

REVIEW OF COVID-19 DISASTER RISK GOVERNANCE IN ASIA-PACIFIC

Towards Multi-Hazard and Multi-Sectoral Disaster Risk Reduction



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For additional information, please contact:

United Nations Office for Disaster Risk Reduction (UNDRR)
9-11 Rue de Varembé, 1202 Geneva, Switzerland, Tel: +41 22 917 89 08

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About this Publication

The COVID-19 pandemic is having an unprecedented impact on countries in the Asia-Pacific region. Not only have the health consequences led to over 170,000 deaths in the region, but the socio economic costs have exceeded those of the Asian financial crisis in 1997. The cascading impacts of this health emergency have affected every sector, with the poorest and most vulnerable bearing the brunt, especially migrants, informal workers, and older persons. The far-reaching impact has underscored the need for countries to review how they manage disaster risk, demonstrating again the importance of multi-hazard and multi-sector approaches.

While many countries have made advances in identifying certain types of hazards, few have systematically considered the full range of hazards that threaten the lives and livelihoods of their people.

Countries are prone to several types of hazards, and effective risk reduction is only possible if all relevant threats are considered and mitigated against. A multi-hazard approach allows for the prioritization of hazards for mitigation action, and thus, more efficient use of resources.

Moreover, as disaster risks span multiple sectors and levels and

are largely inter-connected, this means that multi-sectoral, multi-stakeholder approaches are needed to bring together all the relevant expertise, tools and actors to reduce risks. Multi-sectoral cooperation is especially important when considering that no one agency or ministry has the resources, mandate or ability to address all aspects of disaster risk. In the context of COVID-19, this was seen in the case of the inter-agency coordination bodies that were formed to help prevent and manage the pandemic.

This paper examines the disaster risk governance structures in Asia-Pacific, starting with a desk review of the guiding documents countries use to govern their disaster risk reduction efforts.

The guiding documents of 28 countries were reviewed against a list of questions around how they integrate biological hazards¹ and the health sector into their priorities and plans. In most cases, English translations of these documents were used in the review.

This initial review was further substantiated through key informant interviews with the national disaster (risk) management offices of 17 countries. The interviews focused on how they responded to the COVID-19 pandemic, and

simultaneous disaster events, with special attention given to their governance mechanism and socio-economic impacts. Additional information, especially on working practices on coordination between national disaster (risk) management organizations and health authorities, was derived from discussions with relevant disaster risk reduction entities in-country.

While every attempt has been made to anchor the document in the most updated information, the evolving nature of the pandemic and the corresponding responses may have made some findings outdated. Nonetheless, the recommendations made in the report are expected to remain valid.

1 Biological hazards are of organic origin or conveyed by biological vectors, including pathogenic microorganisms, toxins and bioactive substances. Examples are bacteria, viruses or parasites, as well as venomous wildlife and insects, poisonous plants and mosquitoes carrying disease-causing agents. (UNGA, 2016: Report of the open-ended intergovernmental expert working group on indicators and terminology relating to disaster risk reduction)

Foreword

As we near the first anniversary of the start of the COVID-19 pandemic, it is important that countries and organizations retain the lessons and build on the opportunities brought on by this global disaster.

Similar to how the 2004 Indian Ocean tsunami changed how countries approached preparedness and early warning, COVID-19 holds the potential to transform how disaster risk reduction is governed and practiced.

From a focus on a narrow set of common hazards to an expansive look at all types of hazards, and from delegating responsibility to one agency to creating a collaborative environment where all relevant actors are brought together.

The good news is that we can already see contours of this new approach emerge in the way many countries responded to the COVID-19 pandemic. Specifically, the activation of multi-agency and cross-sectoral governance bodies that are empowered by political leaders.

The challenge now is to build on these multi-sectoral models and pivot towards prevention by institutionalizing these ad hoc arrangements into forward-looking, multi-hazard risk governance mechanisms.

This publication aims to aid this transformation by presenting a review of current risk governance approaches in Asia-Pacific and recommendations on how to strengthen them.

Among the recommendations relevant to the current crisis are those presented in the Bangkok Principles on the implementation of the health aspects of the Sendai Framework and the World Health Organization's Health Emergency and Disaster Risk Management Framework.

The implementation of these guidelines would not only help reduce the health risks and consequences associated with all types of emergencies and disasters but could become an example of how disaster risk can be integrated into other sectors as well.

COVID-19 has demonstrated that the responsibility for disaster risk management must be shared, capacities strengthened, and integrated approaches pursued if countries are to guard against all possible hazards.

To that end, we hope this publication contributes to breaking the silos between sectors and agencies and to the advancement of our collective goal of a disaster-free world.

Loretta Hieber Girardet

Chief, Regional Office for Asia and the Pacific
UN Office for Disaster Risk Reduction

Abbreviations

AADMER	ASEAN Agreement on Disaster Management and Emergency Response
ANDMA	Afghanistan National Disaster Management Authority
ASEAN	Association of Southeast Asian Nations
CBRNE	Chemical, Biological, Radiological Nuclear and Explosives
COVID-19	Coronavirus Disease 2019
CRED	Centre for Research on the Epidemiology of Disasters
DRM	Disaster Risk Management
DRR	Disaster Risk Reduction
ECO	Economic Cooperation Organization
EDRM	Emergency and Disaster Risk Management
EM-DAT	Emergency Events Database
ESCAP	Economic and Social Commission for Asia and the Pacific
GAR	UN Global Assessment Report on Disaster Risk Reduction
ICT	Information and Communication Technology
IFRC	International Federation of Red Cross and Red Crescent Societies
IHR	International Health Regulations
LDCs	Least Developed Countries
MERS	Middle East Respiratory Syndrome
NCDM	National Committee for Disaster Management
NDMA	National Disaster Management Authority
NDMO	National Disaster Management Office
NEOC	National Emergency Operations Center
NEOP	National Emergency Operations Plan
PPE	Personal Protective Equipment
SAARC	South Asian Association for Regional Cooperation
SIDS	Small Island Developing States
SOPs	Standard Operating Procedures
UNDRR	United Nations Office for Disaster Risk Reduction
WHO	World Health Organization



DRR Policy and Planning Environment

- Most disaster risk reduction (DRR) strategies in Asia-Pacific give limited attention to the management of biological hazards and emergencies and focus largely on natural hazards. Where mentioned, biological/health hazards and emergencies are largely considered as a consequence of other primary events.
- Analysis of risks in the DRR strategies have largely focused on hazards, and in some cases biological hazards. However, the differential impact of pandemics like COVID-19 is largely a result of differential vulnerability and development gaps, which are not adequately addressed in these strategies.
- Most preparedness and response plans in the region are designed for certain types of hazards, especially natural, localized events or short-term events within national/sub-national boundaries. COVID-19 has demonstrated the limitations of such plans through its prolonged nature and its wide geographic spread. Preparedness and

response plans also need to be revised to take into account the simultaneous occurrence of disasters resulting from natural and biological hazards.

- Presence of multi-hazard disaster risk management strategies, covering health emergencies, helped countries prepare better for COVID-19. Moving forward, many countries highlighted the need to review and update their national disaster risk reduction strategies to incorporate lessons learned from the COVID-19 crisis, including by building multi-hazard risk scenarios.

- While disaster risk reduction policy instruments guide the management of sectoral risks and disasters, sectoral plans, including health emergency preparedness plans, should be aligned with disaster risk management plans.

- The regional and sub-regional disaster risk reduction plans and frameworks in Asia-Pacific provide a strong basis for inter-sectoral cooperation which need replication at the national level.

This analysis is based on the review of over 30 national disaster risk reduction strategies and related documents² in Asia-Pacific as well as a few health security and infectious diseases related strategies and plans (e.g., Australia, Republic of Korea and Japan). For some countries more detailed implementation plans were also reviewed, and key informant interviews conducted, to seek more clarity on provisions referenced in the national disaster risk reduction strategies.

