

**The Philippines' Midterm Review of the
Implementation of the
Sendai Framework for Disaster Risk
Reduction 2015-2030
with a Short-term Review of the National
Disaster Risk Reduction and Management
Plan (2020-2030)**



OFFICE OF CIVIL DEFENSE, NATIONAL DISASTER RISK REDUCTION
AND MANAGEMENT COUNCIL (NDRRMC), PHILIPPINES

OCTOBER 2022

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I. HIGHLIGHTS AND INTRODUCTION

The Philippines' geographical conditions put it in one of the countries which are prone to extreme weather and geologic events such as cyclones, floods, volcanic eruptions, earthquakes, and storm surge. The Philippines is an archipelagic country consisting of 7,100 islands with a total length of coastline of about 36,000 km and covering a total land area of approximately 300,000 km². It is located within the Pacific Ring of Fire and the typhoon belt where a significant number of world's tropical cyclones form.

The World Risk Index in 2021 ranked the Philippines as the eighth (8th) among all of the countries with the highest disaster risk¹. Government estimates that the country experiences about an average of 148 natural extreme events and disasters annually². From 2010-2019, damages incurred from natural extreme events and disasters cost about Php 463 Billion or roughly \$9.3Bn³. The cost of disasters in the country put a strain to efforts towards poverty reduction and sustainable economic growth.

The Government of the Philippines was among the first to recognize and develop its national strategy for comprehensively managing the impacts of disasters. In 2010, it passed the landmark legislation, Republic Act 10121, or the National Disaster Risk Reduction and Management Act. The law provided for a proactive approach to understanding and managing disaster risks by establishing the organization, structures, mechanisms, and funding towards disaster risk reduction. It further provided the needed paradigm shift by putting a greater premium on disaster prevention, mitigation, and preparedness over the traditional country focus on relief provision, and recovery.

Since the passage of the landmark legislation, the Philippines DRRM Act, the Government issued policies, guidelines, regulations and implemented programs, projects, and activities to ensure the full implementation of the Law. The Government established DRRM Councils in charge for policy-making, coordination, integration, supervision functions on DRRM from the national, regional and local levels where representation from Civil Society Organizations and private sector proved to be critical. Rules were promulgated on the establishment, allocation, and utilization of National and Local DRRM Funds. Moreover, the Law provided for the formulation

¹ World Risk Report 2021. <https://reliefweb.int/sites/reliefweb.int/files/resources/2021-world-risk-report.pdf>

² Philippine Statistics Authority, 2020. Table 4.1. Occurrence of Natural Extreme Events and Disasters by Type, Year 2010-2017 <https://psa.gov.ph/content/damages-due-natural-extreme-events-and-disasters-amounted-php-463-billion?fbclid=IwAR0aY5UDmKx33otuS0kEZYLqaHMa9clo8GyDn3AP54xc0mr88kEKgYDhdXc>

³ \$1 at Php 49.6076 conversion rate in 2020. <https://www.exchangerates.org.uk/USD-PHP-spot-exchange-rates-history-2020.html>



and updating of National, Regional and Local DRRM Plans which shall be based on a DRRM Framework⁴ to be approved by the NDRRM Council.

Cognizant of the importance of local knowledge of risks, implementation and action, the **Philippines' DRRM Framework and Law puts local governments in the frontlines of DRRM and equips them with enabling structures, plans, funds, and a dedicated DRRM Office apart from the Local DRRM Council for the development, implementation, of DRRM programs in their respective communities.** Each LGU shall establish their Local DRRM Officer and Office to be assisted by a minimum of three (3) staff for a) administration and training, b) research and planning, and c) operations and warning⁵. All LGUs shall also allocate at least five (5%) percent of their estimated revenue to support DRRM programs and measures, 30% of which shall be set aside as Quick Response Fund (QRF) or stand-by fund for relief and recovery programs⁶.

The Philippines' implementation of disaster risk reduction and the Sendai Framework significantly takes into account experiences and learnings from the onslaught of large-scale disasters. The devastation brought about by Typhoon Ketsana (Local name: Ondoy) which affected the country's National Capital Region and the stakeholders' clamor for a paradigm shift towards preparedness serve as one of the prime movers for the passage of the National DRRM Law in 2010. The onslaught of Super typhoon Haiyan (Local name: Yolanda) in 2013 which killed more than 6000 people and affected 3.5 Million people⁷.

Past experiences and learnings from previous disasters yielded initiatives by civil society⁸ stakeholders of the Philippines to Review the implementation of the DRRM Law in 2015. While the formal Review by Congressional Oversight Committee tasked to formally review the Law as provided for in Section 27 of RA 10121 was not conducted, most of the findings from civil society stakeholders highlight the need to fully implement the Law by issuing or updating pertinent Circulars. Policymakers and legislators filed various legislative proposals in the 17th and 18th Congress with the previous administration's Executive Branch certifying the Legislative Bill creating the Department of Disaster Resilience one of his priority legislations⁹. However the proposed legislation didn't pick up until the end of the past administration. The stakeholders' Review though, yielded significant progress in terms of policies, plans and operational guidelines to strengthen implementation of the DRRM Law not only at the national but more importantly at the local level. This MTR SFDRR Report takes stock of the findings in these stakeholders' initiated Review of the Philippines DRRM Law especially those that are related to the SFDRR 4 Priority Actions and Global Targets.

⁴ Section 9 (b) Republic Act No. 10121. Philippines DRRM Act of 2010.

⁵ Section 12 Republic Act No. 10121. Philippines DRRM Act of 2010.

⁶ Section 21 Republic Act No. 10121. Philippines DRRM Act of 2010.

⁷ NDRRM Update Final Report re: Effects of Typhoon Yolanda (Haiyan)

https://ndrrmc.gov.ph/attachments/article/1329/FINAL_REPORT_re_Effects_of_Typhoon_YOLANDA_HAIYAN_06-09NOV2013.pdf

⁸ Before Sunset: Partners for Resilience Inputs to RA 10121 Sunset Review (2016).

<https://resilientphilippines.com/wp-content/uploads/publications/Before%20Sunset%20-%20PFR%20Inputs%20to%20RA10121%20sunset%20review.pdf> and Center for Disaster Preparedness' Inputs to the Sunset Review of DRRM law and its Implementing Rules and Regulations: Findings and Recommendations. November 2015 (unpublished)

⁹ Philippine News Agency Press Release September 22, 2020. "Disaster resilience department bill gets final House nod". <https://www.pna.gov.ph/articles/1116255>



II. MTR SFDRR METHODOLOGY AND PROCESS

This Mid-term Review employed a Framework, design, and methodology guided by the UNDRR Guidance for Stakeholder Consultations, Stocktaking and Review. Figure 1 below illustrates the Review Framework for the MTR of SFDRR. It has to be noted that for the Philippines, the MTR of SFDRR was undertaken alongside the Short-Term Review of the National DRRM Plan (NDRRM Plan 2020-2030) given that the NDRRM Plan serves as the primary implementing document for the SFDRR in the country. This initiative is being supported under Strengthening Institutions and Empowering Localities Against Disasters and Climate Change (SHIELD) Program, which supports the Government of the Philippines (GPH) in building institutional and community resilience to climate change and natural hazards, while taking into account the systemic nature of risks.

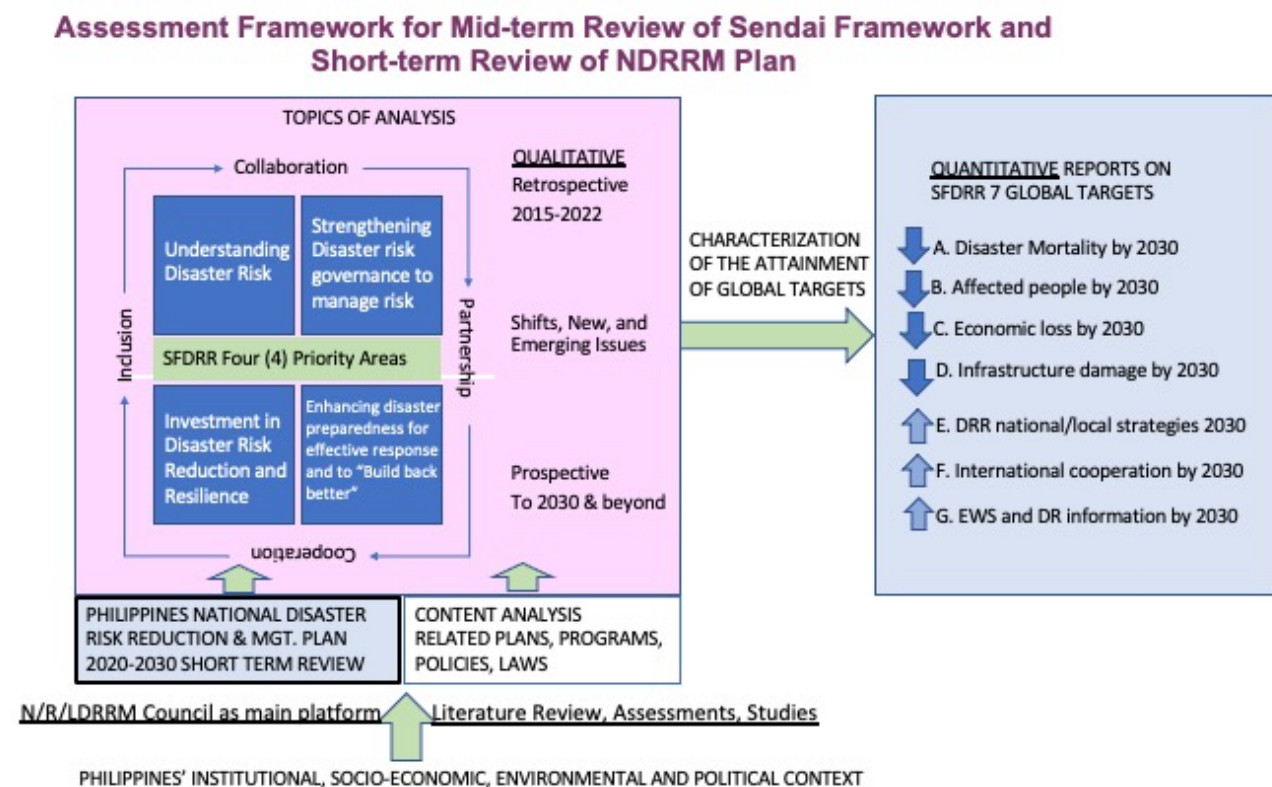


Figure 1 Assessment Framework for the MTR SFDRR in the Philippines

Process

Preparatory Activities. The Framework, Methodology and Process were presented and vetted among the Technical Working Group Members of the National DRRM Council established for the Sendai Framework Monitoring and Reporting which was established by virtue of National DRRM Council Resolution No. 1 series of 2021 issued on February 2021 during a series of Orientation Meetings conducted in 1st-2nd week July 2022. The crafting of the Framework, Methodology and Process were also formulated through close coordination among Office of Civil Defense- Policy Development and Planning Service, which serves as the National Secretariat of the National Disaster Risk Reduction and Management Council (NDRRMC), UNDRR Representative from the

Pacific, United Nations Development Programme representatives in the Philippines, and the Asian Disaster Preparedness Center (ADPC) representatives.

Data Gathering and Consultations. As regards the Methodology and process undertaken for the MTR, mixed-methods, quantitative and qualitative data collection and analysis were employed from July-August 2022. The Design and Methodology is formulated based on the UNDRR Guidance for MTR SFDRR Consultations, Review and Stocktaking wherein 27 core and probing questions are provided to constitute the Country Report. The suggested core and probing questions were all tailored fit according to country context. A brief account of the activities, consultations conducted in line with the MTR SFDRR data collection and analysis is presented below.

Primary Data Collection Methods are as follows:

- 1) **An Open Online Survey** was administered from 22 July – 17 August 2022 in coordination with the National Disaster Risk Reduction and Management Council, through the Office of Civil Defense as its National Secretariat. Fielding in the survey through the NDRRMC enabled the survey to reach as many responses as possible from across public and private stakeholders. Survey respondents presents a total of 932 responses which are almost equally distributed across all the geographical regions in the country. Most are females and working in the government. Annex B provides a summary of the online survey respondents' profile. The results of this survey fed into the analysis and validation of stocktaking on the progress, changes in context, and recommended priorities and action for SFDRR. Due to the challenges of convening workshops and consultations especially for the vulnerable sectors, NGOs, academia on the ground, the online survey was fielded to obtain representation among these sectors. Through the National, Regional and Local DRRM Council's information dissemination about the survey, the following representatives were able to respond to the survey: Local State Universities and Colleges, People's Homeowner's association, Women's organizations and Persons with Disabilities.
- 2) **Key informant interviews** among agencies with critical roles and responsibilities in the SFDRR implementation were undertaken from August 19-Sept 2. Representatives from the following national government offices participated in the KIIs: OCD, DOST, DILG, DSWD, NEDA, DBM, DOF. Highlights of the KIIs are included in Annex E of this Report.
- 3) **Conduct of the National Consultation Workshop from July 26-27, 2022.** A face-to-face national consultation was held with the NDRRM Council for government and non-government stakeholders. The National Consultations served as the main venue to discuss and extract progress, challenges, and recommended priorities for the Short-Term Review of the NDRRM Plan. Given that some government agencies and actors are involved or can answer in two or more SFDRR Priority Actions, a Knowledge Café¹⁰ approach for participatory processes was used in the Consultative Workshop Design to maximize agency participation in all the topic areas. Day 1 of Workshop saw 67 participants mainly from

¹⁰ A Knowledge Café is a means of bringing a group of people together to have an open, creative conversation on a topic of mutual interest to surface their collective knowledge, to share ideas and insights and to gain a deeper understanding of the subject and the issues involved. This ultimately, leads to action in the form of better decision making and innovation and thus tangible business outcomes. <https://ifadkmcentre.weebly.com/knowledge-cafe.html>



the government while Day 2 obtained 11 participants from the private sector, non-government organizations, and academe.

- 4) **Online Focus Group Discussions** were conducted with the stakeholders, namely, Local Government Units, Regional line agencies and Local Governments, local and international Non-Government Organizations, Development Partners, and UN agencies from August 12-Sept 9, 2022. A total of 30 LGUs, 36 regional line agencies, and 26 organizations from local NGOs and international development partners participated in the online discussions. The MTR ensured that the consultation with LGUs considered the geographical and socio-cultural context of local governments and grouped them according to major island clusters in the country, namely, Luzon, Visayas and Mindanao. Criteria for generating LGU respondents are the following: urban areas, rural, coastal areas, presence of Indigenous Peoples, Geographically Isolated and Disadvantaged areas¹¹, and conflict affected area. Highlights of the FGDs are included in Annex E of this Report.

This MTR used the following Secondary sources:

1. Literature Review includes studies, assessment reports, research related to the progress implementation of Four Priority Actions of SFDRR.
2. Policy Documents, Government Reports and Data shall be generated to substantiate and provide a backdrop for the stocktaking progress report and implementation of the SFDRR and related policies and programs.

Annex C shows the Review Design in a matrix form to illustrate how the data collection methods and analysis is plotted against the Core and Probing questions from the UNDRR Guidance Note for MTR SFDRR. The matrix also identified appropriate stakeholders who can provide the information from the Core and Probing Questions. Stakeholder Consultations, FGDs and KIIs were tailored fit to local and national context but essentially obtained the needed information to respond to the UNDRR MTR recommended core and probing questions. Moreover, consultations were able to substantiate, validate and triangulate information extracted from Secondary sources (i.e. government reports, literature review) as well as the results from the public online survey. Annex F of this Report includes all the Instruments employed for the Online Survey, KIIs, FGDs and the National Consultations.

Vetting and Approval by the Philippines' NDRRM Council. The OCD NDRRMC followed a vetting process within the NDRRM Council for the Mid-Term Report of SFDRR and Short-Term Review of the NDRRM Plan 2020-2030. Initial results, findings and recommendations were presented within the Technical Working Group on August 31, 2022 followed by refinement and presentation to the Technical Management Group (TMG) of the NDRRM Council on

¹¹ The Philippine government defines Geographically Isolated and Disadvantaged Area/s as those *barangays* or communities which are disadvantaged due to the presence of both physical and socio-economic factors. For the physical factor, those without access to a Rural Health Unit or hospital within 60 minutes of any form of travel while for socio-economic factors, communities with ANY of the following: presence of Indigenous Peoples, affected by Armed Conflict or Internally Displaced, enrollment of 50% of population to anti-poverty program Conditional Cash Transfer (CCT), provincial data on health indicators determined by Department of Health.

<https://doh.gov.ph/faqs/what-are-the-criteria-for-classification-as-gida>



September 16, 2022. The TMG then endorsed the Report to the Full NDRRM Council for its 3rd Quarter Meeting slated on October 6, 2022. The Full NDRRM Council approved the Report through a Resolution currently being facilitated by the OCD-NDRRM Council.

Scope and Limitations

The Mid-Term Review of the SFDRR shall be undertaken along with the Short-Term Review of the NDRRM Plan. The MTR SFDRR Review topics, guided by the UNDRR Guidance Note which corresponds to the NDRRM Plan shall be the main scope of this Review. It is then expected that each major topic, i.e. Understanding Risk, as Priority 1 of the SFDRR shall comprise Short-Term Review results of the NDRRM Plan's outcome, outputs, activities stocktaking and progress under the "Disaster Prevention, and Mitigation Pillar" for the Short-Term (FY 2020-2022). Cognizant of the MTR SFDRR Guidance of conducting a multi-stakeholder, multi-sectoral discussions and inputs albeit a tight timeline for the submission of inputs, this Review shall utilize the National-Regional-Local DRRM Council as the main platform for consultations and data gathering. Stakeholders outside of the NDRRM Council but are very significant for SFDRR implementation especially the marginalized, vulnerable sector shall be tapped through the N-R-Local DRRMCs.

The impending deadline for the submission of National Report to the UNDRR on 30 September 2022 amidst the Government of the Philippines transition under a new administration from the national down to the local government level posts a challenge especially in obtaining participants especially from the LGUs. To hurdle this challenge, the OCD through the N/RDRRMC shall utilize its Technical Working Groups for each DRRM Thematic Pillar to reach out to career, technical staff participants in the target LGUs who are known implementers in the field and who have remained despite transitions. This shall also ensure quality of responses as these career, technical staff hold institutional memory in their respective offices and organizations.

This Review, which includes, namely, the description of trends, gains, opportunities, challenges, issues, lessons learned as well as the recommendations highlight common and related findings or themes in two or more data collection methodologies. For example, the findings highlighted were found and common among consultations and/or government reports and/ or the online survey responses. Documentations, anecdotes and examples illustrated in this report are dependent on the participants and agencies submissions of their Reports and available data and participation to the consultations and FGDs. It is important to note that this Report Do not show a long list, exhaustive list nor focus on any agency, sector or LGUs' accomplishments or weaknesses. Reports on PPAs, initiatives depended on the submissions of agencies to the NDRRMC thru the OCD during the period of the Review which started July 2022 and have to wrap up by end of August for presentation to TWGs, TMGs. Further, this Report do not aim to underscore or review/assess any specific output or activity of the NDRRM Plan, or any other initiative but attempts to obtain a general observation which is agreed upon and is amenable to DRRM stakeholders especially those who have been consulted for the conduct of this Report.



III. RETROSPECTIVE REVIEW

Overall, consultations yielded that the Philippines obtained progress and is committed to be on track towards realizing and working on the Outcomes and Goals, and Priority Actions for the Sendai Framework for DRR. Stakeholder discussions and review of government reports noted improvements especially in planning, systems development, protocols formulation, early warning, and risk information which enabled the overall reduction of affected people due to disasters from 2016 to 2019. Stakeholders noted that resources have also been channelled to both structural and non-structural measures since the adoption of SFDRR. These improvements have been due in part to the learnings obtained from the numerous disasters in the country especially the devastation brought about by Super Typhoon Haiyan (*local name Yolanda*) in 2014.

Consultations for the MTR of the SFDRR yielded significant progress of the Philippines on the following fronts: hazard assessment and mapping, development of tools for risk assessment and formulation of DRRM plans and strategies from the national to the local level. The country has also set in place significant headway in systems, procedures for preparedness for better response and guidelines to ensure that rehabilitation and recovery for disaster-stricken areas will be catered upon. For instance, there is increased institutional capacity agencies handling early warning and hazard assessment due to the modernization of their technology and tools.

Stakeholders from across government and non-government sectors have enumerated various programs, projects, initiatives, and partnerships which contributed to the Four Priority Actions of SFDRR and the Philippines National DRRM Plan. Trainings, capacity building program from national government agencies (NGAs), civil society organizations and the private sector usually accompanies the tools for risk assessment and planning. Moreover, enabling policies were issued by the National Government to promulgate the formulation, implementation, and monitoring of plans and DRR strategies.

While the establishment and institutionalization of DRRM in structures, plans and budgets are observed as the major trends and successes of SFDRR, the execution and implementation of these serve as the main challenges noted by the stakeholders. There is lack of monitoring and evaluation of programs and projects to ascertain the overall concrete progress of national and local plans. Local staffing has to keep up with the required documents, plans and activities necessary for budget execution .

This Report highlights the call to look and work beyond planning and trainings by executing transformative projects for our vulnerable communities. Transformative programs and projects are those which can directly contribute to the goals and outcomes of the Sendai Framework given the emerging challenges and new context in the country. Stakeholders noted the need to focus and seek advice and support of other countries and stakeholders along the areas of providing and expanding solutions to shelter and resilient housing, energy, water management, agriculture, and nature-based solutions which incorporates community participation, science, and technology. Consultations noted the need to strengthen cooperation and technical assistance, good practices in developing disaster risk financing and insurance (DRFI) particularly on risk transfer mechanisms



for the protection of other sectors of society such as homeowners, small-medium sized enterprises, farmers and other vulnerable sectors such as the poor.

Partnerships, inclusion, and collaboration serve as one of the trends and successes in the implementation of SFDRR in the Philippines not only in policy formulation but more importantly in the execution of policies, programs, and projects. The institutional framework promulgated in the Philippines DRRM Law with having representation from civil society, academe, and private sector resulted in the realization of each actor’s contribution to DRRM. At the national level, initiatives by the private sector¹² especially in the gaps of early recovery to rehabilitation are highlighted. Local governments consulted for the Midterm Review highlighted the gains of knowing and working with local non-government actors to help in disaster trainings, drills, and response activities on the ground.

A. Progress towards the Outcome and Goal

The Philippines has seen a reduction in losses in lives and livelihoods since 2015 up to 2020 until COVID-19 Pandemic. (See Annex A for the Statistical Annexes of the 7 Global Targets and Indicators of the SFDRR). Substantial progress is also made in the deterioration of the number of missing persons attributed to disasters which is reflective of the significant progress in the Philippine government’s multi-hazard early warning, monitoring and forecasting systems coupled with full implementation of pre-emptive evacuation. Limited progress is seen however, in the fronts of reducing disaster risks and losses for the physical, economic, and environmental assets in the country due in part to the limited data in some of the Global Targets, particularly, on the reduction of damage to critical infrastructure, disruption of basic services and economic, agriculture losses. (See Annex A for the Philippines data on the SFDRR 7 Global Targets).

The Philippines continues to work towards the goal of “preventing new and reducing existing disaster risk” by significantly valuing the role of strong institutions which lays down the foundation for the implementation of economic, structural, social, cultural, health, educational and technological measures, programs and activities. In this regard, huge efforts went to formulating policies and plans, enhancing systems and procedures, and capacity building from the national to the local level. While the Philippines’ institutional set-up for DRRM continues to evolve and amidst the increasing magnitude and impacts of disasters, government and non-government stakeholders equally recognize the need to work on the full implementation of formulated plans and programs so that direct results can be seen among the most vulnerable communities.

B. Progress in Risk Assessment, Information and Understanding

Understanding risk concretely means being able to identify, characterize, disseminate risk information involving all its elements, namely, hazards, exposure, vulnerability, and coping capacity. Perception of DRRM stakeholders in the country regarding their understanding of risk

¹² PDRF launches typhoon Odette early recovery. <https://reliefweb.int/report/philippines/pdrf-launches-typhoon-odette-early-recovery-efforts>

shows their high familiarity in all the dimensions of disaster risk. The Open Online Survey shows that majority of respondents are very familiar or familiar by about 80% in all the dimensions of disaster risk including its interrelationships and root causes (See Annex B for the Open Online Survey Results).

Significant developments in measuring, evaluating elements of risk however, fragmentation and limitations of data in some elements of risk hamper its consolidation at a wider scale

The PH government through its respective national government agencies who are in-charge of identifying and characterizing these elements of risk have made significant headway in identifying, characterizing, and disseminating elements of risk through the development of robust tools for risk assessment. Efforts along this end also point to achieving the First Outcome (Outcome 1) of the Philippines National DRRM Plan, namely, *“improved access, understanding and utilization of risk information, DRR-related statistics and research”*.

1. Hazard identification and risk assessments by science agencies are being conducted and updated at a national scale

There are different mandated science agencies responsible for the identification of hazards, development of maps, and hazard assessment which comprise data needs for risk assessments.

In particular, the Department of Environment and Natural Resources (DENR) and its attached agency, specifically, the Mines and Geosciences Bureau, developed Geohazard Maps in the Philippines, which shows flood and landslide. The DENR-MGB is now updating geohazard maps of scale that can be used by cities and municipalities. Apart from the geohazard maps, the MGB reported that it has conducted Vulnerability and Risk Assessment (VRA) with the updating of the 1:10,000 scale flood and landslide susceptibility maps for the entire country¹³. Vulnerability and Risk Assessment VRA is an assessment of the degree of vulnerability and potential risks of an area given the exposure of the three factors – population, built-up areas, and roads – to rain-induced landslides and floods¹⁴. The level of vulnerability may be low, moderate, high or very high. Exposure maps from the VRA provide data on the potential population, extent of built-up areas and roads considering their exposure to various levels of susceptibility to landslides and flooding. The DENR-MGB works hand in hand with LGUs since the population and the disaggregated data such as number of vulnerable sectors that could be exposed to various hazards should be provided or validated by the LGUs.

On the other hand, the Department of Science and Technology (DOST) through PAGASA is responsible for identification and hazard assessment for hydro-meteorological hazards, while PHIVOLCS is tasked to come up with earthquake and volcano-related hazard maps, respectively.

¹³ DENR Mines and Geosciences Accomplishment report submitted to the NDRRMC Calendar Year 2021

¹⁴ MGB conducts vulnerability, risk assessments in Guimaras. 29 July 2022.

