



National Disaster Risk Reduction and Management Plan 2020 - 2030

RESULTS-BASED MONITORING AND EVALUATION PLAN

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Acronyms

BDRRMO	Barangay Disaster Risk Reduction and Management Office
BFP	Bureau of Fire Protection
CCC	Climate Change Commission
CDRRMO	City Disaster Risk Reduction and Management Office
CHED	Commission on Higher Education
COA	Commission on Audit
CSO	Civil Society Organization
DA	Department of Agriculture
DBM	Department of Budget and Management
DENR	Department of the Environment and Natural Resources
DepEd	Department of Education
DFA	Department of Foreign Affairs
DHSUD	Department of Human Settlement and Urban Development
DICT	Department of Information and Communications Technology
DILG	Department of the Interior and Local Government
DOE	Department of Energy
DOH	Department of Health
DOLE	Department of Labor and Employment
DOST	Department of Science and Technology
DOT	Department of Tourism
DOTr	Department of Transportation
DPWH	Department of Public Works and Highways
DRRM	Disaster Risk Reduction and Management
DSWD	Department of Social Welfare and Development
DTI	Department of Trade and Industry
HRCBP	Human Resource and Capacity Building Plan
LDRRMC	Local Disaster Risk Reduction and Management Council
LDRRMF	Local Disaster Risk Reduction and Management Fund
LDRRMO	Local Disaster Risk Reduction and Management Office
LGU	Local Government Unit
M&E	Monitoring and Evaluation
MDRRMO	Municipal Disaster Risk Reduction and Management Office
MGB	Mines and Geosciences Bureau
NAMRIA	National Mapping and Resource Information Agency
NAPC-VDC	National Anti-Poverty Commission - Victims of Disasters and Calamities
NDRRMC	National Disaster Risk Reduction and Management Council

NDRRMP	National Disaster Risk Reduction and Management Plan
NEDA	National Economic and Development Authority
NFRDI	National Fisheries Research and Development Institute
NGA	National Government Agency
OCD	Office of Civil Defense
PAGASA	Philippine Atmospheric, Geophysical, and Astronomical Services Administration
PCW	Philippine Commission on Women
PHIVOLCS	Philippines Institute of Volcanology and Seismology
PNRI	Philippine Nuclear Research Institute
PPAs	Programs, Project, and Activities
PRDRRMO	Provincial Disaster Risk Reduction and Management Office
PSA	Philippine Statistical Authority
RBMES	Results-Based Monitoring and Evaluation System
RDRRMC	Regional Disaster Risk Reduction and Management Council
SFDRR	Sendai Framework for Disaster Risk Reduction
SWOT	Strengths, Weaknesses, Opportunities, and Threats
TMG	Technical Management Group
TWG	Technical Working Group
UNDP	United Nations Development Programme

Consider including a glossary considering that agencies asked for clarifications on the definition of some terminologies included in the MEF

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Overview of the NDRRMP 2020 - 2030 RBMES

In October 2020, the National Disaster Risk Reduction and Management Council (NDRRMC) adopted the National Disaster Risk Reduction and Management Plan (NDRRMP) 2020 - 2030, replacing the NDRRMP 2011-2028. The plan serves as the principal blueprint and guidance for national government agencies, local government units, civil society organizations, the private sector, and development partners on disaster and climate-resilient actions in the country (NDRRMC 2021: 14).

The review of NDRRMP 2011 - 2028 found the **lack of an established, functional, and standard DRRM M&E system at all levels** as one of the significant challenges in implementing the plan. As a result, the M&E of the Republic Act 10121's implementation was poor and very weak. This is evident in the absence of an established DRRM M&E unit at all levels, limited knowledge and skills on DRRM M&E among national and local government officials, and the absence of standard reporting tools and approaches, among others. The NDRRMC showed full support in developing the plans' Results-based Monitoring & Evaluation System (RBMES) framework and plan to address these critical challenges.

Purpose

Conceptually speaking, the NDRRMP 2020 - 2030 RBMES aims to guide the stakeholders to:

- determine the progress in the implementation of the commitments outlined in the plan;
- assess if the right or wrong decisions are made; and,
- evaluate if the planned destination was reached.

At a more practical level, the NDRRMP 2020 - 2030 RBMES intends to strengthen and address the gaps in the DRRM M&E system and practice in the country. Specifically, this document:

- **Establishes a functional and standard DRRM M&E system at all levels.** The RBMES presents the NDRRMP 2020-2030's 23 Outcomes with corresponding measurable indicators, Outputs, and Activities that provide relevant stakeholders with clear directions to track and assess how they contribute to achieving the country's DRRM vision.
- **Standardizes the DRRM reporting tools, approaches, and data capture and reporting guidelines.** The RBMES provides clear guidelines and harmonizes the DRRM reporting tools and approaches. The RBMES' reporting guidelines emphasize reporting outcomes or results rather than mainly quantitative information. Furthermore, the reporting guidelines promote the inclusive and meaningful participation of vulnerable and marginalized groups in the DRRM M&E processes.
- **Establishes a centralized and digital platform for collecting, reporting, and sharing DRRM M&E-related data needs.** The RBMES is complemented by a centralized digital platform for collecting, reporting, and sharing DRRM M&E-related data needs to maximize digital transformation and address the long-standing concern of DRRM knowledge sharing among government agencies, LGUs, CSOs, academic partners, and other key stakeholders.

Target Users and Stakeholders

The target users of the RBMES are the NGAs, LGUs, CSOs, academic/research institutions, the private sector, development partners, and humanitarian actors.

Chapter 1: Why develop the NDRRMP 2020 - 2030 RBMES?

This section presents DRRM M&E challenges in the country, which serve as the reasons for developing the RBMES.

A Disaster Risk Reduction and Management (DRRM) Monitoring and Evaluation (M&E) Situational Analysis and Gaps Assessment Study was conducted to:

1. Understand the current DRRM M&E practice and system in the Philippines;
2. Identify the strengths and weaknesses in the current system and practice; and,
3. Recommend actions to maintain its strengths and improve its weaknesses.

The findings of the assessment highlight the need to develop the NDRRMP 2020-2030 RBMES.

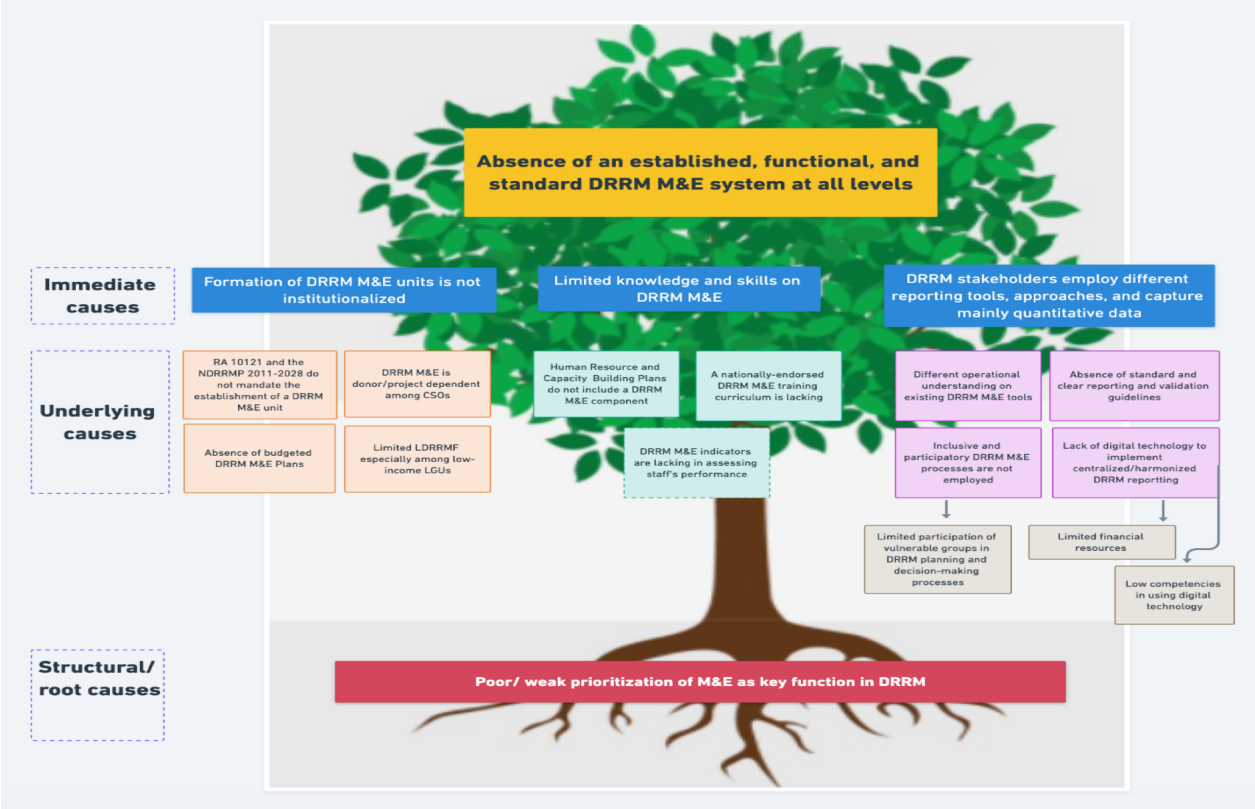
The study found that the most significant problem confronting the DRRM M&E in the country is **the lack of an established, functional, and standard DRRM M&E system at all levels**. This results in fundamental challenges in the DRRM M&E in the country, particularly in the following areas:

1. required human resources, partnerships, and planning to support DRRM M&E data collection and use;
2. mechanisms for DRRM M&E data collection

Figure 1: Problem Tree of DRRM M&E

On the Required human resources, partnerships, and planning to support DRRM M&E data collection and use

Crucial in any institution, structures establish the basic units in an organization, and the process flows on reporting and accountability. In the context of DRRM, a clear system or the lack thereof could facilitate or hinder the organization in fulfilling its mandates. However, the assessment found an **absence of an established M&E unit solely dedicated to DRRM**. There are four main reasons for this as follows: (1) although the RA 10121 and the NDRRMP 2011-2028 mention the importance of M&E, they do not mandate the establishment of a DRRM M&E unit; (2) limited Local Disaster Risk Reduction and Management Fund (LDRRMF) among low-income LGUs; (3) absence of budgeted DRRM M&E plans; and, (4) although CSOs have M&E units that cover their DRRM initiatives, it is donor and project-dependent.



However, the study found **limited knowledge and skills in DRRM M&E across all levels.**

This is due to three underlying reasons: (1) Human Resource and Capacity Building Plans (HRCBPs) do not include a DRRM M&E component; (2) DRRM M&E indicators are lacking in assessing staff's performance; and (3) a nationally endorsed DRRM M&E training curriculum is lacking.

Partnerships is another crucial ingredient in supporting DRRM M&E data collection. The study underscored that all the sectors require external M&E technical support on an ongoing basis to fulfill DRRM M&E tasks within their respective agencies and organizations. However, such a **partnership is limited.**

On the Mechanisms for DRRM M&E data collection, verification, and analysis

The assessment reveals that **DRRM stakeholders employ different reporting tools and approaches and mainly capture quantitative data.** Such a practice is a result of four underlying causes: (1) different operational understanding of existing DRRM M&E tools; (2) absence of standard and clear reporting and validation guidelines; (3) inclusive and participatory DRRM M&E processes are not employed; (4) lack of digital technology to implement DRRM M&E; and, (5) lack of a database for centralized reporting.

The absence of a mechanism to ensure data quality is also evident in the study in terms of supervision and data auditing. The study found that DRRM stakeholders are unaware of a national guideline that provides instructions on how to maintain data quality from NGAs and, therefore, ensure data quality. Due to the lack of guidelines, the NGAs have their way of auditing data.

Evaluation and research are pivotal in DRRM for two main reasons. First, DRRM-related PPAs backed up by research are more targeted and tailored to the needs of a given locality of the agency. Second, both evaluation and research can inform policies, programs, and implementation. With this, different DRRM stakeholders have made significant contributions in both evaluation and research. The study demonstrated that several research and evaluation of DRRM-related PPAs have been conducted across all stakeholders. Even if that is the case, the study revealed the **absence of a DRRM research and evaluation agenda within an agency/ organization that directs future DRRM research and evaluation.** There are several reasons for the lack of an evaluation and research agenda among different stakeholders. First, while research and evaluation are encouraged, they remain to be mandated. Second, financial resources hindered stakeholders in implementing DRRM-related research initiatives despite their plans to do it. Third, a mandated national team/committee responsible for coordinating and approving (new) DRRM research and evaluation is lacking. This being the case, no one is knowledgeable if previous or ongoing DRRM research and evaluation outputs are being used to assess and approve new studies. Fourth, owing to the limited investment in DRRM-related evaluation and research. Fifth, in the case of the CSOs, the conduct of assessment and study largely depends on their project and funder.

On the use of DRRM M&E data for decision-making

The assessment revealed that **although DRRM stakeholders have limited knowledge and skills in DRRM M&E and in analyzing DRRM data, they find various ways to use and disseminate data and information.** This includes the formulation of policies, assessment of program performance, development of the annual budget proposal, enhancement of programs and review of existing DRRM plans, improvement of service delivery, and identification of priority programs and interventions in a post-disaster context.

Chapter 2: What was the process of developing the NDRRMP 2020 - 2030 RBMES?

This section presents the approach used in developing the NDRRMP 2020-2030 RBMES Framework and Plan

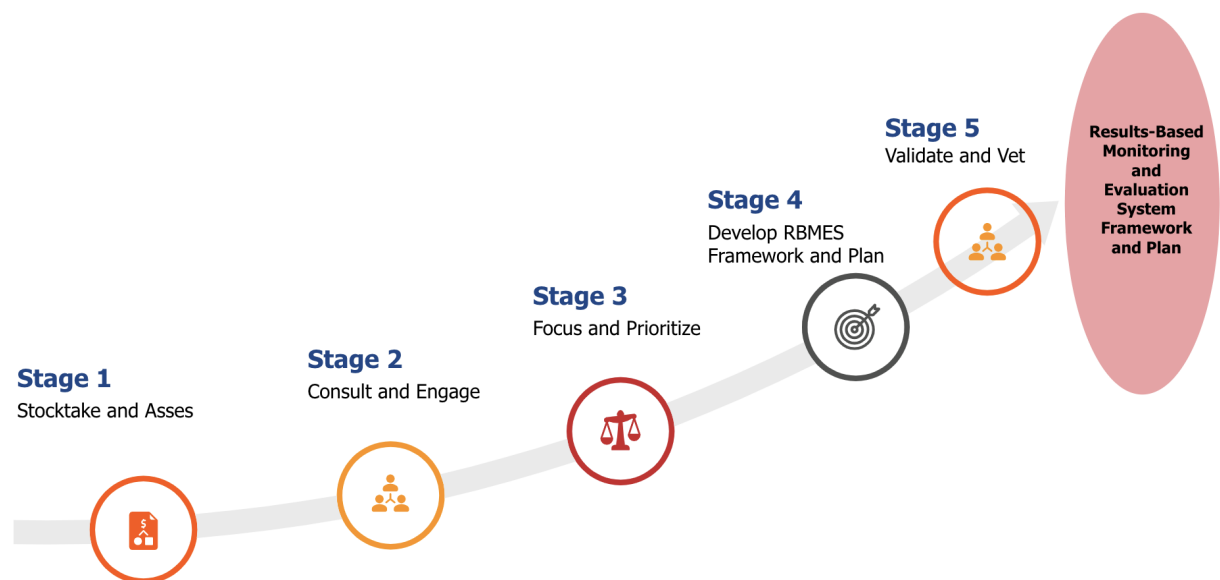


Figure 2: Operational Framework to a Results-Based Monitoring and Evaluation System

Stage 1: Stocktaking and Assessment

The first stage in developing the NDRRMP 2020-2030 RBMES to understand the current state and practice of DRRM M&E in the country by looking at samples of selected NGAs, LGUs, and CSOs. Particularly, this stage identified the following: (a) current human resources performing M&E of DRRM activities and outputs; (b) current capacity of staff responsible for M&E activities; (3) budget allocations for M&E; and, (4) existing tools and methods to measure and report on key indicators.

Using document review, and SWOT analysis, this stage identified issues, challenges, and risks that impede the effective M&E of DRRM actions. Also, the process identified strengths and best practices that helped inform the development of the M&E framework and plan.

