UNDRR
UN Office for Disaster Risk Reduction

SENDAI FRAMEWORK
FOR DISASTER RISK REDUCTION 2015-2030

ENHANCING DISASTER PREPAREDNESS FOR EFFECTIVE RESPONSE

WORDS INTO ACTION

WORDS INTO ACTION

Engaging for resilience in support of the Sendai Framework for Disaster Risk Reduction 2015-2030

The Words into Action (WiA) guidelines series aims to ensure worldwide access to expertise, communities of practice and networks of DRR practitioners. The guidelines offer specific advice on the steps suggested to implement a feasible and people-centered approach in accordance with the Sendai Framework for Disaster Risk Reduction 2015-2030. These guidelines are not meant to be exhaustive handbooks that cover every detail, and those who need more in-depth information will find references to other sources that can provide them with it.

Using a knowledge co-production methodology, WiA work groups take a participatory approach that ensures wide and representative diversity in sources of know-how. WiA is primarily a knowledge translation product, converting a complex set of concepts and information sources into a simpler and synthesized tool for understanding risk and learning. It is also meant to be a catalyst for engaging partners and other actors.

In summary, the WiA guidelines are pragmatic roadmaps to programming an effective implementation strategy. This is facilitated by promoting a good understanding of the main issues, obstacles, solution-finding strategies, resources and aspects for efficient planning. The guidelines can be a valuable resource for national and local capacity building through workshops and training in academic and professional settings. They can also serve as a reference for policy and technical discussions.

For more information about Words into Action, please contact:

9-11 Rue de Varembé
CH-1202 Geneva, Switzerland
E-mail: undrr@un.org
Website: www.undrr.org

ENHANCING DISASTER PREPAREDNESS
FOR EFFECTIVE RESPONSE

WORDS INTO ACTION

UNDRR
UN Office for Disaster Risk Reduction

CONTENTS

©UNICEF/Kate Brooks

FOREWORD

Mami Mizutori

Special Representative of the UN Secretary-General
for Disaster Risk Reduction

Significant investment in and engagement in disaster preparedness efforts have greatly contributed to saving lives and reducing losses over the past fifteen years. Preparedness efforts are core to disaster risk reduction, improving the availability and utility of early warning systems, public awareness and response capacities and better understanding roles and responsibilities in the event of a disaster.

In November 2019, for example, a new evacuation record was set in Bangladesh when the government Cyclone Preparedness Programme (CPP) evacuated 2.1 million people before Cyclone Bulbul made landfall on the Sundarbans coast. The size of the storm and success of the preparedness measure perhaps explains why CPP will be expanded to provide more geographical coverage from 56,000 volunteers to 200,000 over the next five years. CPP will also begin to tackle other natural hazards including earthquakes.

We know that disaster risk is becoming increasingly systemic. Risks start off in one form: an earthquake but may finally manifest as a national power grid failure. Sustainable development must therefore include the implementation of disaster risk reduction in complex situations and scenarios- including through enhanced and inclusive disaster preparedness to save lives and increase the resilience of the people most at risk.

Pursuing Priority for Action 4 of the Sendai Framework for Disaster Risk Reduction 2015-2030, which calls for enhancing disaster preparedness for effective response and to “Build Back Better” in recovery, rehabilitation and reconstruction, will require an evidence-based understanding of disaster risk, strengthened governance and coordinated systems, having the right people at the right time to coordinate, plan, and prepare.

Adopted by the United Nations Member States in 2015, the Sendai Framework aims to reduce and to prevent disaster risk and losses related to lives and livelihoods, economic losses and damage to infrastructure. This is achieved by greater understanding of disaster risk, by strengthening resilience of people and communities with focus on those most at risk, and by decisive action by all of society to ensure risk informed development, planning and investments. The United Nations Office for Disaster Risk Reduction (UNDRR) is the focal point of the United Nations system for disaster risk reduction, supporting countries to implement and monitor progress against the Sendai Framework and overall risk reduction and resilience building efforts.

I am pleased to release this Words into Action guidelines ***Enhancing Disaster Preparedness for Effective Response*** at the Humanitarian Networks and Partnerships Week (HNPW) 2020. Recognizing the significant body of disaster preparedness lessons and guidance available, it builds upon and points to existing guidance and provides practical examples of risk-informed preparedness. The guidelines target actors working to strengthen risk-informed disaster preparedness across sectors and at all levels. In particular, national authorities will find this guidance useful in formulating disaster preparedness plans including rehearsing them through simulation exercises as an important section of national and local risk reduction strategies.

水鳥真美

ACKNOWLEDGEMENTS

UNDRR gratefully acknowledges the following individuals that were part of the working group working group 2016-2017, many of whom contributed to updates 2018-2019*:

CONTRIBUTORS:

Jonathan Abrahams* - Disaster Risk Management Focal Point, WHO Health Emergencies Program, World Health Organization (WHO), Geneva; Sandra Averous Monnery* – former Programme Officer, United Nations Environment Programme, Paris; Lisa Bothwell* - Program Analyst at U.S. Department of Health and Human Services (HHS) and former Regional Integration Disability Specialist for FEMA Region VII, Federal Emergency Management Agency (FEMA), USA; Massimo Ciotti - Deputy Head of Unit, Head of Country Preparedness & Support Section, European Centre for Disease Prevention and Control (ECDC), Solna, Sweden; Anthony Craig – former Chief, Emergency Preparedness and Response, World Food Programme (WFP), Rome; Beatriz Fernandez - former Consultant, United Nations Environment Programme, Paris; Rajan Gengaje* – former Head, Preparedness & Response Unit and Regional Disaster Response Adviser, United Nations Office for the Coordination of Humanitarian Affairs - Regional Office for Asia and the Pacific (OCHA), Bangkok; Alasdair Hainsworth – former Chief Disaster Risk Reduction Services Division, WMO, Geneva and Executive Director of DRR Consultants Pty Ltd, Tasmania; Oliver Lacey-Hall – former Head, United Nations Office for the Coordination of Humanitarian Affairs (OCHA) - Indonesia, Jakarta; Jakob Lund –former Programme Officer UN WOMEN; Puk Ovesen – former Consultant, United Nations Entity for Gender Equality and the Empowerment of Women (UN WOMEN), Geneva; Jens Kampelmann*– Kampelmann International Consulting and former Sendai Focal Point a.i., German Federal Foreign Office (German FFO), Berlin; Masayo Kondo Rossier* - Humanitarian Affairs Officer, United Nations Office for the Coordination of Humanitarian Affairs (OCHA), Geneva; Kate McCarthy-Barnett* - Regional Disability Integration Specialist, FEMA Region I, Federal Emergency Management Agency (FEMA), Boston, MA, USA; Marcie Roth – Executive Director and CEO at World Institute on Disability and former Senior Advisor and Director of the Office of Disability Integration and Coordination. U.S. Department of Homeland Security, Federal Emergency Management Agency (FEMA), Washington, DC; Sarah Wade-Apicella – Programme Management Officer, UNDRR Global Education and Training Institute (GETI), Incheon, ROK; Chadia Wannous – former Senior Advisor, Scientific and Technological Community, UNDRR, Geneva; Mark Shapiro*, Simulation Exercise Consultant to WHO and Frederik Copper*, Simulation Exercises and After Action Reviews, Team Lead a.i., WHO Health Emergencies Program.

THANKS TO ADDITIONAL CONTRIBUTORS:

Oumar Camara, Chef de la Division Reconstruction et Rehabilitation, Service National de Gestion des Catastrophes et des Urgences Environnementales (SNGCUE), Guinea; Lorenzo Guadagno*, Manager, Migrants In Countries In Crisis Capacity Building Programme, International Organisation for Migration (IOM), Geneva; Joe Leitmann, Team Leader, Resilient Recovery & Urban Resilience, Global Facility for Disaster Reduction and Recovery (GFDRR), Washington, DC; Stefanie Mey-Richters, Desk Officer, Federal Office of Civil Protection and Disaster Assistance (BBK), Bonn, Germany; Jonathan Suk*, Senior Expert, Public Health Emergency Preparedness, and Svetla Tsolova*, Senior Expert Monitoring and Evaluation, European Centre for Disease Prevention and Control (ECDC), Solna, Sweden.

Special thanks go to the public reviewers and to the coordinating author of this guideline, Masayo Kondo Rossier, OCHA; to contributing editor Rajan Gengaje, UNDRR consultant.

UNDRR is also grateful to Stephanie Speck, Chief of Communications, Advocacy and Knowledge Management and Craig Duncan, former Senior Programme Officer of the UNDRR Knowledge Management Unit; former UN interns Alex Tsakiridis of UNDRR and Lana Garrels of OCHA; Jiyeong Jeong, Youmi Oh, Yuri Choe and Seung Yeon Ham of the Incheon Metropolitan City (Republic of Korea) UN student volunteer programme for their research assistance, and to Emilia Wahlstrom and former OCHA intern, Sebastien Rossiter for review and editing.

FOCAL POINT AND EDITOR FOR WORDS INTO ACTION ENHANCING DISASTER PREPAREDNESS FOR EFFECTIVE RESPONSE GUIDE:

Sarah Wade-Apicella

GRAPHIC DESIGN:

Eyetalk Communications

WORDS INTO ACTION GUIDELINES SERIES OVERALL COORDINATION:

Dave Paul Zervaas, United Nations Office for Disaster Risk Reduction

©Welthungerhilfe/Florian Kopp

ABOUT THIS WORDS INTO ACTION

This Words into Action Guideline aims at supporting the practical implementation of the Sendai Framework for Disaster Risk Reduction Priority 4 component on enhancing disaster preparedness for effective response. It targets actors working to strengthen risk-informed disaster preparedness within and across sectors and at all administrative levels in a country. This guideline (i.) highlights the key principles and required actions outlined in the Sendai Framework to enhance disaster preparedness for effective response in action, (ii.) points to existing resources that provide more detailed explanations and guidance by theme or stakeholder, and (iii.) illustrates implementation with examples. It consists of three main sections: Principles, Guidance, and Practices. Corresponding selected existing guidance is available in a corresponding online collection at:

https://www.preventionweb.net/collections/preparedness.

TARGET AUDIENCE:

National Disaster Management Offices (NDMOs), emergency managers and relevant government officials, civil society and international organizations, within and across all sectors at national/local and global/regional levels.

EDITOR'S NOTE:

For the purpose of this publication, the term guideline refers to recommended principles, standards and approaches to guide action and implementation.

The term guidance refers to the general body of existing published guidelines akin to handbooks, manuals and step-by-step approaches to support action and implementation within a specific thematic area or by a specific target audience.

INTRODUCTION

The global policy for reducing disaster risk and building resilience, the Sendai Framework for Disaster Risk Reduction 2015-2030[1] (hereafter, the Sendai Framework), reinforces the need for States and other relevant stakeholders to manage disaster risk rather than to manage disasters.

The Sendai Framework's goal is to achieve the substantial reduction of disaster risk and losses in lives, livelihoods and health and in the economic, physical, social, cultural and environmental assets of persons, businesses, communities and countries.

The Framework builds upon the guidance of its predecessor, the Hyogo Framework for Action, 2005-2015 (HFA)[2], and continues to prioritize disaster preparedness for effective response as part of the Sendai Framework Priority 4. As prioritized by the UN Member Sates with their adoption of the Sendai Framework, actors at every level clearly understand the need for enhanced, risk-informed preparedness to ensure effective, efficient and timely response to both small-scale and large-scale disasters associated with all types of hazards.

The HFA (2005-2015) called for strengthening preparedness for response at all levels. It is recognized that significant disaster preparedness progress during the 2005 to 2015 period led to a reduction of lives lost and an increase in the availability of early warning, public awareness and response capacities as well as an improved understanding of actors' roles and responsibilities in the event of a disaster occurring[3].

The increase in response capacities was variable across countries, however. More action is needed to improve underlying levels of preparedness and to ensure that preparedness is continuously strengthened and updated in accordance with changes in risks and other dynamic factors in communities and countries, such as the availability of information technologies. Nearly five years after the adoption of the 2030 Agenda and the Sendai Framework, many countries have taken concrete steps towards meeting the ambitious aspirations of these transformative plans.