<https://pia.gov.ph/news/2022/07/29/mgb-conducts-vulnerability-risk-assessments-in-guimaras>



2. Hazard maps and assessments are put into government databases which are accessible to the public. The DOST and DENR and its attached agencies, developed tools, databases to store and share risk information with our local governments so that risk information can be better accessed and used for planning and concrete policy or program actions.
 - GeoRiskPH. MGB Flood and Rain-induced Landslide Susceptibility maps were updated to the GeoRisk PH, ready and accessible for public use
 - Geoportal Philippines (GeoPH) is a project housed by the DENR National Mapping and Resource Information Agency which intends to hold and serve to various stakeholders all the base maps produced by the Agency, and eventually, all the fundamental and thematic datasets of other data producing agencies. Geoportal is used to find and access geospatial data and services¹⁵. The Geoportal features Disaster Risk related maps which are produced by mandated agencies examples are the same hazard maps such as Flood Hazard maps at 1:10,000 scale, Ground shaking Risk for Magnitude 7.2 Earthquake¹⁶. These can be downloaded by all users.
 - DENR MGB National Geohazard Assessment and Mapping Program. Database portal shows Hazard Susceptibility ratings to floods and landslide down to the barangay level. Moreover, the Program undertook Coastal Geohazard assessment along coastal areas of select coastal provinces. The portal and the results of the Geohazard assessments are publicly available at the DENR-MGB website¹⁷
3. Not only are the hazard maps and assessments are publicly available, these are accompanied by trainings and capacity building for local government officers so that these can be used for local risk assessments and subsequently, development planning

Capacity building, information, education campaigns are also slated to foster better understanding of risks and its characterization, especially on the aspect of hazard assessment. To illustrate, in Calendar Year 2021, the DENR-MGB provided information, education and campaigns on the results of the exposure mapping along with the VRA conduct among 92 municipalities and cities. The published 1:10,000-scale rain-induced landslide and flood susceptibility maps have also been disseminated to all of 42,029 barangays nationwide¹⁸.
4. Expanded efforts on hazard assessment for disaster-stricken areas and Environmentally Critical Areas (ECAs). The government, through the DENR has the capacity to generate Post-Disaster Geohazard assessment Reports for disaster-stricken cities and municipalities (13 LGUs). Likewise, Environmentally Critical Areas (ECA) were also assessed for geohazards. ECAs are areas delineated as environmentally sensitive so that significant environmental impacts are expected if certain types of proposed projects are located,

¹⁵ <https://www.namria.gov.ph/projects.aspx#pgp>

¹⁶ <https://geoportal.gov.ph>

¹⁷ DENR Mines and Geosciences Portal. <http://databaseportal.mgb.gov.ph/#/public/hazard-susceptibility-ratings>

¹⁸ DENR National Geohazard Assessment and Mapping Program Briefer. <https://mgb.gov.ph/attachments/article/170/ProgramsProjectsBeneficiariesOct12020.pdf>



developed, or implemented in it¹⁹. The assessment is important for the management of Philippines' ECAs.

5. Other elements of risk, are being collected, generated by various government entities at the national and local level.

Elements of risk such as exposure to hazards of population, critical infrastructure, and facilities as well as vulnerability which includes datasets and statistics on basic social and demographic characteristics of populations at risk, as well as historical, indigenous knowledge of risk are being collected by various mandated government agencies. Ideally, all LGUs should be able to collect (data which are not being collected by mandated national agencies), validate, and consolidate risk information through the risk assessment tools (i.e. Vulnerability and Risk Assessment, and Climate and Disaster Risk Assessments) developed and promulgated by national government agencies.

For example, the Department of Education has a database of school facilities, Department of Public Works and Highways for the Roads and Bridges inventory, Department of Health for Public Hospitals and so forth. At the national level, the Philippine Statistics Authority (PSA) compiles vulnerability data and indicators such as poverty incidence, population density among others but these have to be processed at the local level to obtain a clearer picture on the elements and population at risk. Ultimately, these risk information should be collated, processed and validated by local government units but not all local governments have good data management to consolidate the data collected by various government agencies at the national level and different offices at the local government itself, for example, at the Municipal Development and Social Welfare Office for vulnerable groups, and critical facilities, local government buildings under the Department of Engineering.

Participants from LGUs during the consultations for the MTR of SFDRR recommended the full implementation and strengthening of each LGUs' Community-Based Monitoring System (CBMS) to generate the needed datasets especially on the aspect of community vulnerability for risk information. The CBMS can be a tool to consolidate different information collected by different offices within the LGU.

6. To help LGUs measure and evaluate risk, policies were issued on promulgating the use of risk assessment tools such as Climate and Disaster Risk Assessment (CDRA) and the Community-Based Monitoring System (CBMS) for vulnerability data
 - CDRA is a process for risk assessment which studies and determines risks and vulnerabilities of exposed elements in the certain municipality or city, namely, its people, urban areas, agriculture, forestry, critical facilities, and lifeline

¹⁹ Revised Guidelines for Coverage Screening and Standardized Requirements. Department of Natural Resources – Environmental Management Bureau (2014). <https://r7.emb.gov.ph/wp-content/uploads/2018/09/Revised-Guidelines-for-Coverage-Screening-and-Standardized-Reqts.pdf>



infrastructure associated with natural hazards and climate change²⁰ (Supplemental Guidelines, DHSUD). The conduct of CDRA serves as an important step to assess whether Local Development and Land Use Plans have indeed integrated DRR-CCA. These policies highlight the conduct of CDRA in measuring and evaluating risks of an LGU and the integration of DRR-CCA in local planning processes.

1. Supplemental Guidelines on Mainstreaming Climate Change and Disaster Risks in the Comprehensive Land Use Plan
 2. DILG Memorandum Circular 2021 – 037 dated 31 March 2021: Updated Guidelines on the Assessment of Comprehensive Development Plans of Cities and Municipalities.
- CBMS is a tool legislated at the national level in Year 2018 for all local governments in order to obtain disaggregated data necessary in targeting beneficiaries, conducting comprehensive poverty analysis and needs prioritization and designing appropriate policies and interventions as well as monitoring impact over time²¹. Each city and municipality shall serve as the primary data collecting authority and shall have a statistician and shall collect data every three (3) years.

While national government agencies made progress in understanding concepts related to disaster risks, especially hazard identification and assessment, efforts must be undertaken to fully characterize disaster risks especially in the aspects of exposure and vulnerability of LGUs. Information about population, critical facilities and infrastructure exposed to hazards as well as vulnerability data are being collected by various government agencies and respective local governments. However, exposure and vulnerability data are fragmented at the national level and are incomplete for many LGUs.

Ideally, all LGUs should have integrated DRR-CCA in their Land Use and Development Plans through the conduct of Climate and Disaster Risk Assessment (CDRA). CDRA features the comprehensive view of risk information of a locality. However, not all LGUs are able to conduct CDRA, more so, integrate these in their local development plans due to capacity and resource constraints. Data from the government shows that only 28%²² of Local Comprehensive Development Plans (CDP) have integrated risk information. On the other hand, another government agency, the DHSUD, checks on the integration of DRR-CCA in Local Land Use Planning. Per the DHSUD data on the status of Comprehensive Land Use Plans (CLUPs), out of 1634 cities and municipalities in their database, 648 or 40% have *Updated CLUPs* based on the 2014 Revised CLUP Guidebooks which incorporates DRR-CCA and ridge-to-reef approach to planning. The remaining LGUs have CLUPs that are for updating (821 or 50%) and 165 or 10%

²⁰ Supplemental Guidelines on Mainstreaming Climate Change and Disaster Risks in the Comprehensive Land Use Plan. Housing and Land Use Regulatory Board, Climate Change Commission, United Nations Development Programme, Australian Government. 2015. https://dhsud.gov.ph/wp-content/uploads/Publication/Guidebooks/HLURB_Supplemental_Guidelines.pdf

²¹ The Community Based Monitoring System Act <https://psa.gov.ph/cbms/ra-11315-irr>

²² NDRRMC Accomplishment Report CY 2021. DILG-BLGD. Out of 849 Comprehensive Development Plans (CDPs) assessed, 241 LGUs are assessed to have risk-informed CDPs, 400 have partially risk-informed CDP, and 208 have not risk-informed CDPs



do not have CLUPs approved²³. This implies that majority of the LGUs which are for updating and those who have no CLUPS have not yet updated their plans based on latest guidebooks which integrates DRR-CCA. However, according to the DHSUD, this does not necessarily mean that majority of the LGUs do not have risk-based land use plans or do not consider disaster risks in their land use decisions and zoning policies since the previous CLUP Guidebooks have some semblances of incorporated hazards such as floods, landslides, and geologic hazards.

It is recommended to integrate datasets especially on exposure and vulnerability to existing platforms such as the GeoRiskPH

Consultation workshops yielded recommendations along this front to integrate government databases especially on exposure and vulnerability into existing databases containing updated hazard information and assessments. The GeoRISKPH shows good prospects to serve as a platform of an integrated information system for disaster risks. There are already exposure datasets which are integrated in the GeoRISK PH platform such as schools and hospitals. More data and statistics about exposure, specifically who and what are affected, such as household income, population characteristics and social groups, such as women, children, youth, PWDs, land use among others are some of the pertinent data which are generated by several agencies (i.e., Philippine Statistics Authority) and local governments and needs to be integrated to the system.

Therefore, at the national scale, a comprehensive picture and understanding of disaster risks continue to be a challenge given the fragmentation and limitation of data. Without a complete picture based on a comprehensive risk assessment, there will always be challenges in communicating and understanding risk information to guide policymakers at the national and local level.

Technology, Modernization, Research and enabling policies yielded accurate, timely Early Warning System disseminated at a wide scale

Notable advancements since 2015 on the aspect of early warning have been made due to technology and enabling policies. As a result, more people have been able to receive accurate and timely information about an impending threat in their respective localities.

The full implementation of Republic Act 10639 or the Free Mobile Disaster Alerts Act²⁴ compels mobile phone service providers to send out free alerts and warnings as issued by the NDRRMC through the science warning agencies, the Philippine Atmospheric, Geophysical and Astronomical Services Administration (PAGASA) and the Philippine Institute of Volcanology and Seismology (PHIVOLCS). Up-to-date information are sent directly to the mobile phones of people located within and near the would-be affected areas.

The DENR-MGB issues advisories on geohazard threats. A total of 1,061 Geohazard (those concerning hazards such as flooding and rain-induced landslide. Threat advisories issued/re-

²³ DHSUD data for CLUP Status as of September 2022 except for Bangsamoro Region of Muslim Mindanao (BARMM). BARMM data is only up to December 2019.

²⁴ https://ndrrmc.gov.ph/attachments/article/2570/Republic_Act_No_10639.pdf



issued to LGUs as a preparedness measure whenever there is an impending tropical cyclone or extreme rainfall event²⁵.

The country benefited from great improvements in weather forecasting and monitoring due to the passage of the PAGASA Modernization Act or Republic Act 10692. The law provided for the acquisition of state-of-the-art equipments, facilities and systems, established technology-based data center, and incentivized scientists. Since then, PAGASA has been able to provide downscaled climate projections that are beneficial for the implementing agencies and local governments. Improvements were made in warning systems as recently, PAGASA released the Modified Tropical Cyclone Warning System wherein a Super Typhoon (STY) Category will be employed for wind signals 185km/hr or higher²⁶. Weather forecasting is also made available through various media outlets including social media platforms.

Utilization of risk information evident in plans, projects but documentation is needed at a wider scale to know how it influenced competing decisions on land uses and development projects

Programs, projects, and activities on identifying, characterizing, and disseminating hazard information are being done bits and pieces by the national government. Capacity building to measure, evaluate risk and its underlying drivers are also being done extensively by several agencies such as DENR for GIS and VRA (Vulnerability and Risk Assessments), DILG for CDRA Process and Utilization. Although reports from DENR yielded the demonstration of support in the form of technical assistance to LGUs in the assessment of their LGU-proposed relocation and evacuation sites for areas affected by disasters caused by geohazards²⁷, the extent to which knowledge and risk information are utilized and transformed into concrete actions are yet to be ascertained. DHSUD or the Department of Human Settlements and Urban Development also has a program for CDRA conduct among LGUs as part of their CLUP planning Process. Currently, the DHSUD has already approved its CDRA Compile Help Markup (CHM) module which aims to provide a better instructional guide to LGUs in the conduct of GIS-based CDRA for the CLUPs. This mechanism or technology can better help LGUs in conducting a highly technical tool such as CDRA.

Utilization of risk information, especially hazard assessments done by NGAs are already reflected in the mandated plans of local government units but there is no evidence or mechanism to understand how these plans get implemented, monitored, and evaluated to inform policy or programmatic decisions.

²⁵ DENR Mines and Geosciences Accomplishment report submitted to the NDRRMC Calendar Year 2021

²⁶ <https://bagong.pagasa.dost.gov.ph/learning-tools/tropical-cyclone-wind-signal>

²⁷ The DENR National Geohazard Assessment and Mapping Program has been able to assist recovery and rehabilitation efforts in the identification of relocation sites for affected areas after Typhoon Sendong in 2011, Typhoon Pablo in 2012, Typhoon Yolanda in 2013, Bohol earthquake in 2013, Itogon Landslide in 2018 and Cotabato string of earthquakes in 2019.

<https://mgb.gov.ph/attachments/article/170/ProgramsProjectsBeneficiariesOct12020.pdf>



Elements of risk knowledge, particularly hazard assessment issued by the Department of Environment and Natural Resources Mines and Geosciences Board (DENR-MGB) must be used in new construction of government infrastructure projects such as but not limited to schools, buildings, evacuation centers, and hospitals. This is mandated for in Philippine legislation as reflected in the annual legislated budget or the General Appropriations Act (GAA). The General Provisions in the said GAA states that one of the requirements for the implementation of infrastructure project is that *“the standards of construction, rehabilitation, improvement or repair of all infrastructure projects are consistent with the rules set by the DPWH, which shall consider among others, the structural strength and disaster resilience required for infrastructure”*²⁸. Moreover, based on accounts of government mapping agencies, there is increasing demand from private sector for hazard maps before undertaking their respective development projects.

There are good initiatives to increase resilience through sustainable economic activities and risk-based planning such as tourism. One concrete example is the implementation of Tourism Master Plan which incorporates risks and climate change adaptation measures in the tourism town of San Vicente in Palawan²⁹. While some examples are documented, there is lack of a comprehensive picture of how all the elements of risk, namely, hazard assessment, vulnerability, exposure, and coping capacity come into play for controlling and reducing risk, for example, in weighing in competing land uses such as economic and environmental uses in the national and local setting.

C. Progress in Risk Governance and Management

There is strong evidence that disaster risk reduction is integrated in PH laws, policies, plans, and budgets from national to local level and its alignment with the Sendai Framework but the extent of implementation of policies and plans especially at the local level remain unclear due to policy gaps and absorptive capacity of Local Governments

The Passage and Sunset Review of RA 10121 provided the policy and enabling environment for DRRM to be integrated in national and local development policies, plans and budgets. The policy environment coupled with experiences brought about by Typhoon Haiyan devastation, earthquakes which struck the Visayas and Mindanao region, and the conflict in Southern Philippines pushed greater clamour for DRRM to be mainstreamed through a “whole of society” and “whole of nation” approach. The Philippines DRRM Law and the improvements made by its institutions and stakeholders working on DRRM provided the enabling environment for risk to be integrated in 1) plans, 2) budgets, and 3) organization from national to local level.

Strong integration of risk reduction in PH laws, policies, and plans

1. Presence of DRRM Plans from the National to local government levels.
 - a. The Philippines recently updated its NDRRM Plan which spans from 2020-2030. The NDRRM Plan explicitly aligned its objectives, priorities, outcomes,

²⁸ Section 28. General Provisions, General Appropriations Act 2022 <https://www.dbm.gov.ph/wp-content/uploads/GAA/GAA2022/Volumel/GENPRO.pdf>

²⁹ Chapter 6. OECD (2020), *Common Ground Between the Paris Agreement and the Sendai Framework: Climate Change Adaptation and Disaster Risk Reduction*, OECD Publishing, Paris, <https://doi.org/10.1787/3edc8d09-en>.



and indicators with the SFDRR. Annex 3 of the National DRRM Plan³⁰ illustrates the alignment of the SFDRR Priority Actions with the NDRRM Plan Outcomes. It also abides by the principle of inclusivity and diverse participation of a wide array of actors in DRRM from the government and outside of government.

The Philippines NDRRM Plan explicitly identified as one of its Outcomes under the Prevention and Mitigation thematic area, “risk-centered national, subnational and sectoral policies, plans, and budget”. In this light, national agencies and local governments are able to incorporate disaster risks in their respective development and sectoral policies, plans and budgets.

- b. At the local level, all 1715 LGUs (provinces, cities, municipalities, and barangays) are mandated by the National DRRM Law to have a Local DRRM Plan. Government reports show good progress on this front as there are 1,253³¹ out of 1715 LGUs which have adopted and implemented their respective LDRRM Plans in line with the National DRRM Plan. Apart from the LDRRM Plan, related plans to DRRM are being required by national government agencies from LGUs. Based on government report from the Department of Interior and Local Government, majority of LGUs have Plans related to DRRM, 84% have Community Based DRRM Plan, and 58% have Contingency Plans³²
- c. Integration of DRR-CCA in local development plans. Policies were issued for Disaster Risk Reduction and Climate Change Adaptation (DRR-CCA) to be integrated in the two Local Government mandated development plans: Local Comprehensive Development Plan and Land Use Plans through CDRA and to the Local DRRM Plan as well.
 - i. The Department of Interior and Local Government (DILG) policy issuance³³ provides for the guidelines to monitor DRR-CCA integration in Comprehensive Development Plans. Based on the ongoing assessments of 849 CDPs, 241 or 28% of CDPs are assessed to have risk-informed CDPs, 47%³⁴ have partially risk-informed while the rest have no risk information. There are also LGUs which do not have updated CDPs, therefore, one can assume the absence of risk information in the lack of updated Plan.
 - ii. The Department of Human Settlements and Urban Development promulgates the Supplemental Guidelines on Mainstreaming Climate Change and Disaster Risks in the Comprehensive Land Use Plan (CLUP). Out of the 1634 LGUs nationwide there are already 648 LGUs with updated CLUPs based on latest Guidebooks for CLUP

³⁰ Philippines National Disaster Risk Reduction and Management Plan 2020-2030.

<https://ndrrmc.gov.ph/attachments/article/4147/NDRRMP-Pre-Publication-Copy-v2.pdf>

³¹ NDRRMC Accomplishment Report 2021. Report from DILG BLS. OCD data shows a different data: 1378 out of 1715 LGUs that have adopted and implemented local DRR strategies in line with the NDRRMP

³² DILG Seal of Good Local Governance Disaster Preparedness data collected Year 2018, published 2019

³³ DILG Memorandum Circular 2021-037

³⁴ NDRRMC Accomplishment Report Year 2021, consolidated by OCD



Formulation. However, 821 LGUs are due for updating while 165 do not have approved CLUPs.

2. Integration with the updated Philippine Development Plan (PDP) which incorporates DRR/CCA and COVID-19 recovery strategies.
3. There is also strong evidence of integrating DRR-CCA in key sectoral plans and budgets implying works towards mainstreaming DRR-CCA in critical sectors, interlinkages, prospective prevention-mitigation oriented approach in dealing with uncertainties of disasters and climate change. Results of consultations point to good practices and opportunities in sectoral initiatives which brings risk-oriented plans such as the following:
 - a. Food Resiliency Action Plan by the Department of Agriculture in the light of COVID-19, and DRR-CCA
 - b. The Philippine Health Facility Development Plan 2020-2040 embodies disaster resilience throughout the document wherein a vision of “A Modern, Resilient, and Sustainable Healthcare System”³⁵ whereby a Climate-Resilient Health System features health information system which includes health and climate research, with integrated health risk monitoring and early warning and vulnerability and adaptability assessment. Essential technology and infrastructure include climate resilient and sustainable health infrastructure for all its health facilities.
 - c. Energy Resiliency in Planning and Programming of the Energy Sector. The Department of Energy through its policies, Department Circular 2018-0001³⁶ adopted and enhanced its Energy Resiliency Planning and Programming processes and expanded the structure, a Task Force on Energy Resiliency.
 - d. Disaster Preparedness Measures for Schools through the Department of Education policies, namely, Department Order No. 83, series 2011 and School Based Disaster Preparedness and Response Measures for Tropical Cyclones, Flooding, and other Weather-Related Disturbances and Calamities³⁷ (DO No. 33 series 2021).

Concrete implementation of plans unclear due to limitations in manpower and resources

Currently, the Philippine government encounters policy and capacity limitations on knowing whether DRRM plans are indeed realized on the ground and whether actions translated to a reduction in disaster risks especially among the most vulnerable.

As a background, actual implementation of National and Local DRRM Plans rests with the concerned national government agencies and local governments. One of the critical gaps in Philippines’ DRRM system is on monitoring and evaluation. Plans, which took awhile to be

³⁵ Department of Health, 2020. Philippine Health Facility Development Plan 2020-2040: Investing in resilient and sustainable health facilities towards Universal Health Care. Manila, Philippines. Department of Health. https://doh.gov.ph/sites/default/files/publications/DOH_PHILIPPINE%20HEALTH%20FACILITY%20DEVELOPMENT%20PLAN%202020_2040_0.pdf

³⁶ <https://www.doe.gov.ph/sites/default/files/pdf/issuances/dc2018-01-0001.pdf>

³⁷ https://www.deped.gov.ph/wp-content/uploads/2021/08/DO_s2021_033.pdf



formulated, vetted on and reviewed by various stakeholders and agencies should be monitored and evaluated up to its actual implementation.

While there are monitoring and evaluation provisions in the DRRM Laws and plans, establishing a robust, simple M&E system is still at its nascent stage for DRRM. The National DRRM Law provides the NDRRM Council, through the OCD as its Secretariat, with monitoring mechanisms. The Law tasks the NDRRM Council to include a periodic assessment and performance monitoring of member-agencies³⁸ to ensure that the NDRRM Plan is well implemented. Efforts by the OCD to install a Results-based Monitoring and Evaluation System (RBMES) for the NDRRM Plan is currently in progress. It could be improved by looking at priority outcomes which would strongly contribute to the goals and objectives of NDRRM Plan especially its alignment with the SFDRR. Currently, the NDRRM Plan does not show a list of priority outcomes, projects and activities and their corresponding responsible agency and appropriate investment programming. Grouping the NDRRM Plan Outcomes for the RBMES in a sectoral manner to align it with the mandated and implementing agencies shall aid periodic assessment and monitoring purposes for the OCD.

At the local level, Local DRRM Plans should be approved, monitored, evaluated, and tested by the corresponding Local DRRM Councils, headed by the Local Chief Executive³⁹. The rationale behind the self-monitoring approach for the LDRRM Plan rests on local autonomy and local knowledge of the risks. However, since monitoring and evaluation of the LDRRM Plans are just assigned to the respective Local government concerned, there is limited overall knowledge and comprehensive information as to whether LDRRM Plans are actually being implemented on the ground. What is being monitored and checked is whether LDRRM Plans embody and integrate global frameworks and NDRRM Plan outcomes covering the four thematic pillars of prevention, mitigation, preparedness, response and rehabilitation and recovery. The OCD reports that majority of LGUs already have their respective LDRRM Plans. However, there is no data or assessment whether the Plans get implemented.

Thus, it is recommended to strengthen M&E of the N/R/LDRRM Plans to put in place the following: 1) prioritization of outcomes, projects and activities 2) clear delineation of roles and responsibilities among mandated agencies and local governments for accountability, and 3) appropriate, clear, and identified funding source for each of the priority outcomes. This can be achieved through an oversight policy issuance from the NDRRM Council.

Despite the huge efforts undertaken by national government and I/NGOs, UN Agencies in assisting LGUs in formulation of their plans and requisite activities, consultations and literature review accounted for the challenges encountered in implementing the LDRRM Plans, among other local plans, and plan-budget implementation. Implementation challenges are:

1. **Absorptive capacity of LGUs.** Local plans, protocols, systems and requirements per Philippine laws, policy issuances overwhelm local manpower. Based on the Gawad Kalasag Assessment (GK Assessment database), there are about 18 required Plans, protocols, and systems expected from the LGUs in the fulfilment of their DRRM functions

³⁸ Section 6 (p) RA 10121 or the Philippines Disaster Risk Reduction and Management Law

³⁹ Section 11, RA 10121 or the Philippines Disaster Risk Reduction and Management Law



and responsibilities⁴⁰. See Figure 2 below for the list of these Plans, protocols and systems related to DRRM distributed along the four thematic pillars according to the Philippines DRRM Framework. These are collated from various issuances, policies, and programs which were conceptualized and issued by national government agencies and stakeholders. While there are substantial orientations, capacity building, trainings conducted by national agencies to LGUs in disseminating these requirements and plans, the miniscule manpower of LGUs particularly and more often the rural and those belonging to the lower-income classes serve as a big challenge in applying all the trainings and capacity building interventions conducted by the National Government Agencies (NGAs).

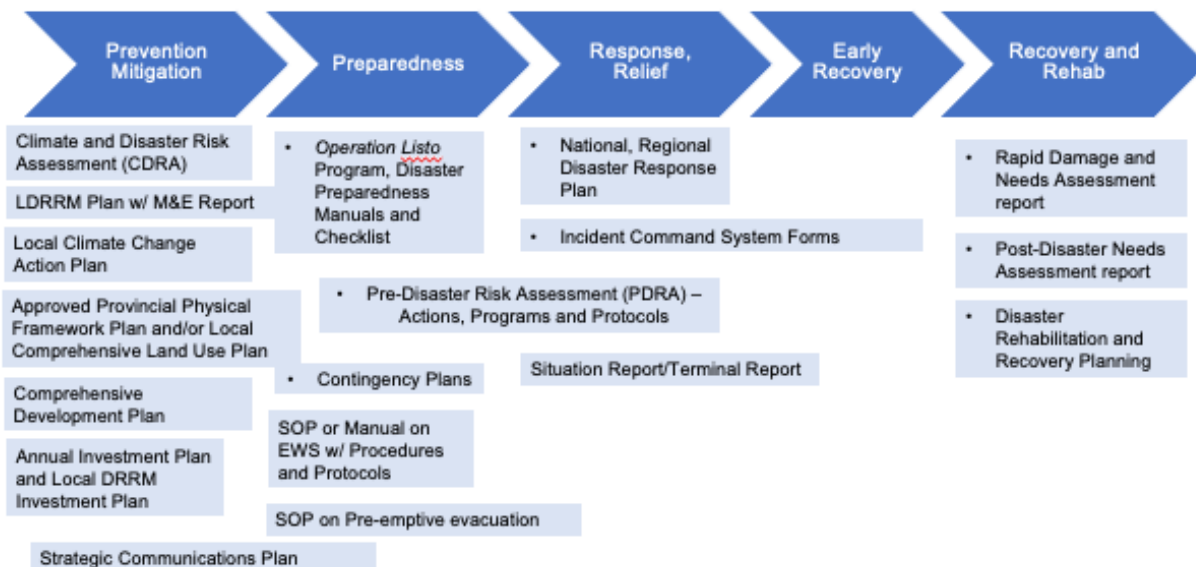


Figure 2 Plans, Guides, Protocols related to DRRM required from LGUs. Illustrated by the Author from Gawad Kalasag Assessment, Office of Civil Defense.