1.1 Risk analysis

Most of the DRR strategies reviewed were not developed using a comprehensive national multi-hazard risk assessment methodology but rather identified hazards of concern based on past disasters and their impacts. Hazards such as pest and infectious disease are commonly referred to as secondary hazards or as disaster impacts, but with limited details (e.g. water-borne disease after floods; pest infestation as a result of drought or floods). Scenarios and potential impacts of these hazards are likely contained in sector-specific strategies, such as agricultural strategies, and hazard-specific contingency plans.

Several of the strategies include biological hazards (or at least some categories such as pandemics, epidemics, communicable diseases, animal diseases and pest) within the larger hazard scope of the strategy. Some documents developed after the adoption of the Sendai Framework in 2015 refer broadly to the expanded hazard scope of the Sendai Framework, while others cite a multi-hazard approach without elaborating on which hazards are included, while some explicitly limit the scope of the disaster risk reduction strategy to natural hazards (e.g. Australia).

In terms of past occurrences of disasters caused by biological hazards, many of the strategies refer to the impacts on human health (mortality, morbidity and psychosocial/mental health). A few of those strategies refer to the impact on supply chains and disruptions to economic activities (e.g. New Zealand). However, none of the documents reviewed include details on economic losses or the social impacts of the disruptions caused by the past pandemics, epidemics, pest-related disasters or health emergencies.

It should be noted that the **differential impact of pandemics, like COVID-19 is largely a result of differential and multi-dimensional vulnerabilities and development gaps** (poor health infrastructure and services, protection gaps). This aspect of risk

2 The term “DRR strategy” is used in this report to refer to key national guiding document on risk reduction, defining the strategic vision, goals and objectives and identifying actions to reduce risks. They might be known as disaster risk reduction strategy, plan or action plan, etc. depending on countries and their planning systems and policy practices.

has not been found to be a major focus in the risk analysis underlying the national DRR strategies.

In terms of future risks, the joint disaster risk reduction and climate action plans of the Pacific region consider how global warming, global trade and increased travel can influence a country's epidemiological profile. The increased prevalence and frequency of pests and animal disease are also referenced as part of projections on the impact of climate change on hazards, ecosystems, animal and human exposure and vulnerability. Potential risks to human health from industrial and technological hazards (nuclear or chemical accidents) are cited in several strategies (e.g. Japan, New Zealand, Australia).

1.2 Disaster risk governance

When it comes to decision making, most of the strategies refer to a **multi-sectoral governing mechanism** for disaster risk management, which includes health ministries as relevant actors. However, disaster risk reduction strategies rarely detail the roles and responsibilities of the respective sectors in implementing the strategies. Moreover, most DRR strategies do not provide

much detail on the specific roles of national disaster risk management entities in supporting health agencies or agriculture departments in the event of human disease outbreaks, pandemics, animal diseases or pest outbreaks. Where roles are specified, they are often outlined in context of action plans and laws, such as the role of health authorities in awareness raising, disease surveillance, and hospital safety.

National DRR strategies, drafted after the adoption of the Sendai Framework in 2015, often refer to alignment with the Sendai Framework goal, outcomes and Priorities for Action. In some cases, the strategies follow a similar structure to the way the Priorities for Action are presented in the Sendai Framework. Few of the DRR strategies mention the International Health Regulations (IHR), whereas all the health security documents reviewed consistently refer to the IHR.

A 'whole-of-government' and 'whole-of-society' approach to disaster risk management is often referenced in DRR strategies. However, when it comes to detailing institutional arrangements, they refer to the areas of preparedness and response, while mainstreaming of DRR, prevention and recovery mandates are attributed broadly to "all relevant ministries and entities".

Disaster risk reduction underlies COVID-19 response in Japan

In March 2020, Japan amended the 2012 Act on Special Measures for Pandemic Influenza and New Infectious Diseases Preparedness and Response to respond better to COVID-19. It introduced the "Basic Policies for Novel Coronavirus Disease Control" as the common basis for the government's response to the pandemic, which has since been updated and revised.

While disaster risk management legal and policy instruments have not been directly applied, the Disaster Management Basic Act and the Disaster Management Basic Plan (developed in the 1960s) have remained the basis for subsequent development of other sectoral instruments. Furthermore, there are synergies between the implementation systems of the

Disaster Management Basic Plan and the National Action Plan for Pandemic Influenza and New Infectious Diseases. These include the establishment of a national headquarter, directly under the Prime Minister, which includes participants from all other ministers. The national headquarter cooperates with local governments and relevant public institutions.

Biological hazards are also covered by the Disaster Management Basic Plan in regards to epidemic prevention during a disaster. To further limit the spread of COVID-19 during a concurrent disaster, in May 2020, Japan further revised its Disaster Management Basic Plan at a meeting of the Central Disaster Management Council (Japan's national platform for DRR), which is headed by the Prime Minister.

In particular, references were not found around the role of planning ministries in ensuring that national development plans and sector-specific plans integrate disaster risk reduction.

Beyond national borders, national disaster (risk) management agencies often seek to benefit from regional cooperation on disaster risk reduction, either by participating in regional mechanisms, such as the ASEAN Agreement on Disaster Management and Emergency Response (AADMER), Framework for Resilient development in the Pacific (FRDP), South Asian Association for Regional Cooperation (SAARC), or by enhancing regional collaboration and data sharing (See Section 1.4 for details).

Among the areas identified in the review for strengthening regional collaboration, some strategies mention data sharing on hazards monitoring and supporting neighbouring countries in disaster response efforts. Epidemics and pandemics are cited in several documents as an important area for transboundary collaboration with an emphasis on exchanging data and border management. While not specific for biological hazards, several strategies refer to the importance of regional collaboration around early warning systems and research.

It is, hence, seen that the DRR strategies in the region outline their intent on multi-sector and multi-stakeholder approaches to disaster risk governance. This **intent needs to be further substantiated and elaborated to enable action**, including through specified roles and functions of constituent entities to better define the scope of the strategies and enable implementation.

1.3 Implementation approaches

Understanding risk: Most national DRR strategies seek to improve the understanding of disaster risk and its impacts by enhancing the collection and sharing of data through

information systems, in addition to public education and awareness for all relevant hazards. The Nepal DRR strategy, for example, emphasizes the need to raise awareness and build capacities of health workers, among others, in all-hazards disaster risk management.

Disaster risk governance³: Most DRR strategies highlight the importance of mainstreaming DRR across multiple sectors, including health. This is to improve vertical and horizontal coordination among sectors, which is often cited as a strategic priority. While local-level health institutions are sometimes mentioned as relevant actors, the strategies do not contain further details on how decentralized risk governance could be made more effective to address biological hazards. Where recommendations are made to improve legal and regulatory frameworks and policy instruments, they are commonly not contextualized to specific risks but refer generally to the need to improve coordination, communication and efficiency of the institutional mechanisms.

Several strategies recognize the importance of diseases in the context of the animal-human-environment interface, yet the "One Health" approach⁴, which is understood as multi-sector joint planning and implementation for enhanced public health outcomes, is rarely referenced in the actions proposed to integrate risk reduction into health, food security, agriculture or water and sanitation. Nonetheless, to better understand the implication of these approaches on risk management, a review is needed of sector-specific disaster risk reduction policies and implementation documents.

Investing in disaster risk reduction: In most of the strategies, DRR mainstreaming often pertains to infrastructure resilience (e.g. safe hospitals and health-related facilities) and the continuity of health services during emergencies (natural, technological, etc.). Some high-income countries such as Republic of Korea, Australia or Japan identified the strengthening of laboratory testing capacity, drug and vaccine development

3 Disaster risk governance is defined as *"The system of institutions, mechanisms, policy and legal frameworks and other arrangements to guide, coordinate and oversee disaster risk reduction and related areas of policy"* (UNGA, 2016: Report of the open-ended intergovernmental expert working group on indicators and terminology relating to disaster risk reduction)

4 'One Health' is an approach to designing and implementing programs, policies, legislation and research in which multiple sectors communicate and work together to achieve better public health outcomes. The areas of work in which a One Health approach is particularly relevant include food safety, the control of zoonosis (diseases that can spread between animals and humans, such as flu, rabies and Rift Valley Fever), and combatting antibiotic resistance (when bacteria change after being exposed to antibiotics and become more difficult to treat).

and infection control as essential actions to enhancing the health systems' capacity to prevent and manage infectious diseases.