To achieve the Sendai Framework overall goal, Priority 4 specifically focuses on "Enhancing disaster preparedness for effective response and to 'Build Back Better' in recovery, rehabilitation and reconstruction", the latter comprising the inclusion of risk management measures in the recovery, rehabilitation and reconstruction phases to reduce risks of future events. Priority 4 therefore represents an important emphasis on continuity and innovation.

1 https://www.preventionweb.net/sendai-framework/sendai- framework-for-drr
2 https://www.preventionweb.net/drr-framework/hyogo
3 Global Assessment Report on Disaster Risk Reduction 2015. https://www.preventionweb.net/english/hyogo/gar/2015/en/home/

©UNICEF/Roger LeMoyne

The focus of this guideline is on further improving preparedness for response. This includes renewing commitment to early warning systems that should be multi-hazard and multi-sectoral, and preserving functioning infrastructures that are critical for the continued provision of essential services, such as health, education, transport, communications, power and water. It also includes the anticipation of "cascading disasters", i.e. disasters that are magnified by multiple, sequential and interconnected hazards, such as fire caused by gas leakage due to earthquake damage. Attention is also given to evacuation and displacement[4]. This guideline will focus only on the enhanced disaster preparedness aspect.

This guideline identifies and presents key principles of the Sendai Framework in promoting preparedness for response. It aims to guide practicial preparedness planning and implementation through the use of an existing richness of relevant guidelines.

This guideline is divided into three sections as follows:

PRINCIPLES

This first section reviews the first nine Sendai Framework Principles (a) – (i) and provides guidance on how these principles can be applied to enhancing disaster preparedness for more effective response. In addition, it demonstrates how preparedness actions contribute to achieving the global targets.

GUIDANCE

This section – using existing guidance - presents an approach to direct practitioners on how to enhance disaster preparedness for effective response. While it highlights some examples, it is not exhaustive.

PRACTICE

This last section highlights relevant case studies and recommendations illustrating key Sendai Framework principles and approaches to preparedness in practice.

Overall, this guideline intends to inspire exchanges and solutions among practitioners to enhanced preparedness for effective response between and across sectors and actors.

4 Reading the Sendai Framework for Disaster Risk Reduction 2015 – 2030 https://www.undrr.org/publication/reading-sendai-framework-disaster-risk-reduction-2015-2030

01

KEY PRINCIPLES AND GLOBAL TARGETS

1.1 Application of Sendai Framework Guiding Principles to Disaster Preparedness

To implement the Sendai Framework for Disaster Risk Reduction for enhancing preparedness for disaster response, it is important to understand the Guiding Principles of the Framework and apply them for actual preparedness measures. The Sendai Framework has thirteen Guiding Principles, the first nine of which are most pertinent to enhancing disaster preparedness for a more effective disaster response: (a) – (i). The principles and approaches apply to preparedness for hazardous events of all scales including emergencies and disasters.

This section advises on how each of these nine principles can be applied to enhance disaster preparedness.

These Sendai Framework Principles are:

a. [Primary responsibility of the State]
Continue strengthening good governance for disaster risk reduction through coordination and strategies at all levels, whilst improving preparedness and national coordination for disaster response, rehabilitation and reconstruction. The Sendai Framework provides an enabling framework for effective response to take action at two levels: 1) national and local levels, and 2) global and regional levels.

b. [Shared responsibility]
Enable others to take action: the state and its institutions cannot act alone to manage risk. Work together with all identified relevant stakeholders and across sectors at central and sub-national levels in order to realize the most effective risk-informed disaster preparedness and response, as appropriate.

c. [Protection]
Apply and promote human rights standards to strengthen disaster risk management, including preparedness actions. Seek to prevent and reduce risk, including violations of international humanitarian and human rights.

d. [All-of-society engagement]
Leave no one behind: ensure inclusion and non-discrimination. Build on the principle of shared responsibility and take the risks and needs of all people at risk into account in preparedness planning, tools and information. Engage them in the design and conduct of disaster preparedness, thereby reducing barriers to engagement and providing access to all, including people who are elderly, who have disabilities, who are poor and other people who have access and functional needs. Facilitate the participation and leadership of women in preparedness to ensure gender-responsive disaster risk reduction.

e. [Coordination mechanisms]
Systematically coordinate disaster preparedness within and across sectors at all levels, with clear coordination mechanisms at each level and between levels, as well as with organizations.

f. [Empowering local decision-makers]
Ensure enabling conditions are present to empower local authorities and communities to make risk-informed decisions in preparedness and response. This requires carrying out the all-of-society approach (inclusive of communities, industries and local governments), and accounting for gender equity, age, poverty, disability and other risk factors.

g. [Multi-hazard approach and inclusive risk-informed decision-making]
Prioritize disaster preparedness at organizational, local, national, regional and global levels on the basis of risk assessments, by mapping specific hazards, exposure, vulnerabilities and capacities. Be prepared for multiple hazards, including hazards that may be triggered by other hazards (cascading hazards such as 'na-techs'[5]). Train decision makers and practitioners in how to conduct and use the results of such assessments. Use and contribute to open-source risk data platforms[6] to exchange data and plan together.

h. [Sustainable development]
Plan and take disaster preparedness actions in coherence across relevant sectors such as agriculture, education, health, housing and urban development, among others. Disaster preparedness forms part of wider disaster risk reduction as it allows people, communities and institutions to take pre-emptive action and respond effectively to reduce the impact of disasters, while contributing to sustainable development.

i. [Local and specific risks]
Identify, analyze and evaluate all known risks as part of a comprehensive multi-hazard risk assessment that takes into account local and specific characteristics. This is required to determine the measures to reduce disaster risk, including to be prepared for effective response.

5 'Na-tech' refers to those technological hazards that arise directly as a result of the impacts of a natural hazard event.
6 INFORM is a global, open-source risk assessment for humanitarian crises and disasters. It can support decisions about prevention, preparedness and response (although currently data is largely available at national level only).

1.2 Sendai Framework Global Targets

Enhancing disaster preparedness within and across all sectors in line with the Sendai Framework Principles will also contribute to achieving the seven Sendai Framework Global Targets[7].

These global targets (a)-(d), related to disaster loss and damage, call for substantial reductions by 2030 in:

a. global disaster mortality rate

b. the numbers of affected people

c. economic losses in relation to global GDP

d. disaster damage to critical infrastructure and disruption of basic services

Embedding the following approaches in disaster preparedness for effective response actions will directly contribute to the achievement of these targets:

- Ensure the community is prepared to protect themselves from risks.
- Ensure all sectors whose actions contribute to reduced mortality (including emergency response and health agencies) are prepared for rapid response to save lives.
- Build resilience, coping capacity and self-reliance by enhanced and participatory preparedness and other forms of capacity development.
- Safeguard and support continuity of operations by formulating Business Continuity Plans (BCP).
- Include effective planning and resource allocation for post-disaster reconstruction of accessible public buildings, incorporating the "Build Back Better" concept, as part of emergency preparedness work.

In addition, the following global targets (e)-(g) can also be achieved through respective action:

e. increasing the number of countries with national and local DRR strategies by 2020

- Ensure that effective response preparedness planning is included in the national and local DRR strategies, together with the establishment of the required coordination mechanisms at national and local levels for effective response.

f. increasing international cooperation to developing countries by 2030

- Enhance cooperation to and between developing countries on risk-informed preparedness and capacity building for disaster and emergency response.

g. increasing access to multi-hazard early warning systems and disaster risk information and assessments by 2030

- Ensure broader investment in accessible and inclusive early warning and two-way communication with disaster-prone communities to enable emergency management actors and communities at risk to take pre-emptive and protective action (such as evacuation) enhancing peoples' situational awareness and the options open. Prepare and disseminate multilingual information.
- Support the meaningful participation of women, people with disabilities, older people and marginalized groups in development of early warning systems to ensure their effectiveness in reaching people most at risk.

7 See Sendai Framework Global Targets Annex 3.

©UNICEF/Brian Sokolni

02

GUIDANCE

This Words into Action guideline aims at promoting smooth operations between existing guidance and initiatives to provide direction for risk-informed disaster preparedness for response, which is required to achieve the goal of the Sendai Framework.

To do this, the aforementioned nine Sendai Framework Guiding Principles need to be taken into account. Existing guidance and initiatives have been analysed to provide the following approach that should be followed to ensure enhanced risk-informed disaster preparedness.

©UNICEF/Bashir Ahmed Sujan

2.1 Understand risk and invest in preparedness action

Enhancing disaster preparedness for effective response requires an in-depth knowledge of risks and events for which to prepare for. This involves two closely interrelated components:

2.1.1 Know the risks through risk assessment

- Know and communicate which types of events, due to natural and human-induced hazards, such as climate-related hazards, could occur in the local context as well as those that might originate elsewhere but pose a local risk, such as epidemics and pandemics and infrastructure failure.
- Assess the risk likelihood in the local context (the risk profile).
- Know and communicate the current and projected scenarios related to each of these events (risk monitoring and early warning systems[8]).
- Know people's exposure, vulnerability and capacity to develop disaster preparedness measures including the design of effective emergency response plans for the community at risk[9].

2.1.2 Design and plan for disaster preparedness action

- Invest in basic disaster preparedness actions[10] that are relevant to all or most of the potential events, using an all-hazards approach.
- Invest in additional targeted disaster preparedness actions[11], including contingency planning to achieve a state of readiness to respond to specific situations.
- Invest in capacity development to build and maintain the ability for all groups of people - women and men, girls and boys, people with disabilities and others with access and functional needs - and organizations and societies, to successfully manage their own risks.

© UN Photo/Kibae Park

8 To support the paradignamtic shift in the way risk information is developed, assessed and utilized in multi-hazard early warning, the Multi-hazard Early Warning Systems: A Checklist was developed as an outcome of the first MHEW Conference in Cancun in 2017. (https://library.wmo.int/doc_num.php?explnum_id=4463)

9 Especially the risk factors (e.g. poverty, gender inequality, age, disability), including through systematic collection, analysis and use of sex and age disaggregated data and consultation with affected women and men and marginalized groups.

10 To help UN Country Teams establish a minimum level of response preparedness, the Emergency Response Preparedness (ERP) ap-proach provides a group of Minimum Preparedness Actions (MPAs). These measures serve as the basic building blocks of emergency preparedness. They are relevant for all country contexts and usually do not require significant additional resources to implement.

11 The ERP approach also provides a group of Advanced Preparedness Actions (APAs) to help Country Teams increase preparedness once they identify a specific moderate or high risk. These actions take the humanitarian community to a state of readiness to respond, and build on the MPAs already in place.

BOX 1:

Preparedness for Disaster Response Actions

The following outlines the disaster preparedness actions[12] to be taken:

- Lead and Coordinate: include local authorities, civil society and communities
- Identify, Assess and Monitor All Risk: by analyses of hazards, exposure, vulnerability and capacities using sex- and age-disaggregated data (e.g. for hydrometeorological, geophysical, biological and technological hazards)
- Put Early Warning Systems in Place: ensure the participation and needs of all.
- Assess and Collect Needs of All: manage and disseminate information including sex- and age-disaggregated data, including disability, accessibility, and functional needs (requires needs assessment and information management).
- Assess Operational and Human Capacities: identify who knows and does what where, and what's needed where, across sectors and communities.
- Formulate Risk-informed Emergency Response, Contingency and Business Continuity Plans: ensure plans are based on risk assessments of multi-hazard, specific hazard and climate scenarios, and identification of accountabilities for maintaining relevance of the plans[13].
- Plan for External Assistance and Support: consider sub-national, national, regional and international levels.
- Prepare to Make Funding and Alternative Relief Arrangements: understand available mechanisms for disaster preparedness and contingency funds for emergency response.
- Communicate, Educate and Train: ensure plans are developed with stakeholders, communicated, and capacity and understanding built among all actors.
- Conduct Simulations: "stress-test" plans and to ensure individuals and organizations understand their roles and the roles of others
- Stockpile Relief Supplies: Ensure a reserve of required supplies and/or establish arrangements for timely acquisition of relief supplies.
- Identify and Advise Requirements to Change Standard Arrangements: including standard operating procedures for initial phases of response, implemented as part of basic disaster preparedness actions.