2. **Fragmentation of efforts at the local level.** Respective units and offices inside Local government units tend to work in silos as evidenced by the fragmentation of datasets. Plan implementation may require complementation of funds and plans from among different units such as the Planning Office, DRRM Unit and Local Social Welfare and Development Office, and especially Local Finance Committee (composed of Budget Officer, Local Treasurer) among others. While the LDRRM Council serve as platform for these offices to be on board, coordination does not happen lightly.
3. **LGUs vulnerability to disasters encounter more challenges in plan and project implementation and budget utilization.** A report conducted for the UNDP⁴¹ found that

⁴⁰ Document Review of the Gawad Kalasag Assessment for LDRRMOs yielded that about 18 Plans, Protocols and Requirements are needed from all LGUs. To name a few, these are CDRA, LDRRM Plans, LCCAP, Annual Investment Plans and LDRRM Investment Plans, *Operation Listo* Checklist, Contingency Plans, SOPs, Strategic Communications Plan among others.

⁴¹ Magno, C., Capistrano, F., and Cases, S. Breaking down the LGU Fiscal Performance: A Study on the Budget Utiliation Rate. A report submitted to the UNDP Philippines. 2021.

vulnerability--- as proxied by the housing vulnerability index⁴² is inversely related to the budget execution rates of LGUs. This finding was evident in the Local DRRM Fund utilization rates which the study examined from Years 2015-2018. In practical terms, the more an LGU is vulnerable to disasters, or are located in disaster prone areas, the more its capacity to implement plans and projects for their communities are hampered by the efforts in responding to and providing relief as well as recovery and rehabilitation efforts of their disaster-stricken communities.

Given these challenges, the consultations yielded the following suggestions:

- hold venue/platform for sharing of actual experiences, including local policies (Ordinances), manpower requirements to implement Plans
- procurement reforms for speedy implementation of identified Programs, Projects and Activities (PPAs) which includes streamlining paper works, and strong familiarization of Bids and Awards Committees with the needed PPAs and its specifications for DRRM

Critical to the implementation of plans and policies at the local level is the state of Local DRRM Office staffing and capacity which is overwhelmed by the multitude of Plans, protocols, and requirements needed from our LGUs. The Law mandates the establishment of a Local Disaster Risk Reduction and Management Office composed of one (1) Local DRRM Head and three (3) staff⁴³. Staffing among local governments is hugely dependent on the available budget of the LGU on Personnel Services (PS) given budget ceilings and on the priorities of the their respective Local Chief Executives (LCEs), mayors or governors. Since the salaries of Local DRRM Officers and their respective staff complement are dependent on the budget ceilings of Local Government, higher income cities or municipalities which are not necessarily high-risk or disaster prone could be in a better position to hire Local DRRM Officers and staff than lower income, disaster-prone local governments.

While majority of LGUs have their respective LDRRM Officer Head (83% of total number of cities, 73% of total number of municipalities)⁴⁴, the average *plantilla* or permanent staff complement⁴⁵ for cities is 6 and only 1 for municipalities. *Table 1 in Annex D* shows the number of *plantilla* staff complement cluster around 0-4 for majority of the cities (105 out of 145 cities). Yet, the range of number of plantilla staff complement is from 0 to as high as 68 (highest plantilla staff complement). On the other hand, *Table 2 in Annex D* shows how less wide the range of plantilla staff complement is for municipalities. Majority of municipalities, 1424 out of 1480 have 0-3 plantilla staff complement.

⁴² In the absence of a Risk Index to characterize the level of disaster risk of all LGUs in the Philippines, Housing Vulnerability Index is a tool espoused by the World Bank in ascertaining the level of vulnerability of an LGU to disasters

⁴³ Rule 6. Implementing Rules and Regulations, Republic Act No. 10121 Philippines Disaster Risk Reduction and Management Act. https://ndrrmc.gov.ph/attachments/article/95/Implementing_Rules_and_Regulation_RA_10121.pdf

⁴⁴ 83% of Cities, HUCs and ICCs have LDRRMO Head while 73% of municipalities have LDRRMO Heads per the SGLG Disaster Preparedness Database. Data collected in 2018 and published 2019.

⁴⁵ Plantilla positions for LDRRMO staff complement is based on NDRRMC-DILG-DBM-CCC JMC 2014-1. These staff are responsible for research and planning, administration and training, and operations and warning

The number of Designated staff complement, or those that are only assigned to DRRM ⁴⁶ is 20 on the average for cities while only 5 for municipalities. However, as compared to plantilla staff complement, designated staff complement for cities ranged from 0 to as high as 385 but majority clustered from 0-30 staff. Municipalities have a tighter range of designated staff complement with 0 to as high as 222 but an overwhelming majority, 1352 out of 1480 has 0-10 designated staff complement. See *Tables 3 and 4 in Annex D* respectively.

The state of local staffing adversely affects plans, program and projects formulation and implementation. As a result, programs for DRRM which could directly build the resilience of their respective communities can take some time to be implemented on the ground.

Recommendations to augment local DRRM staffing and improve absorptive capacity of our LGUs in the frontline are:

- For national government agencies and development partners to consider tailor-fitting requirements and capacity building interventions to LGUs
- connect or broker LGUs with technical expertise from NGAs and the academe for highly technical functions such as mapping, GIS, data gathering and consolidation
- explore the use of LDRRM Fund to cover for salary and professionalization of LDRRM Officers and staff
- clear policies and guidelines on the issuance of hazard pay, incentives and insurance of LGU DRRM workers which can be from the LDRRM Fund as funding source
- Institutionalization and Protection of Local DRRM Officers despite political or administration change where this is backed by a Regional DRRM Council Resolution recommending to the National DRRM Council to issue a policy among LGUs particularly the Local Chief Executives to prevent the assignment to other offices of a Permanent LDRRM Officer and Personnel to other units in the LGU⁴⁷. The proposed policy shall ensure alignment, sustainability and improvement of DRRM capacities and initiatives at the local level in the frontlines of disasters.

Organized National/Regional/Local DRRM Councils served as very good platform for participation and inclusion but there is need to revisit roles of N/R/Local DRRMCs to serve as oversight bodies to ensure mainstreaming and implementation of resilience measures

Ninety percent (90%) of Local Governments in the country have organized LDRRM Council according to membership set by the law. The membership features four (4) accredited Civil-society organizations and one (1) private sector representative along with government personnel within the LGU. Consultations among LGUs yielded that the LDRRM Councils have generally been a great platform for collaboration and complementation of efforts especially for DRRM where whole of government, whole of society approach are needed. The same perception is observed at the regional and national level. The NDRRMC has 44 members which discusses policy and program

⁴⁶ but may hold a different personnel item from another office

⁴⁷ Regional DRRM Council Region 11 Resolution No. 005 series of 2022 “Recommending to the NDRRMC Council to come up with a Policy that ensures the Protection of Permanent LDRRM Officers and Personnel from reassignment to other offices”



interventions as well as initiatives from other member agencies. Over the years, the NDRRM Council developed policies and measures that would directly contribute to DRRM and resilience building as well as platforms for information and knowledge sharing.

Foremost of these policies and measures passed from 2015 onwards are enumerated below:

Table 1 Matrix of NDRRMC Issuances on Guidelines, Policies, Protocols, 2015-2021

Topic	Guidelines/Policies/Memorandum issued by the NDRRMC
National Plan/Strategy/Frameworks	<p>National DRRM Framework and Plan 2020-2030 Thematic Pillar Action Plans for the Operationalization of National DRRM Plan 2020-2030</p> <p>2020 Alignment of the National Disaster Response Plan and the National Action Plan for COVID-19 Updating of Public Service Continuity Plans (CPs) Due to Ongoing Public Health Emergency</p> <p>2021 Resolution adopting the DRRM Monitoring and Evaluation Situational Analysis and Gaps Assessment Study including its Recommendations Review and Enhancement of the National Disaster Response Plans (NDRPs) Guidelines on the Accreditation, Mobilization, and Protection of Community Disaster Volunteers Resolution Institutionalizing the Sendai Framework for Disaster Risk Reduction (SFDRR) Reporting and Monitoring</p>
Planning Guidelines/Guidebook	<p>2016 Guidelines on the Formulation of Contingency Plans for Natural and Human-Induced Hazards and Adoption of Contingency Planning Guidebook</p> <p>2019 Recovery and Rehabilitation Planning Guide</p> <p>2021 Guidelines on Camp Coordination and Camp Management and Internally Displaced Persons Protection</p>
Procedures/Systems	<p>2016 Guidelines on the Mobilization of Incident Management Teams (IMTs)</p> <p>2019 Revised Guidelines for the Declaration of State of Calamity</p>



Topic	Guidelines/Policies/Memorandum issued by the NDRRMC
	2021 NDRRMC Rapid Damage Assessment and Needs Analysis (RDANA) Standard Operating Procedures Amended Guidelines on the Conduct of Pre-Disaster Risk Assessment (PDRA)
Innovative approaches	Philippine Roadmap on Adaptive Shock Responsive Social Protection (ASRSP) System ⁴⁸
Funding	2017 and 2021 Guidelines on the Administration and Management of National Disaster Risk Reduction and Management Fund

Source: NDRRMC Website. <https://ndrrmc.gov.ph> Collated by the author

A review of the policies, guidelines and mechanisms found that the NDRRM Council has been effective in issuing policies centering on the formulation and guidance of plans from the national to the local level. With the issuance of the Guidelines on the Administration and Management of the National DRRM Fund, the NDRRM Council is able to fulfill its function per the National DRR Law, which is to manage and mobilize resources for DRRM.

As regards the implementation of the issuances and policies promulgated by the NDRRM Council, it is understood that mandated implementing agencies per sector are needed in the implementation of Plans and Guidelines. Information is limited in terms of the effectiveness of the implementation of these issuances as a Monitoring and Evaluation System is yet to be implemented through the Office of Civil Defense as the Secretariat of the NDRRM Council.

The NDRRM Council can be strengthened by fulfilling its role of “developing vertical and horizontal coordination mechanisms for a more coherent implementation of DRRM programs”⁴⁹ per the National DRRM Law. To concretize this role, there is need to strengthen the oversight role of N/R/Local DRRMCs in ensuring DRRM is mainstreamed in key sectors by way of actual programs and projects in mandated implementing agencies which are based on risk assessments. This may be operationalized through **inter-departmental convergence initiatives, for example, infrastructure roadmap for resilience, agriculture among others suggested with the NDRRMC as platform for discussion and policy-making.** Examples of National Convergence Initiatives are: National Convergence Initiative for Sustainable Rural Development (NCI-SRD) implemented by the Department of Agriculture, Department of Agrarian Reform, Department of Environment and Natural Resources and Department of Interior and Local Government⁵⁰; Tourism Road Infrastructure Project Convergence by the Department of Tourism and Department of Public

⁴⁸ https://ndrrmc.gov.ph/attachments/article/4143/NDRRMC_Resolution_No_07_s_2021.pdf

⁴⁹ Section 6, (k) Philippines DRRM Law or Republic Act No. 10121

⁵⁰ <https://ncisrd.da.gov.ph>

Works and Highways⁵¹; Road Connectivity for Industry and Trade Development Roads Leveraging Linkages for Industry and Trade (ROLL IT) Program⁵²

Agencies and local governments made progress in internalizing critical roles in DRRM

From 2015 onwards, agencies are beefing up organizational structure and agency strategic plan of action for DRRM.

- Hiring of specific personnel complement to do DRRM related work
- Policy creating respective DRRM Office (DTI, DOH-Health Emergency Management Bureau, [DA DRRM Service](#))
- An Admin Order No.6 s. 2020 provides for the Creation of an Interim DA – DRRMS this is an offshoot of the 2017 DA National DRRM Operations Center. Now the Interim DRRMS shall be the sole, dedicated body in DA to handle DRRM-related concerns. The policy also provides for the Creation of DA Regional Field Office – DRRM Unit. The initial staff complement however, shall be constituted from existing plantilla of DRReAMS of FPOPD
- Department of Environment and Natural Resources – Mines and Geosciences Bureau Operations Center
- Capacity building of existing personnel (some examples are: DPWH Bureau of Maintenance, DOST with their GeORISKPH initiative)

Review of National DRRM Plan/Strategy

Review of the National DRRM Plan strategy yielded strong focus on understanding risks and integrating development with rehabilitation and recovery but implementation and tracking of progress need to be ascertained by a more robust, simplified Monitoring and Evaluation system which can be attained by clearer priorities delineation of roles and responsibilities among mandated agencies and local governments and appropriate, identified funding sources.

The National DRRM Plan serves as the National Strategy for DRRM containing 23 outcomes, 50 outputs and 206 activities spread over the four thematic pillars of the National DRRM Framework, namely, Disaster Prevention and Mitigation, Disaster Preparedness, Response and Early Recovery, and Rehabilitation and Recovery.

The National DRRM Plan ensured policy coherence among global, regional, and national frameworks and agenda on Disaster Risk Reduction, Climate Change Adaptation, Sustainable Development and Human Security. The process in crafting and updating the NDRRM Plan involved a wide range of stakeholders which shared the common vision of reducing risks and enhancing disaster resilience. Locally grounded outcomes, outputs and activities are

⁵¹ https://itsmorefunincentralluzon.com/wp-content/uploads/2018/11/TRIPPC_JMC-DOT-DPWH-Guidelines-for-FY-2019.pdf

⁵² https://www.dti.gov.ph/negosyo/exports/emb-news/dti-dpwh-convergence-program-on-road-connectivity/?TSPD_101_R0=428ef5080ac2ec9f2f911cb129b6c104j9R0000000000000000b642098ffff00000000000000000000000632ed9af0054d218e008bc3543d6ab200088a6b07d5568531575035690959e00c17dc741d8e7f385af3c7bd367e94d943b08ab9ff8590a280086e556a8676797188042fa889e527fbab68a1cefa283b49505bfc8add2097da0c4c88742fd033b67



contextualized, globally aligned and responsive to the needs of the Filipinos especially the most vulnerable.

The National DRRM Plan did not explicitly rank priority outcomes and actions, however, a significant number of outcomes belong to Prevention, Mitigation, (8 outcomes) and Rehabilitation and Recovery (6 outcomes) thematic pillars putting greater emphasis on access, understanding and integration of risk information to key sectoral plans, programs and activities.

Employing a whole of government and whole of society approach in crafting and implementing the Plan, each thematic pillar identifies the roles and responsibilities of implementing agencies/institutions and organizations. The Lead Agency for each Thematic Pillar serves as the *“overall lead and shall work closely with the Office of Civil Defense (Secretariat of NDRRMC) in ensuring implementation”*. The Lead Agency shall also provide oversight policy direction and recommendation along the thematic pillars. The NDRRM Plan also identified Implementing Agencies which are tasked to *“work together to identify specific programs and projects and allocate corresponding budget to harmonize efforts”* in the light of mainstreaming DRR in their respective agencies. Implementing agencies are also tasked to submit accomplishment and activity reports to the Lead Agency on a regular basis.

Along with the NDRRM Plan, Thematic Action Plans were crafted which details the specific activities, results, resources needed and relevant updates. This can be an excellent foundation to track progress and identify opportunities in line with the currently being formulated Results-Based Monitoring and Evaluation System for the NDRRM Plan. Further specificity can be generated from each agency as there are broad and vague resource descriptions which need to be further quantified to identify fund sources.

Agencies submit Accomplishment Reports which contains Actual and other related Accomplishments to the OCD. For Calendar Year 2021, some gaps are identified which directly relates to the SFDRR Global Targets and outcomes are:

- Gaps on risk information
 - o Gaps on the number of barangays who are actually able to input accurate hazards and risk information in online mapping platforms by 2022
 - o Healthcare facilities/hospitals being able to use hazard and risk assessments and with early warning, early action systems and protocols in all levels for all major hazards
 - o Infrastructure audit information such as: structural assessment of government-owned infrastructure, retrofitted government-owned infrastructure, structurally assessed critical infrastructure, risk-informed newly-constructed critical infrastructure such as schools, hospitals, government facilities
 - o Land use and zoning status of LGUs specifically, DRRM-CCA informed local zoning ordinance formulated and approved, enforcement of land use regulations on location of health, education and critical infrastructure
 - o LGUs that have reported minimum required disaster damage and loss data to national authorities
 - o Risk informed agricultural infrastructure
- Gaps on early warning



- Lack of report or information on the number of Early Warning Systems (EWS) messaging in a format sensitive to the needs of Persons with disabilities, older persons, children and women and whether vulnerable groups are able to participate in the development of EWS
- Gaps on risk financing
 - Lack of available data on NGAs and LGUs which are able to allocate funds to insure critical infrastructure
 - Public-private disaster-related insurance products available and subscribed
 - Determining the legal feasibility and acceptability of an Anticipatory Humanitarian Action / Forecast-based Financing (AHA/FbF) mechanism within the Philippine government
 - Development and implementation of National Social Protection Plan
 - insurance schemes developed and promoted among production sector, supply sector, MSMEs, households, responses, and vulnerable groups
- Gaps on sectoral needs and DRRM
 - Disaster resilient human settlements, specifically information on local governments with resilient shelters, families in high-risk areas relocated to safer areas, and are provided with basic services and basic facilities. Baseline data were already provided by the DHSUD among the following:
 - 320 LGUs from Calendar Year 2011-2020 are with constructed resilient shelters/housing units (*unclear though if construction was made possible through the local government or national government*)
 - 345,342 families for Calendar Year 2011-2020 in high-risk areas voluntarily resettled to safer areas for housing
 - 832,102 housing units were provided from July 2016-December 2020 implying an annual average production of 185,000 housing units for disaster-stricken areas
 - About Php 77 Billion are direct economic loss in the housing sector attributed to disasters.
 - Information on the government's provision of safe shelters in safe zones, shelter repair kits, and post-disaster housing assistance such as housing, financial, rental subsidy
 - Schools, colleges, and universities with DRRM and CCA integrated in their investment/improvement plans
 - LGUs especially municipalities with standard primary designated evacuation centers abiding by national government standards and with complete inventory of material, technical, and financial resources
 - LGUs providing alternative livelihood strategies to affected populations, psychosocial support and mental health services to affected populations
 - Infrastructure audit of telecommunication networks, energy services which are uninterrupted during and after disasters
 - Support services for disaster responders and workers need to be defined in terms of not only monetary but equipment and insurance as safety net measures
 - Farmers, fisherfolks and agricultural workers provided with financial services, skills training



Need to streamline and prioritize Outcomes and Outputs under the NDRRM Plan through the Monitoring and Evaluation (M&E) System

Prioritizing outcomes and key outputs of the NDRRM Plan could be a strategy under the M&E system to attain focus and guidance among the Agency Leads, implementing agencies and the OCD as the Secretariat of the NDRRMC. The current M&E system as it is features outcome, outputs, activities and up to the level of 203 activity indicators with only one small unit, namely, the Disaster Risk Governance Division under the Office of Civil Defense in-charge to monitor and evaluate all these indicators. In order to quickly determine and track implementation progress and needed reforms, it is important for agencies, through NDRRMC's oversight to determine priority outcomes, focus on priority Programs, Projects and Activities especially those that are directly linked to reducing risks of vulnerable communities. Prioritization will aid the NDRRMC Secretariat with clearer focus and direction on the implementation gaps and can easily highlight accomplishments and progress. The process of prioritization should be conducted through a mix of participatory process with the NDRRM Council agencies. Methodologies such as Goal Achievement Matrix can be done in order to prioritize the outcomes up to the output⁵³ level.

To illustrate and to serve as a starting point for the proposed streamlining and prioritization of key outputs, the Online survey asked the respondents about what they think could be the Top 5 Priority Outputs to be implemented in order to bring about the greatest reduction in disaster risk and increase resilience of the people.

Under Prevention, Mitigation, respondents perceive the following outputs as those which can bring about the greatest reduction in disaster risk and greatest increase in resilience of the people: Disaster and climate risk information; DRR-CCA and environmental policies, plans and budgets at all levels; resilient infrastructure systems; early warning; resilient communities; nature-based solutions; and information management and systems (See Figure 11, Annex B). Nature-based solutions (NBS) are an approach to risk management that involve working with nature and enhancing ecosystem services to help address societal goals. Actions cover a spectrum of interventions, from protecting, restoring and improving the management of marine or terrestrial ecosystems, to the creation of natural processes in modified or artificial ecosystems⁵⁴

For Disaster Preparedness, respondents prioritized the Formulation / updating of National-Local Contingency Plans, DRR-CCA Information, Education Campaigns, increased coordination for response, self-reliant, fully functioning National-Local DRRM Councils and Office and risk-sensitive capacity assessment. (See Figure 14, Annex B)

Respondents' perception on the priority outputs under the Response Thematic Pillar are: Implementation of disaster response plans, conduct of pre-disaster risk assessment, activated

⁵³ Cities Alliance. Tools: Goal Achievement Matrix. The Goal Achievement Matrix (GAM) is a tool that facilitates the process of project prioritisation. The use of the GAM tool is advisable when the programmes and projects are formulated, and there is a long list of projects, which cannot be implemented entirely. Moreover, it can be used when building a participative process for prioritisation of projects, by involving stakeholders from the sectoral/thematic groups. <http://city-development.org/wp-content/uploads/2016/09/Tool-17.pdf>

⁵⁴ OECD (2020), Common Ground Between the Paris Agreement and the Sendai Framework: Climate Change Adaptation and Disaster Risk Reduction, OECD Publishing, Paris, <https://doi.org/10.1787/3edc8d09-en>.

evacuation system and procedures, provision of necessities, and activated assessment teams for rapid damage and needs assessment (See Figure 13, Annex B).

For Rehabilitation and Recovery outputs, the following are perceived as priorities for the respondents: post-disaster needs assessments; agricultural production assistance; rehabilitation and recovery framework formulation; and resilient rehab and recovery activities (See Figure 12, Annex B).

Due to challenges of monitoring and evaluation, further analysis and investigation is suggested on the following areas

While this Report takes stock of the major learnings, successes, challenges, opportunities and looks at emerging issues, and accompanying solutions for the rest of the implementation of the SFDRR and the NDRRM Plan until 2030 and beyond using participatory processes and consultations, it is recommended to the NDRRM Council and UNDRR to conduct further investigation and analysis on some specific areas critical to the formulation or revision of policies, plans and programs and projects to directly contribute to the goals and outcomes of the SFDRR and the NDRRM Plan.

1. **Further scrutiny of the LDRRM Fund Utilization Reports** especially on the following: types of Projects funded and unfunded from the LDRRM Fund; LGUs with unutilized Local DRRM Fund, year-on-year; and the level of risks of these LGUs in order to identify gaps moving forward for the proposed revision and/or updating of the Policy on Local DRRM Fund Expenditure and Reporting
2. **Inventory of Programs, Projects and Activities (PPAs) of National Government Agencies (NGAs)** and their implementation strategies or respective prioritization to see if convergence is possible and to identify gaps in order to shift particular fund sources such as the NDRRM Fund to these areas and PPAs.
3. In the areas of **capacity building, an inventory on the types of capacity building training interventions, frequency and number, locations of local government units** trained in the areas of risk assessment can be gleaned upon in order to assess the manner and the types of capacity building interventions necessary for our LGUs
4. **Assessment on how early warning information and its granular aspects indeed reached the last mile in a timely and accurate manner** and how the communities affected have acted on the early warnings made to their localities
5. **Revisit or assess LGUs' capability in undertaking the Local DRRM Planning and the LGU mandated plans** especially the Comprehensive Land Use Plans among other plans related to DRRM enumerated in this Report
6. **Effectiveness, responsiveness, and implementation progress and gaps of the NDRRM Council issued policies**
7. Assessment of NDRRMC member agencies, roles, responsibilities, accomplishments and their respective manpower / Office/Unit/person responsible for DRRM
8. **Assessment of how the most recently affected LGUs have been able to apply their respective plans, projects and activities (PPAs) and protocols which they do or do not have and establish trends on the impacts of the disasters to their areas.** In other words, how have the plans (on paper), the execution of these Plans and budget have been able to contribute to concrete achievements of the SFDRR and NDRRM Plan outcomes, such as but not limited to the reduction of casualties, the reduction of damages in key sectors and the local economy and the reduction in the number of devastated homes, among others.



D. Progress in Investment in Risk Reduction and Resilience

In the Philippines, investments for DRRM are mobilized through primarily, public resources. Each funding sources and measures are briefly discussed below.

1. **National DRRM Fund** – The passage of Republic Act (RA) 10121 or the Philippine Disaster Risk Reduction and Management Act created the NDRRM Fund, a Special Purpose Fund in the annual budget of the government by virtue of the Philippines General Appropriations Act. Per RA 10121, the NDRRM Fund is intended to be used for the four (4) DRRM thematic areas: (a) prevention and preparedness; (b) preparedness; (c) response; and (d) rehabilitation and recovery and can be accessed by both National and Local Governments upon the recommendation of the National DRRM Council. Since the National DRRM Fund appropriations is a Special Purpose Fund, the allocation is not fixed and is dependent on the national budget. Figure 7 below shows the year-on-year allocation of the National DRRM Fund. From 2016 allocation is at Php 37.8Billion mainly due to the uncompleted post-disaster funding requirements from Super Typhoon (STY) Yolanda. The Fund did not grow beyond Php 20 Billion in the succeeding years.

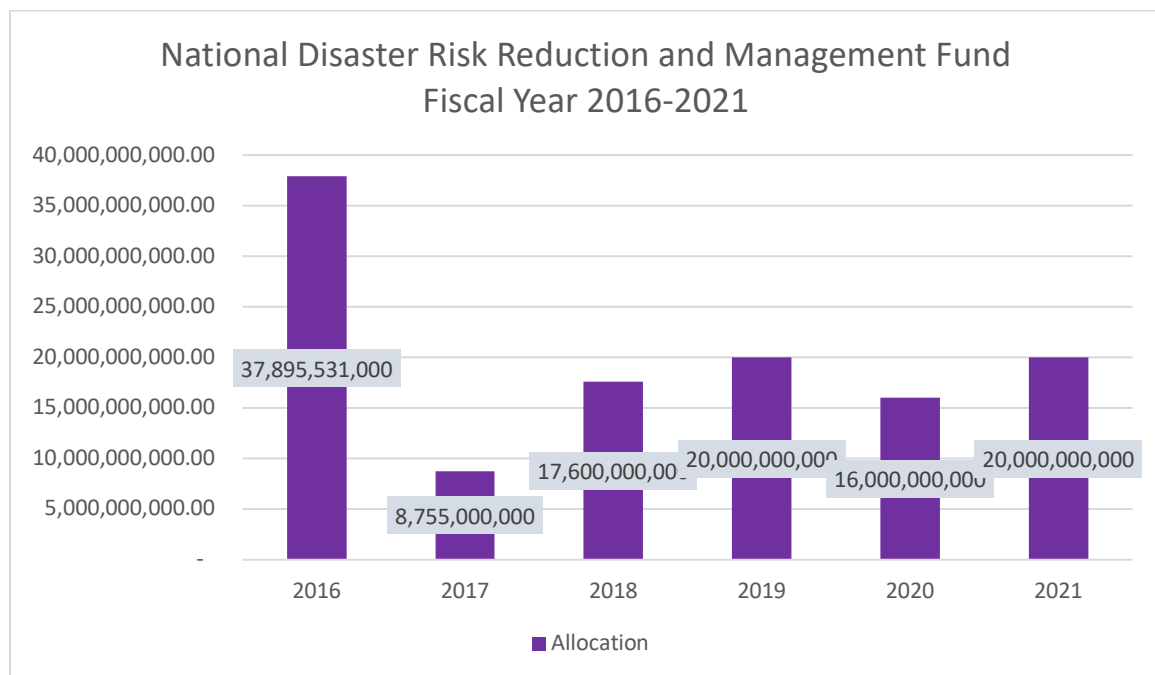


Figure 3 National Disaster Risk Reduction and Management Fund allocation, General Appropriations Act. Fiscal Year 2016-2021. Processed by the author.