Stage 2: Consult and Engage

In this stage, a Disaster Risk Reduction and Management (DRRM) Monitoring and Evaluation (M&E) Situational Analysis and Gaps Assessment Study was conducted to: understand the current DRRM M&E practice and system in the

Philippines; identify the strengths and weaknesses in the current system and practice; and, recommend actions to maintain its strengths and improve its weaknesses. The study adopted the Organizing Framework for a Functional National M&E System developed by the Joint United Nations Programme on HIV/AIDS (UNAIDS) in 2009 due to the lack of an M&E framework and guidelines to help countries assess whether they arrived at their DRRM vision. The framework’s components and indicators were calibrated to the Philippine DRRM context. The study used the framework in developing the tools and processing and analyzing the data. Specifically, the study anchored its analysis on the following: (1) required human resources, partnerships, and planning to support DRRM M&E data collection and use; (2) mechanisms for DRRM M&E data collection, verification, and analysis; and (3) use of DRRM M&E data for decision-making.

To achieve the objectives of the study, a mix of qualitative and quantitative data collection methods were used. A desk review was employed to: (1) better understand the enabling environment on M&E in the Philippine context; (2) explore existing international frameworks and guidelines on M&E, particularly for disaster risk reduction (DRR); and, (3) validate the

survey and remote interview/focus group discussion (FGD) findings.

An online survey was also conducted with a total of 727 respondents coming from national government agencies (NGAs)/ Regional Disaster Risk Reduction and Management Councils (RDRRMCs) (24%), local government units (LGUs) (72%), and civil society organizations (CSOs), academe, and the private sector (4%). Most of the respondents across all the sectors perform M&E and M&E-related functions in their respective organizations. Further, the online survey was complemented by remote interviews and FGDs. A total of 63 individuals from the National Disaster Risk Reduction and Management Council (NDRRMC) Vice-Chairs, Office of Civil Defense (OCD) Regional Offices, Local Disaster Risk Reduction and Management Offices (LDRRMOs), and CSOs were engaged.

A **Situational and Gaps Analysis Report** was produced from the two stages.

Stage 3: Focus and Prioritize

The inputs gathered and output produced from the stocktaking, assessment, and consultation phase were distilled and analyzed. The findings were presented and validated with the stakeholders, particularly with the RBMES TWG, TMG, and the NDRRMC. The NDRRMC approved the findings and recommendations of the Situational and Gaps Analysis Report.

Stage 4: Develop M&E Framework

and Plan

The previous steps set a stage for the development of the RBMES framework and plan. This stage was generally guided by the **Ten Steps to a Results-Based Monitoring and Evaluation System** shown in **Figure 3** developed by the World Bank. Said approach is used by countries and other humanitarian organizations globally. However, deviations were undertaken to recognize the progress already made in the NDRRMP 2020 - 2030. Specifically, the indicators in each outcome have been clearly defined. Also, the indicators have already been aligned with the Sendai Framework for Disaster Risk Reduction (SFDRR).

On the other hand, the following steps were undertaken in review the Outcomes indicators:

- **Step 1:** Reviewed outcomes of each DRRM Pillar
- **Step 2:** Reviewed the implementation strategy (activities) by which these outcomes will be achieved
- **Step 3:** Identified indicators and milestones that will be used to monitor/track progress; identify expected outputs for each agency and responsible organization

Further to reviewing the outcomes and indicators, the NDRRMC member agencies with the facilitation of the UNDP and a team of consultants:

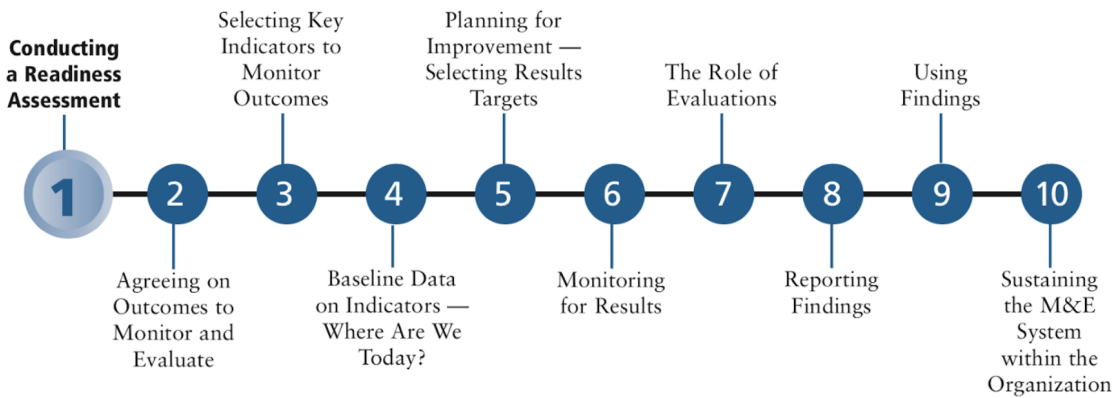


Figure 3: Ten Steps to a Results-Based Monitoring and Evaluation System

- identified data/ information sources for each indicator, if possible both primary and secondary sources;
- ensured that the indicators are properly classified based on a hierarchy of importance aligning with DRR indicators in the Philippine Development Plan (2017-2022); Sendai Framework; and other relevant frameworks;
- identified annual targets for each indicator of the plan.

In accordance with Figure 3, the approach on

the following was determined and developed:

- data collection tools and methodology;
- style and format of reporting; frequency of collecting data and reporting results/ progress per activity/ output at all levels;
- measurements to ensure the reliability of data; and,
- proxy indicators for those with unavailable data.

Further, the **roles and responsibilities of**

DRRMCs at all levels and other actors responsible for providing inputs, implementing activities, and tracking progress in achieving the outcomes of the NDRRMP were clearly defined in this process. **The output of this stage was an M&E Framework.**

Stage 5: Validate and Vet

The draft NDRRMP 2020 - 2030 M&E Framework was vetted to generate insights from OCD, TWG, and other stakeholders.

Chapter 3: What are the key elements of the NDRRMP 2020 - 2030 RBMES?

3.1 Disaster Prevention and Mitigation

Table 1 shows the Monitoring and Evaluation Framework for the Disaster Prevention and Mitigation Pillar. It summarizes the activities, outputs, and expected outcomes for the Disaster Prevention and Mitigation Pillar of the NDRRMP 2020-2030. This pillar aims to address current and reduce future risks of communities and government through mainstreaming integrated risk management into science, policy, and practice. The MEF for the DPM Pillar also covers how the NDRRMP targets and indicators are streamlined with the SFDRR targets and indicators. The actions identified under this pillar focus on understanding risk and ensuring that policies, plans, and budgets are risk-informed and provide an enabling environment for sustained measures to address current and reduce future risks. They also emphasize access, use, and application of science in risk reduction and management work – from assessment to early warning actions. Also, this thematic pillar is about the institutionalization of risk financing mechanisms for both ex-ante and ex-post actions, emphasizing the complementarity of resources to help strengthen resilience. Specifically, this pillar has eight (8) outcomes.

Each outcome has its corresponding outputs and activities set out for short-term (2020-2022), medium-term (2023-2025), and long-term (2026-2030) implementation. The specific outputs and activities are outlined below.

Outcome 1. Improved access, understanding, and use of updated risk information, DRR-related statistics, and research. It focuses on Priority Action 1 of the SFDRR on understanding risk through outputs and activities that increase knowledge of disaster and climate risk, use, access, sharing risk information, collecting and reporting DRR-related statistics. It contributes to the achievement of Target G: Substantially increase the availability of and access to multi-hazard early warning systems and disaster risk information and assessments to people by 2030.

- Output 1.1 Disaster and climate risk information
- Output 1.2 Information management and systems
- Output 1.3 Standards of DRR-related statistics

Outcome 2. Implemented risk-centered national, sub-national, and sectoral policies, plans, and budgets. It underscores the importance of having DRRM-CCA integrated policies and plans with the corresponding budgets that are aligned at all levels for the efficient and effective implementation of risk reduction

programs in the country. It aims to strengthen mainstreaming of DRRM-CCA, the institutionalization of DRRM offices, harmonization and implementation of local plans, review of policies, and participatory planning. It also promotes the development of public service continuity. The outcome contributes to the achievement of Target E of the SFDRR: Substantially increase the number of countries with national and local disaster risk reduction strategies by 2020 and SDG 11.b.

- Output 2.1 DRRM CCA, and environmental policies, plans, and budgets at all levels
- Output 2.2 DRRM Fund Monitoring System

Outcome 3. Increased structural integrity of housing, building, and critical infrastructure. It prioritizes the structural integrity of housing, building, and critical infrastructure to reduce damage, disrupt essential services, and save lives. It contributes to Target C: of the SFDRR: Reduce direct disaster economic loss concerning the global gross domestic product (GDP) by 2030, and Target D of the SFDRR: Substantially reduce disaster damage to critical infrastructure and disruption of essential services, among them health and educational facilities, including through developing their resilience by 2030.

- Output 3.1 Resilient infrastructure System

Outcome 4. Institutionalized timely, responsive, context- and culture-specific early warning systems reaching the last mile. It gives importance to the availability and access of end-to-end and multi-hazard early warning systems that are operational, context-specific, and reaching the last mile, especially in geographically isolated and disadvantaged areas. It emphasizes capacity building and equipping managers with resources for early warning. Early warning systems must be developed and designed with the following elements: (i) Risk Knowledge, (ii) Monitoring and Warning Service, (iii) Dissemination and Communication, and (iv) Response Capability (UNISDR, 2006). The outcome contributes to the achievement of Target G: Substantially increase the availability of and access to multi-hazard early warning systems and disaster risk information and assessments to people by 2030.

- Output 4.1 Operational end-to-end, and multi-hazard early warning systems

Outcome 5. Communities have access to effective, responsive, and inclusive social

protection, risk financing, and insurance mechanisms. It emphasizes enhancing financial resilience at all levels and the social security of at-risk populations. Various options available for disaster risk financing must be identified based on the principle of shared responsibility between the government, private sector, and private individuals. Social protection mechanisms for the basic sector should be strengthened to enhance their socio-economic resilience. The outcome contributes to the PDP strategy of reducing the vulnerability of individuals and families through risk transfer and universal and transformative social protection for all Filipinos.

- Output 5.1 Accessible disaster risk financing strategies
- Output 5.2 Social Protection Program

Outcome 6. Natural resources and ecosystem integrity are improved and sustained. Underscores the critical role of natural resources and ecosystems in DRRM. It promotes nature-based solutions, sustainable integrated area development, and participatory environmental governance. It aligns with the NCCAP's priority on environmental and ecological stability and contributes to the PDP's ensuring ecological integrity and a clean and healthy environment.

- Output 6.1 Nature-based solutions

Outcome 7 Disaster-resilient livelihoods and businesses. It prioritizes minimizing economic losses and enhancing the resilience of firms and livelihoods, particularly the informal sector and MSMEs. It promotes business continuity planning to mitigate risks. It aligns with the MSME Development Plan 2017-2022 in focusing on improving the business environment, strengthening business capacity, and broadening business opportunities. It also contributes to the PDP pillar on inequality-reducing transformation through expansion and increased access to economic opportunities and SFDRR Target B: Substantially reduce the number of affected people globally by 2030.

- Outcome 7.1 Resilience of Livelihoods
- Output 7.2 Resilience of Businesses

Outcome 8. Disaster-resilient human settlements. It focuses on resilient resettlement interventions for families in high-risk areas. It aligns with the 1987 Constitution provision on making decent housing and essential services available in resettlement areas. The outcome contributes to the PDP strategies on reducing the vulnerability of individuals and families and inequality-reducing

transformation by building safe and secure communities.

- Output 8.1 Resilient Communities

Table 1: Monitoring and Evaluation Framework for the Disaster Prevention and Mitigation Pillar

OBJECTIVES	OUTCOMES	OUTCOME INDICATORS	OUTPUTS	ACTIVITIES	ACTIVITY INDICATORS	RESPONSIBLE
Improve access, understanding, and use of risk information.	1. Improved access, understanding, and use of updated risk information, DRR-related statistics, and research. Substantially increase the availability of and access to multi-hazard early warning systems and disaster risk information and assessments to the people by 2030 Sendai Global Target G)	Percentage of municipalities with an improved understanding of hazard and risk information Percentage of the 42,045 barangays with improved access to accurate hazards and risk information in online mapping platforms by 2022	1.1 Disaster and climate risk information Number of countries that have accessible, understandable, usable and relevant disaster risk information and assessment available to the people at the national and local levels (Sendai G-5)	1.1.1 Enhance risk assessment and mapping.	Number of provinces or municipalities with disaster and climate municipal-scale hazard and risk information.	DOST- PHIVOLCS- Planning Office, DA, DILG, DENR-MGB
				1.1.2 Conduct comprehensive local physical and social capacity assessment.	All of the 42,045 barangays or 1,488 municipalities are able to input accurate hazards and risk information in online mapping platforms by 2030.	DOST-PHIVOLCS, PSA, DHSUD, DILG, DPWH
				1.1.3 Ensure public availability and access to hazard, exposure, and vulnerability data to all relevant stakeholders.	Number of barangays or municipalities that submitted/inputted accurate hazards and risk information in online mapping platforms	PHIVOLCS, PAGASA, MGB, CCC, NAPC-VDC, LGUs, CSOs, DA, NARMIA, NFRDI, PNRI, DENR, OCD, DILG, DOH, DTI, DHSUD, DSWD, PSA
				1.1.4 Conduct capacity building on Hazard, Vulnerability, Exposure assessment, and mapping.		PAGASA, PHIVOLCS, DUSHD, DepEd, DA, OCD, DILG, DENR, CCC, DICT, PAGASA, PHIVOLCS, DOH, MGB
				1.1.5 Disseminate risk information products.		DHSUD, DILG, PAGASA, DA
				1.1.6 Capacitate planners and DRRM workers of the national government, LGUs, and non-government entities in the conduct of integrated risk assessment.		OCD, DA, PAGASA

OBJECTIVES	OUTCOMES	OUTCOME INDICATORS	OUTPUTS	ACTIVITIES	ACTIVITY INDICATORS	RESPONSIBLE
				1.1.7 Assist LGUs to undertake and update Climate and Disaster Risk Assessments (CDRAs).		PHIVOLCS, DHSUD, PAGASA
		Percentage of healthcare facilities/hospitals with improved access to hazard and risk assessment data present in the area			Number of healthcare facilities/hospitals that are able to use hazard and risk assessment data present in the area.	
		Integrated system for risk information and research to inform the planning process in formats accessible to all stakeholders	1.2 Information management and systems	1.2.1 Install agreed integrated information systems in mandated agencies.	One integrated information system for NAMRIA, MGB, PAGASA, and PHIVOLCS for data exchange by 2020. Exposure and vulnerability data are publicly accessible by 2025. Hazard information publicly accessible by 2022.	PHIVOLCS, PAGASA
				1.2.2 Develop multi-agency protocols to allow data exchange and use.		OCD, PHIVOLCS
				1.2.3 Standardize information for data exchange, accessibility, and communication.	Standard codes and guidelines for contribution and access of information into and from the database system formulated by 2020.	PHIVOLCS
				1.2.4 Develop methods, platforms, tools, databases for data exchange by setting up a Disaster Risk Information System with open data and open governance approach.		PHIVOLCS, DPWH, DA, DHSUD, OCD
				1.2.5 Capacitate national, local government agencies and non-government entities in the use of geospatial tools and technologies.		PHIVOLCS, NAMRIA, DHSUD, DPWH, DA