REFER TO THE SELECTED LIST OF EXISTING GUIDANCE TO TAKE A RISK- INFORMED APPROACH TO DISASTER PREPAREDNESS FOR RESPONSE IN THE ONLINE COLLECTION: https://www.preventionweb.net/collections/preparedness

12 Minimum Preparedness Actions (MPAs) and Advanced Preparedness Actions (APAs) that form part of the current Emergency Response Preparedness (ERP) approach of the IASC have inspired these preparedness actions. The ERP guidance for national and local levels is a preparedness framework of three sub-elements: the strategic framework, the legal framework, and response plans. Where necessary, sub-elements may preliminarily be supplemented by MPAs. The MPAs suggested have been defined for the United Nations Country Teams, but can be adapted to suit national actors as well. (https://interagencystandingcommittee.org/iasc-transformative-agenda/documents-public/iasc-emergency-response-preparedness-draft-field-testing) The Inter-Agency Standing Committee (IASC) is a unique inter-agency forum for coordination, policy development and decision-making involving the key UN and non-UN humanitarian partners. (https://interagencystandingcommittee.org/the-inter-agency-standing-committee)

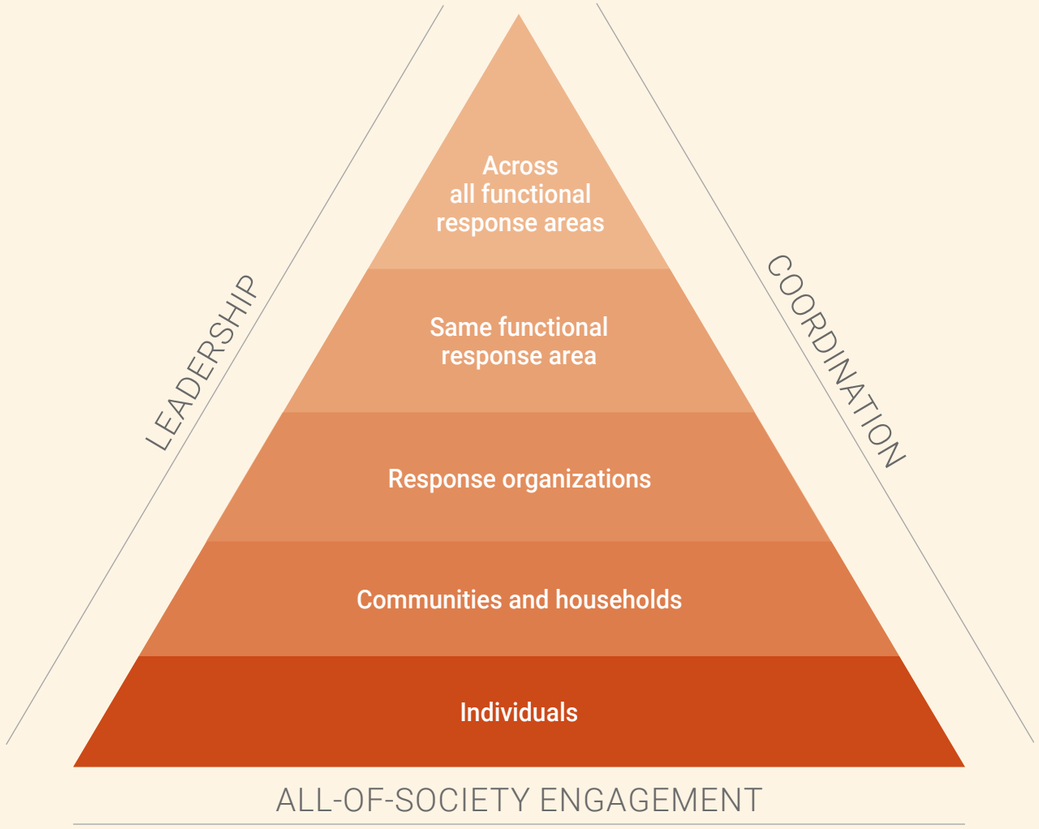
13 For an elaboration of risk-informed contingency planning, see Chapter 2 - Key Components in Preparedness Planning, section 2.1 on Contingency Planning in the Disaster Preparedness for Effective Response Guidance and Indicator Package for Implementing Priority Five of the Hyogo Framework (https://www.unisdr.org/we/inform/publications/2909)

BOX 2:

Coherence at all levels

Disaster preparedness can be seen as coherent action within and across multiple levels and sectors understanding that disaster preparedness is an important investment. Even if a hazardous event does not materialize, in many - if not most - situations, basic multi-hazard preparedness and additional actions to achieve readiness to specific hazards will have long-lasting beneficial effects. For example, conducting simulations to test readiness contributes to raising awareness of risks and the capacities required to respond.

A realistic appreciation of current and likely future capacity to respond to events from different hazards and of varying magnitudes is also important. This will inform any potential need for external assistance, including national assistance to local actors, and regional or international assistance to national responders. If this is a potential requirement, sources of external assistance should be included in planning and other preparedness action



2.2 Prepare for natural, man-made or other types of hazard

The Sendai Framework promotes an inclusive, multi-hazard approach to enable risk-informed decision-making. There is an abundance of guidance documents and materials available that can be used to understand the types of risks present, as well as the specific regions and countries that are at risk.

For example, there is a need in Small Island Developing States for a tailored approach with reference to the risk drivers including unplanned urbanization, increased global travel and climate change.

The selected list of existing guidance material can contribute to determining existing risk factors and demonstrate approaches to disaster preparedness for effective response particularly at the national and local levels (the latter which includes communities and individuals).

An all-hazards approach, whereby common capacities provide for an effective and efficient way to address a wide range of risks, should be applied. However, it should be noted that specific risk scenarios require adaptation of these capacities and greater emphasis on certain capacities such as disease surveillance, health care, diagnostic services, vaccines and pharmaceuticals for biological hazards.

©doculab/Malteser International/Guilhem Alandry

REFER TO THE SELECTED LIST OF EXISTING PREPAREDNESS AND DISASTER RISK MANAGEMENT GUIDANCE TO PREPARE FOR NATURAL, MAN-MADE OR OTHER TYPES OF HAZARDS GUIDANCE IN THE ONLINE COLLECTION: https://www.preventionweb.net/collections/preparedness

©USAFRICOM

2.3 Engage key stakeholders and actors

The Sendai Framework focuses on all-of-society engagement in disaster risk reduction. Therefore, when planning and conducting disaster preparedness actions, participatory approaches and inclusiveness should always be kept in mind. Stakeholders include members of the community and country who are at risk of disasters and actors who contribute to disaster risk management, including all public sectors, businesses and business persons, civil society organizations, voluntary work organizations, academia, regional and international actors, and community leaders and members, including children and youth, persons with disabilities, displaced persons and others with access and functional needs, older persons, indigenous peoples, and migrants[14]. One approach is through the creation and training of neighborhood and community emergency response teams (NERTs, CERTs) to enhance risk awareness and preparedness for effective response.

The available existing guidance materials focus on different stakeholders at different stages of planning and conducting disaster preparedness actions.

REFER TO THE SELECTED LIST OF EXISTING DISASTER RISK MANAGEMENT AND DISASTER PREPAREDNESS GUIDANCE MATERIALS ON ENGAGING KEY STAKEHOLDERS AND ACTORS GUIDANCE IN THE ONLINE COLLECTION: https://www.preventionweb.net/collections/preparedness

14 Refer to the Sendai Framework, section V, Role of stakeholders.

2.4 Ensure components and principles of inclusive and equitable response

In order to ensure that the goal of the Sendai Framework is met, it is important to use appropriate resources, incentives and decision-making responsibilities to embed the Sendai Framework Principles, as well as the principle of universal design[15]. Designing and implementing enhanced disaster preparedness plans cannot be done without women and girls, men and boys, people with disabilities, people with different barriers (e.g. cultural, linguistic, legal), older persons, indigenous peoples, migrants or others with access and functional needs and vital capacities, their organizations and networks.

The potential and actual contributions of women, in terms of skills and capacities, to prepare for disasters and ensure community resilience remain under-utilized. Women have often been key drivers in the community, playing leadership, constructive and productive roles in preparedness. Their rights protection, disproportionate vulnerabilities and risk exposures are closely linked to the issues. Lack of opportunities to education, work and financial independence need to be addressed to fully utilize women's capacity. Therefore, for effective disaster preparedness, it is necessary to have the substantive participation of women from disaster-prone communities as they provide the necessary knowledge on the gendered dimensions of disasters. Local grassroots organizations and women's groups are often key informants, knowledgeable of local needs and opportunities, as well as important community mobilizers.

Components and principles of preparedness must be based on equal access through effective communication (considering multi-lingual, translation and interpretation needs), physical accessibility and programmatic modification, equal opportunity, self-determination, inclusion, and integration at no charge.

©UN Photo/Martine Perret
©UNDRR/Chris Huby
©UNICEF/ Tibebu Lemma
©UNICEF/ Sebastian Rich

15 The term "universal design" was coined by the architect Ronald L. Mace to describe the concept of designing all products and the built environment to be aesthetic and usable to the greatest extent possible by everyone, regardless of their age, ability, or status in life. https://www.ncsu.edu/ncsu/design/cud/about_us/usronmace.htm

BOX 3:

2013 UN global survey on people living with disabilities on how they cope with disasters

In 2013, the United Nations Office for Disaster Risk Reduction produced the results from a global survey on the experiences of people with disabilities in disasters and in disaster management. The survey showed not only the lack of personal preparedness plans, with 71 percent reporting that they did not have one, but how often people with disabilities are being left out of the development of community plans with 50 percent expressing a desire to participate. Planning without people with disabilities and access and functional needs and their organizations takes away from the empowerment, inclusiveness, non-discrimination and accessibility required to reduce disaster risk.

https://www.flickr.com/photos/isdr/10184703984/in/set-72157634649035180

©doculab/Malteser International/Guilhem Alandry

2.5 Operationalize disaster preparedness frameworks, seek interoperability at all levels

A thorough disaster preparedness framework forms the foundation for effective response, both at national and local levels and at regional and global levels. Such a framework, especially if elaborated in a collective, participatory manner, enables interoperability of stakeholders at all levels.

At National and Local Level

At the local and national level, a fully comprehensive disaster preparedness framework consists of three sub-elements: the strategic framework, the legal framework and the response plans.

If it is applicable, the three sub-elements may preliminarily be supplemented by basic or minimum preparedness actions (MPAs).

The strategic framework for disaster management for a given country forms the overarching structure, including the authority and high-level designation of roles and responsibilities. This needs to be supported by corresponding legislation and further be spelled out in corresponding response plans.

The legal framework translates the strategic framework into a hierarchy of norms in the constitution as well as within national, sub-national, and local legislation, where applicable. It describes the structure of the national system for disaster preparedness and response and foresees and further defines a corresponding hierarchy of response plans.

Response plans outline the actions to be taken in response to emergencies in accordance with strategic and, in most cases, legal frameworks. Standard operating procedures (SOPs) must be emphasized together with corresponding easy-to-use checklists and templates.

The combination of strategies, legislation and response plans needs to cover the following areas:

- Roles and responsibilities, leadership, coordination and multi-stakeholder engagement;
- Risk assessment and monitoring, and early warning;
- Finance;
- Management;
- Communications and information management;
- Operations;
- External (international) assistance, coordinated action in disaster preparedness.

At Regional and Global Level

At the regional and global level, appropriate frameworks will need to be developed for the following three actions:

- Early warning;
- Regional operational mechanisms and sharing of response capacities;
- Guidance instruments for coordinated action in disaster preparedness and response

REFER TO THE SELECTED LIST OF EXISTING GUIDELINES RESPONSE PREPAREDNESS FRAMEWORKS FOR RISK-INFORMED RESPONSE IN THE ONLINE COLLECTION: https://www.preventionweb.net/collections/preparedness

©UNICEF Ethiopia/2005/Getachew

2.6 Link with “Build Back Better” in recovery, rehabilitation and reconstruction

Sendai Framework Priority 4 also focuses on the preparedness and implementation of “Build Back Better” in the recovery, rehabilitation and reconstruction phases.

This is a phase when most failures are visible and documented, and is therefore also the greatest opportunity to ensure corrective actions to reduce future disaster risk are taken. Taking such actions must be built upon an understanding of risk and having the governance and coordination mechanisms in place. Therefore, pre-recovery planning to “Build Back Better” must be done in the pre-disaster phase as part of comprehensive disaster risk management, including disaster preparedness.