2. **Local DRRM Fund** – Per the National DRRM Law, local governments are mandated to allocate not less than five percent (5%) of their estimated revenues from regular sources, 70% of which was to be used for prevention, mitigation, and preparedness activities while the remaining 30% shall be reserved for Quick Response Funds (QRF) for response and relief activities. For Quick Response Funds to be released, the Local Government shall need to issue a Resolution from the Local Council declaring the LGU under the “State of



Calamity” or a Presidential declaration of State of Calamity which is governed by specific Guidelines⁵⁵. Based on reports by the Commission on Audit the Local DRRM Fund, available Local DRRM Funds (indicated by sum total of LGUs’ reports of their Beginning Balance for the year and LGU Total Received Funds for LDRRM Funds, based on the 5% mandated allocation by the Law), grew from Php 50Billion in 2017 to Php 63 Billion in 2021. However, this figure is not comprehensive since not all LGUs have submitted Local DRRM Fund Financial Reports. Out of 1715 LGUs, only 1480 LGUs have submitted in 2021, the highest number of LGUs which submitted Reports since 2017⁵⁶.

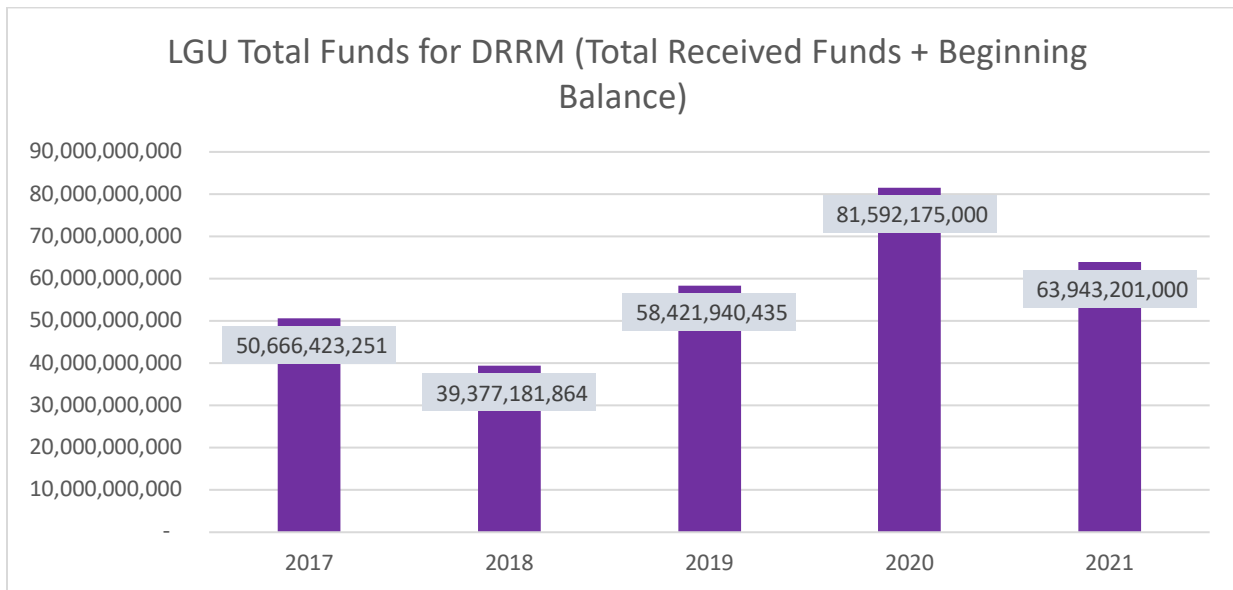


Figure 4 Local Disaster Risk Reduction and Management Funds based on Commission on Audit reports on DRRM Funds, Fiscal Year 2017-2021. Processed by the author.

- Agency Programs and Budget.** Government agencies and offices are authorized to use a portion of their appropriations to implement DRRM projects and activities according to the National DRRM Law, subject to the Guidelines to be issued by the NDRRM Council and the Department of Budget and Management. Agency programs and budgets in the light of their commitments to the NDRRM Plan and given their agency mandates, functions related to DRR-CCA can be covered by the respective appropriations of each agency or office. To further enable the use of agency budgets and programs for DRR, there is a standing General Provision in the Government’s National Budget on the integration of Disaster Risk Reduction and Climate Change Adaptation and Mitigation (DRR-CCAM) Measures⁵⁷. It

⁵⁵ NDRRM Council Memorandum Order No. 60 s. 2019. Revised Guidelines for the Declaration of a State of Calamity

https://ndrrmc.gov.ph/attachments/article/4178/Memo_No_60_s_2019_Revised_Guidelines_for_the_Declaration_of_State_of_Calamity.pdf

⁵⁶ Processed from COA Audit Reports of National and Local Disaster Risk Reduction and Management Fund from years 2017-2021. The Reports are based on the Submissions of Local DRRM Fund Utilization Reports by the LGUs. For Year 2017, 2018, 2019 and 2020, 1090, 1063, 1124, and 1366 LGUs submitted reports.

<https://www.coa.gov.ph/reports/disaster-risk-reduction-and-management-reports/>

⁵⁷ Section 40, General Appropriations Act Calendar Year 2022. <https://www.dbm.gov.ph/wp-content/uploads/GAA/GAA2022/Volumel/GENPRO.pdf>

tasks all agencies of the government to implement projects on DRR-CCAM using multi-scenario, probabilistic analysis. It mandates the Climate Change Commission to extend necessary technical assistance for the agencies in the conduct of risk assessment. However, an Operational Guidelines or “how-to” in the planning, programming, and integration of risk assessment of key sectors for the implementing agencies are yet to be issued. The General Provision then, will be hard to monitor and concretize due to the lack of clarity on the amounts and resources appropriated by various government agencies and offices.

Based on the Accomplishment Reports of government agencies submitted to the Office of Civil Defense, agency programs and budgets are expressed in terms of the following: Technology development, Capacity building, and capital outlay. However, the submitted Accomplishment Reports do not constitute exact amounts for these programs.

Apart from the allocated Quick Response Fund (QRF) for relief and rehabilitation under the National DRRM Fund, some agencies integrated DRRM in their flagship regular programs especially in response to human-induced and natural disasters affecting their respective sector. However, the following programs do not regularly consider disasters in their programming but rather specific elements of risk, such as vulnerability characteristics, i.e., poverty, indigency, flood control master plan for critical infrastructure. Examples of these programs and their general description are:

Table 2 Examples of NGAs Programs and Projects related to DRRM

Agency	Program/Project Name	Short Description
Department of Social Welfare and Development	Cash for Work Program	Standardized Cash and Food-For-Work, Training and Caring for beneficiaries of DSWD Core Programs ⁵⁸ . Cash, food, capacity building intervention in exchange for community work rendered or to provide livelihood opportunities and at the same time instil public awareness/advocacies on DRRM. Target Areas and beneficiaries follow integration of climate and disaster hazards based on scientific and historical records ⁵⁹ and for the beneficiaries, a robust database serve as basis for sifting beneficiaries from the core programs of the Department.

⁵⁸ Core Programs of the Department of Social Welfare and Development involves social welfare and development programs for the vulnerable such as Indigenous Peoples, Pantawid Pamilyang Pilipino Program (Conditional Cash Transfer for Education and Health), National Household Targeting System for Poverty Reduction, YAKAP Bayan or Recovering Persons who use Drugs, Sustainable Livelihood Program (SLP), National Community Driven Development Program (KALAHI-CIDSS), and the New Poor under Emergency Cash Transfer as well as Climate Change Adaptation and Mitigation-Risk Resiliency program.

⁵⁹ DSWD Memorandum Circular No. 4 series of 2021. Enhanced Guidelines on the Implementation of the Cash and Food for Work, Training and Caring (C/FF/W/T/C) For Disaster Risk Reduction and Management (DRRM) https://www.dswd.gov.ph/issuances/MCs/MC_2021-004.pdf

Agency	Program/Project Name	Short Description
National Housing Authority	Emergency Housing Assistance Program (EHAP)	A cash assistance for disaster-stricken communities where families with partially damaged houses will receive P10,000 and those with fully damaged houses will receive P20,000 assistance ⁶⁰ .
Department of Labor and Employment	TUPAD or Displaced Workers Program and Government Internship Program ⁶¹	in the identification of beneficiaries, the DOLE shall give priority to the following in order of preference: (i) indigent families under the National Household Targeting System for Poverty Reduction; (ii) informal sector families; and (iii) those under the next lower poverty level, as determined by the DSWD
Department of Trade and Industry	Livelihood Seeding Program ⁶² “Negosyo Serbisyo sa Barangay” and Pangkabuhayan sa Pagbangon at Ginhawa	Provision of livelihood kits to micro-small and medium enterprises which may include sole proprietors, cooperatives, or sectoral associations. Priority assistance shall be given to those affected by natural and human-induced calamities including health disasters arising from epidemics and pandemics.
Department of Public Works and Highways	Flood Control Management Program ⁶³	The DPWH undertakes project implementation, technical research on water and sediment related disaster mitigation; formulates programs on capacity building in flood management and sabo engineering; evaluates the flood control system in river basins; and prescribes guidelines on the conduct of post-disaster survey and assessment

Source: collated by the author from a rapid scan of Agency Programs and Projects in the General Appropriations Act

4. **Special Purpose Funds** are specific budget allocations for specific purposes in the National Budget, legislated through the General Appropriations Act (GAA). A number of Special Purpose Funds include DRRM in its Menu of Projects along with other developmental programs and projects which can be requested by the agencies and local governments. Since DRRM serves as only a subset of the types of projects which can be funded under this funding source, data is limited in quantifying the specific amounts appropriated under this type of fund. One example in the current National Budget is the Local Government Support Fund.

Local Government Support Fund – Financial Assistance to LGUs is intended to be used for financial assistance to LGUs for the different types of projects which includes DRRM. The amounts vary per fiscal year and the types of projects which can be funded are yet to

⁶⁰ <https://pia.gov.ph/news/2022/08/15/nha-rolls-out-emergency-housing-assistance-in-tayum-abra>

⁶¹ DOLE website. About TUPAD. <https://www.dole.gov.ph/tupad-contents/>

⁶² DTI website. [About Livelihood Seeding Program.](#)

⁶³ DPWH website. <https://www.dpwh.gov.ph/dpwh/org-chart/bureau/services/UPMO/FCMC>



be determined by the concerned LGU from a Menu of Projects which includes disaster response, rehabilitation, and recovery. Currently some of the uses of the LGSF are agricultural support, construction of local infrastructure facilities, Information and Communications technology systems and infrastructure, green open spaces; and ***implementation of programs, projects and activities for disaster response, rehabilitation and recovery including procurement or acquisition of disaster equipment for disaster response and rescue activities.*** For Fiscal Year 2023, there is a proposed Php 5 billion allocation.

5. **Official Development Assistance (ODA)** usually runs parallel or complement the government's programs which may include any of the following programs: capacity building, Technical Assistance, tools and technology development, Policy development/formulation, and Infrastructure support.
6. **Contingent credit financing (current: CAT-DDO 4)** is a Disaster Risk Management Development Policy Loan with a Catastrophe-Deferred Drawdown Option (DPL with CAT-DDO) wherein a form of contingency financing offering immediate liquidity of up to USD\$ 500 million or 0.25 percent of a country's Gross Domestic Product (GDP) whichever is less can be tapped. Ongoing is the CAT-DDO whereby USD 200 million pay-out was made for Typhoon Odette⁶⁴.
7. **Sovereign Risk transfer instruments /mechanisms** – examples are catastrophe risk insurance, insurance of public assets, Catastrophe bonds (Cat bonds). The Department of Finance secured catastrophe bonds used for Typhoon Odette with a payout of USD 52.5 million. Cat Bonds are examples of contingent financing instruments which allows quick disbursement at a reasonable amount⁶⁵.

Philippines' Investments in Disaster Risk Reduction is substantial but is constrained by adequacy, unpredictable level of funds and is still predisposed to post-disaster spending

The National DRR Law enabled substantial investments for DRRM through the creation of a National DRRM Fund in the annual national budget or the General Appropriations Act (GAA) and its local counterpart, the Local Disaster Risk Reduction and Management Fund whereby not less than 5% of an LGU's annual budget should be allocated for DRRM activities, putting premium or a larger share (70% of the 5% allocation) for prevention, mitigation, and preparedness activities.

From Fiscal Year 2016-2021, the PH government allocated Php 133.71 Billion⁶⁶ or USD 2.35 Million⁶⁷ from its National DRRM Fund. However, the National DRRM Fund remains inadequate

⁶⁴ Input from Philippines Department of Finance. Fourth Disaster Risk Management Policy Loan with a Catastrophe Deferred Drawdown Option (CAT-DDO 4)

⁶⁵ Input from Philippines Department of Finance, MTR-SFDRR.

⁶⁶ Data from Office of Civil Defense, Recovery and Rehabilitation Management Service as of 2022. Cited in the National Disaster Risk Reduction and Management Fund (NDRRM Fund) Guidebook: A Guide for Requesting Parties and Fund Administrators. Office of Civil Defense, Philippines. 2022.

<https://ndrrmfund.ndrrmc.gov.ph/resources.php#projects2019>

⁶⁷ At 1 USD = 56.8195 PHP as of 10 September 2022

<https://www.xe.com/currencyconverter/convert/?Amount=133716864247.7&From=PHP&To=USD>



to keep up with the magnitude of post-disaster funding requirements. This is evidenced by the periodic need for fund augmentation through national legislation or executive action. For the same period from Year 2016-2021, the government had to provide augmentation amounting to PHP 19.3 billion. See Figure 5 below.

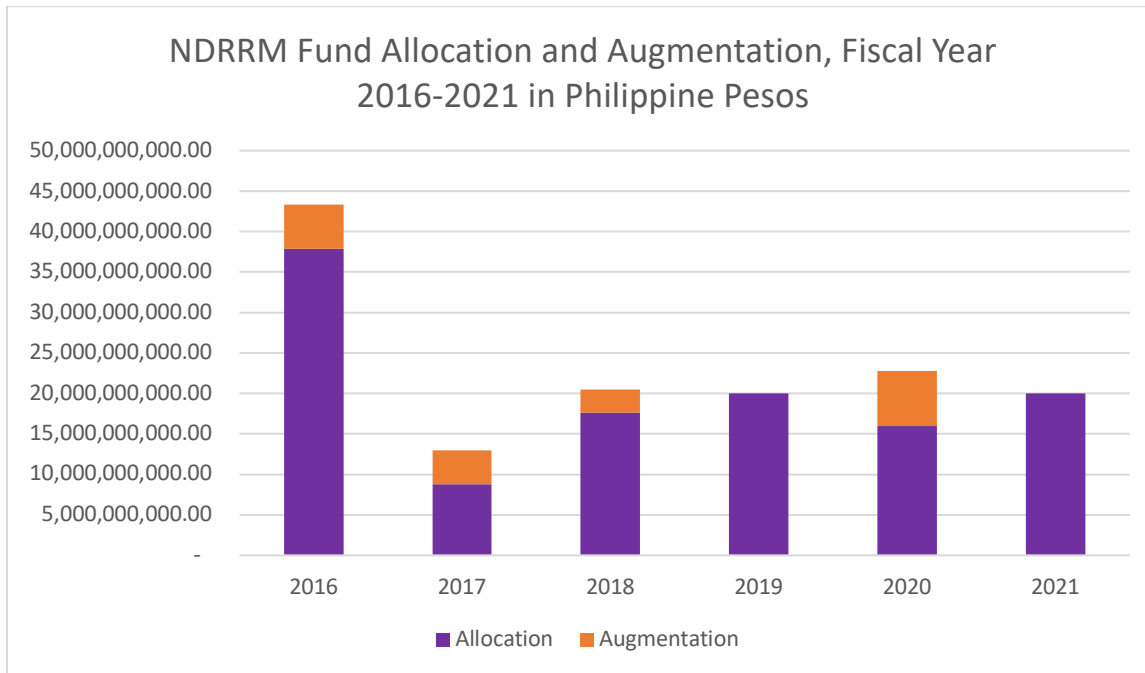


Figure 5 National DRRM Fund Allocation and Augmentation FY 2016-2021. Source: OCD, 2022

Moreover, the expenditures from the National DRRM Fund is still predisposed to post-disaster spending among the following types of projects: infrastructure project, flood control, cash assistance (used for relief up to early recovery activities by various government agencies) and Quick Response Fund augmentation. Other projects consist of resettlement or housing programs, roads/bridges and agriculture and fisheries as shown in Table 7 below.

Table 3 Projects type funded from the National DRRM Fund, 2016-2021

PROJECT TYPE	AMOUNT (PhP)	%
Flood Control	23,625,587,361.55	17.67%
Cash Assistance	22,588,186,097.00	16.89%
QRF for Agencies	18,777,529,152.00	14.04%
Resettlement	15,919,983,964.86	11.91%
Roads/Bridges	13,163,086,154.27	9.84%



PROJECT TYPE	AMOUNT (PhP)	%
Agriculture and Fisheries	9,549,599,842.40	7.14%
Public Buildings and Facilities	5,511,011,940.17	4.12%
Livelihood	4,962,140,199.98	3.71%
Irrigation/Dike	4,357,170,713.71	3.26%
COVID-19 Response	3,677,050,691.00	2.75%
Slope Protection	2,626,968,668.43	1.96%
Others	2,584,554,895.24	1.93%
School Facilities and Equipment	2,232,313,760.22	1.67%
Evacuation Centers	2,139,508,942.00	1.60%
Water Facilities	1,031,722,398.14	0.77%
Electric Facilities	970,449,466.73	0.73%
TOTAL	133,716,864,247.70	100.00%

Source: OCD, 2022.

At the local level, recent assessments show that expenditures from the Local DRRM Funds are mainly towards preparedness for response to response and recovery and rehabilitation. Figure 6 below shows the total amounts expended for the types of projects. The top 5 projects are spent on DRRM-related equipment, evacuation centers, food supplies, institutional capacity development, and financial assistance. The only infrastructure projects which LGUs mostly invest or spend on are just evacuation centers and flood control. This trend is compatible with consultations among LGUs which stated the challenges faced in planning for and implementing infrastructure projects. Planning and implementing infrastructure projects are highly technical and complicated and would require higher capacity and manpower skillset. This is consistent with the findings of the UNDP Report⁶⁸ which shows that LGUs struggle to implement infrastructure projects and other capital investments due to huge time and technical capacity requirements for these types of projects. According to the report, apart from weaknesses in planning and design, procurement and contract management serve as main challenges in LGUs' capital outlay spending. LGUs who were

⁶⁸ Magno, C., Capistrano, F., and Cases, S. Breaking down the LGU Fiscal Performance: A Study on the Budget Utilitation Rate. A report submitted to the UNDP Philippines. 2021.

consulted for this MTR for the SFDRR also noted the lack of Guidance or demonstration projects including the required documentations which include procurement from other LGUs or NGAs so that they can better save time and resources in implementing similar projects in their localities. LGUs suggest that examples and prototypes of disaster mitigating infrastructure, adaptation, nature-based solutions or ecosystem-based adaptation projects need to be proliferated among LGUs especially those which belong in the same risk levels.

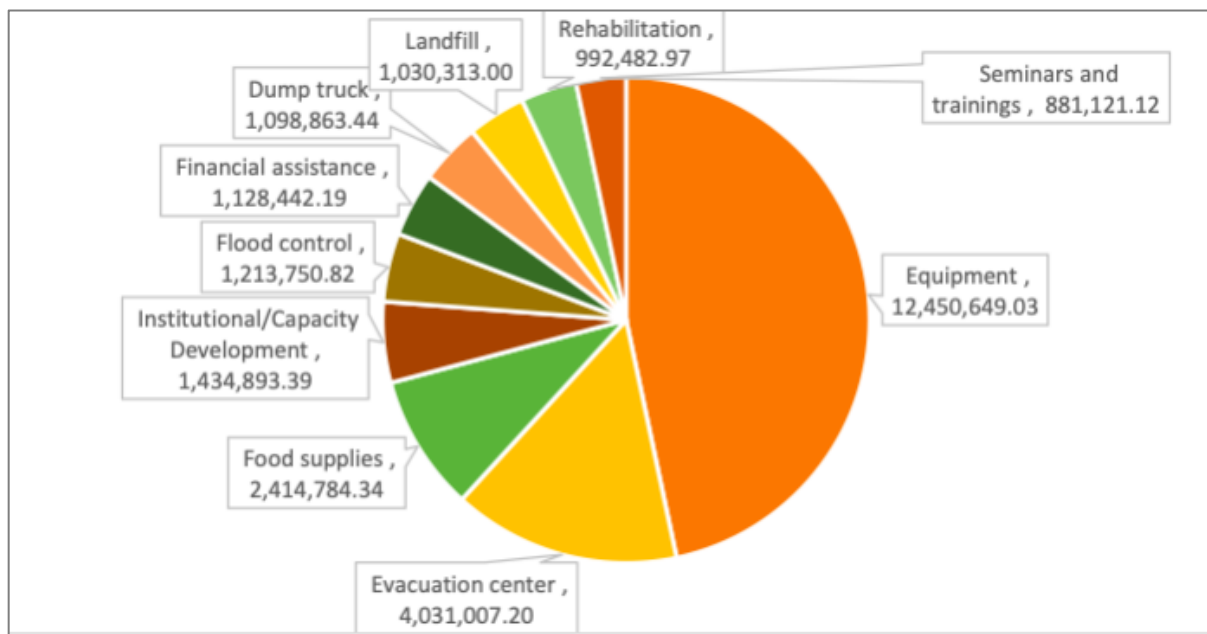


Figure 6 Local DRRM Fund Expenditures per type of Project based on the DILG- Full Disclosure Policy Portal from Year 2015-2019. Source: Adopted from Domingo, 2021. PIDS

Uneven levels and non-utilization of Local DRRM Funds

The provision in the National DRRM Law on the mandated Local Governments’ Disaster Risk Reduction and Management (Local DRRM) Funds which is legislated to be at least Five percent (5%) of estimated local revenues does not consider risk levels of LGUs. In other words, the allocation is based on the regular revenue sources of LGUs which may fluctuate and is dependent upon their ability to raise revenues. Thus, while there are local government units which are more exposed to hazards and may have a higher poverty incidence, their respective allocation for DRRM may not be at par with those LGUs who are known to raise revenues such as cities and urbanizing towns.

Despite the uneven levels of Local DRRM Fund, substantial non-utilization was found for the period 2015-2019⁶⁹. A 2021 study conducted by the Philippine Institute for Development Studies (PIDS) found that the average allocation of LDRRM Fund, particularly the Mitigation, Preparedness subcomponent of the Fund is averaged at Php 45 million or USD 791,981⁷⁰ but average utilization is only about Php 9 Million or only 20%, implying almost 80% unutilized Local DRRM Funds on the average.

⁶⁹ Domingo, S. 2021. PIDS.

⁷⁰ At 1 USD = 56.8195 PHP as of 10 September 2022

<https://www.xe.com/currencyconverter/convert/?Amount=133716864247.7&From=PHP&To=USD>

More recent reports on utilization of Local DRRM Funds can be found in the Commission on Audit (COA) which conducted an audit among LGUs' submitted Local DRR Fund Expenditure Reports. From 2017-2021, total unutilized LDRRM Funds for all the LGUs who have submitted their reports range from about Php 25Billion to Php 32 billion (See Figure 7 below). Note that the Reports came from LGUs who have submitted Reports to the COA.

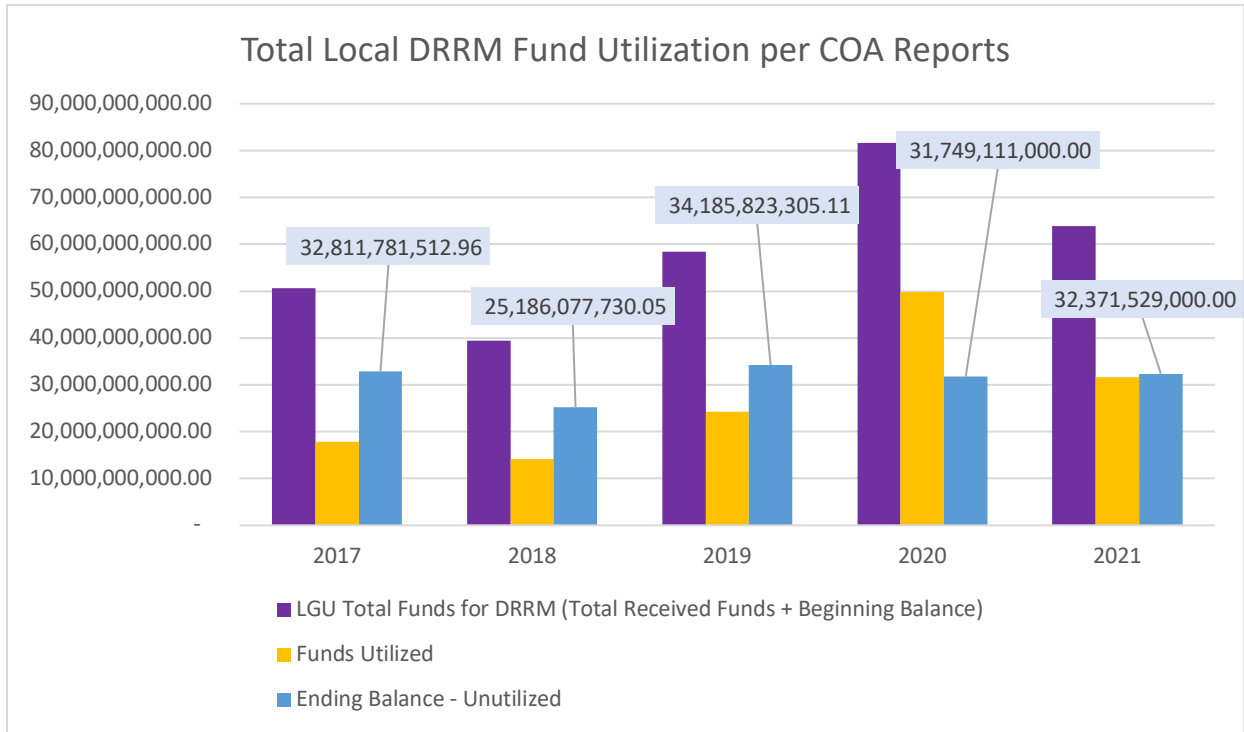


Figure 7 Local DRRM Funds Utilization per Commission on Audit submitted reports FY 2017-2021.