OBJECTIVES	OUTCOMES	OUTCOME INDICATORS	OUTPUTS	ACTIVITIES	ACTIVITY INDICATORS	RESPONSIBLE
		Percentage of indicators aligned to international and national DRRM frameworks covering the access, understanding, and use of updated risk information and research.	1.3 Standards of DRR-related statistics	1.3.1 Regular updating and reporting to SDG Watch and Sendai Framework Monitor.	Number of indicators reported annually to the online Sendai Framework Monitor.	DOST, PHIVOLCS, DA, OCD-RRMS, OCD-PDPS
		Percentage of LGUs that align reporting to the international and national DRRM frameworks covering the access, understanding, and use of updated risk information and research.		1.3.2 Develop and/or enhance standards on data collection, minimum data requirements for reporting, data disaggregation by sex, age, and disability, data validation, data consolidation, data reporting, data sharing, and terminologies of disaster-related statistics.	Number of affected individuals/populations disaggregated by sex, age, and disability, reported to the national level by LGUs following a disaster.	OCD, DILG
				1.3.3 Harmonize existing loss and damage reporting templates at all levels.	Number of LGUs that have reported minimum required disaster damage and loss data to national authorities.	OCD, PHIVOLCS
				1.3.4 Improve coordination mechanism with data providers and the Philippine Statistics Authority.		ASTI, NASA, DENR, PHIVOLCS, DA, OCD, PSA
				1.3.5 Conduct relevant statistical capacity building initiatives.		DA, OCD, PSA
Apply integrated risk management assessment tools.	2. Implemented risk-centered national, sub-national, and sectoral policies, plans, and budgets. Substantially increase the number of countries with national and local disaster risk reduction strategies by 2030 (Sendai Global Target E)	Percentage of implemented DRRM, CCA, and environmental-related provisions in all policies, plans, and budgets by 2021.	2.1 DRRM CCA, and environmental policies, plans and budgets at all levels.	2.1.1 Review existing policies, plans, and budgets (national and local levels).		All NDRRMC member agencies
				2.1.2 Formulate Public Service Continuity Plan in all levels of government.	Number of national and local government offices with Public Service Continuity Plans.	OCD
				2.1.3 Integrate DRRM-CCA in land use and sectoral planning, including in assessment, evaluation, approval, and monitoring systems for environmentally critical projects		DILG, DHSUD, MGB, DENR, NEDA

OBJECTIVES	OUTCOMES	OUTCOME INDICATORS	OUTPUTS	ACTIVITIES	ACTIVITY INDICATORS	RESPONSIBLE
				and projects within environmentally critical areas.		
				2.1.4 Institutionalize DRRM offices at the local level.		DILG, OCD, DBM, CSC, DA
		Percentage of implemented DRRM, CCA, and environmental-related provisions in all policies, plans, and budgets by 2021.		2.1.5 Strengthen harmonization and implementation of local plans (e.g., CLUP, CDP, LDRRMP, LCCAP, Local Solid Waste Management Plan).	Number of approved DRRM, CCA, and environment-related policies, plans, and budgets. Number of approved CLUP Number of Local Government Units (LGU) with Climate and Disaster Risk Assessments (CDRA).	All NDRRMC member agencies
		Percentage of Local Government Units (LGU) that incorporate CDRA findings into Local DRR Plans.				
		Percentage of LGUs that enable the participation of local stakeholder groups and vulnerable groups with the government in the development of LDRRM Plans.		2.1.6 Enhance inclusive and participatory planning capacities and coordinated development planning of LGUs in the same landscape.	Number of LGUs with CSOs members in their LDRRMCs Number of Local Government Units (LGU) with Climate and Disaster Risk Assessments (CDRA).	DILG-BLGS, DHSUD
				2.1.7 Strengthen local, national government agencies and non-government entities' participation in planning activities at all levels particularly persons with disabilities, women, indigenous peoples, and children, providing them the necessary support to meaningfully participate.		DA, PCW, DILG, OCD, DRRMCs, Leagues

OBJECTIVES	OUTCOMES	OUTCOME INDICATORS	OUTPUTS	ACTIVITIES	ACTIVITY INDICATORS	RESPONSIBLE
		All DRRM offices in 81 Provinces, 145 Cities, and 1489 municipalities are institutionalized by 2025.	2.2 DRRM Fund Monitoring System	2.2.1 Revise Policies on National and Local Allocation and Utilization of DRR Funds such as but not limited to: • Management and Administration of the NDRRM Fund • LDRRM Fund • Agency budgets and programs	Number of Highly Urbanized City (HUC)s, Independent Component Cities (ICCs), provinces, cities, and municipalities with risk-informed development plans. Number of regions, HUCs, ICCs, provinces, cities, and municipalities that have adopted and implemented LDRRM plans in line with the NDRRMP by 2021. (Sendai Indicator E.2 and SDG 11.b).	DILG-BLGD, DILG-NBOO, DILG-BLGS, DOH, COA, OCD, DPWH, CCC
					Number of barangays with DRRM plans aligned with the LDRRMP. Number of LGUs with DRRM-Health plan and budget by 2022.	
				2.2.2 Develop fund tracking and monitoring portal for National and Local DRRM Fund.		CCC, DBM, OCD
				2.2.3 Designate key personnel and office in charge of National/local DRRM Fund tracking and monitoring portal.		OCD
				2.2.4 Train key personnel and office in charge of the maintenance, updating of the Fund portal.		
				2.2.5 Improve utilization of local DRRM funds for prevention and mitigation and preparedness activities.		DA

OBJECTIVES	OUTCOMES	OUTCOME INDICATORS	OUTPUTS	ACTIVITIES	ACTIVITY INDICATORS	RESPONSIBLE
				2.2.6 Submit monthly LDRRM fund utilization report.	Number of LGUs (provinces, cities, municipalities, and barangays) that submit monthly LDRRM fund utilization reports.	LDRRMCs, LGUs, OCD, COA, DBM
Implement risk-centered national, sub-national, and sectoral policies, plans, and budgets.	3. Increased structural integrity of housing, building, and critical infrastructure. 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 (Sendai Global target D)	<p>Percentage of government-owned infrastructure in 81 provinces are resilient to disasters by 2028.</p> <p>Decreased annual amount of direct economic damage and loss to health facilities, education facilities and critical infrastructure (Sendai Indicator C5).</p> <p>Decreased annual number of destroyed or damaged agricultural infrastructure and facilities attributed to disasters (Sendai Indicator C2).</p> <p>Percentage of hospitals (level 2 and 3) that are resilient with Certificate of Structural Integrity by 2028.</p>	3.1 Resilient infrastructure System	3.1.1 Repair, reinforce, and retrofit critical infrastructures such as but not limited to energy, communications, transportation, water, health, education, agriculture, solid waste and cultural heritage.	<p>Number of government-owned infrastructure conforming to building codes.</p> <p>Number of DPWH-maintained infrastructure</p> <p>Number of retrofitted buildings</p> <p>DRRM-CCA-informed National Building Code approved by 2023.</p> <p>Number of hospitals and other health facilities conforming to building code and zoning regulations.</p> <p>Structural assessment of hospitals and other critical health infrastructure conducted.</p> <p>Number of hospitals and other health care facilities retrofitted.</p> <p>Number of schools and other education facilities conforming to building code and zoning regulations</p>	<p>DepEd: Inventory of school buildings CHED: Inventory of HEI buildings DOH: Inventory of health facilities and public hospitals DBM: Asset Management</p> <p>DPWH-BOM and DPWH-PSPMC DOH, DPWH DPWH, DepEd, CHED DA-Bureau of Agricultural and Fisheries Engineering (BAFE)</p> <p>DOE, DOTr, DICT, MWSS, ULAP, NCCA, Private Sector, TESDA</p>

OBJECTIVES	OUTCOMES	OUTCOME INDICATORS	OUTPUTS	ACTIVITIES	ACTIVITY INDICATORS	RESPONSIBLE	
					Number of disaster-resilient education infrastructure Number of risk-informed agricultural infrastructure. Number of local builders and carpenters trained on resilient building practices.		
				3.1.2 Ensure risk-informed building codes and local zoning ordinances, and integrate risk considerations into environmentally critical projects, and projects located in environmentally critical areas.	Number of DRRM-CCA-informed local zoning ordinances formulated and approved.		DPWH, DIG, LGUS, DA, DHSUD
				3.1.3 Conduct inventory, vulnerability and risk assessments, and accessibility and gender responsiveness audit of critical infrastructure.	Structural assessment of government-owned infrastructure conducted. Number of existing critical infrastructure ¹ assessed by 2022. Number of health facilities, education facilities, and critical infrastructure informed by hazard, vulnerability, and risk assessment.		DA, DPWH, DILG, DepEd, DOH, DOE, DOTr, DICT, MWSS, CHED, ULAP, NCCA, LWUA, Private Sector
		Percentage of existing and new critical infrastructure resilient to disasters.		3.1.4 Develop standards and guidelines on the redesign, retrofitting or operational modifications and gender responsiveness of infrastructure.	Guidelines on the redesign, retrofitting, or operational modifications and gender responsiveness of	DPWH, ASAP/PICE, DepEd, BFP, DA	

¹ Critical infrastructure: energy, communications, transportation, water, health, education, agriculture, solid waste, and cultural heritage

OBJECTIVES	OUTCOMES	OUTCOME INDICATORS	OUTPUTS	ACTIVITIES	ACTIVITY INDICATORS	RESPONSIBLE
					infrastructure implemented by 2021.	
				3.1.5 Conduct Information, Education, and Communication (IEC) campaign and build capacity of local builders and carpenters on resilient building practices in partnership with CSOs and professional associations of architects and engineers.		DPWH, DILG, ASEP/PICE, DA
Institutionalize timely, responsive, context- and culture-specific early warning systems.	4. Institutionalized timely, responsive, context- and culture-specific early warning systems reaching the last mile. Substantially increase the availability of and access to multi-hazard early warning systems and disaster risk information and assessments to the people by 2030 (Sendai Global Target G)	Increased number of people that are covered by early warning system information through local governments or through national dissemination mechanisms (Sendai Indicator G3). Percentage of people protected through pre-emptive evacuation following early warning (Sendai Indicator G6).	4.1 Operational end-to-end, and multi-hazard early warning systems.	4.1.1 Develop guidelines for the utilization of DRRM-CCA related research and innovation for early warning.	Guidelines on the utilization of DRRM and CCA-related research and innovation for early warning developed. Early warning, early action systems, and protocols in all levels for all major hazards including emerging and re-emerging infectious diseases developed by 2023. (Sendai Indicators G-1 & G-2)	DOST-PAGASA: Research and Development Training Division DOST-PHIVOLCS: HR/ Planning Office DOST-PAGASA, DOST-PHIVOLCS DOST, DILG DOST, DILG, OCD-CBTS DOH DILG
				4.1.2 Enhance national and local multi-hazard early warning, early action systems, and protocols.		DOST, DILG, OCD, DA, PAGASA, DENR
				4.1.3 Procure and install equipment and facilities for early warning systems at national and local levels.	Number of DENR and DOST monitoring and warning offices equipped with the appropriate technology and devices for monitoring and warning. (Sendai Indicator G2) Number of additional monitoring stations	DOST, PAGASA, DepEd, DENR-MGB, DILG

OBJECTIVES	OUTCOMES	OUTCOME INDICATORS	OUTPUTS	ACTIVITIES	ACTIVITY INDICATORS	RESPONSIBLE
					according to the strategic plan Number of provinces, cities, or municipalities equipped with early warning system facilities. (Sendai Indicators G-2 & G-3)	
		Technological capacities of DENR and DOST monitoring and warning agencies in the national and field levels improved by 2022.		4.1.4 Build capacities of national and local managers of early warning systems.	Number of DENR and DOST staff trained on the use of monitoring and warning technologies at the national and field levels Number of NGAs and LGUs trained on the development of inclusive EWS. (Sendai Indicator G-5)	DOST-PAGASA, PHIVOLCS, DILG
		Percentage of vulnerable groups with access to timely and inclusive early warning information.		4.1.5 Develop SoPs and guidelines for multi-hazard early warning systems that are inclusive of the needs of persons with a disability.	Number of LGUs with guidelines and protocols on pre-emptive evacuation developed in accordance with their early warning system. (Sendai Indicator G-3). Number of EWS messaging that is in a format sensitive to the needs of persons with disabilities, older persons, children, and women. . (Sendai Indicator G-5).	DOST-PAGASA, PHIVOLCS, STII, DILG

OBJECTIVES	OUTCOMES	OUTCOME INDICATORS	OUTPUTS	ACTIVITIES	ACTIVITY INDICATORS	RESPONSIBLE
					Number of vulnerable groups that are able to participate in the development of EWS.	
Access to effective, responsive and inclusive risk financing and insurance mechanisms.	5. Communities have access to effective, responsive, and inclusive social protection, risk financing, and insurance mechanisms. Reduce direct disaster economic loss in relation to global gross domestic product (GDP) by 2030. (Sendai Global Target C)	Percentage of national, provincial, and critical government infrastructure insured by 2022.	5.1 Accessible disaster risk financing strategies	5.1.1 Conduct research and develop new modalities on risk financing.	Number of NGAs and LGUs that are able to allocate funds to insure critical infrastructure. Standard operating procedures and guidelines to access risk financing developed. Number of inspected establishments that pay government mandated social insurance.	DOF, PHILHEALTH, SSS
				5.1.2 Create an enabling environment for private sector participation in the development of financing options.	Number of public-private disaster-related insurance products available and subscribed. Number of new partnerships with financial institutions and insurance companies entered into annually to provide disaster risk financing and insurance.	DOF, BTr, BSP, DA, SSS
		Number of communities with access to disaster risk financing and insurance mechanisms. Percentage of farmers and fisherfolks with access to risk financing.		5.1.3 Conduct IEC campaign to encourage hazard insurance coverage in national, local, and household/ individual levels.	Number of IEC campaigns on hazard insurance coverage conducted in national, local, household, and individual levels. Number of insurance schemes developed and promoted among the production sector, supply	BTr, DOST, DOF, PHILVOLCS

OBJECTIVES	OUTCOMES	OUTCOME INDICATORS	OUTPUTS	ACTIVITIES	ACTIVITY INDICATORS	RESPONSIBLE
					sector, MSMEs, households, responses, and vulnerable groups. Number of LGUs that developed or updated communication plans that include activities to inform the public on disaster risk financing and insurance.	
				5.1.4 Promote and develop insurance schemes among the production sector, supply sector, MSMEs, households, responders, and vulnerable groups.	Number of new disaster risk financing modalities developed and implemented. Number of farmers and fisherfolk that avail crop insurance. Budget for purchasing insurance for farmers and fisherfolks allocated by NGAs and LGUs.	DOF, DBM, GSIS, PHIVOLCS, DA, SSS
		Percentage of cities and municipalities provided with access to other risk financing mechanisms by 2022. Percentage of LGUs with increased access to humanitarian funding for early action.		5.1.5 Update the directory of available financing windows for LGUs.	Number of research on new disaster risk financing modalities conducted. Directory of available financing windows for LGUs developed and updated. Policy framework for forecast or impact-based financing mechanism developed by 2022.	DOF, SSS
		Percentage of communities with access to Social Protection Plan's programs and services.		5.2.1 Take stock of social protection strategies.	Number of social protection strategies reviewed and mapped out.	DSWD

OBJECTIVES	OUTCOMES	OUTCOME INDICATORS	OUTPUTS	ACTIVITIES	ACTIVITY INDICATORS	RESPONSIBLE
				5.2.2 Develop and implement a National Social Protection Plan.	National Social Protection Plan developed and implemented.	DSWD, NEDA, DOLE, PSA, DILG, PHILHEALTH, OCD, DILGOLGA, DAP, CHED, DA, DOH, DepEd, SSS, DBM
Improve and protect ecosystem integrity.	6. Natural resources and ecosystem integrity are improved and sustained. 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 (Sendai Global Target D)	Percentage of protected forest cover increased by 2022.	6.1 Nature-based solutions	6.1.1 Conduct natural resources and ecosystem accounting, valuation, stocktaking, inventory and assessment.	Number of natural resources and ecosystem accounting, valuation, stocktaking, inventory and assessment conducted. Number of critical ecosystems and areas ² identified	DENR, DA
		Percentage of critical ecosystems and marine habitat/areas protected and rehabilitated increased by 2022.		6.1.2 Conduct carrying capacity studies and research on terrestrial, coastal, and marine habitats and resources.	Number of carrying capacity studies and research on terrestrial, coastal, and marine habitats and resources conducted.	DENR, DOST
		Percentage of degraded ecosystems / habitats restored and rehabilitated.		6.1.3 Mainstream ecosystem values into national and local development planning, including ecosystem services indicators, monitoring systems and databases.		NAPC-VDC, DA, DENR
				6.1.4 Protect intact habitats, restore and rehabilitate degraded ecosystems/habitats (e.g., mangroves, wetlands, forest, coral reefs), and improve urban green spaces.		DENR, DA, DHSUD
				6.1.5 Promote sustainable integrated area development, and participatory environmental		DENR, DOST, DA