In regards to the resilience of systems, most documents consider the health system's capacity to respond to potential increases in demand or to cope with constrained operations due to the occurrence of natural hazards. Some health-specific planning documents (e.g. Japan, Republic of Korea) detail the type of resilience challenges that emerging infectious diseases, and more broadly biological hazards, may impose on health systems (peak cases management, diagnostic, data management, psychosocial support, etc.). Some strategies (e.g. Kiribati) refer to the role of agriculture micro-insurance or health insurance as instruments that can mitigate impacts or support recovery from natural and biological hazards.

Preparedness for response and recovery:

The importance of emergency health and overall preparedness of health facilities and workers for any type of hazardous event are highlighted as priorities in regards to disaster risk management, preparedness and response in most of the national DRR strategies. However, how public services of all sectors can be continued in the event of an epidemic and/or

pandemic is rarely highlighted in national DRR strategies. Health security-specific documents refer to preparedness in the context of managing outbreaks peak, ensuring adequate testing, contact tracing and the availability of drugs.

In the area of early warning, improving hazard forecasting, impact modelling, and the dissemination of risk information are often referred to as objectives for enhancing multi-hazard early warning capacity. While many strategies refer to the importance of disease surveillance and aim to build multi-hazard early warning systems, little detail is available on how this could be achieved. Infectious disease-related early warning system plans refer to health specific surveillance but do not provide further detail on how the non-health impacts of epidemics and pandemics could be forecast and the linkages with sector-specific continuity and resilience plans.

Making health infrastructure resilient to disasters, especially in structural terms but also by looking at ensuring accessibility and coverage of at-risk populations, is a common objective found in the recovery and 'build back better' provisions of DRR strategies. Ensuring access to mental health and psychosocial support to crisis-affected populations is often referred in the strategies

The revised National Disaster Management Plan of India 2019

The Government of India revised its 2016 National Disaster Management Plan in 2019 'to incorporate the emerging global approach of bringing about coherence and mutual reinforcement of the three Post-2015 Global Frameworks'. A series of new hazards were also added within the scope of the Plan, including a comprehensive action plan on "**Biological and Public Health Emergencies**".

Aligned with Target D of the Sendai Framework, the key objectives of the Plan are to promote resilient health systems and to develop the capacities and resilience of communities. The plan aims to enhance the resilience of health systems by integrating disaster risk reduction

into all levels of health care, and by enhancing training in the field of disaster medicine. The plan also highlights the specific health needs of vulnerable populations, like older persons and children.

The National Disaster Management Plan subsequently outlines action points on biological and public health emergencies at national and sub-national (state) levels, and outlines the responsibilities of the relevant government departments at each. The Ministry of Health and Family Welfare has been identified as the lead ministry for addressing biological emergencies.

as an objective for post-disaster recovery and rehabilitation.

COVID-19 also highlighted the importance of conducting simulations and capacity building to strengthen preparedness against disasters. For instance, the Maldives' National Emergency Operations Plan was tested largely in the capital Male and not in other islands. This reflected well in the COVID-19 response as the capital was much better prepared than the constituent islands.

Most NDMOs have strongly recommended conducting simulations for disasters on the scale of disasters like COVID-19 to better prepare for future disasters. NDMOs also pointed to the limitations in their existing DRR plans which had not been designed to address a prolonged disaster concurrently happening at multiple locations or across the country.

In summary, the overarching priorities for action considered within national DRR strategies commonly identify, *inter alia*, health services' preparedness for disaster response, and resilience of health infrastructure as a key measure for DRR mainstreaming. However, several of the provisions and recommendations remain indistinct as the details are left for the supporting action plans. The increasingly interconnected, cascading and complex nature of risk, hence, necessitates action or implementation plans that integrate hazard-specific or single-hazard mechanisms into multi-hazard and multi-sectoral frameworks to enable implementation of the DRR strategies.

1.4 Regional Cooperation for Disaster Risk Governance on Health

Disasters do not recognize borders. Together with their national efforts, countries hence increasingly focus on regional cooperation in disaster risk management. Both the Sendai Framework and the [Asia Regional Plan](#) recognize the importance of regional cooperation in

addressing disasters and disaster risk. In particular, the [Action Plan 2018-2021](#)⁵ of the Asia Regional Plan calls on countries to 'Promote implementation of the health aspects of the Sendai Framework, including through re-emphasising the Bangkok Principles, with a view to ensuring more systematic cooperation, coherence and integration between disaster and health risk management.' It also recommends investing in building resilient health systems, including through enhancing the resilience of health infrastructure and institutions.

At the sub-regional level, the plans, frameworks and agreements refer to alignment with health emergency plans at varied levels. While the ASEAN Agreement on Disaster Management and Emergency Response ([AADMER](#)) does not explicitly refer to biological hazards (it is limited to natural and man-made hazards), at the [14th ASEAN Summit](#) (2009) the ASEAN Leaders agreed to entrust the ASEAN Secretary General to serve as the Humanitarian Assistance Coordinator for ASEAN, which is a role that can be activated at the request of an affected Member State in the event of a major disaster, including a pandemic. Once activated, the Secretary-General/Humanitarian Assistance Coordinator shall coordinate the appropriate ASEAN mechanisms to respond to the pandemic.

Catalyzing the dialogue from response to prevention, the [ASEAN Vision 2025 on Disaster Management](#) calls for enhancing cross-sectoral collaboration in the ASEAN Community. Similarly, the [Framework for Resilient Development in the Pacific](#) recognizes climate change and disaster risk as cross-cutting issues, and hence, advocates for action to be taken at the sectoral level, with health being one of the key sectors. This is further voiced in the WHO's [Western Pacific Regional Framework for Action for Disaster Risk Management for Health](#), which outlines health sector actions to prevent, prepare for, respond to and recover from disasters.

The [SAARC Comprehensive Framework on Disaster Management](#) and the [ECO Regional Framework for Disaster Risk Reduction](#) emphasize the need for resilient health

5 The validity of the Action Plan 2018-2020 has been increased to 2021 in light of the postponement of the 2020 Asia-Pacific Ministerial Conference on Disaster Risk Reduction due to COVID-19.

infrastructure. In addition, the ECO Framework calls for strengthening cross-border data sharing on trans-boundary animal and human diseases.

The [Framework for Resilient Development](#) refers to the need to align its implementation with the [Western Pacific Regional Framework for Action for Disaster Risk Management for Health](#) which focuses on mitigating the health impact of disasters and calls on countries to improve health systems capacities to contribute to the prevention of and the response to natural and human-induced hazards, including biological ones. The DRM for health framework recognizes the importance of an all-hazard approach and promotes building strong synergies with in-country risk management capacities already in place to addressing emerging diseases and public health emergencies.