REFER TO THE WORDS INTO ACTION SENDAI FRAMEWORK PRIORITY 4 GUIDANCE ON “BUILD BACK BETTER” IN ADDITION TO THE SELECTED LIST OF EXISTING GUIDELINES ON LINKING PREPAREDNESS WITH ‘BUILD BACK BETTER’ IN THE ONLINE COLLECTION: https://www.preventionweb.net/collections/preparedness

©Unsplash/ Virgyl Sowah

03

PRACTICES

In this section, a series of preparedness case studies illustrate the Sendai Framework Principles (a) – (i). Cases demonstrate examples of successful risk-informed preparedness practices. For each case study, a concrete list of good practices implemented are outlined.

a. [Primary responsibility of the state]

What the world can learn from Odisha, India's most disaster-ready state:
https://yourstory.com/2017/09/odisha-disaster-preparedness

ODISHA, INDIA

India's most disaster-hit State moves up as most disaster-ready State

Often facing the wrath of cyclones and flooding, the coastal State of Odisha set up its Odisha State Disaster Management Authority in 1999. The Super-cyclone of October 1999 which took 10,000 lives made the State learn its lessons quickly. Further, cyclone Phailin (2013), cyclone Hudhud (2014) and cyclone Fani (2019) have pushed the State Authorities to work closely with civil society groups, NGOs, national and state level functionaries and rapid action forces in gearing up for the protection of the vulnerable people including the coastal fishermen communities.

GOOD PRACTICE

- OSDMA – the Odisha State Disaster Management Authority, set up in 1999, became the first of its kind state level authority (with staff, budget and authority provided through legislation) across the country
- 800 multi-purpose cyclone and flood shelters have been built across the vulnerable areas of the State
- Cyclone Management Centres are managed by community-based organizations
- The Early Warning Dissemination System of the State activates sirens across 122 towers operational through 480 kms coastline
- A network of weather forecasting doppler radar is being created across the State
- Working together with National Disaster Response Force (NDRF), the State DRF evacuated over 1.5 million people during cyclone Fani in 2019, reducing the death toll to smaller digits

©EU/ECHO 2013/Samuel Marie-Fanon,

b. [Shared responsibility]

PAKISTAN

Earthquake Reconstruction and Rehabilitation Authority of Pakistan (ERRA)

Institution-building and capacity building for local governments

Following the 8 October 2005 Earthquake the Government quickly established national agencies for relief and reconstruction. The Earthquake Reconstruction and Rehabilitation Authority (ERRA) integrated disaster risk management into its community preparedness work, with a guidebook for mainstreaming disaster risk reduction into development, hazard indication maps for the districts of Mansehra and Muzaffarabad, and Disaster Management Committees and Emergency Response Teams being established in 112 Union Councils across the two districts.

GOOD PRACTICE

- The project mainstreamed disaster risk reduction into district development processes with technical support from national and international partners.
- Workshops developed guidelines for integrating disaster risk reduction in future development planning, and in national reconstruction planning.
- A concise mainstreaming guidebook was compiled for district planning officials

Local Governments and Disaster Risk Reduction Good Practices and Lessons Learned: A contribution to the "Making Cities Resilient" Campaign. (UNISDR, 2010)

©UN Photo/Kibae Park

INDONESIA

Asian Disaster Preparedness Center, Bandung Institute of Technology & Jakarta Provincial Government

Many partners, one system: An integrated Flood Early Warning System (FEWS) for Jakarta

Integrating improvements into the Flood Early Warning System for Jakarta has been a true multi-stakeholder process, involving a huge range of local authorities and partners. Through managing everyone's interests and roles, and improving coordination, the Early Warning System was upgraded from top to bottom. Technical improvements made earlier flood warnings possible. Disaster preparedness capacity was built and streamlined. Key coordination hubs and standard operating procedures were established and tested with comprehensive drills, so that institutions and communities are ready to act on warnings.

GOOD PRACTICE

- This was a successful example of a multi-level multi-stakeholder collaboration between the national, provincial and city governments, working with local NGOs and communities, for a fully integrated early warning system. Each stakeholder actively fulfilled their roles and responsibilities, and there was a common vision and shared perspective on improving the Integrated FEWS.
- Stakeholders at all levels were involved in a mix of multi-level capacity building activities, such as training of trainers and simulation exercises, from government institutions to very local communities. This raised the level of readiness of the government officials in charge of disseminating warnings and hazard information, as well as preparing communities better for response, evacuation, and coping strategies.
- Participatory consultation was built in through creating a feedback process. The Participatory Feedback Groups attended by all stakeholders bridged the gap between government and community perceptions of flood risk reduction initiatives.
- The existence of a Technical Working Group consisting of experts from prominent institutions was a key factor for success.

Local Governments and Disaster Risk Reduction Good Practices and Lessons Learned: A contribution to the "Making Cities Resilient" Campaign. (UNISDR, 2010)

©Shutterstok/Ares Jonekson

TANZANIA

Setting up a Flexible Framework for Addressing Chemical Accident Prevention and Preparedness (CAPP)

Over 90% of the chemicals used and handled by companies in Tanzania are imported. Accidents related to chemical spillages were reported, which were caused during road transportation of substances by fuel tankers and trucks. These accidents from the transportation of chemicals led to fires frequently resulting in casualties.

Recognizing the need to improve the sound management of chemicals, the Government Chemist Laboratory Agency (GCLA) – the implementation Agency for the Industrial and Consumer Chemicals in Tanzania, in collaboration with UN Environment and the Swiss Federal Office for the Environment (FOEN), initiated the Chemical Accident Prevention and Preparedness (CAPP-TZ) programme project in Tanzania, in order to prevent and prepare for major chemical accidents in Tanzania, and thus to improve industrial safety and safety of local communities nearby areas of potential industrial risks.

The CAPP-TZ project involved the implementation of the Flexible Framework for Addressing Chemical Accident Prevention and Preparedness (CAPP), an initiative led by UN Environment that promotes the improvement of prevention and preparedness to chemical accidents, in order to address the risks associated with chemical accidents. The nature of "Flexible Framework" reflects that it can be developed by any country, regardless of location, size or industrialization level, and thus expected that each country would be able to design its own programme.

Through the implementation of UN Environment's Flexible Framework for Addressing Chemical Accident Prevention and Preparedness (CAPP), it was possible to improve Tanzania's situation about chemical risk management and accident prevention.

GOOD PRACTICE

- By improving the ability of relevant agencies and institutions in Tanzania, the capacity of the country to prevent and prepare for chemical accidents could be improved, and thus of the safety of communities living near industrial areas.
- The CAPP-TZ project resulted in the creation of a Roadmap, which outlined the steps needed for Tanzania to implement a CAPP programme, providing a framework and timeline to develop and accomplish the activities, as well as ensuring some national budget was allocated to CAPP implementation.
- The CAPP-TZ project improved coordination and communication among government agencies, industry representatives and other stakeholders.

Case Study: Chemical Accident Prevention and Preparedness Programme Project in Tanzania (CAPP-TZ) (United Republic of Tanzania, 2014)

https://www.preventionweb.net/publications/view/56448

©UNSLASH/RAHIM ABAS KIOBYA

c. [Protection]

SOUTH-EAST TURKEY

Refugee Inclusion in Earthquake Casualty Estimation

Earthquake risk assessments are an essential part of the disaster risk reduction process, helping to inform disaster preparedness and resource allocation pre-event and direct humanitarian aid response post-event. Earthquakes are environmental hazards with long return periods. For this reason, long-term earthquake risk assessments are often favoured over their short-term counterparts.

In Turkey, these assumptions are being challenged by the current scale of social and political upheaval. Since 2011, Turkey has accommodated nearly 2.8 million Syrian refugees amidst the ongoing Syrian civil war. In contrast to other Middle Eastern countries, only a small portion of Syrian refugees in Turkey (~10%) reside in refugee camps. The remaining Syrian refugee populations have settled in local villages and cities – increasing occupancy in existing structures, many of which are highly vulnerable to earthquake shaking. The seismic resistance of Turkey's building stock remains a major area of concern in light of high collapse rates during recent earthquakes.

The prevalence of Syrian refugees living outside of formal camps is an important distinction for earthquake risk assessments. With population density increases exceeding 10 per cent in several south-eastern provinces, it is becoming increasingly important to integrate Syrian refugee populations into existing population models rather than to analyse their situations in isolation. Yet, the data sources commonly used in earthquake risk assessments are not updated frequently enough to support this type of analysis. In an effort to account for refugee populations in earthquake casualty estimations, the population estimates from the Turkish Statistical Institute's Address Based Population Registration System (ABPRS) were adjusted to include statistics on Syrians under temporary protection, available from the Directorate General of Migration Management (DGMM) of Turkey. While this process is straightforward, it is limited in scope to refugees who are formally registered by Turkish authorities. Displaced populations and unregistered refugees remain unaccounted for in our modified population model.

GOOD PRACTICE

- Using these two population scenarios (ABPRS and refugee-adjusted ABPRS), a comparative analysis could be performed on earthquake casualty estimations across south-eastern Turkey.
- 15 earthquake scenarios were simulated at varying fault locations and earthquake magnitudes, comparing the casualty estimates produced before and after including refugee populations. This process had two fundamental goals: (a) to understand the impacts associated with earthquakes in provinces with varying refugee populations; and (b) to determine the underestimations associated with a standard census-based population model.
- Including Syrian refugee populations in earthquake casualty estimations increased the total number of projected casualties in earthquake scenarios across south-eastern Turkey. These increases ranged from a few extra casualties to 1,579 additional casualties, varying with earthquake location and magnitude.

For government and aid agencies working to provide a region with aid post-event, understanding these varying scales is important for implementing disaster preparedness and adequate response plans. With refugee casualties reaching hundreds of individuals in over 50 per cent of this case study's simulations, it is clear that short-term population movements are an important consideration for scenario-based risk planning activities.

Bradley S. Wilson and Thomas R. Paradise, Guidelines to Protect Migrants in Countries Experiencing Conflict or Natural Disaster (IOM 2016)

UNITED STATES

Disaster Preparedness among Migrant Farmworker Communities in the USA

Empowered Action During Disaster

Mexican migrant workers make a significant contribution to the US agricultural industry in the state of California, yet these communities live in poverty, have limited access to healthcare and health insurance and largely underuse public service benefits they may qualify to receive. Constantly fearing deportation, these migrants avoid travelling outside of their homes unnecessarily and know that even a quick walk to drop off a child at school might result in being arrested.

During and immediately following the October 2007 wildfires that ravaged Southern California, migrant farmworkers there faced serious barriers to information, resources and recovery that negatively impacted an already socioeconomically vulnerable community.

The Farmworker CARE (Collaboration/Communication, Activism/Advocacy, Research/Resources and Empowerment/Education) Coalition rose to assess the impact of fire and mitigate likely impact of future fires by building community capacity with attention to specific needs.

During the 2007 California Firestorm (8 separate fires burning for 10 days, destroying 1,751 homes and 368,316 hectares) the plight of migrant farmworkers was witnessed again. The Coalition members worked fast to aid where possible and joined forces with other migrant rights activists in addressing the needs of immigrants during and following the fires.

Coalition's response experience forced agencies and community leaders to recognize the lack of proper infrastructure needed to effectively respond to disasters. The disaster helped in significantly increasing the membership of the Coalition – to become a recognizable lobby for forging partnerships with other actors and building its own organizational capacity.

GOOD PRACTICE

- Building a coalition before a disaster is vital to being able to develop and manage disaster preparedness projects.
- Capacity building at all levels is integral to implementing disaster preparedness work specific to migrant communities.
- Expand partnership: A key strategy employed in the development of the response plan during disaster was the expansion of partnerships in areas not represented in the Coalition, yet vital in times of disaster, migrant-language media (including local radio and TV stations in migrant language, as well as larger companies that broadcast locally), food banks, disaster preparedness organizations, and faith based organizations to join its efforts.
- Advocacy on behalf of the migrants to uphold their civil and human rights is vital to the success of disaster preparedness efforts.
- Development and maintenance of a disaster preparedness plan for migrants is a continuous process which requires dedicated personnel, community involvement, financial resources, and capacity building.
- Konane M. Martínez Ph.D. and Arcela Núñez Álvarez Ph.D., National Latino Research Center, California State University San Marcos, Guidelines to Protect Migrants in Countries Experiencing Conflict or Natural Disaster (IOM 2016)

d. [All-of-society engagement]

INDONESIA
National Agency for Disaster Management, Indonesia

The joint management of Merapi Volcano

The Merapi Forum is an example of a true local multi-stakeholder forum that brings together local and national government, community volunteers, the media, educational institutes, the private sector, NGOs and donors, to jointly manage the risks posed by the active Merapi Volcano. With a mandated parent agency at central government level, local governments have helped coordinate many partners to design and carry out risk mapping, disaster preparedness planning and mass community drills.