² Provide definition

OBJECTIVES	OUTCOMES	OUTCOME INDICATORS	OUTPUTS	ACTIVITIES	ACTIVITY INDICATORS	RESPONSIBLE
				governance.		
				6.1.6 Promote sustainable community resource-based enterprises and livelihood programs.		DENR, DA
		Percentage of ecosystem values mainstreamed into national and local development planning.		6.1.7 Formulate and implement the Integrated River Basin Management and Development Plan.	<p>Number of Integrated River Basin Management and Development Plans formulated and implemented.</p> <p>Number of areas (in hectares) assessed for ecosystem services status³</p> <p>Number of green/nature-based solutions⁴ implemented by 2022.</p>	DENR, DOST, DA
Build resilience of livelihoods and businesses.	7. Disaster-resilient livelihoods and businesses. 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. (Sendai Global Target B)	<p>Percentage increase in resilient and sustainable livelihood programs accessible to stakeholders.</p> <p>Percentage increase of micro and small-scale businesses receiving support/ accessing assistance from the government.</p>	7.1 Resilience of Livelihoods	7.1.1 Establish an LGU-led livelihood resource/asset mapping in the barangays to determine shock-resilient and sustainable livelihoods.	<p>Number of stakeholders forging partnerships on resilient livelihood.</p> <p>Percentage increase of registered micro and small-scale businesses with respect to the previous year.</p> <p>Number of stakeholders forging partnerships on resilient livelihood.</p>	DTI, DILG, LGUs, DOT, NAPC-VDC

³ Provide definition

⁴ Provide definition

OBJECTIVES	OUTCOMES	OUTCOME INDICATORS	OUTPUTS	ACTIVITIES	ACTIVITY INDICATORS	RESPONSIBLE
				7.1.2 Capacitate communities and families to identify risks on livelihoods and determine mitigation measures to minimize economic losses for all kinds of shocks.	Number of communities and families capacitated to identify risks on livelihoods.	DTI, OCD, DA
				7.1.3 Provide technical assistance and resource augmentation to LGUs in the establishment of disaster-resilient livelihoods.	Number of established LGU-led livelihood resource/asset mapping in barangays to determine shock-resilient and sustainable livelihoods increased by 2022. Number of LGUs provided with technical assistance and resource augmentation. Number of LGUs provided with a starter toolkit incorporating disaster resilience to a created resilient and sustainable livelihood.	DTI, DA, LGUs
				7.1.4 Provide livelihoods created (before or after a disaster) with a starter tool kit incorporating disaster resilience.	Percentage increase of communities engaged in sustainable livelihood activities.	DTI, OCD, DA, DSWD
				7.1.5 Provide financial literacy training and information on financial resources and programs available.		DTI, DOLE

OBJECTIVES	OUTCOMES	OUTCOME INDICATORS	OUTPUTS	ACTIVITIES	ACTIVITY INDICATORS	RESPONSIBLE
		Percentage of the private sector companies with unhampered business operations, particularly during emergency situations.	7.2 Resilience of Businesses	7.2.1 Train Safety Officers of businesses to develop, improve and implement actions that ensure business continuity and disaster resilience, including the development of business continuity plans.	Number of Safety Officers capacitated to develop, improve, and implement Business Continuity Plans (with Occupational Safety and Health Standards considered and integrated).	DTI, DOLE
		Decreased direct economic loss to damaged or destroyed productive assets attributed to disasters (Sendai Indicator C3).		7.2.2 Integrate disaster resilience in the Occupational Safety and Health Standards of establishments		DOLE, DA, DTI
		Percentage increase of communities with access to different/diversified livelihood portfolios offered by the government and the private sector.		7.2.3 Capacitate businesses to identify risks and supply chain vulnerabilities and determine mitigation measures to minimize economic losses for all kinds of shocks.	Number of businesses capacitated to identify risks and supply chain vulnerabilities. Percentage increase of DRRM programs and projects implemented by the private sector (with respect to the previous year).	DTI, OCD, DA
				7.2.4 Improve business environment through streamlined and simplified rules and procedures of doing business and broaden access to markets.		DTI, DILG, DA
		Percentage of MSMEs with access to programs and services (e.g., technical and financial) from the government.		7.2.5 Provide diversified sources of financing and develop credit enhancement mechanisms (e.g., guarantees, insurance) especially for MSMEs.	Number MSMEs provided diversified sources of financing.	DTI

OBJECTIVES	OUTCOMES	OUTCOME INDICATORS	OUTPUTS	ACTIVITIES	ACTIVITY INDICATORS	RESPONSIBLE
Disaster-resilient human settlements.	8. Disaster-resilient human settlements. 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 (Sendai Global Target B)		8.1 Resilient Communities	8.1.1 Identify and provide access to suitable sites for human settlements in appropriate land-use and which will not encroach on environmentally critical areas and conservation sites.		DHSUD- Public Housing and Settlement Service Housing and Real Estate Regulation Bureau Planning Service, DILG, OCD, Homeowner Associations and Community Development Bureau
		Percentage of community-based risk assessment adopted in BDRRMPs.		8.1.2 Conduct community-based risk assessment.	Number of HOAs capacitated on DRRM-CCA and risk assessment	DHSUD, DOST, NHA, OCD, DILG
		Percentage increase of communities with access to resilient shelters/housing units provided by the LGUs.		8.1.3 Construct disaster-resilient housing units.	Number of LGUs with constructed resilient shelters/housing units.	DPWH
		Percentage of families in the resettlement areas that are safe, secure, and provided with necessary support and services.		8.1.4 Provide basic services and public facilities.	Number of communities ⁵ provided with basic services ⁶ and public facilities.	DA
				8.1.5 Relocate target communities following participatory processes.	Number of families in high-risk areas voluntarily resettled to safe areas.	DHSUD, DILG, DOST
				8.1.6 Conduct monitoring evaluation, accountability, and learning		DHSUD

⁵ Define communities

⁶ Define basic services and public facilities

3.2 Disaster Preparedness

Table 2 summarizes the activities, outputs, and expected outcomes for the Disaster Preparedness Pillar of the NDRRMP 2020-2030. In response to the reactive approach to DRRM in the country, as well as limitations in knowledge and skills at all levels, the planned activities and interventions aim to establish and strengthen the capacities of governments, communities, CSOs, and the private sector to anticipate, cope, and recover from the adverse impacts of hazards and disasters and minimize losses and disruption of daily life. The actions identified under this pillar focus on increasing community and government awareness and understanding of risks, competency building for preparedness and response, strengthening coordination and complementation, and developing relevant DRRM plans. Specifically, this pillar has four (4) outcomes. Each outcome has its corresponding outputs and activities set out for short-term (2020-2022), medium-term (2023-2025), and long-term (2026-2030) implementation. The specific outputs and activities are outlined below

Outcome 9. Enhanced risk awareness and risk-informed decisions and actions of governments and communities. This outcome also contributes to Sendai Global Target 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

- Output 9.1 Inclusive and comprehensive national and local DRRM and CCA information, education, and communication (IEC) plans and programs
- Output 9.2 Increased understanding and application of DRRM measures
- Output 9.3 Sustained DRRM and CCA education and research
- Output 9.4 DRRM and CCA mainstreamed in formal and nonformal education

Outcome 10. Increased institutional capacities of National and Local DRRM Councils and Offices.

- Output 10.1 Self-reliant, fully-functioning, adequately staffed, and financially capable national and local DRRM councils and offices

Outcome 11. Strengthened partnership and coordination among all key actors and stakeholders. In line with Sendai Global Target 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

- Output 11.1 Vertical and horizontal coordination
- Output 11.2 Periodic reporting on country's obligations with DRRM agreements/ treaties to which it is a party

Outcome 12. Implemented comprehensive and mutually reinforcing national and local preparedness and response plans, policies, and system. Contributes to Sendai Global Target E: Substantially increase the number of countries with national and local disaster risk reduction strategies by 2030.

- Output 12.1 Enhanced preparedness and response strategies, including coordination and budgeting mechanisms
- Output 12.2 Increased coordination for disaster response
- Output 12.3 Coordination, complementation, and interoperability of work in DRRM
- Output 12.4 Continuity of essential service

Table 2: Monitoring and Evaluation Framework for the Disaster Preparedness Pillar

OBJECTIVES	OUTCOMES	OUTCOME INDICATORS	OUTPUTS	ACTIVITIES	ACTIVITY INDICATORS	RESPONSIBLE	
Increase the level of awareness and understanding of governments and communities of hazards, exposure, and vulnerabilities. Equip governments, institutions, communities, families, and individuals with the necessary skills to respond and cope with the adverse impacts of disasters.	9. Enhanced risk awareness and risk-informed decisions and actions of governments and communities. Substantially increase the availability of and access to multi-hazard early warning systems and disaster risk information and assessments to the people by 2030 (Sendai Global Target G)	Percentage of NGAs, LGUs, and barangays reached and influenced by IEC materials and campaigns.	9.1 Inclusive and comprehensive national and local DRRM and CCA information, education, and communication (IEC) plans and programs	9.1.1 Develop national and local DRRM and CCA advocacy and communication plans and programs utilizing risk information from Outcome 1.	Number of NGAs and LGUs with risk-informed DRRM and CCA advocacy and communication plans	OCD: CBTS, ROs, DAR, DILG, LGUs, DOH, PIA, DICT, PRC, NHA, NYC and Partner Youth Organizations	
					Number of IEC materials developed in accessible formats (Sendai Indicator G-5)	PIA, OCD, PCW, NAPC-VDC, NCDA, DSWD, DOST, MGB, DILG, AFP	
					Sharing of DRRM and CCA-related knowledge, good practices, and resources among NGAs, LGUs, CSOs, private sector, academe, communities, and other relevant stakeholders.	PRC, DOST-PAGASA, ADMU, DepEd- DRRMS, CCC, DENR-MGB	
				9.1.2 Document and publish good practices and self-sufficient models in DRRM-CCA.	Sharing of DRRM and CCA-related knowledge, good practices, and resources among NGAs, LGUs, CSOs, private sector, academe, communities, and other relevant stakeholders.	LGA, DILG-PACS, OCD, DOH, PIA, NAPC-VDC, ADRA Philippines, ADMU, DepEd- DRRMS, NCCT, TV Network/s, DepEd Inter-Agency Committee on Children in Situations in Armed Conflict, NYC, CCC, DENR, CSOs, NHA, ADMU	
					9.1.3 Develop inclusive IEC materials using quad media.	Number of IEC materials developed in accessible formats	CCC: Implementation Oversight Division; Information and Knowledge Management Division CHED: NSRC Unit DILG-BLGD, LGA, OPDS, OCD- CBTS, OCD-ROs, PAGASA, World Vision, PIA, PCW, NAPC-VDC, NCDA, DSWD, DOST, MGB, PHIVOLCS, BFP, DPWH PS
						Number of DRRM and CCA policies and plans with corresponding IEC materials developed and disseminated.	

OBJECTIVES	OUTCOMES	OUTCOME INDICATORS	OUTPUTS	ACTIVITIES	ACTIVITY INDICATORS	RESPONSIBLE
						ESSD, GAD, SRS, DepEd-DRRMS, MMDA, COSE, AFP
				9.1.4 Formulate guidelines and/or policies on disseminating DRRM and CCA information to governments, communities, and other relevant stakeholders.	Guidelines and policies on disseminating DRRM and CCA information developed (Sendai Indicator G-5)	DILG, DepEd-DRRMS, CCC, DENR, DPWH, DOH, NHA, NYC, OCD-PDPS, OCD-NDDRMTRI, OCD-CBTS
				9.1.5 Develop and maintain an integrated knowledge management hub for DRRM and CCA IEC materials and other relevant plans, policies, and programs.	Integrated knowledge management hub for DRRM and CCA IEC materials established at the national level.	CCC, Implementation Oversight Division; Information and Knowledge Management Division CHED: NSRC Unit, DILG: LGA, OCD-CBTS, PRC: NYC, World Vision, DPWH-SRS, IMS, BOM PRC (GRC, IFRC), AFP, NHA
		Percentage of LGUs and barangays that demonstrate the capacity to perform preparedness actions based on their contingency plans.	9.2 Increased understanding and application of DRRM measures.	9.2.1 Formulate framework, operational guidelines, processes, and/or standard procedures for DRRM.	Guidelines, frameworks, and policies on DRRM and CCA developed.	DILG, PRC, NHA, NAPC-VDC, ADRA Philippines, DSWD, DOST-PAGASA, DOST-PHIVOLCS, DOST-STII, National Task Force on El Nino
					Number of approved DRRM and CCA policies and plans with related training materials developed	CCC-Policy Research and Development Division, Implementation Oversight Division. DILG-BLGD, CODIX, OPDS, LGA OCD-CBTS, OCD-NDRRMTI DepEd: DRRMS CCC, DOST-PAGASA, CSOs
		Percentage of households with increased understanding of risks, possible disaster impacts and worst-case scenario		9.2.2 Implement capacity building activity for the development and/or enhancement of contingency plans.	Number of provincial, municipal/ city and barangay officials trained on contingency plan development and/or enhancement. Revise to:	DILG-BLGS, OCD-CBTS, ROs DOH, World Vision, DepEd-DRRMS, CDP, DA, MGB DPWH-BOM, CPTWG, RO, DEOs, NAPC-VDC, COSE, PRC, LGA, AFP, NHA, PNRI-

OBJECTIVES	OUTCOMES	OUTCOME INDICATORS	OUTPUTS	ACTIVITIES	ACTIVITY INDICATORS	RESPONSIBLE
					Number of government officials and non-government actors trained on contingency plan development and/ or enhancement at all levels (national down to local)	Nuclear Regulatory Division, DOST-PAGASA, DOT
				9.2.3. Regular conduct of simulation exercises on preparedness and response for single and multiple hazards at the national and local levels.	Number of NGAs and LGUs that are able to conduct regular simulation exercises for single and multiple hazards	CCC- Implementation Oversight Division, OCD-CBTS, OS, DILG and LGUs, NAPC-VDC, ADRA- Philippines, PRC, COSE, DOH, MMDA
				9.2.4. Develop innovative approaches in capacity building, including the use of games, music, theatre, and dance.	Innovative approaches developed for DRRM and CCA capacity building activities Number of DRRM and CCA education and training conducted for the public and private sectors.	OCD, USFS, MGB, DOST-PHIVOLCS, LGA, DILG-BLGD, DOH, DepEd- DRRMS, CCC, PRC, DSWD, DOT, Relevant CSOs
		Percentage of response units, DRRM managers, and key decision makers are able to fulfill their preparedness and response roles and responsibilities	9.3 Sustained DRRM and CCA education and research.	9.3.1 Establish a National DRRM Training Institute to conduct education, training, research, and publication programs.	National DRRM Training Institute established and operational.	OCD, DPWH- BOD, BOC, PS, AFP
				9.3.2 Consolidate and harmonize existing DRRM and CCA modules and tools developed by government, CSOs, academe, private sectors, and other key stakeholders at all levels	Number of reference materials on climate and disaster risk information published and disseminated.	OCD-CBTS, CCC, PAGASA, CCC, NAPC- VDC, ECOWEB, World Vision
				9.3.3 Develop guidelines for the utilization of DRRM and CCA related research and innovations	Guidelines on the utilization of DRRM and CCA-related research and innovations developed.	NAPC- VDC, ECOWEB

OBJECTIVES	OUTCOMES	OUTCOME INDICATORS	OUTPUTS	ACTIVITIES	ACTIVITY INDICATORS	RESPONSIBLE
		Disaster preparedness and response actions and strategies are informed by research.			Number of funded DRRM and CCA-related research projects conducted.	CCC-Office of Deputy Executive Director, Implementation Oversight Division, CHED- Knowledge and Research Office of OPRKM, DILG- BLGS, LGA DPWH-BRS, BOM, CHED
			9.4 DRRM and CCA mainstreamed in formal and nonformal education	9.4.1 Integrate DRRM and CCA in school curricula, textbooks, teachers' guides and manuals, and school investment plans.	Number of DRRM and CCA materials developed for formal education and training programs.	World Vision, NYC, OCD, DOST-PHIVOLCS, DILG-LGA, DepEd-DRRMS, BCD, BLR, BLD, DOST-PAGASA,
		Percentage of academic institutions and other relevant agencies/ organizations that are able to mainstream DRRM and CCA in formal and non-formal education.			Number of schools, colleges, and universities that are able to integrate DRRM and CCA in their curricula.	CHED, ADMU
					Number of schools, colleges, and universities with DRRM and CCA integrated in their investment/ improvement plan.	CHED-SUCs, World Vision, DepEd, CHED, TESDA
				9.4.2 Conduct of DRRM and CCA education and training for the public and private sectors	Number of DRRM and CCA education and training conducted for the public and private sectors.	CCC-Implementation Oversight Division, OCD, MGB, AFP, DPWH-UPMO BSPMC, NBCDO, BOD, NAPC-VDC, ECOWEB, COSE, MMDA, NHA, ADMU

