement
Displaced by disasters, 2008–2012	174,718
Number of IOM staff working on disasters	27
Location of IOM offices	Ababa, Gambela, Assosa, Moyale, Shire, Jijiga, Dollo Ado
Total DRR funding for 2013 in USD	5,000,000
IOM site: iomethiopia.org	

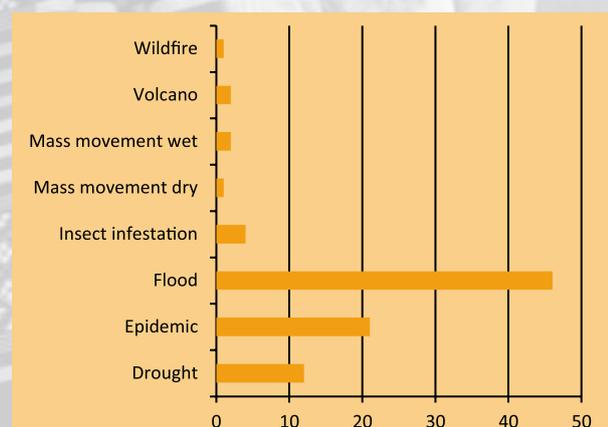
IOM DRR responses

Prevention	Preparedness	Emergency	Cross-cutting
Promoting migration	Preparing communities	Managing mass evacuations Tracking displacement Assisting the displaced	Livelihoods Health

Top 10 natural disasters by size of affected population, 1980–2013

Disaster	Date	Affected
Drought	2003	12,600,000
Drought	1983	7,750,000
Drought	1987	7,000,000
Drought	1989	6,500,000
Drought	2008	6,400,000
Drought	2009	6,200,000
Drought	1999	4,900,000
Drought	2005	2,600,000
Drought	1997	986,200
Flood	2006	361,600

Natural disaster occurrence, 1980–2013



A woman wearing a purple headscarf, a peach-colored long-sleeved top with blue lace trim, and a dark blue skirt with floral embroidery stands in a doorway. The background shows a wall with a red and yellow decorative element.

Background

Ethiopia presents very diverse landscapes, and the country's elevation ranges from 4,620 metres above sea level to 120 metres below (the latter is found at the Danakil Depression, one of the lowest and driest points on Earth). Highlands, that is, areas elevated more than 1,500 metres, comprise two thirds of the country's land area, and are often interspersed by deep gorges, steep-sided valleys and numerous streams which feed major rivers. The Ethiopian population is very mixed, with broad differences in terms of culture, traits, languages, religions and livelihoods.

The climate of Ethiopia varies from very dry to very wet, with drier areas cyclically undergoing dry spell periods, when they receive less precipitation than usual. Droughts often strike when rains start later or end earlier in the year than usual, or when short, intense precipitation events are separated by a few weeks of dry weather, allowing the soil to dry out. Droughts are most common in the northern and eastern highlands and in lowland areas and severely impact farming and herding activities, often causing famines.

The Government's Disaster Risk Management (DRM) Strategic Programme and Investment Framework shows that droughts and floods are the most common hazards in the country and that their magnitude, frequency and impact have been growing in recent years. In 2003, an estimated 14 million people were affected during the peak of the drought; in addition, 1.7 million were affected by flooding in 2006. Droughts in 2011 and 2012 left 4.5 million and 3.2 million people, respectively, with limited access to food, especially in the south-eastern part of the country, where the influx of displaced from Somalia was stronger.

Natural disasters and man-made situations displace thousands of people every year (more than 200,000 in 2012 alone). Inter-clan and cross-border conflicts, floods, droughts and wild fires are main factors triggering forced population movements. Their

combined effects produce complex situations which dramatically increase the vulnerability of individuals and communities. In the current response model, humanitarian actors are responsible for addressing the needs of disaster-affected communities, while the Government deals with conflict resolution and mitigation and conflict-related displacement. This set-up allows for some overlap and may possibly be causing inefficiencies.

Pastoralists are especially vulnerable to conflict and droughts due to the nature of their subsistence. They rely on meager natural resources that can be damaged or rendered inaccessible by violent confrontations. In particular, when the herding routes they follow are interrupted (e.g. by war or political disputes), their whole lifestyle and livelihood are directly threatened. In a context of scarce resources increasingly impacted by environmental change, violent conflict between rival pastoral groups is becoming more common.

Responses

The IOM intervention in 2011 and 2012 focused mainly on meeting the basic needs and strengthening the livelihoods of populations in crisis situations. Provision of non-food items (NFIs) and shelter was a key element in responding to displacement caused both by conflict and floods. Early recovery efforts that involved livelihood support through cash grants and in-kind assistance accompanied the humanitarian assistance activities.

The Organization supported households displaced by conflict in three regional states by carrying-out income-generating activities and providing beneficiaries with vegetable seeds, tools and technical support for home gardens.

In the Gambela Region of western Ethiopia, a relief project that involved the distribution of NFI kits was coupled with livelihood interventions that included mainly home vegetable gardening activities for displaced communities whose livelihoods were compromised by inter-clan conflict. NFI and shelter assistance was also combined with emergency health services to internally displaced persons (IDPs) through the establishment of mobile clinics.

Following the 2011 Horn of Africa droughts, IOM supported the Ethiopian Government's efforts by providing cash grants and putting in place cash-for-work schemes for drought-affected households in Borena and Liben (southern Ethiopia). These

were supplemented with the rehabilitation of water points (e.g. ponds and wells) that have been rendered non-functional due to the frequent, intensive and extended drought.

IOM has also undertaken institutional capacity-building for government bureaus, with the aim of strengthening preparedness and crisis management capacities through training in information management, database development and deployment, and displacement mapping. Training activities focus on information management in emergencies and registration and profiling of IDPs.

IOM has also established displacement tracking systems to identify IDPs and their humanitarian needs, with the intention of producing comprehensive displacement data for humanitarian actors. The Organization collaborated with the Ethiopian Government and the humanitarian community to conduct a bi-annual seasonal assessment of agricultural production and possible WASH (water, sanitation and hygiene), nutrition- and health-related gaps and emergencies.

Results achieved

Following recent floods and conflicts, IOM assisted 193,896 individuals in the Gambela Region with shelter and NFIs, as well as emergency health services and health education. A total of 1,397 displaced households received livelihood support (e.g. farm management training, tools, vegetable seeds and technical support). In southern Ethiopia, 7,850 households were assisted through livelihood restoration, and about 100,000 benefitted from the rehabilitation of water points for human and livestock use. Protecting and enhancing the meagre natural resources available enables households to consider alternative livelihood options. Income improvement and diversification enhance individual and community resilience to future shocks and displacement due to conflicts, especially resource-based ones, and climate change effects.

Seventy government and implementing partner delegates were trained in IDP profiling and needs assessment and in the use of global positioning systems (GPS). IOM was able to map IDP settlements, movement patterns and available basic services. Information was shared with relevant subnational authorities, which improved their knowledge base and informed decision-making capabilities at the local level.

Future objectives

Ethiopia still faces the challenge of providing timely humanitarian response in times of crisis. Lack of pre-positioned relief items, lack of access to affected communities due to security concerns (in times of conflict) and lack of adequate and timely information on humanitarian needs continue to challenge the effectiveness of emergency interventions. IOM and its partners are advocating at the national level for increased attention to the issue of IDP protection in the policy framework.

IOM expects to be increasingly engaged in risk reduction through resilience-building and disaster

preparedness activities, and plans to implement disaster risk reduction (DRR) mainly through natural resource rehabilitation and livelihood assistance to communities affected and displaced by disasters and conflict. The Organization aims to build on its ongoing DRR intervention in order to strengthen community disaster management strategies and improve the Government's disaster response capacity.

Relevant materials

- DRM Strategic Programme and Investment Framework, available from www.dppc.gov.et.

List of projects

Immediate Humanitarian Assistance to the Drought-Affected Somali Refugees in Ethiopia (IHAD)

Project status	Completed
Project period	1 July 2011 to 31 December 2011
Beneficiaries	75,000 Refugees
Amount funded (in USD)	220,000
Partners	Ethiopian Government personnel, Administration for Refugee and Returnee Affairs (ARRA), UN High Commissioner for Refugees (UNHCR)

Support to Drought-affected Pastoralist Communities in the Borena Zone, Oromiya Region (ESDA)

Project status	Completed
Project period	1 November 2011 to 31 July 2012
Beneficiaries	534,835 people
Amount funded (in USD)	800,000

Surviving and Recovering from Disaster and Displacement II (SARDD-II)

Project status	Active
Project period	1 July 2012 to 30 June 2013
Beneficiaries	20,000 people, including IDPs
Amount funded (in USD)	1,000,000

Provision of transport to new arrivals and transitional shelters to refugees in Melkadida Camp

Project status	Completed
Project period	1 January 2012 to 31 December 2012
Beneficiaries	Refugees
Amount funded (in USD)	523,151
Partners	UNHCR, ARRA

Assessment of Older People's Vulnerability to Crises and Emergencies in Addis Ababa (SURA)

Project status	Completed
Project period	1 September 2009 to 1 December 2009
Beneficiaries	144,772 IDPs
Amount funded (in USD)	49,974
Partners	Ministry of Labour and Social Affairs and Help the Aged

Surviving and Recovering from Disaster and Displacement (SARDD)

Project status	Completed
Project period	1 August 2011 to 31 May 2012
Beneficiaries	38,935 people, including IDPs
Amount funded (in USD)	1,714,286

GHANA

© IOM 2007 (Photo: Jemini Pandya).

Surface area	238,533 km ²
Population, 2010 (est.)	24.3 million
Population density, 2010	102.3/km ²
GDP in 2011	USD 39.1 billion
GDP per capita in 2011	USD 1,570
Remittances, 2011	USD 141 million
HDI	0.558
Net migration rate, 2010–2015	-0.2 migrants/1,000 population
Types of movement	Rural-to-urban migration, rural-to-rural migration, temporary migration, permanent migration, internal displacement
Displaced by disasters, 2008–2012	122,770
Number of IOM staff working on disasters	Depending on actual need
Location of IOM offices	Accra, Tamale
Total DRR funding for 2013 in USD	<i>Data not available</i>

IOM site: www.iom.int/cms/ghana

IOM DRR responses

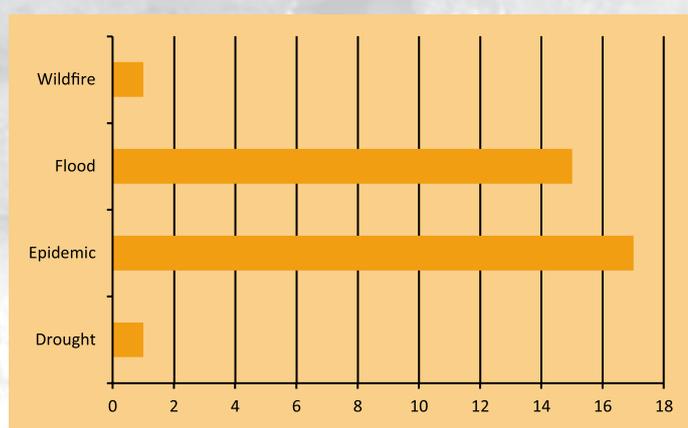
Emergency

Assisting the displaced

Top 10 natural disasters by size of affected population, 1980–2013

Disaster	Date	Affected
Drought	1983	12,500,000
Flood	1991	2,000,000
Flood	1995	700,000
Flood	2007	332,600
Flood	1999	324,602
Flood	2001	144,025
Flood	2009	139,790
Flood	2008	58,000
Flood	2009	19,755
Flood	2010	9,674

Natural disaster occurrence, 1980–2013



Background

Ghana is a West African country that has moved from low-income to lower-middle income status over the last decades, due mainly to increasing political stability and abundant natural resources. Despite its rapid economic growth, however, the country's economy still relies largely on the primary sector, with agriculture and animal husbandry accounting for one third of its GDP and employing more than half of the active population. Agriculture is predominantly rain-fed, which renders it vulnerable to the effects of weather and climate variability.

Ghana is particularly prone to floods and droughts. In 2007, it experienced unprecedented flooding that devastated crops and infrastructure and caused the displacement of over 330,000 people. In 2010, another flood destroyed more than 1,000 homes and caused the evacuation of approximately 5,000 people.

Over the last several years, precipitation patterns have changed, and the climate has become increasingly dry, considerably shortening the growing season. Together with destructive land use practices and deforestation, climate variability is accelerating desertification in the Northern Region. Shortage of dry-season grazing and water for livestock has caused tensions between farming communities and migrant pastoralists and cattle herders. The two main causes of tension, to be specific, are the destruction of crops by cattle and the increased competition over fertile agricultural lands.

Lower agricultural productivity from extended dry seasons and flooding from storm events are also playing a key role in increasing the pressure on the young and mobile population in the north to migrate to urban centres in the south. Rural-to-urban migrants, especially young women who work as head-porters, add to the pressure on already-over-stretched urban services and end up exposed to new risk factors. Unemployed men often opt to engage in illegal mining activities, which have been causing serious environmental degradation throughout Ghana, further eroding rural livelihoods.

Responses

So far IOM has been focusing mainly on emergency and relief operations following major floods. In 2010, the Organization provided non-food items (NFIs), mainly hygiene and kitchen kits, mosquito nets, mats and blankets and contraceptive devices, to affected people in the Greater Accra, Central and Western Regions. In addition, information materials on flood prevention, personal hygiene and disease prevention were distributed to the victims.

In June 2012, in collaboration with local authorities, IOM supported the victims of severe rainstorms in Tamale (Northern Region), distributing roofing material, bags of cement and mosquito nets to help affected communities to rehabilitate their damaged homes.

IOM is now getting increasingly involved in the ongoing dialogue on climate change, adaptation and risk reduction with local institutions and relevant development actors. However, concrete activities have yet to be implemented.

Results achieved

Following the 2010 floods, IOM distributed 1,540 personal kits, 300 family kits, 300 machetes, 600 mosquito nets and 8,500 condoms. Following the 2012 events, 25 roofing sheets, 50 roofing nails, 50 cement bags and 100 mosquito nets were handed out.

In both of the above-mentioned cases, IOM intervention decreased the impacts of floods on affected populations in the immediate aftermath of the disaster events, allowing for a more swift and effective recovery.

Future objectives

IOM has contributed to the development of the local United Nations Development Assistance Framework 2012–2016, which recognizes the establishment of risk reduction and adaptation measures as a main desired outcome for Ghana. Priorities will be given to the establishment of an adequate disaster risk reduction and climate change adaptation policy, creating a national risk monitoring observatory and a national strategy for public awareness, and building the capacity of the National Disaster Management Organisation.

The Ghanaian Government is working to establish the National Risk Observatory, with the primary aim of mapping hazards, enhancing risk knowledge and establishing an early warning system for floods and droughts, as well as building the local capacity for hazard mapping and enhancing disaster risk knowledge. IOM is expected to collaborate towards the establishment of the observatory and the achievement of the other UNDAF goals.

IOM is currently developing a joint UN programme on human security, in order to target risks related to rural-to-urban migration, as well as the tensions between pastoralists and farming communities.

Relevant materials

- National Progress Report on the Implementation of the Hyogo Framework for Action 2009–2011 (a DRR monitoring and evaluation report by the National Disaster Management Organization, based on the HFA), available from www.preventionweb.net/english/hyogo/progress/reports/v.php?id=15600&pid=223.
- Ghana Climate Change Vulnerability and Adaptation Assessment (USAID), available from www.encapafrica.org/documents/biofor/Climate%20Change%20Assessment_Ghana_%20FINAL.pdf.

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KENYA

© IOM 2011.

Surface area	580,367 km ²
Population, 2010 (est.)	40.5 million
Population density, 2010	69.8/km ²
GDP in 2011	USD 33.6 billion
GDP per capita in 2011	USD 808
Remittances, 2011	USD 2.2 billion
HDI	0.519
Net migration rate, 2010–2015	-0.2 migrants/1,000 population
Types of movement	Rural-to-rural migration, temporary migration, internal displacement, cross-border displacement, secondary displacement, stranded/trapped
Displaced by disasters, 2008–2012	360,339
Number of IOM staff working on disasters	57
Location of IOM offices	Nairobi, Dadaab, Turkana, Garissa and Kapenguria
Total DRR funding for 2013 in USD	9,731,329
IOM site: http://nairobi.iom.int/kenya	

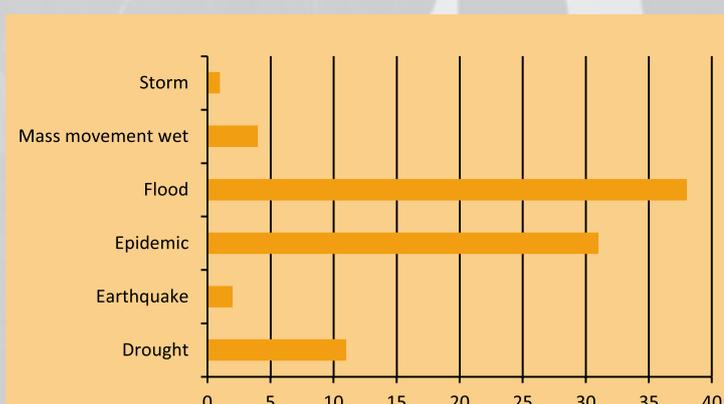
IOM DRR responses

Prevention	Emergency	Mitigation	Recovery	Cross-cutting
Reducing hazards Promoting migration	Tracking displacement Assisting the displaced	Mitigating the impact	Durable solutions DRR in complex emergencies	Livelihoods Health Infrastructures

Top 10 natural disasters by size of affected population, 1980–2013

Disaster	Date	Affected
Drought	1999	23,000,000
Epidemic	1994	6,500,000
Drought	2008	3,800,000
Drought	2005	3,500,000
Drought	1991	2,700,000
Drought	2004	2,300,000
Drought	1997	1,600,000
Drought	1994	1,200,000
Flood	1997	900,000
Flood	2006	723,000

Natural disaster occurrence, 1980–2013



Background

Kenya features a wide variety of ecosystems throughout its vast landscape – from the coast on the Indian Ocean and the low plains in the east, to the highlands in the west and centre. The highlands are bisected by the Great Rift Valley, and a fertile plateau lies in the west, by Lake Victoria. The Kenyan Highlands comprise one of the most successful agricultural regions in Africa. The north-eastern region, along the borders with Somalia and Ethiopia, is either arid or semi-arid, with near-desert landscapes populated mainly by pastoralists.

Kenya’s climate varies from tropical along the coast and temperate inland, to arid in the north and north-eastern parts of the country. The “long rains” season runs from March or April until May or June. The “short rains” season, on the other hand, lasts from October until November or December. Rainfall sometimes gets heavy and often falls in the afternoons and evenings. Over the last decades, climate change has been increasing the frequency and severity of extreme meteorological and climatic events such as droughts and severe rainfalls and, especially in western Kenya, floods and landslides. The increase in drought occurrence has had direct impacts on the pastoralists inhabiting arid and semi-arid areas, leading to the disruption of traditional patterns of subsistence, as well as conflict and tension over resources.

Conflicts in pastoral areas are driven by many factors, including long-standing intercommunal tensions; competition for, and commercialization of, resources; the proliferation of small arms; and the Government’s limited presence on the ground, accompanied by the resulting weak enforcement of the law. As a result, conflict continues to undermine socioeconomic development, by deterring investment and service delivery and increasing the vulnerability of pastoralists to external shock.

Conflict is the strongest factor inducing the displacement of peoples in Kenya. In 2012 alone, intercommunal conflicts forced at least 100,000 people out of their homelands. In addition, Kenya faces the influx of people – fuelled by conflicts, disasters and complex emergencies – from across the border with neighbouring countries and even further (e.g. Somalia and the Democratic Republic of the Congo).

Due to cultural and socioeconomic factors, gender and young age are important drivers of vulnerability. Equitable development requires that specific strategies be tailored to the needs of women and young people. The challenges facing the youth, in particular, are becoming more and more acute, as they have very limited income opportunities in a traditional pastoral economy and are increasingly being pulled towards urban centres, where they often face poverty and risk situations.





© IOM 2011 (Photo: Brendan Bannon).

Responses

IOM intervention in Kenya is comprehensive and aims at reducing disaster risk throughout the whole cycle of migration management, increasing the population's preparedness and resilience to disasters, as well as its adaptive capacity in the face of climate change.

In recent years, and in collaboration with other international actors, IOM has supported the Kenyan Government in responding to intercommunal conflicts and disasters, by participating in assessment missions and providing humanitarian support during the emergency phase. As the Shelter and Non-food Item (NFI) Cluster Lead, IOM has worked with prime responders to provide NFIs and shelter kits and to standardize their distribution. In addition, the Organization has undertaken capacity-building and training activities for local authorities, to improve their camp management capacities and preparedness, particularly for floods.

IOM has facilitated the return and relocation of displaced families by providing them with tailored

reintegration and livelihood assistance. The Organization is implementing several projects that aim to build communities' resilience to climate change in the arid and semi-arid parts of Kenya, in cooperation with international (e.g. the United Nations and non-governmental organizations) and local (particularly, community-based ones) organizations.

In order to reduce risk, IOM is now organizing a series of risk assessment and mapping initiatives, in both rural and urban areas, which aim to inform land use planning across the country and reduce future flood-induced displacement, as well as prevent the creation of urban risk induced by displaced populations' unregulated settlements.

Results achieved

Over the last years, IOM undertook several activities pertaining to disaster risk reduction (DRR) and resilience enhancement, benefiting an estimated 500,000 individuals. Activities to promote, support and protect livelihoods were particularly comprehensive.

IOM promoted income-earning opportunities for trapped populations and returning internally displaced persons (IDPs) from both rural and urban settings. It supported the recovery of the livelihood systems of pastoralist communities in the Turkana district, following prolonged climate-related disasters, armed conflicts and movement restrictions.

In addition, IOM gave particular focus on the impacts of droughts, climate change and diminishing natural resources on pastoralists and mobile communities, promoting environmental conservation to prevent affected populations from relying on negative coping mechanisms. In addition, IOM supported and enhanced rural livelihoods through the diversification of small-scale farming.

IOM restocked households with local hybrid camels and constructed water harvesting structures (e.g. water pans and shallow wells) in order to alleviate the impacts of droughts. The Organization also provided forage, drought-resistant seeds and agricultural tools for farming, as well as emergency livestock supplementary feeding in cases of emergency.

In order to protect livestock, IOM trained animal health workers in various communities and equipped them with veterinary kits. The Organization also carried-out rapid livestock needs assessment in areas affected by disasters, to identify possible interventions and actions needed for the sensitization of communities. In addition, IOM complemented its risk reduction intervention

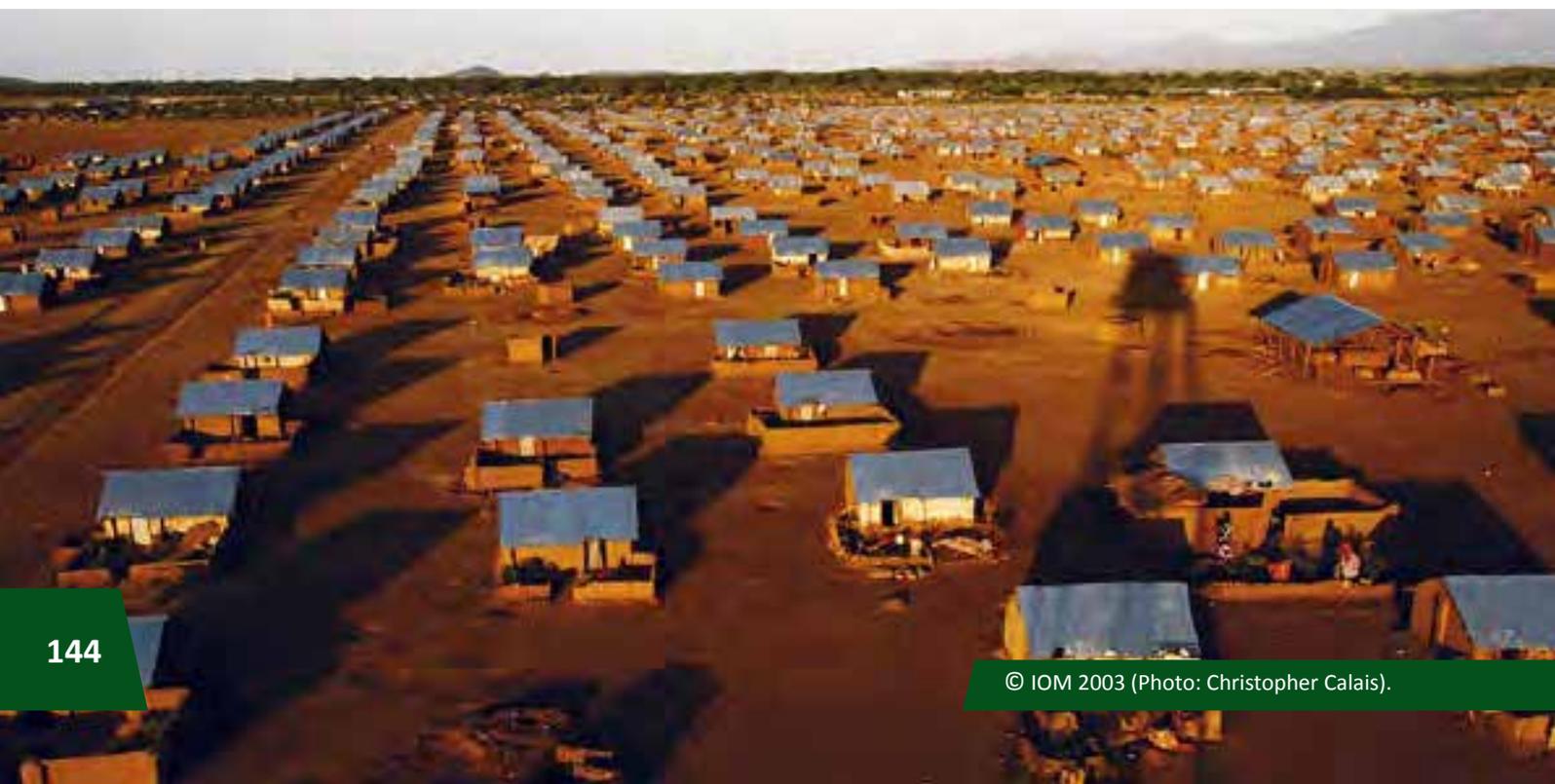
with conflict prevention and peace-building components, in order to ensure the long-term sustainability of its projects.

Future objectives

IOM set up a resilience strategy to support states in East Africa and the Horn region. The implementation has just started in northern Kenya. Projects in Turkana and Moyale mainly support livelihood and capacity-building at the local level, in partnership with community-based organizations, as well as local governmental departments.

Interventions to support livelihoods through infrastructural development are planned in cooperation with partners (e.g. the UN Environment Programme, UN-Habitat and the Food and Agriculture Organization), in order to reduce the mobility needs of people depending on scarce resources. Interventions will include the creation and enhancement of water catchments, ponds and pastures. Furthermore, plans are in place to support youth groups with job and business creation, by utilizing adaptation funds, and foster local development in order to reverse rural-to-urban migration fluxes.

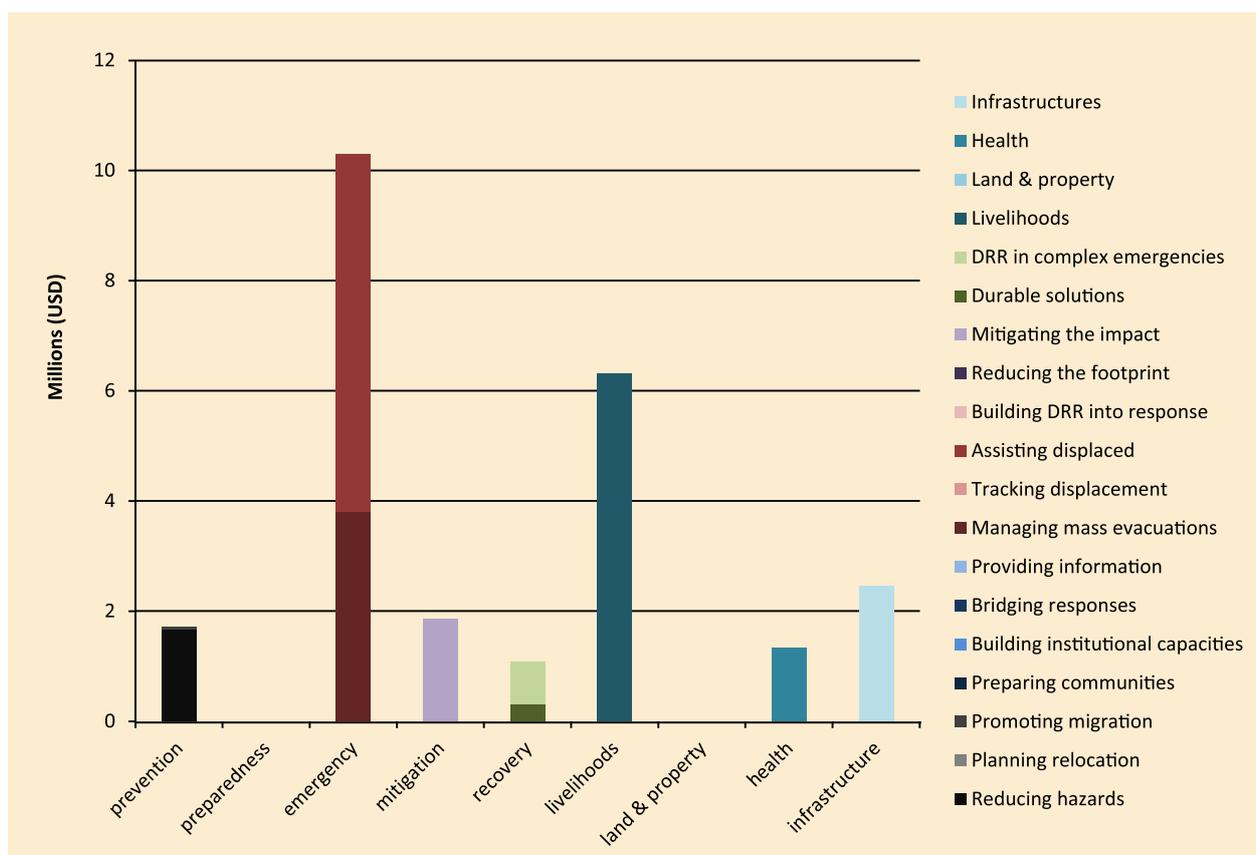
In collaboration with the Kenya Red Cross Society (KRCS), IOM is planning to conduct camp coordination and camp management training for KRCS volunteers across the country and will continue working on the standardization of shelter and non-food item kit provision.



Relevant materials

- Draft National Policy for Disaster Management in Kenya, available from www.ifrc.org/docs/idrl/765EN.pdf.
- Drought Contingency Plans and Planning in the Horn of Africa, available from www.unisdr.org/we/inform/publications/26436.
- Mitigating the Impact of Climate Change among Pastoralist Communities programme information, available from www.iom.int/jahia/webdav/shared/shared/mainsite/activities/countries/docs/kenya/Mitigating-Resource-Based-Conflict-among-Pastoralist-Host-Communities.pdf.

Total funding used by IOM in Kenya between 2009 and 2013, by type of activity



¹⁰ Kenya, the protection and promotion of sustainable livelihood was central to the intervention carried-out by IOM.

List of projects

Immediate Emergency Livestock Support to Refugee-hosting Communities Affected by the Looming 2011 Drought and the Spillover Effects of the Massive Refugee Influx into the North-eastern Province

Project status	Completed
Project period	15 August 2011 to 14 February 2012
Beneficiaries	40,000 people
Amount funded (in USD)	399,988

Emergency Transportation and Medical Assistance to Somalis Fleeing the Drought and Entering Kenya

Project status	Completed
Project period	15 August 2011 to 14 February 2012
Beneficiaries	110,000 refugees
Amount funded (in USD)	2,678,047
Partners	Ministry of Immigration (through the Department of Refugee Affairs [DRA]), Ministry of Health, and the UN High Commissioner for Refugees (UNHCR)

Transportation of Refugees from the Liboi to the Dadaab Refugee Camp

Project status	Completed
Project period	1 September 2011 to 28 February 2012
Beneficiaries	18,200 refugees
Amount funded (in USD)	750,000
Partners	DRA, Médecins Sans Frontiers, International Rescue Committee, UNHCR, Deutsche Gesellschaft für Internationale Zusammenarbeit, Ministry of Public Health and Sanitation, the Lutheran World Federation and Save the Children UK

Provision of Emergency Transportation and Shelter in the Ifo Extension Site

Project status	Completed
Project period	5 August 2011 to 31 December 2011
Beneficiaries	30,000 refugees
Amount funded (in USD)	1,431,210

Emergency Assistance to Somali Refugees in Dadaab and other Refugee Camps

Project status	Completed
Project period	1 March 2012 to 28 February 2012
Beneficiaries	40,000 refugees, affected communities
Amount funded (in USD)	3,000,000
Partners	Local organizations, UNICEF, the Food and Agriculture Organization (FAO) and the UN Development Programme (UNDP)

Provision of Transitional Shelters in – Ifo 2 East

Project status	Completed
Project period	1 January 2011 to 31 October 2012
Beneficiaries	463,739 Refugees
Amount funded (in USD)	57,418
Partners	UNHCR

Beyond Durable Solutions: Building the Capacity of Refugee and Host Community Youth and Providing them with New Opportunities (in collaboration with the private sector in Djibouti)

Project status	Active
Project period	1 September 2012 to 31 August 2013
Beneficiaries	200 families of refugees and 200 at-risk youth
Amount funded (in USD)	577,688
Partners	Government personnel of Djibouti and the Somali diaspora

Strengthening Human Security along the Border in Turkana

Project status	Active
Project period	1 July 2012 to 30 June 2015
Beneficiaries	273,268 people, 19,000 at-risk youth
Amount funded (in USD)	1,000,000
Partners	Ministry of Agriculture, Ministry of Youth and Sports, Ministry of Gender, Children and Social Development, Ministry of Water, Ministry of State for Special Programmes, Ministry of Northern Kenya and Arid Lands, local non-government organizations and Community-based Organizations, FAO; UNDP; UNICEF and the Office for the Coordination of Humanitarian Affairs

Integrated Response to Food Insecurity among Vulnerable Families in the Rift Valley and Northern Regions of Kenya

Project status	Completed
Project period	1 March 2009 to 31 March 2010
Beneficiaries	3,000 families from affected communities
Amount funded (in USD)	5,000,000

Assessment of the Effects of Drought and Climate Change on Livelihood Support Mechanisms among Pastoralist and Mobile Communities in Pastoralist Regions, Including the North Eastern and Rift Valley Provinces

Project status	Completed
Project period	1 March 2010 to 31 December 2010
Beneficiaries	Affected communities
Amount funded (in USD)	85,600

Restoration of Farm Infrastructure and Rural Livelihoods

Project status	Completed
Project period	9 December 2009 to 30 June 2012
Beneficiaries	19,000 families of IDPs
Amount funded (in USD)	4,912,404

Livelihood Support to Pastoralist Communities and Refugees' Host Communities in Response to Climate Change and Refugee Influx into Northern Kenya

Project status	Completed
Project period	8 February 2010 to 31 December 2010
Beneficiaries	10,000 people
Amount funded (in USD)	2,500,000

Immediate Livestock Support to Pastoralist Host Communities Affected by the Impacts of Recurrent Droughts and Floods in North-western Kenya

Project status	Completed
Project period	9 March 2010 to 31 December 2010
Beneficiaries	125,000 people
Amount funded (in USD)	180,003

Mitigating Resource-based Conflicts among Pastoralist Local Communities, including Refugee Host Communities in Northern Kenya, by Strengthening Youth Capacities to Adapt to Climate Change

Project status	Completed
Project period	1 January 2011 to 30 September 2011
Beneficiaries	10,000 people
Amount funded (in USD)	2,300,000
Partners	Ministry of Agriculture, Ministry of Youth and Sports, Ministry of Public, FAO and, UNDP

Emergency Livestock Support to Refugee-Hosting Communities Affected by the Effects of Protracted and Extreme Climatic Conditions in North-western Kenya

Project status	Completed
Project period	1 April 2011 to 31 December 2011
Beneficiaries	108,000 people
Amount funded (in USD)	180,001
Partners	FAO



MADAGASCAR

© 2012 (Photo by Amber Goodwin).

Surface area	587,041 km ²
Population, 2010 (est.)	20.7 million
Population density, 2010	35.3/km ²
GDP in 2011	USD 9.9 billion
GDP per capita in 2011	USD 465
Remittances, 2011	<i>Data not available</i>
HDI	0.483
Net migration rate, 2010–2015	-0.0 migrants/1,000 population
Types of movement	Internal displacement, return
Number of IOM staff working on disasters	<i>Data not available</i>
Location of IOM offices	Antananarivo
Total DRR funding for 2013 in USD	<i>Data not available</i>
IOM site: www.iom.int/cms/en/sites/iom/home/where-we-work/africa-and-the-middle-east/southern-africa/madagascar.html	

IOM DRR responses

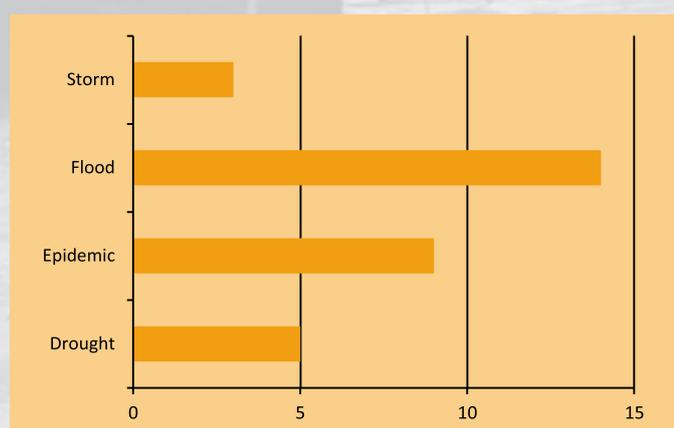
Preparedness

Building institutional capacities

Top 10 natural disasters by size of affected population, 1980–2013

Disaster	Date	Affected
Drought	1981	1,000,000
Storm	2004	988,139
Drought	1988	950,000
Storm	2000	736,937
Drought	2002	600,000
Storm	1997	600,000
Storm	1994	540,043
Storm	2002	526,200
Storm	2008	524,153
Storm	2000	369,272

Natural disaster occurrence, 1980–2013



Background

Madagascar is prone to drought, flooding and recurrent cyclones, all of which regularly cause damage to local communities and set back development. In 1994, Cyclone Geralda caused over 70 fatalities, left more than 500,000 people homeless and led to losses estimated at USD 45 million. The country is among those that are projected to experience the biggest increase in storms due to climate change, according to the World Bank.

Seasonal food insecurity is not uncommon in the country, with the lean season coinciding with the cyclone season (December to April), when food production is threatened by cyclones and floods. Coping strategies among vulnerable populations are limited, and the humanitarian implications of these natural phenomena are staggering. In coastal regions, poor households have been affected by the

degradation of fragile marine ecosystems caused by warming sea temperatures and ocean acidification. Coral bleaching and algae invasion in the Toliara Reef undermine the livelihoods of thousands of traditional fishing communities, as fish populations are diminishing.

The Government has implemented tools for hazard prevention, mitigation and management, in cooperation with its various departments and with the support of its technical and financial partners. An integrated contingency plan for floods and cyclones has been in place since 2007, and has since then been tested through drills and simulation exercises and updated every year. The Government and its partners pre-positioned food and non-food items in 16 high-risk regions based on this plan. This has enabled a far more timely and effective response to crises, allowing for better post-disaster rapid assessments of needs. Cyclone contingency plans now exist in all the main areas at risk.

© 2007 (Photo: Luc Legay).



Recent disasters have had significant impacts on livelihoods, and the capacity for early and long-term recovery remain insufficient. Cyclones have led to massive population displacement, mostly temporary (around one week to a few days more), with rapid, spontaneous returns being observed from all temporary settlement sites. As a part of contingency plans, populations have been relocated to sites previously identified by national and local authorities. Similar movements have been regularly observed during cyclone seasons. Exceptionally violent seasons occur with a mean frequency of about 10 years, causing widespread damage and longer-lasting displacement, as was the case in 2012.

Responses

Following the 2012 cyclone season, the Prime Minister of Madagascar required the support of IOM in reconstruction and livelihood regeneration activities. IOM deployed an exploratory mission to evaluate existing disaster reduction (DRR) and mitigation capacities in the country and to plan future interventions.

IOM produced a migration profile for the country which reviewed existing legal frameworks, administrative and political institutions and existing population movements (including in response to natural disasters). The analysis in the profile highlighted the need to improve existing strategies in line with long-term development objectives and policies. In the meantime, IOM can support efforts at the local level by organizing and participating in capacity-building activities for the different actors in the country.

Future objectives

Following its 2012 exploratory exercise, IOM has elaborated a series of possible measures that can be used to reduce risk, and is now establishing its Field Office in order to implement the first round of activities. Capacity-building at the community level in reforestation and hazard-resistant housing construction will be one of the priorities, as it can help mitigate the impact of natural phenomena, especially if supported by adequate building standards and land-use policies. Strengthening preparedness and expanding existing plans to include inhabitants of all regions at risk, all existing hazards (in particular, droughts) and all staff of national and local authorities is another essential point for ensuring an adequate response to crises. Simulations and maintenance of hosting sites should also be periodically performed.

Migration management efforts will be improved through the development of tools and procedures for gathering, storing and sharing migration data, especially during crises. These would require key actors to be trained accordingly. In addition, IOM will also design reconstruction, environmental protection and livelihood promotion strategies, in order to allow for a swift recovery and long-term risk reduction. Long-term, sustainable solutions require all these measures to be implemented during non-cyclonic seasons.

