

Reducing Migrants' Vulnerability to Natural Disasters through Disaster Risk Reduction Measures

Including Migrants in Disaster Prevention, Preparedness, Response and Recovery Efforts

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OVERVIEW

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Migrants increasingly represent a sizable component of modern societies and communities, one that cannot be ignored in efforts to promote well-being and resilience. But they are often disproportionately affected by natural disasters. There are numerous examples of targeted efforts by governments and other relevant actors to include migrants in disaster risk reduction activities. However, in affluent and less affluent countries alike, migrants still face a variety of barriers to accessing information, resources, and opportunities, which reduce their ability to prevent, mitigate, prepare for, cope with, and recover from natural disasters.

Disaster Risk Reduction (DRR) includes all efforts and activities that aim to prevent, reduce, and manage the impacts of hazards, thus strengthening the resilience and well-being of individuals and communities.

DRR requires all-of-society engagement and partnership that address social, political, economic, cultural, physical and environmental factors that create risk. This Issue Brief focuses specifically on actions that reduce migrants' vulnerability through their improved inclusion within disaster risk reduction, and in particular in preparedness, response and recovery systems.

Relevant efforts by States and other actors include creating mechanisms to address language barriers, increasing risk awareness, improving access to disaster relief and recovery assistance, and promoting the active participation of migrants in DRR. Based on the examples provided below, this Issue Brief recommends some ways to more effectively reduce the vulnerability of migrants in the face of natural hazards through efforts undertaken before, during, and after disasters. In doing so, it highlights how underlying conditions of marginalization and exclusion can hamper risk reduction efforts targeting migrants and how migrants can actively participate in DRR activities and contribute to the resilience of communities and societies through their knowledge, skills and capacities.

What is the MICIC Initiative?

The Migrants in Countries in Crisis (MICIC) Initiative is a State-led undertaking, co-chaired by the Philippines and the United States, which seeks to improve the ability of States and other stakeholders, to prepare for, respond to, and protect the dignity and rights of migrants caught in countries in situations of acute crisis. When countries experience such crises—conflicts or natural disasters—migrants may not be accounted for in response mechanisms and may need specific support to find safety and rebuild their lives. The Initiative examines the roles and responsibilities of States, civil society, international organizations, the private sector, and migrants before, during, and after a crisis.

For more information, visit the MICIC Initiative website at <http://micicinitiative.iom.int/>.

INTRODUCTION AND CONTEXT

Migrants are often among the groups worst affected by natural disasters. When natural hazards strike, challenges that are particular to migrants' experiences mean they can also be among the groups most in need of protection and assistance. The floods in Thailand in 2011, the Tohoku earthquake, tsunami, and nuclear accident in Japan the same year, and superstorm Sandy in the United States in 2012 spotlighted the types of obstacles migrants face in accessing resources, services, opportunities, and information—aspects that are key to ensuring safety, security, resilience, and well-being.

Many factors affect the lives and human security of migrants, even in ordinary times: limited language proficiency; limited knowledge of local environmental conditions, including natural hazards, legal framework and institutions, and markets; limited social networks; lack of trust in authorities; restrictions on mobility; and discrimination, hostility, and xenophobia. When these factors are not adequately addressed through targeted efforts by all relevant governmental and non-governmental actors, including migrants themselves, migrants can be disproportionately affected by natural hazards. Such situations often force migrants to make difficult and risky decisions such as living and working in high-risk locations, refraining from evacuating, accessing relief and recovery assistance, or mobilizing resources to cope with shocks. As a consequence of such conditions of need and constraint, migrants can also become prime targets for abuse and exploitation.