GOOD PRACTICE

- It is primarily a local initiative, initiated by local government authorities.
- The participatory process gives space for the communities to take the lead in their areas of disaster risk reduction responsibility.
- Ownership was fostered among the stakeholders, particularly between community members directly facing the risks of the volcano and the local governments. There was substantial willingness among different stakeholders to contribute resources to the joint programs and activities.
- Local governments acknowledged and appreciated the work of grassroots communities.
- Different levels of government were committed to the project. Practical support is provided by central and provincial governments, including the Indonesian National Agency for Disaster Management and Ministry for Energy and Mineral Resources.
- The complex obstacles faced were resolved through: deliberation and consensus building, actual involvement of local communities in mapping hazard risks, broad-based multi-stakeholder participation from local communities to international donors and development NGOs, and combining local wisdom on early warning with scientific findings.

Local Governments and Disaster Risk Reduction Good Practices and Lessons Learned: A contribution to the "Making Cities Resilient" Campaign. (UNISDR, 2010)

©Unsplash/Aliko-Sunawang

INDIA
State National Disaster Management Authority

Tsunami Early Warning and Community Preparedness Drills

While a tsunami cannot be prevented, its impact can be greatly mitigated through regular community-wide preparedness including training and drills, timely warnings, effective response, public awareness and education.

India pursues a de facto "zero casualty" policy through a system-wide approach to disaster preparedness: the Indian Tsunami Early Warning Centre (ITEWC) hosted at the Indian National Centre for Ocean Information Services (INCOIS) in Hyderabad has a dissemination plan that reaches out to a nationwide network of disaster response and emergency operations centres, district centres, the general public and the media.

On the occasion of the IOWave16 test of the Indian Ocean Tsunami Early Warning System, some 30,000 people were evacuated in Odisha as part of a major annual awareness raising exercise and the inauguration of the first-ever World Tsunami Awareness Day on 5 November, 2016.

Since the deadly 2004 Indian Ocean Tsunami, the Government of India has established the Indian Tsunami Early Warning System, and the Intergovernmental Oceanographic Commission (IOC) of UNESCO began tsunami drills in 2009. By the time Super Cyclone Phailin hit Odisha in 2013, the state of awareness and preparedness was such that few lives were lost.

GOOD PRACTICE

- Training has focused on developing community task force groups for search and rescue, first aid, relief and supplies, as well as rehabilitation groups, and those focused on identifying and assisting groups in communities to ensure prompt evacuation with priority to kids and lactating mothers, older persons and pregnant women, and the physically challenged.
- Village volunteers lead task forces, each represented by women and men, boys and girls, with the know-how and training to lead the evacuation.
- The multi-purpose cyclone shelter belongs to the community and is theirs to manage, so its upkeep is regular. The shelter is also a small source of income. Fees are paid for its use during community functions.

India evacuates 30,000 in tsunami drill (Geneva: UNISDR, 2016)

e. [Coordination mechanisms]

GALLE, SRI LANKA

Managing local risks through District Disaster Management Coordinating Units (DDMCU)

Managing specific local risks is best done when the local community is engaged and preparedness to respond. With 4,330 persons killed and over 26,000 families displaced by the Indian Ocean Tsunami in December 2004, the village community in Galle, Sri Lanka organized itself into village level committees to better prepare for impending coastal hazards that pose a threat along Galle's 72 km coastline.

GOOD PRACTICE

- Forming a regional consortium of NGOs and donor agencies avoided duplication of work, allowing for better sharing of experiences and more effective leverage of scarce funds for disaster risk reduction.
- Communities were linked with local government, both directly and through NGOs, making the processes of dialogue and advocacy sustainable. Communities realized that they had the right and ability to continue the dialogue and to work to reduce their vulnerability.
- The programme area was defined not by lines on a map, but was an entire watershed area from the mountains down to the sea, across administrative boundaries.

How to Make Cities More Resilient: A Handbook for Local Government Leaders. (UNISDR, 2017)

©UN Photo/Evan Schneider
©United Nations Photo/ Photo # 63035

EL SALVADOR
Oxfam America

Inclusive risk-informed decision-making Strengthening connections between communities and local government

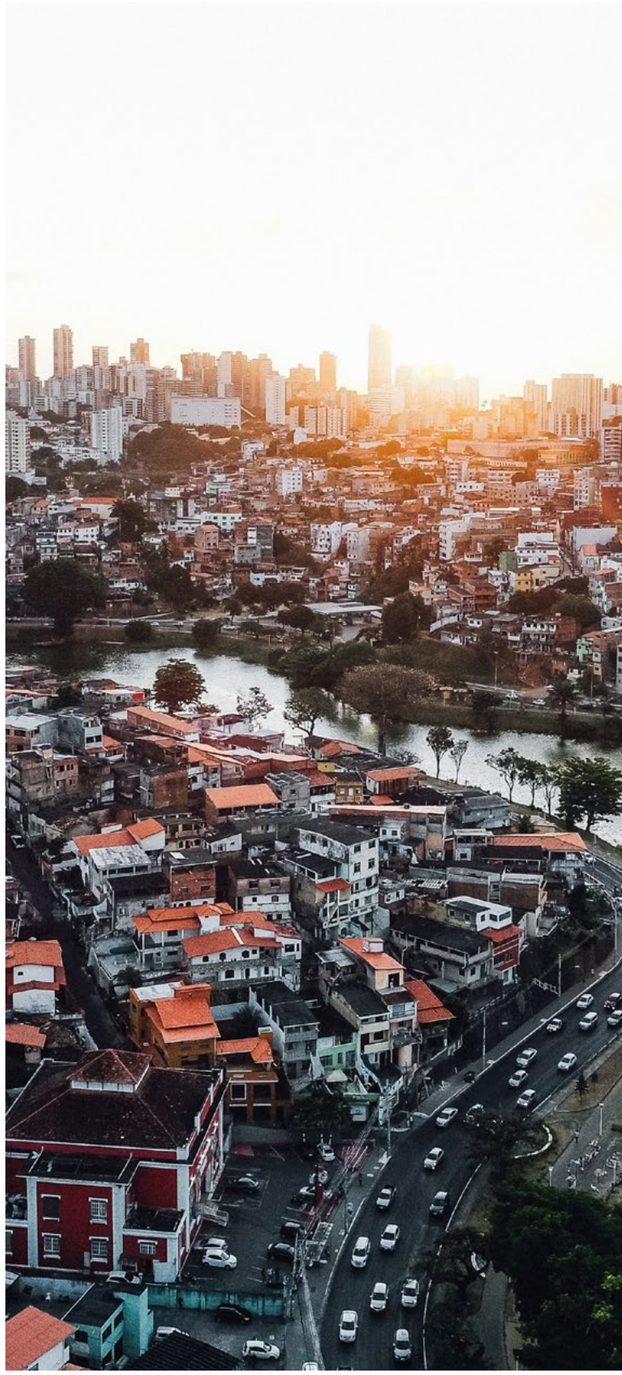
Based throughout the watershed areas of Ahuachapán and Sonsonate in El Salvador, PRVAS is a disaster risk reduction programme coordinated by a consortium of NGOs and donors, working to bring local communities into dialogue with local and national governments and funding sources. Where local governments were committed to the process, strong multi-stakeholder engagement, community capacity building, and collaborative disaster preparedness exercises were achieved.

GOOD PRACTICE

- Forming a regional consortium of NGOs and donor agencies avoided duplication of work, allowing for better sharing of experiences and more effective leverage of scarce funds for disaster risk reduction.
- Communities were linked with local government, both directly and through NGOs, making the processes of dialogue and advocacy sustainable. Communities realized that they had the right and ability to continue the dialogue and to work to reduce their vulnerability.
- The programme area was defined not by lines on a map, but was an entire watershed area from the mountains down to the sea, across administrative boundaries.

Local Governments and Disaster Risk Reduction Good Practices and Lessons Learned: A contribution to the "Making Cities Resilient" Campaign. (UNISDR, 2010)

©Unsplash/Felipe Dias



BELGIUM, PORTUGAL AND ROMANIA

ECDC

Ebola preparedness coordination and peer review

In the European Centre for Disease Control (ECDC) technical report on Ebola Virus Disease (EVD) emergency preparedness in the EU Member States of Belgium, Portugal and Romania, the following common conclusions were drawn from peer-review visits. The review of findings by the visiting teams identified a large degree of similarity in the challenges, which the countries faced in preparing for possible Ebola cases. ECDC built upon this work to produce the checklist for preparedness: Health emergency preparedness for imported cases of high-consequence infectious diseases.

GOOD PRACTICE

- Simulation exercises were recognised as a good tool for learning.
- The value of incident (case) reviews as a learning tool to strengthen emergency preparedness was discussed. Incident reviews also help to revise actions taken and improve the timeliness of response (applied in all countries at a different scale and scope).
- While preparing for Ebola response measures, cross-sectoral coordination was improved, given the need for cooperation between health, transport, border services, etc.
- 'One-stop shop' for information on Ebola was provided to citizens, for example through telephone hotlines or websites.
- Lessons learned from past events were used to enhance the Ebola response. Experiences from SARS, avian influenza, MERS CoV and A(H1N1) fed directly into the Ebola preparedness planning.
- Efficient structures to coordinate preparedness and response measures in the context of the Ebola health threat were established

Common challenges

- Resourcing: a number of caveats were noted with regard to sufficient availability of staff and resources. Staff issues with regard to business continuity, in particular the number of trained staff that need to be mobilised to care for a single Ebola patient over a sustained period of time, and the establishments of procedures to manage the impact of this staff mobilisation so other hospital services are not compromised. There is a need to plan the continuity of operations in situations with more than one Ebola case.
- Personal protective equipment (PPE): challenges in obtaining and deploying Ebola-appropriate PPE in quantities needed to manage a confirmed case for several weeks; challenges in ensuring the timely training of a sufficient number of healthcare workers on how to use Ebola-appropriate PPE (challenge successfully resolved in some, but not all countries); challenges with excessive layering of PPE, which makes it difficult for healthcare workers to do their job.

- Transparency of processes: ensuring sufficient consultations with key stakeholders in a time of crisis in order to develop or adapt the necessary guidelines and standard operating procedures.
- Case definition: Some countries relied on relatively specific case definitions for identifying persons who require investigation for possible infection with Ebola virus, without specific algorithms for the investigation of persons considered to be at a lower probability of infection.
- Capacities:
  - Recognized need for more exercises and training
  - Emergency departments in non-designated hospitals may need further assistance in emergency preparedness planning.
- Evaluation, legacy and application of lessons learned: a comprehensive evaluation plan should be considered so that lessons learned can be used to improve protocols and guidance. Need to ensure that practices and experiences from Ebola are captured and sustained to improve preparedness for future threats.
- Interoperability of plans between sectors: More attention could be paid to ensure the interoperability of the various sectoral plans with the emergency preparedness plans from the health sector.
- European Centre for Disaster Prevention and Control (ECDC) https://www.ecdc.europa.eu/en/publications-data/health-emergency-preparedness-imported-cases-high-consequence-infectious-diseases.