MAURITIUS

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Surface area	1,969 km ²
Population, 2010 (est.)	1.3 million
Population density, 2010	636.8/km ²
GDP in 2011	USD 11.2 billion
GDP per capita in 2011	USD 8,755
Remittances, 2011	USD 249 million
HDI	0.737
Net migration rate, 2010-2015	0 migrants/1,000 population
Types of movement	Rural-to-urban migration, rural to rural migration, permanent migration, internal displacement
Number of IOM staff working on disasters	1
Location of IOM offices	Port Louis
Total DRR funding for 2013 in USD	Data not available
IOM site: www.iom.int/cms/en/sites/iom/home/where-we-work/afrika-and-the-middle-east/southern-afrika/mauritius.html	

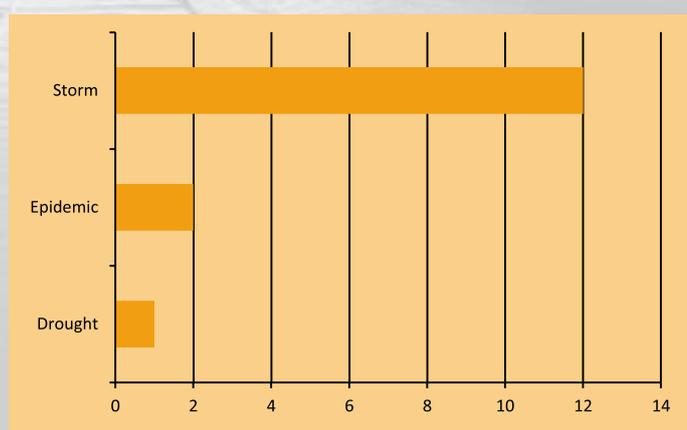
IOM DRR responses

Prevention	Cross-cutting
Reducing hazards	Livelihoods Infrastructures

Top 10 natural disasters by size of affected population, 1980–2013

Disaster	Date	Affected
Storm	1982	32,000
Storm	1991	7,500
Storm	1989	4,507
Epidemic	2006	2,553
Storm	1994	2,300
Storm	2002	1,050
Storm	1999	1,000
Storm	1982	500
Storm	1983	351
Epidemic	1980	108

Natural disaster occurrence, 1980–2013



Background

Mauritius is an island-State in the Indian Ocean composed of Mauritius, Rodrigues and the Agaléga and Saint Brandon islands. The country has a tropical climate and occasionally receives storms and cyclones. Despite its relatively high elevation, Mauritius is highly vulnerable to the impacts of climate change. Coastal areas are particularly at risk, because of a combination of sea-level rise, coastal erosion and coastal hazards that threaten human settlements and key economic activities, particularly the tourism industry.

Environmental processes are not expected to trigger massive internal or cross-border population movements, but their effects will be felt on livelihoods and economic activities. As local actors have not yet started systematic adaptation actions, internal migration is likely to increase as a result of ecosystem changes in the near future. Inter-island migration, in particular – especially that from Rodrigues and the Agaléga islands to Mauritius – is expected to grow significantly. This may result in increased pressure on receiving communities, which are usually the urban and rural areas on the main island of Mauritius. Cities and coastal areas in the South, in particular, will need to be able to respond to these movements, by providing appropriate services, housing and livelihood opportunities to newcomers, in order to avoid the concentration of vulnerable populations in the areas of destination.

Responses

IOM decided to focus its efforts on vulnerable groups on a local scale, assuming that improving their livelihood options and living conditions might help prevent possible forced migrations. Focus is therefore on innovative and preventive measures that factor in longer-term concerns for environmental change and ecosystem degradation.

IOM provided financial and technical support to fishing communities in the south of the main island (Rivière des Galets) of Mauritius to help them set up alternative livelihoods and promote green jobs (e.g. by creating a leaf plate business). IOM also assisted the onion planters in Petit and Grand Sables for the construction of a drainage system to deal with heavy rains and sea-level rise. On Rodrigues Island, IOM provided comparable livelihood support to local fishing communities.

Results achieved

Fifteen families benefitted directly from the pilot project of IOM, which allowed for the purchase of equipment, the setting up of adequate working space and the training of involved individuals. The Organization has now started expanding its efforts in order to replicate the diversification of livelihoods as an effective risk reduction strategy throughout the country. IOM is producing and distributing outreach materials to inform local communities about opportunities to strengthen their income-generating capacities and is sharing evidence and lessons learned from its pilot project.

Future objectives

In order to improve its future interventions, IOM is contributing to the establishment of better methodological frameworks for data collection and environmental monitoring, and is compiling a countrywide migration profile. Improvements to available data on the characteristics and distribution of vulnerable populations will allow for a more targeted provision of alternative livelihood options and better prevention of forced migration.

IOM also aims at replicating pilot projects across the country and at spreading good practices to other countries and regions, relying on regional cooperation opportunities. The development and systematic use of standardized criteria and evaluation grids can help replicate and scale up these efforts. Also, because Mauritius' National Adaptation Programme of Action is currently lacking references to migration, IOM is aiming to strengthen collaboration with national authorities to highlight migration issues in future revisions of the said programme.

© 2009 (Photo: Adam Essack).

Relevant materials

- *The Other Migrants Preparing for Change: Environmental Changes and Migration in the Republic of Mauritius*, available from http://publications.iom.int/bookstore/index.php?main_page=product_info&cPath=41_7&products_id=695.



MOZAMBIQUE

© ILRI 2008.

Surface area	801,590 km ²
Population, 2010 (est.)	23.3 million
Population density, 2010	29.2/km ²
GDP in 2011	USD 12.8 billion
GDP per capita in 2011	USD 535
Remittances, 2011	USD 132 million
HDI	0.327
Net migration rate, 2010–2015	-0.2/1,000 population
Types of movement	Rural-to-urban migration, rural-to-rural migration, permanent migration, internal displacement
Displaced by disasters, 2008–2012	640,328
Number of IOM staff working on disasters	3
Location of IOM offices	Maputo
Total DRR funding for 2013 in USD	USD 2,500,000
IOM site: www.iom.int/cms/en/sites/iom/home/where-we-work/africa-and-the-middle-east/southern-africa/mozambique.html	

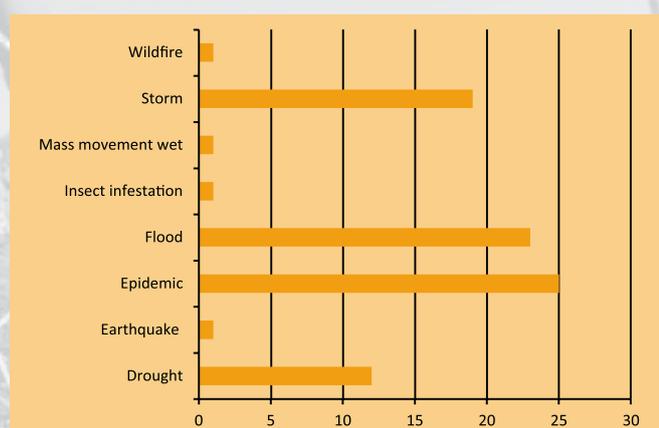
IOM DRR responses

Preparedness	Emergency	Recovery	Cross-cutting
Preparing communities Building institutional capacities Bridging responses	Tracking displacement Assisting the displaced Building DRR into the response	Durable solutions	Health Infrastructures

Top 10 natural disasters by size of affected population, 1980–2013

Disaster	Date	Affected
Drought	1981	4,750,000
Flood	2000	4,500,000
Drought	1991	3,300,000
Storm	1994	2,502,000
Drought	2005	1,400,000
Drought	2002	600,000
Flood	2001	549,326
Drought	2007	520,000
Flood	1981	500,000
Flood	1985	500,000

Natural disaster occurrence, 1980–2013



Background

Since the end of the civil war in 1992, Mozambique has not recorded any significant conflict-induced mobility. Rather, it is natural disasters that have been causing human and economic losses and forced displacement on an almost yearly basis. For example, cyclones and storms along the coast and floods, primarily in the Limpopo, Save and Zambezi river basins, have on several occasions destroyed crops and homes, displacing communities for weeks or months and seriously threatening food security in the affected regions. In addition, occasional earthquakes along the country's border with Zimbabwe threaten lives and livelihoods of communities in the area.

Another particularly problematic phenomenon is the 10-year drought that has stricken the Limpopo River Basin, which is made worse by the salinization of the water basin, forcing families to move out of the region to find alternative water sources. Urbanization further increases the incidence of disasters, especially in coastal zones and flood plains, where informal urban growth commonly translates into insufficient preparedness and environmental degradation in communities at risk.

Although the Mozambican Government has made great strides in disaster risk reduction (DRR) in recent years, natural and man-made phenomena keep hitting local communities, often triggering population movements and displacement. Among natural disasters, floods are the greatest threat in terms of displacement, which is not surprising given the fact that Mozambique is the terminal point of nine major river basins, and flood protection infrastructure is often outdated, with levies having broken on several occasions, leading to flooding in previously risk-free areas. As a consequence of the flooding of the entire city of Chokwe, for example, an estimated 150,000 people were displaced in the first two months of 2013 alone. DRR and climate change adaptation (CCA) interventions should therefore be a priority in the country.

Responses

IOM sits in the Humanitarian Country Team Working Group, focusing primarily on camp coordination and camp management, shelter, health and logistics. During disasters, IOM often manages ground-level coordination and implementation of disaster response efforts in support of local government authorities.

IOM has focused on DRR and CCA awareness-raising at the community and institutional levels. In addition, the Organization has upgraded the infrastructure of most community radio stations in high-risk areas, increasing transmission power and providing generators for these stations to continue broadcasting during emergencies. IOM has also produced a series of radio broadcast programmes to promote risk reduction and preparedness education, as well as convey early warning alerts.

In addition, IOM has funded or directly implemented reconstruction and resettlement projects, including infrastructure restoration and enhancement, community housing and the Build Back Better Programme. The Organization has collaborated towards the reconstruction of public buildings (e.g. clinics) that are able to resist the effects of natural hazards (particularly floods), and has supported families relocating from floodplains to highland areas, providing them with resettlement housing and conservation agriculture.

Lastly, IOM trains local authorities and non-governmental organizations (NGOs) in disaster risk management, particularly in camp coordination and camp management. Alongside this effort, the Organization is currently implementing a Disaster Tracking Matrix to increase the capabilities of Government and NGO partners in registering displaced populations throughout the country and assessing their needs.

Results achieved

IOM activities have allowed 13 community radio stations to broadcast risk information and education programmes, reaching out to approximately 2,500,000 people in communities exposed to floods and cyclones. The Government, for its part, has approved a training manual in disaster-related radio broadcasting for journalists, with particular focus on floods, entitled "Training of Trainers for Radio Mentors through Community Radio Networks." Thirteen journalists have already been trained in radio broadcast activities before, during and after disasters, and eight more are currently being trained.

DRR committees were created in 12 schools in the Zambezi River Valley, while 211 cyclone-resistant homes were built, using local materials, in coastal areas. In addition, 80 homes were built to host resettled households, and five communities were trained in conservation agriculture for high-ground,

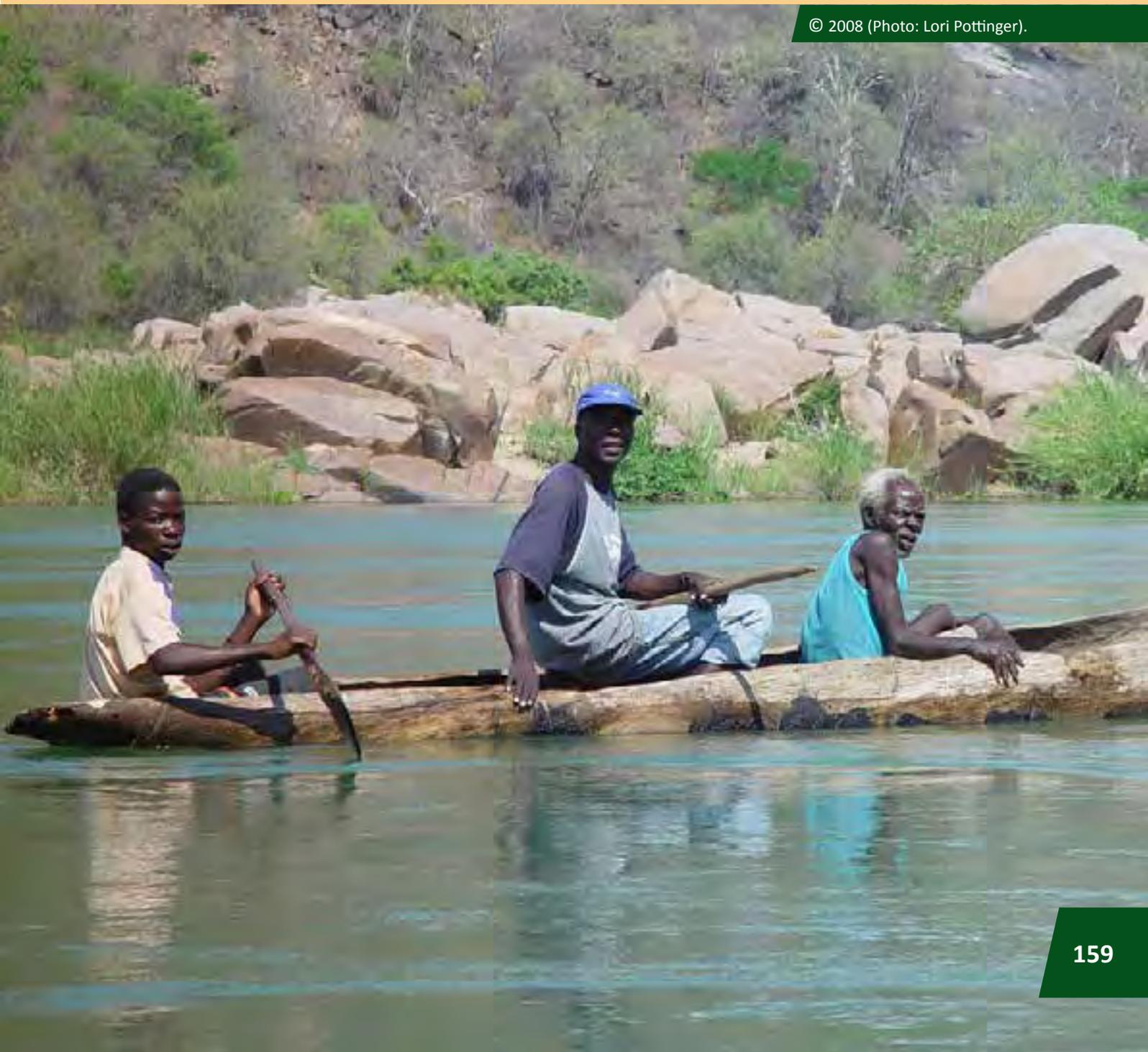
rain-fed crop planting as a livelihood option. At the same time, community storages and mills were established, in order to allow for the conservation and exploitation of agricultural produce. Lastly, direct humanitarian assistance in the shelter sector has benefitted over 150,000 displaced persons since 2007.

Future objectives

IOM will be actively engaged in further building the capacity of local government actors in

managing and coordinating camps, in order to allow for better preparedness and disaster risk management. The Organization will also engage in building the capacities of municipalities and urban neighbourhoods to enable better autonomous action in risk reduction and land-use planning, particularly for the benefit of urban migrants. Ongoing radio broadcast projects that involve increasing training and mentorship with radio stations will be continued, in order to enable radio networks to produce high-quality DRR and CCA-oriented programming tailored for the local environment and population.

© 2008 (Photo: Lori Pottinger).



List of projects

Emergency Shelter Assistance in Cyclone-affected Regions of Mozambique

Project status	Completed
Project period	1 February 2012 to 30 April 2012
Beneficiaries	4,000 people
Donor	United States Agency for International Development (USAID) and the Office of Foreign Disaster Assistance (OFDA)
Amount funded (in USD)	4,000,000
Partners	National Institute for Disaster Management (INGC), the UN Humanitarian Country Team for Mozambique, NGOs and the Inter-agency Standing Committee Logistics and Shelter Clusters

Emergency Shelter Assistance in Cyclone-affected Regions of Mozambique – Emergency Preparedness Account

Project status	Completed
Project period	1 February 2012 to 30 March 2012
Beneficiaries	5,000 people, staff of CSOs and NGOs
Donor	IOM, Emergency Preparedness Account
Amount funded (in USD)	99,100
Partners	INGC, the UN Humanitarian Country Team for Mozambique, the Mozambique Red Cross, OXFAM, Samaritan's Purse, Save the Children, International Relief and Development (IRD), Concern Worldwide – Mozambique, World Vision, Habitat for Humanity, Caritas, UN-Habitat and the World Food Programme (WFP)

Mozambique Floods 2013 Response and Recovery Proposal

Project status	Active
Project period	8 March 2013 to 31 July 2013
Beneficiaries	70,000 IDPs
Donor	Canada, Canadian International Development Agency
Amount funded (in USD)	194,742
Partners	INGC, CASACO the Mozambique Red Cross, Samaritan's Purse, Concern Worldwide - Mozambique and World Vision

Adaptation and Resilience in the Limpopo River Basin

Project status	Active
Project period	1 January 2013 to 31 March 2014
Beneficiaries	500,000 people and 20 others
Donor	UN Development Programme (through its Multi-Partner Trust Fund Office)
Amount funded (in USD)	202,381
Partners	Government personnel from INGC and the Institute for Social Communications (ICS); district and municipal authorities; and the Mozambique One UN Fund Programme, in partnership with UNICEF, WFP, UNDP, UN-Habitat, the UN Food and Agriculture Organization, the UN Environmental Programme and the UN Industrial Development Organization

Life-saving Humanitarian Shelter and Response to Populations in Gaza Province Displaced by Flooding

Project status	Active
Project period	22 January 2013 to 19 July 2013
Beneficiaries	50,000 IDPs
Donor	Central Emergency Response Fund (under a Rapid Response grant)
Amount funded (in USD)	1,002,288

Shelter and IDP Protection for Flood Victims in Mozambique

Project status	Active
Project period	4 February 2013 to 03 June 2013
Beneficiaries	150,000 IDPs
Donor	USAID, OFDA
Amount funded (in USD)	700,000
Partners	Samaritan's Purse, Save the Children (CASACO), World Vision, the Mozambique Red Cross and UN-Habitat

RWANDA

© CIAT 2011 (Photo: Neil Palmer).

Surface area	26,338 km ²
Population, 2010 (est.)	10.6 million
Population density, 2010	403.4/km ²
GDP in 2011	USD 6.3 billion
GDP per capita in 2011	USD 583
Remittances, 2011	USD 97 million
HDI	0.434
Net migration rate, 2010–2015	0.0 migrants/1,000 population
Types of movement	Internal displacement, cross-border displacement
Displaced by disasters, 2008–2012	26,643
Location of IOM offices	Kigali
Total DRR funding for 2013 in USD	<i>Data not available</i>
IOM site: www.iom.int/cms/en/sites/iom/home/where-we-work/africa-and-the-middle-east/east-africa/rwanda.html	

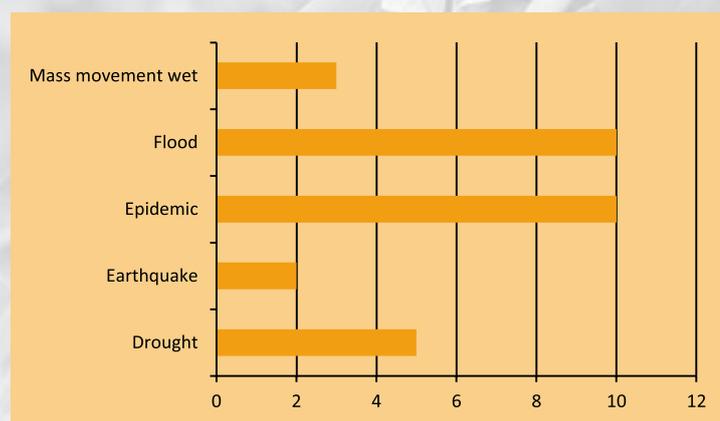
IOM DRR responses

Preparedness	Cross-cutting
Preparing communities Building institutional capacities	Livelihoods

Top 10 natural disasters by size of affected population, 1980–2013

Disaster	Date	Affected
Drought	2003	1,000,000
Drought	1999	894,545
Drought	1984	420,000
Drought	1996	82,000
Drought	1989	60,000
Flood	1988	21,678
Flood	2002	20,000
Flood	2008	11,346
Flood	2003	7,016
Mass Movement Wet	2010	5,937

Natural disaster occurrence, 1980–2013



Background

Rwanda is a landlocked and mountainous country and has historically suffered from periodic natural disasters. It is estimated that over the last 40 years, about 4 million Rwandans have been affected by droughts and 2 million by floods, especially in the north-western and eastern parts of the country. Disasters affected the country's mainly agrarian economy, hindering its efforts towards sustainable development and poverty reduction.

In 2012, Rwanda experienced exceptionally heavy rains, which resulted in floods, landslides and the destruction of property and public infrastructure. Thirty-two people died; 1,434 houses, 11 roads, 4 bridges and 3 dikes were destroyed; 2,227 hectares of crops were washed away; and 25 schools were either completely wrecked or seriously damaged.

Poverty is widespread in the country, with more than 70 per cent of the population living below the poverty line, with many of the poor relying on unprotected rural livelihoods, making them extremely vulnerable to the impact of hazards.

The most vulnerable individuals belong to single-head households (especially those led by single mothers and widows), to households composed exclusively of orphaned children or which include elderly members or people with special needs (positive for HIV/AIDS or other chronic diseases).

Rwanda currently hosts refugees from the Democratic Republic of the Congo. Congolese refugees cross the border daily due to tensions in the eastern part of the country. (According to the UN High Commissioner for Refugees, 8,212 people have crossed the border between 1 November 2012 and 15 February 2013.) Massive population influxes can lead to major crises, disrupting the livelihoods of the local population and affecting health, water and sanitation provision, agriculture and personal safety.

Since the genocide in 1994, Rwanda has been achieving consistent economic growth and has been able to steadily promote development. In the last few years, the Government has made considerable efforts in reducing disaster risk. It now considers disaster risk reduction (DRR) as a priority to be mainstreamed in all ministries' activities, as reflected in its upcoming second Economic Development and Poverty Reduction Strategy (EDPRS, 2013–2018). In addition, the Government

established the National Disaster Management Executive Committee, which meets regularly and is led by the Ministry of Disaster Management and Refugee Affairs (MIDIMAR).

In 2011 MIDIMAR organized a series of activities during the Disaster Risk Reduction Week, with the intent of enhancing risk awareness among people and communities, officials and non-governmental organizations (NGOs) and creating a network for information exchange and collaboration on disaster risk reduction.

Responses

IOM is currently working with MIDIMAR to prepare a proposal to work with three districtal disaster management committees to strengthen the disaster management capacities of local authorities. Staff members from 15 subdistricts will be trained in risk mapping and risk management, in order to undertake a series of disaster mitigation activities and improve the resilience of the local vulnerable population.

In coordination with the UN Development Programme, IOM will support MIDIMAR in the development of comprehensive disaster risk profiles for the country. The main objective of the programme is to strengthen the prevention of and preparedness for natural hazards, and mitigate their effects, as part of a comprehensive DRR effort. IOM is also engaging in strengthening the sustainability of local livelihoods, especially in rural areas, in order to enhance the resilience of the most vulnerable Rwandans.

Results achieved

In January 2012, IOM produced a rapid risk assessment report in order to identify main vulnerability factors and existing capacities, and is now using the information it contains to inform and guide its ongoing projects.

Future objectives

IOM aims to provide technical expertise to MIDIMAR and local authorities by mobilizing experts and methodologies used in other countries. IOM also seeks to promote participatory processes to assess risks at the community level, in order to strengthen the livelihood options of communities exposed to hazards and effectively reduce risk.

The protection and diversification of rural livelihoods are clearly identified as priorities for development in the country. IOM can take advantage of its past experience in building the capacity of returnees, in order to design and implement sustainable risk reduction policies.

Relevant materials

- *Disaster Risk Reduction and Prevention in Rwanda*, country report from the available from the UN International Strategy for Disaster (UNISDR): www.unisdr.org/2005/mdgs-drr/national-reports/Rwanda-report.pdf.
- *Disaster High-Risk Zones on Floods and Landslides*, a report on landslide and flood risk identification, available from www.preventionweb.net/files/28208_highriskzonesreportfinalpublication.pdf.

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SOMALIA



© IOM 2011 (Photo: Celeste Hibbert).

Surface area	637,657 km ²
Population, 2010 (est.)	9.3 million
Population density, 2010	14.6/km ²
GDP in 2011	Data not available
GDP per capita in 2011	Data not available
Remittances, 2011	Data not available
HDI	Data not available
Net migration rate, 2010–2015	-0.5 migrants/1,000 population
Types of movement	Rural-to-urban migration, rural-to-rural migration, temporary migration, cross-border displacement, internal displacement, stranded/trapped, return
Number of IOM staff working on disasters	20
Displaced by disasters, 2008–2012	53,200
Location of IOM offices	Hargeisa, Bosaso, Garowe, Mogadishu
Total DRR funding for 2013 in USD	USD 20,000,000

IOM site: <http://nairobi.iom.int/somalia>

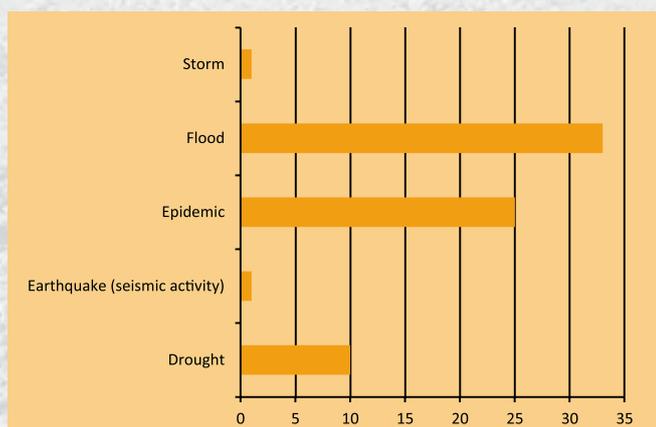
IOM DRR responses

Prevention	Preparedness	Emergency	Recovery	Cross-cutting
Reducing hazards	Preparing communities Building institutional capacities	Tracking displacement Assisting the displaced	Durable solutions	Livelihoods Health Infrastructures

Top 10 natural disasters by size of affected population, 1980–2013

Disaster	Date	Affected
Drought	2008	3,300,000
Drought	2010	1,400,000
Flood	1997	1,230,000
Drought	2000	1,200,000
Drought	1987	500,000
Flood	2006	299,000
Flood	2000	220,000
Drought	2004	200,000
Flood	2006	155,500
Flood	2000	150,000

Natural disaster occurrence, 1980–2013



Background

Somalia is a country in the Horn of Africa characterized by prevalently arid and semi-arid ecosystems, with hot temperatures all-year-round and low average levels of erratic precipitation. Coastal regions are more humid, while the hinterlands tend to receive precipitation in only two short rainy seasons – one from April and June and another from October to November. The country undergoes recurrent droughts and floods, and is threatened by desertification, which is also driven by the depletion of scarce vegetation for human use. Less than 2 per cent of the country's land remains arable, which has become a big problem as the economy has traditionally revolved on pastoralism.

Access to basic services in Somalia is limited, and Somalis, particularly in rural areas, are vulnerable to shocks caused by droughts and floods. In recent years, pastoralists and agropastoralists, as well as riverine populations, have been unable to build assets to cope with recurring severe weather events. This has caused displacement to rural areas and abroad, with people looking for assistance and/or economic opportunities.

In addition to natural disasters, Somalia has been ravaged by a 20-year internal conflict, which has continuously forced Somalis to flee their places of origin to either neighbouring countries or urban centres, where they can access humanitarian assistance. The situation has been further worsened by the occurrence of extreme weather events and has proved too complex for the newly formed Federal Government to manage. In the south-central part of the country, in particular, access to vulnerable communities remains limited, impeding assistance from humanitarian actors.

Since mid-2011, Somalia has been affected by one of the worst drought episodes of the last decades, which caused a widespread food crisis throughout the country, hitting most acutely the predominantly agricultural communities of the South. Millions of Somalis were forced out of their homes and had to flee to Mogadishu or cross the border to Kenya or Ethiopia in search of assistance.

Approximately 1.1 million Somali people were still internally displaced in the country as of the beginning of 2013, and over 1 million were scattered throughout other countries in the region. Some of the displaced are expected to return to their homes as security improves, but their vulnerability to extreme weather remains high and there is an increased risk

of environmentally induced displacement in the future. Many internally displaced persons (IDPs) are scattered all over Mogadishu, occupying small patches of Government-owned land, which makes the assistance intervention extremely complicated. In order to reduce the risk of further displacement and to enable return, it is necessary to build the resilience of communities at the village level, by protecting their livelihoods and preparing for shocks.

Responses

The IOM response in Somalia focuses on improving preparedness, reducing vulnerabilities and building resilient and sustainable communities. IOM has also incorporated gender considerations in its programming, thereby increasing the participation of women and reducing levels of sexual and gender-based violence (SGBV).

The Organization has implemented a series of activities to build the capacity of local and national authorities to prepare for and respond to natural hazards. This includes assistance in planned relocation and increased capacity to respond to sudden mass movements, through the provision of equipment and the placement of Somali diaspora experts.

Through research and policy support, IOM also aims to better understand risks and increase the protection and reduce the vulnerability of crisis-affected populations. For example, following a fire that devastated a displaced settlement in Garowe in 2012, IOM, in addition to addressing the resulting displacement, launched an investigation of the causes of fire incidents inside IDP settlements, one of the major catalysts of unnecessary, secondary displacement. The investigation, supported by IOM, the UN High Commissioner for Refugees and the World Food Programme is being conducted by the state government of Puntland, in collaboration with the local Mayor. IOM, in addition, has implemented activities to mitigate health risks, primarily through assessments, monitoring, trainings and support to mobile health services and hygiene promotion initiatives. In some remote areas and IDP settlements, IOM also directly provided safe drinking water.

The IOM hazard mitigation intervention focuses on the construction of infrastructure (e.g. dams, water tanks and gulley erosion checks) and livelihood promotion and enhancement (e.g. through cash-

for-work schemes and vocational training, especially for young people), with the aim of building the resilience of local communities, minimizing irregular migration and, ultimately, promoting sustainable development and durable solutions.

Throughout its activities, IOM Somalia coordinates with numerous actors to ensure a consistent DRR approach. It participates in the UN Inter-agency Standing Committee cluster system to ensure the coordination and coherence of humanitarian interventions. It works with the Disaster Management Agency (DMA) of the Somali Federal Government to improve the Government's capacity to prevent and respond to disasters. In addition, IOM coordinates its activities with line ministries and other actors on the ground.

Results achieved

The DRR initiatives of IOM in Somalia have contributed to the improvement of the disaster preparedness and response capacity of national authorities, particularly of the Disaster Management Agency (DMA) of the Federal Government of Somalia. IOM provided material and human support, allowing the DMA to more

efficiently manage crises (through better profiling, site planning, communication, community security and information management). IOM is also collaborating with the Federal Government to assist urban IDPs in Mogadishu, and will further contribute to institutional efforts for their relocation to peri-urban areas (through financial and technical support for IDP profiling).

Under the auspices of UNHCR, IOM collaborated towards the final IDP policy for Puntland, contributing to the progress towards durable solutions in the region. IOM also held formal and informal meetings with members of the state government of Puntland in order to voice its concerns about the forcible relocation of IDPs in Puntland and its negative consequences.

IOM contributed to reducing risk factors and improving livelihoods in different areas in the country. In Garowe, it constructed checking dams to reduce the impact of land erosion and rehabilitated six water berkets to ensure year-round water access for approximately 5,000 individuals. The Organization also supported the construction of gully erosion controls through cash-for-work programmes in pastorals areas affected by floods, and provided 150 households of returnees with

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livestock. In the Bay Region, IOM is supporting the return of urban IDPs by facilitating their integration through restocking of livestock (both for returnees and host communities) to a level that is sustainable.

The Organization has contributed to improving the identification, assessment and monitoring of health risks. Together with the Intergovernmental Authority on Development (IGAD), the UN Development Programme (UNDP) and the joint UN Programme on HIV/AIDS (UNAIDS), IOM conducted a study on mobility, migration and HIV in seaports and the Gulf of Aden and partnered with the Puntland Ministry of Health and the Zonal AIDS Commission to conduct a health vulnerability assessment in Puntland. It then provided recommendations on possible ways to improve the health and nutrition of communities affected by the swift movement of pirates. The Organization also trained 74 female and male hygiene promoters and Water, Sanitation and Hygiene (WASH) Committee members in Somalia through the Participatory Hygiene and Sanitation Transformation Training in Somaliland, Puntland and South-central Somalia. Finally, IOM conducted house-to-house WASH mobilization campaigns through local implementing partners, during which about 19,700 community members were mobilized.

IOM also provided immediate humanitarian assistance to persons affected by hazards. To be specific, the Organization provided clean water to 50,000 persons, as well as shelter kits and hygiene and sanitary kits to IDPs affected by fire incidents. In order to reduce the risk of sexual and

gender-based violence (SGBV), IOM distributed 1,508 solar lanterns to forcibly relocated IDPs and created a space of information-sharing and social mobilization on SGBV among the IDPs and affected host communities.

Future objectives

The frequent occurrence of extreme weather events in recent years has weakened the communities' resilience, made them more vulnerable to shocks and increased their reliance on humanitarian assistance. The provision of life-saving humanitarian assistance runs the risk of contributing to the communities' reliance on external intervention. IOM, therefore, aims to promote resilience by supporting local authorities in developing community development plans, as well as by supporting communities in reducing risks and preparing for and responding to future shocks.

IOM is also planning to support the capacities of national and local institutions – particularly those bodies that are legally mandated to address the needs of IDPs – in camp coordination and camp management, health, protection and communication. In addition, IOM Somalia is planning to boost local authorities' capacity in basic service delivery through community-level planning, which is also hoped to have positive effects on the level of trust in local governments and administrations.

List of projects

Somalia Drought and Livelihoods Response

Project status	Active
Project period	15 March 2012 to 14 March 2013
Beneficiaries	IDPs, Local authority staff, Government personnel, people involved in mixed migration flows and affected communities
Donor	Japan
Amount funded (in USD)	4,000,000
Partners	Humanitarian Coordinator in the Office of the Prime Minister, the National Disaster Management Agency, local NGOs, Office for the Coordination of Humanitarian Affairs (OCHA); the UN High Commissioner for Refugees and the Food and Agriculture Organization

SOUTH SUDAN



© IOM 2007 (Photo: Mario Samaja).

Surface area	644,329 km ²
Population, 2010 (est.)	11.2 million ¹
Population density, 2010	18.3/km ²
GDP in 2011	USD 19.1 billion
GDP per capita in 2011	USD 1,859
Remittances, 2011	<i>Data not available</i>
HDI	<i>Data not available</i>
Net migration rate, 2010–2015	<i>Data not available</i>
Types of movement	Temporary migration, internal displacement, return
Number of IOM staff working on disasters	300
Displaced by disasters, 2008–2012	340,000
Location of IOM offices	Juba, Renk, Maban, Malakal, Bentiu, Turalei, Maluakon and Wau
Total DRR funding for 2013 in USD	24.2 million

IOM site: <http://southsudan.iom.int/>

IOM DRR responses

Emergency	Mitigation	Recovery	Cross-cutting
Tracking displacement Assisting the displaced	Mitigating the impact	Durable solutions DRR in complex emergencies	Livelihoods Health

Note: There is no info available on disaster occurrences in South Sudan.



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Background

South Sudan became independent in 2011, after half a century of civil war, which led to the displacement of over 5 million people, both internally and across borders. Since the signing of the Comprehensive Peace Agreement in 2005, the country has received over 2.1 million returnees from (northern) Sudan and other neighbouring countries.

In 2013, a smaller influx of returnees is expected (125,000 individuals), as most traditional return routes are either unsafe or closed. Most of these returnees will be coming through a single entry point – Upper Nile State – but will probably have little or no means to continue moving towards their final areas of destination. This results in the state becoming a bottleneck, particularly Renk County, one of the main entry points into South Sudan.

Violence in Sudan’s Blue Nile and South Kordofan States is adding to the influx, forcing 185,000¹ Sudanese refugees into South Sudan. This movement has resulted in considerable strain on

local resources and basic services (e.g. clean water, education and health care). The situation is further exacerbated by an outbreak of hepatitis E, which is most prevalent in Maban County (Upper Nile State), an area that currently hosts four refugee camps with a total population of about 114,000.

During the rainy season, the country’s northern areas, particularly the Bahr el Ghazal region and the vast Sudd wetland areas that surround the White Nile, are prone to systematic, large-scale flooding. This makes access to these areas almost impossible by road and very limited through other means for most of the year. Humanitarian partners are therefore forced to work during the dry season to pre-position essential humanitarian supplies in strategic areas for use in future emergencies.

The scenarios described thus far, along with the country’s current concerns about the cessation of oil production in January 2012 (which was estimated to account for approximately 98% of the country’s revenue) and the fragility of its newly established government structures, result in a highly complex and dynamic sociopolitical context where humanitarian and development intervention has become a complicated challenge.

¹ Figure accounts for the registered refugee population in Unity and Upper Nile States only (“Refugees in South Sudan,” <http://data.unhcr.org/SouthSudan/country.php?id=251>).

Responses

IOM regards institutional capabilities at the national and local levels as a key element in the successful implementation of risk reduction, relief and migration management policies. Starting in 2012, the Organization has been working with the Relief and Rehabilitation Commission (RRC), the operational arm of the Ministry for Humanitarian Affairs and Disaster Management of South Sudan, in order to build capacities in information management and communications (specifically, in gathering, analysing and disseminating information at the national and local levels, to allow for more efficient and targeted disaster response) during emergencies.

The Tracking and Monitoring Programme, which has been in place since 2007, is a platform through which the capacity of the RRC in the area of migrant information management is strengthened. This programme makes available pertinent information on returnees and internally displaced persons (IDPs), including trends in their movement throughout South Sudan, should the need arise. IOM works in

close partnership with RRC, engaging about 500 local staff members each year in its operations. Regular training on data gathering is provided to RRC enumerators, who are directly responsible for gathering and validating data at the field level, with oversight and technical support being provided by IOM staff.

IOM, as lead of the Emergency Shelter and Non-Food Item (NFI) Cluster, manages the NFI core pipeline, a mechanism through which essential NFIs are procured and pre-positioned in strategic areas across the country to ensure their rapid mobilization by partners in the event of an emergency.

The Organization also operates the Common Transport Service (CTS) Project, which supports the Logistics Cluster. The CTS provides countrywide logistic services to humanitarian partners, ensuring the timely and efficient delivery of aid supplies in support of overall humanitarian interventions. Given the lack of infrastructure and the challenges in accessing many areas across the country, these support services are vital to humanitarian partners who lack the logistical expertise and resources to move humanitarian goods.

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Results achieved

At least 500 RRC staff members throughout South Sudan have been trained in data gathering, with particular focus on tracking and monitoring population displacement. National and local RRC offices are being upgraded with improved information management and communications equipment. High-level RRC officials are being trained in information management and communication.

The NFI pipeline is active and in place, with essential NFI and shelter items pre-positioned in all the 10 states of the country. To be specific, close to 54,000 NFI kits and 6,500 shelter kits have been pre-positioned across the country during the first two months of 2013; over 1,760 metric tons of humanitarian cargo has been moved this year at the time of writing. In addition, the CTS is active and has allowed the assistance of over 24 humanitarian partners in the first two months of 2013.

IOM has 300 staff members who are ready for rapid deployment and immediate response in the event of an emergency, as well as warehouses and resources in eight key locations.

Future objectives

IOM plans to continue its collaboration with the RRC in order to strengthen national and local capacities in disaster preparedness and response and to advance the implementation of the Tracking and Monitoring Program to ensure that information on returnees and IDPs remains up-to-date and accessible, to inform ongoing humanitarian response.

IOM also aims at further improving the CTS, in order to provide logistical support to humanitarian partners throughout South Sudan, and to further manage the NFI pipeline, in order to facilitate pre-positioning of essential NFIs across South Sudan.

IOM will also continue leading the Shelter and NFI Cluster to ensure efficient and targeted sector-specific response through effective coordination of humanitarian partners.

Relevant materials

- Famine Early Warning Systems Network (FEWS NET) vulnerability maps, available from <http://v4.fews.net/Pages/country.aspx?gb=ss&l=en>.
- *IOM South Sudan Annual Report*, available from www.iom.int/files/live/sites/iom/files/Country/docs/IOM_South_Sudan_Annual_%20Report_2012.pdf.
- *IOM South Sudan 2013 Country Programme*, available from www.iom.int/files/live/sites/iom/files/Country/docs/IOM_South_Sudan_2013_Country_Programme.pdf.