While many of these factors can be intrinsically linked with the reality of being in a foreign country, they will not affect all non-national groups and individuals equally. Foreign mountain climbers were evacuated more efficiently than many of the locals after the 2015 Nepal earthquake.ⁱ Tourists in coastal resorts affected by the 2004 Indian Ocean tsunami, instead, had limited knowledge of local hazards; many failed to understand, interpret, and react to tsunami precursors and warnings.ⁱⁱ

Restrictions on mobility stemming from administrative barriers severely limited the mobility of many migrant workers affected by the 2011 floods in Thailand, who had to choose between staying in flooded, risky areas or face possible loss of legal status, arrest and deportation.ⁱⁱⁱ Undocumented migrants often face specific conditions of vulnerability as a consequence of factors such as insecure livelihoods, lack of welfare services, reduced access to relief assistance, and fear of deportation. For some migrants, social networks are an obstacle to accessing early warning and emergency information; for others, they represent the foundation of effective response and recovery.^{iv} In general, the extent to which migrants' rights and dignity are protected by a host country's legal and administrative systems, including as they relate to living and working conditions, contributes to shaping risks during and after natural disasters.

Despite the wealth of evidence pointing to their specific conditions of vulnerability, the impacts of natural disasters on migrants are not systematically recorded – e.g. through disaggregation of loss data. Therefore, a comprehensive picture of the scope and extent of the vulnerability of migrants to natural disasters does not exist. This is both a cause and a consequence of the “invisibility” of migrants in many DRR efforts, which in turn is arguably linked with deeply-rooted conditions of marginalization, exploitation, and public discourses that make inclusive migration policies too often a sensitive topic at local, national, and international levels.

Notwithstanding this complexity, there are multiple reasons to comprehensively address this issue. Migration dynamics facilitate the circulation and mobilization of a diversity of skills, knowledge, and assets that improve overall social and economic well-being of communities and societies of origin and of destination. These resources can usefully be leveraged in support of disaster prevention, preparedness, response, and recovery. The impacts of natural disasters not only affect the dignity, lives, and assets of migrants themselves, but also have much wider and longer-term implications, such as loss of incomes and remittances, reduced international trade, and decline in economic vitality for households and communities beyond the boundaries of the geographic areas that are directly affected.

In this context, integrating migrants in DRR efforts—actions that reduce and prevent exposure to hazards and vulnerability to disasters and increase preparedness for response and recovery—needs to be a priority for actors at all levels, both in home and host locations. This is consistent with one of the tenets of DRR: risk reduction should be inclusive.^v In host countries, national and local authorities, the private sector, international organizations, and civil society (including migrants) are key actors for promoting an inclusive approach to disaster risk reduction—one that ensures all existing capacities and resources, including those of migrants, are employed to achieve resilience to

natural disasters. In countries of origin, efforts by governments, employment agencies, and civil society actors should focus on empowering and assisting nationals abroad—for temporary or longer-term stays—in order to protect not only their lives, but also income and livelihood security in home communities.



Since 15 June 2014, IOM has worked around the clock to provide much needed assistance to people fleeing the recent violence in Mosul © IOM 2014

FRAMEWORKS AND APPROACHES

Provided they are effectively implemented, frameworks and policies that protect the dignity and rights of migrants, including those that aim to improve their living and working conditions, can significantly reduce migrants' vulnerability to the impacts of natural disasters. Similarly, targeted frameworks and policies that seek to strengthen and increase migrants' awareness, preparedness, and capacity to cope with and recover from natural disasters are also crucial.

In recent years, the need to integrate migrants into DRR policies and practices has received significant attention. At the international level, the Sendai Framework for Disaster Risk Reduction 2015-2030 (SFDRR), the global blueprint that identifies risk reduction priorities, targets, and actions for the next 15 years, explicitly recognizes that the participation and engagement of migrants are crucial for effectively building the resilience of communities and societies of origin and destination.^{vi} Three provisions explicitly articulate this notion:

- Paragraph 7: Governments should engage with relevant stakeholders, including [...] migrants [...] in the design and implementation of policies, plans and standards.
- Paragraph 27(h): Empower local authorities, as appropriate, through regulatory and financial means to work and coordinate with [...] migrants in disaster risk management at local level.
- Paragraph 36(a)(vi): Migrants contribute to the resilience of communities and societies and their knowledge, skills and capacities can be useful in the design and implementation of disaster risk reduction.