BARRANQUILLA, COLOMBIA

APELL implementation: Barranquilla, Colombia

A case study on the adoption of APELL and the creation of a coordinating group

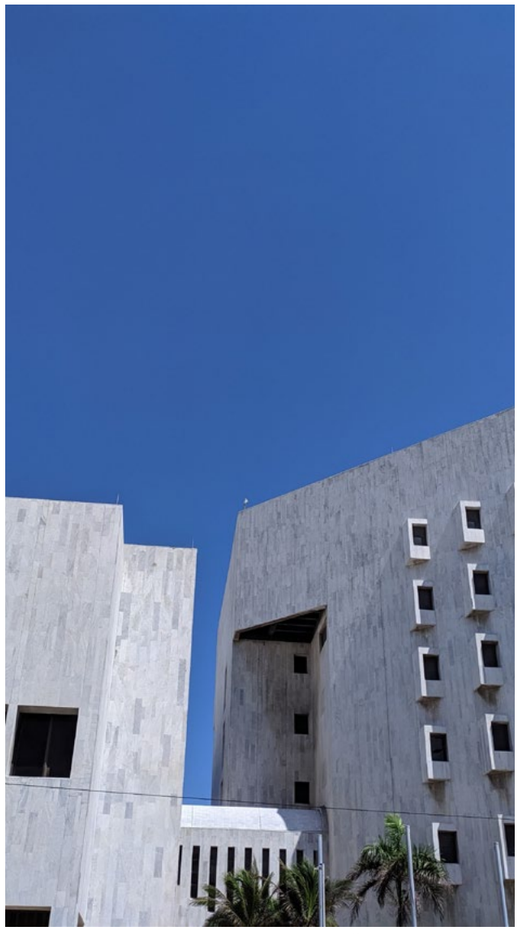
In 1986, in Barranquilla, Colombia, a group of chemical industries initiated a process to deal with situations that could arise in the event of an emergency. For four years, the group was trying to reach out to the community and prepare it to respond in case of emergencies. After these years of work, the group managed to develop a study of the communities neighbouring industries. However, the initial objectives had not been met.

Then, in 1990, one of the industries, acting as an Awareness and Preparedness for Emergencies at Local Level (APELL) Champion, presented APELL to the group, which at the time was a new methodology. The group found that this new methodology had the same goals that had been set in Barranquilla four years before, and adopted the APELL Process for its implementation, starting in 1991.

Over the years, the group has matured and adapted its structure to steer the APELL Process in alignment with the local priorities.

GOOD PRACTICE

- The Grupo Directivo (Steering Group), participates in the strategic development and decision making related to the plans proposed by the Asamblea (Assembly), consisting of the local Stakeholders and including industry leaders, local authorities and support groups responsible for monitoring and emergency response and of community leaders.
- The implementation of the Action Plan is the responsibility of the APELL Process Directora Ejecutiva (Executive Director), who also guides the activities of four committees that have different responsibilities (capacity building, transport, dissemination and emergencies), and fosters links with support agencies, government and the community



©Unsplash/Aider Barrios

Sources: Awareness and Preparedness for Emergencies at Local Level (APELL), UN Environment, 2015. https://www.eecentre.org/partners/the-awareness-and-preparedness-for-emergencies-at-local-level-apell-programme and APELL Barranquilla website: http://apellbarranquilla.org/

f. [Empowering local decision-makers]

INDIA

APELL implementation - India

A case study on a two-track approach implementation of APELL

In India, APELL has been implemented in partnership with the National Safety Council of India since 1992. A two-track approach was used whereby endorsement efforts with national and local government proceeded simultaneously. The national level focused on raising national awareness, building national consensus, strengthening safety audit and risk assessment, and developing national guidelines. The local government effort focused on the needs identified in the communities.

One of the lasting outcomes was a new set of rules called “Chemical Accidents (Emergency Planning, Preparedness and Response) Rules”, 1996, notified under the Environmental (Protection) Act 1986, to provide legal backing to the formation of APELL-like coordination groups called Local Crisis Groups (LCGs) in all industrial areas having hazardous installations, as well as strengthening their capabilities through training, equipment and networking. Furthermore, the APELL Process has been recommended in the National Disaster Management Guidelines on Chemical (Industrial) Disasters issued by the National Disaster Management Authority in April 2007.

Awareness and Preparedness for Emergencies at Local Level (APELL), UN Environment. 2015, and National APELL Centre (India). Indian Experience – Project Implementation

http://www.unep.fr/shared/publications/pdf/DTIx1548xPA-APELL25yearsbrochure.pdf

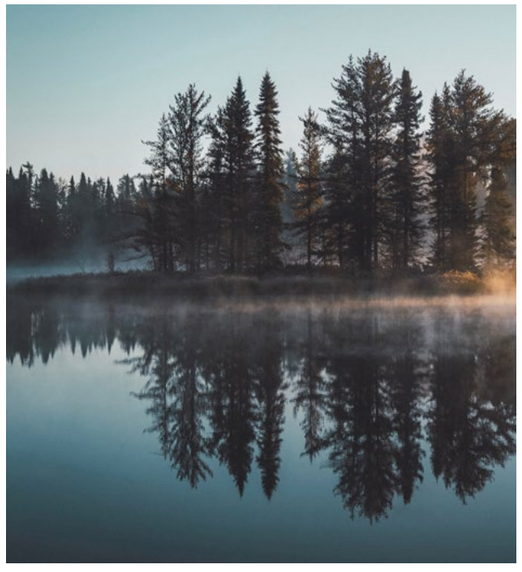
©Unsplash/Harsh Fuloria

g. [Multi-hazard approach and inclusive risk-informed decision-making]

ONTARIO, CANADA
Government of Ontario

Multi-hazard risk assessment

The Ontario Provincial Hazard Identification and Risk Assessment (HIRA) process provides a ranked risk assessment of the frequency and potential impact of different hazards on the province, including natural, technological and man-made hazards. The 2003 assessment provided a baseline for Ministry-level assessments to be conducted throughout the provincial government, and preparedness planning was improved. The initial Provincial HIRA was revised with an updated assessment, including a methodology for prioritizing hazards, due for completion at the end of 2009. The process was led by Emergency Management Ontario, part of the Ministry of Community Safety and Correctional Services.



©Unsplash/Juan Davila

GOOD PRACTICE

The Provincial HIRA provides a rigorous, baseline assessment that:

- Enabled disaster prevention, mitigation, preparedness, response and recovery practices to be as effective as possible by highlighting the hazards of greatest concern.
- Used a methodology that combines qualitative and quantitative data to assess risk through examining the frequency and potential magnitude of each hazard. This makes the process as accurate as possible.
- Gave emergency management professionals at all levels of government a practical and easy-to-use tool to assess the magnitude and frequency of each hazard. This then highlights which hazards should be a priority for preparedness programmes.
- Offered a dynamic and scientifically based method of assessing evolving hazards and risk.
- Identified the most likely hazards to which the Government of Ontario may have to respond, including priorities for training and exercises.

Local Governments and Disaster Risk Reduction Good Practices and Lessons Learned: A contribution to the "Making Cities Resilient" Campaign. (UNISDR, 2010)

GENDER-RESPONSIVE AND INCLUSIVE
EMERGENCY RESPONSE PREPAREDNESS

NEPAL
Inter-Cluster Humanitarian Gender Working Group, Co-led by UN Women Nepal and UN OCHA

Gender Equality Resource Guide for Nepal Emergency Response Preparedness (ERP) for Earthquake Scenario

Following the humanitarian response to the Nepal earthquakes in 2015, the Humanitarian Country Team (HCT) After Action Review identified the establishment of a gender coordination architecture, through the Inter-Cluster Humanitarian Gender Working Group (GWG) consisting of cluster gender focal points in Nepal, as a good practice and recommended its continuation across the humanitarian-development continuum.

In response, UN Women and UN OCHA developed a joint country-specific work plan for Nepal to ensure gender-responsive emergency response preparedness, building on the pioneering achievements during the humanitarian response. As part of this, the GWG, prepared a Gender Equality Resource Guide for Emergency Response Preparedness, in line with normative standards and guidance including the IASC Gender Policy Statement. It was validated through an inclusive process incorporating feedback from the GWG multi-stakeholder forum of gender equality advocates and experts from CSOs, NGOs, Nepal Red Cross Society, Development Partners and the UN, the Women-Friendly Disaster Management Core Group of Women's CSOs, and the Asia-Pacific Regional Gender in Humanitarian Working Group, co-led by UN Women, UN OCHA and the Asia Disaster Preparedness Centre. The Resource Guide was integrated as an annex in the Nepal ERP II for earthquake scenario as a practical guidance on how to implement the gender equality commitments set out in the ERP.

The Resource Guide sets out responsibilities for collective coordination under the leadership of the HCT to ensure that the human rights of women, girls, boys and men across different backgrounds are equally promoted and protected, and their distinct needs, interests, resources and capacities are incorporated into disaster preparedness, immediate response and early recovery processes as well as in reconstruction and transition efforts. The Resource Guide for the ERP, the first of its kind, consists of two parts: 1) Main Guidance document for mainstreaming gender equality in preparedness and response with key actions for stakeholders at different levels and 2) a set of 30 annexes with templates and tools (developed and used by the GWG) to support implementation of the key actions. The endorsement of the Gender Equality Resource Guide for the ERP and its incorporation in the Nepal Contingency Plan was of critical importance for ensuring gender-responsive disaster preparedness in Nepal. The roll-out of the Gender Equality Resource Guide for the ERP is ongoing at the national and district levels in Nepal, in collaboration with the Ministry of Home Affairs and the UN RCO, supported by UN Women Nepal.

GOOD PRACTICE

- Incorporating practical evidence-based resource guidance on gender equality as an annex in ERP to support its gender-responsive implementation based on good practices and lessons learned.
- An inclusive process ensuring collective ownership and validation by all humanitarian clusters and multiple stakeholders from women's organizations, NGOs, Red Cross Society, Development Partners and the UN through the Inter-Cluster Gender Working Group, as well as technical support from the Asia-Pacific Regional Gender in Humanitarian Working Group.

Source: UN Women

h. [Sustainable development]

GHANA

Greater Accra Metropolitan Area (GAMA) Water and Sanitation Project, Accra

Low-lying communities in urban areas often face challenges on absence of drainage channels when confronted by recurrent rainfall runoff through settlement areas. Apart from inundating settlements and disrupting daily lives, such incidents also lead to induced soil and land erosion coupled with threats to lives, property and environmental protection and sanitation.

For alleviating flood risks in urban areas of Accra, Ghana the World Bank's support of US$ 150 million to GAMA Water and Sanitation Project has laid strong emphasis on low income communities in strengthening management of environmental sanitation in urban areas. The Project has provided access to improved sanitation and water supply to over 500,000 low income urban dwellers. This was achieved through the construction of over 20,000 household toilets and 5.143 new service water supply connections to low income houses who hitherto did not have access to these services and were ignored. The ongoing project (until May 2020) has developed and demonstrated models that have been successful in providing these essential WASH services to low income urban communities.

©Unsplash/Bill Wegener
below: ©Unsplash/Alec Douglas

GOOD PRACTICE

- Investment triggered awareness of policymakers at local and national level for solving long-standing water and sanitation problems.
- The micro-finance component of the project nurtured individual community members' initiatives in constructing their own toilets and managing solid waste.
- The project was designed with an aim to help local government in aligning provision of basic services with rapidly growing urban population and particularly, the impact on the poor.
- Clear advocacy messages and 'how-to' information was disseminated through the website, social media and complemented by a strong capacity building component.
- Initial success led to discussions with other funding agencies, development of a concept to up-scale to other urban areas, and commitment from the Sanitation and Water Resources Ministry to replicate the project in other parts of the country.

GAMA Sanitation and Water Project
http://www.mswrpcu.com/

https://www.worldwaterweek.org/event/8806-gama-sanitation-and-water-project

FIJI UNDP PACIFIC CENTRE

Beyond early warning and response: Risk-sensitive local development

Flooding in Navua, Fiji, caused extensive damage to crops, livestock, houses, roads and bridges, and has been exacerbated by poor development planning. In the floods of 2003 and 2004, hundreds of people lost their homes and belongings. Taking a long-term approach to strengthening local level disaster risk reduction, the UNDP Pacific Centre worked with multiple partners and stakeholders on this comprehensive, locally-implemented project. The initiative raised awareness of the links between development and flooding within the planning process, helped develop early warning systems, supported communities to assess their vulnerabilities, drawn up plans of action and put those plans into practice

GOOD PRACTICE

- Different institutionalized processes of central and traditional government were respected.
- Communities analyzed their own risks, vulnerabilities and development priorities, and addressing them from within, instead of relying on external forces through participatory methods.
- Gender-sensitive participatory methods ensured women's participation.
- An advocacy and awareness strategy on disaster risk was developed for local level use.
- Community action plans were aligned with the capacities and resources of the communities.
- Traditional local leadership mobilized communities.