List of projects

Emergency NFIs and Emergency Shelters to Vulnerable Populations in Southern Sudan (ENVS 2011)

Project Status	Completed
Project period	1 April 2011 to 31 December 2011
Beneficiaries	44,000 families
Donor	Common Humanitarian Fund For Sudan (CHF Sudan)
Amount funded (in USD)	1,527,550
Partners	International non-government personnel partners, WVI, Medair, Intermon-Oxfam and Oxfam-GB

Tracking of Returnees and the Newly Displaced in Southern Sudan (TRNSS)

Project Status	Completed
Project period	1 April 2011 to 31 December 2011
Beneficiaries	10,000 IDPs and 290,000 others
Donor	CHF Sudan
Amount funded (in USD)	801,221
Partners	Government personnel partners and the South Sudan Relief and Rehabilitation Commission (SSRRC)

Integrated Migration Programming - Locating, Assessing and Assisting Returnees and the Displaced in South Sudan and the Republic of Sudan (LARED 4)

Project Status	Completed
Project period	1 July 2011 to 30 June 2012
Beneficiaries	IDPs, refugees and others
Donor	European Commission Humanitarian Aid Office (ECHO)
Amount funded (in USD)	3,677,511
Partners	Government and non-local government personnel partners, civil society organizations and SSRRC

Provision of WASH (Water, Sanitation and Hygiene) Supplies to Persons in Areas Impacted by High Levels of Returns in South Sudan (EPWSS)

Project Status	Completed
Project period	1 July 2011 to 31 December 2011
Beneficiaries	37,500 IDPs
Donor	CHF Sudan
Amount funded (in USD)	893,000
Partners	Local non-government personnel partners, civil society organizations and the private sector

Provision of Safe Water, Adequate Sanitation and Hygiene Promotion to Vulnerable Persons in Areas Impacted by High Levels of Returns and Emergency WASH Supplies to Populations Affected by Emergencies in South Sudan (PSWAS)

Project Status	Completed
Project period	1 April 2012 to 31 March 2013
Beneficiaries	25,000 IDPs
Donor	CHF Sudan
Amount funded (in USD)	750,002
Partners	WASH cluster partners, Government personnel and private sector partners, Department of Rural Water Development and , private sub-contractors

Stabilization and Early Reintegration Support for Returnees in South Sudan (SERSR)

Project Status	Active
Project period	1 July 2012 to 30 June 2013
Beneficiaries	340 at-risk youth, 413 from other vulnerable groups, and 36 other beneficiaries/stakeholders
Donor	United Nations Peacebuilding Fund (PBF)
Amount funded (in USD)	1,100,000
Partners	ILO, local non-government personnel, civil society organizations and the South Sudan Red Cross

Capacity-building Initiative for the Government Personnel of South Sudan's Ministry of Humanitarian Affairs and Disaster Management (MHADM) and Relief and Rehabilitation Commission (RRC)

Project Status	Active
Project period	18 August 2012 to 17 August 2013
Beneficiaries	70 government personnel
Donor	Italy
Amount funded (in USD)	1,363,333
Partners	Ministry of Humanitarian Affairs and Disaster Management and SSRRC

Reintegration Assistance to Returnee Communities in Counties of High Return: Aweil East and Twic East Counties

Project Status	Active
Project period	1 December 2012 to 31 December 2013
Beneficiaries	24,708 refugees and 18,916 others
Donor	Sweden, Swedish International Development Cooperation Agency (SIDA)
Amount funded (in USD)	5,258,413
Partners	SSRRC, Ministry of Education and Department of Rural Water Development, Norwegian Refugee Council (NRC), International Rescue Committee (IRC) and the UN High Commissioner for Refugees

Sustainable Return and Recovery in the Abyei Area

Project Status	Active
Project period	15 December 2012 to 14 December 2013
Beneficiaries	45,000 IDPs and 100,000 ethnic minority/indigenous people
Donor	The Netherlands
Amount funded (in USD)	1,298,701
Partners	Abyei Joint Oversight Committee

Provision of Emergency WASH Assistance for the Population Affected by the Conflict and Natural Disaster in North Bahr El Gazal, Warrap and Upper Nile States

Project Status	Completed
Project period	1 March 2013 to 2 April 2013
Beneficiaries	38,500 people and 8,000 indirect beneficiaries
Donor	CHF Sudan
Amount funded (in USD)	800,000



ZIMBABWE



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Surface area	390,757 km ²
Population, 2010 (est.)	12.5 million
Population density, 2010	32.2/km ²
GDP in 2011	USD 9.6 billion
GDP per capita in 2011	USD 757
Remittances, 2011	Data not available
HDI	0.397
Net migration rate, 2010–2015	4.5 migrants/1,000 population
Types of movement	Rural to urban migration, permanent migration, internal displacement, cross-border displacement
Displaced by disasters, 2008–2012	Data not available
Number of IOM staff working on disasters	13
Location of IOM offices	Harare, Mutare, Bulawayo, Plumtree, Beitbridge
Total DRR funding for 2013 in USD	USD 1,500,000
IOM site: http://iomzimbabwe.org	

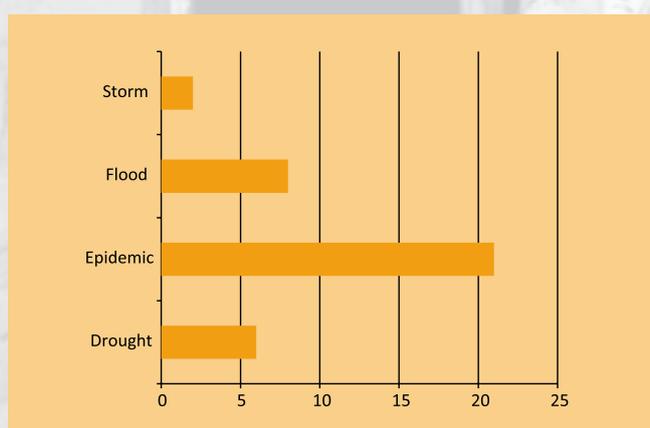
IOM DRR responses

Preparedness	Emergency	Mitigation	Recovery	Cross-cutting
Preparing communities Building institutional capacities	Tracking displacement Assisting the displaced	Reducing the footprint Mitigating the impact	Durable solutions DRR in complex emergencies	Livelihoods Land & property

Top 10 natural disasters by size of affected population, 1980–2013

Disaster	Date	Affected
Drought	2001	6,000,000
Drought	1991	5,000,000
Drought	2007	2,100,000
Drought	2010	1,680,000
Drought	1982	700,000
Epidemic	1996	500,000
Flood	2000	266,000
Epidemic	2008	98,349
Drought	1998	55,000
Flood	2001	30,000

Natural disaster occurrence, 1980–2013



Background

Zimbabwe is a landlocked country with a tropical climate that experiences infrequent storms and recurrent droughts. The main hazards its population faces are floods and epidemics, with typhoid fever and cholera outbreaks especially significant threats. In 2009, the country experienced a cholera epidemic that claimed over 4,276¹ lives, and since the 1980s it has known an increased disease burden as a result of HIV/AIDS prevalence. Environmental degradation, driven by unsustainable use of land and population growth, is a major concern, as it is leading to desertification, soil erosion and loss of productive land.

Displacement and migration, both internal and cross-border, are common in the country. It is estimated that there are 1.5 million Zimbabweans currently residing in South Africa, many of whom are irregular and, therefore, subject to periodic deportations. Many of the migrants are among Zimbabwe's most vulnerable and are subject to significant risks when travelling to South Africa, with many experiencing violence and other protection issues while on the move or during their stay.

The mobile population in Zimbabwe tends to have limited access to basic social services and inadequate means to sustain a livelihood and are often insufficiently involved in development programmes, thereby qualifying as one of the most vulnerable groups. Lack of resources and access to protection systems mean that epidemics and natural disasters pose especially significant challenges to displaced persons and migrant communities, especially in a context of limited government capacity. Disasters compound these problems created by mobility and tend to create a vicious circle of vulnerability.

Addressing the root causes of mobility is an essential DRR strategy that can help minimize the risks related to migration and displacement. This can be pursued by building capacities through the reintegration of migrants into their communities of origin, as well as by improving their living conditions there.

Responses

IOM DRR activities in Zimbabwe focus on food security, health, education and capacity-building, shelter, protection of children, and material and psychosocial support to households affected by natural disasters.

The primary goal is to prevent forced migration by reducing the impacts of hazards (especially droughts and floods), particularly, by protecting and enhancing livelihood opportunities. IOM has encouraged a range of off-farm livelihood options; improved farmers' skills and productivity in flood- and drought-prone areas (e.g. Chipinge, Buhera and Mt. Darwin); supported livestock husbandry in pastoralist areas (e.g. Matebeleland); promoted drought-resistant seed varieties (e.g. in Buhera and Mt. Darwin); and established irrigation facilities to reduce drought sensitivity (e.g. in Mugondi and Musikavanhu). In addition, the Organization supports the socioeconomic reintegration of households displaced and otherwise affected by natural disasters and improves local access to basic social services.

IOM has been widely applying the community-based planning (CBP) methodology – a participatory planning approach implemented in partnership with the local government and enshrined in Zimbabwean law – which ensures that the needs, priorities and aspirations of all individuals, including those that are socially and economically marginalized, are incorporated into development and recovery plans.

CBP has allowed IOM to perform flood and cyclone risk assessments, establish early warning systems and build capacity for risk management at the community level. The Organization is also active in addressing environmental health concerns to reduce the incidence of waterborne diseases. During the 2008 cholera outbreak, IOM mainstreamed health and hygiene in its programming and has been conducting participatory health and hygiene trainings.

Other activities focus on mainstreaming prevention of gender-based violence, HIV/AIDS and trafficking as measures for safeguarding populations at risk. Safe migration campaigns have been carried out as a means to curb the effects of irregular migration, and trainings on child protection have been conducted in various communities. Child protection communities are now set up in schools serving IDPs as a means to prevent child abuse and enhance disaster preparedness.

IOM is also active in the humanitarian cluster system in disaster response. It chairs the IDP sub-cluster, which coordinates response to displacement in the country and actively participates in the Protection cluster, which, in turn, deals with humanitarian protection. The organization is a major contributor to the protection issues of cross-border migrants and participates in the Education and WASH (water, sanitation and hygiene) clusters.

¹ According to a 2009 report on cholera by the Ministry of Health.

Mitigation, resilience-building and preparedness activities have been carried out in collaboration with the Department of Civil Protection at the national, provincial and district levels to avert the negative impacts of natural disasters. IOM also works closely with other local institutions, such as the Red Cross Society, Christian Care and other faith-based organisations, in reaching populations in need. Other collaborations involve UN agencies, UNICEF, UNHCR and WFP, as well as PSI, OXFAM, Save the Children Alliance, German Agro Action and the Norwegian Refugee Council.

Results achieved

IOM has contributed to improving disaster preparedness and response by building the capacity of local and national authorities to respond to natural hazards.

Community-based risk-mapping exercises in 35 towns in the highlands have allowed for the improvement of knowledge and increased understanding of local risk factors. This information can be used to enhance hazard prediction, planning and preparedness and early warning prior to a disaster. In addition, 456 volunteers and civil protection workers have been trained for flood response.

Livelihood-supporting initiatives have allowed for income diversification, promotion of new partnerships and start-ups and the establishment of hazard-resistant infrastructure, which has driven up productivity (both from agricultural and non-

agricultural activities) in target areas. The positive effects on food security and income stability are likely to reduce the risk of displacement from natural hazards and environmental change.

The use of CBP by IOM has enabled marginalized groups to be legitimately and transparently incorporated into institutional recovery and DRR programmes. This has proven especially useful in reintegrating mobile populations into their local context and in addressing their long-term development needs, which is, in turn, essential in addressing the root causes of natural disasters. CBP allows for the creation of sustainable partnerships in community-planning through collective decision-making and is effective in tackling poverty and social exclusion.

WASH interventions (namely, toilet construction and borehole drilling) have contributed to the improved access to potable water and sanitation facilities in target communities, considerably enhancing local health conditions (e.g. reducing the risk of cholera outbreaks). IOM has also been working with local authorities to construct health-care facilities (e.g. clinics for mobile population), and has been directly training village health workers and increasing local awareness of sanitary issues, further building the community's capacity to respond to health disasters.

In addition, IOM has improved local education facilities by constructing classroom blocks and providing books, thereby improving literacy and facilitating social inclusion. The Organization has also supported the resettlement of 693 flood-

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affected households in Chibuwe, moving them to higher ground and offering legal land titles, as a part a disaster prevention effort.

Future objectives

Communication of risk and hazard information in remote rural areas remains an issue. IOM Zimbabwe is therefore aiming at developing a comprehensive early-warning/early-action system for rural areas. In addition, the Organization intends to further build local resilience by performing community stabilization activities (especially in urban areas receiving mass population movements), climate-proofing rural livelihoods and supporting local livelihoods. Supporting local agriculture will require resolving the water availability issue, by providing better supply through systems powered by cheap, renewable energy. IOM will also promote value addition and access to markets to improve the

profitability of community production. A crucial trade-off will be needed between the depth and coverage of participatory processes (such as the CBP methodology) and the resources required to replicate them in more communities.

Relevant materials

- *Migration in Zimbabwe: A Country Profile*, available from http://publications.iom.int/bookstore/free/mp_zimbabwe.pdf.
- IOM Zimbabwe materials on migration and development, available from www.iomzimbabwe.org.zw/index.php?option=com_docman&task=cat_view&gid=13&Itemid=3.
- IOM Zimbabwe materials on emergencies and reintegration, available from www.iomzimbabwe.org.zw/index.php?option=com_docman&task=cat_view&gid=16&Itemid=3.

List of projects

Emergency Livelihood Restoration for Vulnerable Communities in Drought-affected Areas in Matabeleland, Zimbabwe (ELRV)

Project status	Completed
Project period	1 October 2011 to 30 June 2012
Beneficiaries	15,000 people
Donor	UN Central Emergency Response Fund (CERF) (Under-funded Emergencies grant)
Amount funded (USD)	600,000
Partners	Caritas Zimbabwe and the Swedish Cooperative Centre

Emergency Humanitarian Assistance to Mobile and Vulnerable Population – Food for Assets (EHAID)

Project status	Completed
Project period	1 August 2011 to 31 December 2011
Beneficiaries	1,807 mobile and vulnerable people and local authority staff
Donor	World Food Programme (WFP)
Amount funded (USD)	5,406
Partners	Government personnel, international and non-Government personnel, local non-government organization personnel, Civil Society Organization personnel and UN partners

Emergency Response, Early Recovery and Durable Solutions Assistance to Mobile and Vulnerable Populations in Zimbabwe (ERER) – CIDA

Project status	Completed
Project period	30 March 2011 to 31 December 2012
Beneficiaries	Affected and vulnerable communities
Donor	Canada, Canadian International Development Agency
Amount funded (USD)	1,019,368
Partners	UNICEF, UNFPA, UNHCR, WHO, WFP

Emergency Response to Flood-affected Communities in Zimbabwe

Project status	Completed
Project period	26 February 2013 to 31 May 2013
Beneficiaries	10,000 people
Donor	United Nations Office for the Coordination of Human Affairs (OCHA)
Amount funded (USD)	250,000
Partners	Department of Civil Protection, UN Office for the Coordination of Humanitarian Affairs (OCHA), the WASH Cluster and Environmental Health Alliance (EHA)

Emergency Response, Early Recovery and Durable Solutions Assistance to Mobile and Vulnerable Populations in Zimbabwe (ERER) – USAID

Project status	Completed
Project period	6 June 2012 to 5 June 2013
Beneficiaries	Affected and vulnerable communities
Donor	United States Agency for International Development (USAID) and the Office of Foreign Disaster Assistance (OFDA)
Amount funded (USD)	2,000,000
Partners	Government personnel and authorities and providers of basic social services (e.g. health, education and social welfare); UNICEF, UN Population Fund (UNFPA), UN High Commissioner for Refugees (UNHCR), World Health Organization (WHO), World Food Programme (WFP), Swedish International Development Agency (SIDA), European Community Humanitarian Aid Office (ECHO), Swiss Development Corporation (SDC)

Facilitate IDP Transition via Community-based Planning and Access to Basic Social Services (FTID)

Project status	Completed
Project period	1 November 2011 to 31 July 2012
Beneficiaries	45,378 people
Donor	Switzerland
Amount funded (USD)	288,360

Emergency Response and Facilitation of Durable Solutions to Mobile and Vulnerable Populations in Zimbabwe (ERFD)

Project status	Completed
Project period	4 March 2011 to 31 January 2012
Beneficiaries	Affected and vulnerable communities
Donor	USAID and OFDA
Amount funded (USD)	2,500,000

Community-based Conflict Mitigation and Peacebuilding in Zimbabwe

Project status	Endorsed
Beneficiaries	Affected communities
Donor	USAID and the Office of Conflict Management and Mitigation
Amount funded (USD)	1,200,000



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AMERICAS

- 
- 183** Colombia
 - 191** Dominican Republic
 - 195** El Salvador
 - 199** Guatemala
 - 203** Haiti
 - 223** Peru

COLOMBIA

© IOM 2004 (Photo: Simone Bruno).

Surface area	1,141,748 km ²
Population, 2010 (est.)	46.3 million
Population density, 2010	40.6/km ²
GDP in 2011	USD 333.3 billion
GDP per capita in 2011	USD 7,104
Remittances, 2011	4.2 billion
HDI	0.719
Net migration rate, 2010–2015	-0.5 migrants/1,000 population
Types of movement	Rural to urban migration, temporary migration, permanent migration, internal displacement, return, relocation
Displaced by disasters, 2008–2012	3,289,172
Number of IOM staff working on disasters	57
Location of IOM offices	Medellin, Cartagena, Popayan, Valledupar, Quibdó, Riohacha, Sincelejo, Santa Marta, Villavicencio, Pasto, Armenia, Bucaramanga, Cali
Total DRR funding for 2013 in USD	USD 9,235,025
IOM site: www.oim.org.co	

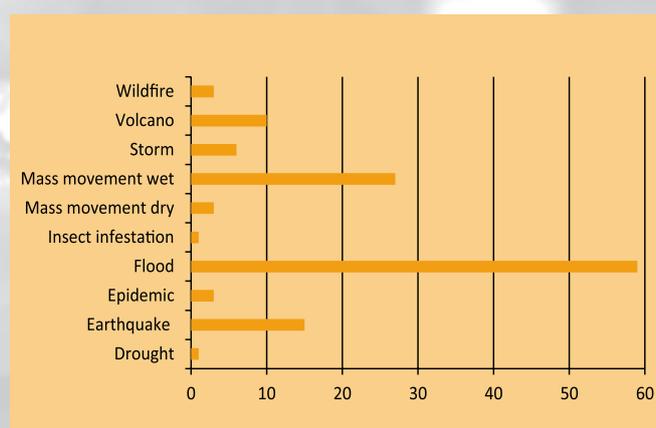
IOM DRR responses

Prevention	Preparedness	Emergency	Mitigation	Recovery	Cross-cutting
Reducing hazards Promoting migration	Preparing communities Building institutional capacities Bridging responses	Assisting the displaced	Mitigating the impact	Durable solutions DRR in complex emergencies	Livelihoods Land and property Infrastructures

Top 10 natural disasters by size of affected population, 1980–2013

Disaster	Date	Affected
Drought	2010	2,217,518
Flood	1999	1,205,933
Flood	2008	1,200,091
Flood	2007	1,162,135
Flood	2005	474,607
Flood	2007	443,173
Drought	2004	345,386
Drought	1986	250,000
Flood	2006	221,465
Epidemic	2004	186,096

Natural disaster occurrence, 1980–2013



Background

Colombia is the world's most biologically diverse country, as it has coastal areas on both the Atlantic and Pacific Oceans; islands, plains and savannahs; and tropical rainforests and high-elevation mountain ranges dominated by the Andes. Its western part sits on the Pacific Ring of Fire and is often hit by earthquakes and by the eruptions of its 15 major volcanoes.

Disaster risk in the country is heavily driven by social processes. Urbanization, deforestation and environmental degradation are significant, driven by four decades of internal conflict which has generated thousands of victims and affected the social and economic growth of the country. Conflict has also been a major driver of displacement, with over 3.7 millions of Colombians, especially those living in rural, isolated communities, forced to leave their areas of origin.

Conflict-induced displacement – and, more generally, population growth – has been feeding the expansion of cities in the seismically active mountainous region, where millions of poor Colombians live in informal settlements vulnerable to geophysical, hydrological and meteorological hazards. The capital itself, Bogotá, which is home to more than 8 million people, is located close to active fault lines.

The country experiences two main wet seasons, and its Pacific coast has one of the world's highest rainfall levels. The country itself ranks fourth in the world in terms of total freshwater supply. Precipitation varies widely following the El Niño Southern Oscillation, and often causes floods and landslides in both mountainous and low-lying areas.

The 2010–2011 floods were the most severe recorded in the last three decades. According to the Government, by August 2011 more than 4 million people had been affected, with more than 16,000 homes destroyed and 500,000 severely damaged. Approximately 40,000 people were housed in 839 temporary shelters, and at least 41,000 children saw their studies interrupted by the destruction of and damage to about 300 schools, several of which were used as temporary shelters.

In 2012, 54,295 people in 100 municipalities were affected by floods, and in the first two months of 2013, 2,620 families have been affected by different natural disasters.

Responses

The DRR intervention of IOM in Colombia is comprehensive and includes projects that address all phases of the migration management cycle, from the reduction of migratory pressures on vulnerable populations to the long-term stabilization of communities displaced and otherwise affected by disasters.

In order to support the capacities of the Colombian Government and civil society, IOM led several shelter coordination and management projects, training local authorities on the provision and management of temporary shelters, and distributed hygiene and sleeping kits to vulnerable families. IOM aimed at enhancing local and institutional preparedness, as well as directly managing the situation of populations displaced by the floods.

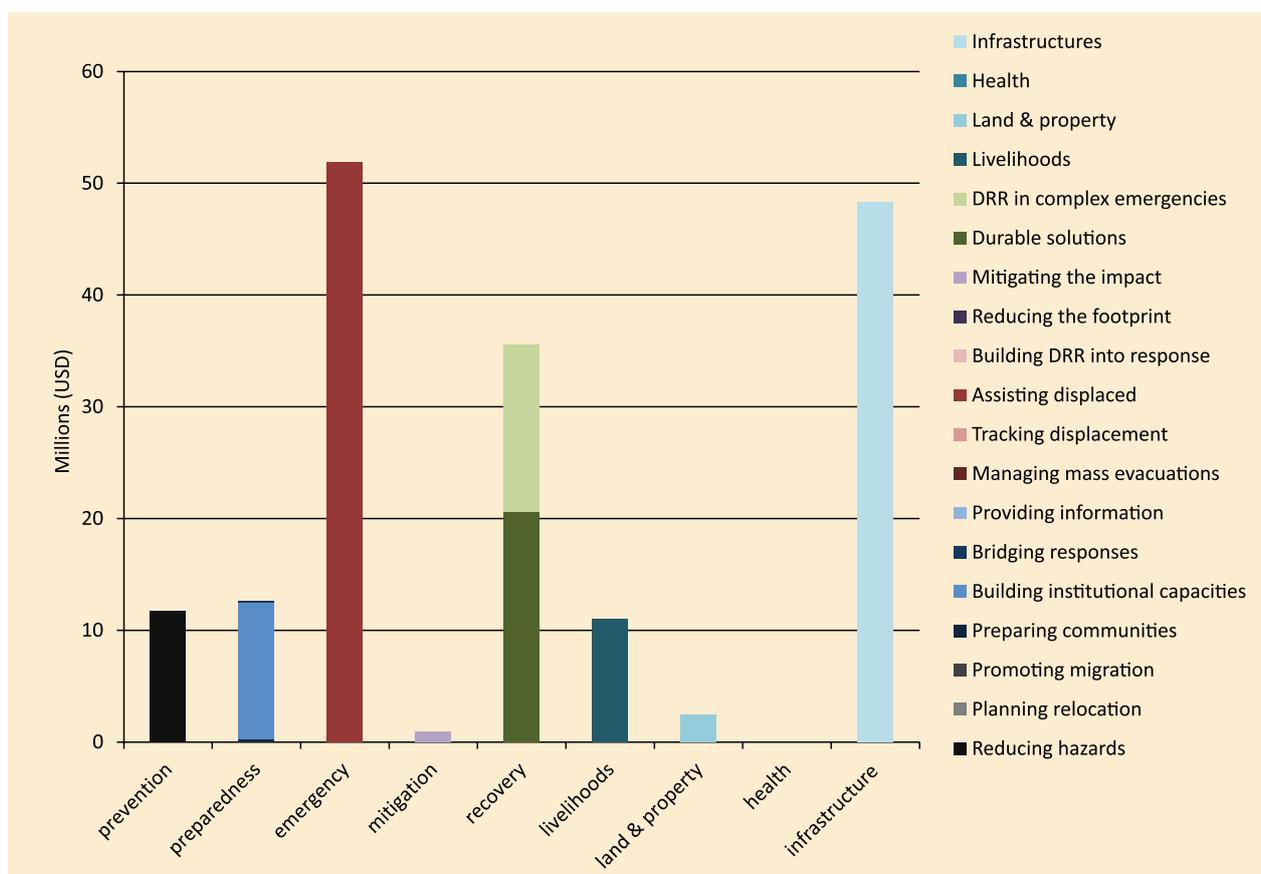
IOM has been working jointly with the National Ministry of Education on community stabilization through the improvement, reconstruction, relocation, rehabilitation and equipping of educational infrastructure in border regions, isolated areas or municipalities affected by natural disasters and conflict. These initiatives seek to reduce risk in some of the most vulnerable communities in the country.

Throughout its intervention in Colombia, IOM focused on raising awareness about gender equality and ethnic discrimination, in order to reduce future marginalization of women and enhance gender-equitable access to resources.

IOM also collaborated with the Bogotá Municipality to design an educational strategy for disaster risk management in the city, with specific attention to building the capacities of vulnerable populations in reducing risk and responding to hazards (in particular, earthquakes, landslides and floods). In addition to training and awareness-raising activities, the project also aims at advancing understanding of mobility-based measures (such as relocation and resettlement) in reducing disaster risk, by promoting academic and policy dialogue on the topic.

In addition, in 2012, the Organization led the shelter coordination and management project for the assistance program implemented jointly with the UN System and the Colombian Government. IOM also supports the Colombian Government in the coordination and management of temporary shelters built to assist victims of the La Niña Phenomenon of 2010–2011.

Total funding used by IOM Colombia from 2009 to 2013, by type of activity



While emergency-related activities were the main source of expenditure, infrastructural interventions and community stabilization activities were extremely important in the country.

Results achieved

The Organization carried out capacity-building activities on temporary shelters for 11 Regional Committees and 8 Local Committees for Assistance and Disaster Prevention, as well as for a number of territorial entities, indigenous and Afro-Colombian communities, public service companies and healthcare institutions.

Capacity-building activities were adapted to the Colombian context and carried out through the “Training the Trainers” methodology, allowing for increased ownership by the local population. Trainees acquired knowledge on temporary shelter management, adult learning and training methodologies and techniques.

IOM has also provided technical assistance to 21 departmental risk management councils and 3 municipal risk management councils on opening, managing and closing shelters. As a result of these activities, local capacity for shelter management has increased throughout the country.

More than 6,000 families have been assisted through the distribution of sleeping and hygiene

kits and have been targeted with an awareness campaign on gender equality. IOM is supporting local institutions in managing 32 temporary shelter sites, both spontaneous and planned.

In coordination with the Clusters and the Colombian Government, IOM developed the Management of Temporary Shelters Information System to support the authorities in assessing and monitoring the needs of displaced populations in the temporary shelters.

By the end of 2012, IOM started collaborating with the Bogotá Municipality to strengthen social and community organizations in managing risk. The Organization has contributed to the design of the educational strategy for risk management in the city and is carrying out a series of training aimed at making community organizations and vulnerable people more self-reliant in the face of risk. IOM will also build on the outcomes of the policy and academic debate on temporary relocation and resettlement of vulnerable populations, in order to inform the upcoming Development Plan for Bogotá, which aims at making the relocation of communities in high-risk areas a main DRR measure for the city.

Colombia's Disaster Database

Using a "National Disaster Database," authorities are able to better assess the impact of natural disasters on people and assets; keep detailed track of their occurrence and distribution; and, ultimately, to better understand patterns (and, possibly, drivers) of risk.

Using DesInventar, Colombian authorities are able to record disaster occurrence and impacts with much precision, producing useful baselines for activities aimed at the reduction of risk, including those which focus on preventing and managing population displacement.

Disaster	Missing persons	Families affected	Injured persons	Deaths	Total number of persons affected
Avalanche	7	247	11	14	1,217
Collapse		6	40	21	55
Landslide	6	11,566	73	59	50,090
Erosion		77			385
Eruption		5			25
Hailstorm		435			2,175
Structural fire		1,256	100	20	5,733
Forest fire		646	2	1	2,639
Flood	14	127,177	17	28	591,752
Sea swell		86			430
Drought		6,254			25,172
Earthquake		1,488			6,324
Electrical storm		149	33	23	756
Gale		58,721	197	8	282,915
Total	27	208,113	473	174	969,668

Future objectives

IOM Colombia plans to strengthen collaborations with national risk reduction authorities, in particular with the National Risk Management Unit. The common aim of these efforts is to improve the resilience of institutions, organizations and communities. In particular, IOM will focus on promoting temporary shelter management systems and strengthening existing capacities for comprehensive risk management, including early recovery. Future priorities will also include comprehensive interventions to reduce the risk of natural disasters in border areas, promote practices to adapt to climate change, strengthen institutional coordination and training at the regional level, as well as support the capacity of the education system to enable it to function in times of emergency.

Relevant materials

- IOM Colombia's publications on disaster risk management, available from www.oim.org.co/publicaciones-oim/emergencias-y-gestion-del-riesgo.html
- IOM Colombia's publications on displaced populations, available from www.oim.org.co/component/docman/cat_view/1-publicaciones/4-poblacion-desplazada.html?Itemid=

List of projects

Response to the La Niña Phenomenon – Shelter, WASH and Education (UNSJRP)

Project status	Completed
Project period	10 November 2011 to 9 August 2012
Beneficiaries	60,135 people
Donor	Other organizations
Amount funded (USD)	1,893,632
Partners	UNICEF, UN Development Programme (UNDP), UN Food and Agriculture Organization (FAO), UN Office for Project Services (UNOPS), UN Office for the Coordination of Humanitarian Affairs (OCHA), UN Fund for Population Activities (UNFPA)

Inclusion of Gender Equity in Disaster Risk Management in Latin America and the Caribbean

Project status	Completed
Project period	20 July 2011 to 16 March 2012
Beneficiaries	Civil society organizations (CSOs), non-governmental organizations (NGOs) and government personnel
Donor	United States Agency for International Development, Office of Foreign Disaster Assistance (USAID/OFDA)
Amount funded (USD)	300,000
Partners	General Risk Management Division (RMD) of the Ministry of the Interior and Justice, Mayor's Office of Medellín: Secretary of Women's Issues, System for Disaster Prevention and Relief (SIMPAD), Secretary of the Environment, Regional level: Ibero-American Network of Defenders of Women, FIO.

Action Plan to Improve Education Infrastructure Affected by Floods and Other Natural Disasters (APIEA)

Project status	Completed
Project period	27 July 2011 to 26 April 2012
Beneficiaries	Affected communities
Donor	Ministerio de Educación Nacional de Colombia (MEN, Ministry of National Education)
Amount funded (USD)	23,537,231
Partners	MEN

Strengthening Institutional Capacities for Provision of Education Services in Emergencies – Colombia (FCSEA)

Project status	Completed
Project period	30 December 2011 to 29 December 2012
Beneficiaries	Local authority staff
Donor	MEN
Amount funded (USD)	867,006
Partners	MEN and Corporacion Opcion Legal

Project to Support the Strategy of Rural Women–Colombia (SSRW)

Project status	Completed
Project period	26 September 2011 to 31 December 2012
Beneficiaries	Vulnerable women
Donor	Colombia
Amount funded (USD)	624,025

Prevention of displacement through support on the land public policy (PDIP)

Project status	Completed
Project period	20 December 2011 to 30 April 2013
Beneficiaries	Government personnel and affected communities
Donor	Instituto Colombiano de Desarrollo Rural (INCODER)
Amount funded (USD)	4,922,652

Generating sustainable livelihoods for vulnerable households headed by women in the communities of San Carlos, San Luis and San Francisco (Antioquia)

Project status	Active
Project period	16 October 2012 to 15 January 2014
Beneficiaries	750 single-headed households in the affected communities
Donor	Departamento Administrativo para la Prosperidad Social (DPS)
Amount funded (USD)	1,330

Support for the Coordination and Management of Temporary Accommodations (CMTA)

Project status	Completed
Project period	5 July 2012 to 4 April 2013
Beneficiaries	8,000 IDP families, among others
Donor	Colombia
Amount funded (USD)	9,085,331
Partners	Colombia Humanitaria, Unidad Nacional de Gestion del Riesgo (UNGRD), Temporary Shelter Cluster, Temporary Shelter Board members and local authorities

Institutional strengthening for the Afro-Colombian population through training strategies and technical assistance

Project status	Completed
Project period	16 May 2012 to 31 December 2012
Beneficiaries	Ethnic minorities/indigenous peoples
Donor	Ministry of the Interior
Amount funded (USD)	3,674,454
Partners	Direccion de Asuntos para Comunidades Negras, Afrocolombianas, Raizales y Palenqueras of the Ministry of the Interior

Community stabilization and improving infrastructure of educational establishments

Project status	Completed
Project period	16 July 2012 to 31 December 2012
Beneficiaries	At-risk youth
Donor	MEN
Amount funded (USD)	22,319,116
Partners	MEN

Deploying rapid response projects in 14 municipalities in south-eastern Colombia under the Rapid Response Program (RRP) of Politica Nacional de Consolidación y Reconstrucción Territorial (PNCRT)

Project status	Completed
Project period	15 August 2012 to 31 December 2012
Beneficiaries	Affected communities
Donor	Colombia
Amount funded (USD)	2,859,757

Implementation of Phase 1 of the Winter Emergency Action Plan for the education sector in the departments of Atlantico, Magdalena, Risaralda and Tolima

Project status	Completed
Project period	15 December 2012 to 31 May 2013
Beneficiaries	Affected communities
Donor	MEN
Amount funded (USD)	2,799,188
Partners	MEN

Contribution to the improvement of secondary education and articulation with higher education, education for work and human development

Project status	Active
Project period	1 October 2012 to 30 June 2013
Beneficiaries	Government personnel and affected communities throughout Colombia
Donor	MEN
Amount funded (USD)	1,027,161
Partners	MEN and UNICEF

Increasing temporary shelter capacities to protect vulnerable conflict-affected IDPs in selected areas of Colombia

Project status	Completed
Project period	25 September 2012 to 24 May 2013
Beneficiaries	IDPs
Donor	Central Emergency Response Fund (CERF)
Amount funded (USD)	316,000
Partners	Government of Colombia institutions and mestizo, indigenous and Afro-Colombian communities

Fortalecimiento de Organizaciones Sociales y Comunitarias para la Gestion Integral de Riesgos (Strengthening Social and Community Organizations for Integrated Risk Management), Bogotá Chapter

Project status	Active
Project period	26 December 2012 to 25 June 2013
Beneficiaries	400 local authority, CSO and NGO staff members
Donor	Municipal Government of Bogotá
Amount funded (USD)	200,512
Partners	Fondo de Prevencion y Atencion de Emergencias (FOPAE)

Reintegration and Community Development Program in Colombia (RCDP)

Project status	Completed
Project period	1 January 2006 to 31 December 2012
Beneficiaries	Affected communities, vulnerable women and at-risk youth
Donor	Argos Foundation
Amount funded (USD)	1,547,198

Integrated Humanitarian Assistance Support to IDPs and Other Vulnerable Groups in Colombia (IHAS II)

Project status	Completed
Project period	30 November 2007 to 30 September 2010
Beneficiaries	781,694 IDPs
Donor	USAID
Amount funded (USD)	48,181,338
Partners	Accion Social

Stages I and II of the construction of the Public School El Rodeo “Paz sin Fronteras” with the purpose of supporting the local answer in education for IDPs and vulnerable persons (ELROD)

Project status	Completed
Project period	30 December 2008 to 8 January 2012
Beneficiaries	IDPs
Donor	Colombia
Amount funded (USD)	207,511

Construction for and the grant of new infrastructure to the Integral Attention of Childhood Development (NIAC) in 14 municipalities in the Department of Chocó

Project status	Completed
Project period	29 April 2009 to 31 May 2012
Beneficiaries	400,000 people
Donor	Instituto Colombiano de Bienestar Familiar (ICBF)
Amount funded (USD)	7,026,163

Education improvement throughout the reconstruction, relocation, restoration and/or equipping of educational infrastructure affected by natural disasters, conflict or abandon (NADCA)

Project status	Completed
Project period	13 May 2009 to 30 May 2012
Beneficiaries	Affected communities
Donor	MEN
Amount funded (USD)	11,781,406

Educational infrastructure projects (construction, rehabilitation, expansion, improvement and equipping of infrastructure which have been affected by natural disasters, conflict or abandon) (EIP)

Project status	Completed
Project period	1 January 2010 to 30 June 2012
Beneficiaries	Affected communities
Donor	MEN
Amount funded (USD)	6,873,203

Physical improvement through the reconstruction, relocation, rehabilitation and/or equipping of education infrastructure affected by natural disasters, conflict or abandon in Colombia (PITR)

Project status	Completed
Project period	4 December 2009 to 30 May 2012
Beneficiaries	Affected communities
Donor	MEN
Amount funded (USD)	14,164,418

Education improvement throughout the reconstruction, relocation, restoration and/or equipping of educational infrastructure affected by natural disasters, conflict or abandon in Colombia (NADCA 2)

Project status	Active
Project period	23 September 2010 to 30 June 2012
Beneficiaries	Affected communities
Donor	Colombia
Amount funded (USD)	3,515,441

INCODER Institutional Strengthening

Project status	Completed
Project period	29 December 2010 to 31 December 2012
Beneficiaries	IDPs and government personnel
Donor	Colombia
Amount funded (USD)	1,922,952

Technical support for the access to productive goods, rural development and the prosperity of displaced and vulnerable families (TSVF)

Project status	Completed
Project period	21 June 2011 to 30 June 2012
Beneficiaries	IDPs
Donor	Accion Social
Amount funded (USD)	4,949,085
Partners	INCODER and Accion Social

Strengthening the Capacity of the Office of the Vice-President for Better Policy Making and Monitoring, Towards Vulnerable Populations (SCOVP)

Project status	Completed
Project period	22 June 2011 to 28 February 2012
Beneficiaries	Government personnel
Donor	Other organizations
Amount funded (USD)	143,062



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DOMINICAN REPUBLIC

© IOM 2002 (Photo: Niurka Piñeiro).

Surface area	48,671 km ²
Population, 2010 (est.)	9.9 million
Population density, 2010	204.6/km ²
GDP in 2011	USD 55.6 billion
GDP per capita in 2011	USD 5,530
Remittances, 2011	USD 3.5 billion
HDI	0.702
Net migration rate, 2010–2015	-2.7/1,000 population
Types of movement	Rural-to-urban migration, internal displacement, cross-border displacement
Displaced by disasters, 2008–2012	74,861
Number of IOM staff working on disasters	10
Location of IOM offices	Santo Domingo
Total DRR funding for 2013 in USD	USD 244,000

IOM site: <http://iom.int/cms/dominican-republic>

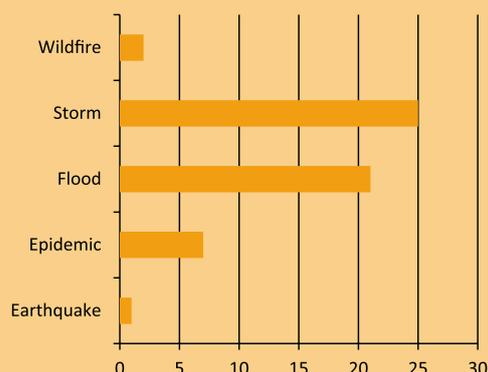
IOM DRR responses

Preparedness	Emergency
Preparing communities Building institutional capacities Bridging responses	Assisting the displaced

Top 10 natural disasters by size of affected population, 1980–2013

Disaster	Date	Affected
Flood	1988	1,191,150
Storm	1998	975,595
Flood	1981	150,000
Storm	2007	79,728
Flood	2003	65,003
Storm	2007	61,605
Flood	2010	25,700
Storm	1996	25,000
Flood	1993	20,000
Flood	2007	16,000

Natural disaster occurrence, 1980–2013



Background

The Dominican Republic shares with Haiti the island of Hispaniola in the Caribbean. The country possesses a great diversity of landscapes, ranging from coastal areas prone to storm surges and tsunamis, to inland mountainous areas, where landslides and floods are regularly triggered by weather extremes. The entire country is prone to earthquakes. Some of the country's lakes are undergoing progressive expansion, threatening rural livelihoods, displacing rural populations living on their shores and disrupting communication and transportation networks with Haiti.

Despite the high levels of exposure to a variety of natural hazards, the country is still lacking effective disaster risk management (DRM) and disaster risk response (DRR) governance structures and processes. Responsible authorities are not clearly identified in the risk management regulations, and many municipalities have yet to establish local Prevention, Mitigation and Response Committees. Communication and coordination among national, regional and local levels is often insufficient in specific areas at risk.

The country also lacks adequate early warning systems and contingency plans. Lack of precise hazard and population data and maps hinders risk assessment and risk management efforts and, more generally, the quality of land use policies. Due to insufficient urban governance, the Dominican Republic has experienced intense urbanization over the years, driving many into informal, unsafe settlements in areas at risk (in particular, of earthquakes and hydrogeological and coastal hazards).

Some communities in the country enjoy only limited access to social protection policies and are not always sufficiently represented in government processes. Poverty reduction and other long-term development goals could be pursued through more systematic and comprehensive action.

Nonetheless, when the 2010 earthquake struck Haiti, the Dominican Republic managed to learn from the experience and best practices of the organizations involved in earthquake response. The country became actively involved in the emergency and relief activities, which strengthened its logistic, planning and human resource capacity. National emergency coordination and response coordination entities are working with the United Nations, international organizations and NGOs to strengthen the cluster system at the national levels, revising

operational manuals and procedures and improving their overall capacities.

Responses

IOM is the main support organization of the Dominican Civil Defence's Shelter Cluster. Following the 2010 earthquake in Haiti, IOM intervened to assist displaced Haitians at the Dominican border through NFI distributions.

Under the Disaster Prevention ECHO (European Commission Humanitarian Office) Project (DIPECHO) managed by the UN Development Programme, IOM has been giving particular attention to supporting the capacity of individuals and institutions to prepare for and respond to disasters, particularly in the provision of emergency shelters and non-food items (NFIs) to refugees.

In addition, IOM also produced a shelter/collective centre assessment form based on The Sphere Project standards,¹ which identify the strengths and weaknesses of shelters in terms of accommodation, facilities and potential threats. Every official shelter in the project area was identified and improved by installing proper signage, enhancing key collective centres and producing maps of shelters.

In addition, IOM collaborated to the formation of the first country roster of collective centre managers by training key staff from local emergency management institutions and distributed key NFI family kits to 250 of the most vulnerable families.

Results achieved

IOM distributed NFIs to 25,000 earthquake-victim IDPs at the Haitian border in 2010. In, 2012, it pre-positioned NFI family kits for 250 families in earthquake-vulnerable areas.

IOM has assessed 138 official shelters and improved their infrastructure, mapping out their strengths and weaknesses. These sites can accommodate over 50,000 IDPs under Sphere standards.

In 2011 and 2012, the organization compiled the Collective Centre Management Toolkit to guide collective centre managers. It is considered as a unique tool in the Caribbean and Central American context and was presented at the Caribbean Conference on Comprehensive Disaster Management in Jamaica in 2012.

¹ For more information about the Sphere standards, visit www.sphereproject.org.

Future objectives

The Dominican Republic still has many provinces at risk, where local emergency management agencies (LEMAs) are understaffed, under-funded and often lacking the capacity to face natural disasters. IOM aims at further building capacity and providing the tools to local authorities to work on disaster preparedness and ensure the predictability of response. Support to shelter preparedness activities should extend to other areas at risk that have not had this kind of support from other projects or initiatives so far.