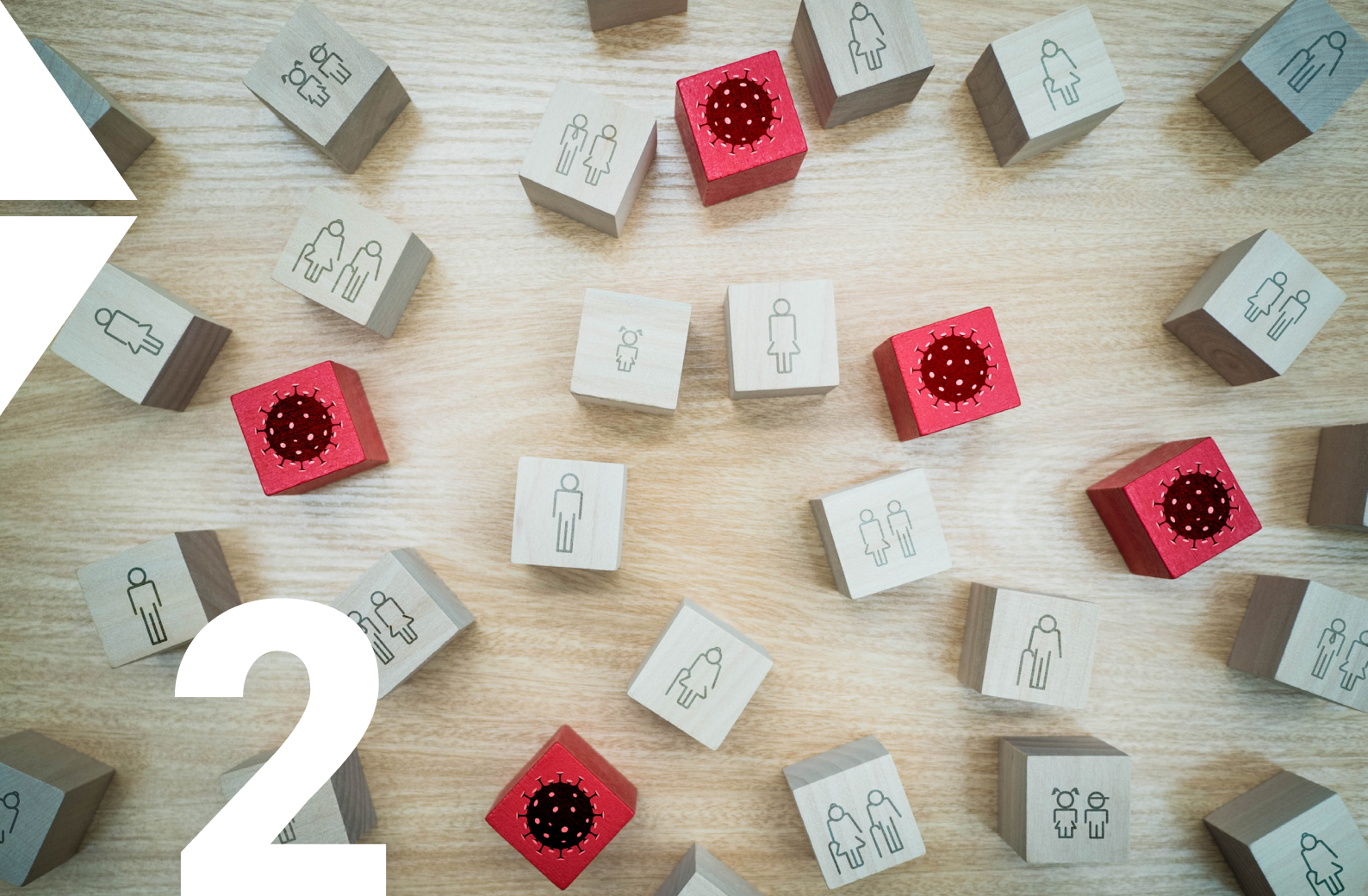
The [Boe Declaration on Regional Security](#) adopted in 2018 by the Pacific Islands Forum leaders expanded the concept of security to encompass human and environmental security and recognized climate change, and associated hazards and impacts, including health ones, as an existential threat. The existence of these frameworks paved the way for the development of the [Pacific Humanitarian Pathway on COVID-19 \(PHP-C\)](#), which was led by the Pacific Islands Forum.

Both the ECO Framework and the AADMER Work Programme (2016-2020) outline specific

components on hospital safety and health safety nets, the latter also calling for insurance mechanisms for critical infrastructure, including hospitals. The AADMER Work Programme also highlights the need to include epidemics and pandemics, and Chemical, Biological, Radiological Nuclear and Explosives (CBRNE) in the purview of early warnings in the long-term.

Countries in Asia-Pacific face a common set of disaster risks and resultant challenges - an indication of the **need for enhanced regional cooperation** to address them. The above analysis shows that the regional plans and frameworks can serve as a potent instrument to manage disasters and the disaster risk of multiple dimensions and hazards, including biological hazards. Cooperation instruments, like AADMER, have been very effective as a preparedness and response mechanism to ensure regional cooperation and should be leveraged to address other disasters beyond those resulting from natural hazards, e.g. COVID-19. This is important from the view of ensuring multi-sector response and recovery.

Regional resilience frameworks can also contribute to **strengthening national and local governance**. The synergy in managing disaster risks across multiple hazards needs to be enhanced at the regional level, which in turn provides a strong, valid basis for commensurate actions at the national and local levels.



COVID-19 and Regulatory Mechanisms

- For multi-sector action against disasters and disaster risk, sectoral laws and regulations should be risk-informed (with a multi-hazard approach) and coordination mechanisms between relevant agencies should be established under law with clearly mandated DRM roles and responsibilities.
- Countries should conduct a comprehensive review of their laws relating to DRM, biological hazards and public health emergencies, in order to assess whether they support and enable effective prevention, preparedness and response to all types of hazards and disasters.
- The declaration of a state of disaster or emergency is a critical element of risk governance. Countries should develop a range of state of disaster/emergency provisions that are tailored to differing degrees and types of risk, including a mechanism that is appropriate and applicable to major public health emergencies.

In response to the COVID-19 pandemic, several countries declared a state of emergency or its equivalent to streamline response coordination.

Most countries in Asia-Pacific used the provisions of **public health and communicable/infectious disease acts**, to respond to COVID-19. Countries also used such legal instruments to declare COVID-19 as an outbreak in the initial stages. While several countries used the laws in their existing form, some countries amended their laws to rapidly respond to COVID-19. For instance, the parliament of the Republic of Korea passed a set of bills amending three separate acts, which the president promulgated in early March, 2020. Republic of Korea had also benefited from the laws promulgated in response to MERS earlier. Similarly, Japan amended the 2012 Act on Special Measures for Pandemic Influenza and New Infectious Diseases Preparedness and Response on 13 March 2020 to include COVID-19. This ensured counter measures and response against COVID-19 (including the declaration of a state of emergency) became possible along within the existing legal framework.

Some countries like Mongolia and Singapore promulgated a new **temporary law** for COVID-19 response. The temporary law⁵ empowers relevant government agencies to enforce safe-distancing and other public health measures in respect of COVID-19. Other countries, like Thailand, used an **emergency decree** to declare a state of emergency, but established a response coordination structure composed of multiple ministries. While Cambodia promulgated a State of Emergency Law on 29 April 2020, as of the date of this publication, it has not been used.

Examples exist in the region of the use of **disaster risk management legal instruments** for the COVID-19 response. The Government of India used the emergency provisions of the 2005 National Disaster Management Act to effect a country-wide public restrictive measure (lockdown), which has subsequently gone through multiple phases, including at sub-national levels. Similarly, Vanuatu used

the Disaster Risk Management Act of 2019 to respond to COVID-19. New Zealand used the Civil Defence Emergency Act 2002 to declare a state of emergency. While the Maldives used the Public Health Act as the legal instrument to respond to the pandemic, selected provisions of its National Disaster Management Act, such as the National Emergency Operations Plan (NEOP), were used to facilitate multi-agency coordination.

Some countries used a **combination of public health and disaster (risk) management laws**. Fiji used both the Public Health Act (most recently amended in 2018) and the Natural Disaster Management Act 1998 for its COVID-19 response. Since the Act, by virtue of its name, limits the roles and responsibilities of the National Disaster Management Office of Fiji to natural hazards, the Office is currently reviewing the Act for possible revision. Myanmar also used its Disaster Management Act in combination with its Communicable Disease Law to enforce public restrictive measures. The application of disaster (risk) management regulations also helped the Pacific countries respond to the dual impact of disasters resulting from natural hazards (e.g. Cyclone Harold) and biological hazard (COVID-19).

When required, provisions in disaster management laws can be beneficial to address disasters and emergencies (as long as they respect human rights). The provisions can be employed in the case of disasters, as well as pandemics and other emergencies, when they threaten to overwhelm a system's capacities, as they help follow an established standard operating procedure in a time-sensitive manner.

An important component of most disaster management laws is the provision of a **declaration of a state of disaster/emergency (SoD/SoE)**. Several disaster management laws in the region provide the statutory basis for such declarations, which in turn activate a specific response coordination mechanism, including emergency operation centers and/or special coordination mechanism, or in some cases, funding. The declaration of an SoE/SoD also activates emergency powers which

5 The validity of the Action Plan 2018-2020 has been increased to 2021 in light of the postponement of the 2020 Asia-Pacific Ministerial Conference on Disaster Risk Reduction due to COVID-19.

would otherwise not be available to government and may be necessary to manage the relevant disaster/emergency.