The implementation phase of the SFDRR has just begun and ideally will lead to the integration of the above principles in national and regional legal and policy documents on risk reduction. This could be done along the lines of a number of national guidelines and frameworks (highlighted below) that were developed before the Sendai process by countries of origin and destination to create more inclusive DRR systems.

The Civil Defence and Emergency Management systems of New Zealand and Australia have both issued guidelines for including members of Culturally and Linguistically Diverse (CALD) communities in their disaster preparedness, response, and recovery efforts.^{vii} Australia's guidelines, in particular, are rooted in a broader national strategy on resilience that aims to better empower all components of society to reduce risk. Building and leveraging CALD (including migrant) communities is one of its explicit objectives—pursued, among other things, through the establishment of fora and mechanisms for dialogue among migrant communities, local authorities, and DRR actors.

These policies tend to address migrant-specific needs as a subset of conditions of vulnerability and marginalization that may be associated with minority status. This approach reflects the inclusive nature of risk reduction activities, which requires identifying and addressing multi-causal and context-specific conditions of vulnerability.

In the United States, the Robert T. Stafford Disaster Relief and Emergency Assistance Act calls for regulations for insuring that disaster relief and assistance be provided without discrimination on the grounds of race, color, religion, nationality, sex, age, disability, English proficiency, or economic status.^{viii} An August 2000 Executive Order directs each Federal agency to work to ensure that the programs and activities they normally provide in English are accessible to people with limited English proficiency and thus do not discriminate on the basis of national origin in violation of title VI of the Civil Rights Act of 1964.^{ix} In line with this order and Department of Homeland Security policy, the Federal Emergency Management Agency leads initiatives to build trust with diverse populations to promote community engagement and outreach to populations with limited English proficiency throughout all phases of emergency management.^x

The Philippines has developed a comprehensive system to reduce vulnerability and improve the welfare and protection of nationals abroad. For example, Republic Act No. 10022 notes the need to prevent situations of marginalization and exploitation through improved recruitment standards, better pre-departure preparation for potential risks in host countries, greater support and efforts towards building capacity to cope with hazards while abroad, and expanding options for post-disaster recovery, including through reintegration in the home country.^{xi}

Notwithstanding their importance in reducing the impacts migrants might suffer as a consequence of natural hazards, laws, policies, and other frameworks and approaches that integrate migrants into disaster risk management and disaster response systems should be accompanied by long-term efforts supporting migrants' capacities to prevent, avoid, prepare for and recover from disasters. This is particularly the case for the most marginalized migrants, such as those in an irregular status or living in marginalized, isolated or underserved locations. These groups need to be supported through proactive initiatives that specifically target them and through broader efforts that address the root causes of their exclusion.

PRACTICES

In addition to frameworks and policies, the vulnerability of migrants to natural disasters can also be reduced through a wide array of pre-crisis, emergency, and post-crisis practical measures. These can range from increasing awareness and understanding of risks, enhancing access to preparedness information and mechanisms, improving the availability of relief and emergency assistance, and ensuring sufficient resources and opportunities to recover.

Awareness raising

With respect to awareness raising and preparedness for specific types of disasters and emergencies more generally, national and local authorities in Australia, Japan, and the United States have developed a variety of multi-lingual and pictorial printed, video, audio, and online materials targeted towards migrants. While some of the information covered by these materials could also be covered in pre-departure orientation exercises organized by countries of origin, many details are often so site-specific that even if they are addressed in pre-departure trainings, reinforcement and coverage through local-level activities in host countries are also necessary. The city of Moka, Japan, for instance, has developed a multi-lingual map highlighting main areas at risk, evacuation sites, and disaster-assistance facilities, which also includes practical information on how to prepare for, and respond to, disasters such as emergency numbers, emergency items, and lists of possible information sources, etc.^{xii} Moreover, at the provincial level, the Tochigi and Mie Prefectures organize disaster prevention workshops, emergency drills, first aid courses, and briefings on evacuation shelters for migrants.^{xiii}