In order to build the capacity of local institutions to manage population displacement due to

disasters, the Organization is planning a “Training of Trainers” workshop for collective centre managers, following similar successful initiatives in Namibia and Colombia. The training should provide local institutions with the capacity to train their own personnel and be able to respond with their own capacity to shelter management needs. Once the programme is completed, the Dominican Republic should also be able to deploy personnel to assist neighbouring countries and islands when needed, thereby enforcing South-South cooperation.

Together with local authorities, civil society and NGOs, IOM is developing a strategic plan to identify sustainable economic solutions for communities affected by inland lake expansion.

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Relevant materials

- *Disaster Risk Reduction Assessment in the Dominican Republic*, Spanish version available from www.unisdr.org/files/14857_InformeEvaluacinDignosticoRRDf.pdf

List of projects

Strengthening Local Capacities for Response and Management of Risks with Respect to Seismic Events in the Provinces of Puerto Plata and Santiago, Dominican Republic (SLCR)

Project status	Completed
Project period	1 July 2011 to 31 December 2012
Beneficiaries	Government personnel, 8,000 people and 636,606 others
Donor	UN Development Programme (UNDP)
Amount funded (USD)	241,847
Partners	UNDP and UN Information Centre (UNIC)

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EL SALVADOR

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Surface area	21,041 km ²
Population, 2010 (est.)	6.1 million
Population density, 2010	294.3/km ²
GDP in 2011	USD 23 billion
GDP per capita in 2011	USD 3,702
Remittances, 2011	USD 3.6 billion
HDI	0.680
Net migration rate, 2010–2015	-7.1 migrants/1,000 population
Types of movement	Rural-to-urban migration, internal displacement, return
Displaced by disasters, 2008–2012	24,940
Number of IOM staff working on disasters	2
Location of IOM offices	San Salvador
Total DRR funding for 2013 in USD	USD 150,000
IOM site: www.iom.int/cms/en/sites/iom/home/where-we-work/americas/central-and-north-america-and-th/el-salvador.html	

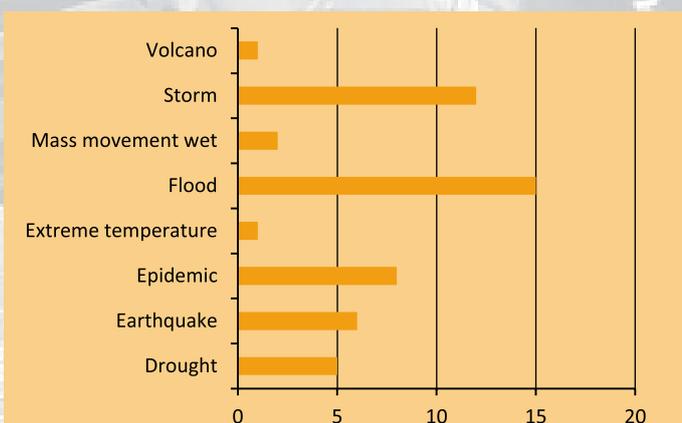
IOM DRR responses

Preparedness	Emergency	Recovery	Cross-cutting
Building institutional capacities	Assisting the displaced	Durable solutions	Livelihoods Health

Top 10 natural disasters by size of affected population, 1980–2013

Disaster	Date	Affected
Earthquake	2001	1,334,529
Earthquake	1986	770,000
Drought	2001	400,000
Earthquake	2001	256,021
Storm	2009	90,000
Storm	1998	84,000
Storm	2005	72,141
Flood	1982	68,000
Epidemic	2003	50,000
Flood	1988	39,060

Natural disaster occurrence, 1980–2013



Background

El Salvador has a rough topography due to volcanic and tectonic activities. The country is divided into six physiographic regions: coastal plain, coastal range, central pit, pit interior, interior and mountain-chain border. It lies on the Pacific Ring of Fire and is volcanically very active. In fact, 90 per cent of the soil in El Salvador is composed of volcanic material. The volcanoes of Santa Ana, San Salvador, San Miguel and Izalco, in particular, have all been active in recent centuries.

El Salvador has two seasons (dry and wet) and is affected by Caribbean hurricanes. Some of the most destructive natural disasters that El Salvador has suffered in recent decades are hurricanes Mitch (1998), Stan (2005) and Felix (2007). Storms and tropical depressions are rather common: Hurricane Ida and a low-pressure area in November 2009 recorded a rainfall of 522 mm in just four hours; Hurricane Agatha, in 2010, accumulated 574 mm and in 2011, the tropical depression 12-E brought a total of over 1,200 mm in five days and displaced nearly 56,000 people.

Given its climate history, this Central American country is considered one of the most vulnerable to natural disasters and environmental change. The country is highly industrialized and densely populated, and 95 per cent of its population lives in locations exposed to natural hazards. A full third (33%) of the population lacks adequate housing; most of these people live in urban areas, where 36 per cent of dwellings are classified as “precarious.” Such a classification is in part due to the rapid, unplanned urbanization over the last two decades.

High levels of deforestation, which have led to the reduction of the country’s natural forest cover to 2 per cent, also contribute to the country’s vulnerability, particularly by reducing soil stability and rainwater retention. Deforestation is responsible for progressive desertification and for the increased frequency and intensity of mudslides and landslides. Environmental degradation and disasters regularly cause human and economic losses, and human displacement throughout the country.

The Government recently introduced the National Environment Policy, but it has yet to design and implement a comprehensive and financially sustainable strategy to reduce vulnerability and ensure the people’s safety. Land use plans,

environmental education and poverty reduction are all required to effectively reduce risk in the long term.

Responses

IOM focuses on strengthening and supporting the response capacity of national and local authorities in El Salvador. In particular, the Organization was part of the Shelter Sector Technical Committee led by the Ministry of Interior and served as a liaising and coordinating body between the Government and the UN System through the Camp Coordination and Camp Management (CCCM) Cluster.

In 2009 and 2011, following the disastrous storm season, IOM provided assistance to the affected population by distributing emergency shelters, supporting the construction of temporary housing and repairing and rehabilitating collective centres.

In addition, in 2011, IOM trained focal points from the collective centres, municipal authorities and local NGO staff using the National Manual for the Coordination and Attention of Temporary Shelters. Families that received shelter kits were trained on the use of tools and materials to repair their homes. In addition, IOM conducted field-monitoring activities among the different open shelters.

Results achieved

IOM provided assistance to national and local authorities in managing all phases of displacement, including the preparation for return, through community interventions closely coordinated with the National Civil Protection System.

The Organization directly assisted 727 families in the aftermath of Tropical Storm 12E by distributing a total of 552 cooking kits, 602 comfort kits, 452 “playful” kits, 400 hygiene kits, 39 return kits and 100 shelter kits.

Three departmental and 60 municipal civil protection committees received training on managing temporary shelters, developing emergency plans and identifying risk areas. In addition, 1,500 members of Communal Civil Protection Committees (CCPCs), various NGOs and government institutions were trained in field rules, temporary shelter management, emergency and contingency-planning, and risk-mapping.

IOM also contributed to the establishment of working mechanisms for effective coordination in the field of humanitarian assistance in the CCCM Cluster and contributed to and endorsed tools and procedures to the “Shelter Commission” (e.g. the Temporary Shelter Management and Coordination Manual), with the aim of better educating communities in disaster prevention and management, especially by strengthening the coordination of humanitarian assistance in the shelter sector.

Future objectives

Implementation of IOM activities in El Salvador can rely on the good coordination already existing between it and the national Government, the Civil Protection System and the United Nations and civil society organizations.

Over the coming years, the Organization aims at providing technical and financial support to the Ministry of Interior in the Sectoral Commission on Shelters to finalize, produce and disseminate the Temporary Shelter Management and Coordination Manual. Reviewing and updating existing emergency and contingency plans will be the next priority.

In addition, IOM plans on training the municipal civil protection commissions of the country’s 65 poorest municipalities in the development of emergency and contingency plans, risk management and reduction, early-warning systems, management and coordination of temporary shelters and preparation of risk maps.

At the UN System level, IOM aims at improving integration of environmental sustainability and disaster risk reduction (DDR) in the 2012–2015 United Nations Development Assistance Framework.



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List of projects

Support for Collective Centre Management, Shelter and Non-Food Items for IDPs (SCCF)

Project status	Completed
Project period	27 October 2011 to 2 February 2012
Beneficiaries	11,609 IDPs
Donor	Central Emergency Response Fund (CERF), under its Rapid Response Programme
Amount funded (in USD)	303,950

Improving the Management of Temporary Collective Centers (IMTC)

Project status	Completed
Project period	10 November 2009 to 9 February 2010
Beneficiaries	25,000 people
Donor	CERF
Amount funded (in USD)	100,008
Partners	La Agencia de Promoción de Exportaciones e Inversiones de El Salvador (PROESA), Asosacion Savadoreña Promotora dela Salud (ASPS), Federación Luterana Mundial (FLM), Centro de Capacitación para el Desarrollo (CECADE), Civil Protection Authority, World Vision, CARE, Asociación Salvadoreña Pro-Salud Rural (ASAPROSAR, The Salvadoran Association for Rural Health), UNICEF, UN Population Fund (UNFPA) UN Foundation (UNF)

Coordination support for collective centres and humanitarian assistance to families affected by floods and landslides in El Salvador

Project status	Completed
Project period	9 November 2009 to 8 May 2010
Beneficiaries	23,000 IDPs
Donor	ECHO
Amount funded (in USD)	170,125
Partners	International Federation of Red Cross and Red Crescent Societies (IFRC), UN Food and Agriculture Organization (FAO), UN Development Programme (UNDP), UNICEF, World Food Programme (WFP), Pan-American Health Organization (PAHO)

GUATEMALA

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Surface area	108,890 km ²
Population, 2010 (est.)	14.3 million
Population density, 2010	132/km ²
GDP in 2011	USD 46.9 billion
GDP per capita in 2011	USD 3,178
Remittances, 2011	USD 4.5 billion
HDI	0.581
Net migration rate, 2010–2015	-1 migrant/1,000 population
Types of movement	Rural-to-urban migration, temporary migration, permanent migration, internal displacement and return
Displaced by disasters, 2008–2012	290,306
Number of IOM staff working on disasters	4
Location of IOM offices	Guatemala City, San Marcos
Total DRR funding for 2013 in USD	<i>Data not available</i>
IOM site: www.iom.int/cms/en/sites/iom/home/where-we-work/americas/central-and-north-america-and-th/guatemala.html	

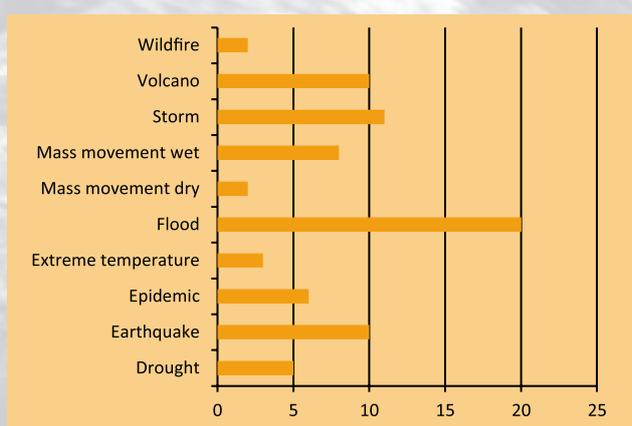
IOM DRR responses

Emergency	Cross-cutting
Tracking displacement Assisting the displaced	Health

Top 10 natural disasters by size of affected population, 1980–2013

Disaster	Date	Affected
Drought	2009	2,500,000
Storm	2005	475,314
Storm	2010	397,962
Flood	2008	180,000
Drought	2001	113,596
Storm	1998	105,700
Flood	2002	98,740
Drought	1987	73,000
Mass Movement Wet	2010	50,640
Epidemic	1991	26,800

Natural disaster occurrence, 1980–2013



Background

Guatemala is a tropical country characterized by widely diverse ecosystems. The varied topography – coastal areas on both the Caribbean and the Pacific, a mountain range cutting through the middle of the country, lowlands in the north and small patches of desert – explain both Guatemala’s high level of biodiversity and rich cultural variety. About 40 per cent of the local population belongs to the country’s many indigenous groups, and more than 20 languages (Mayan, Xincan and Garifuna, to name a few) are currently spoken within Guatemala’s territory.

Due to its geographic location, Guatemala is exposed to hurricanes from both the east and the west which regularly bring about heavy rains that cause floods and landslides. In addition, Guatemala is also prone to droughts, earthquakes and volcanic eruptions. The expected impacts of climate change on the intensity of the Atlantic hurricane season, as well as on the frequency of floods, landslides and droughts, are likely to affect the country heavily over the coming decades.

Environmental degradation, in particular deforestation, is further increasing hydrogeological risk, heavily affecting human communities and disrupting economic activities, especially in rural areas. As a consequence, the country undergoes frequent, diverse emergency situations.

Compounding the challenges brought about by environmental factors is Guatemala’s turbulent political history. The country was ravaged by a civil war between 1960 and 1996 and remained under military rule until 1985, when the first democratic election took place. Despite the ongoing normalization process, legal and institutional systems are still weak, impairing the capacity of national and local authorities to manage disaster risk. Social and civil protection and response capacity are generally poor, further worsening the population’s vulnerability.

Local culture and social structures pave the way for gender inequality and ethnic discrimination to become major drivers of vulnerability. Census-based discrimination is also significant, as the differences between the lower and the upper strata of the social ladder are extreme.

Disasters also reflect on the mobility of local populations. Together with the prevailing economic situation (characterized by, inter alia, the lack of employment opportunities and the people’s

struggle for better living conditions), natural events and processes are powerful triggers of population movements. Main international migration flows are toward and from Mexico and the United States and consist mainly of labour migrants and forced and voluntary returnees. Cross-border and internal migration of temporary workers in response to agricultural and economic needs is also significant.

Responses

Supporting the capacity of local institutions in emergency situations has been identified as the main priority for improving the resilience of communities frequently affected by the multitude of natural disasters that have threatened and continue to threaten the country.

Starting with Tropical Storm Agatha and the eruption of Pacaya Volcano in 2010, IOM has been leading the response of the Camp Coordination and Camp Management (CCCM) Cluster, working with various actors within the United Nations System. More recently, the Organization has coordinated the responses to Tropical Depression 12-E and the 2 November 2012 earthquake.

IOM provides direct support to affected communities. For example, during the last three years, the Organization has distributed non-food items (NFIs) and kitchen and hygiene sets, as well as tools for agricultural and construction works, to affected families, in order to help them maintain their basic living standards and establish the material conditions necessary for a quicker recovery.

Results achieved

To date, IOM has reached more than 7,000 families in 13 different departments by distributing NFIs and has supported 35,000 people with livelihood and construction kits, allowing for a quicker post-disaster recovery.

Future objectives

Despite progress in risk management and reduction, the ability of the local Government to prevent and respond to hazardous events is still limited. The lack of financial resources to support disaster risk management (DRM) and disaster risk reduction (DRR) activities remains a major challenge. IOM is planning to collaborate further with national and local institutions to help develop institutional capacities.

Relevant materials

- Agreement Number 06-2011 – National Risk Management Policy (in Spanish), available from http://conred.gob.gt/www/documentos/secretariaejecutiva/dcs_20110715_acuerdo_numero_06-2011.pdf.
- National Disaster Response Plan (in Spanish), available from www.conred.gob.gt/www/images/stories/biblioteca/documentos-informativos/Plan-Nacional-de-Respuesta.pdf.
- Recovery and Reconstruction with Transformation Plan (in Spanish), available from www.segeplan.gob.gt/2.0/index.php?option=com_content&view=article&id=366&Itemid=321.
- Regional Plan for Disaster Reduction 2006-2015 (in Spanish), available from www.conred.gob.gt/www/documentos/biblioteca/recursos%20para%20medios/Informacion%20CONRED/Ley%20y%20Reglamento/PRRD4taversion.pdf.
- Central American Políticy for Integral Disaster Risk Management (in Spanish), available from <http://conred.gob.gt/www/documentos/secretaria-ejecutiva/Politica.pdf>.

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List of projects

Establishment and Maintenance of Basic Living and Sanitary Conditions in Temporary Shelters for Populations Affected by Tropical Depression E-12 in Guatemala (EMBL E-12)

Project status	Completed
Project period	1 November 2011 to 31 January 2012
Beneficiaries	10,000 internally displaced persons (IDPs)
Donor	United Nations Central Emergency Response Fund (CERF) (Rapid Response grant)
Amount funded (in USD)	321,723
Partners	United Nations Population Fund (UNFPA) and the United Nations Information Centre (UNIC)

Establishment and Maintenance of Basic Living, Sanitary Conditions and Health Procedures in Temporary Shelters for Populations Affected by the Earthquake in Guatemala (EMBL S)

Project status	Completed
Project period	15 December 2012 to 14 March 2013
Beneficiaries	7,500 people
Donor	CERF, (Rapid Response grant)
Amount funded (in USD)	450,350
Partners	WFPA, World Health Organization (WHO), UNICEF, Cooperazione Internazionale (COOPI) and Mercy Corps



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HAITI

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Surface area	27,750 km ²
Population, 2010 (est.)	9.9 million
Population density, 2010	360.1/km ²
GDP in 2011	USD 7.3 billion
GDP per capita in 2011	USD 726
Remittances, 2011	USD 1.5 billion
HDI	0.456
Net migration rate, 2010–2015	-2.6 migrants/1,000 population
Types of movement	Rural-to-urban migration, cross-border displacement, internal displacement, secondary displacement, return
Displaced by disasters, 2008–2012	1,910,494
Number of IOM staff working on disasters	50
Location of IOM offices	Port-au-Prince, Leogane, Jacmel, Gonaives, Cap-Haitien
Total DRR funding for 2013 in USD	USD 5,000,000

IOM site: <http://iomhaiti.info>

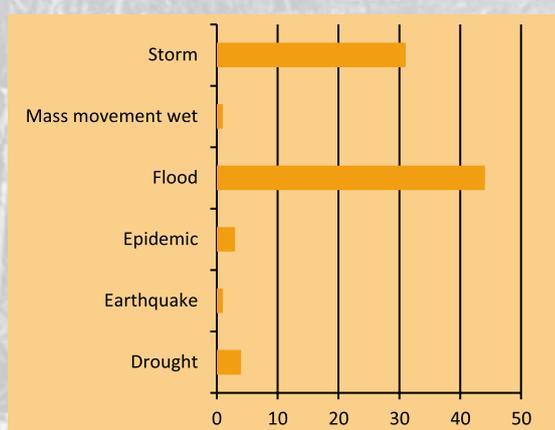
IOM DRR responses

Prevention	Preparedness	Emergency	Mitigation	Recovery	Cross-cutting
Reducing hazards	Preparing communities Building institutional capacities Bridging responses Providing information	Managing mass evacuations Tracking displacement Assisting the displaced	Mitigating the impact	Durable solutions DRR in complex emergencies	Livelihoods Health

Top 10 natural disasters by size of affected population, 1980–2013

Disaster	Date	Affected
Earthquake	2010	3,700,000
Storm	1994	1,587,000
Storm	1980	1,165,000
Drought	1992	1,000,000
Storm	1988	870,000
Storm	2004	315,594
Flood	2003	150,000
Storm	2008	125,050
Storm	2007	108,763
Drought	1980	103,000

Natural disaster occurrence, 1980–2013



Background

Haiti lies directly in the path of a hurricane corridor, and tropical storms regularly threaten lives and damage assets and infrastructure. The country's almost-complete deforestation (98% of the original forest cover is now gone), in particular near and around informal settlements, drives slope instability and increases soil erosion rate and the incidence of hydro-meteorological hazards.

Storms hit the country in 2004, 2008 and 2012, severely challenging the population's coping capacity and the ability of the Government to respond to emergencies. The 2010 earthquake, which hit Port-au-Prince and its surroundings, affected about 3,700,000 people, displacing 1.5 million and further complicating the lives of Haitians and intervention by national authorities and international actors. A nationwide cholera outbreak began in October 2010 and continues to pose serious public health risk – a situation further aggravated by flooding, heavy rains and standing water.

Haiti has the poorest economy in the Western hemisphere and has experienced major political instability throughout its history. Frequent government overthrows and a widespread lack of resources have resulted in an insufficient capacity at the institutional level to protect and assist the population before, during and after natural disasters. Around 70 per cent of all Haitians lack access to basic services; only 52 per cent have access to potable water; and there are only 5.9 doctors for every 10,000 persons. Nearly 30 per cent of the population is illiterate and there are half a million school-age children not attending school, 83 per cent of whom are in rural areas.

Despite economic growth of 5.6 per cent in 2011, unemployment continues to exceed 85 per cent, and the vast majority of the population live below the extreme poverty line, with inflation steadily raising the cost of living. Kidnappings, sexual and gender-based violence (SGBV) and murders are frequent, and formerly demobilized military personnel have been conducting protests around the country, requesting compensation.

The political situation started to improve in 2011 with the election of a new President and a new Prime Minister, but there are concerns about the continuity of government policies and actors in the nation's reconstruction process.

As of January 2013, 347,000 individuals displaced by the earthquake were still living in IDP (internally displaced person) sites, primarily in the West Department (the number has been in steady decline from the 2010 peak of 1.5 million displaced in 1,500 sites). In addition, an unknown number of people still live in extremely precarious conditions. When storms hit the country in 2012, many still lacked evacuation options. IDPs in camps with limited access to escape routes and shelter were especially vulnerable.

Thirty-one per cent of IDP households are single-headed female households, with another 18 per cent headed by single males. Unaccompanied minors, the elderly, pregnant women and adolescent mothers are especially vulnerable to the negative impacts of natural disasters. The provision of services (e.g. health care and WASH, or "water, sanitation and hygiene") in IDP camps remains a huge concern in light of the cholera threat, as humanitarian actors have reduced their engagement due to the lack of funds.

Earthquake-related displacement continues to disrupt the social stability of local communities. Different communities find themselves compelled to share common living spaces following relocation in temporary settlements, and the resulting social tumult has contributed to an increased incidence of violence and the concordant vulnerability of residents.

Responses

The complexity of the Haitian situation, which has only been aggravated by the catastrophic 2010 earthquake, calls for comprehensive intervention. While intervening to address the immediate needs of the affected population, in particular of the displaced households and communities, IOM is carrying-out a series of activities that address key risk drivers and promote long-term development.

Humanitarian assistance

Following the earthquake, as the Camp Coordination and Camp Management (CCCM) Cluster Lead, IOM has been operating in IDP camps in Port-au-Prince, Jacmel, Leogane, Gressier, Petit Goâve, and Grand Goâve through its Camp Management Operations Unit, in collaboration with the local Government and the Direction de la Protection Civile (DPC). The Organization supported the immediate shelter needs of the displaced, first by distributing emergency shelter materials, then by providing

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transitional and semi-permanent shelters. In addition, IOM has been working to bridge critical gaps in public health and psychosocial support, as well as in the provision of non-food items (NFIs) and WASH services, while supporting vulnerable individuals in camps and communities, through direct service delivery and collaboration with other partners (e.g. the Direction National de l'Eau Portable et l'Assainissement).

In order to support overall earthquake response, the Organization also deployed its Displacement Tracking Matrix (DTM), its standard monitoring tool designed to rapidly collect data on displaced populations. The DTM was modified to suit the context and information needs of post-earthquake Haiti, and has been used to inform and guide the recovery and reconstruction process over the last years.

Additional support was needed by the local Government in order to contain the cholera outbreak. IOM engaged in a range of response initiatives, especially targeting IDPs, from the first days of the emergency in October 2010. The humanitarian community faced the challenge of preparing the vulnerable populations in cholera-affected areas for the Atlantic Hurricane season, from June until November.

Reconstruction and recovery

The shelter, WASH and health activities led by IOM are continuing throughout the reconstruction process, as buildings and infrastructure need to be created or upgraded in order to prepare for return or relocation. Even though the acute phase of the emergency is over, access to health care remains a challenge for vulnerable populations both living within and outside of IDP settlements. IOM is therefore engaged in supporting local institutions in promoting access to medical facilities and psychosocial support. In addition, the Organization is aiming at protecting vulnerable people through counter-trafficking, child protection and gender-based violence prevention activities. Protection of vulnerable communities through support in mediations during forced evictions is also pursued.

The coordination of reconstruction efforts has been challenging due to the lack of sufficient human and financial resources of the Public Administration (both national and local). IOM has facilitated communication among key reconstruction stakeholders at the neighbourhood level by creating Community Resource Centres (CRCs).



Following the first months of the emergency, attention turned to finding durable housing solutions and helping families to move out of camps and back to their neighbourhoods of origin or to a third location. Through its Site Planning Team, IOM has provided urban planning services to the local authorities in designing and establishing relocation sites. Planning required assessing physical hazards and suitability of sites, promoting mitigation works and removing debris and executing construction, and was realized respecting a participatory approach throughout the activity cycle. Lack of clear land tenure information continues to be one of the most significant challenges to post-earthquake reconstruction and rehabilitation efforts. Land tenure data prior to the earthquake was already scarce, and was further worsened when many documents were lost during the disaster.

Long-term DRR

Mindful of longer-term risk reduction needs in the country, IOM is also implementing initiatives that prepare local communities to future disasters and that reduce the main factors of vulnerability.

The Organization facilitated the establishment of adequate evacuation shelters by choosing safe areas, developing adequate infrastructure and building the actual facilities, and has been collaborating with Government and civil society groups to develop better policies and support more effective operations in cases of emergency.

IOM is also promoting watershed management as a means to reverse the negative effects of deforestation on the hydrological cycle and to reduce the incidence of floods and landslides. It has been building and restoring flood control works and promoting ecosystem-based measures, especially targeting IDP sites and urban areas. In addition, the Organization supports community-based disaster risk management (CBDM) activities in 81 locations, in collaboration with the American Red Cross and the DPC.

Risk reduction intervention is being supported by a series of measures aimed at improving communication and participation of civil society. A Creole-language newspaper, *Chimen Lakay* ("The Way Home"), targets low-literacy Haitians, which represent some 80 per cent of the population. IOM also produced culturally appropriate Creole public service communications using live-action videos, cartoons and radio announcements, relying on a storytelling approach to fill the vacuum of civic communications on life-saving messages (e.g. education on hurricane preparedness, cholera

prevention and general public health, fire safety for IDPs living in camps, road safety, domestic violence and women's rights, child protection and the strategy of return programmes).

IOM is also implementing conflict mitigation and stabilization activities through the USAID Haiti Transition Initiative (HTI), and has adapted its response to face the challenges posed by natural disasters. The Organization works in conflict-prone areas to bridge the gap between the Government and marginalized communities, and takes advantage of activities to rehabilitate public infrastructure to create opportunities for dialogue and collaboration. The construction of schools, small roads, canals, bridges and water systems, and peri-urban agriculture and irrigation infrastructure improvement are part of a larger campaign to promote positive civic participation, community cohesion and reconciliation, and are heavily contributing to reconstruction efforts.

Throughout its intervention, the Organization has been building the capacity of local actors and institutions to manage disasters and reduce risk. The Haitian Government's and other humanitarian actors' capacity to manage camps and address the needs of IDPs has been strengthened through the CCCM training programme, the Interagency Camp Management Toolkit and the Sphere Project standards.

Currently, the Organization is working with Haitian Governmental and non-governmental partners to facilitate the delivery of medical and psychosocial services, promote income-generating activities, minimize the incidence of re-trafficking and protect vulnerable communities in the long term.

Results achieved

In addition to its achievements in assisting the victims of disaster in the country, and in addressing the needs of the displaced through immediate support and durable solutions, the IOM intervention in Haiti allowed the increase in the preparedness of local institutions to potential hazards and to address some of the main drivers of risk.

In collaboration with the DPC, IOM produced the *Guide to Evacuation Shelter Management*, which was officially adopted by the Secrétariat Permanent de Gestion des Risques et des Désastres in 2011. The Guide has been presented to the public in a series of workshops and is regularly updated to reflect lessons learned in disaster response.

In order to improve preparedness to future disasters, the Organization collaborated towards the evaluation of 500 potential evacuation sites in Port-au-Prince to determine their safety and viability for hosting evacuation shelters. In addition, 1,400 shelter sites were mapped all around the country; 19 sites were rehabilitated; and 7 new ones were built. IOM also collaborated towards the creation of a policy on the use of schools, including measures to protect the educational infrastructure and children's right to education.

The Organization's watershed management efforts resulted in the creation of 186,748 metres of stone check dams and in the construction and rehabilitation of 322,988 metres of contour canals and micro-basins, along with 413,995 metres of drainage canals. The Organization also planted 485,853 hedgerows of grass species and 2,626,058 trees, to help reverse deforestation and prevent floods. IOM also helped identify volunteers and provided technical advice to undertake small mitigation works in IDP sites and in Cité Soleil.

A total of 104 "vigilance committees" in IDP camps were trained and equipped, in order to increase the personal security of the displaced. In addition, some 450 students, teachers and members of community organizations received training in DRR and first aid.

IOM also contributed to empowering local communities by creating a methodology to produce small-scale risk maps combining active participatory procedures with the use of cutting-edge technologies (such as light detection and ranging, or LiDAR). It also developed two radio

platforms and numerous radio programmes, as well as two editions of *Chimen Lakay* on disaster risk and emergency management.

The Organization's efforts in preparedness and disaster management contributed to Haiti's first two preventive evacuations of exposed populations – that is, in anticipation of the landfall of Tropical Storm Isaac and Hurricane Sandy in 2012. On these occasions, IOM provided logistic, WASH and registration support to local civil protection authorities.

Future objectives

Future activities will increasingly target long-term risk reduction and preparedness needs. IOM will continue the construction and rehabilitation of evacuation shelters and will further support the Government's working group on evacuations and shelters as well as establish, and contribute to, the various community groups dealing with shelter management in emergencies.

The intervention to tackle risk drivers will further focus on improving water drainage and watershed management; conserving and enhancing forest cover; conserving soil; and mitigating hazards through structural and ecosystem-based measures. As attaining the community buy-in necessary to make projects sustainable remains a challenge, promoting a participatory process and, in particular, community-based disaster risk reduction and disaster risk management, will be increasingly central to the work of IOM.

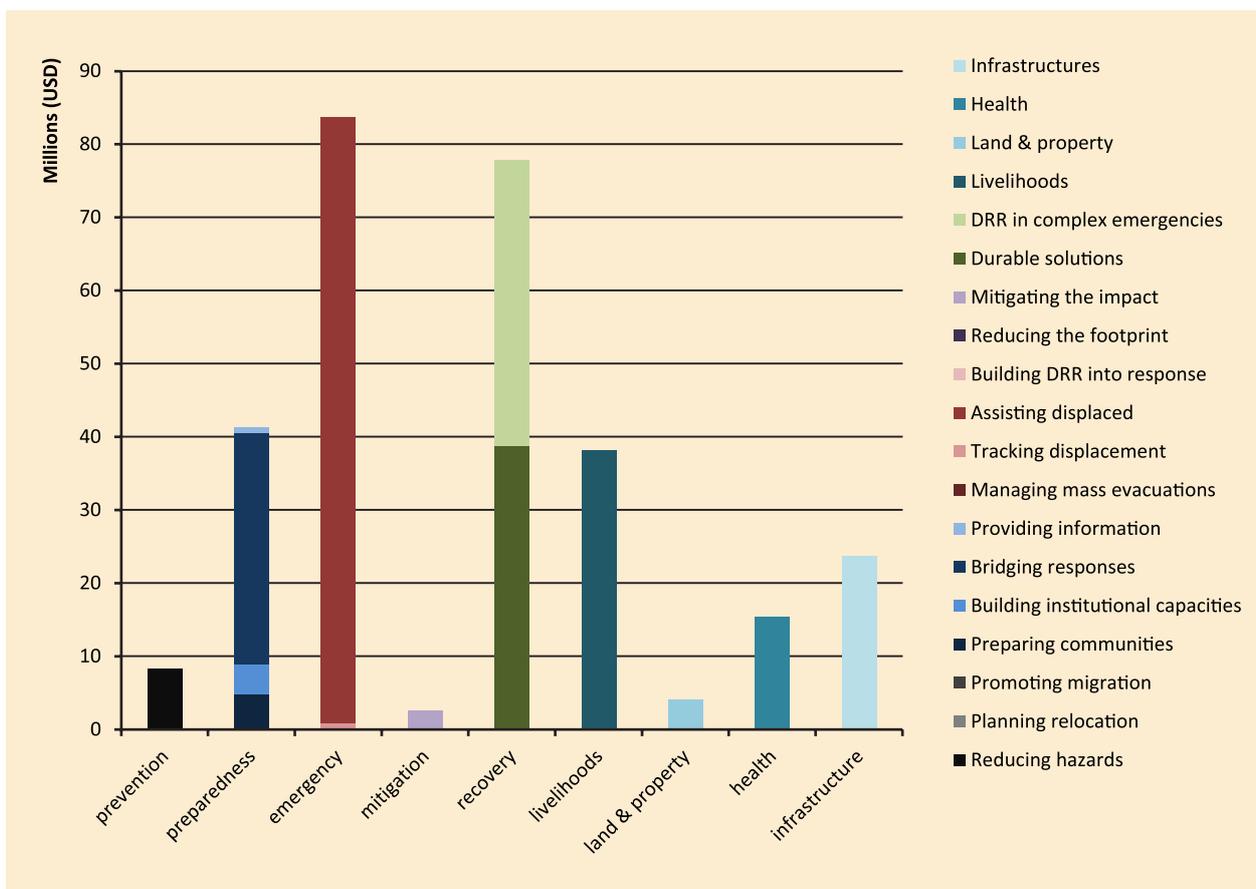


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Related materials

- IOM Haiti Strategic Plan, 2013–2014, available from www.iom.int/files/live/sites/iom/files/pbn/docs/Strategy-IOM-Haiti-Updated-Jan-2013.pdf.
- IOM Haiti videos, available from www.iomhaiti.info/en/index.php?option=com_content&view=article&id=16&Url=.
- Displacement Tracking Matrix (DTM) Data Portal, available from <http://iomhaitidatportal.info>.
- Chimen Lakay, No. 3, November 2010, available from [www.iom.int/jahia/webdav/shared/shared/mainsite/published_docs/brochures_and_info_sheets/ChimenLakay-graphic-cartoon-newspaper-3\(16Nov\).pdf](http://www.iom.int/jahia/webdav/shared/shared/mainsite/published_docs/brochures_and_info_sheets/ChimenLakay-graphic-cartoon-newspaper-3(16Nov).pdf).

Total funding used by IOM in Haiti between 2009 and 2013, by type of activity



While the amount of money spent on IOM projects is clearly influenced by available humanitarian aid in the occurrence of major disasters, the funding data still shows a significant, consistent commitment to risk management and risk reduction activities.

In the case of Haiti (90 projects in total), while emergency-related activities were the main source of expenditure, recovery and preparedness projects (dealing with livelihood support, durable solutions, infrastructural development and capacity-building) were central to the Organization's intervention.

List of projects

Project to Rehabilitate Earthquake-affected Homes and Neighborhoods in Haiti

Project status	Completed
Project period	1 July 2011 to 31 December 2012
Beneficiaries	Local authority staff, Government personnel and affected communities
Donor	United Nations
Amount funded (in USD)	9,807,400

Community Resource Centres (Component 3)

Project status	Active
Project period	1 July 2011 to 30 June 2013
Beneficiaries	Government personnel, affected communities
Donor	UN Haiti Reconstruction Fund (UN HRF)
Amount funded (in USD)	2,777,930

Tools for Two-way Beneficiary Communication

Project status	Completed
Project period	19 March 2012 to 19 May 2012
Beneficiaries	At-risk youth
Donor	UNICEF
Amount funded (in USD)	52,193
Partners	Ministry of Education and UNICEF

Communication for Rehabilitation of 16 Quarter-6 Camps

Project status	Active
Project period	1 September 2011 to 31 August 2013
Beneficiaries	635,000 IDPs, local authority staff and Haiti Government personnel
Donor	United Nations
Amount funded (in USD)	962,752

Life-saving Sanitation Response in Priority Vulnerable IDP Camps

Project status	Completed
Project period	1 January 2012 to 30 June 2012
Beneficiaries	22,500 IDPs
Donor	UN Office for the Coordination of Humanitarian Affairs (OCHA)
Amount funded (in USD)	297,781

Access to Improved Sanitation Facilities for IOM Temporary Shelter Beneficiaries

Project status	Completed
Project period	1 November 2011 to 30 April 2012
Beneficiaries	Internally displaced persons (IDPs)
Donor	UNICEF
Amount funded (in USD)	498,950
Partners	UN partners, and the UN Information Centre



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Physical Security Response to IDP Victims and Survivors of Gender-based Violence

Project status	Completed
Project period	1 October 2011 to 31 January 2013
Beneficiaries	IDPs
Donor	United States Bureau of Population, Refugees and Migration (PRM)
Amount funded (in USD)	500,000
Partners	Haitian National Police, Unité de Recherche et d'Action Médico Légale (URAMEL), UN High Commissioner for Refugees (UNHCR) and the UN Police (UNPOL)

Shelter and Camp Coordination and Camp Management (CCCM) Assistance in Earthquake-Affected Areas

Project status	Completed
Project period	1 November 2011 to 30 April 2012
Beneficiaries	550,560 IDPs, Haiti Government personnel, staff from civil society organizations (CSOs) and non-governmental organizations (NGOs), among others
Donor	European Commission Humanitarian Aid and Civil Protection Department (ECHO)
Amount funded (in USD)	625,930

Soil Conservation Project in Petit-Goâve

Project status	Completed
Project period	1 November 2011 to 30 April 2012
Beneficiaries	affected communities
Donor	UN Food and Agriculture Organization (FAO)
Amount funded (in USD)	95,000

Construction of Town Hall in Coteaux

Project status	Completed
Project period	1 March 2012 to 31 May 2012
Beneficiaries	26,000 people, 41 people
Donor	MINUSTAH
Amount funded (in USD)	84,388
Partners	Mayor of Coteaux and MINUSTAH

Supporting BSRI in Carrying Out a Sexual and Gender-based Violence (SGBV) Survey in IDP Sites

Project status	Completed
Project period	21 November 2011 to 20 December 2011
Beneficiaries	IDPs
Donor	Private sector
Amount funded (in USD)	10,240

Tools for Two-way Beneficiary Communication: *Chimen Lakay* Millennium Development Goals (MDG) Journal

Project status	Completed
Project period	11 November 2011 to 30 April 2012
Beneficiaries	affected communities
Donor	Chemonics International
Amount funded (in USD)	14,175

Reconstruction of the Regional Office of DINEPA

Project status	Completed
Project period	1 January 2012 to 31 March 2012
Beneficiaries	175,000 people
Donor	UN Stabilization Mission in Haiti (MINUSTAH)
Amount funded (in USD)	100,000
Partners	Direction Nationale de l'Eau Potable et de l'Assainissement (DINEPA) and MINUSTAH

Creation of a Multi-purpose Centre in Grand-Goâve

Project status	Completed
Project period	1 January 2012 to 31 March 2012
Beneficiaries	110,000 people, 7,000 at-risk youth
Donor	MINUSTAH
Amount funded (in USD)	100,000
Partners	Municipality of Grand-Goâve and MINUSTAH

Return of IDPs to Champs de Mars

Project status	Active
Project period	2 January 2012 to 1 January 2014
Beneficiaries	IDPs
Donor	Jenkins-Penn Haitian Relief Organization (J/P HRO)
Amount funded (in USD)	7,347,667
Partners	UN Development Programme (UNDP), BIT and the UN Office for Project Services (UNOPS)



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Overcoming Land Tenure Barriers to Reconstruction and Return

Project status	Completed
Project period	15 June 2012 to 30 April 2013
Beneficiaries	affected communities, IDPs
Donor	American Red Cross
Amount funded (in USD)	468,356
Partners	Mayor of Port-au-Prince

Phone-based Survey of IDPs in the Cap-Haïtien Development Corridor

Project status	Completed
Project period	15 March 2012 to 15 June 2012
Beneficiaries	9,000 IDPs
Donor	United States Agency for International Development (USAID)
Amount funded (in USD)	24,990

Provision of Life-saving WASH Support to Vulnerable IDP Households Remaining in Camps

Project status	Completed
Project period	13 March 2012 to 31 December 2012
Beneficiaries	400,000 IDPs, affected communities
Donor	CERF, under the Underfunded Emergencies programme
Amount funded (in USD)	999,679

Monitoring of and Response to SGBV in IDP Camps

Project status	Completed
Project period	20 March 2012 to 31 December 2012
Beneficiaries	117,116 IDPs
Donor	CERF
Amount funded (in USD)	215,008
Partners	Solidarite Fanm Ayisyen (SOFA), J/P HRO, UNHCR, UNICEF

Enhanced Provision of Life-saving Prevention, Rapid Response and Treatment for Most Vulnerable IDPs Remaining in Camps

Project status	Completed
Project period	19 March 2012 to 31 December 2012
Beneficiaries	90,700 IDPs
Donor	Central Emergency Response Fund (CERF), under the Rapid Response programme
Amount funded (in USD)	522,695
Partners	Government of Haiti

Support the Return and Relocation of IDPs within the CCCM Framework in IDP Sites

Project status	Completed
Project period	19 March 2012 to 31 December 2012
Beneficiaries	502,265 IDPs
Donor	CERF (Rapid Response)
Amount funded (in USD)	1,900,000
Partners	Agency for Technical Cooperation and Development, Cooperative for Assistance and Relief Everywhere, International Emergency and Development Aid and World Service of Mercy

Capacity-building in Disaster Risk Management: Evacuation Policy and Community-based Disaster Risk Reduction

Project status	Completed
Project period	1 August 2012 to 30 April 2013
Beneficiaries	250,550 people and local authority staff
Donor	ECHO
Amount funded (in USD)	612,745

Camp Management Operations and Return Assistance for Earthquake Victims

Project status	Active
Project period	1 August 2012 to 15 December 2013
Beneficiaries	156,724 IDPs, 490,545 people, among others
Donor	ECHO
Amount funded (in USD)	9,436,275
Partners	Gouvernement of Haiti and Local authority staff

Reconstruction of the School Community of Pierre Maurice in Aux Cayes (Delmas 31)

Project status	Completed
Project period	6 April 2012 to 6 July 2012
Beneficiaries	600 people
Donor	MINUSTAH
Amount funded (in USD)	170,694
Partners	Ministry of National Education, the mayor of Delmas and MINUSTAH/RVC

Reconstruction of the School Community of Pierre Maurice in Aux Cayes (Delmas 31) (Final Phase)

Project status	Completed
Project period	6 April 2012 to 6 July 2012
Beneficiaries	600 people
Donor	MINUSTAH
Amount funded (in USD)	63,525
Partners	Ministry of National Education, the mayor of Delmas and MINUSTAH/RVC