Local Governments and Disaster Risk Reduction Good Practices and Lessons Learned: A contribution to the "Making Cities Resilient" Campaign. (UNISDR, 2010)

i. [Local and specific risks]

JORDAN

Informing Disaster Risk Management including Disaster Preparedness Plans in Aqaba, through Urban Seismic Risk Mapping

Seismological and archaeological studies indicate that Aqaba, Jordan's only coastal city, is at significant risk of intensive earthquakes. As many as 50 major events have occurred in the last 2,500 years, including one as recent as November 1995. At that time, DRM considerations were not included in city plans. In 2001, Aqaba was declared a special economic zone, which opened the door for investment, especially in tourism- and trade-related services.

The anticipated urban growth associated with Aqaba's new status was expected to increase its seismic risk. To minimize the potential human and financial losses from seismic hazards, the Aqaba Special Economic Zone Authority (ASEZA), the United Nations Development Programme (UNDP), and the Swiss Agency for Development and Cooperation launched a project to integrate seismic risk reduction considerations into Aqaba's economic development in 2009.

Under this partnership, the Jordanian Royal Scientific Society conducted a seismic hazard risk assessment. In addition to producing tools for quantifying the level of seismic risk affecting the city (usable by both scientists and legislators), the project supplied the evidence for an earthquake risk management master plan and served as the basis for an operational framework for earthquake risk reduction.

This analysis was developed from data on building distribution provided by the Aqaba Department of Statistics, Population and Housing Census. Analysis also pointed to temporal elevated changes in the risk associated with the tourist peak season, weekend, and/or Ramadan. Moreover, the hospital capacity at the time of the analysis was 206 beds among three hospitals—a figure that clearly highlights challenges that would be encountered in the aftermath of an earthquake event, given that the scenario predicted more than 1,900 people requiring treatment. A key finding was the potential impact of the earthquake on Jordan's only seaport, through which most imports and exports pass. Among the improvements that were made are the following:

GOOD PRACTICE

- A new, risk-informed DRM master plan was prepared for the city.
- A DRM Unit and multi-stakeholder coordination committee were established within the ASEZA to ensure that all development work takes risk reduction into account.
- Through this city assessment, the Jordanian Royal Scientific Society strengthened its risk assessment capacity and is now able to carry out seismic risk assessments for other parts of the country, including the Irbid Governorate.
- Using the plausible seismic risk scenarios, ASEZA has also established and trained community-level emergency response teams, including search and rescue teams, to save lives in the event of a disaster.
- The Aqaba Development Company, a partner of the ASEZA, is now using the findings of the seismic risk assessment to make decisions about construction projects and about allocation of land to new businesses.

These initiatives are being replicated in other Jordanian cities to improve capacities of local authorities to protect trade, tourism, and culture. Because of these achievements and its overall progress in reducing disaster risk, the city of Aqaba was recognized by UNISDR as a role model city at the First Arab Conference on Disaster Risk Reduction, held in Jordan in March 2013.

Understanding risk in an Evolving World: Emerging Best Practices in Natural Disaster Risk Assessment. 2014. P.119.

UNITED STATES

Community-made preparedness maps, San Francisco, California

Following a major earthquake, unharmed residents are expected to remain self sufficient for at least 72 hours. Navigating the city to find shelters and avoid potential hazards such as soft-story buildings requires maps that can be downloaded or printed beforehand. Community group Resiliency Maps uses an open-source toolkit centered on OpenStreetMap to produce these maps.

GOOD PRACTICE

- Offer multiple ways for people to add information to the maps, including paper and pencil, smartphone or laptop.
- Partner with existing preparedness training programs such as NERT (Neighborhood Emergency Response Team), known as CERT nationwide
- Hold regular training sessions in the wider community
- Contribute to the OpenStreetMap community by adding disaster-related information to the database. Participate in industry and community events to boost participation

In fall 2019, prototype print maps were created for NERT using open-source software QGIS and open data. Future plans include expanding use of the maps for other emergencies such as heatwaves and power outages and to other cities.

"Resiliency Maps: The view from San Francisco" https://resiliencymaps.org/resiliency-maps-the-view-from-san-francisco

©Unsplash/Brandon Nelson

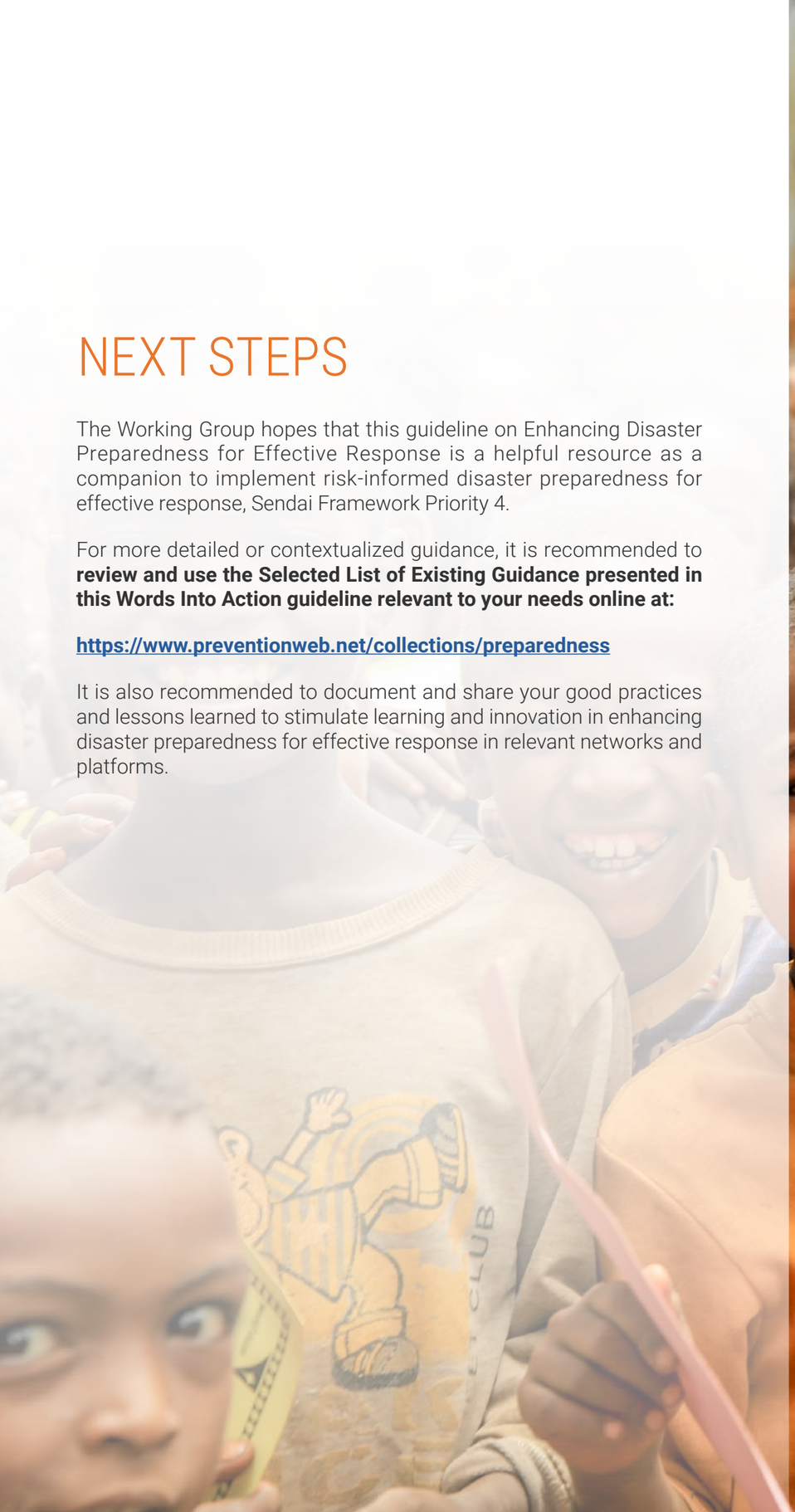
NEXT STEPS

The Working Group hopes that this guideline on Enhancing Disaster Preparedness for Effective Response is a helpful resource as a companion to implement risk-informed disaster preparedness for effective response, Sendai Framework Priority 4.

For more detailed or contextualized guidance, it is recommended to **review and use the Selected List of Existing Guidance presented in this Words Into Action guideline relevant to your needs online at:**

https://www.preventionweb.net/collections/preparedness

It is also recommended to document and share your good practices and lessons learned to stimulate learning and innovation in enhancing disaster preparedness for effective response in relevant networks and platforms.



REFERENCES

Climate Risk and Early Warning Systems (CREWS). 2015. Crews Initiative: building multi-hazard early warning system and risk information capacities with strengthened international cooperation.
Available at: http://www.unisdr.org/files/45967_crewspresentation.pdf and https://www.crews-initiative.org/

European Centre for Disaster (ECDC). 2019. Health emergency preparedness for imported cases of high-consequence infectious diseases.
Available at: https://www.ecdc.europa.eu/en/publications-data/health-emergency-preparedness-imported-cases-high-consequence-infections-diseases

Federici, Federico M., O'Brien, Sharon , Cadwell, Patrick, Marlowe, Jay, Gerber, Brian and Davis, Olga (2019) International network in crisis translation - Recommendations on policies. Policy Report. Dublin City University. Available at: http://doras.dcu.ie/23880/

Global Facility for Disaster Reduction and Recovery (GFDRR). 2014. Understanding risk in an Evolving World: Emerging Best Practices in Natural Disaster Risk Assessment.
Available at: https://www.gfdrr.org/en/publication/understanding-risk-evolving-world-emerging-best-practices-natural-disaster-risk

Inter-Agency Standing Committee (IASC). 2015. IASC Emergency Response Preparedness (Draft for Field Testing), 2015.
https://interagencystandingcommittee.org/iasc-transformative-agenda/documents-public/iasc-emergency-response-preparedness-draft-field-testing

IOM. 2016. Guidelines to protect migrants in countries experiencing conflict or natural disaster (MICIC-Migrants in Countries in Crisis Initiative) Available at: https://micicinitiative.iom.int/guidelines

UN Environment. 2015. Awareness and Preparedness for Emergencies at Local Level (APELL)
Available at: https://www.preventionweb.net/publications/view/45469

UNISDR. 2010. Local Governments and Disaster Risk Reduction Good Practices and Lessons Learned: A contribution to the "Making Cities Resilient" Campaign.
Available at: https://www.undrr.org/publication/local-governments-and-disaster-risk-reduction-good-practices-and-lessons-learned

UNISDR. 2017. How to Make Cities More Resilient: A Handbook for Local Government Leaders.
https://www.preventionweb.net/go/54256

UN. 2015. The Sendai Framework for Disatser Risk Reduction 2015-2030.
Available at: https://www.preventionweb.net/publications/view/43291

ANNEX 1

Sendai Framework Priority 4 – full text

Paragraph 32 of the Sendai Framework for Disaster Risk Reduction outlines the fourth and final priority for implementing the Sendai Framework and elaborates the importance of actions at National and Local Levels, as well as Global and Regional to both enhance preparedness for effective response as "Build Back Better". **The following is the full text of Sendai Framework Priority 4, with those actions related to enhancing preparedness for effective response in bold**:

Priority 4: Enhancing disaster preparedness for effective response and to "Build Back Better" in recovery, rehabilitation and reconstruction.

32. The steady growth of disaster risk, including the increase of people and assets exposure, combined with the lessons learned from past disasters, indicates the need to further strengthen disaster preparedness for response, take action in anticipation of events, integrate disaster risk reduction in response preparedness and ensure that capacities are in place for effective response and recovery at all levels. Empowering women and persons with disabilities to publicly lead and promote gender equitable and universally accessible response, recovery, rehabilitation and reconstruction approaches is key. Disasters have demonstrated that the recovery, rehabilitation and reconstruction phase, which needs to be prepared ahead of a disaster, is a critical opportunity to "Build Back Better", including through integrating disaster risk reduction into development measures, making nations and communities resilient to disasters.