Migrants integrating preparedness and response systems

Some institutions in particular countries have gone a step further and have tried to actively involve migrants in disaster preparedness and response efforts in order to leverage their capacities for the benefit of whole communities. Examples include the Tokyo fire department, which conducts regular trainings on rescue techniques for non-Japanese,^{xiv} as well as the Australian Emergency Management Institute, which engages and recruits youth

with migrant or refugee backgrounds.^{xv} Migrants can also participate directly through this kind of efforts through their associations and the work of other . In fact, involvement of migrant volunteers in preparedness and response activities, to serve as interpreters and improve (cross) cultural understanding and competence at the institutional level is a priority for many key actors. The American Red Cross,^{xvi} the Miyagi prefectural government and a number of local authorities and other actors in Japan all have programs with this aim.^{xvii}

Early warning and emergency communications

Numerous examples exist of early warning and emergency communication systems designed to reach minorities who do not speak the local language or might otherwise be marginalized. Japan's Meteorological Agency, for instance, has an English webpage listing warnings and hazard information^{xviii} and the Hyogo Prefecture Emergency Net provides a 5-language system to disseminate warnings and emergency communications.^{xix} Efforts have also gone into the development of an automated, multi-lingual early warning system for earthquakes. In California, during the 2007 fires, government outreach to Latino communities was strengthened through collaboration with US- and Mexico-based Spanish-language media.^{xx} Migrants themselves and their representatives, however, are key actors in the validation, adaptation and dissemination of this kind of information, and more in general in facilitating communications between authorities and migrant communities, as shown in the 2011 floods in Brisbane, Australia.^{xxi} Even in contexts in which such efforts exist, however, the quality and coverage of information provided to migrants is often poor. Countries of origin can therefore play a key role in improving the breadth and coverage of outreach to their nationals abroad. Among other things, they can coordinate and collaborate with local information providers in host countries to disseminate precise and timely information through consular channels, networks, and media. Following the Fukushima accident, for instance, many migrants turned to their respective consular actors to access updated and understandable information on radiation exposure and for advice on how to minimize risks linked with contamination.^{xxii}

Response

Diverse efforts by multiple actors are critical for reducing direct impacts of natural disasters on migrants. Such measures include actions that identify where at-risk migrants live and work, address factors that prevent migrants from seeking or accessing assistance and from moving out of harm's way, including through evacuation, and, more generally, aim to understand and accommodate the specific needs of migrants in the context of natural disasters. Pre-disaster involvement of migrants in emergency planning is key in this regard.

Civil society organizations, including migrant associations, support every aspect of disaster response. Based on a community consultation process, San Diego's Vista Community Clinic has developed a preparedness and evacuation plan for local farmworkers (many of whom are undocumented Latinos).^{xxiii} During the 2011 floods, the Thai Red Cross assisted affected migrants through distributions of food and non-food items,^{xxiv} while after the 2011 triple disaster in Japan, NGOs supported migrants and refugees through services as diverse as nurseries and childcare, legal aid, awareness.^{xxv} Employers and other private sector actors can also play a major role in evacuation and response.

Countries of origin and transit can also facilitate response and evacuations through targeted agreements, better border management, and contingency plans that map nationals abroad/migrants and evacuation routes and sites. Philippines' Foreign Service posts, for instance, tracks the presence of its nationals in hazard-exposed areas in host countries and works to increase their awareness of evacuation options in the case of a disaster. Improved preparedness of institutions and non-governmental actors in countries of origin and in other countries (including diaspora) to assist migrants affected by disasters while abroad can also support overall response efforts. Chinese and Moldovan migrants affected by the 2012 Emilia earthquake in Italy, for instance, received food, money, hygiene products, and other items through such channels.^{xxvi}

Notwithstanding all these types of efforts, actions by host country actors are essential to most effectively improve migrants' access to safety and assistance. Japan's Council of Local Authorities for International Relations has developed a toolkit of multi-lingual and pictorial signage for evacuation and emergency shelters.^{xxvii} Many actors, including the United States, have also expended efforts to better integrate cultural competencies into emergency assistance programming including management of displacement sites, distribution of essential items, and psychosocial assistance.^{xxviii}