Excavation of a Project Space on the Coast in Wharf Jeremie (Phase II)

Project status	Completed
Project period	6 April 2012 to 6 July 2012
Beneficiaries	500 people, affected communities
Donor	MINUSTAH
Amount funded (in USD)	164,958
Partners	Mayor of Port-au-Prince, Ministry of Public Works, Transport and Communications (MTPTC), MINUSTAH-Réduction de la Violence Communautaire (RVC), Fraternité Franciscan Misyone and members of the Comité du <<Village Italien>>

Community Stabilization Project in Martissant

Project status	Completed
Project period	6 April 2012 to 6 July 2012
Beneficiaries	800 people
Donor	MINUSTAH
Amount funded (in USD)	190,190
Partners	Mayor of Port-au-Prince and MINUSTAH/RVC

Community Stabilization Project in Bel Air

Project status	Completed
Project period	6 April 2012 to 6 July 2012
Beneficiaries	800 people
Donor	MINUSTAH
Amount funded (in USD)	193,718
Partners	Mayor of Port-au-Prince, MINUSTAH/RVC

Community Stabilization Project in Carrefour-Feuilles

Project status	Completed
Project period	6 April 2012 to 6 July 2012
Beneficiaries	800 people
Donor	MINUSTAH
Amount funded (in USD)	196,957
Partners	Mayor of Port-au-Prince, MINUSTAH/RVC

Sanitation and Rehabilitation of Petite Rivière-Madeleine Drainage Canal (Final Phase)

Project status	Completed
Project period	6 April 2012 to 6 July 2012
Beneficiaries	1,084 people
Donor	MINUSTAH
Amount funded (in USD)	195,850
Partners	Representatives from the communities of l'Abattoir, Nan-Marais, Madeline and Petite-Rivière; the mayor of Cap-Haïtien; MTPTC; and MINUSTAH/RVC

Masonry and construction of 900 m of canal Asipha, Gonaïves

Project status	Completed
Project period	6 April 2012 to 6 July 2012
Beneficiaries	927 people, IDPs and at-risk youth
Donor	MINUSTAH
Amount funded (in USD)	188,592
Partners	Mayor of Gonaïves, concerned departmental directorates of l'Artibonite, MTPTC, DINEPA and MINUSTAH/RVC

Sanitation and Rehabilitation of the Drainage Canal of Goya (Phase III)

Project status	Completed
Project period	6 April 2012 to 6 July 2012
Beneficiaries	487 people
Donor	MINUSTAH
Amount funded (in USD)	93,351
Partners	Representatives from the communities of Cite du Peuple, Cite Chauvel and Goya; the mayor of Cap-Haïtien, MTPTC and MINUSTAH/RVC

Rehabilitation of a Bridge Over the Petite-Rivière Madeleine Drainage Canal

Project status	Completed
Project period	6 April 2012 to 6 July 2012
Beneficiaries	343 affected communities
Donor	MINUSTAH
Amount funded (in USD)	104,184
Partners	Representatives from the communities of l'Abattoir, Nan-Marais, Madeline and Petite-Rivière; the mayor of Cap-Haïtien; MTPTC; and MINUSTAH/RVC

Sanitation and Rehabilitation of the Drainage canal of Terre-Mai (Final Phase)

Project status	Completed
Project period	6 April 2012 to 6 July 2012
Beneficiaries	1,084 people
Donor	MINUSTAH
Amount funded (in USD)	199,465
Partners	Representatives from the communities of Petite-Arise, the mayor of Cap-Haïtien, MTPTC and MINUSTAH/RVC



Emergency Preparedness and Response and Disaster Risk Reduction in Extremely Vulnerable Areas

Project status	Completed
Project period	30 March 2012 to 31 December 2012
Beneficiaries	75,000 IDPs, local authority staff
Donor	Canada, Canadian International Development Agency (CIDA)
Amount funded (in USD)	509,684

Ravine Management in Rezemon, Carrefour - Feuilles to Prevent Floods

Project status	Completed
Project period	30 June 2012 to 29 December 2012
Beneficiaries	1,345 people
Donor	MINUSTAH
Amount funded (in USD)	191,138
Partners	Conseil d'Administration de la Section Communale (CASEC), Comité Local d'Appui au Projet, Organisme de Surveillance et d'Aménagement du Morne l'Hôpital (OSAMH) and MINUSTAH/RVC

Protecting Gonaïves through the Masonry Construction of 738 m of Canal along Rue St. Charles and 4 Ponceaux

Project status	Completed
Project period	15 May 2012 to 14 August 2012
Beneficiaries	691 people
Donor	MINUSTAH
Amount funded (in USD)	193,631
Partners	Mayor of Gonaïves, MTPTC, DINEPA and MINUSTAH/RVC

Protecting Gonaïves by Paving 425 m of the Rue Rue Clervaux

Project status	Completed
Project period	15 May 2012 to 14 August 2012
Beneficiaries	390 people, affected communities
Donor	MINUSTAH
Amount funded (in USD)	190,164
Partners	MTPTC, the mayor of Gonaïves and MINUSTAH/RVC



Protecting Gonaïves by Paving 344 m of Road in the Savane Poudrière and Place Bouteilles area

Project status	Completed
Project period	15 May 2012 to 14 August 2012
Beneficiaries	2,445 people
Donor	MINUSTAH
Amount funded (in USD)	191,894
Partners	MTPTC, the mayor of Gonaïves and MINUSTAH/RVC

Pavement of Rue Sainte Claire in Wharf Jeremie, Cite Soleil

Project status	Completed
Project period	15 May 2012 to 14 September 2012
Beneficiaries	196 people, 75,000 indirect beneficiaries
Donor	MINUSTAH
Amount funded (in USD)	155,000
Partners	Municipality of Port-au-Prince, MTPTC) and MINUSTAH/CVR

Rehabilitation of the Canal Rue St. Claire in Wharf Jeremie with Masonry

Project status	Completed
Project period	15 May 2012 to 14 September 2012
Beneficiaries	191 people, with 75,000 indirect beneficiaries
Donor	MINUSTAH
Amount funded (in USD)	64,588
Partners	Municipality of Port-au-Prince, MTPTC) and MINUSTAH/RVC

Rehabilitation of the Canal and Bridge at Impasse Geffrard in Gonaïves

Project status	Completed
Project period	15 May 2012 to 14 August 2012
Beneficiaries	935 people, affected communities
Donor	MINUSTAH
Amount funded (in USD)	192,793
Partners	Mairie des Gonaives, Ministere des Travaux Publics, Transport, Energie et Communications, la DINEPA, MINUSTAH/CVR

Ravine Management Madame Etienne in Carrefour-Feuilles to Prevent Floods

Project status	Completed
Project period	30 June 2012 to 29 December 2012
Beneficiaries	1,345 people
Donor	MINUSTAH
Amount funded (in USD)	191,138
Partners	Conseil d'Administration de la Section Communale, Comité Local d'Appui au Projet, Organisme de Surveillance et d'Aménagement du Morne l'Hôpital, MINUSTAH/RVC

Ravine Management GREFF II-Martissant to Prevent Floods

Project status	Completed
Project period	30 June 2012 to 29 December 2012
Beneficiaries	1,345 people
Donor	MINUSTAH
Amount funded (in USD)	191,138
Partners	Conseil d'Administration de la Section Communale, Comité Local d'Appui au Projet, Organisme de Surveillance et d'Aménagement du Morne l'Hôpital and MINUSTAH/RVC

Support and Assistance for Sustainable Return and Relocation of IDPs within the Framework of the CCCM Cluster

Project status	Completed
Project period	1 May 2012 to 30 April 2013
Beneficiaries	594,811 IDPs
Donor	Sweden, SIDCA
Amount funded (in USD)	1,200,000

Direct Assistance Facilitation for the Most Vulnerable IDPs Living in Camps under Threat of Eviction

Project status	Completed
Project period	1 May 2012 to 30 April 2013
Beneficiaries	800 IDPs
Donor	Sweden, SIDCA
Amount funded (in USD)	1,000,000
Partners	Staff from local NGOs and CSOs, Institut du Bien-Être Social et de Recherches, Brigade de Protection des Mineurs, Foyer l'Escale, Organisation des Jeunes Filles en Action, Centre d'Action pour Developpement, SOFA, Famn Deside, Centre Vincent de Paul and Réseau National de Défense des Droits Humains

Temporary Shelter Support to IDPs in Leogane

Project status	Completed
Project period	30 March 2012 to 31 December 2012
Beneficiaries	500 IDPs
Donor	Canada, CIDA
Amount funded (in USD)	152,905
Partners	Mayor of Leogane, Serving Friends (a Korean NGO) and MINUSTAH

Beneficiary Selection Support for Relocation Initiatives in Port-au-Prince

Project status	Completed
Project period	1 September 2012 to 15 December 2012
Beneficiaries	300 families of IDPs
Donor	Haiti, Fonds d'Assistance Economique et Social
Amount funded (in USD)	60,816

Facilitating the Return/Relocation of IDPs and the Closure of IDP Site in Pinchinnat, Jacmel

Project status	Completed
Project period	1 June 2012 to 30 September 2012
Beneficiaries	270 families of IDPs
Donor	J/P HRO
Amount funded (in USD)	200,000
Partners	Ministry of the Interior and Territorial Collectivities (MICT), Jacmel Mayor's Office, DPC, and Pinchinnat Camp Committee

Capacity-Building in Relief Commodities and Supplies Management for Disaster Preparedness and Response in Haiti and Preparedness for the 2012 Hurricane Season

Project status	Active
Project period	27 July 2012 to 29 July 2013
Beneficiaries	Affected communities and 26 Local authority staff
Donor	USAID and the Office of Foreign Disaster Assistance (OFDA)
Amount funded (in USD)	1,500,000
Partners	MTPTC and project partner agencies of DPC

Soil Conservation in Maman Zanfam to Prevent Floods (Phase II)

Project status	Completed
Project period	21 June 2012 to 20 December 2012
Beneficiaries	6,075 people
Donor	MINUSTAH
Amount funded (in USD)	199,985
Partners	Comité Local d'Appui au Projet and MINUSTAH/RVC



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Bridge Construction at Rue Gaou – Guinou, Delmas 31

Project status	Completed
Project period	29 May 2012 to 28 September 2012
Beneficiaries	145 people with 25,000 indirect beneficiaries
Donor	MINUSTAH
Amount funded (in USD)	42,262
Partners	Municipality of Delmas, MTPTC and MINUSTAH/CVR

Improved Livelihood Opportunities for Vulnerable Returnee Households

Project status	Completed
Project period	30 March 2012 to 31 December 2012
Beneficiaries	150 IDPs, CSOs/NGOs staff
Donor	Canada, Canadian International Development Agency
Amount funded (in USD)	291,262
Partners	Humanitarian organizations (UNDP, Catholic Relief Services and ILO), local chambers of commerce, Institut National de Formation Professionnelle, community resource centers, Initiative pour le Developpement des Jeunes, Institut National pour le Developpement et la Promotion de la Couture, community leaders, camp committees and the Ministry of Commerce

Support to the Sustainable Return of 300 Vulnerable IDP Families Living in the Tabarre Hosting Centre

Project status	Completed
Project period	1 September 2012 to 30 November 2012
Beneficiaries	300 families of IDPs
Donor	Inter-church Organization for Development Cooperation
Amount funded (in USD)	405,254
Partners	Mayor of Tabarre, MICT, the Haitian National Police and Planète Jeune de la Francophonie (PLAJEF)

Development of the Structure Put in Charge of Women Victims of Violence (Justinien University Hospital)

Project status	Completed
Project period	13 November 2012 to 12 May 2013
Beneficiaries	800 vulnerable women
Donor	MINUSTAH
Amount funded (in USD)	195,896
Partners	Justinien University Hospital, MINUSTAH and UNPOL (Norwegian and Canadian)

Protecting the City of Gonaïves by Masonry Construction of 154 ml of Drainage Canal in the Bienac Belt (Phase II)

Project status	Completed
Project period	1 February 2013 to 30 April 2013
Beneficiaries	548 people
Donor	MINUSTAH
Amount funded (in USD)	193,091
Partners	Mairie de Gonaïves et la Direction Departementale des Travaux Publics, MINUSTAH

Protecting the City of Gonaïves by Masonry Construction of 154 ml of Drainage Canal in the Bienac Belt (Phase III)

Project status	Completed
Project period	1 February 2013 to 30 April 2013
Beneficiaries	555 people
Donor	MINUSTAH
Amount funded (in USD)	198,900
Partners	Mairie de Gonaïves et la Direction Departementale des Travaux Publics, MINUSTAH

Community Stabilization Project for Bel Air (Phase II)

Project status	Completed
Project period	13 December 2012 to 12 April 2013
Beneficiaries	455 people
Donor	MINUSTAH
Amount funded (in USD)	199,032
Partners	Mairie de Port-au-Prince, MINUSTAH

Community Stabilization Project for Carrefour-Feuilles (Phase II)

Project Status	Active
Project period	13 December 2012 to 12 April 2013
Beneficiaries	195 people
Donor	MINUSTAH
Amount funded (in USD)	139,185
Partners	Mayor of Port-au-Prince and MINUSTAH

Community Stabilization Project for Martissant (Phase II)

Project Status	Completed
Project period	13 November 2012 to 13 March 2013
Beneficiaries	195 people
Donor	MINUSTAH
Amount funded (in USD)	194,414
Partners	Mayor of Port-au-Prince and MINUSTAH

Ancien Aeroport Militaire IDP Camp (Camp La Piste) Return and Relocation Project

Project Status	Active
Project period	26 December 2012 to 25 January 2014
Beneficiaries	9,000 families of IDPs
Donor	Haiti
Amount funded (in USD)	16,137,272
Partners	Ministry of Public Health and Population (MSPP), DPC, MTPTC, Mayor of Delmas, Bureau de Monétisation des Programmes d'Aide au Développement (BMPAD) of the Ministry of Finance and Avocats Sans Frontières

Beautification Project to Revitalize Façades of Buildings on Street 19 in Cap-Haïtien

Project Status	Completed
Project period	5 November 2012 to 3 February 2013
Beneficiaries	71 people
Donor	MINUSTAH
Amount funded (in USD)	99,314
Partners	Ministry of Tourism, MINUSTAH and the Special Representative of the Secretary General of the International Crisis Group

Physical Security Response to IDP Victims: Survivors of Gender-based Violence (Phase II in Port au Prince)

Project Status	Active
Project period	1 February 2013 to 31 July 2013
Beneficiaries	150 IDPs
Donor	US PRM
Amount funded (in USD)	300,000
Partners	Women's Affairs Ministry, Haitian National Police, International Federation of the Red Cross

Humanitarian and Shelter Response to Hurricane Sandy

Project Status	Active
Project period	1 December 2012 to 31 May 2013
Beneficiaries	4,780 people
Donor	CERF, Rapid Response
Amount funded (in USD)	1,018,566
Partners	Government personnel and partners; local NGO and CSO personnel; DPC, Unité de construction de logements et batiments publics (UCLBP), the Ministry of Social Affairs and MICT

Facilitating the Return and Relocation of IDPs remaining in IDP Camps in Croix-des Bouquets

Project Status	Completed
Project period	15 November 2012 to 13 February 2013
Beneficiaries	190 families of IDPs
Donor	UNOPS
Amount funded (in USD)	217,231
Partners	UCLBP, Ministry of Public Health and Population, Haitian National Police, International Federation of the Red Cross, Civil Protection Directorate and the Brigade for the Protection of Minorities

Humanitarian and Shelter Response to Hurricane Sandy

Project status	Completed
Project period	1 December 2012 to 30 April 2013
Beneficiaries	1,444 families from affected communities
Donor	Sweden, SIDCA
Amount funded (in USD)	751,202
Partners	Direction de la Protection Civile (DPC), delegates of affected targeted communes, Emergency Shelter and CCCM Cluster, and Comité Thématique pour la Gestion des Abris Provisoires

Provision of Durable Housing Solutions for IDPs Remaining in Camps in Haiti

Project status	Active
Project period	1 March 2013 to 31 August 2013
Beneficiaries	160 IDPs
Donor	Community Chest of Korea (CCK)
Amount funded (in USD)	430,000
Partners	The Haiti Government personnel

Conflict Prevention and Social Cohesion through Local Community Empowerment and Institutional Capacity-Building

Project status	Active
Project period	1 January 2010 to 15 December 2012
Beneficiaries	Affected communities, at-risk youth, single-headed households, vulnerable women, CSOs and NGO staff and local authority staff
Donor	Millennium Development Goals Achievement Fund
Amount funded (in USD)	2,326,239

Evacuation of Garbage in the K-Soley Area of Gonaïves

Project status	Completed
Project period	15 July 2009 to 12 October 2009
Beneficiaries	4,000 people
Donor	UNDP
Amount funded (in USD)	50,000

Emergency Project to Prevent Flooding in Cap-Haïtien

Project status	Completed
Project period	15 October 2009 to 25 March 2011
Beneficiaries	Affected communities
Donor	OCHA
Amount funded (in USD)	78,183

Haiti Stabilization Initiative: Community-building in Martissant

Project status	Completed
Project period	25 January 2010 to 24 March 2012
Beneficiaries	Affected communities
Donor	USAID
Amount funded (in USD)	7,550,000

Camp Coordination Support to Camp Management

Project status	Completed
Project period	15 March 2010 to 31 August 2010
Beneficiaries	IDPs
Donor	OCHA
Amount funded (in USD)	7,000,000

CCCM Operations for Earthquake Victims in Haiti

Project status	Completed
Project period	15 March 2010 to 14 July 2010
Beneficiaries	166,500 IDPs
Donor	ECHO
Amount funded (in USD)	3,977,029
Partners	UN partners

Emergency Grant Aid to the People Affected by the Earthquake in Haiti

Project status	Completed
Project period	22 April 2010 to 31 January 2012
Beneficiaries	23,500 IDPs
Donor	Japan
Amount funded (in USD)	9,000,000

Camp Coordination and Camp Management for Vulnerable Earthquake Victims in Haiti

Project status	Completed
Project period	26 March 2010 to 22 June 2010
Beneficiaries	30,000 IDPs
Donor	CERF, Rapid Response
Amount funded (in USD)	47,500,000
Partners	UNOPS, UN-HABITAT

CCK-IOM Transitional Shelter Support to IDPs in Haiti

Project status	Completed
Project period	10 September 2010 to 30 September 2012
Beneficiaries	767 IDPs
Donor	Community Chest of Korea (CCK)
Amount funded (in USD)	3,000,000

Resettlement and Canal Cleaning following the Earthquake in Haiti

Project status	Completed
Project period	25 March 2010 to 24 June 2011
Beneficiaries	IDPs
Donor	USAID, OFDA
Amount funded (in USD)	19,500,000
Partners	Haiti Government personnel of Haiti, the US Military, CCCM and Inter-Cluster partners and other humanitarian agencies

Strengthening Local Capacities for Disaster Risk Reduction and Preparedness in Haiti

Project status	Completed
Project period	29 March 2011 to 28 December 2012
Beneficiaries	Affected communities and local authority staff
Donor	USAID, OFDA
Amount funded (in USD)	3,006,255
Partners	Haiti Government personnel, MICT and DPC

Rehabilitation of Infrastructure and Improving Urban Environment, Aiming to Mitigate Community Violence in Haiti (Phase III)

Project status	Completed
Project period	8 March 2010 to 15 June 2012
Beneficiaries	34,744 people, 1,233 IDPs
Donor	MINUSTAH
Amount funded (in USD)	10,664,082

Provision of Transitional Shelters and Land Tenure Support to Facilitate a Safe Return for IDPs and Earthquake-affected Populations

Project status	Completed
Project period	13 May 2011 to 31 March 2012
Beneficiaries	6,900 IDPs
Donor	Canada, Canadian International Development Agency
Amount funded (in USD)	1,980,771

Stabilization of Host Communities Supporting Earthquake-affected IDPs in Haiti

Project status	Completed
Project period	31 August 2010 to 15 April 2012
Beneficiaries	14,000 people, 7,500 families of affected communities and IDPs
Donor	American Red Cross
Amount funded (in USD)	7,506,984

Cholera Prevention through Distribution of the *Chimen Lakay* Newspaper

Project status	Completed
Project period	12 April 2011 to 26 May 2011
Beneficiaries	500,000 IDPs
Donor	Chemonics International
Amount funded (in USD)	98,000

Strengthening Local Capacities for Disaster Risk Reduction and Preparedness in Haiti (UN Development Group and the Haiti Rehabilitation Fund)

Project status	Completed
Project period	1 February 2011 to 31 January 2012
Beneficiaries	200 vulnerable and at-risk people
Donor	UNDP
Amount funded (in USD)	1,980,000

Support for Sanitation and Hygiene in Haiti to Combat the Cholera Epidemic: Construction of Sanitation Facilities in Brooklyn, Cite Soleil

Project status	Completed
Project period	10 November 2011 to 9 May 2012
Beneficiaries	Affected communities
Donor	The Caribbean Community
Amount funded (in USD)	450,416

Improved Livelihoods and Poverty Reduction through Soil Conservation and Agriculture Sector Strengthening (Phase II)

Project status	Active
Project period	6 February 2013 to 5 August 2013
Beneficiaries	Government personnel and 5,500 people from affected communities
Donor	Spain, Agencia Española de Cooperación Internacional para el Desarrollo
Amount funded (in USD)	1,333,333
Partners	Haiti Government, the communities of Jacmel and development actors from the Sud-Est Department

Facilitating Housing Solutions for Voluntary Returns

Project status	Completed
Project period	22 June 2011 to 31 March 2012
Beneficiaries	1,250 families of IDPs
Donor	Chemonics International
Amount funded (in USD)	1,500,000

Support to the Protection, Assistance and Sustainable Return and Relocation of IDPs within the Framework of CCCM

Project status	Active
Project period	1 July 2011 to 30 June 2012
Beneficiaries	IDPs
Donor	Sweden, Swedish International Development Cooperation Agency (SIDCA)
Amount funded (in USD)	2,892,868
Partners	DPC

Prevention and Response to SGBV in IDP Sites in Port-au-Prince, Haiti

Project status	Completed
Project period	1 June 2011 to 30 June 2012
Beneficiaries	IDPs
Donor	Sweden, SIDCA
Amount funded (in USD)	1,000,000
Partners	URAMEL, IBESR, Haitian National Police, grassroots women's organizations and DPC

Rehabilitation of Infrastructure and Improving Urban Environment, Aiming to Mitigate Community Violence in Haiti (Phase IV)

Project status	Completed
Project period	31 May 2011 to 31 March 2012
Beneficiaries	97,234 people
Donor	MINUSTAH
Amount funded (in USD)	3,617,547

PERU

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Surface area	1,285,216 km ²
Population, 2010 (est.)	29 million
Population density, 2010	22.6/km ²
GDP in 2011	USD 176.9 billion
GDP per capita in 2011	USD 6,018
Remittances, 2011	USD 2.7 billion
HDI	0.741
Net migration rate, 2010–2015	-2.7 migrants/1,000 population
Types of movement	Internal displacement
Displaced by disasters, 2008–2012	322,673
Number of IOM staff working on disasters	3
Location of IOM offices	Lima
Total DRR funding for 2013 in USD	300,000
IOM site: http://peru.iom.int/	

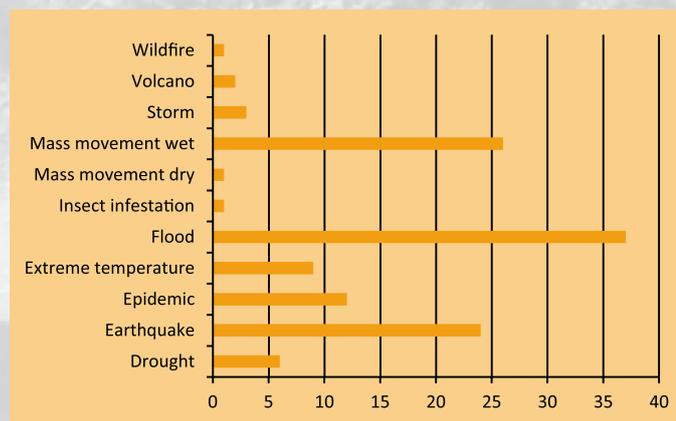
IOM DRR responses

Preparedness	Emergency	Recovery	Cross-cutting
Building institutional capacities	Assisting the displaced	Durable solutions	Infrastructures

Top 10 natural disasters by size of affected population, 1980–2013

Disaster	Date	Affected
Drought	1990	2,200,000
Extreme temp.	2004	2,137,467
Extreme temp.	2003	1,839,888
Drought	1992	1,100,000
Extreme temp.	2007	884,572
Mass mov. wet	1983	700,000
Earthquake	2007	658,331
Storm	1997	580,730
Flood	2008	450,012
Earthquake	2001	349,978

Natural disaster occurrence, 1980–2013



Note: There is no info available on disaster occurrences in Peru.

Background

Peru's geography consists of a coastal region (referred to as the 'Costa'), a mountainous area along the Andean Mountain Range ("Sierra") and by the Amazon rainforest ("Selva"). This geographical diversity translates into the country's exposure to a multitude of different hazards, the most significant ones being floods, earthquakes, landslides and cold waves, all of which threaten human communities throughout the country.

Over the last decades, climate-related phenomena have affected Peru's key productive sectors. More frequent and intense El Niño occurrences have damaged the fishing industry; droughts in the Sierra have impacted on agricultural production; and melting glaciers have reduced water supplies for household and industrial use throughout the country.

Peru's economy is very dependent on natural resources. Climate change, which is bringing weather extremes, inducing natural hazards and threatening crop productivity and water security, is expected to have serious impacts on the local economy and cause an increase in the number of internally displaced persons (IDPs).

In 2012 alone, floods in the Selva caused the displacement of approximately 10,000 people. Despite the existence of a law regarding the protection of IDPs, the Peruvian Government, local administrations and other concerned actors have yet to define and implement adequate mechanisms in order to prevent displacement and respond in an effective, coordinated fashion in case displacement occurs.

Responses

Thus far, IOM has largely focused on response to floods. At first, the intervention included a variety of emergency response activities, with the Organization supporting the Peruvian Government's efforts to respond to disasters, mainly through the provision of non-food items (NFIs) and shelter in the Loreto Region. Later, IOM undertook capacity-building and training activities to improve the preparedness of local authorities for floods in the same area.





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Results achieved

Following the 2012 Loreto floods, approximately 1,100 families residing in 34 different settlements received assistance from IOM in the form of NFIs and basic shelter repairs, which led to substantial improvement of their living conditions. About as many families were supported during the relocation process. In addition, 40 staff members from local authorities were trained in camp coordination and camp management (CCCM), with the aim of improving disaster response capacity at the community level.

Future objectives

IOM is committed to further strengthening the capacities of CCCM Cluster members in the country. Priorities should be given to the identification of zones at risk of displacement and of possible locations that could serve as shelter sites and/or collective centres, and to the enhancement of national and local authorities' capacity to address the current and potential needs of the populations affected and displaced by disasters. IOM is advocating for the establishment of a plan of action for IDPs that will allow for relevant authorities to better coordinate and implement activities that will support displaced populations. In addition, specific research and activities should be undertaken in order to fully understand and adequately address the impacts of climate change on internal migration.

List of projects

Support for Collection Centre Management, Shelter and NFIs (SCCM)

Project status	Completed
Project period	15 April 2012 to 15 October 2012
Beneficiaries	13,691 people
Donors	Central Emergency Response Fund (under the Rapid Response grant)
Amount funded (in USD)	388,710
Partners	Local authority staff, Centro de Emergencia Mujer, Peruvian Red Cross, Save the Children, OXFAM, Caritas, Plan International and Putumayo

ASIA

- 229** Afghanistan
- 235** Bangladesh
- 239** Cambodia
- 243** Indonesia
- 249** Myanmar
- 253** Nepal
- 257** Pakistan
- 265** Philippines
- 271** Sri Lanka
- 275** Tajikistan
- 279** Thailand
- 283** Timor-Leste



AFGHANISTAN

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Surface area	652,864 km ²
Population, 2010 (est.)	32.4 million
Population density, 2010	43.5/km ²
GDP in 2011	USD 18.1 billion
GDP per capita in 2011	USD 585
Remittances, 2011	Data not available
HDI	0.374
Net migration rate, 2010–2015	5.4 migrants/1,000 population
Types of movement	Internal displacement, stranded/trapped population, return
Displaced by disasters, 2008–2012	146,354
Number of IOM staff working on disasters	78
Location of IOM offices	Kabul, Bamyan, Daikundi, Badakhshan, Kunduz, Paktya, Ghazni, Khost, Paktika, Herat, Jalalabad, Mazar-e-Sharif, Jawzjan, Kandahar, Zabul
Total DRR funding for 2013 in USD	900,000

IOM site: www.iom.int/cms/en/sites/iom/home/where-we-work/asia-and-the-pacific/afghanistan.html

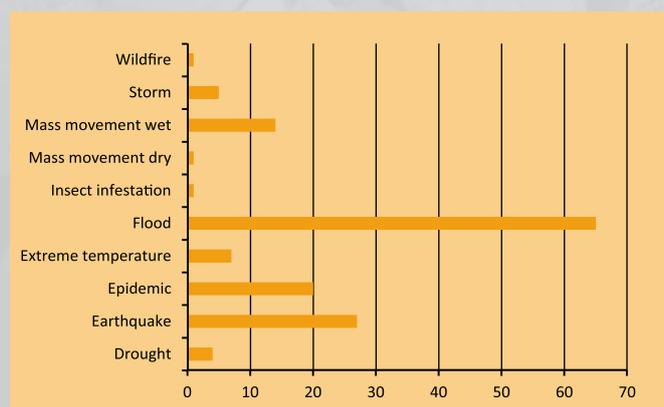
IOM DRR responses

Prevention	Preparedness	Emergency	Cross-cutting
Reducing hazards	Preparing communities Building institutional capacities	Tracking displacement Assisting the displaced	Livelihoods Health Infrastructures

Top 10 natural disasters by size of affected population, 1980–2013

Disaster	Date	Affected
Drought	2000	2,580,000
Drought	2006	1,900,000
Mass mov. wet	2006	300,000
Drought	2008	280,000
Epidemic	2002	200,000
Extreme temp.	2008	170,684
Flood	1988	161,000
Earthquake	1998	116,935
Flood	1991	108,400
Earthquake	1994	100,330

Natural disaster occurrence, 1980–2013



Background

Afghanistan is a landlocked country prone to a number of natural hazards, such as earthquakes, floods (including flash floods), droughts, landslides and avalanches. Earthquakes are relatively frequent in the north and north-east, often triggering landslides. Due to the country's rugged topography and the location of human settlements, natural hazards often result in the isolation of entire communities, especially in the remote mountainous regions, posing significant challenges to humanitarian interventions, particularly when populations are displaced. As recently as the 2011–2012 winter, heavy snowfalls and avalanches in the Central Highlands region and in Badakhshan Province in the north-east resulted in road closures and the disruption of lifelines.

Due to the lack of mitigation measures, even small events can cause large-scale destruction of houses, agricultural lands and livelihoods, triggering movement of populations in search of more secure settlements. Widespread environmental degradation also acts as a trigger of hydrogeological hazards and undermines rural livelihoods and water and food security.

In addition, decades of external conflict and civil war have contributed to limiting employment and income options and have severely affected public infrastructure, health-care, education and social protection systems. Conflicts drain and destroy local livelihoods and hamper the government from investing in local development, including in measures that lower disaster risk. Impoverished and unable to access even the most basic services and assistance, many Afghans are forced to live in precarious conditions, exposed to natural hazards and with very limited capacity to cope with the shocks and hardships. In addition, violence poses significant security threats to development and humanitarian staff, often resulting in delayed interventions or the inability to provide assistance to people in need.

Over the last few decades, conflict has been the main driver of displacement (internal and external), with 76 per cent of the country's population forced to leave their homes due to violence, human rights violations, poverty and food insecurity. An estimated 185,631 people were displaced as a result of conflict in 2011 alone, and 203,457 IDPs were recorded for 2012. In addition, 50,000 people were displaced by the floods, droughts and the

harsh winter of 2011; floods displaced 13,755 more in 2012.

Until recently, institutional capacity for disaster reduction and management was limited. The Afghanistan National Disaster Management Authority (ANDMA), the main government counterpart of IOM in the country, has only recently started developing the capacity to deal with disasters affecting thousands of individuals all over the country.

Responses

IOM intervention has focused mainly on strengthening the response capacity of the national disaster management authority, as well as making communities more independent in the aftermath of a disaster, especially in the most remote areas. Through its Humanitarian Assistance Program (HAP), the Organization directly assists people affected and displaced by natural disasters, in accordance with its role in the Inter-agency IDP Task Force and the Humanitarian Cluster System in the country.

In recent emergencies, IOM led joint assessments of the population's needs and directly provided non-food items (NFIs) and shelter assistance. Affected populations were referred to relevant agencies for other forms of specialized assistance.

IOM directly contributed to strengthening the response capacity of ANDMA by providing IT equipment and vehicles. In addition, the Organization hired a national technical advisor that serves as a bridge between ANDMA and relevant relief providers, with the aim of better coordinating disaster response. ANDMA staff received training on the use of multi-cluster assessment tools, enabling them to autonomously conduct rapid assessments following disasters.

IOM also focused on reducing hazard exposure and building coping capacity at the local level. In 2010 and 2011, IOM distributed about 632,000 sandbags in flash flood-prone settlements throughout the Afghan north-east (e.g. in the provinces of Takhar, Kunduz, Baghlan and Badakhshan) for the reinforcement of irrigation canals/dams and riverbanks. The Organization also pre-positioned NFIs and emergency shelters throughout the most exposed districts, in order to ensure timely response, and supported the Government's efforts to respond to floods by providing NFIs and emergency shelters.

Results achieved

IOM activities have directly engaged local government counterparts in disaster assessment, distribution of relief items and the monitoring of intervention, thereby enhancing local capacities to tackle population movements. The ANDMA and Ministry of Refugees and Repatriations offices at the provincial level are now more active and independent and can collaborate better with other actors when responding to humanitarian needs. The strategic pre-positioning of NFIs and emergency shelter kits has also allowed for continued improvement in emergency response.

IOM deployed a displacement-tracking matrix (DTM) and collaborated toward the development of a natural hazard database, in order to support the operational and monitoring needs of HAP and allow swift information-sharing on natural disasters and the IDP movements that they cause.

The HAP emergency package has reached a cumulative total of 21,937 families (142,454 individuals). The provided assistance (28,047 kits in total) consisted of: 678 blanket modules, 6,450 emergency shelter kits, 767 family modules, 11,620 “family revitalization” kits, 8 solar modules, 1,930 tarpaulins and 6,593 winter kits.

The IDP tracking findings indicate that out of a total of 3,942 families displaced by a natural disaster recorded for the past years until the end of 2012, 2,238 (57%) moved back to their places of origins. The remaining families continue to be displaced due to the lack of employment and livelihood options, the unavailability of land and the lack of resources to rebuild their houses. The IDP tracking findings also indicate that natural disaster displacements are of a temporary nature and can be prevented by implementing risk reduction measures.

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Future objectives

The risk reduction efforts of government institutions, I/NGOs and UN agencies in Afghanistan remain limited. Government agencies' lack of capacity and resources has resulted in a large number of people being affected and displaced every year. IOM has contributed to improving preparedness at the institutional and community levels, reducing the suffering of affected populations and preventing them from being further displaced.

Future efforts will concentrate on shifting from emergency response to disaster reduction efforts. HAP will increasingly deal with activities that reduce disaster risk to prevent displacement. Any initiative will be performed in close consultation with national and local disaster management and reduction institutions, with the aim of identifying high-risk communities and implementing hazard prevention and mitigation measures (such as the construction of retention walls and the provision of gabions and sandbags). IOM plans to make this pilot project the first step toward the establishment of a full-fledged DRR strategy.

Relevant materials

- IOM Humanitarian Assistance Programme (HAP) Factsheet, available from www.iom.int/jahia/webdav/shared/shared/mainsite/activities/countries/docs/afghanistan/IOM-Afghanistan-HAP-Factsheet-2011-2012-March.pdf.
- *IOM in Afghanistan* photo book, available from www.iom.int/jahia/webdav/shared/shared/mainsite/activities/countries/docs/afghanistan/IOM-Afghanistan-photo-book.pdf.

List of projects

Afghanistan Rapid Humanitarian Assistance Programme (RHRA 2)

Project status	Completed
Project period	9 March 2012 to 28 February 2013
Beneficiaries	21,500 families of affected communities
Donor	United States Agency for International Development (USAID) and the Office of Foreign Disaster Assistance (OFDA)
Amount funded (in USD)	7,498,000
Partners	Government personnel of Afghanistan

Community Outreach and Community Development Programme, Badghis, Afghanistan (Phase One)

Project status	Completed
Project period	1 August 2012 to 30 November 2012
Beneficiaries	Local authority staff, affected communities
Donor	Private Sector
Amount funded (in USD)	439,000
Partners	Ministry of Rural Rehabilitation and Development (MRRD), Ministry of Public Health (MoPH), Ministry of Labour, Social Affairs, Martyrs and Disabled (MoLSAMD), Ministry of Women's Affairs and other specialized Ministries

Immediate Humanitarian Assistance to Vulnerable Populations (IHAV)

Project status	Completed
Project period	1 December 2009 to 31 May 2010
Beneficiaries	10,000 families from affected communities
Donor	Norway
Amount funded (in USD)	700,000

Construction of Health and Education Facilities (CHEF)

Project status	Active
Project period	19 January 2008 to 18 June 2011
Beneficiaries	Government personnel and affected communities
Donor	USAID
Amount funded (in USD)	56,957,305
Partners	Ministry of Public Health and Ministry of Education

Rapid Humanitarian Response Afghanistan (Phase I) (RHRA)

Project status	Completed
Project period	1 July 2010 to 31 December 2011
Beneficiaries	30,000 families of IDPs (233,240 IDPs)
Donor	USAID, OFDA
Amount funded (in USD)	4,984,602
Partners	Afghanistan Government personnel

Humanitarian Assistance to Internally Displaced Persons

Project status	Completed
Project period	1 July 2011 to 30 June 2012
Beneficiaries	12,000 people
Donor	Australian Department of Immigration and Citizenship
Amount funded (in USD)	548,289
Partners	Afghanistan Government personnel and the UN High Commissioner for Refugees (UNHCR)

BANGLADESH



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Surface area	147,570 km ²
Population, 2010 (est.)	146.6 million
Population density, 2010	1,032.6/km ²
GDP in 2011	USD 113.8 billion
GDP per capita in 2011	USD 700.59
Remittances in USD, 2011	USD 11.9 billion
HDI	0.515
Net migration rate, 2010–2015	- 0.8 migrants/1,000 population
Types of movement	Rural to urban migration, rural to rural migration, temporary migration, permanent migration, cross-border displacement, internal displacement
Displaced by disasters, 2008–2012	2,998,788
Number of IOM staff working on disasters	3
Location of IOM offices	Dhaka, Sylhet, Cox's Bazar
Total DRR funding for 2013 in USD	<i>Data not available</i>
IOM site: www.iom.org.bd	

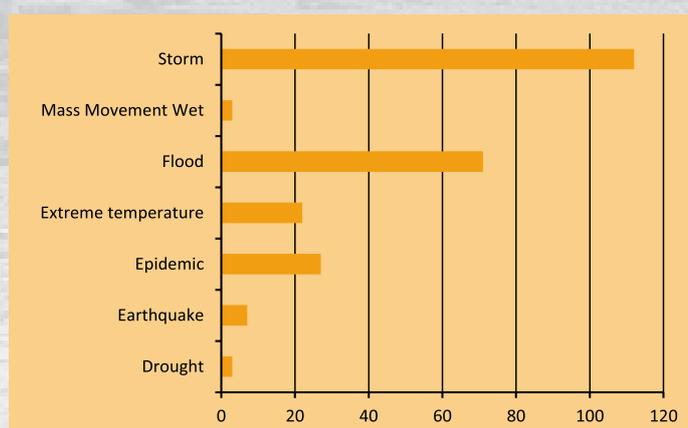
IOM DRR responses

Preparedness	Emergency
Preparing communities Bridging responses	Tracking displacement Assisting the displaced

Top 10 natural disasters by size of affected population, 1980–2013

Disaster	Date	Affected
Flood	1988	45,000,000
Flood	2004	36,000,000
Flood	1984	30,000,000
Flood	1987	29,700,000
Drought	1983	20,000,000
Storm	1991	15,438,849
Flood	1998	15,000,050
Flood	2007	13,771,380
Flood	1995	12,656,006
Flood	1993	11,469,537

Natural disaster occurrence, 1980–2013



Background

Bangladesh lies in an alluvial delta formed by the confluence of the Padma, the Brahmaputra and the Meghna Rivers. The country is divided into three zones – hills, terraces and flood plain – with big parts of it lying only a few meters above sea level. Its economy is largely dependent on agriculture and extremely vulnerable to weather and climate extremes. The frequent loss of lives and property due to natural hazards undermines the people’s resilience and contributes to making Bangladesh one of the most disaster-affected countries in the world.

Bangladesh has a tropical climate and is regularly hit by violent storms and cyclones, which trigger floods and storm surges. Major cyclones hit the country every three years on average, sometimes causing enormous disasters (e.g. in 1970 and 1991, when cyclones killed 500,000 and 140,000 people, respectively).

Floods are a fact of life for many in Bangladesh, with around a quarter of the country inundated in a “normal” year. People living in regularly flooded areas have learned to adapt, for example, by raising their houses on plinths and adjusting their farming systems. However, once every few years a severe flood occurs that covers a considerably greater-than-usual area, with much more significant damage to lives and livelihoods. For example, as many as 45 and 30 million people were displaced by the 1988 and 1998 floods, respectively. Protracted waterlogging in many areas due to sedimentation in drainage channels and rivers is further increasing the losses due to floods and storms, particularly in the south-western coastal region of Khulna Division (e.g. after Cyclone SIDR in 2007 and Cyclone Aila in 2009).

The country has also been hit by a significant array of major seismic events over the last century, and during the dry season, it has often suffered from dry spells and droughts.

Riverbank erosion is an additional threat to people living along Bangladesh’s major rivers and on river islands (chars). It is thought that climate change, by increasing monsoon rainfall, may contribute to higher rates of erosion along Bangladesh’s main

rivers, possibly resulting in an increase in the loss of homes and agricultural land in the long term. At the same time, land accretion continuously creates chars and new land along the rivers, on which more than 2 million people are estimated to live.