To enhance the effectiveness of the declarations and minimize the risk of infringements on human rights due to the enforcement of SoDs/ SoEs, it is recommended that these declarations be formalized within a well-defined regulatory instrument for effective response coordination. The IFRC [Checklist on Law and Disaster Preparedness and Response](#) recommends that the laws governing SoE/SoDs should clearly identify: (i) the legal trigger(s) for making a declaration; (ii) the person or entity that is responsible for making a declaration (i.e. the repository of the declaratory power); (iii) the consequences of the declaration (i.e. what governance arrangements and powers are activated), and (iv) when a declaration may be made (i.e. pre-emptively or only once a disaster has occurred).

The IFRC Checklist further recommends that countries should develop a range of SoDs/SoEs

that are tailored to differing degrees and types of risk.⁷ Such SoDs/SoEs are designed to work in a pyramidal fashion, ranging from localized disasters/emergencies to major emergencies or national disasters, and include provisions related to emergency powers and governance arrangements tailored to the type of disaster/emergency.

Such a cluster of provisions is helpful in accounting for different requirements to address a public health emergency, a disaster triggered by natural hazards or a situation such as widespread civil unrest. Such an approach also ensures that emergency powers and governance arrangements are appropriate and proportionate to the relevant event. This is consistent with the human-rights essential principles and requirements for emergency rules on temporality, proportionality of the measures to the interest at stake, non-discrimination and necessity.

7 The Checklist No. 5 states if the country's laws establish 'states of emergency' and 'states of disaster' that are tailored and proportionate to differing degrees and types of risk.



COVID-19 and Institutional Mechanisms

- The governance of disaster risk reduction is not an NDMO task alone. It is a multi-sector responsibility with significant roles for the ministries of planning and finance.
- Developing institutional structures and mechanisms for all dimensions of disaster risk management in all sectors is critical to preparedness and rapid response and recovery.
- NDMOs can and do play an effective role in risk management, preparedness and response to disasters resulting from different hazards (e.g. natural, biological, environmental or technological) and hence can be a hub for effective coordination of disaster risk management across sectors. In context of pandemics, NDMOs have proven to be useful in the coordination of response and managing the non-epidemiological aspects of the response.
- The comparative advantage of NDMOs in risk management, preparedness and response coordination should be leveraged,

while ensuring that all sectors incorporate disaster risk reduction into their plans and operations.

- To better address risk drivers, NDMOs need

to enhance their roles in disaster and risk prevention. Through appropriate analysis and monitoring of the risk and of the vulnerability of systems, disasters can be predicted and prevented.

3.1 Response Coordination

Disaster governance requires a holistic view of risk, including the interconnectedness across multiple risks. Most countries in Asia-Pacific adopted an **inter-institutional approach** to respond to the COVID-19 crisis in the form of a national coordination committee or task force. In several cases, the response coordination was **led by the Head or Deputy Head of the State**. In other cases, the response coordination was led by the ministry of health, especially where the COVID-19 caseload was not significantly high.

In some countries, the COVID-19 response was coordinated by the **national disaster management offices (NDMOs)**. India's National Executive Committee, established as part of the 2005 National Disaster Management Act, led the coordination of the COVID-19 response in the country. The National Executive Committee supports the National Disaster Management Authority and is composed of different ministries

led by the Ministry of Home Affairs. Countries like Fiji and Nepal also harnessed disaster risk management institutions, which were marked by a strong **devolution of responsibilities** to sub-national levels. In Fiji, the response coordination devolved from a national disaster management council to the four divisional commissioners. Nepal worked through dedicated national coordination committees, chaired by the Deputy Prime Minister, and provincial disaster management councils.

Additionally, **NDMOs also played a key supportive role** in several countries, including through participating in national coordination committees and building the capacity of emergency coordination centres.

In many countries, NDMOs primarily supported through conducting risk communication and raising public awareness, coordinating with non-state actors like NGOs, conducting community outreach and coordinating the logistics of emergency assistance. In Afghanistan, the

Learning from past disasters: Vanuatu

When examining the impact of disasters resulting from multiple hazards, Vanuatu appeared as among the initial examples of countries that faced weather hazard-induced disasters while battling against the COVID-19 pandemic. When tropical cyclone Harold hit the Pacific Islands of Vanuatu, Solomon Islands, Fiji and Tonga in April 2020, the ongoing response to COVID-19 made it difficult for governments to implement swift and impactful relief and recovery efforts.

The cyclone caused widespread destruction in the affected countries, in particular

Vanuatu, where the impact is still being felt. However, it should be noted that Vanuatu invested heavily to strengthen its institutional, legislative and coordination arrangements after its last major disaster - Cyclone Pam in 2015. Despite the COVID-19 imposed challenges, the existing arrangements helped ensure a smooth response in the face of the double disaster. Further, to address growing vulnerabilities due to COVID-19 and the cyclone, Vanuatu also boosted its efforts through practical measures such as reprogramming protection measures for at-risk girls and women.

NDMA supported response efforts through delivering non-medical relief, including food distribution. Cambodia's National Committee for Disaster Management took the primary responsibility of caring for immigrant workers returning to Cambodia following border closures. In Thailand, while the NDMO (Department of Disaster Prevention and Mitigation DDPM) did not play a central role in the national COVID-19 response, it did have a big role at the sub-national levels, including through mobilizing community volunteers. Republic of Korea emphasized the role of local governments in customizing guidance for locally appropriate responses and implementing strategies. In a number of countries, subsidiary structures were created within the special COVID-19 coordination mechanisms to deal with specific issues (e.g. PPE, foreign affairs, food security, relief, etc.), while other countries used the pre-existing humanitarian cluster mechanism (e.g. Afghanistan, Nepal, Maldives).

In most cases it was found that having in place **pre-existing arrangements for response coordination**, helped countries quickly activate or establish the necessary COVID-19 response coordination mechanisms following a declaration of an emergency. In the Maldives, even though the country's National Disaster Management Act was not used, the structures prescribed in the Act such as the National Emergency Operations Plan (NEOP) was used as the foundation for multi-agency coordination. In several countries, disaster management provisions were not used because the countries never officially declared a state of emergency.

The role of NDMOs was underscored by the **simultaneous occurrence of other disasters**, such as cyclones, floods and landslides, while countries were responding to COVID-19 (See Section 4). While challenging, the NDMOs were able to effectively mitigate and respond to the impact of those disasters while taking COVID-19 into account.

Interestingly, the **role of NDMOs expanded as the impact of COVID-19 increased**. In the Maldives, the Ministry of Health played a central role in the initial stages. However, as the crisis unfolded, a multi-agency coordination mechanism was established under the leadership of the NDMA, which also led the National Emergency Operations Center (NEOC). Subsequently, as the crisis subsided the coordination responsibility was given back to

the Ministry of Health. The NDMA also set up temporary healthcare facilities and handed them over to the Ministry of Health for management. Similarly, as the crisis progressed in Kiribati the NDMO's experience in emergency management was increasingly harnessed. Elsewhere in the Pacific, the role of the NDMA was minimal in most as the emergency stage was not reached or activated.