NATIONAL AND LOCAL LEVELS

33. To achieve this, it is important:

a. **To prepare or review and periodically update disaster preparedness and contingency policies, plans and programmes with the involvement of the relevant institutions, considering climate change scenarios and their impact on disaster risk, and facilitating, as appropriate, the participation of all sectors and relevant stakeholders;**

b. **To invest in, develop, maintain and strengthen people-centred multi-hazard, multisectoral forecasting and early warning systems, disaster risk and emergency communications mechanisms, social technologies and hazard-monitoring telecommunications systems; develop such systems through a participatory process; tailor them to the needs of users, including social and cultural requirements, in particular gender; promote the application of simple and low-cost early warning equipment and facilities; and broaden release channels for natural disaster early warning information;**

c. **To promote the resilience of new and existing critical infrastructure, including water, transportation and telecommunications infrastructure, educational facilities, hospitals and other health facilities, to ensure that they remain safe, effective and operational during and after disasters in order to provide live-saving and essential services;**

d. **To establish community centres for the promotion of public awareness and the stockpiling of necessary materials to implement rescue and relief activities;**

e. To adopt public policies and actions that support the role of public service workers to establish or strengthen coordination and funding mechanisms and procedures for relief assistance and plan and prepare for post-disaster recovery and reconstruction;

f. To train the existing workforce and voluntary workers in disaster response and strengthen technical and logistical capacities to ensure better response in emergencies;

g. To ensure the continuity of operations and planning, including social and economic recovery, and the provision of basic services in the post-disaster phase;

h. To promote regular disaster preparedness, response and recovery exercises, including evacuation drills, training and the establishment of area-based support systems, with a view to ensuring rapid and effective response to disasters and related displacement, including access to safe shelter, essential food and nonfood relief supplies, as appropriate to local needs;

i. To promote the cooperation of diverse institutions, multiple authorities and related stakeholders at all levels, including affected communities and business, in view of the complex and costly nature of post-disaster reconstruction, under the coordination of national authorities;

j. To promote the incorporation of disaster risk management into post-disaster recovery and rehabilitation processes, facilitate the link between relief, rehabilitation and development, use opportunities during the recovery phase to develop capacities that reduce disaster risk in the short, medium and long term, including through the development of measures such as land-use planning, structural standards improvement and the sharing of expertise, knowledge, post-disaster reviews and lessons learned and integrate post-disaster reconstruction into the economic and social sustainable development of affected areas. **This should also apply to temporary settlements for persons displaced by disasters;**

k. To develop guidance for preparedness for disaster reconstruction, such as on land-use planning and structural standards improvement, including by learning from the recovery and reconstruction programmes over the decade since the adoption of the Hyogo Framework for Action, and exchanging experiences, knowledge and lessons learned;

l. To consider the relocation of public facilities and infrastructures to areas outside the risk range, wherever possible, in the post-disaster reconstruction process, in consultation with the people concerned, as appropriate;

m. To strengthen the capacity of local authorities to evacuate persons living in disaster-prone areas;

n. To establish a mechanism of case registry and a database of mortality caused by disaster in order to improve the prevention of morbidity and mortality;

o. To enhance recovery schemes to provide psychosocial support and mental health services for all people in need;

p. To review and strengthen, as appropriate, national laws and procedures on international cooperation, based on the Guidelines for the Domestic Facilitation and Regulation of International Disaster Relief and Initial Recovery Assistance. Establish or strengthen coordination and funding mechanisms and procedures for relief assistance and plan and prepare for post-disaster recovery and reconstruction.

GLOBAL AND REGIONAL LEVELS

34. To achieve this, it is important:

a. To develop and strengthen, as appropriate, coordinated regional approaches and operational mechanisms to prepare for and ensure rapid and effective disaster response in situations that exceed national coping capacities;

b. To promote the further development and dissemination of instruments, such as standards, codes, operational guides and other guidance instruments, to support coordinated action in disaster preparedness and response and facilitate information sharing on lessons learned and best practices for policy practice and post-disaster reconstruction programmes;

c. To promote the further development of and investment in effective, nationally compatible, regional multi-hazard early warning mechanisms, where relevant, in line with the Global Framework for Climate Services, and facilitate the sharing and exchange of information across all countries;

d. To enhance international mechanisms, such as the International Recovery Platform, for the sharing of experience and learning among countries and all relevant stakeholders;

e. To support, as appropriate, the efforts of relevant United Nations entities to strengthen and implement global mechanisms on hydrometeorological issues in order to raise awareness and improve understanding of water-related disaster risks and their impact on society, and advance strategies for disaster risk reduction upon the request of States;

f. To support regional cooperation to deal with disaster preparedness, including through common exercises and drills;

g. To promote regional protocols to facilitate the sharing of response capacities and resources during and after disasters;

h. To train the existing workforce and volunteers in disaster response;

i. To strengthen the capacity of local authorities to evacuate persons living in disaster-prone areas.

ANNEX 2

Sendai Framework Guiding Principles (a) through (i)

Paragraph 19 of the Sendai Framework for Disaster Risk Reduction elaborates thirteen principles, (a) – (m), to guide the implementation of the Framework, while taking into account national circumstances, and consistent with domestic laws, international obligations and commitments.

This Words into Action guideline recognizes the direct relevance of the following nine of thirteen Sendai Framework Principles, (a) – (i), and aims to elaborate how the principles can be applied to enhancing disaster preparedness for effective response.

19. Drawing from the principles contained in the Yokohama Strategy for a Safer World: Guidelines for Natural Disaster Prevention, Preparedness and Mitigation and its Plan of Action10 and the Hyogo Framework for Action, the implementation of the present Framework will be guided by the following principles, while taking into account national circumstances, and consistent with domestic laws as well as international obligations and commitments:

a. Each State has the primary responsibility to prevent and reduce disaster risk, including through international, regional, subregional, transboundary and bilateral cooperation. The reduction of disaster risk is a common concern for all States and the extent to which developing countries are able to effectively enhance and implement national disaster risk reduction policies and measures in the context of their respective circumstances and capabilities can be further enhanced through the provision of sustainable international cooperation;

b. Disaster risk reduction requires that responsibilities be shared by central Governments and relevant national authorities, sectors and stakeholders, as appropriate to their national circumstances and systems of governance;

c. Managing the risk of disasters is aimed at protecting persons and their property, health, livelihoods and productive assets, as well as cultural and environmental assets, while promoting and protecting all human rights, including the right to development;

(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;

(e) Disaster risk reduction and management depends on coordination mechanisms within and across sectors and with relevant stakeholders at all levels, and it requires the full engagement of all State institutions of an executive and legislative nature at national and local levels and a clear articulation of responsibilities across public and private stakeholders, including business and academia, to ensure mutual outreach, partnership, complementarity in roles and accountability and follow-up;

(f) While the enabling, guiding and coordinating role of national and federal State Governments remain essential, it is necessary to empower local authorities and local communities to reduce disaster risk, including through resources, incentives and decision-making responsibilities, as appropriate;

(g) Disaster risk reduction requires a multi-hazard approach and inclusive risk-informed decision-making based on the open exchange and dissemination of disaggregated data, including by sex, age and disability, as well as on easily accessible, up-to-date, comprehensible, science-based, non-sensitive risk information, complemented by traditional knowledge;

(h) The development, strengthening and implementation of relevant policies, plans, practices and mechanisms need to aim at coherence, as appropriate, across sustainable development and growth, food security, health and safety, climate change and variability, environmental management and disaster risk reduction agendas. Disaster risk reduction is essential to achieve sustainable development;

(i) While the drivers of disaster risk may be local, national, regional or global in scope, disaster risks have local and specific characteristics that must be understood for the determination of measures to reduce disaster risk.

ANNEX 3

Sendai Framework Global Targets

Paragraph 18 of the Sendai Framework outlined the seven global targets, (a) - (g), agreed to support the assessment of global progress in achieving the outcome and goal of the Sendai Framework:

a. Substantially reduce global disaster mortality by 2030, aiming to lower average per 100,000 global mortality between 2020-2030 compared to 2005-2015.

b. Substantially reduce the number of affected people globally by 2030, aiming to lower the average global figure per 100,000 between 2020-2030 compared to 2005-2015.

c. Reduce direct disaster economic loss in relation to global gross domestic product (GDP) by 2030.

d. Substantially reduce disaster damage to critical infrastructure and disruption of basic services, among them health and educational facilities, including through developing their resilience by 2030.

e. Substantially increase the number of countries with national and local disaster risk reduction strategies by 2020.

f. Substantially enhance international cooperation to developing countries through adequate and sustainable support to complement their national actions for implementation of this framework by 2030.

g. Substantially increase the availability of and access to multi-hazard early warning systems and disaster risk information and assessments to people by 2030.

ANNEX 4

Key Terminology[16]

Preparedness

The knowledge and capacities developed by governments, response and recovery organizations, communities and individuals to effectively anticipate, respond to and recover from the impacts of likely, imminent or current disasters.

Annotation: Preparedness action is carried out within the context of disaster risk management and aims to build the capacities needed to efficiently manage all types of emergencies and achieve orderly transitions from response to sustained recovery.

Preparedness is based on a sound analysis of disaster risks and good linkages with early warning systems, and includes such activities as contingency planning, the stockpiling of equipment and supplies, the development of arrangements for coordination, evacuation and public information, and associated training and field exercises. These must be supported by formal institutional, legal and budgetary capacities. The related term "readiness" describes the ability to quickly and appropriately respond when required

A preparedness plan establishes arrangements in advance to enable timely, effective and appropriate responses to specific potential hazardous events or emerging disaster situations that might threaten society or the environment.

Contingency planning

A management process that analyses disaster risks and establishes arrangements in advance to enable timely, effective and appropriate responses.

Annotation: Contingency planning results in organized and coordinated courses of action with clearly identified institutional roles and resources, information processes and operational arrangements for specific actors at times of need. Based on scenarios of possible emergency conditions or hazardous events, it allows key actors to envision, anticipate and solve problems that can arise during disasters. Contingency planning is an important part of overall preparedness. Contingency plans need to be regularly updated and exercised.

16 Report of the open-ended intergovernmental expert working group on indicators and terminology relating to disaster risk reduction, UN General Assembly report A/71/644, 1 December 2016.

Disaster management	The organization, planning and application of measures preparing for, responding to and recovering from disasters. *Annotation: Disaster management may not completely avert or eliminate the threats; it focuses on creating and implementing preparedness and other plans to decrease the impact of disasters and "build back better". Failure to create and apply a plan could lead to damage to life, assets and lost revenue.* Emergency management is also used, sometimes interchangeably, with the term disaster management, particularly in the context of biological and technological hazards and for health emergencies. While there is a large degree of overlap, an emergency can also relate to hazardous events that do not result in the serious disruption of the functioning of a community or society.
Disaster risk	The potential loss of life, injury, or destroyed or damaged assets which could occur to a system, society or a community in a specific period of time, determined probabilistically as a function of hazard, exposure, vulnerability and capacity.
Residual risk	Residual risk is the disaster risk that remains even when effective disaster risk reduction measures are in place, and for which emergency response and recovery capacities must be maintained. The presence of residual risk implies a continuing need to develop and support effective capacities for emergency services, preparedness, response and recovery, together with socioeconomic policies such as safety nets and risk transfer mechanisms, as part of a holistic approach.
Compensatory disaster risk management	Activities strengthen the social and economic resilience of individuals and societies in the face of residual risk that cannot be effectively reduced. They include preparedness, response and recovery activities, but also a mix of different financing instruments, such as national contingency funds, contingent credit, insurance and reinsurance and social safety nets.
Early warning system	An integrated system of hazard monitoring, forecasting and prediction, disaster risk assessment, communication and preparedness activities systems and processes that enables individuals, communities, governments, businesses and others to take timely action to reduce disaster risks in advance of hazardous events.

UNDRR
UN Office for Disaster Risk Reduction

WORDS INTO ACTION

ENHANCING DISASTER PREPAREDNESS FOR EFFECTIVE RESPONSE

For more information about Words into Action,
please contact:

United Nations Office for Disaster Risk Reduction
9-11 Rue de Varembé
CH 1202 Geneva, Switzerland
Telephone: +41(0)22 917 89 07-8
E-mail: undrr@un.org
Website: http://www.undrr.org