The problem of displacement by riverbank erosion has long been recognized in Bangladesh. While erosion causes serious disruption, however, it is considered to be inevitable. Most families who lose their homes or agricultural land to erosion therefore choose to remain within the local area.

Climate change is also expected to negatively impact rural livelihoods by amplifying variability in the onset and the end of the monsoon season, as well as by causing unpredictable rainfall patterns, dry spells and low soil moisture. Alongside the growing economic pull of urban areas, these factors are likely to produce a steady flow of rural migrants. Environment-related displacement and economic migration cause most families to experience multiple displacements over the course of a lifetime.

A significant amount of short-term and seasonal migration in Bangladesh is rural-rural, with many poor or landless households engaging in labour migration during periods of high demand for agricultural labour. More than 60 per cent of the country’s labour force remains engaged in agriculture, posing public health management issues in the temporary settlements of seasonal workers. However, natural hazards and environmental degradation tend to displace people over greater distances. In these cases the lack of available land, high population density and shortage of year-round work across rural Bangladesh, coupled with the availability of better employment opportunities in urban areas, induce the overwhelming majority of the displaced to move to urban areas.

Economic opportunities, social and family networks, and cultural, linguistic, and religious affinities between the populations of Bangladesh and the Indian region of West Bengal mean that cross-border migration – whether regular or irregular, or short-, medium- or long-term – is inevitable in both directions.

Responses

IOM intervention has focused on supporting the humanitarian response to major events and on raising awareness of trafficking following disasters as a decisive factor of vulnerability.

In particular, after Cyclone Aila in 2009, IOM supported the Government's response activities by providing NFIs and shelter kits to 24,000 displaced families. The Organization also promoted regular coordination meetings, both at the district and the sub-district levels. IOM has been behind the organization of meetings within the framework of the government-led district disaster management structure. IOM also participated at national-level meetings, cluster-specific events and ad hoc meetings with national and international NGOs.

In order to inform future risk reduction efforts, IOM produced, in coordination with nine international and national organizations, the Joint Position Paper on Cyclone Aila (Priorities for Action) and promoted the National Policy Dialogue on Climate Change and Migration: Assessing the Evidence with Aila as the Case Study.

In addition, IOM engaged in awareness-raising activities by producing a short video documentary (entitled Aila, Climate Change and Trafficking), organizing a tour of journalists in Aila-affected areas (16 articles have been produced as a result) and creating a website to share reports and information on the devastating effects of Aila.

IOM also set up a displacement-tracking matrix (DTM) and a database of beneficiaries to monitor the field situation of the targeted communities, and launched a strong awareness campaign on human trafficking. The Organization also carried-out a series of orientation meetings with local leaders and presented a folk drama, reaching out to an estimated 47,000 people. Following the 2012 floods, IOM took part in the Government-UN-NGO Joint Needs Assessment Mission.

Results achieved

IOM took the lead in assisting the Bangladeshi Government at the district and *upazila* levels to hold disaster management committee meetings, which were previously almost non-existent. The Organization also established significant strategic partnerships with local and international NGOs and media and UN agencies, which proved essential in initiating discussions and mobilizing public opinion. In addition, IOM greatly improved its field presence, which allowed for access to updated information, quick distribution of resources and on-the-spot management decisions to address local problems.

The activities carried out in the Field exposed the issue of adolescent girls and boys living on the embankments, which IOM addressed through a successful awareness campaign on human trafficking with the displaced communities, as well as the local administration.

The data collected through the DTM and the database of project beneficiaries have been used by other organizations to provide more than 23,000 displaced families with early-recovery activities, mostly implemented by local NGOs, under their emergency support and livelihood projects.

Future objectives

Bangladesh is undergoing severe environmental degradation, with riverbank erosion being a major driver of livelihood loss and displacement. With climate change expected to further threaten low-lying and coastal areas and increase the frequency and intensity of hydro-meteorological hazards inland, the prevention of forced migration and the management of mobility will increasingly become priorities for both national and local authorities in the country. Under the UNDAF 2012–2016, IOM will partner with other agencies on climate change, the environment and disaster risk reduction and response. IOM is aiming at directly tackling these issues over the coming years.

Relevant materials

- National Plan for Disaster Management, 2010–2015, available from www.dmr.gov.bd/index.php?option=com_docman&task=doc_download&gid=305&Itemid=236.
- Disaster Management Act of 2012, available from www.dmb.gov.bd.
- Standing Orders on Disaster, available from www.preventionweb.net/files/9469_bangladesh.pdf.

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CAMBODIA

© IOM 2005 (Photo: John Vink).

Surface area	181,035 km ²
Population, 2010 (est.)	14.1 million
Population density, 2010	78.1/km ²
GDP in 2011	USD 12.8 billion
GDP per capita in 2011	USD 897
Remittances, 2011	USD 364 million
HDI	0.543
Net migration rate, 2010–2015	- 0.1 migrants/1,000 population
Types of movement	Internal displacement
Displaced by disasters, 2008–2012	311,505
Number of IOM staff working on disasters	2
Location of IOM offices	Phnom Penh
Total DRR funding for 2013 in USD	USD 1.5 million
IOM site: www.iom.int/cms/en/sites/iom/home/where-we-work/asia-and-the-pacific/cambodia.html	

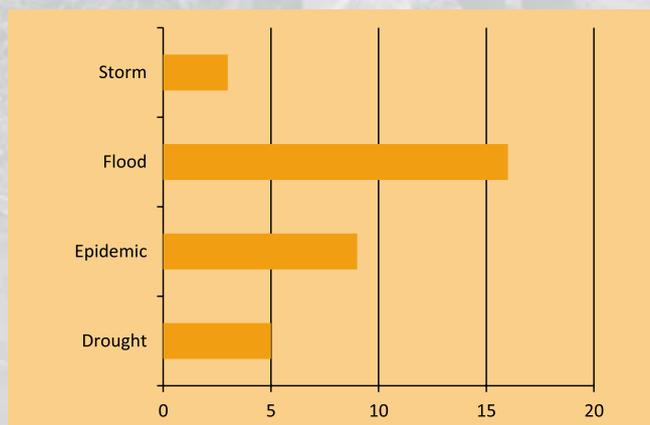
IOM DRR responses

Preparedness	Emergency
Preparing communities Building institutional capacities	Assisting the displaced

Top 10 natural disasters by size of affected population, 1980–2013

Disaster	Date	Affected
Drought	1994	5,000,000
Flood	2000	3,448,053
Flood	2001	1,669,182
Flood	2002	1,470,000
Flood	1996	1,300,000
Flood	1991	900,000
Drought	2002	650,000
Drought	2005	600,000
Flood	1999	535,904
Epidemic	1992	380,000

Natural disaster occurrence, 1980–2013



Background

The geography of Cambodia is characterized by a central alluvial plain, which is dominated by the Tonle Sap Lake and the Mekong River and its delta and surrounded by uplands and elevations. The country has a typical tropical climate, with seasonal wet and dry cycles, which frequently expose the country to floods and droughts.

Between 1990 and 2012, floods were the most recurrent and most damaging disasters.

In particular, following the 2011 events that hit 18 of Cambodia's 24 provinces, the National Committee for Disaster Management (NCDM) registered 51,594 displaced households, with the highest numbers recorded in Prey Veng, Kampong Cham, Svay Rieng and Kampong Chhang Provinces. A total of 350,274 households were affected (with Prey Veng, Svay Rieng, Kandal and Kampong Cham Provinces in the Lower Mekong River Basin recording the highest numbers). Extensive damage to roads and other infrastructure impacted mobility to safe areas and the timely access of disaster relief and social services.

The floods revealed significant gaps in institutional- and community-level capacities for flood emergency preparedness and response and displaced many families from their homes. Lack of support further forced poor rural families out of their areas of origin to look for assistance and long-term opportunities for recovery and well-being.

Droughts tend to be less frequent. However, it is significant to note that drought periods have increasingly been followed by destructive floods. Successions and combinations of droughts and floods have resulted in a significant number of fatalities and considerable economic losses.

According to the NCDM and other development partners, at least 60,000 families were temporarily displaced by either floods or droughts in the 2011–2012 period alone.



Responses

IOM has been active in addressing disaster risks in the country for several years. The Organization's programme of intervention has been aimed mainly at building capacities for response and risk reduction at the institutional and grassroots levels, in particular by implementing community-based disaster risk management activities. All actions have been informed by the hazard and vulnerability assessments conducted in 2009.

IOM has piloted institutional capacity-building models for disaster risk management in support of Cambodia's Strategic National Action Plan (SNAP) for DRR, 2008-2013. In addition, it works in close partnership with the National and Provincial Committees for Disaster Management (NCDM/PCDM), delivering training on community-based disaster risk reduction, risk assessment, and DRR/local development planning.

In 2010, IOM supported the development of a community-based disaster risk assessment and risk reduction strategy through the development of village disaster management teams (VDMTs) in 17 villages in two provinces.

During the 2011 floods, IOM provided emergency shelter distributions to Svay Rieng and Prey Veng Provinces using Central Emergency Response Fund (CERF) money. A total of 5,800 shelter packs were delivered to households in 35 villages in the worst-affected communes in three disaster-prone provinces – Prey Veng, Svay Rieng and Kampong Cham. IOM has worked in collaboration with PCDMs under the NCDM and in coordination with UN agencies and the Cambodia Red Cross during the distribution.

Results achieved

IOM has undertaken community-based risk-mapping exercises in 17 communities in the highlands of north-eastern Cambodia prone to natural disasters. The villages now have community-based disaster risk assessment and risk management mechanisms. Disaster preparedness and response capacities have significantly improved with the establishment of VDMTs; however, capacity-building activities are still ongoing and technical assistance is still needed.

Government and community leaders have been trained specifically on community-based disaster risk reduction, risk assessment and DRR/local development planning. As a consequence, local preparedness and response capacity, especially to floods, has been significantly improved.

In addition, IOM has directly supported emergency response activities by providing 5,800 households with shelter materials and shelter repair toolkits, allowing for a rapid improvement of their living conditions in the immediate aftermath of the 2011 floods.

IOM was awarded three certificates of appreciation by provincial and commune authorities in recognition of the assistance it has provided to affected and vulnerable communities.

Future objectives

IOM has identified the improvement of coordination mechanisms for early warning/early action systems linking key PCDMs with communities in hazard-prone areas as a key future priority. The Organization aims at establishing provincial collective centers in disaster-prone provinces, in order to improve access to accommodation and protection for communities affected by disasters. IOM also supports the development of provincial contingency plans and related standard operating procedures, which include basic emergency response guidelines for times of disaster and will mainstream early-warning communication feedback protocols from meteorological monitoring agencies to villages through NCDM and line committees.

There remains a need to mainstream provincial contingency plans and related SOPs into disaster response planning at the commune, district and village levels. Past experience in working closely with the Government in the areas of providing training exercises, in particular to a number of national and provincial officials, puts IOM in a unique position as a key Government partner for future technical assistance. Nonetheless, scaling up and adapting successful community-based strategies to other provinces remains challenging, for operational and financial reasons.

Relevant materials

- Mapping Vulnerability to Natural Hazards in Mondulkiri: Final Report (2009), available from www.iom.int/jahia/webdav/shared/shared/mainsite/activities/countries/docs/Final-Report-Mapping-Vulnerability-Natural-Hazards-Mondulkiri.pdf
- Mapping Vulnerability to Natural Hazards in Ratanakiri: Final Report (2009), available from www.iom.int/jahia/webdav/shared/shared/mainsite/activities/countries/docs/Final-Report-Mapping-Vulnerability-Natural-Hazards-Ratanakiri.pdf
- Rising Above Natural Disasters: *My Village's Story* (Village Disaster Management Teams in North-east Cambodia), video documentary, available from www.youtube.com/watch?v=QvEH6RrKzLM.
- 'Building Resilience to Natural Hazards in North-east Cambodia' project info sheet, available from www.iom.int/cms/en/sites/iom/home/what-we-do/migration-and-climate-change/operational-activities/building-resilience-againstbr-natural.html

List of projects

Rapid Humanitarian Assistance to Flood-Displaced Households in Cambodia (RHAf)

Project status	Completed
Project period	1 November 2011 to 31 January 2012
Beneficiaries	25,000 IDPs
Amount funded (USD)	342,379

Mapping Vulnerability to Natural Hazards in Ratanakiri

Project status	Completed
Project period	1 January 2009 to 30 September 2009
Beneficiaries	Ethnic minorities/indigenous peoples
Amount funded (USD)	115,408
Partners	National Committee for Disaster Management (NCDM) and its line committees at the provincial (PCDM), district (DCDM) and commune (CCDM) levels, Ministry of Land Management, Department of Ethnic Minority Development and the Ministry of Rural Development

INDONESIA

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Surface area	1,904,569 km ²
Population, 2010 (est.)	239.8 million
Population density, 2010	125.9/km ²
GDP in 2011	USD 846.8 billion
GDP per capita in 2011	USD 3,495
Remittances, 2011	USD 7.1 billion
HDI	0.629
Net migration rate, 2010–2015	-0.7 migrants/1,000 population
Types of movement	Internal displacement
Displaced by disasters, 2008–2012	2,478,704
Number of IOM staff working on disasters	58
Location of IOM offices	Jakarta, Bandung, Banda Aceh, Yogyakarta, Makassar, Kupang, Bogor, Ciamis, Cianjur, Garut, Soreang, Sukabumi, Tasikmalaya, Bener Beriah, Aceh Tengah, Sinkil, Simeulue
Total DRR funding for 2013 in USD	9,000,000

IOM site: www.iom.or.id

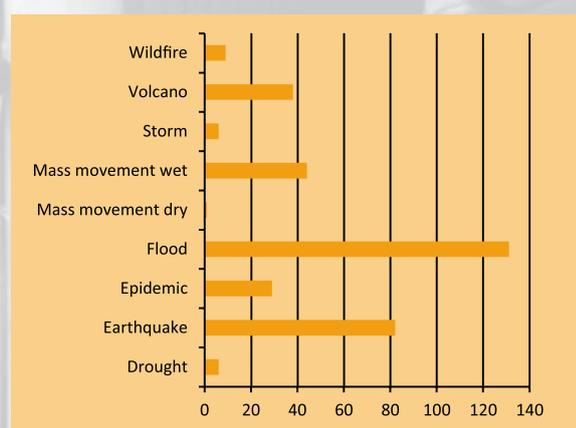
IOM DRR responses

Preparedness	Emergency	Cross-cutting
Preparing communities Building institutional capacities Bridging responses Providing information	Assisting the displaced	Livelihoods Health

Top 10 natural disasters by size of affected population, 1980–2013

Disaster	Date	Affected
Earthquake	2006	3,177,923
Wildfire	1994	3,000,000
Earthquake	2009	2,501,798
Drought	1997	1,065,000
Flood	2006	618,486
Flood	1996	556,000
Earthquake	2004	532,898
Flood	2002	500,750
Epidemic	1986	500,000
Earthquake	2007	459,567

Natural disaster occurrence, 1980–2013





Background

Indonesia is the world's largest archipelago, with over 17,000 islands spread north and south of the equator. Located in the highly seismic Pacific Ring of Fire, the country is frequently exposed to geophysical hazards such as earthquakes, tsunamis and volcanic eruptions. The frequency of reported hydro-meteorological (e.g. tropical storms, landslides and floods) and climatological (e.g. droughts and fires) hazards has been increasing over the past few years.

Significant shares of the local population remain minimally resilient to disasters. The most important drivers of risk include environmental degradation, high population density and urbanization, settlement in high-risk areas, poor infrastructure, overexploitation of natural resources and unsustainable livelihoods.

Over the past decades, natural and man-made hazards, combined with high levels of vulnerability, have resulted in natural disasters that caused significant losses of life and property, displacement and violent shocks to local ecosystems. Climate change has been increasing the frequency and severity of hydro-meteorological hazards, exacerbating risk for local populations.

The Government of Indonesia has demonstrated its commitment to disaster risk reduction (DRR) through its efforts in support of the Hyogo Framework for Action (HFA) and its ratification of the Association of South-East Asian Nations (ASEAN) Agreement on Disaster Management and Emergency Response. As a consequence, the Government has established the National Disaster Management Agency (BNPB) and its subnational counterparts (BPBDs). As many of the provincial and district BPBDs are newly established, capacity development at the institutional level is still needed.

The Government focuses both on incorporating disaster risk reduction in development planning (in order to avoid the creation of risk and to tackle the existing causes of vulnerability) and in promoting risk reduction in post-crisis activities (in order to build back better and safer, avoiding the reproduction of risk conditions). Responsibilities of administrative authorities following disasters, including just fulfillment of rights of impacted communities and internally displaced persons (IDPs), are stated in Indonesia's Disaster Management Law.

Responses

IOM intervention has focused mainly on strengthening the response capacity of the national disaster management authority, as well as making communities more independent in the aftermath of a disaster, especially in the most remote areas. Through its Humanitarian Assistance Program (HAP), the Organization directly assists people affected and displaced by natural disasters, in accordance with its role in the Inter-agency IDP Task Force and the Humanitarian Cluster System in the country.

In recent emergencies, IOM led joint assessments of the population's needs and directly provided non-food items (NFIs) and shelter assistance. Affected populations were referred to relevant agencies for other forms of specialized assistance.

IOM Indonesia has been working in disaster response for more than three decades. Acknowledging the increased incidence and severity of natural disasters, it has become increasingly involved in DRR efforts. The Organization is an active member of the United Nations Country Team and is a signatory to the UN Partnership for Development Framework, which is the result of collaboration between the United Nations and Indonesia. Guided by the Indonesian Government's National Disaster Risk Reduction Action Plan, IOM has established a comprehensive strategy to support local efforts to reduce vulnerability and enhance the resilience of communities to natural disasters at all levels.

IOM Indonesia's DRR programme focuses on supporting the Government's efforts to reduce vulnerability and enhance communities' preparedness and resilience to natural disasters. The Organization helps to bridge the gap between the national and decentralized levels by strengthening the disaster management capacity of the provincial and district disaster management agencies; enhancing comprehensive and multisectoral planning and preparedness activities of district and provincial government offices; and linking communities to government, civil society and private-sector DRR stakeholders, with the aim to drive the national DRR agenda.

In addition, IOM intervenes to directly address risk conditions at the local level, in order to reduce disaster losses and prevent and manage disaster-induced displacement. Applying a multidisciplinary and multi-hazard approach, the Organization works to strengthen the capacities of disaster

management agencies, local governments, civil society and communities to reduce disaster risk and mainstream disaster risk reduction in development planning.

Through technical support, coordination and technology, the Organization strengthens information and data management and builds risk assessment and monitoring capacity. At the community level, IOM promotes community-based disaster risk management (CBDRM) and helps to increase communities' preparedness through village action plans. In addition, it has directly reduced hazard exposure and increased the resilience of income-generating activities, through structural hazard mitigation measures, as well as preparedness, wide communication and awareness-raising in various high-risk communities across the country.

Results achieved

IOM activities have contributed to supporting national and local authorities in their risk reduction efforts. The Organization has supported the development of local human resources, by training representatives from public administrations throughout the country. In particular, BPBDs and district health offices personnel received training in disaster management, preparedness and response, and comprehensive district-wide disaster management plans were built. In addition, IOM strengthened the capacities of the main risk assessment actors and widely improved early-warning/early-action systems. As a consequence, government institutions and sub-national actors are today better prepared and can respond to disasters in a more coordinated fashion.

At the community level, IOM rolled out disaster preparedness and risk reduction trainings, created community-based disaster response committees and constructed hazard-mitigating infrastructure in 10 high-risk communities. The Organization also contributed to enhancing the resilience of communities through livelihood restoration and protection interventions. Activities at both the national and local levels were supported by a strong campaign to raise awareness on disaster risk. At least 1 million people have been reached by information, education and communication materials (e.g. newsletters and other publications).

Increased awareness allowed IOM to foster the participation of a broad range of stakeholders into disaster management and risk reduction activities,

thereby strengthening the linkages between communities and relevant authorities. Civil society DRR forums were able to work as recognized partners with subnational government bodies in the design and implementation of DRR projects, and collaboration and partnerships among DRR actors was significantly strengthened.

Future objectives

Guided by the Government of Indonesia's National Disaster Risk Reduction Action Plan, IOM Indonesia will continue to support the Government's efforts to reduce vulnerability and enhance the resilience of communities to natural disasters. Sustainable development can only be pursued through effective risk reduction, better disaster preparedness and by addressing the impacts of a changing environment on human communities. Applying a multidisciplinary and multi-hazard approach, IOM will work to mainstream DRR into development policies and programmes at all levels.

The Organization will continue to equip disaster management stakeholders at the national and subnational levels with technical expertise and capacities, in order to contribute to national development goals. In particular, it will continue to promote risk awareness, strengthening in-country information and data management, risk assessment and risk-monitoring capacities.

At the community level, IOM will actively engage in promoting community-based risk management and climate change adaptation practices, in order to promote the safety of the people most at risk. The Organization aims at reducing existing vulnerabilities, in particular in high-risk areas threatened by a multitude of hazards, and at further improving preparedness and response capacities to increase resilience and self-reliance in the face of hazardous events. Throughout its intervention, IOM will continue to facilitate the participation of communities in local decision-making processes and multi-stakeholder DRR platforms. Partnerships and collaboration with multi-stakeholder parties, including universities and the private sector, will be actively pursued.

Relevant materials

- *Community-Based Disaster Risk Management: Experiences from Indonesia*, available from www.iom.or.id/publications/pdf/30_CBDRM_Handbook_english_lo.pdf.
- Various IOM Indonesia publications, available from www.iom.or.id/publications.jsp?lang=eng.
- IOM Indonesia multimedia materials, available from www.iom.or.id/videogallery.jsp?lang=eng.

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List of projects

Strengthening Disaster Risk Reduction (DRR) Capacity and Promoting Community Resilience in West Java

Project status	Active
Project period	15 May 2012 to 15 May 2014
Beneficiaries	1,000,000 people and 570 local authority staff
Amount funded (in USD)	3,850,390
Partners	National Development Planning Agency (BAPPENAS), West Java Development Planning Agency (BAPPEDA), National Disaster Management Agency (BNPB); subnational disaster management agencies (BPBDs) in targeted areas, and provincial and district government personnel

Merapi Volcanic Eruption Livelihoods Recovery Programme

Project status	Completed
Project period	10 February 2012 to 09 February 2013
Beneficiaries	Affected communities and local authority staff
Amount funded (in USD)	329,662
Partners	UN Development Programme and the Food and Agriculture Organization

Emergency Operations Centres for Enhanced Disaster Preparedness and Response Capacity

Project status	Active
Project period	01 June 2012 to 31 March 2014
Beneficiaries	Local authority staff and affected communities
Amount funded (in USD)	2,917,767
Partners	BNPB, BPBDs, Australia-Indonesia Facility for Disaster Risk Reduction

Enhancing Disaster Preparedness and Response Capacity in Garut District, West Java

Project status	Completed
Project period	01 June 2010 to 31 October 2011
Beneficiaries	Vulnerable groups
Amount funded (in USD)	470,000

Indonesia Geological Disasters Emergency Response – Mentawai Islands and Mount Merapi

Project status	Completed
Project period	27 October 2010 to 26 January 2011
Beneficiaries	13,000 IDPs
Amount funded (in USD)	674,631

Logistics Support: Earthquake- and Tsunami-affected Mentawai Islands

Project status	Completed
Project period	02 November 2010 to 30 April 2011
Beneficiaries	14,983 affected communities
Amount funded (in USD)	400,000

Strengthening Disaster Risk Reduction (DRR) Capacity and Promoting Community Resilience in Aceh

Project status	Active
Project period	22 August 2012 to 22 August 2014
Beneficiaries	100 Government personnel, 200 local authority staff and 500,000 people
Amount funded (in USD)	1,650,439
Partners	BAPPENASBAPPEDA, BNPB, BPBDs at the provincial and district levels and the provincial and district government

Preparation Cost for AEDFF Project in Aceh Province

Project status	Completed
Project period	21 December 2010 to 31 March 2012
Amount funded (in USD)	3,687,089
Partners	BAPPENAS, BAPPEDA, Ministry for Disadvantaged Areas, Jembatan Massa Depan, Gaja Putih University, Aceh Coffee Forum, Speciality Coffee Association of Indonesia, Village Outreach Coordinator

MYANMAR

© IOM 2008 (Photo: Piers Benatar).

Surface area	652,864 km ²
Population, 2010 (est.)	47.9 million
Population density, 2010	70.9/km ²
GDP in 2011	Data not available
GDP per capita in 2011	Data not available
Remittances, 2011	USD 137 million
HDI	0.498
Net migration rate, 2010–2015	-0.6 migrants/1,000 population
Types of movement	Rural-to-rural migration, permanent migration, cross-border displacement, internal displacement, stranded/trapped
Displaced by disasters, 2008–2012	1,852,985
Number of IOM staff working on disasters	20
Location of IOM offices	Yangon, Thaton, Ye, Mawlamyine, Bogale and Mawlamyinegyun
Total DRR funding for 2013 in USD	USD 3,000,000
IOM site: www.iom.int/cms/en/sites/iom/home/where-we-work/asia-and-the-pacific/myanmar.html	

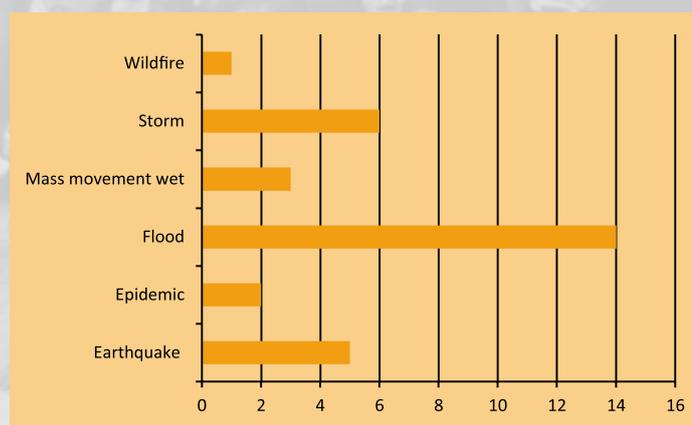
IOM DRR responses

Prevention	Preparedness	Emergency	Mitigation	Recovery	Cross-cutting
Reducing hazards	Preparing communities Building institutional capacities Bridging responses	Tracking displacement Assisting the displaced	Mitigating the impact	Durable solutions	Livelihoods Health Infrastructures

Top 10 natural disasters by size of affected population, 1980–2013

Disaster	Date	Affected
Storm	2008	2,420,000
Flood	1991	359,976
Storm	2010	260,000
Mass Movement Wet	2010	145,000
Flood	1997	137,418
Flood	2007	101,920
Storm	1994	64,970
Flood	2007	61,744
Storm	2006	60,106
Flood	2002	50,000

Natural disaster occurrence, 1980–2013



Background

Myanmar is exposed to a variety of hazardous natural phenomena. The northern part of the country is seismically active, and the western and southern coastlines are exposed to cyclones, storm surges and tsunamis. Rainfall-induced flooding is a recurring phenomenon across the country. The hilly and mountainous regions in the upper reaches of the river systems are frequently hit by landslides and flash floods, while riverine floods are common in the deltas. In addition, large parts of the territory are at risk of fires. While the monsoon season has shortened over the last two decades, rainfall has become more intense, surpassing the usual levels and causing localized flooding from time to time in cities and towns.

South-east Myanmar is host to hundreds of “cluster communities” pushed into the region by livelihood vulnerability. Most of the households in these communities now make a living in rubber plantations, brick factories, fishing and fish processing operations and farming. Such communities are typically established in semi-

permanent settlements in marginal peripheries, often in remote, government-controlled or ceasefire areas. Aside from remoteness, these populations suffer from poor integration into their host communities, lack of access to basic services and poor living and working conditions. In addition, they tend to be highly vulnerable to natural disasters.

Settlements in the south-east are vulnerable to the possible influx of people fleeing disasters in neighbouring areas, as well as of displaced populations from lower and middle Myanmar. IOM documented the displacement in the aftermath of Cyclone Nargis in 2008 and highlighted the lack of adequate preparedness and capacity to cope with massive population movements in the communities of destination. Disaster preparedness planning does not take into sufficient account the threat of recurring natural events (e.g. flooding) and severe economic downturns (e.g. those of 1997 and 2008–2009) in neighbouring Thailand, which affect Myanmar’s south-eastern border (e.g. short-term, large-scale migrant returns through key border-crossing points such as Mae Sot-Myawaddy, as witnessed in October 2011).

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Responses

The overall aim of the DRR (disaster risk reduction) interventions of IOM in Myanmar is to enhance the capacity of communities and institutions at different levels to adequately manage migration as well as reduce disaster risks faced by migrants, by populations displaced by natural disasters and by host communities. In collaboration with ministries and institutional task forces on preparedness, risk reduction and response, IOM Myanmar's DRR programme aims to support the Myanmar Action Plan on Disaster Risk Reduction (MAPDRR), 2009-2015.

IOM supports the development of village disaster management committees; rolls out training in internationally accepted humanitarian assistance management for local duty-bearing officials; and promotes the standardization of government response capacities in key sites in Myanmar affected by natural disasters. The Organization is working, for example, with township authorities in Hlaingbwe to comprehensively review the existing Township Disaster Management Plan (TDMP), which focuses on enhancing disaster management and coordination procedures. Revision of the Mon State TDMP will soon begin.

In Myanmar's south-east, which borders Thailand and suffers from frequent floods and occasional cyclones and storm surges, IOM has focused on reducing the vulnerability of displaced and migrant populations. The current DRR programme in the south-east aims to enhance the capacities of 55,000 individuals (as well as a number of government and township institutions); reduce risk; prepare for and manage emergencies; and plan for post-event recovery and rehabilitation. In particular, the Organization builds local capacities in camp management for national- and township-level disaster responders.

Lastly, IOM Myanmar was involved in the response to Cyclones Nargis (2008) and Giri (2010) by deploying its Displacement Tracking Matrix (DTM) and directly assisting the affected populations. Recovery activities have focused on collaborating with the Ministry of Health to strengthen health systems and rebuild damaged facilities and infrastructure. In partnership with local non-governmental organizations (NGO)s, the Organization also developed a model of psychosocial support to people traumatized by the disasters.

Results achieved

IOM awareness-raising activities have so far reached about 27,500 households in south-east Myanmar alone. The Organization is presently rolling out technical assistance and training to 60 target villages in the project area to develop the comprehensive Village Action Plans for Disaster Mitigation and Response. Thirty village-level assessments have been completed and 30 village disaster management committees have already been established.

In addition, the Organization was able to mainstream DRR measures into its cyclone response in 2008 and 2010. Displacement tracking was regularly performed in order to inform interventions which assist the most vulnerable households, and the Organization specifically trained cyclone-prone communities in enhanced construction techniques.

Future objectives

IOM Myanmar seeks to work with national counterparts to implement key priorities of the MAPDDR. This includes a strong focus on community-based disaster risk reduction; the enhancement of capacities for disaster response and management at the upper levels of Government; investment in infrastructure for response (including support for the development of a national early-warning system); and a strong focus on the vulnerability of migrants and displaced communities, both in areas of origin and destination.

There is significant potential to mainstream the experience of IOM in Burma in reducing risk for migrant communities into national DRR and capacity-building policies in the near and medium term.

Relevant materials

- Myanmar Action Plan on Disaster Risk Reduction (MAPDRR,) 2012, available from www.rrdmyanmar.org/index.php?name=document&file=preview&m=&id=22.
- Hazard Profile of Myanmar (July 2009), available from www.adpc.net/v2007/IKM/ONLINE%20DOCUMENTS/Default-DOCUMENTS.asp.
- Multi-hazard Risk Assessment in Rakhine State of Myanmar (January 2013). (Myanmar version only), available from <http://themimu.info/mwg-internal/de5fs23hu73ds/progress?id=4XfMfr7Q5l>.
- *Consultation on Emerging DRR Needs in Exchange Context of MYANMAR*, available from <http://themimu.info/mwg-internal/de5fs23hu73ds/progress?id=ISWe9bOgDk>.
- Manuals on earthquakes, floods fires and cyclones (English and Myanmar versions), available from http://themimu.info/DRRWG/index.php?name=publication&file=sorttype&page_id=29&doc_type=23&page=2#tab1.
- *Study on Disaster Vulnerability and Preparedness of Small and Medium Scale Fisher Folks in Coastal Region of Myanmar*, available from http://themimu.info/download.php?file=DRRWG/doc_file/MIMU_FILE_1338546510_Fisher%20Folk_Research.pdf.

List of projects

Community-based Disaster Risk Reduction Initiatives in South-east Myanmar

Project status	Active
Project period	4 June 2012 to 31 December 2013
Beneficiaries	55,000 people at risk, 180 Government personnel
Donor	United States Agency for International Development and the Office of Foreign Disaster Assistance
Amount funded (in USD)	1,000,000

2012 ER Global Pre-positioning: Myanmar

Project status	Completed
Project period	22 March 2012 to 22 March 2013
Beneficiaries	1,750 people
Donor	AmeriCares Foundation
Amount funded (in USD)	10,000
Partners	International NGO personnel and partners, local NGO and civil society organization personnel and the Myanmar Red Cross

Physical Protection and Safe Water for Exposed and Vulnerable Households in Cyclone Giri-affected Areas in Rakhine State

Project status	Completed
Project period	1 May 2011 to 29 February 2012
Beneficiaries	18,900 people
Donor	ECHO
Amount funded (in USD)	1,731,006

Durable Shelter and Livelihood Solutions for Displaced and Other Vulnerable Persons in Cyclone-affected Areas

Project status	Completed
Project period	1 March 2009 to 31 December 2009
Beneficiaries	72,681 IDPs
Donor	Humanitarian Aid and Civil Protection Department of the European Commission (ECHO)
Amount funded (in USD)	2,000,000

Livelihood and Shelter Recovery in the Ayeyarwady Delta

Project status	Completed
Project period	10 June 2009 to 30 April 2011
Beneficiaries	1,000 families of affected communities
Donor	United Kingdom Department for International Development
Amount funded (in USD)	500,000

NEPAL

© IOM 2009 (Photo: Kari Collins).

Surface area	147,181 km ²
Population, 2010 (est.)	29.9 million
Population density, 2010	203.6/km ²
GDP in 2011	USD 18.8 billion
GDP per capita in 2011	USD 619
Remittances, 2011	USD 3.9 billion
HDI	0.463
Net migration rate, 2010–2015	-0.6 migrants/1,000 population
Types of movement	Rural-to-urban migration, internal displacement
Displaced by disasters, 2008–2012	373,676
Number of IOM staff working on disasters	3
Location of IOM offices	Kathmandu and Damak
Total DRR funding for 2013 in USD	Data not available

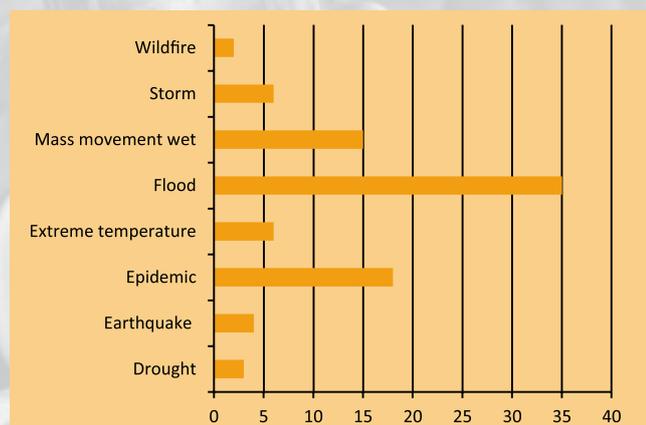
IOM DRR responses

Preparedness	Emergency
Preparing communities Building institutional capacities	Assisting the displaced

Top 10 natural disasters by size of affected population, 1980–2013

Disaster	Date	Affected
Flood	2004	800,015
Flood	2007	640,706
Flood	1993	553,268
Flood	1987	351,000
Drought	2009	303,000
Earthquake	1988	301,016
Mass mov. wet	2002	265,865
Flood	2009	257,786
Earthquake*	1980	240,600
Flood	1983	200,050

Natural disaster occurrence, 1980–2013



Background

Nepal has a significant diversity of ecosystems resulting from its highly varied topography (land rises abruptly from 70 to 8,848 metres) and climatic conditions. The country lies on an active seismic zone on the boundary of the Indian and Eurasian plates. The combination of geological, topographic and hydro-meteorological features in Nepal exposes the country to frequent and severe natural hazards. The country is frequently hit by earthquakes, epidemics, fires, floods and climatic hazards (such as droughts and extreme temperatures). It is also one of the world's landslide hotspots. Kathmandu, the capital city, and its valley are seismically active and exposed to a variety of natural and man-made hazards.

According to the Ministry of Home Affairs, an average of one disaster and two deaths occur in the country every day, which significantly challenges the country's response and coping capacity. Risk is driven mainly by socioeconomic factors such as poverty, illiteracy and environmental degradation, the last of which due partly to rapid population growth and the prevalence of unplanned settlements. Many people, especially the poor and marginalized groups, live in unsafe sites and conditions.

Climate change is further aggravating the country's disaster risk, which, in turn, directly and indirectly affects population movements. In addition, a ten-year armed conflict, which has led to large-scale internal displacements and to a complex political transition, has further aggravated the vulnerability of people all over the country, as governmental and local institutions struggle to implement disaster risk reduction (DRR) measures and provide effective relief and responses in times of crisis.

In August 2008, Nepal was hit by recurring floods that affected 7,563 households and 42,765 persons in the eastern districts of Sunsari and Saptari, following the collapse of the Koshi River embankment. In July 2012, an estimated 2,200 households were affected and 145 families were displaced by a flash flood in the Dang District. In September, after several days of continuous downpour, more than 600 families were displaced by flooding from the different rivers in the Kanchanpur District.

Extreme weather events and associated landslides and floods result in rural-to-urban migration, as well as outmigration. According to a recent Asian Development Bank report, increasing flood risk is driving forced mobility, as floods cause crop and livestock losses, which ultimately lead to impoverishment and malnourishment. Climate dynamics, particularly the expected increase in the variability of rainfall regimes, suggest that agriculture in Nepal will face immense challenges as seasonal droughts become more frequent and severe.

Responses

IOM has consistently focused on strengthening and supporting the response capacity of the Government of Nepal. In 2008, for example, the Organization supported 43,000 individuals from the 7,573 families affected by the Koshi floods. As the Camp Coordination and Camp Management Cluster Lead, it was responsible for a range of activities that included site planning, information management, coordination, procurement, distribution of non-food items, formation of camp management committees and disaster preparedness trainings. In addition, the Organization prepared draft emergency earthquake response plans for the Kathmandu, Lalitpur, Kirtipur and Madhyapur municipalities.

In order to address the specific challenges of preparedness and response in densely populated urban areas, IOM conducted an assessment of existing open spaces that could be used for humanitarian purposes in Kathmandu Valley in the event of disaster. A total of 83 sites were identified, and a national gazette notification is underway to protect these sites from encroachment. IOM is now undertaking a GIS (geographic information system) study of the 83 sites which will allow for future preparedness activities.

Results achieved

Around 43,000 persons benefited from shelter, rehabilitation and relocation intervention that IOM carried out during the Koshi floods in 2008. IOM was also responsible for longer-term awareness-raising and capacity-building interventions, which enhanced the communities' preparedness for future floods.

Municipalities in the Kathmandu Valley can now rely on emergency response plans in the event of major earthquakes. One of the main bottlenecks of the response operations – the lack of sufficient space for internally displaced person camps and other humanitarian purposes – has been addressed through the identification and protection of 83 empty sites in the conurbation, while capacities at the municipal level is being built through training and simulations targeting municipal officials. Due to the collaboration of IOM with national and local authorities at all levels, there is now significant ownership of the DRR process by local stakeholders.

Future objectives

The GIS mapping exercise of the 83 humanitarian sites is still ongoing, while the Government of Nepal has already approved the open spaces for inclusion in gazette notification. Upon completion, the project will have significantly strengthened the preparedness of the institutions governing the biggest urban community in the country. However, pre-positioning humanitarian items and protecting sites from encroachment will be a major challenge. In addition, IOM is working with the United States Agency for International Development (USAID) and Nepal's Ministry of Home Affairs on the possibility of piloting a rubble removal project in the aftermath of future earthquakes, in order to speed up reconstruction and allow for more effective recovery.