OBJECTIVES	OUTCOMES	OUTCOME INDICATORS	OUTPUTS	ACTIVITIES	ACTIVITY INDICATORS	RESPONSIBLE
Increase the capacity of institutions for risk governance to avert loss of lives and assets.	10. Increased institutional capacities of National and Local DRRM Councils and Offices. Substantially increase the number of countries with national and local disaster risk reduction strategies by 2030 (Sendai Global Target E)	Percentage of national, regional, and local DRRM council members that are active and fully-functioning.	10.1 Self-reliant, fully-functioning, adequately staffed, and financially capable national and local DRRM councils and offices	10.1.1 Institutionalize Local DRRM Offices operated by permanent and competent personnel.	DRRM structures with adequate and competent personnel established Number of LDRRMOs with plantilla positions (without concurrent responsibilities in other departments)	DA, AFP, DepEd, DBM, DAR, DA, DILG, LGUs
					Number of N/R/LDRRMC members that regularly undertake a capacity assessment in DRRM and CCA.	OCD-PDPS, CBTS, ROs, DILG
		Percentage of LGUs with adequately staffed, fully-functioning, and financially capable LDRRMOs		10.1.2 Create and implement a standard competency framework and customized capacity building programs for national and local DRRM councils and offices.	Number of N/R/LDRRMC members that are able to receive DRRM and CCA-related training.	OCD-CBTS, ROs, DOT, LGA, DILG, DSWD, DOH, NAPC-VDC, COSE, DA
					Number of NGAs/ LGUs with a complete inventory of material, technical, and financial resources	DepEd-DRRMS
				10.1.3 Develop a Citizen’s Charter for DRRM-CCA and Magna Carta for DRRM Practitioners/ LDRRMOs.	Citizen’s Charter for DRRM and CCA and Magna Carta for DRRM Practitioners/ LDRRMOs developed.	OCD, DA
				10.1.4 Review guidelines on the membership, roles, and mandates of the national and local DRRM councils and offices.	Number of N/R/LDRRMC members that regularly undertake a capacity assessment in DRRM and CCA	OCD, DILG, DPWH, AFP, DA, NAPC-VDC, COSE
				10.1.5 Review and strengthen CSO membership guidelines in the national and local DRRM councils to make membership more accessible to organizations.	Number of N/R/LDRRMCs with proactive CSO/CBO members participating in planning and decision-making, and implementation processes.	NDRRMC Secretariat, NDRRMC-Member Agencies, DA, NAPC-VDC, ECOWEB

OBJECTIVES	OUTCOMES	OUTCOME INDICATORS	OUTPUTS	ACTIVITIES	ACTIVITY INDICATORS	RESPONSIBLE
					Number of CSOs, private sector, and academic institutions participating in N/R/LDRRMC projects, programs, and activities.	
				10.1.6 Assess the technical, financial, and administrative capacity of national and local DRRM councils and offices.	Number of N/R/LDRRMC members that regularly undertake a capacity assessment in DRRM and CCA	OCD, DILG
				10.1.7 Establish an inclusive mechanism that will monitor and evaluate the performance of national and local DRRM councils and offices.	Standard M&E system for performance monitoring of national and LDRRM councils and offices established	OCD, NAPC-VDC, ECOWEB, Other concerned NDRRMC Member Agencies
				10.1.8 Establish mechanisms and incentives to ensure a high level of compliance with the existing provisions of DRRM-related laws and regulations.	Mechanisms to ensure compliance to DRRM and CCA laws and regulations established (Sendai Indicators E-1 to E-2)	OCD, DA, DILG, Other concerned NDRRMC Member Agencies
				10.1.9 Institutionalize quality standards and benchmarks, such as certifications and awards for DRRM, with the participation of different stakeholders.	Mechanisms to ensure compliance to DRRM and CCA laws and regulations established	OCD, DILG, Other concerned NDRRMC Member Agencies
				10.1.10 Conduct an inventory of existing DRRM resources and services, available within and outside the government.	Number of NGAs/ LGUs with a complete inventory of material, technical, and financial resources	OCD, DSWD, DOTr, AFP, PNP, BFP, Private Sector, DOH, DA, DPWH- BOE, UPMO, BrMC, BOM, RO, DEOs, NAPC-VDC, ECOWEB, ADRA- Philippines
				10.1.11 Capacitate local government units and regional/provincial agencies and bodies (e.g., RDC) on the integration of risk information in development plans.	Number of N/R/LDRRMC members that are able to receive DRRM and CCA-related training. Number of DRRM managers and key decision-makers	<u>DILG</u> : BLGS, BLGD, LGA OCD-CBTS, ROs DOST-PHIVOLC, DOST-PAGASA, DA

OBJECTIVES	OUTCOMES	OUTCOME INDICATORS	OUTPUTS	ACTIVITIES	ACTIVITY INDICATORS	RESPONSIBLE
					from NGAs and LGUs trained on DRRM and CCA. Number of LDRRMOs with capacity development agenda on DRRM-CCA.	
Strengthen partnership among all key actors and stakeholders.	11. Strengthened partnership and coordination among all key actors and stakeholders. Substantially enhance international cooperation to developing countries through adequate and sustainable support to complement their national actions for implementation of this framework by 2030 (Sendai Global Target F)	Strong partnership among all key actors and stakeholders in DRRM established.	11.1 Vertical and horizontal coordination	11.1.1 Create and maintain a directory or database of key actors and stakeholders (e.g., Accredited Community Disaster Volunteers, Humanitarian Assistance Actors).	Directory of DRRM and CCA key stakeholders developed and regularly updated.	DILG-CODIX, ISDMS, OCD-Cluster Secretariats - PDPS, CBTS, OS, RRMS, DOH, DepEd, ERWG and ECP Members, DAR, NAPC-VDC, ECOWEB, DA
				11.1.2 Develop guidelines for coordination and partnership arrangements.	Guidelines defining coordination mechanisms and partnership arrangements in DRRM developed.	DFA-Office of Civilian Security, OCD, AFP DOH, PRC, NGOs
					Number of MOUs/MOAs signed by NGAs/ LGUs with CSOs, private sector, academe, and other relevant institutions.	DILG-BLGS, World Vision, PRC, OCD, MMDA, DOST-PAGASA, DOH-HEMB, AFP, DepEd-DRRMS
				11.1.3 Strengthen coordination fora composed of relevant stakeholders at the national and local levels with clearly assigned responsibilities and authority to: -identify sectoral and multi-sectoral disaster risk; -build awareness and knowledge of disaster risk through sharing and dissemination of non-sensitive disaster risk information and data; -contribute to and coordinate reports on local and national disaster risk; -coordinate public awareness campaigns on disaster risk; and,	Number of PPAs being implemented by inter-agency bodies/consortia/LGU alliances on DRRM. Number of CSOs, private sector and academic institutions that are able to participate in DRRM-related PPAs	OCD, DSWD, DILG, PIA, PCOO, DOH, DepEd, DFA, BLS, LGA, PDRF, WHO, UNFPA, Save the Children, UNICEF CDP, DRRNet: DA, DAR

OBJECTIVES	OUTCOMES	OUTCOME INDICATORS	OUTPUTS	ACTIVITIES	ACTIVITY INDICATORS	RESPONSIBLE
				-facilitate and support local multi-sectoral cooperation.		
					Number of Joint Memorandum Circulars drafted by NGAs	OCD- Cluster Secretariats - PDPS, CBTS, OS, RRMS
				11.1.4 Develop and maintain a central data information system to manage and harmonize non-sensitive information from all stakeholders	Sharing of DRRM and CCA-related knowledge, good practices, and resources among NGAs, LGUs, CSOs, private sector, academe, communities, and other relevant stakeholders	OCD, DILG, DOH, DFA, DICT, DSWD, DA, DOST-PAGASA, DOST-PHIVOLCS
		Increased participation of CSOs and public, private sector, academe, and other relevant institutions in DRRM PPAs at all levels. Substantially enhance international cooperation to developing countries through adequate and sustainable support to complement their national actions for implementation of this framework by 2030. (Sendai Global Target F)	11.2 Periodic report on country's obligations with DRRM agreements/ treaties to which it is a party.	11.2.1 Conduct an inventory of foreign agreements/ treaties on DRRM to which the country is a party.	Number of international, regional, bilateral agreements, programs, and initiatives related to DRRM and CCA (Sendai Indicators F-1 to F-8)	NEDA, DFA-Office of Civilian Security, DOF-IFPO, DAR, LGUs, NGOs
				11.2.2 Conduct an inventory of programs and initiatives related to DRRM, CCA, and humanitarian assistance.	Number of PPAs being implemented by inter-agency bodies/consortia/LGU alliances on DRRM.	DRRNet: NAPC-VDC: ECOWEB: DA: NGOs, DOH, DSWD, OCD, DILG, BFP, AFP, PNP, PCG, PRC, DFA, DENR, CCC
				11.2.3 Enhance mechanisms to strengthen synergy and cross-sectoral collaboration in implementing bilateral, regional, and international programs on DRRM and CCA.	Number of international, regional, bilateral agreements, programs, and initiatives related to DRRM and CCA	DFA, DENR, CCC DOH, DSWD, DA, PDRF, DILG, AmeriCares, MSF, UP Diliman, PCS, Other NDRRMC member agencies
				11.2.4 Monitor the implementation of the country's obligations with DRRM agreements/treaties to which it is a party and submit a report to the NDRRMC.	Standard and integrated M&E system to track the accomplishments and performance of N/R/L DRRMCs established.	ECOWEB, NAPC-VDC, DA, DOH, OCD, DOST-PAGASA, DOST-PHIVOLCS, DSWD, DILG,

OBJECTIVES	OUTCOMES	OUTCOME INDICATORS	OUTPUTS	ACTIVITIES	ACTIVITY INDICATORS	RESPONSIBLE
						NEDA, Other NDRRMC member agencies
Develop and implement comprehensive and mutually reinforcing national and local disaster preparedness and response plans and systems.	12. Implemented comprehensive and mutually reinforcing national and local preparedness and response plans, policies, and system. Substantially increase the number of countries with national and local disaster risk reduction strategies by 2030 (Sendai Global Target E)	Percentage of NGAs and LGUs with improved institutional preparedness and response mechanisms and capacity.	12.1 Enhanced preparedness and response strategies, including coordination and budgeting mechanisms.	12.1.1 Develop and/or enhance scenario-based and inclusive preparedness and response plans for single and multiple hazards at the national and local levels	Number of approved DRRM, CCA, and environmental-related policies, plans, and budgets (Sendai Indicators E-1 and E-2) Number of NDRRMC members with DRRM implementation plan	DSWD, OCD, DILG, DA, DRRNet, NAPC- VDC, ECOWEB, CDP, DOH, UNICEF, PRC, DOST-PAGASA, DOST-PHIVOLCS, DOST-STII PNRI-Nuclear Regulatory Division, DepEd- DRRMS, DAR INGOs: FAO, WFP, IOM, Start Network and the FBF / Anticipatory Actions Technical and Sub Working Group
				12.1.2 Formulate and/or update national and local contingency plans	Number of NGAs and LGUs with approved contingency plans for single and multiple hazards (Sendai Indicator G-4)	OCD, DILG, DRRNet, NAPC-VDC, COSE, ADRA- Philippines, DPWH- Contingency Plan-TWG, DOST-PHIVOLCS, DOST-PAGASA, DOH, MMDA, DA
				12.1.3 Enhance existing tools and mechanisms to ensure the inclusion of basic sectors and other relevant actors in planning, implementation, and monitoring and evaluation	Guidelines for community participation in DRRM planning, implementation, and M&E developed	All Members of DP, DepEd- DRRMs and concerned offices in DepEd central office, DRRM Coordinators of DepEd region and division offices

OBJECTIVES	OUTCOMES	OUTCOME INDICATORS	OUTPUTS	ACTIVITIES	ACTIVITY INDICATORS	RESPONSIBLE
						DA, NAPC-VDC, ECOWEB, DOTr, DPWH, DILG, NBOO, Save the Children, LGA, DOH-HEMB
				12.1.4 Develop new and /or amend existing legislation and mechanisms on budget allocation to support DRRM implementation	Legislation and mechanisms on budget allocation for DRRM developed and/or amended	OCD, DBM, DILG, DSWD, NAPC- VDC, ECOWEB, COSE, DA, DOTr, CCC, DOH, UNFAO, Anticipatory Action TWG, DHSUD, MFIs, NGOs, CSOs, CBOs, Private developers Other concerned NDRRMC agencies
				12.1.5 Strengthen mechanisms to periodically assess, update, and publicly report progress of national and local DRRM plans	Standard and integrated M&E system to track the accomplishments and performance of N/R/L DRRMCs established.	OCD, DILG, DOH, DA, DPWH- All Offices, PSCP-TWG, CP-TWG NAPC-VDC, COSE
				12.1.6 Review and/or enhance guidelines on integration of risk information (DRRM and CCA) into the national and local development plans	Guidelines on the integration of risk information into the development plans reviewed and/ or enhanced	DILG, DOST-PAGASA, DOST-PHIVOLCS, DHSUD, CCC, OCD, DSWD, DPWH- ELUPDB, NAPC-VDC, ECOWEB, DA, CSOs/ NGOs
				12.1.7 Develop clear operational guidelines/protocol for the implementation of forecast-based early actions, including, but not limited to, financing and pre-emptive evacuation	Guidelines and protocols for the implementation of forecast-based early actions developed	DA, NAPC- VDC, ECOWEB, PRC, OCD, DILG, DSWD, DOST-PAGASA, INGOs: FAO, WFP, IOM, Start Network and the FBF / Anticipatory Actions

OBJECTIVES	OUTCOMES	OUTCOME INDICATORS	OUTPUTS	ACTIVITIES	ACTIVITY INDICATORS	RESPONSIBLE
		Percentage of LGUs with institutionalized Incident Command System (ICS)	12.2 Increased coordination for disaster response			Technical and Sub Working Group
				12.2.1 Enhance implementation of ICS at the local, regional, and national levels	Number of NGA and LGU staff capacitated on ICS.	DILG-BLGS, OCD-CBTS, ROs, DOH, DA, PRC, DepEd-DRRMS, DHSUD
				12.2.2 Enhance standard manual of operations for Operations Centers at the national and local levels	Standard Manual of Operations for Operation Centers developed and/or enhanced.	DILG, DA, DOH, DepEd- DRRMS, CSOs
				12.2.3 Develop and/or enhance guidelines for national and local emergency response teams for multiple hazards	Guidelines for national and local emergency response teams developed	DOH, DA, DILG, DepEd- DRRMS and concerned offices, DFA, DSWD
				12.2.4 Strengthen technical and logistical capacity of volunteers to ensure better response in emergencies	Number of volunteers and responders provided with technical and logistical support	DRRNet, NAPC-VDC, COSE, DA, PRC, OCD, MMDA, DAR, LGUs
				12.2.5 Develop and/or strengthen twinning program at the regional, provincial, and city/municipal levels for efficient and timely response	Number of LGUs that have an interoperability mechanism to respond to nearby LGUs with disaster (twinning program) (Sendai Indicator G-4)	DILG, DA, DSWD
				12.2.6 Develop exercise guidelines for LGUs to undertake response exercises and test plans	Number of national and local disaster exercises and simulation drills for different hazards conducted.	DA, DILG, OCD, DSWD, DOST- PHIVOLCS, BFP,
		Standard inclusive M&E system (including tools and mechanisms) developed to evaluate sufficiency and effectiveness of plans and track the progress of implementation	12.3 Coordination, complementation, and interoperability of work in DRRM	12.3.1 Develop and/or enhance agreed protocols for information gathering and reporting	Agreed protocols for information gathering and reporting developed and/or enhanced.	OCD, DILG, DA, NAPC-VDC, ECOWEB, DepEd-DRRMS and concerned offices in DepEd central office, DepEd Region and Division offices, schools
				12.3.2 Develop and/or enhance common and integrated response assessment tools and mechanisms at the national and local levels	Number of NGAs and LGUs with standard and integrated response assessment tools and mechanisms developed and/or enhanced	DSWD, OCD, DILG, DOH, NAPC-VDC, ECOWEB, DA, CDP

OBJECTIVES	OUTCOMES	OUTCOME INDICATORS	OUTPUTS	ACTIVITIES	ACTIVITY INDICATORS	RESPONSIBLE
		Percentage of NGAs and LGUs with access to integrated information system on response activities	12.4 Continuity of essential services	12.3.3 Develop and maintain a web-based portal for sharing accurate information on response activities (e.g. relief distribution activities)	A web-based portal for sharing accurate information on response activities developed and maintained.	DA, DSWD, OCD, DPWH-IMS, BOM, RO, DEOs, NAPC- VDC, ECOWEB, CSOs
				12.4.1 Develop public service continuity plans for the continuity of the delivery of essential functions and services	Number of NGAs and LGUs capacitated on developing Public Service Continuity Plans.	OCD-CBTS, AFMS for internal OCD PSCP, ROs DILG- LGA, DOH, DepEd-DRRMS, DMG, DRRM Team, DepEd Region and Division Offices PDRF, PCW, AFP, DAR, LGUs, DOTr, DPWH-BOM, Bureau, Service and RO/DEO, CCT, CCAM-DRR
				12.4.2 Conduct risk-sensitive capacity assessment of the operations for the delivery of essential or lifeline services	Number of NGAs and LGUs capacitated on developing Public Service Continuity Plans.	DSWD, DOH, DA

3.3 Emergency Response and Early Recovery

Table 3 provides a summary of the activities, outputs, and expected outcomes for the Disaster Preparedness Pillar of the NDRRMP 2020-2030. The actions identified under this pillar provide for key actions that give importance to activities during the actual disaster response operations such as needs assessment, search and rescue, relief operations, and early recovery activities. The activities identified below will be done either before the actual response operations or during the disaster event. For those activities that need to be completed prior to actual response operations, they will be linked to activities earlier identified in the preparedness aspect. However, to ensure that the proper response “lens” is issued in doing said activities, they have been included in this aspect. Overall, the success and realization of this priority area rely heavily on the completion of the activities under both the prevention and mitigation and preparedness aspects.