Recovery

Access to resources and opportunities, including those that foster restoration of livelihoods and shelter following a natural disaster, is necessary to ensure rapid and effective recovery, to reduce long-term impacts on migrants and to foster their well-being and resilience in the long term. FEMA's Individuals and Households Program provides shelter support, loans, and housing replacement and reconstruction services to cover part of the uninsured losses suffered by disaster-affected people, including certain groups of documented non-citizens.^{xxx} Involving migrants in reconstruction efforts is key to support the recovery of the whole affected community. In the aftermath of Sandy, the U.S. Citizenship and Immigration Services facilitated access to certain temporary immigration benefits or relief: this included allowing migrants to apply for temporary measures such as an extension of legal migration status even if the application was filed after the status had expired and expedited adjudication of employment authorization applications.^{xxx} After Katrina, the US Department of Homeland Security temporarily lifted enforcement of sanctions for employers who hired migrants who were otherwise eligible for employment but who were unable to provide documents as a result of the hurricane.^{xxxi} After Hurricane Stan the Mexican Instituto Nacional de Migración made it easier for Guatemalan migrants to work legally in support of reconstruction efforts.^{xxxii} The Philippines has a program to support the economic and social reintegration of migrants affected by disasters while overseas which is designed to prevent long-term socio-economic impacts on migrants, their families, and communities.^{xxxiii}

Challenges

While these practices can help reduce migrants' vulnerabilities to natural disasters, their effectiveness is also influenced by a range of factors that affect the well-being of migrants in normal times. Access to preparedness and response programs, ability to contribute directly to local-level risk reduction, and even access to information are highly dependent on a variety of economic, legal, and cultural pre-conditions. These include how well migrants are integrated in their host contexts, how migrants perceive their host communities and institutions, and whether migrants fear discrimination, hostility, and injustice (and, in the case of undocumented migrants, deportation) by local authorities, disaster management and civil protection actors, and communities at large. Lack of consideration of these pre-crisis dimensions may result in formal or *de facto* exclusion of migrants (particularly undocumented migrants who are even more invisible) from preparedness planning and relief and recovery assistance. This, in turn, often leads to a failure to prevent indirect disaster impacts that are linked with rights violations and exploitation, including trafficking.

Los Angeles Pico Union Cluster^{xxxiv}

In 1994, in the Pico Union district of Los Angeles, low-income Hispanic migrants, many of whom were undocumented, came together to support efforts by more than 30 NGOs to deliver emergency assistance to those affected by the Northridge earthquake. Pico Union, a district primarily home to individuals from minority groups and well outside the radar of the media, had been severely damaged. Appeals for assistance by local NGOs and churches were not adequately heeded by officials. This self-help process helped improve the quality and comprehensiveness of response efforts and ultimately led to the creation of an independent disaster preparedness program in the district called the Pico Union Cluster, made up of local migrants and civil society groups. Eventually, the Cluster joined the official body that the city and county of Los Angeles uses for coordinating NGOs active in emergency response, preparedness and mitigation: the Emergency Network Los Angeles.

Melbourne's Project Red^{xxxv}

In 2011, the Australian Emergency Management Institute supported a survey of young migrants and refugees in Melbourne on their knowledge of the local disaster management system and their interest in, and barriers to, joining it as a means of increasing their involvement in the system as volunteers.

Main findings included the need to address cultural obstacles to participation, fear of xenophobic postures by co-workers and beneficiaries, and the need to overcome other barriers such as time and resource constraints that inhibit commitment.

In follow up, local disaster management institutions, such as the Melbourne Fire Brigades, directly involved, trained, and eventually hired young migrants and refugees to act as preparedness and response leaders for their respective communities

SUGGESTIONS AND GOOD PRACTICES

In order to reduce migrants' vulnerabilities to natural disasters, specific barriers to accessing information, resources, and services must be addressed. As highlighted in this Issue Brief, there are multiple ways and examples of how to do this.