Various findings from government assessments mean that despite the substantial allocations, huge portions remain unutilized at about 81%. Reasons cited for the unutilization are the following:

- **Unclear fiscal guidelines to LGUs** on LDRRM Fund thereby increasing the threat of LGUs from disallowances to be made by the Commission on Audit (State Auditors). Apart from the study, consultations undertaken with Local Government Units (LGUs) for the MTR noted the different perception of many LGUs on what can and cannot be covered by the Local DRRM Funds. For example, the Operational Guidelines on the use of the Local DRRM Funds⁷¹ issued in Year 2013 noted vague provisions such as “other programs or projects of similar nature and considered necessary”. As it will be a challenge to provide justification to their Local Finance Committee and Local Auditors, LGUs would rather not spend on activities that are not explicitly identified in the said Guidelines.
- **Faulty reporting** where not all LGUs were able to submit on-time and accurate LDRRM Fund Utilization Reports as mandated by the Law and administrative issuances. The government’s Commission on Audit (State Auditors) were also able to echo the same finding. To illustrate in Calendar Year 2020, COA found in its Audit Report of the National-Local DRRM Funds that about 126 Local Governments failed to transfer

⁷¹ NDRRMC, DBM, DILG Joint Memorandum Circular No. 2013-1 dated March 25, 2013.

unexpended Local DRRM Fund balances to their Trust Fund⁷² thus affecting the accuracy of the reports. The same report found the non-submission of LDRRMF Utilization Reports by the LGUs. Out of 1715 LGUs, 1480 LGUs submitted the LDRRMF Utilization Report for Year 2021. See Figure 8 below for the number of LGUs who submitted LDRRMF Utilization Reports for Years 2017-2021.

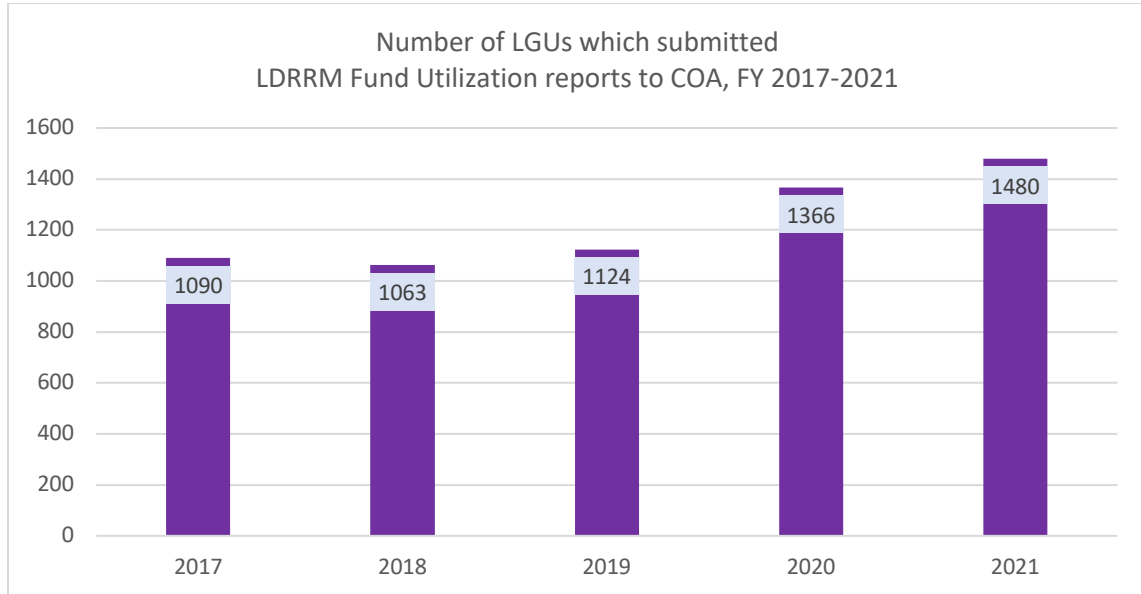


Figure 8 Number of LGUs which submitted LDRRM Fund Utilization Reports to COA. Processed from COA Audit of DRRM Funds FY 2017-2021.

- **DRRM was not a priority** for public investments by many LCEs or Mayors

Results of the MTR Online Survey affirms the substantial investments in DRRM with 62% of respondents stating that their organization’s investments or budget increased since 2015 for structural measures while 64% of respondents stating an increase in the non-structural measures.

From 2015 onwards, respondents to the online survey on the MTR SFDRR perceived notable increases in their organization’s investments in DRRM. This is consistent with government reports and literature noting the huge investments of Philippines especially from the public sector on DRRM. Most participants noted the increase in investments in the range of more than 11-50% and more than 50% increases as shown in Figure 9 below.

⁷² <https://www.coa.gov.ph/reports/disaster-risk-reduction-and-management-reports/>

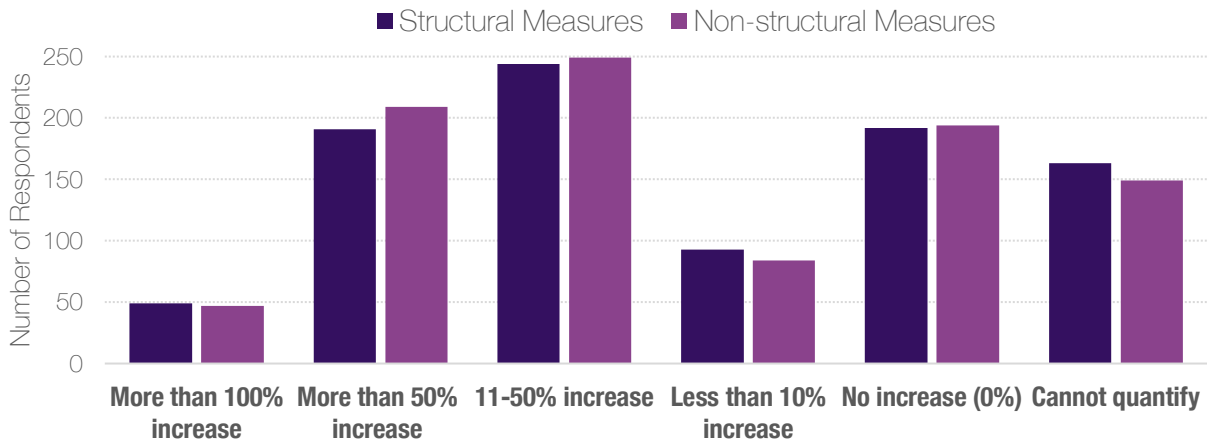


Figure 9 Perceived increase in Investments for DRRM. Result of the Online Survey for the MTR SFDRR July – Aug 2022.

While there are dedicated budgets for DRRM at the National and Local Government level, mobilizing and maximizing resources hamper the implementation of risk reduction Programs

There is an inherent assumption that agencies’ commitments to the NDRRM Plan are reasonably positioned based on their mandates and functions in DRRM. However, they also face respective agency programming and budget limitations for new activities which are not part and parcel of their regular programs. For example, while DENR-MGB have their National Geohazard Assessment and Mapping Program, regular manpower and budget of this agency can only cover few LGUs at a time. Moreover, DHSUD, whose role is critical in ensuring integration of CDRA in local land use planning, has no regular budget for capacity building solely for the conduct of CDRA. There is also lack of clarity in agencies’ allocation of respective budgets to finance NDRRM Plan commitments and Action Plans. While National DRRM Thematic Action Plans were formulated by NDRRM Council agencies to identify resources gaps and needs, whether financial and technical, there is lack of mechanisms to monitor funding and execution.

While a National Disaster Risk Financing and Insurance (DRFI) Strategy was formulated in 2015, Disaster Risk Financing and Insurance modalities are mostly ex-post in nature and its implementation is a work in progress with some of its aspects still in its nascent stage

Literature point to the need to improve existing risk transfer mechanisms and expand the DRFI instruments identified in the DRFI strategy. Initiatives along these lines are under way as identified by the Department of Finance. One example is the Establishment of Philippine Catastrophe Insurance Facility (PCIF). The Insurance Commission under the DOF issued a regulation⁷³ to establish the PCIF and it also issued a regulation on revised minimum rates for catastrophe risk

⁷³ Insurance Commission Circular Letter No. 2021-27 dated April 12, 2021. (DOF Inputs to the MTR-SFDRR)

insurance in support for a sustainable insurance market and strengthen provision of catastrophe insurance for private properties.

E. Progress in Disaster Preparedness, Response and ‘Build Back Better’

The Philippine government, learning from the lessons of past disasters saw improvements in systems, procedures, and Guidelines in preparedness for response to recovery and rehabilitation however, majority of the improvements discussed below were noted along the lines of compensatory⁷⁴ disaster risk management rather than corrective⁷⁵ disaster risk management which are geared towards strengthening socio-economic resilience of individuals and assets given the disaster risks.

First, due to the establishment institutionalized Guidelines for Preparedness for Response to Early Recovery, government agencies and local governments already have a system in place for preparing for, responding, and conducting rehabilitation and recovery activities. The systems, policies, and protocols in place are premised on the principle of an all of society approach to DRRM as there is no one organization, office, or government instrumentality which is fully responsible and resourced for disaster risk management. Resources, manpower, and expertise are recognized and are capitalized to bring effective DRRM. The NDRRMC, through its member agencies passed the following Guidelines and protocols along the thematic pillars of DRRM.

- Operation Listo Program which comes with the Disaster Preparedness Manuals and Checklist
- Pre-Disaster Risk Assessment Actions, Programs and Protocols
- Review and Enhancement of National Disaster Response Plans
- Revised Guidelines for the Declaration of a State of Calamity⁷⁶ which integrates the tools for evidence-based declaration such as Pre-Disaster Risk Assessment (PDRA), and Post-Disaster Needs Assessment (PDNA) respectively
- Post-Disaster Needs Assessment (PDNA) and Disaster Rehabilitation and Recovery Planning Guide - which serves as the basis for identifying and funding post-disaster recovery and rehabilitation programs and projects

Second, there is increasing compliance and knowledge of communities on pre-emptive evacuation. Majority of local governments, 92% reported implementing pre-emptive and forced evacuation activities whenever there is an impending disaster⁷⁷.

⁷⁴ **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.

⁷⁵ **Corrective disaster risk management** activities address and seek to remove or reduce disaster risks which are already present and which need to be managed and reduced now. Examples are the retrofitting of critical infrastructure or the relocation of exposed populations or assets.

⁷⁶ <https://www.officialgazette.gov.ph/downloads/2019/06jun/20190617-NDRRMC-MO-60-RRD.pdf>

⁷⁷ Department of the Interior and Local Government Seal of Good Local Governance, Disaster Preparedness database. Data collected in 2018 and reported in 2019. Preemptive and forced evacuation is to be implemented by



Many LGUs have significant progress in aspects of preparedness for response such as SOPs, ICS, prepositioning, Search and Rescue. The progress can be attributed to the established and institutionalized protocols, systems as well as trainings and capacity building activities conducted by various stakeholders especially national government agencies. While SOPs and systems are in place so that relief and response distribution can be made seamless, some implementation gaps with the Philippines DRRM Law were noted in disaster-stricken areas in the country. There is lack of monitoring and evaluation with the way government tracks, distributes donations, relief goods in cash or in kind to affected communities. Reports of relief re-branding, hoarding and/or non-distribution were noted in some earthquake affected provinces⁷⁸. It is recommended that the Department of Interior and Local Government promulgate remedial measures on this citing the Philippines DRRM Law provision on Section 19⁷⁹ on the prohibited acts to implement applicable penalties and sanctions.

Enumerated below are aspects of preparedness for response activities, protocols which are reported by LGUs to the Department of Interior and Local Government, the NDRRM Council's Vice-Chair for Preparedness Pillar.

- 88% of LGUs have Standard Operating Procedures or presence of DRRM-related mechanisms process and structures to ensure effective coordination and monitoring of actions in the event of disasters⁸⁰. These can be found in LGU's plans.
- 83% of LGUs have Incident Command System (ICS) or a temporary organization and an on-scene disaster response that will be activated in response to disasters or emergencies pursuant to NDRRM Council Memorandum Circular No. 4 s. 2012⁸¹. The ICS should be reflected in a local policy, specifically, Executive Order or similar issuance. Moreover, LGUs are mandated to capacitate their ICS organization through various attendance in ICS Trainings provided by the Office of Civil Defense.
- 82% of LGUs have in place Search and Rescue teams. The National DRRM Law mandates the Local DRRM Offices to "organize, train, equip and supervise local emergency response teams and to provide continuing training in civil defense and DRRM". In line with this, the National Disaster Response Plan promulgates minimum standards which includes materials, and equipment for Search and Rescue and other response staff. LGUs should have list of organized teams and personnel, inventory of equipment and accomplishment reports of trainings.
- 79% are prepositioning response items and essential needs such as relief goods, medical support and medicines. NDRRM Council Disaster Preparedness Minimum Standards Vol. 2

the LGU as a course of action during a disaster or emergency where there is a high threat of loss of lives within an identified area pursuant to DILG Memorandum Circular No. 2012-3. 92% of LGUs reported there is a local Executive Order or local issuance on preemptive and forced evacuation.

⁷⁸ Abra quake aid hoarders warned. <https://www.manilatimes.net/2022/08/05/news/regions/abra-quake-aid-hoarders-warned/1853473>

⁷⁹ Section 19 of the Philippines DRRM Law states that applicable penalties shall go to any person, group, or corporation who commits preventing the entry and distribution of relief goods in disaster stricken areas, including appropriate technology, tools, equipment, accessories, disaster team/experts.

⁸⁰ Department of the Interior and Local Government Seal of Good Local Governance Assessment 2019 Technical Notes.

⁸¹ Ibid.



prescribes that minimum for stockpiling is 500 food packs and 500 hygiene kits⁸². LGUs compliant in this aspect should have an inventory of stockpiled food packs and hygiene kits, list of hired professionals for psychosocial support services, medical services, and security system⁸³.

- 52% have permanent Operations Center based on Rule 6 Section 4 (24) of the Implementing Rules and Regulations of the National DRRM Law. Based on the National Disaster Preparedness Plan: Disaster Preparedness Minimum Standards Vol. 2, the OpCen must (1) be able to function 24/7 (3 shifts); (2) have a dedicated officer; and (3) develop and implement Standard Operating Procedures and Contingency Plan.
- 62% of LGUs have their respective list of evacuation centers⁸⁴ which meet the minimum required facilities such as kitchen, water supply, toilet and bath, child-friendly learning space, health service, waste disposal, communication, among others.⁸⁵.

One of the critical areas in preparedness for response is on evacuation centers. As mentioned above, almost all LGUs, 92%⁸⁶, are able to enforce pre-emptive and forced evacuation but only about 62% of LGUs have evacuation centers with complete minimum facilities enumerated above. There is no available information whether those LGUs which do not have complete facilities are those which are also located in hazard-prone areas, highlighting the need to do an inventory of evacuation centers in the country. While there are various programs on the construction and management of evacuation centers, there is still limited number of women, children-friendly and hygiene spaces in evacuation centers. It is recommended to do an infrastructure audit of evacuation centers and continue national government support in its construction especially for high-risk LGUs.

As regards Rehabilitation and Recovery and Building Back Better, stakeholders noted the improvements made especially in the aspect of inter-agency coordination in conducting Post-Disaster Needs Assessments (PDNA) and Rehabilitation and Recovery Planning (RRP). These assessment tools enable identification of priority needs and requirements of disaster-stricken areas and identify total funding requirements, as well as sources of Funds. The conduct of PDNA enabled a more robust approach in quantifying damage and losses for key sectors of infrastructure, agriculture, and housing. However, the following challenges were noted during stakeholder consultations on the implementation of Build Back Better principle.

- There's a lack of indicators or Guide among implementing agencies to define or characterize whether an area and its sectors have indeed bounced back from disasters and have applied "Build Back Better" in their rehabilitation and recovery efforts. In

⁸² Ibid

⁸³ Ibid

⁸⁴ Evacuation center refers to a safe site, building or center hosting internally displaced persons. These could be permanent, semi-permanent and temporary evacuation centers. Permanent evacuation centers are those built or constructed for the specific purpose of evacuation during disasters while semi-permanent are those buildings that are owned by the local government but are at times used for other purposes apart from evacuation. Temporary evacuation are schools or child-development center which local governments sought partnerships with through a Memorandum of Agreement (MOA)

⁸⁵ Ibid

⁸⁶ Department of the Interior and Local Government Seal of Good Local Governance, Disaster Preparedness database. Data collected in 2018 and reported in 2019.



other words, there is dearth of data or knowledge whether certain areas have indeed recovered.

- Annually, the housing sector has been one of the heavily affected sectors from disasters. Data reported by the Philippines to the Sendai Framework Monitor show that the number of dwellings/houses destroyed that are attributed to disasters increased from 144,163 in Year 2016 to 1.6 Million houses in Year 2021 (See Annex A for the Sendai Framework Monitor data). The increase has been due to the increasing intensity of disasters in the country. The Philippine government noted the need to expand housing options apart from direct housing provision and assistance to cater to the needs of the affected population. In its Philippine Development Plan (2017-2022), the government recognized that the increasing housing need is due in part to the occurrence of disasters. Direct housing provision, demonstrated through relocation, resettlement and construction of housing units for the vulnerable population is challenged by the slow process in land acquisition, weak land use planning, and limited appropriations where housing merely received less than 0.5% of the annual budget, one of the lowest among Southeast Asian countries⁸⁷.
- Development, finalization and roll-out of the National Loss and Damage Registry should be managed by the Office of Civil Defense as the Secretariat of the NDRRM Council in order to better facilitate the reporting to the Sendai Framework and in order to contribute to policy and budget formulations especially for disaster risk financing and insurance (DRFI).

F. Collaboration, Partnership and Cooperation

The institutional set-up of the DRRM Councils in the Philippines enabled partnerships, collaboration and coordination mechanisms which contributed to the realisation of the outcomes and goal of the Sendai Framework. Not only serving its mandate of policy and direction-setting, DRRM Councils serve as platform for partnerships and knowledge sharing. At the National level, NDRRM Council members deliberate, formulate and adopt action plans based on their respective mandates. Gaps are also identified in the NDRRM Council which led to the adoption of policies. For example, an NDRRMC policy in the form of a Memorandum Circular created the Early Recovery Cluster⁸⁸ among various agencies to bridge the gap on the needs of the affected communities which connects disaster response to disaster rehabilitation and recovery.

With the DRRM Council as springboard, partnerships range from multi-level, multistakeholder partnerships such as national-local government with CSOs and private sector to local-local government collaboration. Some notable initiatives and projects anchored on partnerships and collaboration across national-local governments with CSOs, private sectors which were enumerated during the consultations among stakeholders for the MTR SFDRR are the following:

⁸⁷ Chapter 12, Philippine Development Plan 2017-2022. National Economic Development Authority.

⁸⁸ NDRRMC Memorandum No. 80 s. 2022 Disaster Early Recovery Guidelines and Creation of Early Recovery Cluster. https://ndrrmc.gov.ph/attachments/article/4180/NDRRMC_Memorandum_No_80_s_2022.pdf



- **Southeast Asian Nation-States.** The Philippines signed a Memorandum of Understanding along with other member States of the Southeast Asia Disaster Risk Insurance Facility (SEADRIF) and serves as co-chair of the Technical Working Group (TWG) for Public Asset Financial Protection Program. The TWG is tasked to deliver a program of work to support member States in financially protecting their public assets⁸⁹. According to the Philippine Department of Finance, the Philippines expressed interest in availing of proposed Public Asset Insurance Product
- **Private Sector – Academe – Civil Society Organizations.** In 2017 the National Resilience Council launched initiatives bannered partnerships among CSOs (Carlos Romulo Foundation), Zuellig Family Foundation, Philippine Disaster Resilience Foundation, the private sector: San Miguel Corporation, SM Prime, and the academe: Manila Observatory⁹⁰. The NRC implements initiatives around policy support and Resilient Cities/Municipalities program as it links with the National Government's NDRRM Council.
- **National Government-CSOs.** The Eastern Seaboard Project with OCD and DILG in partnership with CSOs was considered to have contributed to the reduction of mortality in the areas seaboard. This project capacitated the communities on Community-Based Disaster Risk Reduction and Management (CBDRRM) planning, evacuating and preparing for disasters in general.
- **LGU-Private Sector.** Partnership arrangements in the form of Memorandum of Agreements of Local Government Units (LGUs) and their respective local private establishments for prepositioning of response resources which are relevant for the basic needs of affected communities.
- **LGU- CSOs.** Integrated Risk Management in Urban Ecosystem⁹¹ through a Partners for Resilience (PFR) project implemented by Civil Society Organizations, ACCORD and CARE Philippines which sought partnerships with Local Government Units (LGUs) in National Capital Region, national meteorological agency PAGASA and local communities. Interventions emphasize activities centering on the urban ecosystem to reduce communities risks. The activities are: watershed reforestation, improving early warning systems, contingency planning, strengthening DRR committees, community drills and pre-emptive evacuations.

G. Progress in achieving the Targets of the Sendai Framework

The Philippines institutionalized its Reporting to the Sendai Framework Monitor through the issuance of the following policies:

1. National DRRM Council Resolution No. 1 series of 2021 issued on February 2021 which established a Technical Working Group (TWG) to address data gaps and propose measures to streamline available data for SFM Reporting

⁸⁹ DOF Inputs to the MTR-SFDRR.

⁹⁰ <https://resiliencycouncil.ph/resources-2/>

⁹¹ Integrated Risk Management and its Complex Cities. Partners for Resilience. <https://drive.google.com/file/d/1RXPWsdLxxLyuPJEmqlf3YcnSaYdvUdew/view>



2. National DRRM Council Resolution No. 82 series of 2021 on the Terms of Reference for the TWG on Sendai Framework Monitor Reporting. The said TWG includes responsibilities of agencies in providing and assisting in generating or reporting available data per SFDRR Targets. It also serves as a forum to discuss the mid-term review of the SFDRR and the short-term review of the National DRRM Plan.

In terms of reporting status and progress, the Philippines is fully compliant and with established baseline data for Targets A and B. Initial reports for target C, albeit needs validation in some indicators for recent year (2021) were made. Loss and damage is reasonably populated for some sectors from relevant National DRRM Council member agencies. Data and reports as well as baseline data for Target D is yet to be submitted by relevant agencies such as Public Works, Education, and Health warranting the need to expedite the institutionalization of the National Loss and damage Registry (NLDR) system. Reports are fully compliant for Target E and F but needs recent data for Years 2020 and 2021 while there is already an initial report for Target G.

Given the availability of data, the Philippines’ progress in realizing all the 7 Global Targets (a) to (g) is a mix of substantial and limited progress with several targets. Substantial progress is seen in the following: Global Target (g) increase the availability of and access to multi-hazard early warning system and disaster risk information and assessments to the people by 2030; Target (e) increase the number of countries with national and local disaster risk reduction strategies and Target (a-3) decrease in the number of missing persons attributed to disasters. Substantial progress is also seen in Target (a-2) reduced number of deaths attributed to disasters from Years 2015 to 2019 but progress declined as there are spikes in deaths largely due to COVID-19 Pandemic for Years 2020-2021. Available Data in the SFM Database shows limited progress in Target B (substantially reduce the number of affected people globally by 2030) and Target F - enhance international cooperation to developing countries. There are also data which needs validation especially for Target B indicators, specifically on the number of people whose destroyed dwellings were attributed to disasters. Due to lack of available data, inconclusive progress can be noted in Target C and D. Statistical notations based on submissions made in the Sendai Framework Monitor dashboard is shown in Annex A of this MTR SFDRR Report.

The Matrix in Table 8 below shows a summary of the progress in terms of reporting and achievement of the targets. Note that the Philippines did not determine a specific baseline target for the individual targets.

Table 4 Summary of Progress Reporting and Achievement of SFDRR 7 Global Targets for the Philippines

Target	Global Target	Reporting Status	Progress Achievement of Target
A	Substantially reduce global disaster mortality by 2030, aiming to lower average per 100,000 global mortality between 2020-2030 compared with 2005-2015.	Updated. Continue reporting	Deterioration for A1-A2 Substantial progress for A3



Target	Global Target	Reporting Status	Progress Achievement of Target
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 with 2005-2015.	Continue reporting but with need to validate some indicators	Limited Progress
C	Reduce direct disaster economic loss in relation to global gross domestic product (GDP) by 2030.	Started reporting for some indicators for Year 2021 Establish baseline data (CYs 2005 – 2014)	Inconclusive and needs validation for some data
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.	Begin reporting for all Indicators Establish baseline data (CYs 2005 – 2014)	Inconclusive. Lack of baseline
E	Substantially enhance international cooperation to developing countries through adequate and sustainable support to complement their national actions for implementation of this framework by 2030.	Updated Continue reporting	Substantial Progress for National DRRM Plan, limited for Local DRRM
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.	Begin reporting for latest period covering CYs 2020 and 2021 for Indicator F-1.	Deterioration
G	Substantially increase the availability of and access to multi-hazard early warning systems and disaster risk information and assessments to the people by 2030.	Updated Continue reporting.	Substantial progress

Source: OCD, author analysis.

IV. CONTEXTUAL SHIFTS, NEW AND EMERGING ISSUES AND CHALLENGES

A. Context Shifts and New Issues – Retrospective 2015 – 2022

Changes in context for the PH since 2015 were a myriad of interlocking issues of environmental, socio-economic, and institutional change. These are:

- increasing magnitude and impacts of disaster especially for the critical sectors such as agriculture, infrastructure, and housing.



- Food security which became evident with the public health emergency brought about by COVID-19. **Food security** always on the radar but needs to be addressed holistically and not sector-specific (climate change, agriculture, land use-development nexus)
- Public health emergency
- Climate crises and extreme weather events – drought, super typhoons and sea level rise especially for an archipelagic country like the Philippines
- Urbanization
- Security threats
- Fast growing tourism sector yet increasing vulnerability and exposure of our tourist areas and their respective communities to the increasing impact of climate change and disasters⁹². An example is the huge devastation of the Siargao island and Dinagat island, popular tourism destinations in the Philippines during Typhoon Odette which occurred in December 2021.