Each outcome has its corresponding outputs and activities set out for short-term (2020-2022), medium-term (2023-2025), and long-term (2026-2030) implementation. The specific outputs and activities are outlined below.

Outcome 13. Well-established disaster response operations with a well-equipped workforce and volunteers. It guarantees that functional disaster response operation centers are equipped with knowledgeable, skilled, and competent personnel with the aim of saving lives and contributes to SFDRR Target A: Substantially reduce global disaster mortality by 2030, and Target B: Substantially reduce the number of disaster-affected people by 2030.

- Output 13.1 Activated functional Incident Command System (ICS) on-site to Activate functional IMT(s) on-site
- Output 13.2 Well-established system of information gathering, reporting, and dissemination
- Output 13.3 Implemented the pre-developed disaster response plans, policies, and protocol
- Output 13.4 Activated public and private sector partnerships for humanitarian response and logistics
- Output 13.5 Established grievance and redress mechanism
- Output 13.6 Implemented functioning system for coordinated and efficient relief operations

Outcome 14. Appropriate early actions are provided to communities. It guarantees that actions prior to a disaster event are undertaken to prevent casualties. Also, this outcome is aligned with Targets A, B, and C of the SFDRR,

particularly on appropriate early action intended to prevent casualties, and reduce economic loss.

- Output 14.1 Activated forecast-based early actions.

Outcome 15. Accurate, reliable, and timely information management. It ensures the provision of accurate, reliable, and timely situational reports and the conduct of rapid and/or comprehensive damage and needs assessment following a disaster event. It also ensures that data are sex-, age-, and disability-specific. Additionally, this Outcome ensures that assessment reports from local to national level are coherent and the National Loss and Damage Registry is fully functional and loss and damage information are regularly updated.

- Output 15.1 Loss and Damage Report
- Output 15.2 Rapid Damage and Needs Assessment Report

Outcome 16. Affected communities are provided with gender- and conflict-sensitive basic necessities and services. It assures that essential life-saving and life-sustaining services are provided to communities affected by disaster events. This further safeguards that services should be based on needs, gender-specific, age-appropriate, and culture-sensitive.

- Output 16.1 Provided basic necessities and services to the affected population prioritizing the marginalized sector
- Output 16.2 Restored communities’ economic and livelihood activities
- Output 16.3 Restored vital facilities
- Output 16.4 Provided support and assistance to the responders
- Output 16.5 Price freeze/ price ceiling of basic necessities and prime commodities
- Output 16.6 Prompt resumption of educational services for learners

Outcome 17. Implemented an integrated system for early recovery. It guarantees to meet the essential needs and contribute to the early recovery of households and individuals. This further safeguards the access of affected families to non-food items (NFIs), essential shelter assistance, alternative livelihoods, and health services.

- Output 17.1 Mechanisms for coordinated and integrated early recovery established and essential services restored

Table 3: Monitoring and Evaluation Framework for the Emergency Response and Early Recovery Pillar

OBJECTIVES	OUTCOMES	OUTCOME INDICATORS	OUTPUTS	ACTIVITIES	ACTIVITY INDICATORS	RESPONSIBLE
To activate the emergency operations center equipped with response workforce and volunteers.	13. Well-established disaster response operations with well-equipped workforce and volunteers. Substantially reduced disaster mortality by 2030 (Sendai Global Target A)	Number of lives saved from danger by on-site first responders.	13.1 Activated functional Incident Command System (ICS) on site to Activate functional IMT(s) on site.	13.1.1 Activate ICS and emergency operation centers at the national and local levels to Activate IMT(s) and Operation Center(s) at the National or Local levels, as necessary.	Number of ICS and emergency response centers mobilized at the national and local levels.	OCD-ROCD, OCD-24/7, OPCEN
		Substantially reduced disaster mortality by 2030 (Sendai Global Target A)				
		Percentage of LGUs, responders, and the public that have access to life-saving and life-sustaining information.	13.2 Well-established system of information gathering, reporting, and dissemination.	13.2.1 Issue timely, accurate and reliable information, protocols and public advisories during response operations.	Number of life-saving information and advisories communicated to the LGUs, responders, and the public.	OCD-24/7, OPCEN
		Number of fully-implemented disaster response-related plans and protocols to save lives and alleviate suffering.	13.3 Implemented the pre-developed disaster response plans, policies, and protocol.	13.3.1 Conduct Pre-Disaster Risk Assessment (PDRA) at all levels for preparedness for response.	Number of PDRA rapidly undertaken at all levels.	PDRA Analyst Group: comprised of OCD, DSWD, DILG, DENR, MGB, DOST, PAGASA PDRA core group: comprised of same agencies but attended by principals (e.g., Directors, Undersecretary, Asst. Secretary)
					Monitoring of inventory of stockpile and funding resources	DSWD
				13.3.2 Implement the public policies and actions that support the role of public service workers to establish or strengthen coordination, funding mechanisms, procedures for relief assistance, as well as plan and prepare for post-disaster recovery and reconstruction.	Number of planned activities related to activating disaster funding mechanisms, relief assistance and post-recovery/rehabilitation preparation applied and activated.	OCD-ROCD, OCD-24/7, OPCEN
				13.3.3 Implement National Disaster Response Plan, Contingency and Continuity Plan.	National Disaster Response Plan implemented.	DSWD
					Number of Contingency Plans implemented.	OCD

OBJECTIVES	OUTCOMES	OUTCOME INDICATORS	OUTPUTS	ACTIVITIES	ACTIVITY INDICATORS	RESPONSIBLE
					Number of Public Service Continuity Plans implemented.	All NDRRMC member agencies
		Percentage of affected LGUs and communities with prompt and timely access to financial resources from forecast-based financing mechanisms.		13.3.4 Activate risk and forecast-based financing.	Number of early and anticipatory risk and forecast-based financing actions enforced.	OCD
		Percentage of affected LGUs and communities that have access to life-saving and life-sustaining actions of the private sector, disaster volunteers, and humanitarian actors.	13.4 Activated public and private sector partnerships for humanitarian response and logistics	13.4.1 Mobilize the strengthened public and private sector partnership for humanitarian response and logistics.	Number of public and private sector partnerships activated ⁷ to provide life-saving and life-sustaining actions.	DSWD-DRMB
				13.4.2 Activation of information platforms from humanitarian actors	Number of information platforms publicly accessed.	OCD
					Number of disaster volunteers and humanitarian actors mobilized for response ⁸ actions.	DSWD
		Percentage of IDPs who have access to services provided by the Grievance Committees in their evacuation sites.	13.5 Established grievance and redress mechanism	13.5.1 Establish grievance and redress mechanism in evacuation centers	Number of camp management desks/ teams operationalized in evacuation centers.	DSWD
			13.6 Implemented functioning system for coordinated and efficient relief operations	13.6.1 Activate relief distribution points/ center.	Number of distribution points inside (home-based displaced individuals) and outside evacuation centers.	DSWD
				13.6.2 Activate of the web-based portal on the monitoring of the relief distribution.	Web-based portal on relief distribution monitoring operating in full capacity.	DSWD

⁷ Define

⁸ define response actions

OBJECTIVES	OUTCOMES	OUTCOME INDICATORS	OUTPUTS	ACTIVITIES	ACTIVITY INDICATORS	RESPONSIBLE
To activate risk and forecast-based financing to forecasted affected communities.	14. Appropriate early actions are provided to communities. Substantially increase the availability of and access to multi-hazard early warning systems and disaster risk information and assessments to the people by 2030 (Sendai Global Target G)	Percentage of population exposed to or at-risk from disasters protected through pre-emptive evacuation and early warning (Sendai Indicator G-6)	14.1 Activated forecast-based early actions.	14.1.1 Activate forecast-based financing to support early actions.	Number of affected communities, including their pets and livestock, that are pre-emptively evacuated to a safer place. (Sendai Indicator G-6)	OCD, DILG OPDS, DOST
				14.1.2 Conduct safe and pre-emptive evacuation of affected communities, livestock, other livelihood assets, and pets.		DILG, LGU
		Percentage of LGUs that activated forecast-based early actions.		14.1.3 Conduct early crop harvest and/or actions (like health), based on heightened risks, indicated by forecasts.	Number of appropriate early actions (e.g., crop harvest) executed by LGUs and local communities likely to be hit by disaster events. (Sendai Indicator G-6)	DA
				14.1.4 Coordinate with appropriate agencies for the activation of evacuation plans, systems and procedures.	Number of evacuation plans and procedures that are rapidly executed.	DILG, LGU
				14.1.5 Activate an evacuation system and/or set of procedures.	Number of fully enforced evacuation plans and procedures that are promptly communicated with relevant stakeholders.	DILG, LGU
				14.1.6 Conduct safe and immediate evacuation of affected communities to safer grounds as indicated in the risk assessment results, hazard maps, and other disaster preparedness information and/or documents.		DILG, LGU

OBJECTIVES	OUTCOMES	OUTCOME INDICATORS	OUTPUTS	ACTIVITIES	ACTIVITY INDICATORS	RESPONSIBLE
To evacuate safely, pre-emptively and immediately, affected communities and ensure their safety.	15. Accurate, reliable and timely information management. Substantially increase the availability of and access to multi-hazard early warning systems and disaster risk information and assessments to the people by 2030 (Sendai Global Target G)	Fully functional National Loss and Damage Registry.	15.1 Loss and Damage Report	15.1.1 Develop National Loss and Damage Registry and ensure interoperability with other databases open to all stakeholders.	NLDR is developed and linked with other relevant damages and losses databases.	OCD-OS and OCD-RRMS
					Number of deaths attributed to disasters, per 100,000 population (Sendai Indicator A-2)	OCD-OS
					Number of missing persons attributed to disasters, per 100,000 population (Sendai Indicator A-3)	OCD-OS
					Number of injured or ill people attributed to disasters, per 100,000 population (Sendai Indicator B-2)	OCD
				15.1.2 Improve loss and damage data sharing among stakeholders.	Agreement on loss and damages-related information data sharing entered between the NDRRMC, LGUs, humanitarian and development stakeholders.	DSWD, DHSUD, OCD
				15.1.3 Harmonize existing loss and damage reporting templates with data that are disaggregated by sex, age and disability-specific.	Number of stakeholders (e.g., NGAs, LGUs, CSOs, and other relevant humanitarian actors) that use a unified loss and damage reporting template (with disaggregated sex, age, and disability-specific data).	DSWD, OCD
				15.1.4 Train officials in disaster damage and loss data recording and reporting through the National Loss and damage Registry.	Number of stakeholders (e.g., NGAs, LGUs, CSOs, and other relevant humanitarian actors) capacitated to use the unified template.	OCD, DSWD-DRMB

OBJECTIVES	OUTCOMES	OUTCOME INDICATORS	OUTPUTS	ACTIVITIES	ACTIVITY INDICATORS	RESPONSIBLE
		Percentage of Rapid Needs Assessment Report that are integrated covering all affected areas with appropriate gender-, age-, and disability-specific data.	15.2 Rapid Damage and Needs Assessment Report	15.2.1 Activate assessment teams at all levels, as needed.	Number of assessment teams mobilized at appropriate levels.	OCD
					Number of stakeholders collaboratively initiate the RDANA process in affected areas with disaggregated sex, age, and disability-specific data.	
					Number of people whose damaged dwellings were attributed to disasters. (Sendai Indicator B-3)	OCD RRMS, Department of Human Settlements and Urban Development (DHSUD) Public Housing and Settlements Service (PHSS)
					Number of people whose destroyed dwellings were attributed to disasters (Sendai Indicator B-4)	OCD RRMS, Department of Human Settlements and Urban Development (DHSUD) Public Housing and Settlements Service (PHSS)
					Number of people whose livelihoods were disrupted or destroyed, attributed to disasters (Sendai Indicator B-5)	OCD DSWD- SLP
				15.2.2 Use the developed and updated standard/ harmonized guidelines and procedures to conduct Rapid Damage and Needs Assessment (RDANA) including sectoral assessments for easy consolidation and analysis of the communities' immediate needs.		OCD
				15.2.3 Generate RDANA report in affected areas with data that are disaggregated by sex, age- and disability-specific.		OCD

OBJECTIVES	OUTCOMES	OUTCOME INDICATORS	OUTPUTS	ACTIVITIES	ACTIVITY INDICATORS	RESPONSIBLE
To ensure the timely, effective and well-coordinated response action and humanitarian logistics among cluster members and other actors.				15.2.4 Conduct immediate needs assessment in close coordination with key stakeholders, civil society organizations, private sector and the Humanitarian Country Team to determine the immediate relief and response requirements.		OCD
		Percentage of affected LGUs and communities that have access to QRF.		15.2.5 Consolidate the DANA reports to facilitate the declaration of State of Calamity and access of quick response funds (QRF).	Number of DANA reports of affected communities consolidated to support QRF disbursement.	DSWD, OCD
	16. Affected communities are provided with gender- and conflict-sensitive basic necessities and services. 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 (Sendai Global Target B)	Number of affected population, particularly the marginalized sector, that have access to essential life-saving and life-sustaining services.	16.1 Provided basic necessities and services to the affected population prioritizing the marginalized sector.	16.1.1 Provide gender-responsive, culture-, and conflict sensitive camp management and protection service to affected populations.	Number of affected individuals provided with gender-responsive, culture-, and conflict-sensitive camp management and protection services.	DSWD
				16.1.2 Deliver essential medical and public health services (i.e., WASH, nutrition, MHPSS, MISP-SRH).	Number of affected population benefitting from critical medical and nutritional services ⁹ .	DSWD, DOH
				16.1.3 Establish child-, women-, older person and person with disability-friendly transitional shelters as well as a referral system for orphaned, unaccompanied, and separated children.	Number of child-, women-, older persons and person-with-disability-friendly transitional shelters.	DSWD