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List of projects

Site De-confliction and IDP Site Planning for 83 Open Spaces in the Kathmandu Valley

Project status	Completed
Project period	21 June 2012 to 20 November 2012
Beneficiaries	900,000 people at risk
Donor	United States Agency for International Development and the Office of Foreign Disaster Assistance
Amount funded (in USD)	82,740
Partners	Ministry of Home Affairs, Department of Urban Development and Building Construction, Nepalese Army, Ministry of Local Development, Ministry of Education, Ministry of Health and Population, Ministry of Defence, National Society for Earthquake Technology, Nepal Red Cross Society and the Office for the Coordination of Humanitarian Affairs

PAKISTAN



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Surface area	796,095 km ²
Population, 2010 (est.)	173.5 million
Population density, 2010	218.1/km ²
GDP in 2011	USD 210.2 billion
GDP per capita in 2011	USD 1.189
Remittances, 2011	USD 12.1 billion
HDI	0.515
Net migration rate, 2010–2015	-0.9 migrants/1,000 population
Types of movement	Rural-to-urban migration, permanent migration, internal displacement, secondary displacement, return
Displaced by disasters, 2008–2012	14,990,525
Number of IOM staff working on disasters	129
Location of IOM offices	Islamabad, Lahore, Karachi, Mirpur, Peshawar, Multan, Hyderabad and Sukkur
Total DRR funding for 2013 in USD	USD 1,288,750
IOM site: www.iom.int/cms/en/sites/iom/home/where-we-work/asia-and-the-pacific/pakistan.html	

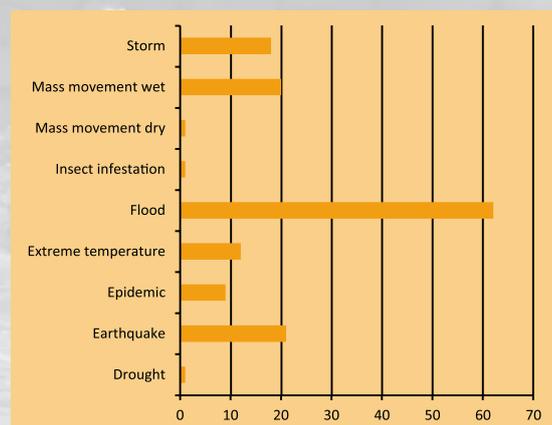
IOM DRR responses

Prevention	Preparedness	Emergency	Mitigation	Recovery	Cross-cutting
Reducing hazards	Preparing communities Building institutional capacities Bridging responses Providing information	Managing mass evacuations Tracking displacement Assisting the displaced Building DRR into response	Reducing the footprint	Durable solutions	Livelihoods Land and property Health Infrastructures

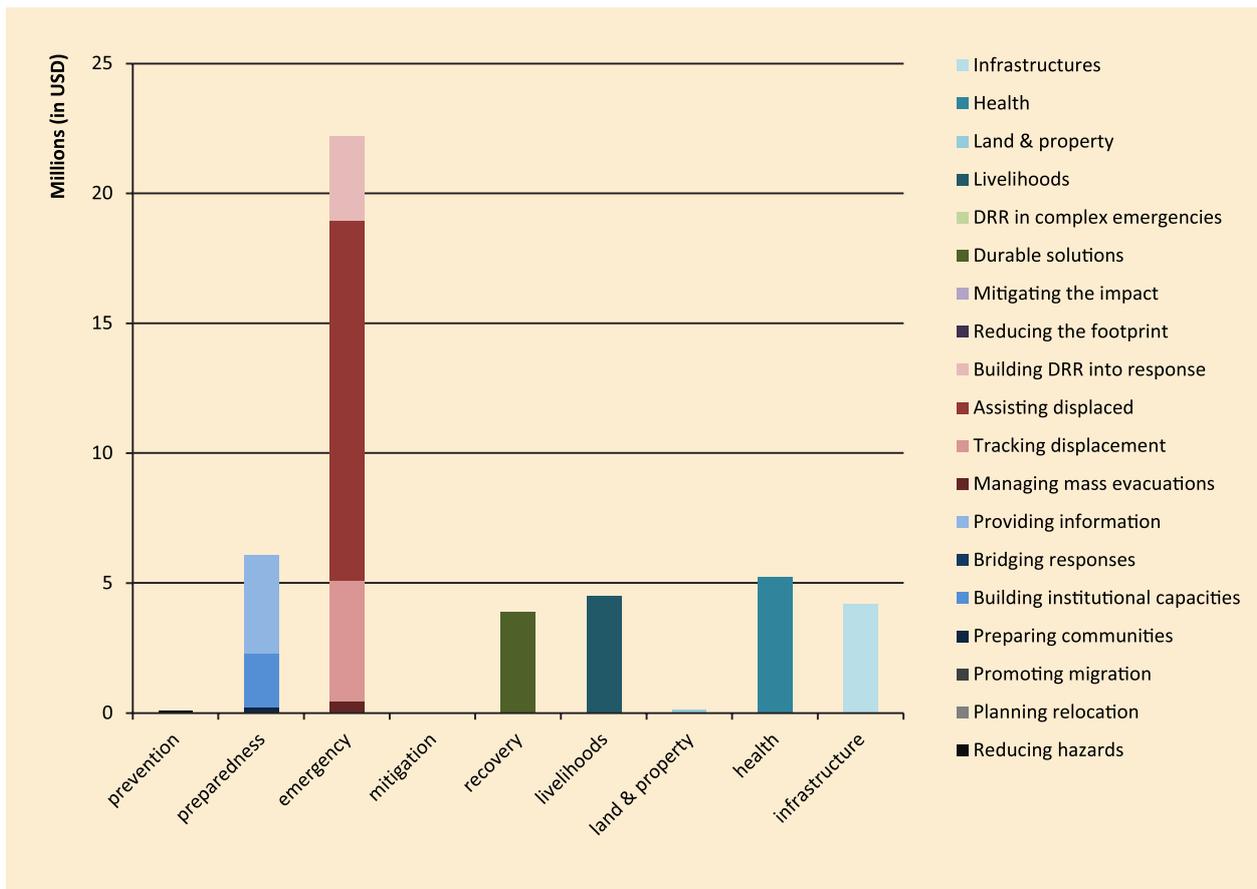
Top 10 natural disasters by size of affected population, 1980–2013

Disaster	Date	Affected
Flood	2010	20,359,496
Flood	2005	7,000,450
Flood	1992	6,655,450
Flood	1992	6,184,418
Flood	2011	5,400,755
Earthquake	2005	5,128,309
Flood	2012	5,049,364
Drought	1999	2,200,000
Storm	2007	1,650,000

Natural disaster occurrence, 1980–2013



Total funding used by IOM in Pakistan between 2009 and 2013, by type of activity



Pakistan is arguably the country where the disaster-related activities of IOM were more heavily targeted towards relief. Over the last years, the country was struck by a series of major natural disasters, leaving little room for long-term programming.

Background

Pakistan is exposed to a wide range of natural hazards. In the North, the mountainous regions of Gilgit-Baltistan and Kashmir are prone to earthquakes, avalanches, glacial lake outburst floods, landslides, floods and droughts. The central drylands and plains are regularly hit by floods and flash floods, drought, insect infestations and river erosion. Coastal areas in the South are exposed to drought, in addition to cyclones and storm surges, while urban areas all across the country suffer from recurrent floods triggered by heavy rains.

The main factors behind social vulnerability include widespread poverty, gender-based discriminations, poor governance, insufficient access to services and risk transfer mechanisms, rapid urbanization, environmental degradation and low levels of education. In addition, conflict in the north-western part of the country has led to the disruption of local

livelihoods and key infrastructure, forcing hundreds of thousands of people out of the region.

Security issues, water and food scarcity, lack of access to land and income opportunities have resulted in forced population movements, which have further increased the vulnerability of local populations and hindered relief and recovery activities after the numerous disasters in recent times. As a result, the capacity of much of the Pakistani population to cope with crises is limited, especially in the case of migrant individuals and communities.

Until the 2005 earthquake that killed 73,000 and affected more than 5 million, with 3.5 million people displaced, disaster management in Pakistan had consisted only of post-disaster rescue and relief efforts, lacking institutional arrangements to facilitate the implementation of disaster risk reduction (DRR) programmes. In 2006, the promulgation of the National Disaster Management Ordinance, which is responsible for comprehensive

risk reduction activities before, during and after disasters, paved the way for the creation of disaster management authorities at the national, provincial and district levels.

In recent years Pakistan regularly suffered from natural disasters. In 2010, some of the heaviest floods on record left almost one fourth of the country under water, affecting 20 million people and displacing about 11 million. In 2011, floods again displaced 4 million people, mostly in Sindh and Balochistan, many of whom had already been displaced the year before. New floods affected 5 million more people in Sindh, Balochistan and Punjab in 2012. The most vulnerable of the displaced population were poor families who did not have the resources to flee to safe areas. These vulnerable people ended up trapped by rising waters in areas that were difficult to reach by aid providers. High waters heavily hampered ongoing efforts to provide durable solutions for the displaced.

Responses

Over the past five years, IOM Pakistan has been increasingly involved in implementing various programmes in emergency management, recovery and reconstruction, community stabilization and disaster risk management (DRM) under the One UN Programme. Prevention and response to floods have been the main concern, with the Organization taking a leading role in pre-positioning and providing shelter and non-food items (NFIs).

In response to the 2012 floods, IOM has focused on providing humanitarian assistance to the displaced. Based on a strong partnership with the authorities and local partners, IOM has implemented humanitarian and recovery programmes that mainstream community-based, long-term risk reduction approaches. In order to inform emergency assistance activities provided by humanitarian actors and national authorities, the Organization set up the Humanitarian Communication (Hcomms) Project, which provides real-time, two-way communication to and from the field.

Capacity-building at the community and institutional levels is another main concern for Pakistan. IOM has been supporting local partners in developing hazard-resistant construction (and reconstruction) methods and land-use practices that reduce the population's exposure to hazards. In addition, local personnel have been trained to further guide beneficiaries in safe construction practices.

Starting 2011, IOM has been conducting camp coordination and camp management (CCCM) capacity-building activities in various parts of Pakistan, with the aim of enabling local actors to provide assistance and protection to internally displaced persons (IDPs) in camps and transitional settlements. In addition, community-based disaster risk management (CBDRM) trainings have been organized in three flood-prone districts of Punjab (specifically, Jhang, Bhakkar and Dera Ghazi Khan) identified by the National Disaster Management Authority as priority areas for DRR interventions.

Results achieved

A significant share of the victims of recent floods have been assisted through relief and recovery measures. Provision of emergency shelter and NFIs, health services and humanitarian communications benefited 2.7 million individuals in 2010, more than 1 million individuals in 2011 and 40,000 households in 2012. Recovery programmes which contained components in structural flood prevention and mitigation, rehabilitation of community infrastructure, female grants and the provision of agricultural tools reached approximately 1 million people. Around 22,500 households in 60 communities are being supported to build low-cost shelters that incorporate DRR and WASH (water, sanitation and hygiene) features, and winterization and early-recovery shelter interventions is expect to reach an additional 30,000 families. Through its Hcomms Project, IOM produced and distributed radio broadcasts, guidance notes and documents on emergency-related topics.

CBDRM training benefited 410 community members, including 101 women, in three flood-prone districts of Punjab from 2010 to 2012. Trainees were also provided with response equipment and worked with district disaster management authorities and district governments in relief and rescue operations following the 2010 floods.

Exactly 961 government officials, NGO and international NGO staff and community volunteers in 17 disaster-prone districts have been reached through CCCM capacity-building activities, which include training of trainers, practitioner's training, emergency training and workshops. (CCCM resources and training materials are available for dissemination on the initiative's website: www.cccmcapacitybuildingpakistan.com.)

Some 136 staff members from 25 local organizations have been trained as master trainers for the Building Back Safer with Vernacular Methodologies programme. These individuals thereafter conducted 1,371 shelter technical training sessions that benefited 31,368 people, including 12,316 women, already targeted by ongoing shelter programmes.

The key result of community involvement is the sustainability of community-level initiatives for disaster reduction. Community members have been empowered to make decisions and are involved during the implementation of DRM activities. The support for, and involvement of, the most vulnerable groups have been crucial for the successful implementation of these activities.

Future objectives

IOM aims at empowering communities, vulnerable groups, grassroots organizations and local authorities in high-risk areas, so as to strengthen their capacity to prepare for, respond to and recover from disasters, as well as adapt to the effects of climate change. Through humanitarian assistance, the Organization seeks to prevent the loss of shelter and supports populations affected by natural and man-made disasters, to help them regain a minimum level of self-sufficiency without undermining existing coping mechanisms. The Organization also recognizes the critical role communities play in the sustainability of any risk

reduction measure and, building on its networks across the country, plans to expand its CBDRR/CBDRM programme to vulnerable districts in all provinces of Pakistan.

IOM is aware that national Government and local authorities serve as key actors in managing risk and reinforcing disaster resilience in communities. Therefore, improving the national, provincial and district capacities to provide a systematic and structured approach to assisting and protecting at-risk and already-affected populations – especially IDPs in camps and collective centres – is essential. The Organization also aims to enhance operational linkages with the local government, local organizations and the private sector, through coordination, information management and communications activities. The support will include the formulation and implementation of contingency plans provided to district government and local organizations in a minimum of 17 districts across six provinces.

The IOM intervention in Pakistan will follow an integrated approach in which components pertaining to preparedness, shelter/housing, camp coordination and camp management and humanitarian communications will become part of the One UN Programme, which features disaster risk reduction as a “Strategic Priority Area” (specifically, SPA-III). Activities will increasingly integrate phased exit strategies with periodic follow-ups by various designated stakeholders that allow monitoring and sustainability.

Related materials

- CCCM Cluster (Pakistan) webpage: <http://iom.int/cms/en/sites/iom/home/what-we-do/humanitarian-emergencies/cccm/pakistan.html>
- Humanitarian Communications Project website: <http://hcomms.iomapps.org>.

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List of projects

Contingency-Planning Support for Disaster-affected Populations in Pakistan

Project status	Completed
Project period	15 August 2011 to 29 February 2012
Beneficiaries	37,440 families from affected communities
Donor	United Kingdom Department for International Development (DFID)
Amount funded (in USD)	689,019

Emergency Shelter Support to the Most Vulnerable Population during the Sindh Floods of 2011

Project status	Completed
Project period	29 September 2011 to 29 March 2012
Beneficiaries	42,000 vulnerable and at risk people
Donor	Central Emergency Response Fund (through a Rapid Response grant)
Amount funded (in USD)	1,500,043

Emergency and Early-recovery Shelter Support for the Flood-affected Population in Sindh Province

Project status	Completed
Project period	31 October 2011 to 31 October 2012
Beneficiaries	Affected communities
Donor	DFID
Amount funded (in USD)	6,389,776
Partners	National Disaster Management Authority (NDMA), Provincial Disaster Management Authority (PDMA) – Sindh, Shelter Cluster partners

2011 Pakistan Monsoon Rains and Flood Appeal – Emergency Shelter and NFI Component (Shelter Support for the Flood-affected Population of Sindh Province)

Project status	Completed
Project period	27 October 2011 to 31 March 2012
Beneficiaries	Affected communities
Donor	Canada, Canadian International Development Agency (CIDA)
Amount funded (in USD)	753,769

Emergency Shelter and Cluster Coordination Support for Flood-affected Populations in Pakistan

Project status	Completed
Project period	15 November 2011 to 14 May 2012
Beneficiaries	66,057 internally displaced persons (IDPs)
Donor	Humanitarian Aid and Civil Protection department of the European Commission (ECHO)
Amount funded (in USD)	2,000,000
Partners	International NGO personnel and partners; local NGOs and CSOs

Support to the Shelter and Non-food Item (NFI) Cluster, Temporary Settlements Support Unit and District Focal Points

Project status	Completed
Project period	1 November 2011 to 30 May 2012
Beneficiaries	37,200 people
Donor	United States Agency for International Development (USAID)
Amount funded (in USD)	1,800,000

Early-recovery Support and Residual Relief to the Flood-affected Population of Sindh Province

Project status	Completed
Project period	1 January 2012 to 31 December 2012
Beneficiaries	5,000 families of affected communities, Government personnel and local authority staff
Donor	Poland
Amount funded (in USD)	299,350
Partners	Government personnel and partners, NDMA and PDMA (Sindh)

Early Recovery Support and Residual Relief to the Flood-affected Population of Sindh Province

Project status	Completed
Project period	1 January 2012 to 31 March 2013
Beneficiaries	5,000 families of affected communities, Government personnel and local authority staff
Donor	Finland
Amount funded (in USD)	655,308
Partners	NDMA and PDMA (Sindh)

Non-Food Items, Transport and Humanitarian Communications for IDPs and Returnees to the Federally Administered Tribal Areas of Pakistan

Project status	Completed
Project period	1 April 2012 to 31 December 2012
Beneficiaries	2,259,965 IDPs
Donor	Private sector
Amount funded (in USD)	1,359,269

Provision of Security Awareness Induction Support to the Humanitarian Community in Pakistan

Project status	Active
Project period	14 June 2012 to 13 June 2013
Beneficiaries	571 staff members of civil society organizations (CSOs) and non-governmental organizations (NGOs)
Donor	ECHO
Amount funded (in USD)	1,055,901

Shelter Support for the Flood-affected Population in Sindh Province

Project status	Completed
Project period	1 May 2012 to 1 May 2013
Beneficiaries	19,500 people
Donor	USAID and Office of Foreign Disaster Assistance (OFDA)
Amount funded (in USD)	3,200,000
Partners	NDMA and PDMA (Sindh)

Citizen Damage Compensation Program (CDCP): Capacity Development of the Grievance Redressal System (Technical Support and Training of Allied Personnel)

Project status	Completed
Project period	29 June 2012 to 15 February 2013
Beneficiaries	Affected communities and local authority staff
Donor	World Bank
Amount funded (in USD)	500,000
Partners	PDMA, National Database and Registration Authority (NADRA) and the World Bank

Early-recovery Shelter Support for Flood-affected Families in Southern Sindh Province

Project status	Completed
Project period	1 June 2012 to 31 August 2012
Beneficiaries	315 people
Donor	Organization for Social Development Initiatives
Amount funded (in USD)	33,040
Partners	NDMA, PDMA and IASC clusters

Emergency Shelter and CCCM Support for the Flood-affected Population of 2012 floods

Project status	Completed
Project period	1 November 2012 to 30 April 2013
Beneficiaries	32,760 environmental migrants
Donor	CERF (under a Rapid Response grant)
Amount funded (in USD)	669,970
Partners	NDMA and PDMA

Research on Improved Shelters for Responding to Floods

Project status	Completed
Project period	15 December 2012 to 13 April 2013
Beneficiaries	Affected communities
Donor	DFID
Amount funded (in USD)	150,000

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Shelter Support for the Flood-affected Population of Sindh Province

Project status	Active
Project period	11 February 2013 to 10 July 2013
Beneficiaries	945 people
Donor	Private sector
Amount funded (in USD)	81,635
Partners	NDMA, PDMA (Sindh) and cluster partners

Shelter and NFI Assistance for the Most Vulnerable Affected Families of Pakistan Floods

Project status	Completed
Project period	1 December 2012 to 31 March 2013
Beneficiaries	25,200 people and 59,850 indirect beneficiaries
Donor	Japan
Amount funded (in USD)	1,000,000
Partners	NDMA, PDMAs, district authorities and cluster partners

Joint UN Programme on Disaster Risk Management in Pakistan

Project status	Completed
Project period	1 January 2010 to 31 December 2012
Beneficiaries	Government personnel and affected communities
Donor	UN Development Programme
Amount funded (in USD)	171,198

Human Resources, Logistics and Rapid Procurement Support to the National Disaster Management Authority for Flood-affected Vulnerable Populations

Project status	Completed
Project period	17 August 2010 to 19 February 2011
Beneficiaries	Affected communities
Donor	USAID
Amount funded (in USD)	500,000

Mass Communications, Health and Coordination Support to Flood-affected Populations

Project status	Completed
Project period	1 September 2010 to 30 November 2010
Beneficiaries	Affected communities
Donor	Canada, CIDA
Amount funded (in USD)	3,302,401
Partners	NDMA, PDMAs, Office for the Coordination of Humanitarian Affairs (OCHA) and Inter-agency Standing Committee (IASC) clusters (Shelter/NFI, Logistics, Health, WASH, Food/Nutrition and Community restoration)

Support for Flood-affected Populations

Project status	Completed
Project period	1 August 2010 to 31 May 2011
Beneficiaries	Affected communities
Donor	Sweden, Swedish International Development Cooperation Agency
Amount funded (in USD)	2,965,599
Partners	NDMA, PDMAs, OCHA and the Community Restoration Cluster of IASC

Humanitarian Assistance to the People Affected by the Flood in the Islamic Republic of Pakistan

Project status	Completed
Project period	1 January 2011 to 31 December 2011
Beneficiaries	450,000 people
Donor	Japan
Amount funded (in USD)	15,000,000
Partners	NDMA, PDMAs and the Community Restoration Cluster of IASC

Mass Communications for Flood Affected to Support Cash Compensation Schemes

Project status	Completed
Project period	1 March 2011 to 31 May 2012
Beneficiaries	Affected communities
Donor	DFID
Amount funded (in USD)	2,228,754

PHILIPPINES



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Surface area	300,00 km ²
Population, 2010 (est.)	93.2 million
Population density, 2010	310.9/km ²
GDP in 2011	USD 224.7 billion
GDP per capita in 2011	USD 2,370
Remittances, 2011	USD 23 billion
HDI	0.654
Net migration rate, 2010–2015	-1.7 migrants/1,000 population
Types of movement	Internal displacement, return
Displaced by disasters, 2008–2012	12,342,896
Location of IOM offices	Manila, Cateel, Davao, Tagum, Trento

IOM site: www.iom.int/cms/philippines

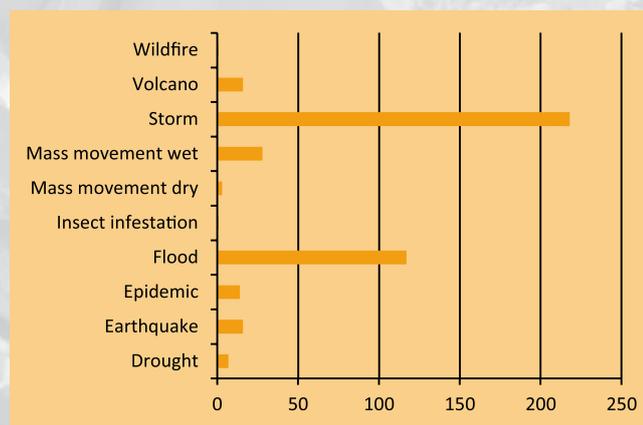
IOM DRR responses

Preparedness	Emergency	Mitigation	Recovery	Cross-cutting
Preparing communities	Tracking displacement Assisting the displaced	Mitigating the impact	Durable solutions	Livelihoods Health Infrastructures

Top 10 natural disasters by size of affected population, 1980–2013

Disaster	Date	Affected
Storm	1990	6,159,569
Storm	2009	4,901,763
Storm	2008	4,785,460
Storm	2009	4,478,491
Storm	1998	3,902,424
Storm	2006	3,842,406
Storm	1988	3,250,208
Drought	1998	2,600,000
Storm	2006	2,562,517
Storm	2000	2,436,256

Natural disaster occurrence, 1980–2013



Background

The Philippines is a volcanic archipelago consisting of about 7,000 Islands. Lying on the Pacific Ring of Fire, the country is prone to earthquakes and the eruptions of its 23 active volcanoes. It also experiences a yearly average of 20 typhoons which trigger frequent floods and landslides. The consequences of these natural hazards include loss of lives and destruction of livelihoods, shelter and infrastructure, often resulting in forced migration and setting back development gains.

Typhoon Bopha, which struck the Philippines in December 2012, severely affected four regions and 12 provinces and was the strongest cyclone to ever hit the southern island of Mindanao. An estimated 6.2 million people were affected, including 1,146 dead and 834 missing, and 233,163 houses were damaged. As of February 2013, the overwhelming majority of the 925,412-strong cyclone-displaced population were living in spontaneous, temporary accommodations (e.g. with host families and in informal settlements), while only 8,925 were hosted in 66 registered sites in Compostela Valley and Davao Oriental.

After the actual storm, disruption of the provision of basic services is now being felt throughout the affected areas. Communities that, prior to the cyclone, were autonomous from the welfare point of view have now to deal with damaged or non-existent key infrastructure and services. Other communities relying on more-or-less remote centres for health care and education are now isolated as a consequence of the destruction of transportation networks.

Responses

IOM Philippines' risk reduction response has focused on providing immediate assistance to disaster-affected populations, as well as building the capacities of community members and local and national authorities, in order to reduce vulnerability and build resilience. During emergencies, the Organization responded by providing temporary shelter and camp coordination and camp management (CCCM) services; distributing non-food items (NFIs); and addressing health and psychosocial needs.

In order to inform the relief and reconstruction process, IOM used its Displacement Tracking Matrix, which gathers information about the

population moving to or through displacement sites. The Organization also trained national and provincial counterparts, to allow local institutions to better assess and monitor the living conditions of internally displaced persons (IDPs). Information materials were also produced, in response to the frequently asked questions of IDPs regarding food and shelter assistance. In addition, an Ushahidi-based crowdsourcing mapping tool was developed for information-gathering and -sharing among affected communities, humanitarian partners and private donors. Reports can be made through text, calls, e-mails and even social media networks such as Facebook and Twitter.

In addition, IOM developed a manual entitled *The Simple Guide to House Repair and Reconstruction* to provide local officials and community members with construction and reconstruction instructions and practical tips for building typhoon-resistant houses. The Organization has also provided technical guidance to shelter beneficiaries, particularly in choosing appropriate construction materials for their homes, and has conducted shelter kit orientation to engineers and staff from the Provincial Engineering Office and the respective Municipal Engineering Offices of the affected towns. The Simple Guide also served as the module for the "Do It Yourself" seminars implemented in partnership with the Philippine Government's Technical Education and Skills Development Authority. The seminars were organized in each target municipality and attended by the beneficiaries, who would themselves construct their new shelters.

IOM included community members in the recovery and reconstruction phases after a crisis (e.g. in the construction of transitional and permanent shelters or in the fabrication of shelter material through cash-for-work schemes), thereby promoting the livelihoods of displaced people, the vast majority of whom have lost their sources of income. Finally, IOM has conducted trainings in the localization of disaster risk reduction (DRR) projects and in the formulation of community DRR management plans in four municipalities, which led to the establishment of local DRR committees and the production of local hazard maps and DRR plans.

Results achieved

IOM Philippines' efforts in promoting typhoon-resilient shelters over the last few years were particularly successful. In recent years, many beneficiaries rebuilt their houses following typhoon-

resistant construction methods and techniques, such as the installation of purlins, diagonal and horizontal bracing, truss with tension wires and post straps. Just a few months after Typhoon Bopha, an estimated 1,540 affected families have rebuilt or rehabilitated their homes with these hazard-resistant techniques. In the process, local government officials who have the potential to institutionalize hazard-resistant techniques have been trained. In addition, by including community members in the recovery and reconstruction phases, IOM has restored and enhanced local livelihoods and income opportunities for displaced and affected communities.

IOM continues to provide immediate life-saving assistance during emergencies through CCCM activities, NFI provision, shelter kit distribution and health and psychosocial assistance. In response to Typhoon Bopha, IOM assisted 15,549 families (7% of those whose homes were damaged) with shelter kits, transitional shelters, recovery shelters and essential NFIs. The population staying in the 66 IDP sites is receiving continued support. Those in spontaneous settlements are being identified and

registered by the CCCM support teams so that their needs can be better addressed. Through innovative humanitarian communications and information management tools, IOM is also better able to track displacement, as well as assess and respond to needs.

Future objectives

Over the following months, IOM will be heavily involved in the humanitarian intervention to assist the population affected by the cyclone. The Organization has long recognized the need to include long-term risk reduction and resilience-building as components of emergency management programmes and will increasingly work to secure a rapid, effective recovery and reconstruction of safer and more sustainable settlements. IOM will also continue to engage in capacity-building activities, both at the institutional and grassroots levels, in order to strengthen the preparedness of the response system and make communities more self-reliant in reducing and managing risk.

Relevant materials

- Typhoon Bopha Emergency Response Portal, available from www.iom.int/cms/philippines/situation-report/typhoon-bopha-emergency-response.
- National Disaster Management Act of 2010, available from www.ifrc.org/docs/idrl/878EN.pdf.



List of projects

Emergency Camp Coordination and Management (CCCM) and Essential Non-food items (NFI) Distribution Support to Flood-affected Populations of Central Mindanao

Project status	Completed
Project period	15 July 2011 to 14 January 2012
Beneficiaries	500,000 people
Amount funded (in USD)	1,499,985

Emergency Relief Assist to the Typhoon- and Flood-affected Population in Region II & III, Philippines

Project status	Completed
Project period	14 November 2011 to 13 May 2012
Beneficiaries	Internally displaced persons (IDPs)
Amount funded (in USD)	933,333

CCCM and NFI Support to Typhoon-affected Communities in Cagayan de Oro and Iligan City

Project status	Completed
Project period	21 December 2011 to 4 January 2012
Beneficiaries	1,530 families of affected communities
Amount funded (in USD)	52,500

Emergency Assistance to Typhoon-affected Families in Region 10

Project status	Completed
Project period	20 December 2011 to 19 March 2012
Beneficiaries	22,470 people
Amount funded (in USD)	904,393

Emergency Shelter Assistance to Typhoon-affected Families in Region 10

Project status	Completed
Project period	23 December 2011 to 22 June 2012
Beneficiaries	20,000 people
Amount funded (in USD)	1,000,025

Emergency Shelter Support to the Flood-affected Families in Region 10s

Project status	Completed
Project period	19 January 2012 to 30 June 2012
Beneficiaries	4,000 IDPs
Amount funded (in USD)	600,000



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Emergency Shelter and Information Management Support to Disaster-affected Areas in Mindanao

Project status	Completed
Project period	1 April 2012 to 31 December 2012
Beneficiaries	160,000 people
Amount funded (in USD)	500,039

Continuing Emergency Assistance to Typhoon-affected Families in Region 10

Project status	Completed
Project period	15 April 2012 to 29 January 2013
Beneficiaries	21,000 people
Amount funded (in USD)	683,230
Partners	WHO, UNICEF, international non-government personnel and partners, local non-government personnel and civil society organizations and Red Cross Philippines

Emergency Shelter and CCCM Assistance, and Coordination to Typhoon-affected Families in Mindanao

Project status	Active
Project period	17 December 2012 to 16 June 2013
Beneficiaries	100,000 people
Amount funded (in USD)	3,000,828

Transitional Shelter and Livelihood Support to Typhoon-affected IDPs in Region IV

Project status	Completed
Project period	27 June 2010 to 26 December, 2010
Beneficiaries	4,300 IDPs
Amount funded (in USD)	610,000
Partners	UN Partners

Shelter Repair and Livelihood Rehabilitation Support to Typhoon-affected Families in Region II

Project status	Completed
Project period	15 December 2010 to 14 June 2011
Beneficiaries	6,950 IDPs
Amount funded (in USD)	510,000

SRI LANKA

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Surface area	65,610 km ²
Population, 2010 (est.)	20.8 million
Population density, 2010	317.9/km ²
GDP in 2011	USD 59.1 billion
GDP per capita in 2011	USD 2,835
Remittances, 2011	4.5 billion
HDI	0.715
Net migration rate, 2010–2015	-2.9 migrants/1,000 population
Types of movement	Internal displacement, return, relocation
Displaced by disasters, 2008–2012	1,578,148
Number of IOM staff working on disasters	15
Location of IOM offices	Jaffna, Kilinochch, Vavuniya, Batticaloa and Nuwara Eliya
Total DRR funding for 2013 in USD	1 million
IOM site: www.iom.int/cms/en/sites/iom/home/where-we-work/asia-and-the-pacific/sri-lanka.html	

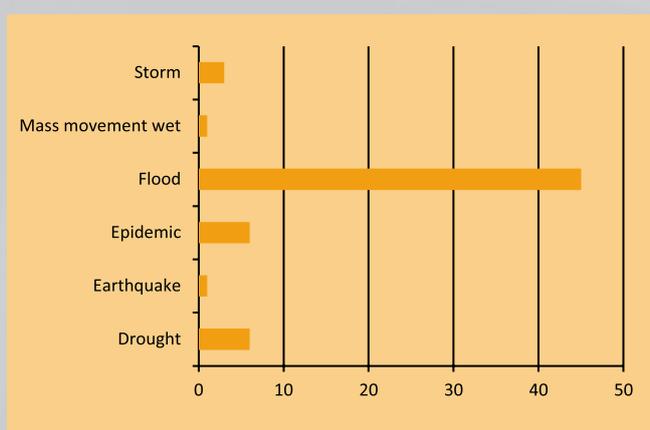
IOM DRR responses

Prevention	Preparedness	Emergency	Recovery	Cross-cutting
Reducing hazards Planning relocation	Preparing communities Building institutional capacities	Tracking displacement Assisting the displaced	Durable solutions DRR in complex emergencies	Livelihoods Infrastructures

Top 10 natural disasters by size of affected population, 1980–2013

Disaster	Date	Affected
Drought	1987	2,200,000
Drought	1982	2,000,000
Flood	1983	1,250,000
Earthquake	2004	1,019,306
Drought	2001	1,000,000
Drought	1988	806,000
Flood	2003	695,000
Flood	1989	501,000
Flood	2002	500,000
Flood	1994	478,150

Natural disaster occurrence, 1980–2013



Background

Sri Lanka is a tropical island nation located in the Indian Ocean. It is subject to a bimodal rainfall regime with distinct wet and dry seasons often characterized by floods and droughts. Many parts of the island, especially the coastal region facing the Bay of Bengal, are prone to torrential rains and heavy winds caused by depressions that normally develop during the monsoon period. In the northern, eastern and southern parts of the country, depressions also have the potential to develop into cyclones. Even though the region is not seismically active, Sri Lanka's East Coast is prone to tsunamis triggered by activity in the Sumatra-Andaman fault system. The hills in the central part of the country are prone to landslides, floods, violent winds and droughts. Environmental degradation induced by human activities increases the occurrence of hydro-meteorological hazards.

Agriculture, which is highly dependent on weather and climate patterns, is the major income-generating activity in suburbs and rural areas. Water management plays a critical role in mitigating the impact of weather extremes on rural livelihoods and is traditionally pursued through irrigation systems, such as tanks, which collect and store rainwater during the rainy season and distribute it during the dry season. Over the last three decades, a civil war ravaged the Northern Province, triggering massive population displacements. Due to the conflict, irrigation systems were either poorly maintained or totally abandoned, which greatly increased the vulnerability of agricultural systems.

In 2010, following the end of the conflict, the return and resettlement of as many as 240,000 people took place in the Vanni area in the Northern Province. These displaced people and returnees, though, have been moving into areas cyclically exposed to natural hazards. The limited access that this population has to already-vulnerable rural livelihoods and the widespread lack of income diversification and risk transfer practices further limit the people's coping capacity.

Responses

In 2007 and 2008, landslides affected 4,000 families, displacing 219 households. IOM has been supporting the Government of Sri Lanka in providing assistance to the affected population, first with camps for internally displaced persons

(IDPs), and then through the establishment of more durable housing solutions. A former tea plantation acquired by the Government was considered as a relocation site, and IOM constructed access roads, storm water canals, culverts, a water supply system, community halls and sanitation facilities. In addition, IOM provided training and resources to help generate adequate livelihood options. The Organization also trained relocated families and individuals in landslide risk reduction and soil and water conservation practices.

Following the torrential rain and floods of 2010 and 2011, 370,000 people were displaced in many parts of the country. IOM took the lead in the Emergency Shelter and Non-Food Item (NFI) Cluster, distributing essential NFIs to the displaced people to enhance their living conditions.

In addition, IOM has been supporting at-risk communities in the Northern and Central Provinces to build their resilience against the impact of natural hazards. The project focuses mainly on reducing the risk to rural livelihoods, by mitigating the impact of hydro-meteorological hazards, such as floods and droughts, and ensuring the availability of productive inputs. IOM has constructed and reconstructed tanks, saltwater exclusion bunds, drainage channels, culverts and key internal access roads. Local communities and authorities were provided training on the proper maintenance of the infrastructure facilities through the project.

Results achieved

57,340 disaster-displaced have been assisted through the provision of NFIs.

A total of 165 landslide-affected families are now living in safe locations and are integrated with the local community in Johns Land. The relocation process was costly and difficult, but succeeded, mainly because of participatory procedures and partnerships with national and international institutions, NGOs and private actors.

In addition, relocated families now enjoy access to safe sources of potable water, and their community is connected to the main transportation networks. Storm water drainage facilities have been constructed or renovated to enhance hydrological stability in the community, and 248 people have been trained on soil and water conservation in hilly areas. Hiring local, community-based organizations (e.g. farmers' organizations) for construction

activities proved effective in injecting money into the community to stabilize the local economy.

Irrigation channels, drainage channels and other saltwater exclusion and flood mitigation infrastructures have likewise been constructed, in order to reduce the impact of droughts and floods on rural settlements and livelihoods, and to improve the availability and arability of agricultural land, the quality of groundwater aquifer and the coastal ecosystem of 1,500 hectares.

Future objectives

IOM aims at further strengthening the disaster management structure by reforming disaster management committees at the village/community level and linking them with subnational and national authorities.

The improvement of the knowledge base on disasters and risk, through the development of resource and risk maps and disaster management plans at subnational levels (e.g. divisional and district levels) is essential in informing and coordinating future risk reduction efforts.

The Organization will also operate to reduce the vulnerability and increase the resilience of rural communities by providing essential disaster mitigation resources, as well as protecting and enhancing livelihood options for populations at risk.

Relevant materials

- Towards a safer Sri Lanka, available from www.preventionweb.net/english/professional/policies/v.php?id=17954.



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List of projects

Disaster Management, Community Stabilization and Development Initiative in Sri Lanka (DMMC)

Project status	Completed
Project period	11 November 2011 to 11 November 2012
Beneficiaries	1,250 families of affected communities, local authority staff, CSO (civil society organization) and NGO staff, Government personnel
Donor	Australia, Australian Agency for International Development
Amount funded (in USD)	1,021,450
Partners	National and local authority staff and line departments in the targeted districts

2012 ER Global Pre-positioning: IOM Sri Lanka (ERGP)

Project status	Completed
Project period	22 March 2012 to 22 March 2013
Beneficiaries	300 people
Donor	AmeriCares Foundation
Amount funded (in USD)	9,869

Community-based Reintegration and Economic Recovery Support to Vulnerable Communities in the Newly Resettled Villages in the Northern and Eastern Districts in Sri Lanka (CBRE)

Project status	Completed
Project period	1 August 2011 to 30 April 2011
Beneficiaries	120,000 people involved in mixed migration flows
Donor	United Kingdom
Amount funded (in USD)	315,214



TAJIKISTAN

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Surface area	143,100 km ²
Population, 2010 (est.)	6.8 million
Population density, 2010	48.1/km ²
GDP in 2011	USD 6.5 billion
GDP per capita in 2011	USD 935
Remittances, 2011	USD 2.6 billion
HDI	0.622
Net migration rate, 2010–2015	-2.7 migrants/1,000 population
Types of movement	Rural-to-urban migration, temporary migration, permanent migration, internal displacement, secondary displacement, return, relocation
Displaced by disasters, 2008–2012	8,399
Number of IOM staff working on disasters	1
Location of IOM offices	Dushanbe
Total DRR funding for 2013 in USD	Data not available
IOM site: www.iom.tj/	

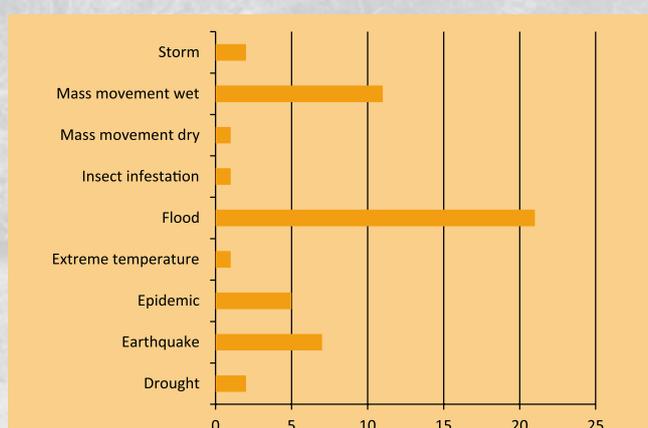
IOM DRR responses

Prevention	Preparedness	Recovery	Cross-cutting
Promoting migration	Building institutional capacities Bridging responses Providing information	Durable solutions	Livelihoods

Top 10 natural disasters by size of affected population, 1980–2013

Disaster	Date	Affected
Drought	2000	3,000,000
Extreme temp.	2008	2,000,000
Drought	2008	800,000
Flood	2004	400,000
Flood	1996	180,000
Mass mov. wet	1993	75,357
Flood	1992	63,500
Flood	1998	40,974
Flood	2007	17,184
Epidemic	1997	15,618

Natural disaster occurrence, 1980–2013



Background

Tajikistan is a landlocked, overwhelmingly mountainous State prone to natural hazards, including moderate-intensity earthquakes, landslides, rockslides and floods. Over the last decades, natural disasters have killed around 4,500 and affected more than 6 million people in the country, causing losses worth an estimated USD 500,000 and regularly displacing affected populations.

Tajikistan is the poorest country in the post-Soviet area—and one of the poorest in the world—and relies heavily on international aid and foreign revenue. Its Government lacks adequate capacity for hazard identification, mitigation and preparedness, such that natural events have a devastating impact on communities and slow overall development efforts in the country.

Pollution and overexploitation of natural resources are drastically degrading the local environment, leading to desertification, salinization and loss of fertile soil. These processes, which are further aggravated by climate change (especially through increased glacier melt, droughts and extensive heat waves), are significantly threatening local water and food security, affecting in particular the most vulnerable populations (e.g. women in rural areas).

Environmental factors help trigger migratory movements (especially labour migration) both internally, that is, from rural to urban areas, and externally, especially to the Russian Federation. (See box on p. 50 for more information.) At present, more than 1 million people (out of a total population of 8 million) are estimated to be migrant workers in the Russian Federation. The overwhelming proportion of this figure is made up of low-skilled, male individuals from rural households looking for better economic opportunities and more sustainable livelihood options.

Responses

The intervention carried out by IOM in the country focuses on building the capacity of local institutions to respond to disasters and emergencies and on better understanding the linkage between environmental factors and population mobility.

Beginning in 2011, the Organization contributed to the establishment of an Emergency Operations

Centre (EOC), which is responsible for the strategic overview of the disaster management response. Its principal functions are to collect and analyse data on hazards and disasters, protect lives and property, maintain continuity of the Organization within the scope of applicable laws and inform all concerned agencies and individuals of pertinent decisions. Prior to project implementation, the Committee of Emergency Situations (CoES) had no central command and control facility responsible for carrying-out disaster management activities.

IOM also conducted a research study examining the impact of environmental degradation and climate change on migration in Tajikistan. Among other findings, the report noted that many of the families which resettled following sudden-onset natural disasters or gradual environmental degradation were poorly integrated into their new communities and resettlement areas and often had to move again to improve their financial situation (either by migrating to urban areas or out of the country, or returning to their native communities whenever possible).

Results achieved

The establishment of the EOC has allowed the country to accumulate a wealth of sound hazard and disaster knowledge with which to inform risk management activities. The EOC contributes to more effective decision-making before, during and after a disaster at the local and national levels, complementing the activities of the CoES.

The study on environmental migration has been released, which would lead to an improvement in the understanding of current trends and future challenges in preventing, and responding to, environmental migration, including environmental displacement.

Future objectives

IOM will continue to support the CoES by further building its capacity to respond to natural disasters. Institutional capacities to properly plan for the effective integration of migrants in their host communities following natural disasters or emergencies can also be vastly improved.

In addition, the Organization aims to enable local authorities to take more preventive measures to reduce the vulnerability of rural households

while fostering their adaptability to a changing environment. This translates in making use of remittances for creating sustainable economic opportunities in rural areas, with a particular focus on internal job creation, sustainable agricultural practices, natural resource management and hazard mitigation.