Philippines’ institutional and political context is seen to play a huge role in achieving the outcomes and goals of the SFDRR as these influence leaders’, policymakers’, and stakeholders’ priorities in the next years beyond 2030. These issues are:

- **Tightening of fiscal space** amidst the recovery from public health emergency, increasing impacts of disasters, and economic downturn, which serves as a global trend.
- **Full implementation of devolution** per Executive Order No. 138 “Full Devolution of certain functions of the Executive Branch to Local Governments, Creation of a Committee on Devolution”⁹³ amidst limited LGU capacity, manpower to absorb National government programs, projects, activities. Consultations yielded that LGUs lagged in maintaining equipment and infra provided by NGAs as well as limited manpower to assume devolved functions (some cases are in early warning systems, ICT and highly technical functions like engineering)
- **Digitalization of government** – the Pandemic pushed the government to build its database of most vulnerable families and individuals and deliver social protection assistance through e-money. However, challenges from unclear rules on how to go about this hamper government’s efficiency and effectiveness. While opportunities arise from legislating a National Identification System to serve as basis for exposure and vulnerability databases, there are still challenges of reaching the “last mile” especially among far-flung high-risk areas in the country.
- **Improving the Philippines’ Institutional Set-up for DRRM through the creation of a stand-alone DRR agency** which will strengthen oversight function in ensuring agencies’ mandates on DRRM are well funded, implemented and monitored as well as expediency of disaster response and resolving gaps of easing towards rehabilitation and recovery of affected communities. The Sunset Review

⁹² Chapter 6 Approaches in the Philippines to increased coherence of climate change adaptation and disaster risk reduction. In OECD (2020), Common Ground Between the Paris Agreement and the Sendai Framework: Climate Change Adaptation and Disaster Risk Reduction, OECD Publishing, Paris, <https://www.oecd-ilibrary.org/sites/4ec0f8bc-en/index.html?itemId=/content/component/4ec0f8bc-en>

⁹³ Executive Order No. 138, Philippines. <https://www.officialgazette.gov.ph/downloads/2021/06jun/20210601-EO-138-RRD.pdf>



of the Philippines DRRM law initiated by civil society organizations (CSOs) and the government's Office of Civil Defense in 2016 yielded recommendations to establish a stand-alone office which will handle DRRM. However, policy discussions and debates stalled during the last Congress (18th Congress) about whether to create a “department”-level agency⁹⁴ or more of a coordinative agency, such as an “Authority for DRR”.

The changes brought about by the increasing magnitude of disasters, its impact to the population and the seemingly cyclical conduct of providing relief, response and recovery efforts to disaster-stricken communities despite the proactive disaster risk management espoused by the government yielded discussions towards policy, program, and institutional change for resilience.

- First, discussions yielding to proposed legislations on improving the PH institutional setup to tackle disaster management to steer actions among national and local governments towards resilience.
- National governments continuously encourage local governments to look at disaster management towards resilience and its linkages to development. This would mean increasing coordination efforts among different offices within each local governments and maximizing local resources to ensure resilience of vulnerable communities are considered in the planning, implementation and evaluation of local programs and projects.

B. Emerging Issues and Future Contexts – Prospective (to 2030 and beyond)

Emerging Issues and Challenges to 2030 and beyond

The consultations conducted in line with the MTR of SFDRR emphasized the need to improve the Philippines' response to the challenges brought about by changes in context since 2015 and beyond. While the topics of concern or issues raised during the consultations are of familiar to literature and to the Philippines context, increasing impacts and effects of these identified issues are anticipated by the stakeholders. These issues and topics of concern are:

- The overlapping impacts of disasters from natural hazards and health emergencies in the context of the climate crises revealed the weaknesses of our health and emergencies sector. Rural areas with weak health infrastructure are at risk of becoming hotbeds of health emergencies and disasters. The implementation of the Universal Health Care Act of 2019 which serves as the linchpin of health reforms in the country in the light of the COVID-19 Pandemic and the needed resilience of health sector serve as both a challenge and an opportunity for public health from the national to the local level. Provinces and cities are critical in their responsibility to ensure adequacy of health facilities given the Health Care provider network system⁹⁵.

⁹⁴Senator Panfilo M. Lacson, 2019. Opening Statement at the Joint Committee Hearing on the Proposal to create a Department of Disaster Management. https://legacy.senate.gov.ph/press_release/2019/1111_lacson1.asp

⁹⁵ Department of Health, 2020. Philippine Health Facility Development Plan 2020-2040: Investing in resilient and sustainable health facilities towards Universal Health Care. Manila, Philippines. Department of Health. https://doh.gov.ph/sites/default/files/publications/DOH_PHILIPPINE%20HEALTH%20FACILITY%20DEVELOPMENT%20PLAN%202020_2040_0.pdf



- In-migration to select rural, sub-urban, tourism zone areas not only due to tourism but also due to the Pandemic and work-from-home setup, as more people are drawn to the advantages of residing away from the National Capital Region or Metro Manila such as cheaper cost of living in the provinces, away from urban, highly dense, populated areas which are at high risk to the Pandemic.
 - o In-migration was also encouraged by the past administration during the height of the COVID-19 Pandemic wherein the government promulgated a program called “Balik Probinsya”, or “Return to the Province” especially for those whose jobs were displaced during the COVID-19 lockdown. The detailed implementation of this program, including the target beneficiaries and types of assistance were provided for in a government policy, through the Department of Social Welfare and Development Memorandum Circular No. 15 series 2020⁹⁶.
- Food insecurity due to the following:
 - o rampant conversion of lands especially in the Geographically Isolated and Disadvantaged Areas (GIDAs) for various economic uses such as tourism, housing, mining, and other commercial activities
 - o Environmental degradation especially in the marine ecosystem
- The impacts of climate change especially for the Philippines is indeed getting worse. The Philippines ranked 1st as the country most at risk from the climate crisis according to a report published in 2019 by the Institute for Economics and Peace⁹⁷. Rising sea levels will mostly affect our dwellers among 7,641 islands in the country. The effects and threats to food security, as we see the impact to our natural ecosystem such as marine life and agriculture where the country relies most heavily for food will increase the vulnerability of our marginalized communities.

Therefore, there’s a need for strengthened demonstration of how climate change adaptation can be converged with disaster risk reduction. Stakeholders noted the need to identify, invest, document, and demonstrate on a large-scale climate change adaptation measures for infrastructure, agriculture, and ecosystem. One entry point for operationalizing this is to identify nature-based solutions which can serve as climate change adaptation and DRRM and access or even shift more investments towards this end. Funding sources such as the People’s Survival Fund⁹⁸, the National DRRM Fund in the Philippines and access to Green Climate Fund⁹⁹ should be pursued. So far the Green Climate Fund dashboard for the Philippines show only 5 in its number of projects and 5 readiness activities, marking the need to amplify access to the Fund especially for nature-based solutions.

Future Context: The New Normal for DRRM in the Philippines

The Philippines government issued and implemented programs and projects in response to and recovery from the COVID-19 Pandemic in the context of DRRM. A number of these policies are previously enumerated above and were issued by the NDRRM Council:

⁹⁶ Guidelines on the Implementation of Balik Probinsya Bagong Pag-asa Program by the DSWD. Memorandum Circular No. 15 series of 2020. https://www.dswd.gov.ph/issuances/MCs/MC_2020-015.pdf

⁹⁷ <https://www.amnesty.org.uk/philippines-country-most-risk-climate-crisis>

⁹⁸ Republic Act No. 10174 established the People’s Survival Fund to provide long-term financing to climate change adaptation projects.

⁹⁹ <https://www.greenclimate.fund/countries/philippines#documents>

- At the height of the COVID-19 Pandemic in May 2020, the NDRRMC released a policy¹⁰⁰ to align the COVID National Action Plan with the National Disaster Response Plan to mainstream health and safety standards in all programs, projects and activities for the implementation of National to local Disaster Response plans.
- All Members of the DRRM Councils and instrumentalities of government are also tasked to update their Public Service Continuity Plans (PSCPs) and Contingency Plans (CPs) due to the COVID 19 Pandemic¹⁰¹ to ensure that worst-case scenarios are part of the plan and to prevent further spread of the COVID-19 virus and any other impending biological types of hazards.

A National Report by the Philippine government’s National Economic Development Authority’s detailing and charting the recommended recovery programs and strategies to adapt to the “new normal” state of economic activities in the light of COVID-19 Pandemic integrates disaster risk reduction measures that are also in line with the SFDRR and the NDRRM Plan. First, the document recognized the importance of food security especially in the agriculture sector, thereby recommending the linkage of farmers to supply government’s feeding programs and disaster relief operations. Proper nutrition needs to be provided in preparation for emergencies especially for vulnerable groups such as children, pregnant and breastfeeding women and elderly. Second, it integrates in the priority policies and strategies the empowerment of Local Government Units (LGUs) at the community or barangay level to strengthen their capacities as first responders and frontline service delivery units such as health. DRRM Plans of each LGU needs to integrate public health emergencies and public service continuity to enable ease of doing business to recover from the Pandemic. Third, providing immediate transfer and relief of government assistance in times of crisis, pandemics or disasters through the fast-tracking of the Philippine Identification System (PhilSys) or National ID system serves as one of the priorities under social protection for vulnerable groups. In line with this, the report recommended the completion of vulnerability datasets by developing a registry of vulnerable persons and groups which will expedite government services delivery and serve as basis for risk assessments, planning and programming.

The Department of Health, which serves as the Chairperson of the Inter-Agency Task Force for the Management of Emerging Infectious Diseases (IATF), issued a policy, Administrative Order No. 2020-0036 regarding the Guidelines on the Institutionalization of DRRM in Health (DRRM-H) in Province-wide and City-wide Health Systems. The policy provides guidance to LGUs and key stakeholders in the institutionalization of DRRM in Health systems. The Operational Framework embedded in the Guidelines include the Thematic Areas of DRRM, Processes, Functional System, and Service Packages towards the goal of uninterrupted delivery of essential health services in Emergencies and Disasters. The province-wide and City-wide Health Systems shall develop information and knowledge management systems to serve as foundation for assessing, monitoring, analyzing and forecasting risks, bolstering early warning, planning responses and coordinating actors and resources during response as well as monitoring and evaluation. The implementation of this policy is yet to be seen at the local level especially with the recovery efforts for the COVID-19 Pandemic. The Department of Health sees good prospects

¹⁰⁰ NDRRMC Memorandum No. 46 s. 2020 [Alignment of the National Disaster Response Plan and the National Action Plan for COVID-19](#)

¹⁰¹ NDRRMC Memorandum No. 57 s. 2020 [Updating of Public Service Continuity Plans \(CPs\) Due to Ongoing Public Health Emergency](#)

as based on accounts during the Consultation Workshops for the MTR, it was remarked that there have been no reports of COVID-19 spread in evacuations at the height of the major disasters which transpired in 2020 and 2021, respectively.

V. PROSPECTIVE REVIEW AND RECOMMENDATIONS

A. Recommendations for realising the Outcome and Goal of the Sendai Framework

Given the changes in context and the prospective issues and challenges emerging to date and beyond 2030, the following deliverables, processes or transformations are suggested by the stakeholders to significantly reduce disaster risks and losses in the Philippines. The following action points came out of the consultations and the online survey which were conducted for the MTR of SFDRR. Below are major action points which are cross-cutting in the four SFDRR Priority Actions followed by specific recommendations, deliverables, processes.

- 1. Increase in investments for structural resilience such as strengthening infrastructures, early warning systems, ensuring compliance in building codes, robust infrastructure for basic services such as health and education.** Respondents in the online survey specifically enumerated the following critical infrastructure as concrete measures to strengthen resilience:

- Modern technologies and engineering interventions for flood control and drainage systems
- Investing in advanced multi-hazard early warning system
- Satellite-based communication network for emergency and a national broadband framework
- Investing in affordable renewable energy and technology
- More efficient and effective housing for vulnerable families

The proposed measures mentioned above apart from satellite-based communication network and affordable renewable energy and technology are all emphasized in the current NDRRM Plan.

Improvements on the phrasing and strengthening the implementation of particular outcomes of the NDRRM Plan can already respond to this recommendation. Outcome 3 and Outcome 8 of the NDRRM Plan is about disaster resilient human settlements and increased structural integrity of critical infrastructure. Improvements with the priority of the NDRRM Plan along these Outcomes can be made towards identification of efficient options apart from construction of housing units and relocation and emphasizing structural audit of key infrastructure. The Philippine Development Plan (PDP 2017-2022) identified alternative and innovative housing options such as voucher-type direct subsidies and housing finance reforms. Progress on this front through the Department of Human Settlements and Urban Development need to be taken and scaled up. Some LGUs who were consulted brought up the use of rental housing subsidy while waiting for permanent relocation for a more efficient housing solution post-disaster. Outcome



4 of the NDRRM Plan emphasized timely, responsive early warning which can be improved by investing in state of the art, modern technologies.

2. **More resources in the areas of physical equipment, funding, manpower, specifically regular personnel** with adequate capacity on DRRM should be institutionalized. This recommendation is consistent with the stakeholder consultations especially among LGUs as well as the manpower gap earlier discussed. **Many LDRRM Officers recommend that policies on the use of Local DRRM Fund allow covering for salary, insurance, and professionalization of LDRRM Officers and staff.**
3. **Strengthen social protection and socio-economic resilience of communities by way of resilient livelihoods and quality of life.** Concretely, recommendations include:
 - Implementation of the Philippines Roadmap for Adaptive Shock Responsive Social Protection System (ASRSP) through the Department of Social Welfare and Development (DSWD). The DSWD as lead agency of this Roadmap would need the support from the NDRRMC and the LGUs in determining areas where adaptive shock responsive social protection can be integrated in their respective programs. This will better yield to efficient and effective delivery of social and development services for the vulnerable sector and concretely see impact and progress. With the robust M&E system at DSWD, opportunities are possible for its upscaling.
 - establishing financial buffers or increasing access to insurance instruments to cushion the effects of disasters to vulnerable communities and industries such as agriculture.
 - Agricultural production assistance program should be increased to include provision of inputs for agricultural and fisheries production, access to finance, supply chains and logistics to ensure delivery of agricultural products during disasters in different parts of the country.

Specific List of Recommendations per SFDRR Priority Actions

Understanding Risk

1. **Integrate datasets especially on exposure and vulnerability** to existing platforms such as GeoRiskPH developed by the Department of Science and Technology.
2. **Formulation of comprehensive risk-based roadmap priority areas for particular sectors such as infrastructure, agriculture, housing.** The roadmap priority areas can identify specific regions, provinces and municipalities which need sectoral PPAs. One good foundation is the RRP (Risk Resiliency Program) with the Department of Environment and Natural Resources (DENR) as the Secretariat, wherein a roadmap identified 22 vulnerable provinces, 822 coastal municipalities and major urban centers of



Metro Manila, Cebu, Iloilo and Davao¹⁰². This can be improved to have specific sectoral roadmaps for particular needs, say for example, for agriculture sector to mitigate or adapt to El Niño phenomenon, for the critical infrastructure of evacuation centers for LGUs most-at-risk to displacement, for shelter and housing, for LGUs who are most vulnerable to displacement as characterized by having high informal settlers and are most often devastated by disasters

3. Identification of nature-based solutions (NBS), demonstrating these among LGUs, and increasing investments along these types of projects which will directly benefit the vulnerable communities. Identifying nature-based solutions need deeper yet practical understanding of risks from science and actual needs based on community knowledge. Agencies such as Department of Environment and Natural Resources, Climate Change Commission, Department of Science and Technology, Department of Agriculture, and DILG with Office of Civil Defense can jointly identify nature-based solutions for our LGUs and seek out funds and budget which can be from the People's Survival Fund, NDRRM Fund or international funding from the Green Climate Fund.
4. **Full implementation and strengthening of each LGUs' Community-Based Monitoring System (CBMS)** to generate the needed datasets especially on the aspect of community vulnerability for risk information.
5. **Improve Information, Education, Campaign (IEC) to go with early warning.** Technology, Modernization, Research and enabling policies yielded accurate, timely Early Warning System disseminated at a wide scale but early warning by science agencies have to be laymanized better for the use of the Filipino public. Perhaps, past experiences and comparison with historical events or disasters can be made through government news outlets for wider dissemination to mainstream media but safeguards have to be in place in order to present accurate reporting and warning.

Strengthening Disaster Risk Governance

1. **Strengthen M&E of the N/R/LDRRM Plans to put in place the following:** 1) prioritization of outcomes, projects and activities 2) clear delineation of roles and responsibilities among mandated agencies and local governments for accountability, and 3) appropriate, clear, and identified funding source for each of the priority outcomes. This can be achieved through an oversight policy issuance from the NDRRM Council.
2. **Improve absorptive capacity of LGUs** through the following:
 - National government agencies and development partners to consider tailor-fitting requirements and capacity building interventions to LGUs according to data gathered about plans and performance. The Capacity Development Agenda in line with the Mandanas Ruling being developed by the Department of the Interior and Local Government – Local Government Academy is an opportunity to integrate disaster preparedness capacity needs of high-risk LGUs. To do away with another set of requirements needed from LGUs to formulate their capacity development agenda or to

¹⁰² <https://climatechange.denr.gov.ph/index.php/programs-and-activities/cabinet-cluster-on-ccam-drr/ccam-drr-performance-and-projects-roadmap>



ease the national government with doing capacity assessments which can take awhile, review of reports and risk levels of LGUs can be done. The needs can be extracted from the Seal of Good Local Governance -Disaster Preparedness indicators and can be cross-checked with the levels of vulnerability of LGUs. For instance, those LGUs with high exposure to earthquakes and landslide and without Contingency Plans for such hazards be offered with mentoring and strenuous interventions for DRR related plans, activities for the said hazard.

- explore the use of LDRRM Fund to cover for the following: salary and professionalization of LDRRM Officers and staff, issuance of hazard pay, incentives and insurance of LGU DRRM workers. Potential policy entry points for these could be revising the 2013 JMC No. 1 issued by the NDRRMC, DILG, DBM or the Guidelines on the Use and Allocation of the LDRRM Fund as well as the 2014 JMC No. 2 s. 2014-1 or the Implementing Guidelines for the Establishment of LDRRM Offices or BDRRM Committees in LGUs
 - Institutionalization and Protection of Local DRRM Officers despite political or administration change. Local and regional DRRM Council consultations recommended the professionalization of Local DRRM Officers in order to 1) establish continuity in DRRM planning and operations; 2) prevent the turnover of DRRM Officers due to administration change thereby trainings and capacity building can be retained at the LGU; and 3) career advancement especially for young public servants. Regional DRRM Council Resolution recommending to the National DRRM Council to issue a policy among LGUs particularly the Local Chief Executives to prevent the assignment to other offices of a Permanent LDRRM Officer and Personnel to other units in the LGU¹⁰³. The proposed policy shall ensure alignment, sustainability and improvement of DRRM capacities and initiatives at the local level which are the frontliners in DRRM.
3. National Government Agencies (NGAs)' consultations suggested to explore the **integration of DRRM in the Office Performance Commitment, program performance, organization, and staffing of NGAs whose roles are critical to DRRM**, example for rehabilitation of roads and bridges and buildings at Department of Public Works and Highways, housing and shelter for the Department of Human Settlements and Urban Development, Power infrastructure for Department of Energy, livelihood under the Department of Trade and Industry, among others. The NDRRMC, DBM can jointly identify these agencies.
4. **Operational or Implementing Policy for national agencies' use of their respective appropriations for DRRM.** While there are enabling policies on these (Section 22E of RA 10121 and General Provisions of the General Appropriations Act), operational policies still have to be set by oversight agencies through the NDRRM Council and the DBM.

¹⁰³ Regional DRRM Council Region 11 Resolution No. 005 series of 2022 "Recommending to the NDRRM Council to come up with a Policy that ensures the Protection of Permanent LDRRM Officers and Personnel from reassignment to other offices"



1. **Full implementation of the Revised Guidelines on the Management and Administration of the National DRRM Fund** or the NDRRMC Memorandum Circular No. 110 series 2021 through the following:
 - a. Define PPAs under prevention, mitigation, and preparedness among agencies which can be invested from the NDRRM Fund
 - b. Set the standards, specifications per project type so that LGU requesting parties can better formulate sound project proposals
 - c. Increase information dissemination on the NDRRM Fund Guidebook so that RDRRMCs can better implement the Guidelines on the NDRRM Fund
2. **Consider policy/budget reforms for the National DRRM Fund: legislative amendment to the National DRRM Fund appropriations in RA 10121** to set a pre-determined amount such as Mexico's FONDEN which allocates 0.4% of federal budget for DRRM.
3. **Updating of Local DRRM Fund Expenditures and Reporting Guidelines** particularly NDRRMC-DILG-DBM JMC 2013-1 and COA Circular 2012-02)
 - o Increase knowledge, understanding and capacity of not only DRR staff but Local Finance Committee on the items which can be covered by LDRRM Fund
4. **Procurement reforms** for speedy implementation and minimize the fears of spending. Some of these are preparation of pro-forma specifications of certain highly technical equipment or infrastructure needed especially for disaster prevention, mitigation and preparedness activities.
5. **Expand** application of DRFI instruments such as risk transfer by improving insurance of public assets, identification of products to cover insurance of homeowners and small businesses, and establishment of a catastrophe risk insurance pool for LGUs and private sector¹⁰⁴. Proposals to establish an insurance pool for disaster risks in a number of cities is currently being formulated towards its full implementation through the assistance of the Asian Development Bank. There are also studies which look into proposals for a risk-based premium calculation system taking into account disaster hazard and facility vulnerability subcategories under the GSIS or the Government Service Insurance System¹⁰⁵.
6. **Increase access of funds for energy resiliency plans, programs projects** such as the assistance from the Economic Development Cluster and for National Electrification Administration (NEA) to develop guidelines in the utilization and facilitation of RA 11039 or the Electric Cooperative Emergency and Resiliency Fund (ECERF).

¹⁰⁴ Villacin, D. Review of PH Government Financing for Recovery and Reconstruction. PIDS. 2017

¹⁰⁵ JICA, 2021. Data Collection Survey to improve the Public Insurance System, including the Introduction of Disaster Risk-based Insurance Premium <https://openjicareport.jica.go.jp/pdf/12367157.pdf>



Disaster Preparedness, Response and ‘Build Back Better’

1. To resolve the lack of standards or indicators to determine whether an area has fully recovered from a disaster, consider the **formulation of an NDRRM Council Guide to measure recovery in terms of outcomes** and to ensure that the NGAs and LGUs maximize their respective budgets and programming for post-disaster needs as identified in the PDNAs and RRP
2. **Improve NDRRM Council policy on evacuation centers**, specifically, NDRRMC Memorandum Circular No. 2 series of 2018 to ensure there is at least 1 primary, fit-for-purpose evacuation center in every high-risk municipality and conduct an infrastructure audit of evacuation centers
3. Human settlements usually incurs the most damage from disasters. Moreover, permanent solutions to resilient housing takes a while to be completed due to the huge investments and requirements such as availability of land and beneficiaries’ affordability to enable access to durable housing programs. Thus, it is recommended that a **Housing Disaster Resilience Plan** which identifies programs, projects, activities which will identify alternative modalities of housing apart from direct housing provision such as relocation and resettlement. On a related note, initiatives along these lines are underway with the DHSUD. With technical assistance from the World Bank and funding support from the Government of Japan and the Global Facility for DRR, DHSUD crafted the Post-Disaster Shelter Recovery Policy Framework (PDSF)¹⁰⁶. The PDSF identifies a Menu of Post-Disaster Shelter modalities and an operational matrix to guide its implementation. It is also recommended that the **DHSUD formulate and implement prototypes of resilient housing** based on indigenous and local technology. Actions contributing toward this end are being undertaken by the DHSUD through its attached agency, the National Housing Authority (NHA) whereby a system of accrediting innovative technologies (AITECH) for housing is being promulgated. The system was conceived as a result of the numerous building technologies that were developed using alternative or non-traditional materials and systems which integrate indigenous and innovative building materials/systems for technical and engineering evaluation. It is important to showcase these examples so that housing costs can be made more affordable while not compromising safety.
4. OCD, NDRRMC to work on and ensure the full functionality of the National Losses and Damage Registry for planning purposes

Partnerships, Cooperation and Collaboration

1. Broker partnerships among Local SUCs and LGUs to gather, consolidate data at the local level to help LGUs come up with comprehensive risk assessments vital for government planning and programming. CHED and the NDRRMC can jointly map out LGUs who are without CDRA or LDRRM Plans and cross check it with the State Universities and Colleges (SUCs) in the same locality or area

¹⁰⁶ Post-Disaster Shelter Recovery Policy Framework. DHSUD. 2021. https://dhsud.gov.ph/wp-content/uploads/Publication/Library/PDSF_Final_122121.pdf?fbclid=IwAR2jh6xF4QzIoFrk0RifTmWzwfhfBzLHnjTv6IKKC_286PjZ6CFTcBD2N-4



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2. Partnerships and Cooperation with other ASEAN Countries on Disaster Risk Financing and Insurance and Expanding Housing and Shelter Options for Resilient Housing

Recommendations for further Investigation/Study/Analysis

1. **Further scrutiny of the LDRRM Fund Utilization Reports** especially on the following: types of Projects funded and unfunded from the LDRRM Fund; LGUs with unutilized Local DRRM Fund, year-on-year; and the level of risks of these LGUs in order to identify gaps moving forward for the proposed revision and/or updating of the Policy on Local DRRM Fund Expenditure and Reporting
2. **Inventory of Programs, Projects and Activities (PPAs) of National Government Agencies (NGAs)** and their implementation strategies or respective prioritization to see if convergence is possible and to identify gaps in order to shift particular fund sources such as the NDRRM Fund to these areas and PPAs.
3. In the areas of **capacity building, an inventory on the types of capacity building training interventions, frequency and number, locations of local government units** trained in the areas of risk assessment can be gleaned upon in order to assess the manner and the types of capacity building interventions necessary for our LGUs
4. **Assessment on how early warning information and its granular aspects indeed reached the last mile in a timely and accurate manner** and how the communities affected have acted on the early warnings made to their localities
5. **Revisit or assess LGUs' capability in undertaking the Local DRRM Planning and the LGU mandated plans** especially the Comprehensive Land Use Plans among other plans related to DRRM enumerated in this Report
6. **Effectiveness, responsiveness, and implementation progress and gaps of the NDRRM Council issued policies**
7. Assessment of NDRRMC member agencies, roles, responsibilities, accomplishments and their respective manpower / Office/Unit/person responsible for DRRM
8. **Assessment of how the most recently affected LGUs have been able to apply their respective plans, projects and activities (PPAs) and protocols which they do or do not have and establish trends on the impacts of the disasters to their areas.** In other words, how have the plans (on paper), the execution of these Plans and budget have been able to contribute to concrete achievements of the SFDRR and NDRRM Plan outcomes, such as but not limited to the reduction of casualties, the reduction of damages in key sectors and the local economy and the reduction in the number of devastated homes, among others.