⁹ Define. refer to CEPC

OBJECTIVES	OUTCOMES	OUTCOME INDICATORS	OUTPUTS	ACTIVITIES	ACTIVITY INDICATORS	RESPONSIBLE
				16.1.4 Prompt resumption of educational services for children.	Number of children benefiting from education support and services ¹⁰	OCD RRMS, DepEd
				16.1.5 Monitor the delivery of gender-responsive, culture-, and conflict-sensitive basic necessities and services to affected populations.	Gender-responsive, culture-, and conflict-sensitive basic necessities and services ¹¹ delivered to affected populations are monitored.	OCD-RRMS, DSWD
				16.1.6 Ensure immediate heightened safety and security measures.	Number of children and women protected from all forms of harm (e.g., exploitation, human trafficking).	PNP, LCAT VAWC council members
		Percentage of communities with economic and livelihood activities restored. Substantially reduce the number of affected people by 2030 (Sendai Global Target B)	16.2 Restored communities' economic and livelihood activities.	16.2.1 Provide alternative livelihood options for communities whose work has been damaged and/or suspended due to disasters.	Number of affected population benefitting from alternative livelihood strategies ¹² .	DSWD, DTI
				16.2.2 Strengthen capacities of communities for livelihood diversification.	Number of barangays capacitated on alternative livelihood strategies.	DTI, DSWD, OCD-RRMS
				16.2.3 Restore business operations and/or implement business continuity plans.	Number of Business Continuity Plans activated by SMEs.	DTI
		Percentage of critical facilities restored and fully operational.	16.3 Restored vital facilities	16.3.1 Clear road access and repair damaged bridges.	Number of damaged roads is free from any obstructions, and bridges are strong enough to facilitate transportation.	DPWH, BFP, PNP, AFP, LGUs
				16.3.2 Restore energy, telecommunication and other lifeline service.	Number of telecommunication networks and energy services that are uninterrupted and provide adequate supply.	DOE, DICT, LWUA, WDs

¹⁰ Define refer to the CEPC

¹¹ Define

¹² Define

OBJECTIVES	OUTCOMES	OUTCOME INDICATORS	OUTPUTS	ACTIVITIES	ACTIVITY INDICATORS	RESPONSIBLE
				16.3.3 Repair other vital infrastructure as necessary for relief and early recovery such as but not limited to schools, hospitals, and etc.	Number of repaired vital infrastructure necessary for relief and early recovery.	DPWH, LGUs, DOH, DepEd, DILG, AFP
		Percentage of responders who have access to essential services.	16.4 Provided support and assistance to the responders.	16.4.1 Provide care to the responders.	Number of responders provided with necessary support and services ¹³ .	DSWD-DRMB, DOH, DOF
		Percentage of areas declared under State of Calamity where a price freeze on basic necessities and prime commodities has been issued.	16.5 Price freeze/ price ceiling of basic necessities and prime commodities	16.5.1 Conduct intensified price and supply monitoring and enforcement activities.	Price monitoring activities initiated.	DTI
				16.5.2 Issue price freeze list in areas declared under state of calamity.		DTI
		Percentage of validated disaster/emergency affected schools with access to education support and promptly resuming education services.	16.6 Prompt resumption of educational services for learners.	16.6.1 Install Temporary Learning Spaces and/or Temporary WASH facilities to validate disaster/emergency-affected schools.	Number of validated disaster/emergency affected schools with constructed TLS and/or WASH facilities	CHED, DepEd, TESDA
				16.6.2 Provide learners kits, teachers kits, and hygiene kits to validated disaster/emergency affected schools.	Number of validated disaster/emergency affected schools whose learners and teachers are provided with learners, teachers, and hygiene kits.	CHED, DepEd, TESDA
				16.6.3 Download clean-up funds and/or emergency school feeding funds to validated disaster/emergency affected schools.	Number of validated disaster/emergency affected schools downloaded with clean-up and/or school feeding funds.	DepEd
				16.6.4 Provide Psychological First Aid to disaster/emergency-affected learners and personnel.	Number of validated disaster/emergency affected schools with learners and personnel provided with PFA support.	CHED, DepEd, TESDA

¹³ Define

OBJECTIVES	OUTCOMES	OUTCOME INDICATORS	OUTPUTS	ACTIVITIES	ACTIVITY INDICATORS	RESPONSIBLE	
				16.6.5 Deploy Alternative Delivery Modes to disaster/ emergency-affected schools.	Number of validated disaster/emergency affected schools that have been deployed with ADM.	CHED, DepEd, TESDA	
	17. Implemented an integrated system for early recovery 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 (Sendai Global Target B) 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 (Sendai Global Target D)	Percentage of affected population with access to early recovery programs and related support services.	17.1 Mechanisms for coordinated and integrated early recovery established and essential services restored.	17.1.1 Develop and implement a system for early recovery to include specific activities addressing the needs identified.	Number of beneficiaries provided with early recovery assistance	DSWD-ERSD	
				17.1.2 Develop partnership mechanisms with utility providers and key stakeholders.	Number of agreements/partnerships between the LGU, affected communities and utility providers.	OCD	
				17.1.3 Implement post-disaster response activities like cash for work and the likes that provide immediate cash to affected families.	Number of population benefitting from post-disaster response activities ¹⁴	DSWD-ESRD, OCD-Planning Office	
		Percentage of affected population that have access to essential psychosocial support and mental health services.		17.1.4 Enhance recovery schemes to provide psychosocial support and mental health services for disaster-affected families.	Number of population benefitting from psychosocial support and mental health services ¹⁵ .	DOH, DSWD	
				17.1.5 Provide early recovery services such as, but not limited to, temporary livelihood and/or income generating activities such as cash for work, micro and small enterprise, and emergency cash transfer among others.	Number of affected population that are able to receive livelihood recovery schemes ¹⁶ .	DSWD, DTI	
				17.1.6 Implement post-disaster response activities like cash for work that provide immediate cash to affected families.		DSWD	

¹⁴ Define

¹⁵ Define

¹⁶ Define

OBJECTIVES	OUTCOMES	OUTCOME INDICATORS	OUTPUTS	ACTIVITIES	ACTIVITY INDICATORS	RESPONSIBLE
				17.1.7 Provide early recovery services such as, but not limited to, provision of livelihood grants or kits to support new or alternative micro-enterprises or jobs and emergency cash transfer programs, among others.		DTI

3.4 Disaster Rehabilitation and Recovery

Table 4 summarizes the planned outputs and major activities under the Rehabilitation and Recovery Pillar of the NDRRMP 2020-2030. With the main goal of speeding up recovery from disaster losses through rehabilitation and recovery programs that are aligned to sustainable development and the “build back better” principle, the rehabilitation and recovery pillar sets out six (6) key outcomes.

These outcomes have the potential to address challenges related to the absence of clear standards and guidelines on rehabilitation and recovery; limited access of affected families to sustainable and resilient livelihood income sources; decreased agricultural production resulting from disasters; limited relocation options for affected families causing them to remain in danger zones; affected families’ inadequate access to social services; and non-observance of resilient infrastructure and build back better standards in some rehabilitation and recovery efforts.

Thus, the target rehabilitation and recovery interventions focus on employment and livelihoods, infrastructure and lifeline facilities as well as housing and resettlement to bring the affected communities back to normal as quickly as possible.

The corresponding outputs under each outcome are found in the succeeding sections below.

Outcome 18. Clear policy directions for rehabilitation and recovery

- Output 18.1 Post-disaster needs assessment
- Output 18.2 Rehabilitation and recovery program for major disasters
- Output 18.3 Periodic monitoring report

Covers the reporting of indicators for Global Targets C and D of the Sendai Framework.

Outcome 19. Sustainable and socially inclusive income sources for households are made available and stability of economic activities restored.

- Output 19.1 Temporary Employment Program
- Output 19.2 Livelihood program and support to businesses

Outcome 20. Agricultural production is restored or increased and support services for farmers, fisherfolks, and laborers are made accessible.

- Output 20.1 Agricultural production assistance program

Outcome 21. Affected families or individuals have access to: (a) affordable disaster-resilient housing that are located in safe zones where social services and public facilities are available; or, (b) financial assistance to rebuild houses in areas that are declared safe zones.

- Output 21.1 Comprehensive housing program covering shelter assistance for transitional and permanent housing

Outcome 22. Affected individuals, families, and communities have access to responsive, appropriate and adequate education, health, and social protection services.

- Output 22.1 Social services and programs on health and education.
- Output 22.2 Social protection services. To further fast track the recovery of affected families, provision of financial support is necessary

Outcome 23. Disaster resilient standards in infrastructure are observed during rehabilitation and recovery.

- Output 23.1 Public- and privately-owned infrastructure reconstructed or rehabilitated according to improved disaster resiliency standards.

Table 4: Monitoring and Evaluation Framework for the Disaster Rehabilitation and Recovery Pillar

OBJECTIVES	OUTCOMES	OUTCOME INDICATORS	OUTPUTS	ACTIVITIES	ACTIVITY INDICATORS	RESPONSIBLE
Assess damage, losses, and damage needs during disasters as a basis for the formulation of rehabilitation and recovery program.	18. Clear policy directions for rehabilitation and recovery. Substantially increase the availability of and access to multi-hazard early warning systems and disaster risk information and assessments to the people by 2030 (Sendai Global Target G)	Percentage of post-disaster rehabilitation and recovery programs for major disasters implemented.	18.1 Post Disaster needs assessment	18.1.1 Conduct training on damage, loss and impact assessment.	Number of LGUs that are able to conduct PDNA	World Vision, OCD- RRMS, DA, DPWH, DENR, DOTr, NAPC, DILG
				18.1.2 Conduct damage assessment and field validation.	Number of LGUs that are able to conduct PDNA	OCD-RRMS Agencies in the PDNA team
				18.1.3 Conduct estimation of losses and macroeconomic impact assessment.	Number of LGUs that are able to conduct PDNA	OCD, DA, Agencies in the PDNA team
					Direct agricultural loss attributed to disasters (Sendai Indicator C-2)	DA, DENR
					Economic value of damaged or destroyed green infrastructure elements (Sendai Indicator C-5)	
					Area in hectares of destroyed or damaged green infrastructure elements (Sendai Indicator D-4)	
					Direct economic loss to all other damaged or destroyed productive assets attributed to disasters (Sendai Indicator C-3)	DPWH, DTI, DOT, DOTR
					Direct economic loss in the housing sector attributed to disasters (Sendai Indicator C-4)	DHSUD

OBJECTIVES	OUTCOMES	OUTCOME INDICATORS	OUTPUTS	ACTIVITIES	ACTIVITY INDICATORS	RESPONSIBLE
					Number of other destroyed or damaged critical infrastructure units and facilities attributed to disasters. Number of destroyed or damaged national roads and bridges attributed to disasters. (Sendai Indicator D-4)	DPWH
					Direct economic loss to cultural heritage damaged or destroyed attributed to disasters (Sendai Indicator C-6)	NCCA
					Number of destroyed or damaged health facilities attributed to disasters. (Sendai Indicator D-2) Number of disruptions to health services attributed to disasters. (Sendai Indicator D-7) Economic value of destroyed or damaged health facilities and public hospitals (Sendai Indicator C-5)	DOH
					Number of destroyed or damaged educational facilities attributed to disasters. (Sendai Indicator D-3)	DepEd and CHED

OBJECTIVES	OUTCOMES	OUTCOME INDICATORS	OUTPUTS	ACTIVITIES	ACTIVITY INDICATORS	RESPONSIBLE
					Number of disruptions to educational services attributed to disasters. (Sendai Indicator D-6)	
					Economic value of destroyed or damaged school buildings and HEI buildings (Sendai Indicator C-5)	
					Number of disruptions to other basic services attributed to disasters. (Sendai Indicator D-8)	
			18.2 Rehabilitation and recovery program for major disasters	18.2.1 Formulate rehabilitation and recovery framework that is DRR and BBB inclusive.	Framework for rehabilitation and recovery formulated	OCD: RRMS NEDA
				18.2.2 Review post-disaster budget.	Number of LGUs and NGAs that monitor the implementation of their rehabilitation and recovery programs	OC, DBM, Agencies with QRF
				18.2.3 Undertake investment programming to identify and prioritize projects and activities that incorporate resilience building.	Number of post-disaster rehabilitation and recovery programs for major disasters implemented	World Vision, NEDA, OCD, Other implementing agencies concerned
				18.2.4 Forge and institutionalize partnerships with the private sector, development partners, and community-based organizations in harnessing their key competencies in augmenting and mobilizing resources and providing additional assistance towards well-coordinated resilient rehabilitation and recovery.	Number of post-disaster rehabilitation and recovery programs for major disasters implemented	NEDA, OCD, NEA, Other implementing agencies concerned

OBJECTIVES	OUTCOMES	OUTCOME INDICATORS	OUTPUTS	ACTIVITIES	ACTIVITY INDICATORS	RESPONSIBLE
Develop short- and medium-term rehabilitation and recovery plans, aligned with or contributing to the national medium- and long-term national, regional, or local development plan.				18.2.5 Promote resilient rehabilitation and recovery activities in both public and private sectors.	Number of post-disaster rehabilitation and recovery programs for major disasters implemented	OCD, DA, NEDA, Other implementing agencies concerned
			18.3 Periodic Monitoring Report (semi-annual)	18.3.1 Monitor the implementation of rehabilitation and recovery programs and submit reports to the NDRRMC.	Number of LGUs that monitor the implementation of their rehabilitation and recovery programs	OCD-RRMS, NAPC, Other implementing agencies concerned
	19. Sustainable and socially-inclusive income sources for households are made available and stability of economic activities restored. 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 (Sendai Global Target B)	Percentage of households and businesses equipped with sustainable and socially-inclusive income sources, financial assistance and support services.	19.1 Temporary Employment Program	19.1.1 Undertake inventory and assessment of current capacity of affected families and individuals.	Number of women and men benefitting from skills training	DTI, World Vision, DA
					Number of women and men from affected households benefitting from financial assistance	DTI, World Vision, DA, Other concerned agencies
					Number of women and men from affected households benefitting from non-financial assistance	World Vision, DA, other concerned agencies
				19.1.2 Provide temporary employment to affected families and individuals.	Number of affected businesses benefitting from support services	DTI, DOLE, DSWD, DA, Other Implementing agencies
			19.2 Livelihood program and support to businesses.	19.2.1 Provide skills training and alternative sources of livelihood.	Number of affected businesses benefitting from support services	DA, TESDA, DOLE, DTI, DSWD
				19.2.2 Provide support services, including financing programs, to enable SMEs and other businesses to resume their operations.	Number of affected businesses benefitting from support services	<u>DTI- SBCorp</u> :
				19.2.3 Ensure unhampered supply of food and essential goods and immediately address issues and bottlenecks in the supply chain.	Number of policies implemented to ensure unhampered delivery of agricultural services/inputs	DA, DPWH, DTI
					Number of food passes issued	DA, DTI, DSWD
	20. Agricultural production is restored or increased and support services for	Percentage of agricultural workers with improved access to agricultural inputs, and production support services	20.1 Agricultural production assistance program	20.1.1 Provide inputs for agricultural and fisheries production.	Number of farmer and fisherfolk beneficiaries	DA, DRRMS, DA Regional Offices (farmer-related data); BFAR

OBJECTIVES	OUTCOMES	OUTCOME INDICATORS	OUTPUTS	ACTIVITIES	ACTIVITY INDICATORS	RESPONSIBLE
	farmers, fisher folks, and laborers are made accessible Reduce direct disaster economic loss in relation to global gross domestic product (GDP) by 2030 (Sendai Global target C)					(fisherfolk-related data), DPWH
				20.1.2 Improve access to financial services for farmers, fisherfolk, and agricultural workers/laborers.	Number of individuals with access to risk transfer/ survival and recovery (SURE) loan	DA-DRRMS, DOF
				20.1.3 Provide skills training activities for alternative sources of livelihood.	Number of capacity building activities conducted	DA Regional Offices, Agricultural Training Institute (ATI), TESDA, DTI, DOLE
				20.1.4 Improve supply chains and logistics to ensure continuous delivery of agricultural products during disasters.	Number of policies implemented to ensure unhampered delivery of agricultural services/inputs	DA- DRRMS, DPWH, DOTr
					Number of Kadiwa markets established	DA-DRRMS