Related documents

- National Disaster Risk Management Strategy, available from www.preventionweb.net/files/27582_tajikstrategyenglishbjedits19sep11b.pdf.
- *Environmental Degradation, Migration, Internal Displacement, and Rural Vulnerabilities in Tajikistan* (IOM report), available from http://publications.iom.int/bookstore/index.php?main_page=product_info&cPath=41_7&products_id=820.

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THAILAND

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Surface area	513,120 km ²
Population, 2010 (est.)	69.1 million
Population density, 2010	134.7/km ²
GDP in 2011	USD 345.6 billion
GDP per capita in 2011	USD 4,972
Remittances, 2011	USD 2.1 billion
HDI	0.690
Net migration rate, 2010–2015	0.3 migrants/1,000 population
Types of movement	Rural-to-urban migration, internal displacement, cross-border displacement, stranded/trapped
Displaced by disasters, 2008–2012	3,234,255
Number of IOM staff working on disasters	2
Location of IOM offices	Bangkok, Mae Sot, Mae Hong Son, Mae Sariang, Pawai, Chiang Mai, Ranong, Phang Nga, Nakhon Phanom, Phayao, Chanthaburi
Total DRR funding for 2013 in USD	262,000
IOM site: th.iom.int/	

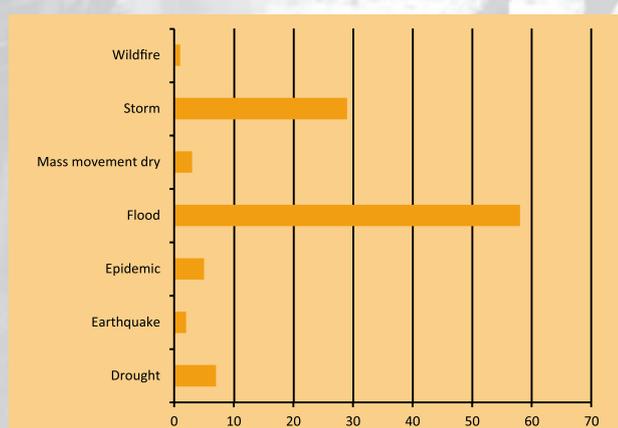
IOM DRR responses

Preparedness	Emergency	Mitigation	Recovery	Cross-cutting
Preparing communities Building institutional capacities Bridging responses	Assisting the displaced	Mitigating the impact	Durable solutions	Livelihoods

Top 10 natural disasters by size of affected population, 1980–2013

Disaster	Date	Affected
Drought	2008	10,000,000
Drought	2010	6,482,602
Drought	1999	6,000,000
Drought	2002	5,000,000
Flood	1996	5,000,000
Flood	1995	4,280,984
Flood	2010	3,583,327
Flood	2002	3,289,420
Flood	2000	2,500,000
Drought	1991	2,500,000

Natural disaster occurrence, 1980–2013



Background

Thailand is exposed to a number of natural and man-made hazards which threaten in diverse ways the lives and well-being of communities throughout the country. Meteorological and hydrological disasters are among the most common, especially during the rainy season, when storms and tropical cyclones sweep through the country, triggering landslides, floods and flash floods.

Major occurrences of flooding in Thailand were recorded in 1917, 1942, 1983, 2001, 2005 and 2011. In the latter episode, floodwater covered large parts of Bangkok and its conglomeration, affecting a total of 13.5 million people and killing 680, in particular children who were drowned. Total economic losses amounted to 1.43 trillion baht (about USD 48 million), 90 per cent of which were borne by the private sector (industries in six estates in Ayutthaya and Pathum Thani). A total of 2,600 shelters were set up in 2011 to host more than 165,000 people, and the Ministry of Public Health highlighted the prevalence of high levels of stress, depression and suicide risks among the displaced.

Hydrogeological risk is exacerbated by urbanization and ecosystem degradation. Unsustainable agricultural practices and the proliferation of

human settlements in low-lying, flood-prone areas have resulted in the construction of buildings and infrastructure that disturb and disrupt water flows. These factors have led to a tangible increase in the frequency and severity of floods, landslides and flash floods. Land-use practices and human behaviour are also directly responsible for the thousands of fires that hit the country each year.

Aside from floods, Thailand is also prone to droughts, often triggered by a delayed start or an early end of the rainy season, which result in water shortages for rural and urban households. Recent occurrences of drought were recorded in 2001, 2005 and 2010, when drought in 40,500 communities impacted over 16.5 million people and caused about USD 4.5 billion in losses.

The western and northern regions of Thailand are seismically active, and its coast is prone to tsunamis caused by earthquakes originating from the nearby Sumatra fault. The 2004 “Boxing Day” tsunami hit the west coast of the country, killing 5,395, injuring 8,457 and resulting in over USD 1 billion in losses to the local communities, particularly the tourism sector.

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In addition, as Thailand shares borders with a number of countries experiencing political, economic and social turmoil, it experiences recurrent flows of displaced populations and cross-border migrants from its neighbours, which put the capacity of institutions in charge of assistance and the livelihood options of host communities under strain.

Responses

The IOM response in Thailand has so far focused on strengthening the disaster preparedness and response capacities of national authorities. More specifically, IOM supports the Government's efforts to respond to disasters (particularly flooding) by directly providing affected populations with non-food items and shelter in the emergency phase. The Organization also supports capacity-building and training of local authorities to improve their preparedness to future floods and aims to provide capacity-building in camp coordination and camp management (CCCM) to personnel of the Department of Disaster Preparedness and Mitigation.

The activities in response to the prolonged and widespread flooding that affected Thailand in 2011 were carried out in collaboration with the Flood Relief Operations Centre, the Bangkok Metropolitan Administration, the Relief and Community Health Bureau of the Thai Red Cross, the Thai Action Committee for Democracy in Burma, Médecins Sans Frontières, the Foundation for Education and Development and the Department of Disaster Prevention and Mitigation (DDPM) as well as with several ministerial partners.

The DDPM is the core Royal Thai Government agency to carry out disaster prevention and mitigation, as well as raise public awareness in disaster management in Thailand. Up to now, IOM has provided continuous support to the Government on CCCM- and mobility-related needs. In order to assist migrant workers and their families, who risk being *de facto* excluded from humanitarian response (mainly due to language and other barriers), the Organization has established mechanisms to disseminate up-to-date information on the needs of migrant communities and on the emergency relief they receive.

Results achieved

IOM contributed to strengthening the national authorities' capacity to effectively respond to natural hazards. Following the 2011 flooding, national authorities successfully distributed non-food items (NFIs) and other relief goods to 5,200 beneficiaries. Because of funding from the Office of Foreign Disaster Assistance, the Organization was able to rapidly procure and distribute boats, water dispelling pumps, power generators, water purifiers and life jackets. In addition, IOM distributed 4,600 "dignity" kits (for women) and 4,600 hygiene kits (for men), 1,000 "vector" kits, 7,200 medical kits, 1,000 infant kits, 50 water filters and 50 alcoholic soaps in five provinces, including greater Bangkok. No major disease outbreaks (e.g. cholera or dengue fever) were identified in any of the locations covered. With support from the Office for the Coordination of Humanitarian Assistance, a total of 2,500 relief kits were distributed to migrant households from Myanmar, Cambodia and Laos.

IOM also provided CCCM training and held information sessions to 150 participants from the various government ministries and civil society and trained 80 government officials. IOM also participated in DDPM-led community-based DRM trainings on disaster preparedness and collective centres. A Thai version of the Collective Centre Guidelines was also produced and was delivered to schools, disaster prevention and mitigation provincial offices, temples and other institutions. The activity has helped identify and establish 2,500 collective centres nationwide.

Future objectives

IOM Thailand's future objectives focus on tackling some of the key drivers of disaster risk in the country, by contributing to managing urbanization and reversing deforestation. In addition, the Organization has acknowledged that displacement induced by the effects of climate change (e.g. more intense and frequent floods and droughts, sea level rise and coastal erosion) will increasingly be a challenge in the country and is therefore engaged in promoting adequate adaptation actions in the coming years.

Relevant materials

- IOM Thailand documents on emergency and post-crisis management, available from <http://th.iom.int/index.php/migration-resources/Movement-Emergency-and-Post-crisis-Migration-Management/Emergency-and-Post-crisis-Management>.
- Strategic National Action Plan (SNAP) on Disaster Risk Reduction, 2010–2019, available from www.disaster.go.th/dpm/index.php?option=com_docman&itemid=221.
- ADPC 2009 DRR policy review www.adrc.asia/publications/drr/pdf/Thailand_2009.pdf.

List of projects

Direct Assistance to the Royal Thai Government personnel – Department of Disaster Preparedness and Mitigation in Thailand

Project status	Completed
Project period	20 October 2011 to 30 January 2012
Beneficiaries	Local authority staff, 275,000 people
Donor	United States Agency for International Development and the Office of Foreign Disaster Assistance
Amount funded (in USD)	500,000
Partners	Government personnel partners, Royal Thai Government personnel and the Department of Disaster Preparedness and Mitigation

Livelihoods and Community: Sustainable Solutions for the Forgotten Rohingyas and Host Communities in Mae Sot

Project status	Active
Project period	15 January 2013 to 14 January 2015
Beneficiaries	80 at-risk youth, 800 families of refugees, affected Communities
Donor	European Union and the European Commission
Amount funded (in USD)	715,967
Partners	Tak Community College and Thailand Compassion Relief and Development (Compassio)



TIMOR-LESTE



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Surface area	14,874 km ²
Population, 2010 (est.)	1.1 million
Population density, 2010	75.6/km ²
GDP in 2011	USD 1 billion
GDP per capita in 2011	USD 896
Remittances, 2011	<i>Data not available</i>
HDI	0.576
Net migration rate, 2010–2015	1.6 migrants/1,000 population
Types of movement	Internal displacement, stranded/trapped
Displaced by disasters, 2008–2012	<i>Data not available</i>
Number of IOM staff working on disasters	4
Location of IOM offices	Dili
Total DRR funding for 2013 in USD	518,738

IOM site: www.iom.int/cms/en/sites/iom/home/where-we-work/asia-and-the-pacific/timorleste.html

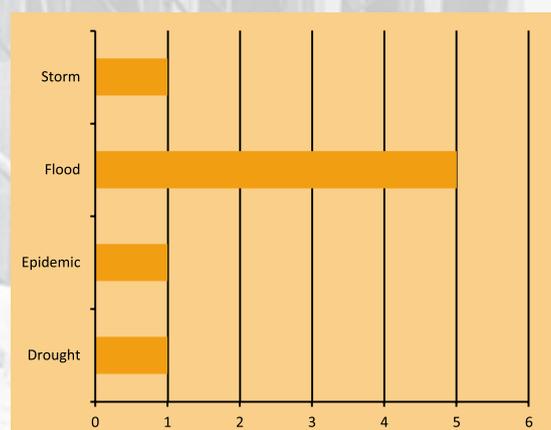
IOM DRR responses

Preparedness	Cross-cutting
Preparing communities	Livelihoods
Building institutional capacities	
Bridging responses	

Top 10 natural disasters by size of affected population, 1980–2013

Disaster	Date	Affected
Storm	2006	8,730
Flood	2001	2,508
Flood	2007	947
Flood	2003	600
Flood	2003	450
Epidemic	2005	336

Natural disaster occurrence, 1980–2013



Background

Due to its geographic location, Timor-Leste is exposed to droughts, typhoons, sea level rise, earthquakes and tsunamis, all of which pose significant threat to the social and economic development of the country and the lives of its citizens. In addition, the combination of heavy monsoon rains and steep topography makes many parts of the country prone to the impacts of flooding, landslides and shifting riverbeds.

Timor-Leste also experiences the cyclical effects of the El Niño-Southern Oscillation and related weather anomalies. Associated floods have resulted in decreased agricultural production, soil degradation, damage to infrastructure, displacement of communities and loss of property and livelihoods.

Deforestation increases the likelihood of landslides and leads to sediment build-up in rivers, exacerbating river shifting and flooding. Poor road design and drainage also increases the likelihood and effects of flooding and landslides. Although rain episodes have not caused enormous casualties to date, they often lead to severe disruption of road networks, cut off access of communities to markets and contribute to food insecurity.

Climatologists predict that climate change will increase the frequency and intensity of natural disasters in the country. The weather in the region is likely to become hotter and drier, increasing the risk of droughts, and rainfall is expected to become more concentrated and erratic, increasing the risk of floods. The low-lying atolls in the region are highly susceptible to rising sea levels, coastal erosion and coral bleaching, threatening the integrity of settlements and the livelihoods of local communities.

Widespread poverty, socioeconomic imbalances and environmental degradation are major drivers of local vulnerability to natural hazards. In addition, low levels of development multiply the risk faced by the local population, and disasters erode the gains of past and current poverty reduction programmes. The rugged nature of the local topography and the remoteness of many communities serve to cut them off from assistance and resources in times of disaster. While there were no major instances of disaster-related mobility in 2012, according to the Government's disaster information system, DesInventar, local communities remained

vulnerable to flooding, strong winds, landslides, drought, fires and torrential rains.

The National Disaster Risk Management (NDRM) Policy was enacted in 2008 by the Ministry of Social Solidarity; however, formalized initiatives in disaster risk reduction (DRR) remain insufficient at the national and subnational levels. Strengthening coordination mechanisms and technical expertise will thus be essential for the implementation of DRR activities. The NDRM Policy outlines the need for further capacity-building in disaster risk management (DRM), as well as the need to establish cross-sectoral coordination mechanisms to respond to natural disasters. There has been some engagement by international agencies such as IOM, the Australian Agency for International Development and the UN Development Programme, with other actors working in partnership with local governments and non-governmental organizations (NGOs) at the grassroots level to establish disaster management committees (DMCs) at the district, village and community levels. While some communities at risk, particularly those in more isolated settlements, pursue traditional disaster management activities, their local knowledge is not appropriately valued and supported.

Responses

The IOM response focused on improving Timor-Leste's capacity for risk management at the institutional and community levels. IOM directly targeted Government officials and staff from relevant authorities at the national and subnational levels, in order to increase their understanding of the DRR needs of the country, as well as their capacity to plan and allocate resources for risk reduction activities. In particular, it supported the inclusion of field-level data in government policy formulation and DRR decision-making. The Organization also facilitated communication and coordination among government ministries and across administrative authorities at different levels.

In addition, IOM strengthened the capacity of the National Disaster Management Directorate (NDMD) to identify and address needs and priorities in times of crises, as well as provided logistics and technical support for local preparedness initiatives and training in camp management.

In collaboration with local partners and NGOs, IOM supported and strengthened the capacity of local DMCs, conducted participatory disaster risk



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assessments and emergency response trainings and supported communities in the development of DRR materials, contingency plans and other preparedness initiatives. Among other things, activities included the provision of motorbikes, computers, cameras and community radio equipment to establish early-warning systems.

Results achieved

In order to guide its efforts, IOM produced a baseline assessment of DRR and climate change adaptation knowledge, initiatives and practices. The Organization also enhanced the ability of governmental institutions to prevent, mitigate and manage disasters by strengthening coordination among ministries and between national and subnational DRR actors. It also supported the development of a database on recovery package assistance distribution, in order to enhance the integration of field-level data in policy formulation and DRR decision-making. The Organization also delivered on-the-job training to the Office of the Secretary of State of Social Assistance and Natural Disasters (SoS SAND) in DRR projects and proposal analysis; as well as in the provision of direct policy guidance to support the Ministry of Social Solidarity. Overall, IOM built the capacity of staff members of the SoS SAND at the national and subnational levels.

At the subnational level, IOM enhanced district-level capacity for assessing and addressing risk through the preparation of district disaster risk action plans. The Organization helped create a total of 156 DMCs operating at different administrative levels and trained personnel and volunteers to develop and implement community-based disaster risk management, participatory disaster risk assessments (PDRAs), integrated community action plans (ICAPs) and district emergency preparedness plans. PDRAs and ICAPs were prepared in 98 communities in 9 different districts. In addition, the Organization delivered a community-based DRR “Training of Trainers” programme covering early-warning systems, risk mapping, disaster risk analyses and DRR measures.

IOM also supported local NGOs and community groups in implementing community-based DRR initiatives, including in the training in and the actual construction of keyhole gardens in target districts, establishment of 17 community stockpiling facilities and evacuation centres across the country and upgrading of the Dili Gymnasium Complex to meet minimum standards for use as a collective evacuation centre in case of major displacement. The Organization also developed a series of materials for dissemination in target districts, such as the Community Learning Systems for DRR, the Hazard Resistance Construction Manual and a

series of educational materials for primary schools that target both students and teachers. A total of 164 schools were targeted for DRR education; 166 simulation exercises were implemented at the local level and 288 community members were trained in the delivery of first aid.

Throughout its interventions, IOM involved youth leaders, women and other community representatives, in order to empower them to undertake key roles in disaster preparedness and response, including serving as first aid providers in the event of emergency.

Future objectives

Issues that still need to be tackled include the development of an early-warning/early action system for rural areas, a community-based DRR strategy including livelihood enhancement and climate change adaptation and the strengthening of the disaster preparedness system. IOM has been successful in implementing its activities at the community level, and will further engage in promoting them to national and subnational institutions. This would help foster the capacities of these institutions, enhancing cross-sectoral communication and better coordinating authorities and actors in charge of disaster risk reduction and disaster risk management.

Financial support for DRR activities remains an issue at the local level, mainly due to administrative procedures that make it difficult for communities to access public funds. More straightforward procedures for the allocation of resources might also foster dialogue and trust between communities and institutions. In addition, Timor-Leste does not yet have a wealth of skilled manpower and trained professionals, hampering DRR and DRM efforts at all levels. Despite the involvement of IOM, gender inequality remains a noticeable issue at both the community and government levels, due to entrenched gender norms and the limited local NGO and government capacity to engage on the issue.

Relevant materials

- IOM Timor-Leste Strategic Plan, 2011–2013, available from http://publications.iom.int/bookstore/index.php?main_page=product_info&cPath=1&products_id=701.

List of projects

Disaster Risk Reduction in Timor-Leste (Phase II)

Project status	Completed
Project period	1 November 2009 to 31 December 2011
Beneficiaries	Government personnel
Donor	Australia, Australian Agency for International Development
Amount funded (in USD)	2,000,000
Partners	National Disaster Management Directorate, Ministry of Social Solidarity including the Secretary of State for Social Assistance and Natural Disasters (SoS SAND) and district disaster management committees (DDMC)

Disaster Risk Reduction through Building Community Resilience

Project status	Active
Project period	15 June 2012 to 13 December 2013
Beneficiaries	30,000 people and 90 Government personnel
Donor	United States Agency for International Development and the Office of Foreign Disaster Assistance
Amount funded (in USD)	518,738
Partners	National Disaster Management Directorate (NDMD), Ministry of Social Solidarity, DDMCs, the Catholic Church, the Timor-Leste Red Cross Society and the UN Development Programme

EUROPE

289 Kosovo/UNSC 1244



KOSOVO/UNSC 1244



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Surface area	10,908 km ²
Population, 2010 (est.)	1.8 million
Population density, 2010	165/km ²
GDP in 2011	USD 6.4 billion
GDP per capita in 2011	USD 3,596
Remittances, 2011	<i>Data not available</i>
HDI	0.700
Net migration rate, 2010–2015	<i>Data not available</i>
Types of movement	Rural-to-urban, internal displacement
Affected population	<i>Data not available</i>
Number of IOM staff working on disasters	<i>Data not available</i>
Location of IOM offices	Pristina, Peja, Prizren, Gjilan and Mitrovica
Total DRR funding for 2013 in USD	<i>Data not available</i>

IOM site: www.iomkosovo.org

IOM DRR responses

Preparedness

Building institutional capacities



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Background

Kosovo/UNSC 1244 occupies a landlocked, mainly mountainous area in the Balkans, on the faultline between the Mediterranean and Trans-Asian plates, which places it in one of the most seismically active areas in South-eastern Europe. Kosovo has been hit by earthquakes in 1963, 1969 and 1979, which affected over 310,000 people in total. Recent tremors, in 2002 and 2010, caused significant structural damage in affected municipalities and forced the evacuation of some communities.

A considerable part of the territory of Kosovo/UNSC 1244 (up to 41%) is covered by forest, which makes the country prone to fires, especially at the end of spring and during the dry summer months. Since 2000, the number of fires has been increasing, mostly due to natural causes, with fire brigades carrying-out between 2,000 and 3,000 interventions each year.

Considerable threats are also posed by landslides, floods, droughts, heavy snowfalls and water dam failures. In addition, industrial pollution, particularly lead contamination from dismissed establishments and mines in Mitrovica, seriously affects the quality of local water, soil and food, with significant consequences to the local economy and public sanitation conditions. The contamination has remained largely unresolved due to political instability.

Since 1999 – at the end of the conflict – Kosovo/UNSC 1244 has been experiencing unprecedented urbanization rates, with new construction spreading rapidly all over the country. Local authorities do not always have the capacity to plan and regulate this process, which often results in the creation of informal settlements, despite common understanding that inadequate water and waste management in such unregulated settlements increase hazard exposure and the vulnerability of communities, especially to floods.

During the last decade natural disasters, civil unrest, social and economic changes, and environmental emergencies have challenged emergency services in Kosovo/UNSC 1244 to prepare for and respond to crises. Lack of financial resources, skills and expertise; insufficient technical and operational capacities; unreliable data from the field, along with delays in the exchange and distribution of information and data; and suboptimal infrastructure all make emergency management challenging,

forcing national institutions to turn to international humanitarian support in the face of crisis.

Responses

During the Kosovo/UNSC 1244 crisis of 1998 and 1999, a significant number of international organizations were engaged in crisis management. Donors' engagement decreased abruptly after the emergency, however, with many international organizations leaving the area. In 2011, IOM participated in the Disaster Risk Reduction (DRR) Capacity Assessment Report led by Capacity for Disaster Reduction Initiative (CADRI) and then in the development of an Action Plan for disaster risk reduction and climate change adaptation.

IOM is currently focusing on strengthening local institutional capacity for disaster risk management (DRM) and disaster risk reduction. Building on a decade-long experience supporting the local Protection Corps, the Organization's current priority is to restart the local School of Civil Protection and contribute to the training of local disaster management experts. In addition, IOM is planning to produce and distribute a comprehensive series of handbooks with DRR themes, including natural and technological hazard identification and prevention, organization of emergency and relief activities, protection of human rights and cultural heritage and risk information and education.

Results achieved

In collaboration with Swedish authorities, IOM carried-out a series of capacity-building activities for emergency medical professionals. Twenty-four professionals were trained in the framework of an experience exchange with some Swedish counterparts. Five professionals were trained as senior instructors. In addition, IOM supported the Ministry of Health by providing technical expertise in designing the National Strategy for Developing Emergency Medical Services in Kosovo/UNSC 1244. Currently, the Organization is collaborating towards the revision of the country's Law on Medical Emergency Services.

Future objectives

IOM will further support the Government of Kosovo/UNSC 1244 in establishing a functioning integrated emergency service, particularly by collaborating towards the establishment of an

integrated communication system. In addition, the Organization is planning to produce a series of educational materials on disaster risk reduction to be used for training and capacity-building at the institutional and community levels.

Relevant materials

- Integrated Emergency Management System main document, available from www.mpb-ks.org/repository/docs/Integrated%20Emergency%20Managment%20System.pdf.
- *Disaster Risk Reduction (DRR) Capacity Assessment Report* by the Capacity for Disaster Reduction Initiative (CADRI), available from www.gripweb.org/~gripwebo/gripweb/sites/default/files/Kosovo%20DRR%20Cap%20Ass%20Report.pdf.
- *Summary – Flash Flood Risk Assessment over Kosovo*, available from www.who-eatlas.org/VRAM/COUNTRY/UNK/REPORTS/VRAM_UNK_short_report_Eng_final.pdf.
- National Response Plan, available from www.mpb-ks.org/repository/docs/National_Response_Plan_14_01_11.pdf.

List of projects

EU-Community Stabilization Programme in Kosovo/UNSC 1244

Project status	Completed
Project period	27 May 2010 to 26 November 2011
Beneficiaries	530 members of ethnic minority or indigenous people groups
Donor	European Union and the European Commission
Amount funded (in USD)	2,838,837
Partners	Ministry for Community and Returns, Ministry of Labour and Social Welfare, municipal community officers, municipal return officers and village leaders

EU-Beautiful Kosovo/UNSC 1244 Programme

Project status	Active
Project period	01 March 2011 to 31 August 2013
Beneficiaries	1,660 people
Donor	European Commission
Amount funded (in USD)	6,794,929
Partners	Ministry of Labour and Social Welfare, municipalities in Kosovo/UNSC 1244 and the Danish Refugee Council

OCEANIA



295 Federated States of Micronesia and Republic of the Marshall Islands

301 Papua New Guinea

FEDERATED STATES OF MICRONESIA AND REPUBLIC OF THE MARSHALL ISLANDS

© 2009 (Photo: Paul Williams).

	Federated States of Micronesia	Republic of the Marshall Islands
Surface area	702 km ²	181 km ²
Population, 2010 (est.)	111,000	54,000
Population density, 2010	158.2/km ²	298.6/km ²
GDP in 2011	USD 310.2 million	USD 173 million
GDP per capita in 2011	USD 2,787	USD 3,169
Remittances, 2011	<i>Data not available</i>	<i>Data not available</i>
HDI	0.645	<i>Data not available</i>
Net migration rate, 2010–2015	-12.8 migrants/1,000 population	<i>Data not available</i>
Types of movement	Temporary migration, permanent migration, internal displacement, cross-border displacement	
Displaced by disasters, 2008–2012	<i>Data not available</i>	
Number of IOM staff working on disasters	20	
Location of IOM offices	Pohnpei, Yap and Chuuk states (Micronesia); Majuro (Marshall Islands)	
Total DRR funding for 2013 in USD	USD 2,000,000	

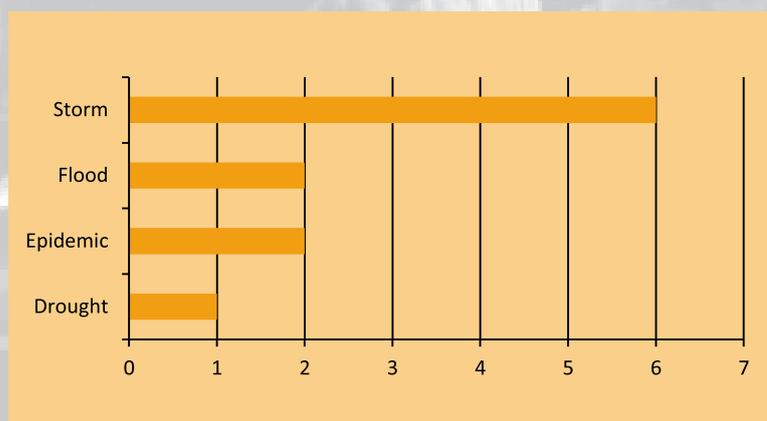
IOM DRR responses

Preparedness	Cross-cutting
Preparing communities Building institutional capacities Bridging responses	Health

Top 10 natural disasters by size of affected population, 1980–2013

	Disaster	Date	Affected
Micronesia	Drought	1998	28,800
	Storm	2004	6,008
	Epidemic	2000	3,431
	Storm	2002	1,448
	Storm	2003	1,000
	Storm	1987	203
	Storm	2002	175
	Flood	2008	0
Marshall Islands	Storm	1991	6,000
	Flood	2008	600
	Epidemic	2000	218

Natural disaster occurrence, 1980–2013



Background

The Republic of the Marshall Islands (RMI) and the Federated States of Micronesia (FSM) are two island nations collectively made up of 1,800 islands spanning 2,000 miles across the north-western Pacific Ocean. Between them, the two nations account for three million square miles of the western Pacific Ocean, an area three times the size of the South China Sea or the Mediterranean.

Micronesia and the Marshall Islands lie on the path of Pacific typhoons, which regularly strike the two countries from November and April, often triggering floods and landslides (as in the case of the Chuuk mudslides following Tropical Storm Chata'an, in July 2002). Micronesia suffers the majority of these weather disasters, with the eastern states of Yap and Chuuk being the most affected. Drought, on the other hand, is more prevalent in the Marshall Islands. There are, however, often periods of more than five years between declared disasters.

Due to their size and position, Micronesia and the Marshall Islands face enormous challenges in the delivery of emergency and reconstruction assistance following natural disasters. Their geographic location serves as a natural obstacle for the entry of humanitarian aid, as is the lack of logistics for transportation and communication support services, the presence of few NGOs that could provide disaster assistance services and the weak disaster management capacities of the two national Governments and local disaster responders.

Climate change will contribute to greater vulnerability (particularly in terms of water and food security), especially in outer-island atoll communities, which are expected to bear significant consequences in terms of internal and international displacement over the coming decades. Rising sea levels threaten crops and precious freshwater supplies through saltwater intrusion and storm surges. Marine ecosystems are being threatened by ocean acidification and coral bleaching, further adding to food security concerns. A more unpredictable climate will lead to more extreme weather events, such as typhoons and droughts and possibly trigger more secondary hazards (such as landslides).

As a result of the amended Compact of Free Association between the FSM, RMI and US Governments, citizens of the Marshall Islands and Micronesia can make use of expedited migration

procedures to the United States, which has in the past facilitated emigration following natural disasters. Under the treaty arrangements, the United States is also responsible for the delivery of disaster assistance when the resources of the FSM and RMI Governments are overwhelmed. IOM is currently the principal United States Agency for International Development (USAID) implementation partner for disaster preparedness and response in the two island nations.



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Responses

Under the Disaster Mitigation, Relief and Reconstruction Program funded by the USAID, IOM is focusing on strengthening preparedness for emergency response, recovery and reconstruction. The preparedness components of this programme are as follows: strengthening the capacity of the FSM and RMI Governments and other stakeholders to prepare for, respond to and recover from large- and small-scale disasters; increasing the capacity of USAID and federal partners to respond expeditiously to disasters, while increasing local capacity to respond to smaller events; and increasing the capacity of USAID to implement recovery and reconstruction activities following a disaster, while preparing Micronesia and the Marshall Islands to take long-term responsibility.

IOM has pre-positioned emergency response supplies (such as generators, reverse osmosis machines and critical WASH [water, sanitation and hygiene] equipment) across three critical locations; negotiated stand-by arrangements with medical evacuation service providers, emergency air and sea transport; and arranged for the rapid mobilization of humanitarian aid workers and volunteers during the emergency phase. It has also carried out training for civil society partners in the delivery of humanitarian assistance in line with international best practices. Moreover, IOM has collected data on the two countries to facilitate an expeditious disaster response through comprehensive contingency planning.

With the assistance of the Australian Agency for International Development, IOM is working with the FSM and RMI Governments to build both the capacity of communities to adapt to climate change and their resilience to natural hazards, through community-based risk mapping, early-action and evacuation plans, and by establishing evacuation centres in high-risk communities. The Organization is working with the education system in particular, and has developed curricula and delivered lessons on disaster risk reduction and climate change, facilitated school emergency management plans and conducted evacuation drills in high-risk schools, as well as trained teachers in first aid and emergency first response, equipping them with medical and evacuation kits.

IOM is constructing a “Knowledge, Attitudes and Practices” survey, which will assess disaster and climate change awareness to better target programme interventions. The Organization is

also supporting its activities through information, education and communication materials, radio broadcasts and public events.

IOM also serves as Secretariat for the Joint Risk Management Network (JRM-N), a collection of governmental and non-governmental organizations working in the fields of climate change and disaster risk management. The JRM-N is used for coordinating activities in these sectors, as well as discussing regional and global innovations and trends. Through the JRM-N, the Organization has contributed to Micronesia’s and the Marshall Islands’ National Action Plans for disaster risk reduction and climate change adaptation (CCA).

Results achieved

IOM has contributed to the enhancement of disaster preparedness and climate change adaptation in the Marhsall Islands and Micronesia through targeted assistance at the national and local levels. To be specific, the Organization has strengthened response capacities by setting up a comprehensive information management system for assisting humanitarian and reconstruction actors in the aftermath of disasters, and has pre-positioned essential items in three locations across the two countries. IOM also involved 70 civil society representatives in humanitarian assistance and set up over 30 stand-by agreements with other actors, in order to better coordinate responses. The Organization promoted participatory processes leading to the writing of four contingency plans and tested these plans through two national simulation exercises.

Through its intervention in the education sector, IOM made schools and local communities more capable of responding to disasters. It delivered training in disaster risk reduction and climate change adaptation to 3,000 students and certified 200 teachers in first response. The Organization also helped develop and drill 50 school emergency management plans and distributed 30 medical kits in educational facilities.

IOM is finalizing 50 community-based risk mapping and early-action planning exercises to guide local communities in their CCA efforts. Partnerships with five environmental organizations for collaborations in climate change awareness-raising have been established, and institutional coordination mechanisms for key non-State actors have been improved through the Joint Risk Management Network.

Future objectives

IOM seeks to continue to enhance local capacities for disaster mitigation, relief and reconstruction, with support from donors such as USAID. The future approach will involve stronger engagement with national and local institutions, including building grassroots capacities and enhancing local resilience.

Currently, IOM is partnering with the Department of Urban and Regional Planning at the University of Hawaii, Manoa to develop and implement a coastal community resilience course for Micronesia and the Marshall Islands. This project will be supported through the Coastal Storms Program of the United States National Oceanic and Atmospheric Administration.

The Organization will further work with local NGOs in the environmental sector to promote the concept

of “resilient ecosystems and resilient communities.” Local partnerships will be expanded to include faith-based organizations and academic institutions. IOM will also continue to work closely with traditional leaders to ensure that traditional knowledge and wisdom is considered when addressing current climate change and disaster management concerns. More efforts will be directed to raising awareness of hazards and climate change among young people and communities, especially in schools and educational institutions.

So far, IOM interventions have focused only on the main islands. Factoring the effects of climate change in the promotion of sustainable livelihoods will be crucial for future efforts, especially in outer islands. Extending the programmes to the outer areas where vulnerability can get even more extreme remains challenging, both logistically and financially. IOM will commence programmes in two outer islands of Micronesia in 2013.

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Relevant materials

- News and information about the work of IOM in the Micronesia the Marshall Islands, available from www.micronesia.iom.int.
- National Action Plan on Disaster Risk Management (Marshall Islands), available from www.sprep.org/attachments/Climate_Change/RMI_NCCP.pdf.
- 2009 Climate Change Policy (Micronesia), available from www.fsmpio.fm/Nationwide_Climate_Change_policy.pdf.
- Regional (Pacific) climate change documents, available from www.pacificclimatechange.net.

List of projects

Climate Adaptation, Disaster Risk Reduction and Education (Federated States of Micronesia)

Project status	Active
Project period	5 March 2012 to 4 March 2015
Beneficiaries	50,400 people
Donor	Australia, Australian Agency for International Development
Amount funded (in USD)	3,131,524
Partners	Micronesia partners: FSM Office of Environment and Emergency Management), state disaster coordination offices), FSM national and state Departments of Education and established civil society partners. Marshall Islands partners: National Emergency Management Coordination Offices (NEMCO), Office of the Chief Secretary, Ministry of Education, National Government personnel and established civil society partners

FEMA-USAID* Hybrid Mitigation, Relief and Reconstruction Program in the Republic of the Marshall Islands and Federated States of Micronesia (HMRR)

Project status	Active
Project period	19 August 2008 to 31 August 2013
Beneficiaries	180,000 people and Government personnel
Donor	USAID
Amount funded (in USD)	4,191,572

* Federal Emergency Management Agency and United States Agency for International Development



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PAPUA NEW GUINEA

© 2008 (Photo: John Slapcinsky).

Surface area	462,840 km ²
Population, 2010 (est.)	6.8 million
Population density, 2010	14.8/km ²
GDP in 2011	USD 12.9 billion
GDP per capita in 2011	USD 1,845
Remittances, 2011	USD 15 million
HDI	0.466
Net migration rate, 2010–2015	<i>Data not available</i>
Types of movement	Internal displacement, stranded/trapped, relocation
Displaced by disasters, 2008–2012	191,486
Number of IOM staff working on disasters	3
Location of IOM offices	Port Moresby
Total DRR funding for 2013 in USD	USD 1,281,588
IOM site: www.iom.int/cms/en/sites/iom/home/where-we-work/asia-and-the-pacific/papua-new-guinea.html	

IOM DRR responses

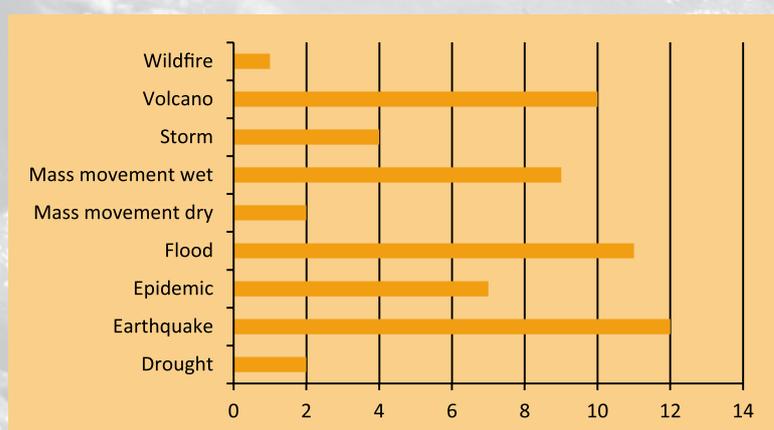
Preparedness

Preparing communities
Building institutional capacities
Bridging responses

Top 10 natural disasters by size of affected population, 1980–2013

Disaster	Date	Affected
Drought	1997	500,000
Storm	2007	162,140
Volcano	1994	152,002
Flood	1992	90,000
Flood	2008	75,300
Flood	1993	54,000
Storm	1993	40,040
Drought	1980	40,000
Flood	1999	38,000
Volcano	1983	25,000

Natural disaster occurrence, 1980–2013



Background

Papua New Guinea is a densely forested equatorial archipelago characterized by an extremely rugged topography. Tropical forest covers its Central Highlands region, as well as most of its plains area, where wetlands are also to be found. It also hosts some high-mountain ecosystems.

The country is exposed to droughts and typhoons, and, as it lies on the western edge of the Pacific Ring of Fire, is seismically and volcanically very active and prone to tsunamis. Monsoon rains, combined with a steep topography, make many parts of the country prone to floods, landslides and river shifts. Papua New Guinea also experiences the cyclical effects of the El Niño/Southern Oscillation (ENSO) and its related weather anomalies. In the coming decades, climate change is expected to affect precipitation patterns in the country and make both dry spells and violent downpours more frequent. In addition, sea level rise and ocean warming will affect coastal areas, coral reefs and, in particular, low-lying atolls.

The rugged, diverse terrain of Papua New Guinea accounts for its many unique challenges. Developing transportation and communication infrastructure has always been burdensome, preserving what is probably the most culturally diverse landscape in the world. Large parts of the country are extremely isolated and many settlements are still inaccessible, except by very difficult overland routes. The capital city, Port Moresby, is still not connected by road to much of the rest of the country. The range of communications, including radio broadcasts, is extremely limited. The relative isolation of rural settlements results in complex challenges for disaster management efforts, as vulnerable communities cannot easily be reached, evacuated and assisted in times of crisis. Rains regularly disrupt road networks, cutting off access to markets and contributing to food insecurity. Poor land use practices and limited socioeconomic development are the main drivers of the population's vulnerability, especially to floods and landslides.

Around 40 per cent of New Guineans live in poverty, earning less than USD 1 a day. The diversity of indigenous communities, with enormous linguistic and cultural differences, is also challenging. While some communities pursue traditional disaster management activities, indigenous knowledge is not adequately recognized and supported at the institutional level.

Disasters, especially large-scale events, often trigger forced migrations. Insufficient institutional emergency management capacities and the prevalence of complex land ownership and compensation issues make the support to the displaced population extremely challenging. Climate change, by causing sea level rise, is heavily affecting atoll communities in low-lying islands in the north-east part of the country. More support is needed to identify and address priority areas of intervention for the resettlement of several affected communities in the mainland, as is the case for the atoll communities of the Autonomous Region of Bougainville.

Responses

The IOM response in Papua New Guinea focuses on building capacities at the institutional and community levels, coordinating risk reduction efforts among main actors in the country and building the resilience of communities.

In order to overcome the challenges posed by isolation, the Organization is supporting preparedness strategies that increase the resilience of vulnerable communities in Papua New Guinea and empower them to independently cope with and respond to natural disasters and the effects of climate change.

In addition, IOM is starting to work on building local capacities for systematic hazard data collection and dissemination of risk and response information, especially in remote areas. The Organization is collaborating with international and local actors to systematize early-warning systems and information management and open essential lines of communication with vulnerable, isolated communities.

IOM is also participating in inter-agency coordination efforts to improve disaster response at the country level. It has assumed lead responsibility for the Emergency Shelter and Non-food Item (NFI) Cluster of the Inter-agency Standing Committee (IASC) while also working on emergency and post-crisis migration management and migration and development.

Results achieved

The Inter-agency Contingency Plan was tested at the national level in December 2011 and 2012, during the course of a disaster simulation exercise hosted by the National Disaster Committee. This helped test the responsiveness and the capacity of the different IASC clusters to work together. Recent work as the Emergency Shelter and NFI Cluster Lead has allowed IOM to build solid and effective working relations with the National Disaster Centre and other cluster partners.

Despite advancement in the understanding of risk and the dissemination of risk information, the experience of IOM in the field indicates that knowledge of the causes and results of, and possible preventative measures for, natural disasters and climate change is extremely limited. The population has limited knowledge of risk reduction and preparedness activities at the community, district or subdistrict level. The National Disaster Centre has recently developed community-based materials addressing disaster risk reduction (DRR) at the community level. While there is political will to improve DRR mechanisms on a more systematic basis, local capacities and knowledge are still limited.

Future objectives

There is a widely recognized need to work in a more programmatic manner towards the full implementation of the cluster system, in order to enhance disaster contingency and response plans. Along this line, IOM will further advocate for a stronger legal framework for disaster risk reduction and disaster risk management, in order to foster coordination among national and subnational actors dealing with disaster reduction and management activities and, in particular, with the mobility consequences of disasters.

In addition, IOM plans to strengthen its community-based DRR activities in selected vulnerable communities and undertake the capacity-building of partners at the provincial, district and local levels on tactical and operational initiatives related to emergency response and preparedness. Commitment to establish solid early-warning systems and information management procedures will be renewed, reaching out to communities through the innovative SMS ("short message sending") Application Programming Interface.

IOM is also about to start implementing a three-year project on migration, environment and climate change, with the aim of contributing to the global knowledge base on the relationship between migration and environmental change and the formulation of related policies.

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