Implementing targeted risk reduction measures for the benefit of migrants requires an understanding of the size, composition, distribution, vulnerabilities, and capacities of the migrant population in a given location. This is also a precondition for better understanding the impacts migrants suffer in disasters, and hence their specific conditions of vulnerability.

- In addition to coordinating with immigration authorities, local and national disaster management authorities can collaborate with local service providers, employers, NGOs and migrant groups, as well as with authorities from countries of origin, to capture a comprehensive, up-to-date demographic picture of their communities.

Secondly, modifying legal, policy, and institutional frameworks to remove legal, administrative, and practical barriers that inhibit migrants from accessing information, resources, and services in the context of natural disasters is a precondition to effective responses. Such measures need to be cognizant of, and account for, structural, socio-economic, and demographic dimensions, including cultural and religious aspects (relevant for, *inter alia*, evacuation shelters, food, and other items that might be provided as part of disaster assistance), isolation, and marginalization of migrant communities, discrimination, and migrants' fear of responders.

- Institutional efforts towards more inclusive and culturally-aware disaster preparedness and management systems can be effectively complemented by longer-term community-based trust-building and awareness-raising efforts.
- Proactive efforts are necessary to reach out to and assist specifically marginalized groups, such as undocumented migrants and those living in isolated or underserved locations.
- Removing barriers to, and directly supporting, the work of non-governmental, community-based and migrant organizations is key to addressing these challenges.

Thirdly, the production and dissemination of targeted awareness and preparedness information, early warnings, and emergency communications is imperative for reducing risks.

- Communication with migrant communities is more effective when it addresses the specificities of its intended audience, such as: (1) language barriers; (2) differences in risk perception (e.g. related to the severity of the upcoming hazard, the necessity for evacuation, etc.); (3) differences in information sources (e.g. understanding media and informal channels that migrants use and trust); and (4) lack of local knowledge (e.g. unclear warnings that do not allow migrants to understand location of evacuation sites, process for evacuation, etc.).
- Collaboration between national and local authorities in host countries, scientific institutions, and community-based bodies directly working with or representing migrants can help identify existing barriers and foster effective communication.

Fourthly, once the emergency phase of a natural disaster passes, migrants often continue to face persistent challenges, which can undermine their long-term well-being and resilience. Long-term recovery support to affected migrants, and in particular undocumented migrants, might not be contemplated within the host country's legislation or be perceived as a low-priority by host communities, especially in the context of an economic downturn or instability. Inclusive recovery processes that address the array of marginalization patterns existing in a given context, including those linked with migration status, can help prevent tensions and conflicts over resources and opportunities, build community-wide resilience, including by fostering the capacity of migrant groups to anticipate and withstand future natural disasters.

- Participatory approaches that involve migrants, including the most vulnerable among them, alongside other minorities and populations that are disproportionately affected by disasters can be an effective tool for risk reduction, disaster response, and recovery planning. The same approach can be key to the successful reintegration of migrants, in cases where the disaster results in their return to countries of origin.
- Inclusion of migrants in disaster recovery and long-term risk reduction and development efforts can be supported through improved understanding and awareness of their contribution to the socio-economic vitality and resilience of host communities.

- Additional post-disaster well-being challenges (e.g. specific income and livelihood insecurity patterns, exploitation, and xenophobia) can greatly impair migrants' capacity to recover from disasters, and should be addressed through targeted policies and measures.

Lastly, empowering migrants and migrant groups before, during, and after natural disasters can be an effective risk reduction strategy for the host community at large. Empowerment can help local service providers and DRR actors overcome linguistic, trust, and cultural barriers and physical isolation of marginalized groups, improving knowledge on their size, structure, and functioning, and leverage additional resources and capacities for response and recovery.

- National and local authorities and actors can cultivate the empowerment of migrants before, during, and after natural disaster by creating conditions conducive to migrants' full participation. This might involve: (1) developing culturally-sensitive engagement and recruitment processes; (2) providing incentives to make up for time and resources devoted to DRR activities; (3) collaborating with structures and organizations already existing in the migrant community.