VI. ANNEXES

ANNEX A. PROGRESS TO THE SENDAI FRAMEWORK MONITORING 7 GLOBAL TARGETS AND INDICATORS

ANNEX B. ONLINE SURVEY RESPONDENTS PROFILE AND SURVEY RESULTS

ANNEX C. MID-TERM REVIEW DESIGN MATRIX OF RECOMMENDED CORE AND PROBING QUESTIONS AND DATA COLLECTION METHODOLOGY

ANNEX D. NUMBER OF DISASTER RISK REDUCTION AND MANAGEMENT STAFF COMPLEMENT FOR CITIES AND MUNICIPALITIES IN THE PHILIPPINES

ANNEX E. HIGHLIGHTS OF THE KIIs, FGDs

ANNEX F. INSTRUMENTS EMPLOYED FOR THE ONLINE SURVEY, KIIs, FGDs, AND NATIONAL CONSULTATION WORKSHOP





ANNEX B. ONLINE SURVEY RESPONDENTS PROFILE AND SURVEY RESULTS

I. Survey Respondents' Profile

Table 1. Distribution of respondents by sex

Sex	Frequency	Percentage
Male	306	32.8%
Female	617	66.2%
Prefer not to say	9	1.0%
Total	932	100.0%

Table 2. Distribution of respondents by type of organization

Type of Organization	Frequency	Percentage
LGU-LDRRM Officers, LGU Officials and Personnel	550	59.0%
NGA-Central, Regional, Provincial	137	14.7%
DEPED SDRRMC/ School Personnel	129	13.8%
PNP	100	10.7%
NGO, Private Sector, Academe	16	1.7%
Total	932	100.0%

Table 3. Distribution of respondents by region

Region	Frequency	Percentage
CAR	46	4.9%
Caraga	8	0.9%
NCR	33	3.5%
Region I	81	8.7%
Region II	70	7.5%
Region III	65	7.0%



Table 3. Distribution of respondents by region

Region	Frequency	Percentage
Region IV-A	67	7.2%
Region IV-B	12	1.3%
Region IX	50	5.4%
Region V	30	3.2%
Region VI	82	8.8%
Region VII	46	4.9%
Region VIII	94	10.1%
Region X	36	3.9%
Region XI	200	21.5%
Region XII	12	1.3%
Total	932	100.0%

II. Level of Awareness on Sendai Framework for DRR (SFDRR)

Figure 1. Overall Level of Familiarity of Respondents on SFDRR

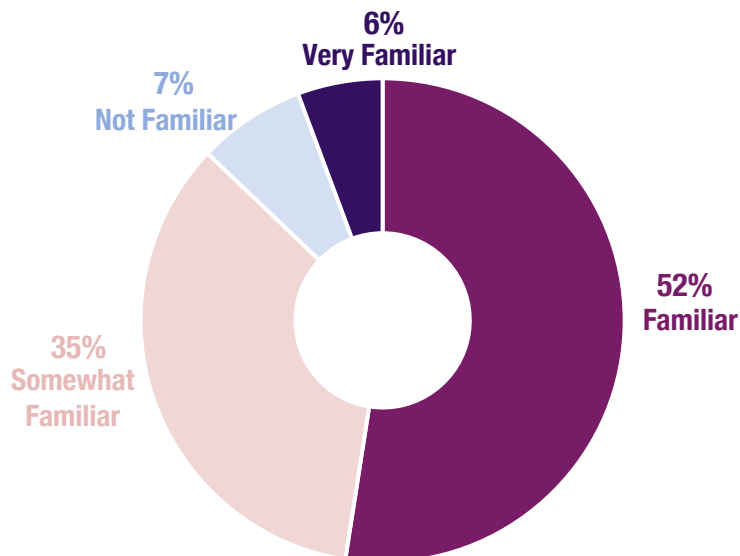


Figure 2. Level of Familiarity on the SFDRR by Type of Organization

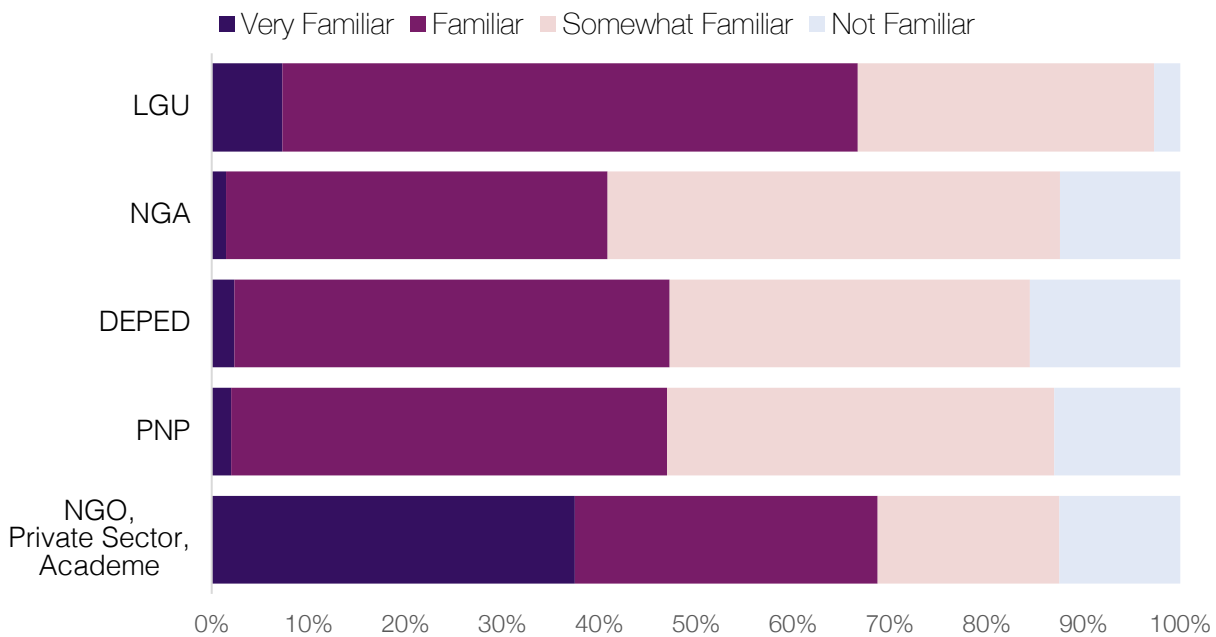


Figure 3. SFDRR Priority Actions by Organizations



III. Understanding Disaster Risk: Risk Assessment, Information, and Understanding

Figure 4. Level of Understanding on Dimensions of Disaster Risk

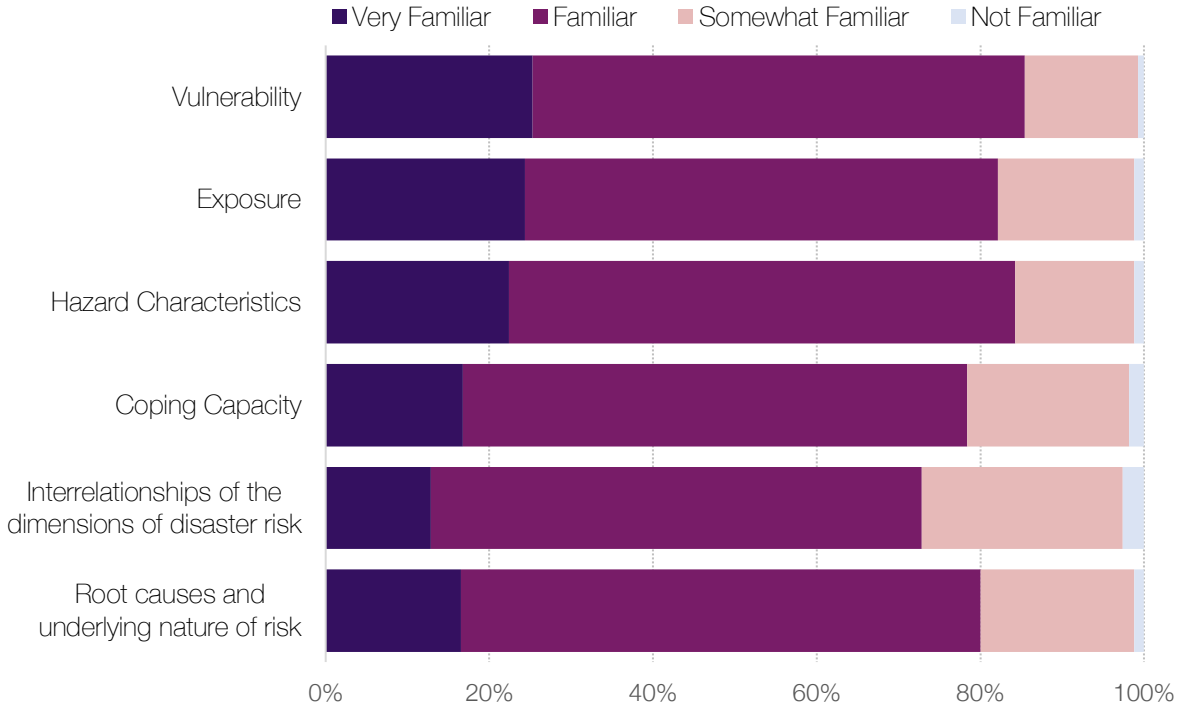


Figure 5. Platforms that enabled understanding of disaster risk and its dimensions

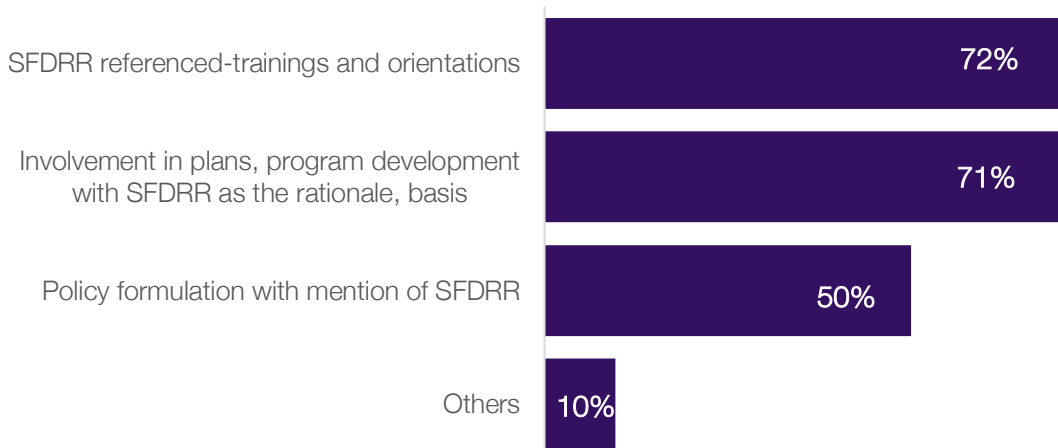
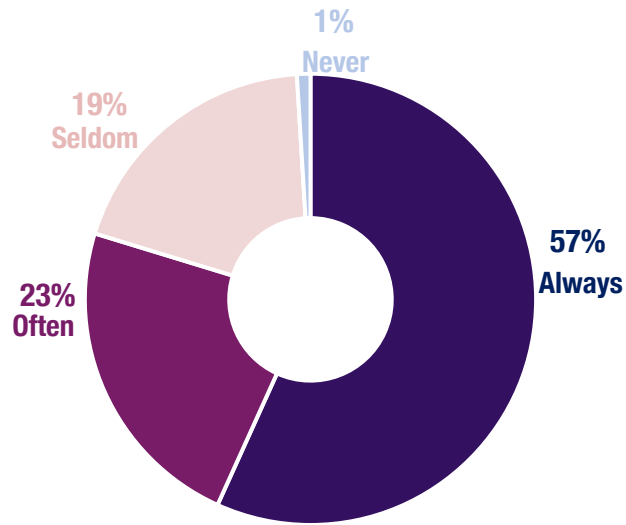


Figure 6. Application of traditional, indigenous and local knowledge, and communities in risk assessment



IV. Risk Governance and Management

Figure 7. Perceived level of alignment of Organization and Leadership, National/Local planning process and National/Local public policy and legislation to the Sendai Framework

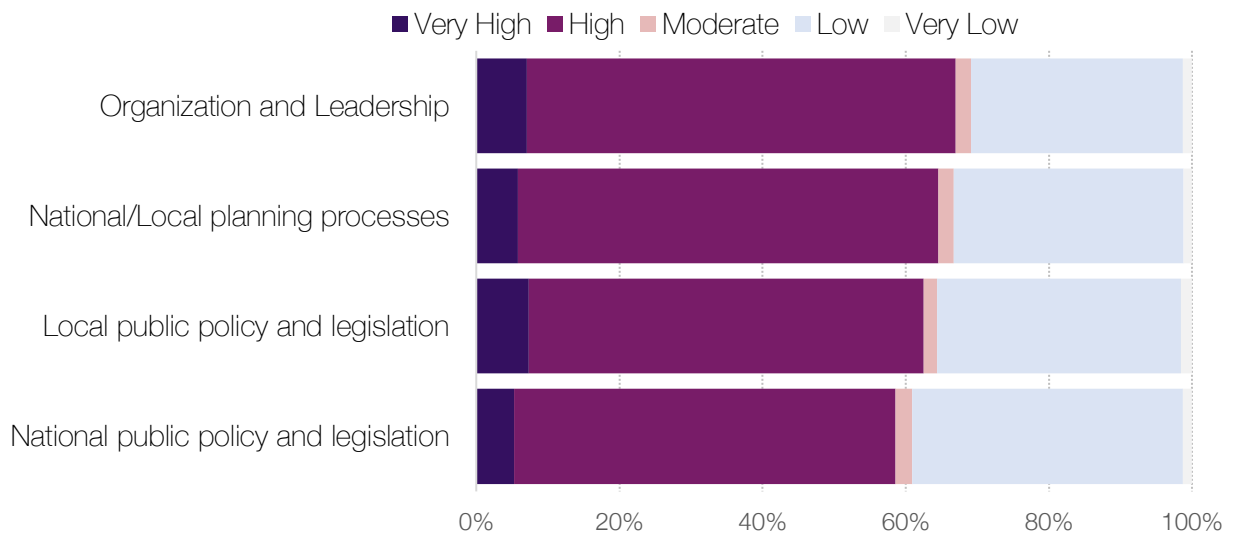


Figure 8. Level of utilization of the Sendai Framework on different governance areas

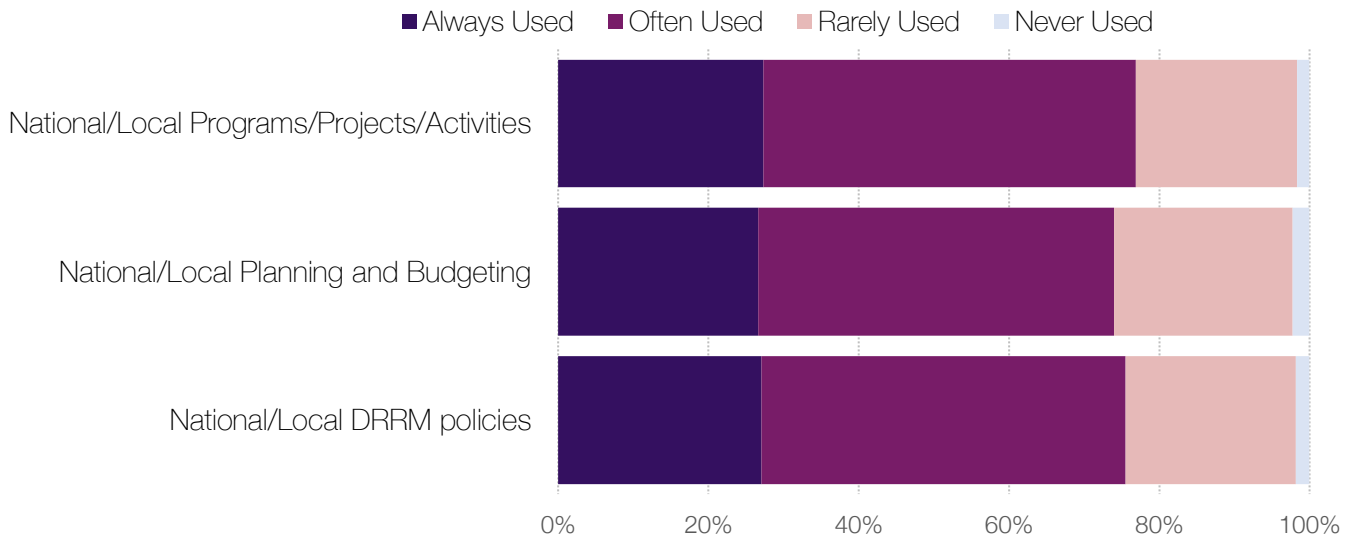


Figure 9. Perception on the contribution of national/regional and local DRRM Plans

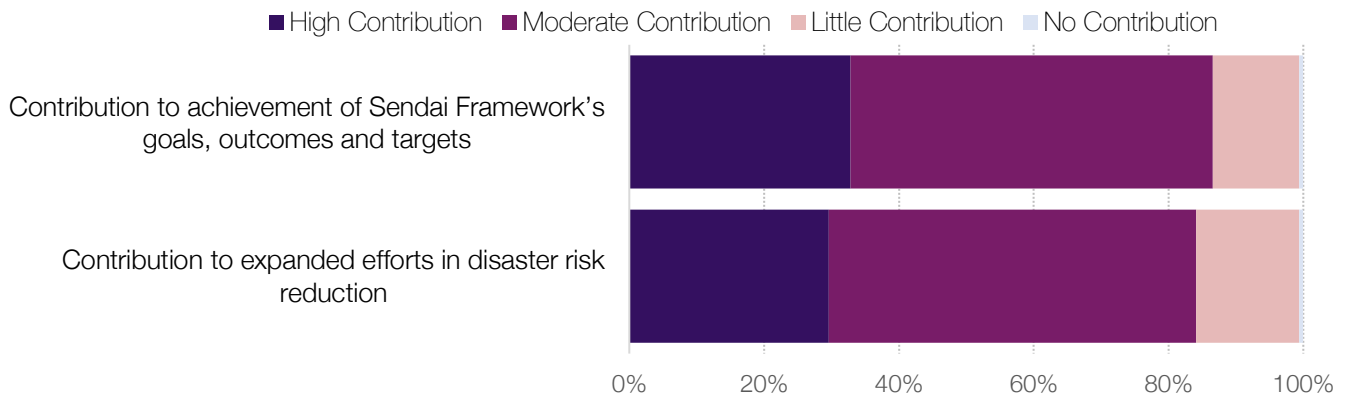


Figure 10. Application of traditional, indigenous and local knowledge, and communities in risk assessment

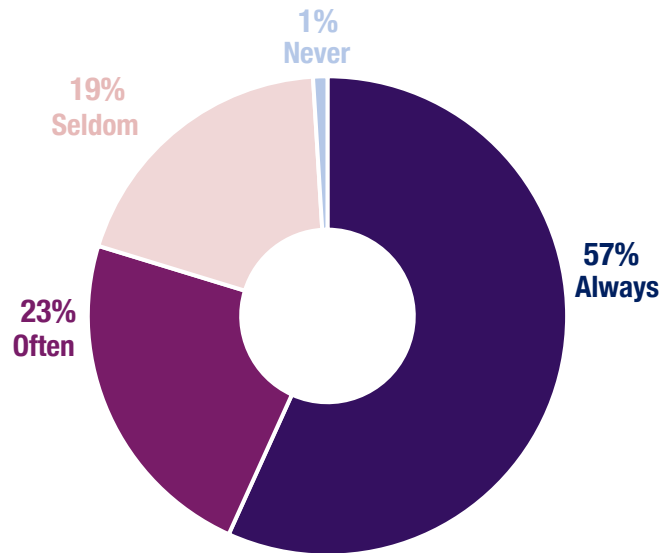


Figure 11. Major outputs for DISASTER PREVENTION AND MITIGATION which were perceived by respondents to bring the greatest reduction in disaster risk and the greatest increase in the resilience of people, assets, and ecosystems



Figure 12. Major outputs for DISASTER REHABILITATION and RECOVERY which were perceived by respondents to bring the greatest reduction in disaster risk and the greatest increase in the resilience of people, assets, and ecosystems

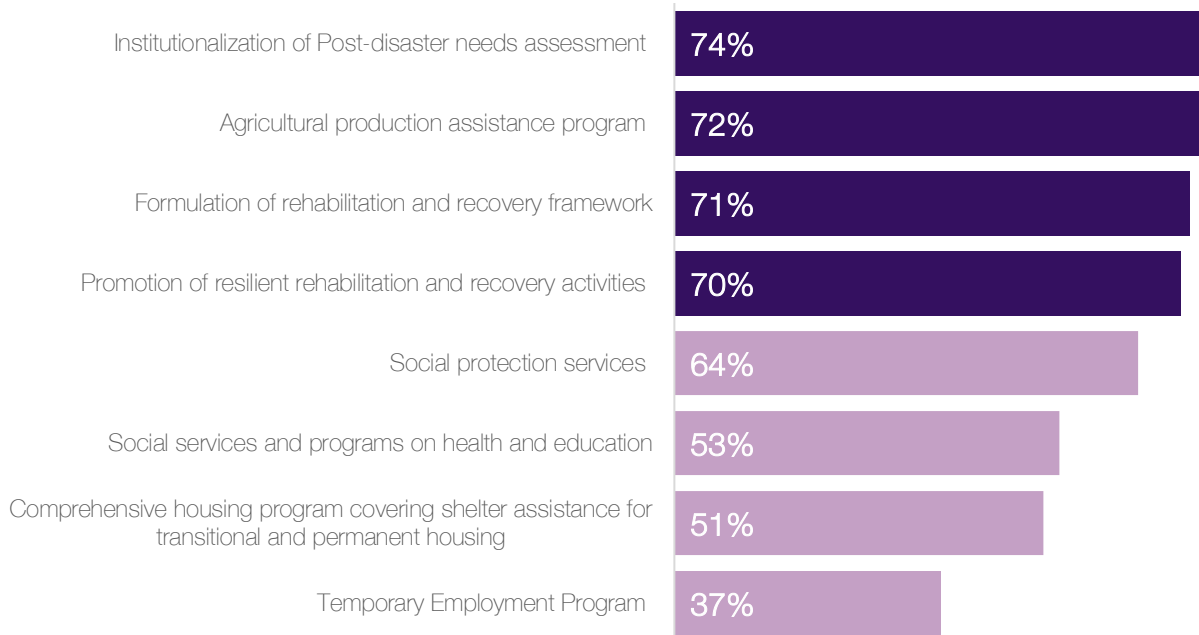


Figure 13. Major outputs for DISASTER RESPONSE which were perceived by respondents to bring the greatest reduction in disaster risk and the greatest increase in the resilience of people, assets, and ecosystems

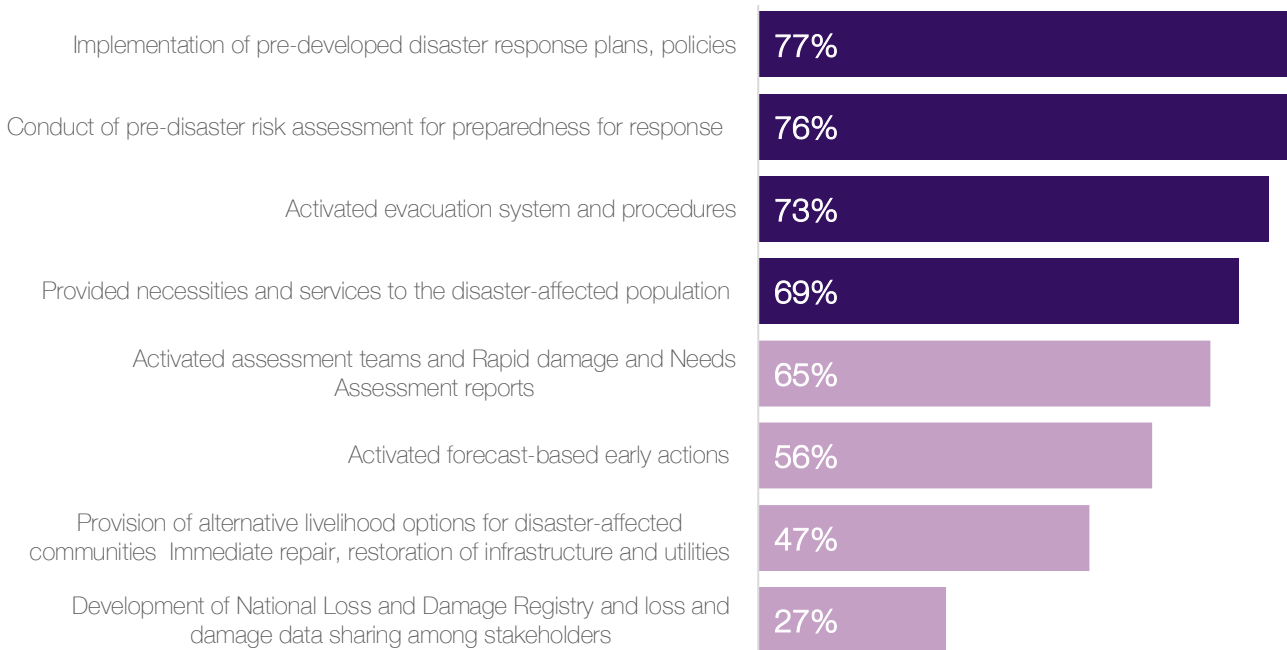
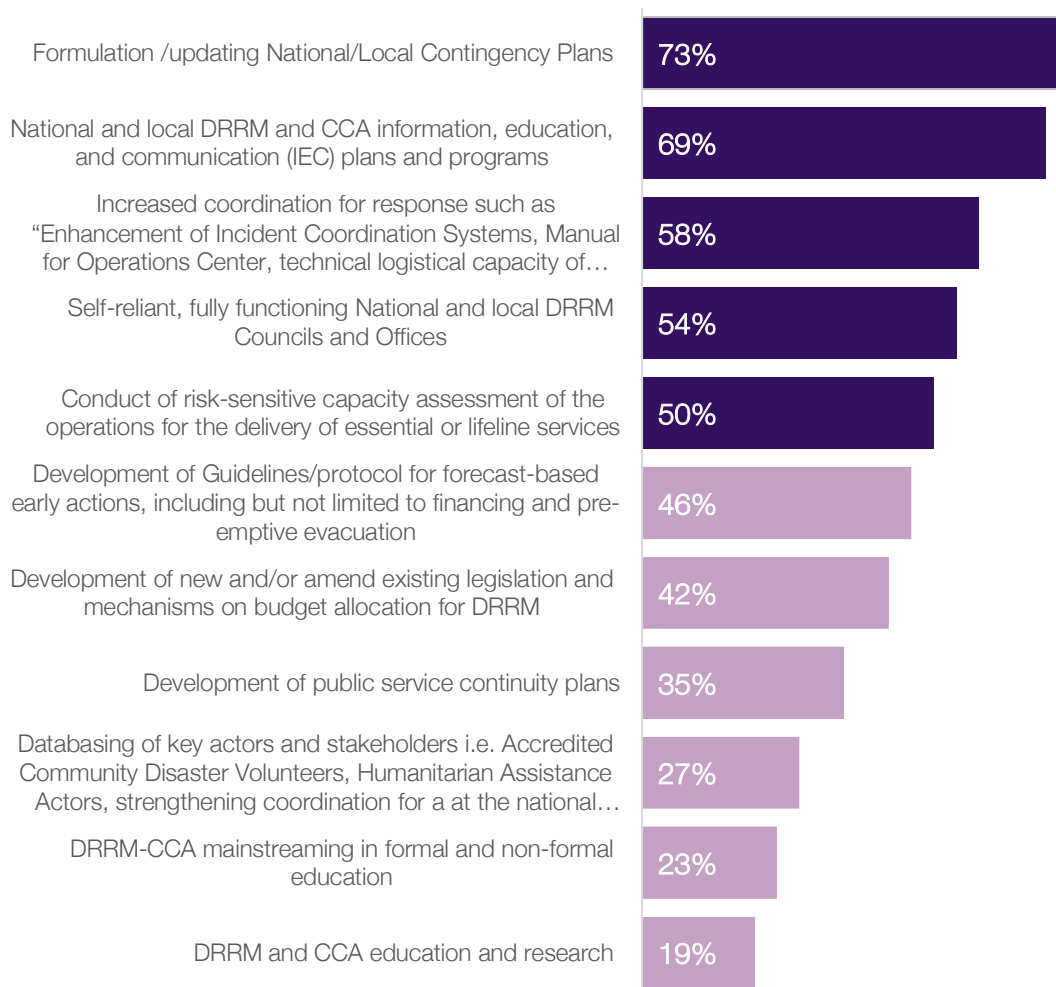