3.2 Institutional Capacity and Resources

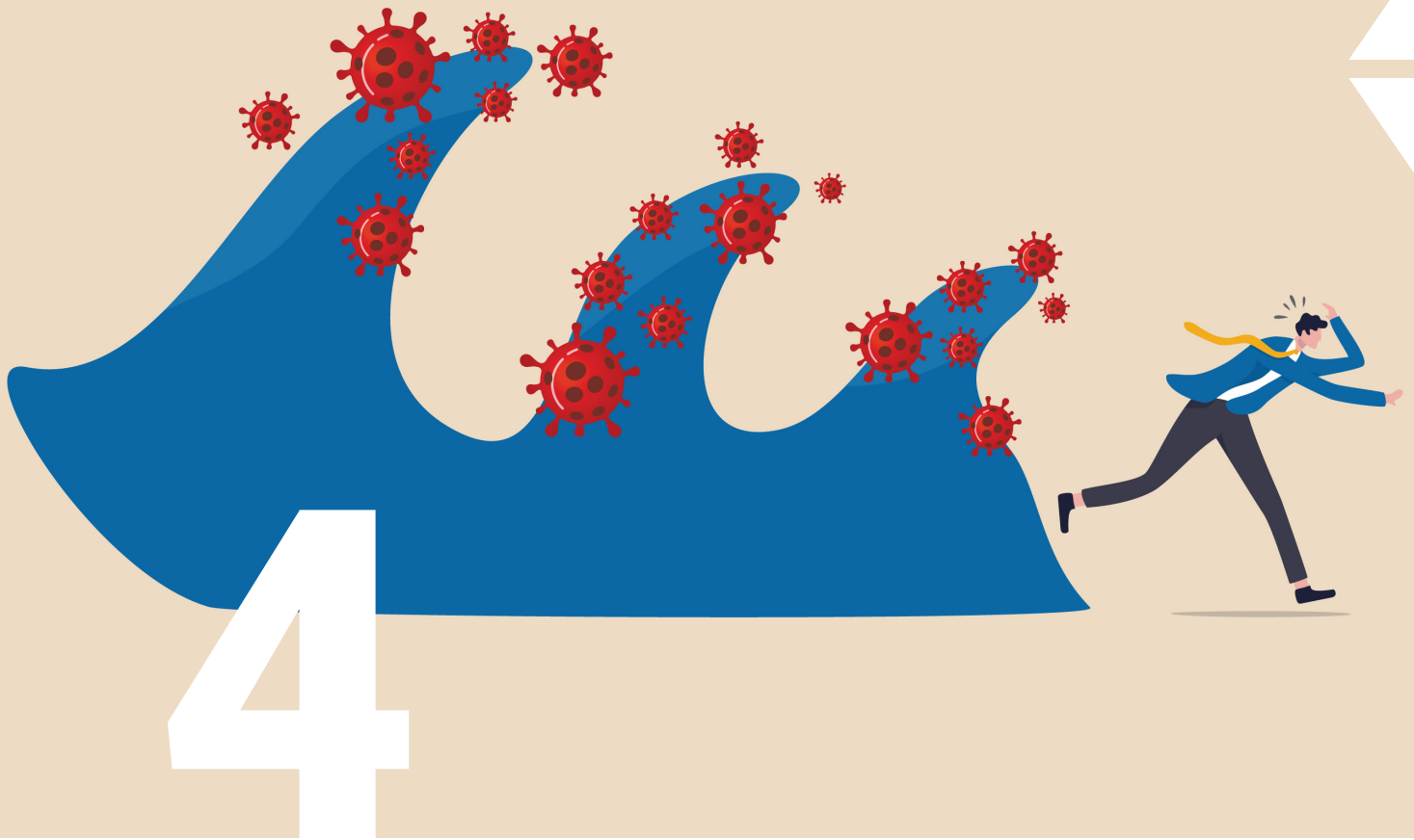
It is evident that the COVID-19 crisis, given its enormity and longevity, challenged the capacity of all institutions. Notwithstanding these challenges, the NDMOs supported response measures and proved effective where **local institutional capacity** was in place. This proved particularly effective in the context of island nations and atolls where communities live in relative isolation and depend on the local institutions. Further, prior investment in building emergency coordination capacities, including through setting up standardized emergency operations centres and incident management systems, proved very helpful in enabling effective response coordination.

Experiences from similar past crises helped institutions respond better. For instance, lessons on risk communication and public health measures learned from past infectious diseases like MERS and H1N1 in several countries, and more recent experiences, such as measles in Fiji, were useful in informing COVID-19 response and recovery efforts of these countries. However, COVID-19 stands out in it highlights the importance of considering the **compounded impact** of simultaneously occurring disasters, wherein overlapping events affect response capabilities. This is a key lesson that needs to be integrated in future preparedness planning, while addressing the underlying risk drivers to prevent cascading risks.

In some cases, the existence of **contingency and emergency response funds** provided much-needed financial support in the initial stages of the crisis. Good practices exist on how countries can allocate a pre-set proportion of their national budgets for disaster risk reduction. Case in point is Mongolia, which allocates one percent of its national budget towards disaster risk reduction,

and thus has managed to finance its COVID-19 response by tapping reserve funds for sudden emergencies. Afghanistan, on the other hand, used its regular disaster management budgetary allocation to provide emergency medical services and food assistance.

It should be recognized that disaster risk management strategies and plans have multi-sectoral implications, and every institution is responsible for their implementation. This also means that funding for implementing the DRR strategies should not necessarily come only from the NDMOs but the sectoral budgetary allocation should account for disaster risk management. It is hence important to clarify the roles and responsibilities of government institutions in such strategies, which should be developed through an inclusive process for greater ownership.



“Dual Disasters”: Impact and Challenges

- The COVID-19 pandemic continues to have widespread health and socio-economic impacts. Coupled with disasters resulting from other hazards, this has resulted in compounded impacts, exacerbating vulnerabilities among affected communities, and harming frontline responders.
- Biological hazards, like pandemics, can be a result of, or occur simultaneously with other disasters. In both cases, a multi-hazard approach to disaster risk management can help mitigate them through effective inter-institutional coordination.
- The growing impact of climate change, ecosystem degradation, biodiversity losses, and overexploitation of nature enhance human-animal interactions, which may result in more such crises in the future.

The analysis in the previous sections on integration of biological hazards into disaster risk reduction planning, with COVID-19 as an example, points to the fact that risks originate from an interplay of multiple factors, and subsequently impact multiple sectors. Systemic risk, hence, cannot be isolated but needs a holistic approach to be effectively managed. This means countries need to implement a multi-sectoral approach to managing disasters and disaster risk.

The need for this approach becomes even clearer when considering that disasters can occur simultaneously. The prolonged and wide-scale nature of the current pandemic has coincided with the occurrence of other disasters, resulting from natural, biological, environmental or technological hazards. Between February and October 2020, the Asia-Pacific region recorded around 100 disasters of varying magnitudes, resulting in over 3,700 deaths and affecting 46.7 million people (computed from EM-DAT, CRED; See Figure 1). The **dual occurrence of COVID-19 and other disasters** has resulted in compounded impacts, underscored by overlapping vulnerabilities, intensified human and economic losses and deepening inequalities.

The impact of the dual disasters also extends to the frontline responders, local actors, and volunteers. The Cyclone Amphan response demonstrated how COVID-19 travel and physical distancing restrictions hampered preparedness and response efforts.

Several of these disasters happened in places that are already struggling against the impact of COVID-19 (See Table 1). Climate-related hazards, many of which have become more unpredictable and extreme due to climate change, were responsible for most of these disasters. Cyclone Harold significantly impacted the Pacific island countries, many of which were already struggling with drought. Cyclone Amphan in the Bay of Bengal and Cyclone Nisarg in the Arabian Sea posed grave challenges to some of the most densely populated areas in the world, overwhelming the capacities of disaster management agencies. Japan and the Korean peninsula have also been impacted by Typhoons Maysak and Haishen.