Enhancing and leveraging migrants' capacities to contribute to risk reduction, response, and recovery can improve the well-being of communities in tangible ways, promote the involvement and representation of migrants within their host communities, fostering trust and relationships, and modify ways in which host communities and institutions perceive migrants and accommodate and address their needs and vulnerabilities. These changes, in turn, can produce profound and positive transformative effects on structural factors that influence the vulnerability of migrants to natural disasters.



A father and his child at a camp in Lesbos, Greece © IOM/Amanda Nero 2015

TERMS AND CONCEPTS

Disaster: is a serious disruption of the functioning of a community or a society involving widespread human, material, economic or environmental losses and impacts, which exceeds the ability of the affected community or society to cope using its own resource.^{xxxvi} Throughout this paper “natural disaster” is used as shorthand for “disaster triggered by natural hazards”. This is not an attempt to deny or diminish the role political, economic and social factors and processes play in the creation of conditions of risk; rather, it is deemed necessary in order to better clarify the scope of the matters herein discussed in the context of the MICIC Initiative, which covers situations of crisis triggered by natural hazards as well as by conflict.

Disaster Risk Reduction or DRR: includes all efforts to analyze and manage the causal factors of disasters, including by reducing exposure to hazards, lessening vulnerability of people and property, and improving preparedness for adverse events.^{xxxvii}

Hazard: A potentially damaging physical event, phenomenon or human activity that may cause the loss of life or injury, property damage, social and economic disruption or environmental degradation. Hazards can include latent conditions that may represent future threats and can have different origins: natural (geological, hydrometeorological and biological) or induced by human processes (environmental degradation and technological hazards).^{xxxviii}

Resilience: The ability of a system, community or society exposed to hazards to resist, absorb, accommodate to and recover from the effects of a hazard in a timely and efficient manner, including through the preservation and restoration of its essential basic structures and functions.^{xxxix}

Vulnerability: The conditions determined by physical, social, economic and environmental factors or processes, which increase the susceptibility of a community to the impact of hazards.^{xl}

AUTHOR

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ENDNOTES

i For further information on this example, please see: <http://www.theguardian.com/world/2015/apr/27/nepal-earthquake-rescue-of-stranded-everest-climbers-begins> (accessed on 22.09.2015)

ii For further information on this example, please see: Birkland TA, Herabat P, Little RG, Wallace WA (2005) Impact of the boxing day tsunami on tourism in Thailand - presentation at the 2005 meeting of the American Sociological Association.

iii Koser K (2014) Protecting non-citizens in situations of conflict, violence and disaster. In Martin S, Weerasinghe S and Taylor A (eds) Humanitarian Crises and Migration: Crises, consequences and responses. Routledge, Abingdon

iv Perry and Muskatel (1986, *Minority Citizens in Disasters*, Georgia University Press, Athens) found that some minority citizens do not trust official info unless it is validated within their social networks – for newcomers to an area of destination the issue might be even more fundamental, as it might lead to increased hazard exposure and marginalization in informal/underserved areas that are preferred for the presence of social networks (UN-Habitat, 2003, *Enhancing Urban Safety and Security*, Global Report on Human Settlements 2003, Earthscan, London). For the positive value of social networks in disaster, good examples are reported in the literature on Vietnamese communities affected by Katrina. (e.g. Vu L, VanLandingham MJ, Do M, Bankston CL (2009) *Evacuation and return of Vietnamese New Orleanians affected by Hurricane Katrina*. *Organ Environ* 22(4):470-478

v The Sendai Framework for Disaster Risk Reduction clearly states this in its guiding principle 19.d: “Disaster risk reduction requires an all-of-society engagement and partnership. It also requires empowerment and inclusive, accessible and non discriminatory participation, paying special attention to people disproportionately affected by disasters, especially the poorest. A gender, age, disability and cultural perspective should be integrated in all policies and practices, and women and youth leadership should be promoted. In this context, special attention should be paid to the improvement of organized voluntary work of citizens;”

vi For more information on the Sendai Framework for DRR, please see: http://www.preventionweb.net/files/43291_sendaiframeworkfordrren.pdf (accessed on 22.09.2015)

vii For more information on New Zealand’s Guidelines on including CALD communities in civil protection and emergency management, please see: <http://www.civildefence.govt.nz/cdem-sector/cdem-framework/guidelines/including-culturally-and-linguistically-diverse-cald-communities/>; for information on Australia’s Guidelines on emergency management in CALD communities, please see:

- <http://www.ag.gov.au/EmergencyManagement/Community/Documents/guidelines-for-emergency-management-in-cald-communities.pdf> (accessed on 22.09.2015)
- ^{viii} http://www.fema.gov/media-library-data/1383153669955-21f970b19e8eaa67087b7da9f4af706e/stafford_act_booklet_042213_508e.pdf
- ^{ix} <http://www.gpo.gov/fdsys/pkg/FR-2000-08-16/pdf/00-20938.pdf>
- ^x http://www.dhs.gov/sites/default/files/publications/draft-fema-lep-plan_0.pdf
- ^{xi} For more information on this Philippines' Republic Act 10022, please see: http://www.lawphil.net/statutes/repacts/ra2010/ra_10022_2010.html (accessed on 22.09.2015)
- ^{xii} The collection of Tochigi prefecture multi-lingual awareness and preparedness information material (including the Moka city hazard and response map) can be accessed at: http://tia21.or.jp/disaster_eng.html (accessed on 22.09.2015)
- ^{xiii} For more information on this practice, please see: http://tia21.or.jp/index_eng.html; http://www.mief.or.jp/en/saigai_ken.html (accessed on 22.09.2015)
- ^{xiv} For more information on the Rescue Techniques Training Course, please see: <http://www.tfd.metro.tokyo.jp/eng/inf/training.html> (accessed on 22.09.2015). trainings are delivered in foreign languages, and include components to complement non-Japanese knowledge of the local context.
- ^{xv} For more information on this practice, please see: <http://www.ag.gov.au/EmergencyManagement/Pages/default.aspx> (accessed on 22.09.2015)
- ^{xvi} <http://www.washingtonpost.com/wp-dyn/content/article/2005/12/04/AR2005120400886.html> (accessed on 22.09.2015)
- ^{xvii} For more information on this Disaster Volunteer Interpreter Program, please see: <http://www.pref.miyagi.jp/site/faeng/volunteer-en.html> (accessed on 22.09.2015)
- ^{xviii} For more information on this practice, please visit the Japan Meteorological Agency website: <http://www.jma.go.jp/jma/en/menu.html> (accessed on 22.09.2015)
- ^{xix} For further information on Hyogo Prefecture Emergency Net, please see: <http://bosai.net/e/index.do> (accessed on 22.09.2015)
- ^{xx} For further information on this example, please see: Benavides, A.D. (2013), "Four major disaster occurrences and the Spanish language media: a lack of risk communication", Disaster Prevention and Management, Vol. 22 No. 1, pp. 29-37.
- ^{xxi} For further information on this example, please see: Sheperd and van Vuuren, The Brisbane flood: CALD gatekeepers' risk communication role. Disaster Prevention and Management Vol. 23 No. 4, 2014 pp. 469-483
- ^{xxii} For further information on this example, please see: Duncan (2013) Immigrant integration as a factor in disaster preparedness: The case of the 2011 Tōhoku earthquake in Japan in Migration Policy Practice vol 3 (2)
- ^{xxiii} For more information on the preparedness plan for San Diego farmworker communities, please see: http://www.cidrap.umn.edu/sites/default/files/public/php/27048/Coming%20Out%20of%20the%20Dark_0.pdf (accessed on 22.09.2015)
- ^{xxiv} <https://www.ifrc.org/fr/nouvelles/nouvelles/asia-pacific/thailand/thailands-invisible-flood-victims/>
- ^{xxv} Saban (2014) Disaster Emergency Management. Albany: State of New York Press
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