Figure 14. Major deliverables, outputs, activities, for DISASTER PREPAREDNESS identified in the NDRRM Plan which were perceived to bring the greatest reduction in disaster risk and the greatest increase in the resilience of people, assets, and ecosystems in the remaining period of the Sendai Framework and beyond 2030



4. Investment in Risk Reduction and Resilience

Figure 15. Perceived increase in the investments/budgets of respondents' organizations on disaster resilience for structural and non-structural measures since 2015

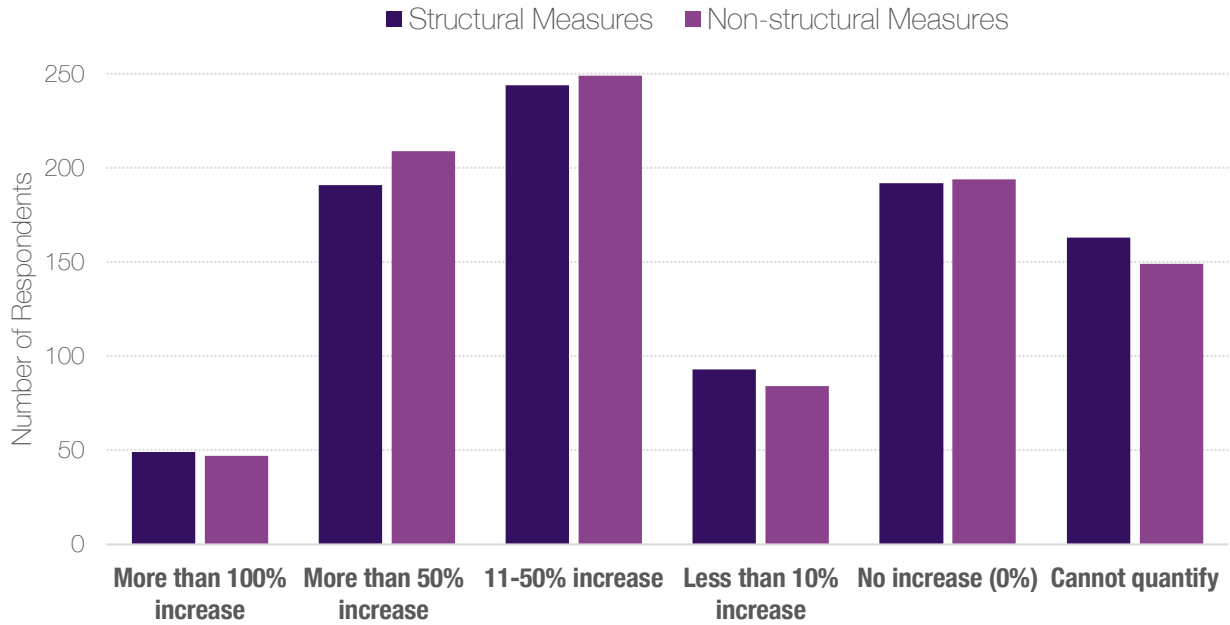


Figure 16. Perceived increase of investment for structural and non-structural measures by sector

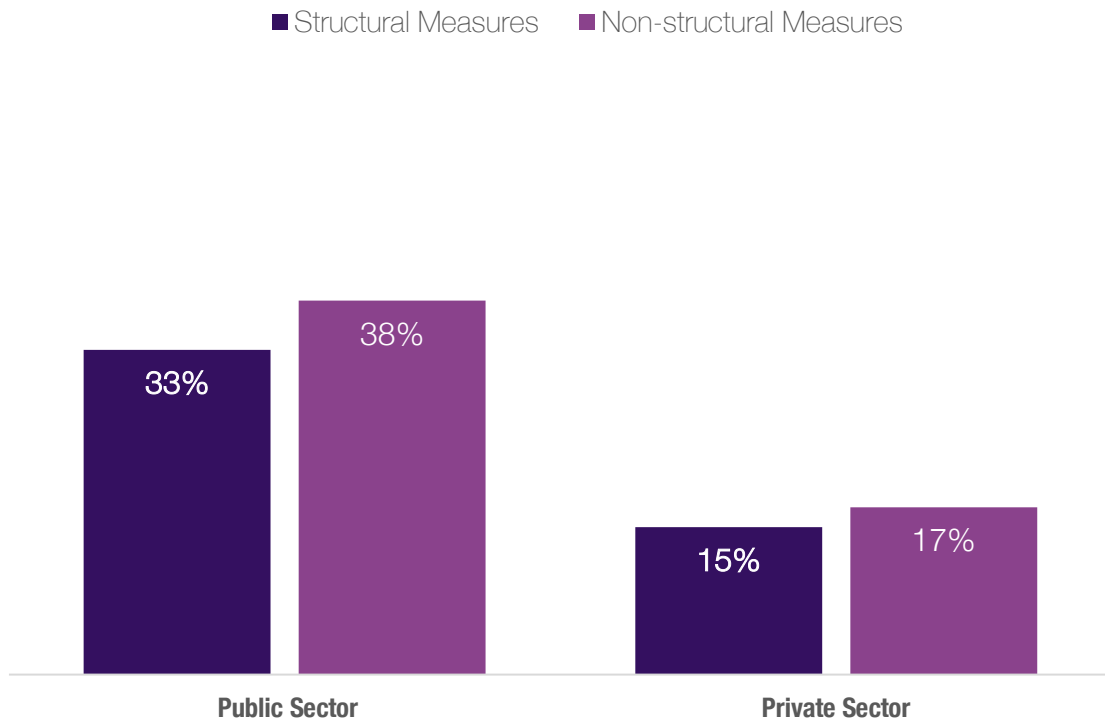
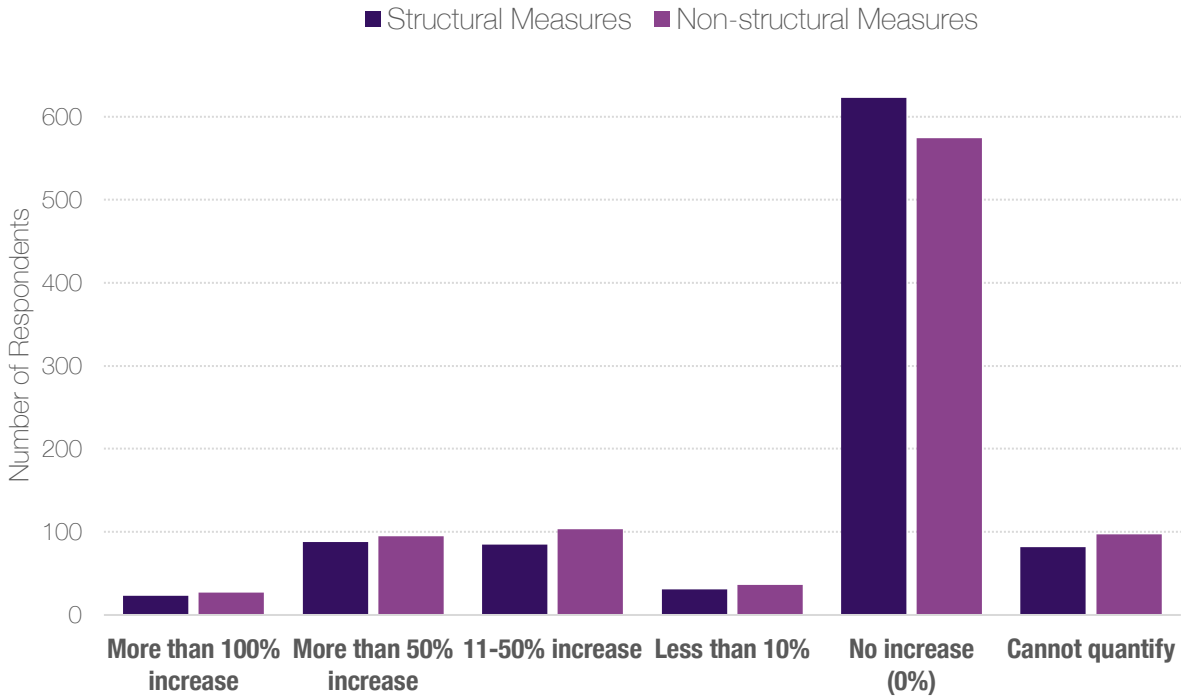
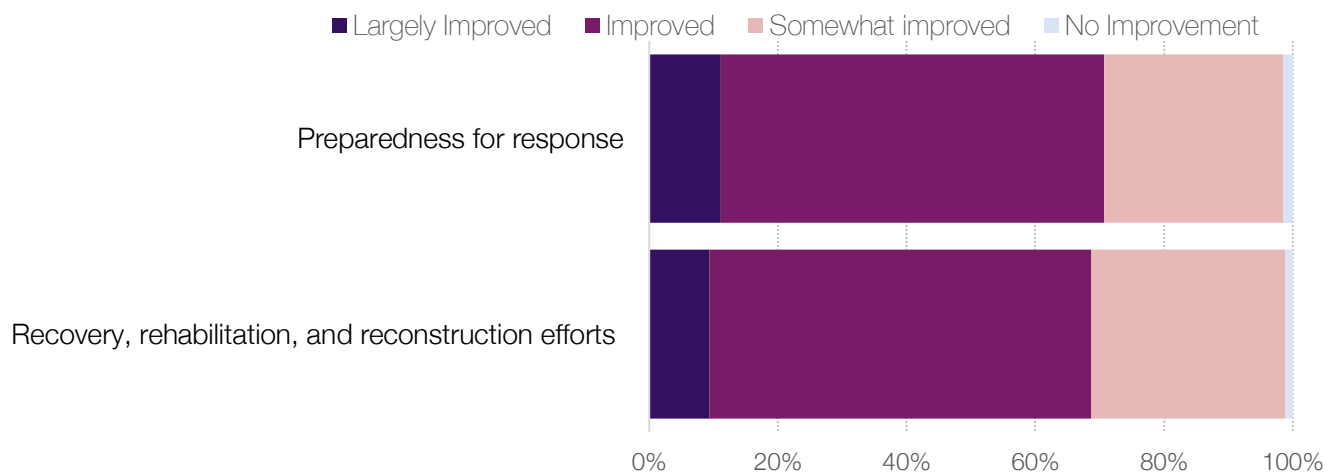


Figure 17. Perceived increase in the financial support from international cooperation on disaster resilience for structural and non-structural measures since 2015



V. Disaster Preparedness, Response, and Build Back Better

Figure 18. Perceived improvement of preparedness for response and recovery, rehabilitation and reconstruction efforts since the country's adoption of Sendai Framework in 2015



VI. Collaboration Partnership and Cooperation

Figure 19. Partnerships and initiatives which were perceived to have been most successful in reducing disaster risks according to the respondents

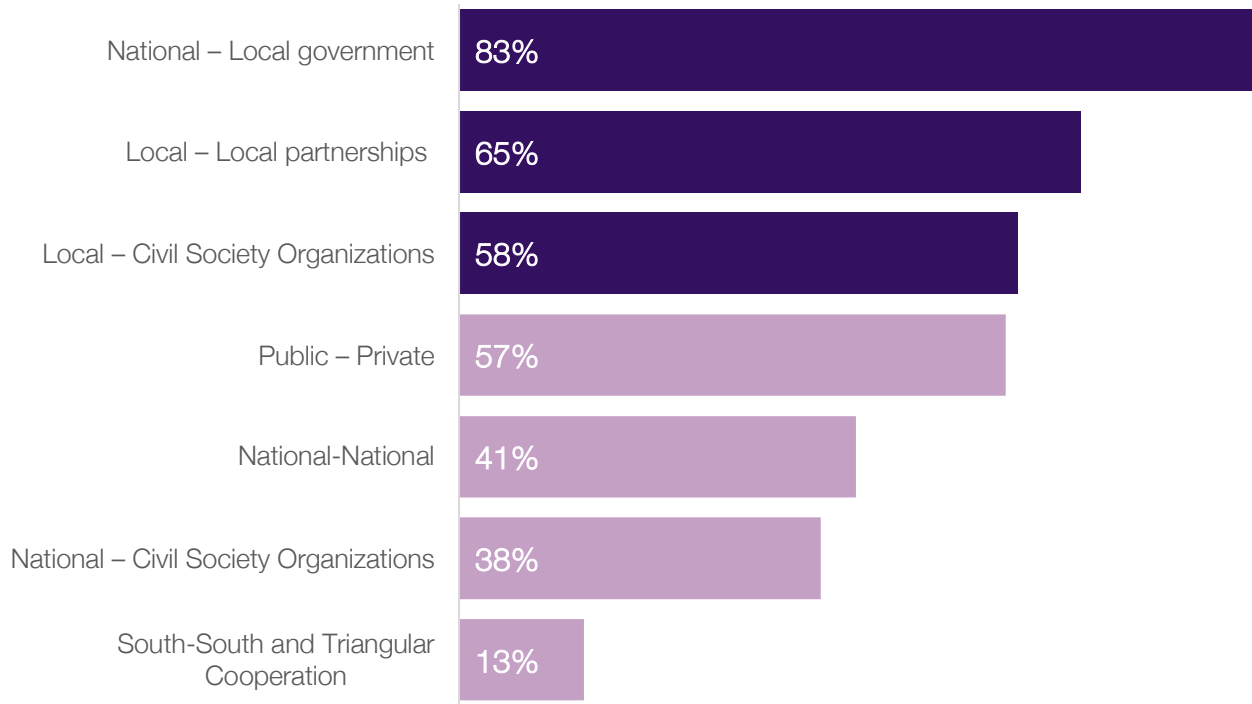
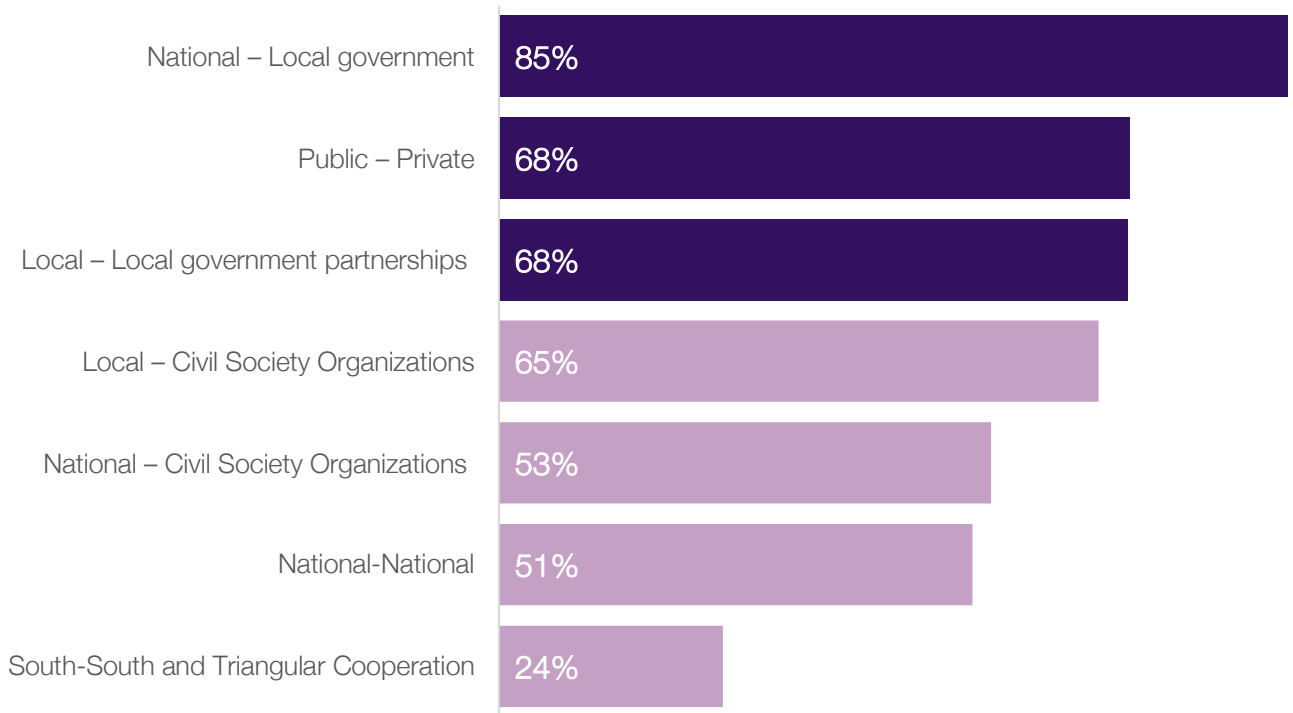
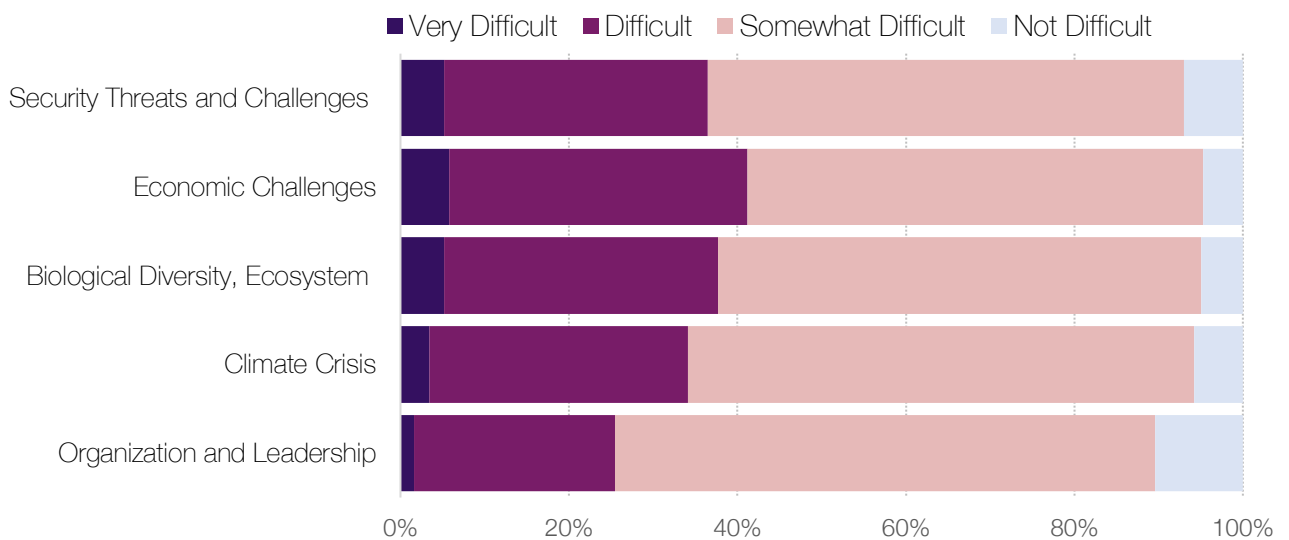


Figure 20. Partnerships that should be further pursued according to the respondents



VII. Context Shifts, New and Emerging Issues

Figure 21. Respondents’ perception on the effects of socioeconomic, political and environmental risks on the implementation of PPAs related to the Sendai Framework of 2015



ANNEX C. MID-TERM REVIEW DESIGN MATRIX OF RECOMMENDED CORE AND PROBING QUESTIONS AND DATA COLLECTION METHODOLOGY

Topics	MTR SF Guide Question	DATA COLLECTION METHODOLOGY								
		Primary: Workshop, FGDs, KIIs						Primary Public online survey	Secondary	
		National Government – NDRRMC	LGUs	Academe/Research	Civil society	Private Business groups	Vulnerable sectors		Policy Documents Review	Government reports, data review
Retrospective										
Outcome and Goal	1 reduction of Disaster risk and impacts of hazards? Cite ways/evidences	Workshop – all Pillars								
	2 major achievements, challenges and barriers of SFDRR implementation	Workshop – all Pillars								
Understanding Disaster Risk	3 approaches to better understand/assess disaster risks	Workshop – all Pillars								
	4 traditional, indigenous and local knowledge	Workshop – all Pillars								
Risk Governance and Management	5 national, local public policy, legislation, planning, organization aligned w/ SFDRR	KII- DBM FGD – SF TWG – E								
	6 importance of establishment of N/R/DRRM Plan - Expanded efforts in DRR - Integration to SDGs, Paris etc	FGD – SF SubTWG for Target E KII-OCD DBM, DILG Legis – Hrep, Senate RDRRMCs								

		DATA COLLECTION METHODOLOGY								
Topics	MTR SF Guide Question	Primary: Workshop, FGDs, KIIs						Primary Public online survey	Secondary	
		National Government – NDRRMC	LGUs	Academe/Research	Civil society	Private Business groups	Vulnerable sectors		Policy Documents Review	Government reports, data review
	7 degree of risks incorporated in public, private decision making and investment become mandated by law	FGD – SF SubTWG for Target E (OCD, DILG, ULAP, NEDA) KIIs: OCD DBM Legis – Hrep, Senate								
	8 extent to which shared responsibility applied - Good practices - Knowledge and Application of SFDRR	Workshop- all pillars RDRRMCs								
Investment in Risk Reduction and Resilience	9. extent of increase in investments for resilience - provide values	Workshop – all pillars KII – DBM						Values amounts		
	10. extent that these investments are risk-informed - evidences of integration of DRR considerations in fiscal instruments ¹⁰⁷ - financial regulatory incentives for business, industry	Workshop – all pillars <i>Question can be dovetailed w/ Governance</i>								

¹⁰⁷ taxes, expenditures, debt, national budget

		DATA COLLECTION METHODOLOGY								
Topics	MTR SF Guide Question	Primary: Workshop, FGDs, KIIs						Primary Public online survey	Secondary	
		National Government – NDRRMC	LGUs	Academe/Research	Civil society	Private Business groups	Vulnerable sectors		Policy Documents Review	Government reports, data review
	11 increase in financial resources thru international cooperation									
Disaster Preparedness, Response and Build Back Better	12 preparedness for response, recovery, rehab changed?	Workshop- all pillars RDRRMCs								
Collaboration Partnership and Cooperation	13 partnerships which worked best for DRR? - How were these established - developed - governed - funded - leadership roles	Workshop – all pillars FGD – SF TWG RDRRMCs								
	14 evolution of collaboration across natl-intl for relevant frameworks	Workshop – all pillars								
Progress in Achieving Global Targets	15 progress in achieving 7 global targets Challenges	Workshop – all pillars								
Context Shifts, New and	16 Major changes Context, issues concerns since 2015 to present	Workshop – all pillars								



		DATA COLLECTION METHODOLOGY								
Topics	MTR SF Guide Question	Primary: Workshop, FGDs, KIIs						Primary Public online survey	Secondary	
		National Government – NDRRMC	LGUs	Academe/ Research	Civil society	Private Business groups	Vulnerable sectors		Policy Documents Review	Government reports, data review
Emerging Issues	17 major changes, emerging issues anticipated 2030 and beyond	Workshop – all pillars								
Prospective										
Outcome and Goal	18 Enumerate 5 deliverables, innovations, processes w/c would bring greatest reduction in risk, increased resilience	Workshop - all pillars								
Risk Assessment, Information	19 improvements- risk knowledge to be systematically integrated in decision making	Workshop - all pillars								
Risk Governance	20 adjustments in policy, regulatory, legislative frameworks, organization, investments, epistemology, strategy, to achieve SFDRR outcomes, goals	Workshop - all pillars								
	21 priorities to ensure <i>shared responsibility</i>	Workshop - all pillars								
	22 priorities to empower local authorities and local partnerships	FGD - SF SubTWG for Target E (OCD, DILG, ULAP, NEDA) RDRRMCs								



		DATA COLLECTION METHODOLOGY								
Topics	MTR SF Guide Question	Primary: Workshop, FGDs, KIIs						Primary Public online survey	Secondary	
		National Government – NDRRMC	LGUs	Academe/Research	Civil society	Private Business groups	Vulnerable sectors		Policy Documents Review	Government reports, data review
	23 adjustments to ensure DRR systematically applied to all sectors	Workshop - all pillars								
Investment in Risk Reduction and Resilience	24 measures to ensure risk is priced more accurately and not as externality	KIIs: DOF, DBM								
	25 actions to strengthen resilience of business, industry	KIIs: DTI								
	26 actions to strengthen resilience of your work	Workshop - all pillars								
Collaboration, Partnerships	27 what new or emerging partnerships be developed	Workshop - all pillars								



ANNEX D. NUMBER OF DISASTER RISK REDUCTION AND MANAGEMENT STAFF COMPLEMENT FOR CITIES AND MUNICIPALITIES IN THE PHILIPPINES

Table 5 Number of DRRM Plantilla staff for cities

Number of Plantilla staff complement	Count of cities
3	25
1	24
0	22
2	21
4	13
15	7
8	5
5	4
11	4
6	4
10	2
16	2
28	1
24	1
40	1
50	1
26	1
68	1
36	1
12	1
7	1
21	1
18	1
19	1
(blank)	
Grand Total	145

Table 6 Number of DRRM Plantilla staff for municipalities

No. of plantilla staff complement	Count no. of Municipalities
NA	653
1	338
3	195
2	174
0	64
4	30
5	9
6	5
7	4
9	3

No. of plantilla staff complement	Count no. of Municipalities
NA	3
12	1
NA	1
(blank)	
Grand Total	1480

Table 7 Number of DRRM Designated staff for cities

# of Designated Staff Complement	Count of Cities
0	25
1	14
2	11
3	16
4	7
5	4
7	3
9	3
10	2
12	1
14	3
15	6
16	1
17	1
18	2
19	3
20	1
21	2
23	2
24	3
26	1
28	2
29	2
30	1
32	2
33	1
34	3
35	2



# of Designated Staff Complement	Count of Cities
36	1
39	2
40	3
42	1
43	2
46	1
49	1
50	1
52	1
59	1
75	1
76	1
92	1
129	1
171	1
204	1
385	1
(blank)	
Grand Total	145

No of designated staff complement	Count of Municipalities
22	7
14	7
20	6
17	6
16	6
21	5
19	5
24	4
26	3
30	3
23	2
28	1
59	1
45	1
222	1
75	1
114	1
27	1
25	1
31	1
33	1
(blank)	
Grand Total	1480

Table 8. Number of DRRM designated staff for municipalities

No of designated staff complement	Count of Municipalities
3	395
1	233
2	223
NA	190
4	103
0	62
5	36
6	33
7	22
8	19
10	19
12	18
9	17
11	14
15	12
13	12
18	8



ANNEX E. HIGHLIGHTS OF THE KIIs, FGDs (SEE ATTACHED FOLDER)

ANNEX F. INSTRUMENTS EMPLOYED FOR THE ONLINE SURVEY, KIIs, FGDs, AND NATIONAL CONSULTATION WORKSHOP (SEE ATTACHED FOLDER)