While a timely monsoon in South Asia ensured a good agricultural season, it also caused heavy losses to lives and property through devastating floods in the Indo-Gangetic Basin. Floods and

Figure 1: Dual impact of COVID-19 and other disasters* [Feb-Oct 2020]

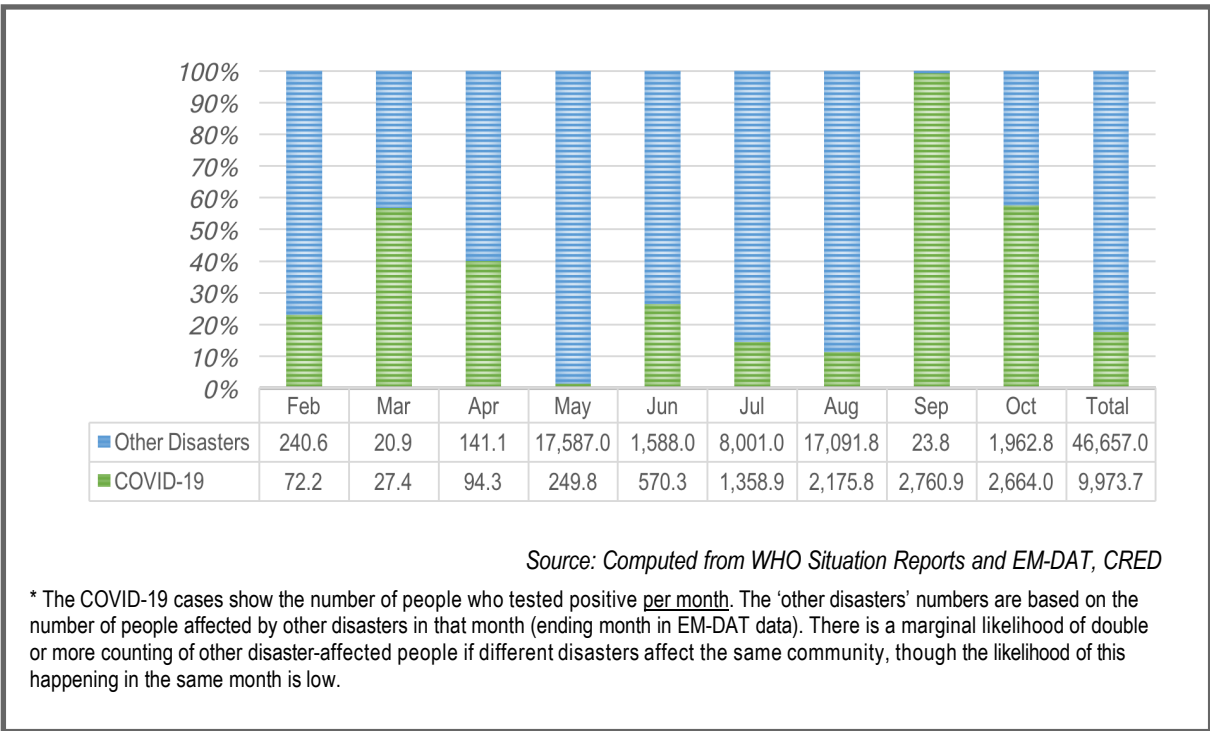


Table 1: Major Disasters in 2020 [Feb-Aug]

Disaster	Country	Impact
Disasters affecting over 1 million people		
Floods (May-Aug)	India	1,421 deaths; 18.4 million affected
Tropical Cyclone Amphan (May)	Bangladesh, India, Sri Lanka	133 deaths; 15.1 million affected
Floods (Jun-Jul)	Bangladesh	119 deaths; 6.5 million affected
Floods (Jun)	China	130 deaths; 1.4 million affected
Major Disasters in LDCs		
Landslides (Jun & Aug)	Nepal	247 deaths; 76,730 affected
Landslides (July)	Myanmar	166 deaths; 54 injuries
Flash floods (Mar & Jul)	Afghanistan	72 deaths; 18,131 affected
Major Disasters in SIDS		
Tropical Cyclone Harold (Apr)*	Fiji, Tonga, Solomon Is, Vanuatu	33 deaths; 339,000 affected

Source: EMDAT-CRED; *Impact compiled from different sources

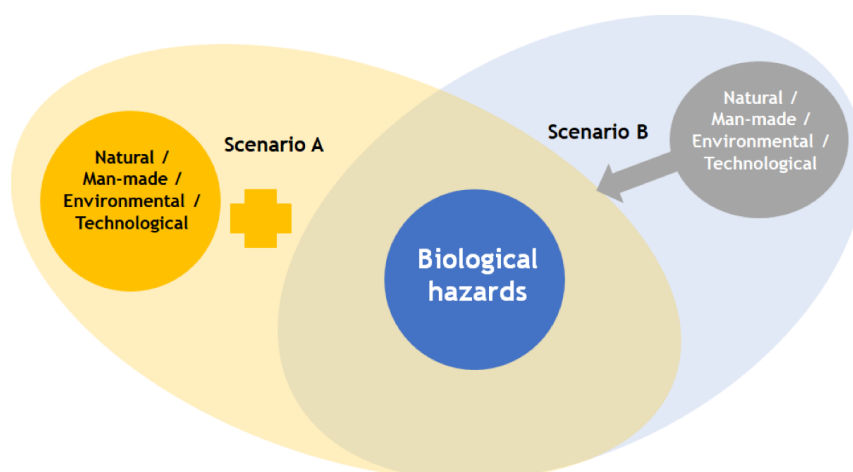
storms have also remained a threat in South-East Asia, with Tropical Cyclone Vongfong exposing 3 percent of the Philippine population to its highest wind speeds. The region is also highly prone to seismic hazards like earthquakes and tsunamis. This is in addition to droughts that have affected several countries in South-East Asia and Sri Lanka in South Asia.

Biological hazards like epidemics can be a result of, or occur simultaneously with, natural, technological or environmental hazards (Figure 2). Regardless of the cause, the resultant duality of disasters, and their compounded

impact on populations and their vulnerability, calls for integrated disaster risk management across different hazards. The unpredictability of disasters that result from the interplay of underlying risk drivers further impedes the ability to manage them. Indeed, pandemics have remained difficult to predict, and that has been mostly the case with different man-made and technological hazards as well.

That said, countries must not lose sight of the need to protect the most vulnerable from the impacts of both. Moreover, they need to examine their current preparedness plans to ensure that

Figure 2: Scenarios of Dual Disasters



Source: UNDRR

they are in line with their COVID-19 efforts. In the longer term, the underlying risk drivers and their interconnectedness and the cascading nature of risks need to be addressed to prevent crises from happening and ensuring the attainment of the 2030 Agenda through risk-informed sustainable development. The growing impact of climate change and indiscriminate biodiversity losses are enhancing human-animal interactions, a key reason for past and potential future pandemics.

A multi-hazard approach requires a multi-stakeholder and multi-sectoral risk governance mechanism to break the “silos” between departments with different mandates. The development of Sendai Framework-aligned DRR strategies can contribute to such a mechanism, but they must be supported by a well-coordinated institutional architecture, legislative mandates, political will, funding and human resources.

Multi-hazard and multi-sectoral approaches to risk management are also needed to address the root causes of disaster risks and their disproportionate impact on certain vulnerable groups. For example, public health responses to COVID-19, such as lockdowns and shutdowns, while necessary to contain the spread of the pandemic, have resulted in significant socio-economic impacts, including job losses, business closures, supply and value chain disruptions, food insecurity and social protection issues. These impacts were most profoundly felt by the poor and the marginalized, whom due to pre-existing vulnerabilities caused by inequality, were pushed further into poverty and to adopting negative coping strategies.



Outlook and Recommendations

The documentation of lessons from the COVID-19 response and recovery is critical to informing future efforts on disaster risk management and response. This study has highlighted the need to adopt a multi-hazard, multi-sector approach to disaster risk management. When risk is systemic, it cannot be measured and managed by breaking it into its components. It needs to be approached in its totality, which becomes the basis for effective disaster risk governance. In light on this, the study makes the following recommendations:

- **Strengthen disaster risk governance:** Good risk governance saves lives and protects livelihoods. Several countries in the region are already using legal and policy provisions

of disaster risk management to bolster their COVID-19 response. Disaster risk governance also enhances coordination in prevention, preparedness, response and recovery efforts, which has a multiplier effect on resilience building. Countries should, hence, strengthen their governance arrangements, backed by regulatory and institutional mechanisms, to ensure inclusiveness in planning and implementation.

- **A multi-sector responsibility:** As a key component of disaster risk governance, responsibility for disaster risk management is not limited to NDMOs but cuts across multiple ministries and stakeholders. COVID-19 is a practical example of a disaster that could not

have been managed by ministries of health alone, despite being a health emergency. This applies to the management of all disasters, and becomes even more significant when it comes to the prevention of disasters and disaster risk. It is, hence, important to better align prevention and response efforts of the key sectoral ministries and disaster risk management authorities. Countries should also strengthen institutional knowledge around DRR in different sectoral ministries, especially for senior leaders, to effectively involve them in disaster prevention of and responses efforts.

- **Address dual disasters:** The dual nature of disasters resulting from different hazards (e.g. natural, biological, technological, environmental and man-made) and their compounded and cascading impacts need to be addressed. Countries should seek to augment their capacities and resources towards enhancing preparedness for climate-related hazards as they concurrently battle the COVID-19 pandemic and plan for future pandemics. Importantly, efforts to reduce underlying vulnerabilities should be scaled-up and the consequences of the disasters, especially on at-risk groups should be better anticipated.
- **Revisit policy and planning landscape:** COVID-19 has forced several countries to revisit their existing disaster risk reduction strategies and laws with an eye towards making them multi-hazard and multi-sectoral. This is a welcomed development. Countries that are in the process of developing or revising their DRR strategies should also seize this opportunity to reflect those aspects in their plans and laws. Countries may also consider adding an action plan for health emergencies in their strategies.
- **Address unpredictability:** In scenarios like COVID-19 and similar disasters, where predictability is an issue, it is important to follow a constant and consistent method of multi-hazard scenario building. This should be done through continuous dialogue with the relevant experts and frontline workers. This, again, requires a multi-sector approach to ensure the right experts and actors are on the table since risks can originate from a variety of sources and cascade across different spheres, affecting each in different magnitudes.
- **Clarify institutional mechanisms:** While several countries have developed/revised disaster risk reduction strategies and plans post-2015 (and hence exhibit greater alignment with the Sendai Framework), several features of the strategies need elaboration and substantiation. For instance, terms like multi-hazard, multi-sector, multi-hazard early warning, etc. need to be specified with clear roles and functions to better define the scope of the strategy and how it will be implemented. If not, the scope will remain ambiguous and thus the required risk mitigation and disaster preparedness and response actions will fall short.
- **Leverage regional instruments for national planning:** Regionally negotiated and endorsed resilience frameworks provide a strong and valid basis for action at the national and local levels. It is hence an imperative that governments integrate these regionally shared understandings into their national planning. Furthermore, active coordination and cooperation between national and sub-national levels can help ensure integration into disaster risk management at the local level.
- **Decentralise and act locally:** The COVID-19 experience has underscored the importance of local action at the lowest levels of government. Greater decentralisation of response measures has helped countries respond more effectively to the crisis. Hence, countries should enhance investment in local governance mechanisms. Further, in the COVID-19 situation, reliance on local and national capacities has increased due to the disruptions in global supply chains and humanitarian networks. Accordingly, the capacities of local actors and mechanisms should be strengthened, including through a devolution of authority and increased funding to local actors. This increased reliance on local actors should be accompanied by a corresponding increase in the representation of local actors in coordination and decision-making fora.
- **Promote integrated DRR:** It is particularly important to better align the prevention and response efforts of health ministries and disaster risk management authorities. The 2016 [Bangkok Principles for the implementation of the health aspects of the Sendai Framework](#) provide a blueprint for integrating health into disaster risk management planning and integrating

Figure 3: Implementing the Bangkok Principles – Potential themes for integrated disaster risk reduction



disasters into health planning. The principles call for the establishment of multi-sectoral disaster risk management committees that include health officials and they seek to strengthen the integration of biological hazards into multi-hazard disaster risk management. At the same time, the Bangkok Principles also call for better integration of disaster management in health policies and programming at the national and local levels. This is elaborated in the World Health Organization’s [Health Emergency and Disaster Risk Management \(EDRM\) Framework](#) which calls for the implementation of the International Health Regulations (2005) with the Sendai Framework. The Bangkok Principles and the Health EDRM Framework provide a common language that can be adapted and applied by all actors in health and other sectors to reduce health risks and disaster impacts, as well as better integrate disaster risk management in health policies and programming at the national and local levels. Countries should seek to implement

the Bangkok Principles and the Health EDRM Framework as a matter of urgency.

As countries move from COVID-19 response to recovery, they will need to adopt recovery strategies in incremental phases as their policy focus moves from reducing the health impact to boosting socio-economic resilience. While doing so, it should be ensured that the urgency to address short-term needs does not come at the cost of seizing opportunities to achieve long-term goals. COVID-19 also offers a unique opportunity to move to a “new normal” that is more equitable and climate sensitive. Investments in green growth and nature-based solutions should be enhanced to meet the long term objectives the world agreed to before the pandemic struck, especially around decarbonisation, climate change and sustainable consumption. This includes seeking greater integration in the implementation of disaster risk reduction and climate change adaptation to ward off increasing climate threats.

8 UNDRR has released a set of guidelines to help implement the Bangkok Principles: (i) Annex to the Words-into-Action Guidelines on National Disaster Risk Reduction Strategies (forthcoming), (ii) [Health Annex to the Integrating Disaster Risk Reduction and Climate Change Adaptation in the UN Sustainable Development Cooperation Framework](#), and (iii) [Public Health System Resilience Scorecard for Cities](#)

Annex: National Strategies Reviewed

#	Country	National DRR strategy status	Other documents reviewed
1	Afghanistan	The Afghanistan Strategy for Disaster Risk Reduction (ASDRR)	
2	Australia	National Strategy for Disaster Resilience	Australian Disaster Preparedness Framework
3	Bangladesh	National Plan for Disaster Management (2016-2020)	
4	Bhutan	National Disaster Risk Management Strategy, (NDRMS) 2017	
5	China	Comprehensive National Plan on Disaster Prevention and Reduction (2016-2020)	
6	Fiji	Fiji's National Disaster Risk Reduction Policy 2018-2030	
7	India	National Disaster Management Plan 2019	National Policy on Disaster Management 2009
8	Indonesia	Disaster Management Plan (RPB) and the Regional Disaster Risk Reduction Action Plan (RAD PRB).	National Disaster Management plan 2010 - 2014 and Action Plan on Disaster Risk Reduction 2010 - 2012
9	Japan	Disaster Management Basic Plan	National Action Plan for Pandemic Influenza and New Infectious Diseases* (adopted in 2013 and updated in Sept 2017)
10	Kiribati	Kiribati JNAP (Joint National Action Plan in CC and DRR)2014-2023	
11	Korea, Rep of	The 3rd National Safety Management Master Plan 2015- 2019	The Act on Prevention and Management of Infectious Diseases
12	Malaysia	National Action Plan for DRR	
13	Marshall Islands	Republic of the Marshall Islands Joint National Action Plan for Climate Change Adaptation & Disaster Risk Management 2014 - 2018	
14	Micronesia, Fed States of	Nation Wide Integrated Disaster Risk Management and Climate Change Policy 2013	
15	Mongolia	Medium-term Strategy for the implementation of the Sendai Framework in Mongolia (2017-20130)	
16	Myanmar	Myanmar Action Plan on Disaster Risk Reduction.MAP. DRR 2017	
17	Nepal	National DRR policy	National DRR strategic PoA 2018-2030
18	Nauru	2015.Republic of Nauru Framework for Climate Change Adaptation and Disaster Risk Reduction (RONAdapt)	
19	New Zealand	National Disaster Resilience Strategy development.2018	
20	Pakistan	National Disaster Risk Reduction Policy 2013	The National Disaster Risk Reduction and Management (DRRM) Plan 2011-2028
21	Palau	National Disaster Risk Management Framework.2010	
22	Papua New Guinea	National Disaster Risk Reduction Framework 2017-2030	
23	Sri Lanka	National Policy on Disaster Management	
24	Samoa	Samoa national action plan for disaster risk management 2017-2021	
25	Solomon Islands	National Disaster Management Plan (NDMP) 2016	
26	Tonga	Joint National Action Plan 2 on Climate Change and Disaster Risk Management spanning until 2028.	
27	Tuvalu	Tuvalu national strategic action plan for climate change and disaster risk management 2012–2016	
28	Vanuatu	Climate change and disaster risk reduction policy 2016-2030	