OBJECTIVES	OUTCOMES	OUTCOME INDICATORS	OUTPUTS	ACTIVITIES	ACTIVITY INDICATORS	RESPONSIBLE
	21. Affected families or individuals have access to: (a) affordable disaster-resilient housing that are located in safe zones where social services and public facilities are available; or (b) financial assistance to rebuild houses in areas that are declared safe zones 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 (Sendai Global Target B)	Percentage of families with improved access to safe, affordable housing with available social services and public facilities.	21.1. Comprehensive housing program covering shelter assistance for transitional and permanent housing	21.1.1 Identify through risk assessments, develop and provide safe and suitable land for housing development.	Number of shelters in safe zones constructed.	DENR-MGB, NHA, DHSUD
		Percentage of families with improved access to financial assistance to rebuild houses in areas that are declared safe zones.				
				21.1.2 Construct safe transitional housing 21.1.3 Construct resilient permanent housing, as needed.	Number of resilient housing constructed	NHA, DHSUD
					Number of affected families provided with shelter repair kits.	World Vision
					Number of affected households benefiting from basic services (i.e., water and power)	NHA, DHSUD, Basic utility providers:
					Number of resettlement sites provided with community facilities.	DPWH, NEA, LWUA
				21.1.4 Provide financial assistance or housing rental subsidies to encourage self-recovery.	Number of affected families benefiting from post-disaster resilient housing assistance (e.g., housing, financial assistance)	DSWD

OBJECTIVES	OUTCOMES	OUTCOME INDICATORS	OUTPUTS	ACTIVITIES	ACTIVITY INDICATORS	RESPONSIBLE
				21.1.5 Integrate provision of risk informed and responsive social services, including essential infrastructure and utilities, and livelihoods in building new resettlement communities.	Number of affected households benefiting from basic services (i.e., water and power)	DPWH, DHSUD, NHA, DSWD
					Number of resettlement sites provided with community facilities	DPWH, DepEd, DOH, Other implementing agencies
				21.1.6 Establish schools in identified safe permanent resettlement sites or construct additional buildings in schools near the identified resettlement sites, as needed using hazard risk assessments to ensure the area is safe.	Number of resettlement sites provided with community facilities (e.g., school buildings, markets, health centers, livelihood, etc.).	DENR-MGB, DPWH, DepEd, CHED
				21.1.7 Construct temporary learning spaces in temporary resettlement sites or in nearby schools, as needed.	Number of resettlement sites provided with community facilities	DepEd, CHED, DPWH, DENR-MGB
				21.1.8 Capacitate or enhance skills of communities in adopting safe housing construction designs in building houses.	Number of community carpenters and builders trained on resilient housing construction	DPWH, TESDA, DOLE
	22. Affected individuals, families, and communities have access to responsive, appropriate and adequate education, health, and social protection services. Substantially reduce disaster damage to	Percentage of affected population with improved access to responsive, appropriate and adequate education, health, and social protection services.	22.1 Social services and programs on health and education.	22.1.1 Provide social services and programs such as on health and education with priority focus on severely affected areas and highly vulnerable populations.	Number of affected individuals/populations disaggregated by sex, age, and disability, benefitting from social services.	<u>CHED-OSDS</u> , <u>DSWD</u>

OBJECTIVES	OUTCOMES	OUTCOME INDICATORS	OUTPUTS	ACTIVITIES	ACTIVITY INDICATORS	RESPONSIBLE
	critical infrastructure and disruption of basic services, among them health and educational facilities, including through developing their resilience by 2030 (Sendai Global Target D)			22.1.2 Provide adequate mental health and psychosocial support to aid individuals restore their normal functioning.	Number of affected individuals/populations disaggregated by sex, age, and disability, benefitting from psychosocial support services	DOH: Mental Health Division/HEMB DepEd:
	23. Disaster resilient standards in infrastructure are observed during rehabilitation and recovery 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 (Sendai Global Target D)	Percentage of disaster-resilient infrastructure projects built	23.1 Public- and privately-owned infrastructure reconstructed or rehabilitated according to improved disaster resiliency standards.	23.1.1 Strengthen enforcement of the National Building Code of the Philippines and other structural laws to conform to standards on resilient infrastructure.	Number of infrastructure projects built adhering to resilient standards Number of infrastructure projects completed within the target timeline	DPWH, NEA, LWUA, DA DPWH, NEA, LWUA, DA
				23.1.2 Establish a system to ensure compliance to standards of materials used.	Number of infrastructure projects built adhering to resilient standards	<u>DA, LWUA, NEA, DPWH</u>
				23.1.3 Establish an efficient and effective process to facilitate the completion of infrastructure projects within the agreed timeframe and with the highest quality.	Number of infrastructure projects completed within the target timeline	DPWH, NEA, LWUA, DA

Chapter 4:

What are the roles and responsibilities of DRRM actors in the monitoring and evaluation?

Knowing the roles and responsibilities of DRRM stakeholders facilitates effective M&E. This section presents the expectations, mandates, and M&E arrangements to effectively track progress and report accomplishments in implementing the NDRRMP 2020-2030. The section This includes collecting data, checking data, conducting analysis, reviewing reports, and making decisions based on the data.

4.1 National Level

4.1.1 Roles and Responsibilities of OCD in Results Monitoring and Reporting to the NDRRMC

1. Lead the overall management and coordination of DRRM M&E-related activities in the country.
2. Develop and disseminate the tools (e.g., report templates) for monitoring and evaluation of DRRM-related PPAs to concerned DRRM stakeholders in the country.
3. Lead the collection and consolidation of monthly/ mid-year/ annual accomplishment reports and Means of Verification (MOVs) of the NDRRMC member agencies and OCD regional offices.
4. Review the submitted reports and MOVs and provide feedback accordingly.
5. Draft the annual thematic pillar reports in consultation with the Vice-Chairs.
6. Have the annual thematic pillar reports and MOVs checked and validated by the member agencies of each pillar.
7. Referring to the annual thematic pillar reports, develop a consolidated annual NDRRMC accomplishment report.
8. Convene the Vice-Chairs and NDRRMC-RBMES TWG members to review and provide inputs to the NDRRMC Annual Accomplishment Report.
9. Using the information from the NDRRMC Annual Accomplishment Report, develop the Sendai Monitoring Report to assess the country's implementation progress on the SFDRR commitments and targets.
10. Present the NDRRMC Annual Accomplishment and Sendai Monitoring Reports to the TMG for further input, validation, and endorsement to the NDRRMC Full Council.
11. Revise the reports based on the comments/ feedback from the TMG.
12. Convene the NDRRMC Full Council for the finalization and approval of the reports.

4.1.2 Roles and Responsibilities of the Vice-Chairs in Results Monitoring within their Pillar and Results Reporting to the NDRRMC-OCD

1. In close consultation with the member agencies, prepare an M&E matrix for their respective pillars outlining the target PPAs, timeframe, indicators, baseline, targets, data sources, and responsible person/ office. The M&E matrix should be anchored in their respective thematic action plans.
2. Assist the OCD National Office in collecting the monthly/ mid-year/ annual accomplishment reports and relevant MOVs of the member agencies of their respective pillars.
3. Assist the OCD National Office in reviewing the accomplishment reports submitted by the member agencies and provide feedback accordingly.
4. Coordinate with the member agencies if additional information/ inputs are needed in the submitted reports.
5. Provide inputs to the annual thematic pillar and NDRRMC accomplishment reports.

4.1.3 Roles and Responsibilities of the NDRRMC Member Agencies in Implementation Monitoring and Results Monitoring Reporting (Vice-Chair and OCD)

1. Prepare an M&E matrix outlining the target PPAs, timeframe, indicators, baseline, targets, data sources, and responsible person/ office. The M&E matrix should be anchored in their respective DRRM implementation plans.
2. Accomplish the monthly/ mid-year/ annual reporting templates provided by OCD to monitor the agency's progress in relation to achieving the outcomes of the NDRRMP 2020-2030.
3. Attach the necessary Means of Verification (MOVs) such as photos, maps, and other relevant supporting documents along with the reports.
4. Submit the reports and MOVs to the Vice-Chair of the pillar they belong to and

the OCD National Office within the agreed timeframe.

- 5. Respond to and/or integrate the comments/ feedback from the Vice-Chairs/ OCD National Office on the submitted reports.
- 6. Provide inputs to the annual thematic pillar and NDRRMC accomplishment reports.

4.2 Local Level

4.2.1 Roles and Responsibilities of the OCD Regional Offices in Results Monitoring in their Region and Results Reporting to the OCD National Office

- 1. Prepare an M&E matrix outlining the target PPAs, timeframe, indicators, baseline, targets, data sources, and responsible person/ office. The M&E matrix should be anchored in their respective Regional DRRM Plans.
- 2. Accomplish the monthly/ mid-year/ annual reporting templates provided by the OCD National Office to monitor the office's progress in relation to achieving the outcomes of the NDRRMP 2020-2030.
- 3. Draft the RDRRMC Annual Accomplishment Report outlining the DRRM-related accomplishments of their respective regions.
- 4. Attach the necessary MOVs such as photos, maps, and other relevant supporting documents along with the reports.
- 5. Have the reports and MOVs checked/validated/ endorsed by the RDRRMC.
- 6. Submit the reports and MOVs to the OCD National Office within the agreed timeframe.
- 7. Respond to and/or integrate the comments/ feedback from the OCD National Office on the submitted reports.
- 8. Review the accomplishment reports submitted by the regional DRRM council members and provincial DRRMOs and provide feedback accordingly.
- 9. Provide guidance to the RDRRMC members/ provincial DRRMOs on preparing their monthly / mid-year/ annual reports.
- 10. Conduct regular monitoring visits to the provincial DRRMOs to check on their progress in the implementation of their respective DRRM plans.

4.2.2 Roles and Responsibilities of the RDRRMC Member Agencies in Results Monitoring and Reporting to the OCD Regional Office

- 1. Prepare an M&E matrix outlining the target PPAs, timeframe, indicators, baseline, targets, data sources, and responsible person/ office. The M&E matrix should be anchored in their respective Regional DRRM Plans.
- 2. Accomplish the monthly/ mid-year/ annual reporting templates provided by OCD to monitor the agency's progress in relation to achieving the outcomes of the NDRRMP 2020-2030.
- 3. Attach the necessary MOVs such as photos, maps, and other relevant supporting documents along with the reports.
- 4. Submit the reports and MOVs to the concerned OCD Regional Office within the agreed timeframe.
- 5. Respond to and/or integrate the comments/ feedback from the OCD Regional Office on the submitted reports.
- 6. Provide inputs to the annual accomplishment report of the RDRRMC.

4.2.3 Roles and Responsibilities of P/C/M DRRMOs in Implementation Monitoring, Results Monitoring and Reporting

4.2.3.1 Provincial DRRMO

- 1. Prepare an M&E matrix outlining the target PPAs, timeframe, indicators, baseline, targets, data sources, and responsible person/ office. The M&E matrix should be anchored in their respective Provincial DRRM Plans.
- 2. Accomplish the monthly/ mid-year/ annual reporting templates provided by OCD to monitor the province's progress in relation to achieving the outcomes of the NDRRMP 2020-2030.
- 3. Attach the necessary MOVs such as photos, maps, and other relevant supporting documents along with the reports.
- 4. Have the reports and MOVs checked and validated by the Provincial DRRM council members.
- 5. Submit the reports and MOVs to the concerned OCD Regional Office within the agreed timeframe.
- 6. Respond to and/or integrate the comments/ feedback from the OCD Regional Office on the submitted reports.
- 7. Review the accomplishment reports

submitted by the municipal/ city DRRMOs and provide feedback accordingly.

- 8. Provide guidance to the municipal/ city DRRMOs on preparing their monthly / mid-year/ annual reports.
- 9. Conduct regular monitoring visits to the municipal/ city DRRMOs to check on their progress in the implementation of their respective DRRM plans.

4.2.3.2 City and Municipal DRRMOs

- 1. Prepare an M&E matrix outlining the target PPAs, timeframe, indicators, baseline, targets, data sources, and responsible person/ office. The M&E matrix should be anchored in their respective City/ Municipal DRRM Plans.
- 2. Accomplish the monthly/ mid-year/ annual reporting templates provided by OCD to monitor the city/ municipal LGU's progress in relation to achieving the outcomes of the NDRRMP 2020-2030.
- 3. Attach the necessary MOVs such as photos, maps, and other relevant supporting documents along with the reports.
- 4. Have the reports and MOVs checked and validated by the City/ Municipal DRRM council members.
- 5. Submit the reports and MOVs to the Provincial Disaster Risk Reduction and Management Office (PDRRMO) within the agreed timeframe.
- 6. Respond to and/or integrate the comments/ feedback from the PDRRMO on the submitted reports.
- 7. Review the accomplishment reports submitted by the BDRRMC and provide feedback accordingly.
- 8. Provide guidance to the BDRRMC on preparing their monthly / mid-year/ annual reports.
- 9. Conduct regular monitoring visits to the BDRRMC to check on their progress in the implementation of their respective DRRM plans.

4.2.4 Roles and Responsibilities of BDRRMC in Implementation Monitoring, Results Monitoring and Reporting

- 1. Prepare an M&E matrix outlining the target PPAs, timeframe, indicators, baseline, targets, data sources, and the responsible person/ committee. The M&E matrix should be anchored in their respective Barangay DRRM Plans.
- 2. Accomplish the monthly/ mid-year/ annual reporting templates provided by OCD to monitor the Barangay LGU's progress in relation to achieving the outcomes of the NDRRMP 2020-2030.
- 3. Attach the necessary MOVs such as photos, maps, and other relevant supporting documents along with the reports.
- 4. Submit the reports and MOVs to the Municipal/ City Disaster Risk Reduction and Management Office (M/CDRRMO) within the agreed timeframe.

Respond to and/or integrate the comments/ feedback from the M/CDRRMO on the submitted reports.

Chapter 5: What are the processes for data flow and management?

The National Disaster Risk Reduction Management Plan (NDRRMP) was developed as a long term sectoral plan aimed at addressing the four thematic areas of disaster prevention and mitigation, disaster preparedness, disaster response, rehabilitation and recovery. To support the implementation of the plan, a corresponding monitoring and evaluation framework is being developed to support the monitoring of the outcomes, and indicators that need to be attained by the plan. One of the gaps identified during the development of the framework is the lack of information systems that can be used to collect, manage, store and analyze M&E data.

With this gap, UNDP supported the development of a web-based M&E system for the NDRRMP. In this report we are discussing the technical details for the implementation of a web based system.

The TNA report for the system described the following architecture ^[1]:

High Level Architecture

The figure (Figure 1) shown below describes the high level architecture for the system. The architecture shows the components of the system and the corresponding modules inside the systems. The architecture also shows the various system users that will interact with the system. As indicated in the recommendations, it is proposed that the system is developed to be modular and hence the various modules should have limited dependencies with one another. The following are the components of the system:

System Database: The system database would be the integrated database for all the components of the system. It will be designed so that the various database tables can properly interact with one another. It is also recommended that the system database be stored in the same server as other components of the system.

Internal Site: The internal site will be used to manage the submission of indicator data and to manage the contents of the public site. The internal site will have the following modules:

- 1) Thematic Areas – contains information about the thematic areas as defined in the M&E framework
- 2) Outcomes and Indicators – contains information about the M&E outcomes and the corresponding indicators.
- 3) Outputs and Indicators – contains information about the M&E outputs and the corresponding indicators.
- 4) Activities and Indicators – contains information about the M&E activities and the corresponding indicators.
- 5) Knowledge Products – component where users can submit a knowledge product for publication in the public site.
- 6) Data input – contains the forms where the user can input data.
- 7) User Account management – this is the module where the users can modify / add accounts that can be used to access the system.
- 8) System Login – this is the module where security authorization of entities who logged in is will be checked. Upon logging in, the user account used shall be the active user name and will be recorded though out the system.

- 9) Internal Dashboard – this dashboard is used to monitor the internal activities done in the system (i.e. number of indicators updated, number of account users etc.)
- 10) Integration module – this will contain the APIs that will be used to submit data to the system or get information from the system.

Public Site: The public site contains information that is accessible to the general public. It will also contain the login page that can be used to access the internal site. The public site will contain the following

- 1) Knowledge Product Module – this is where the users can access and download knowledge products.
- 2) Related documents module – this is the module where various documents related to the NDRRMP can be downloaded.

Figure 2 shows the Deployment / Technology stack. The proposed stack is based on open source technologies that are used for web application development:

Technology Stack

The Technology stack is consists of the following technologies:

- 1) Server Stack – Apache Server
- 2) Programming language /script – Php 7.0, JavaScript, ReactJS, Bootstrap, Foundation
- 3) Database – MariaDB
- 4) Web Framework – CodeIgniter (utilizes the MVC framework)

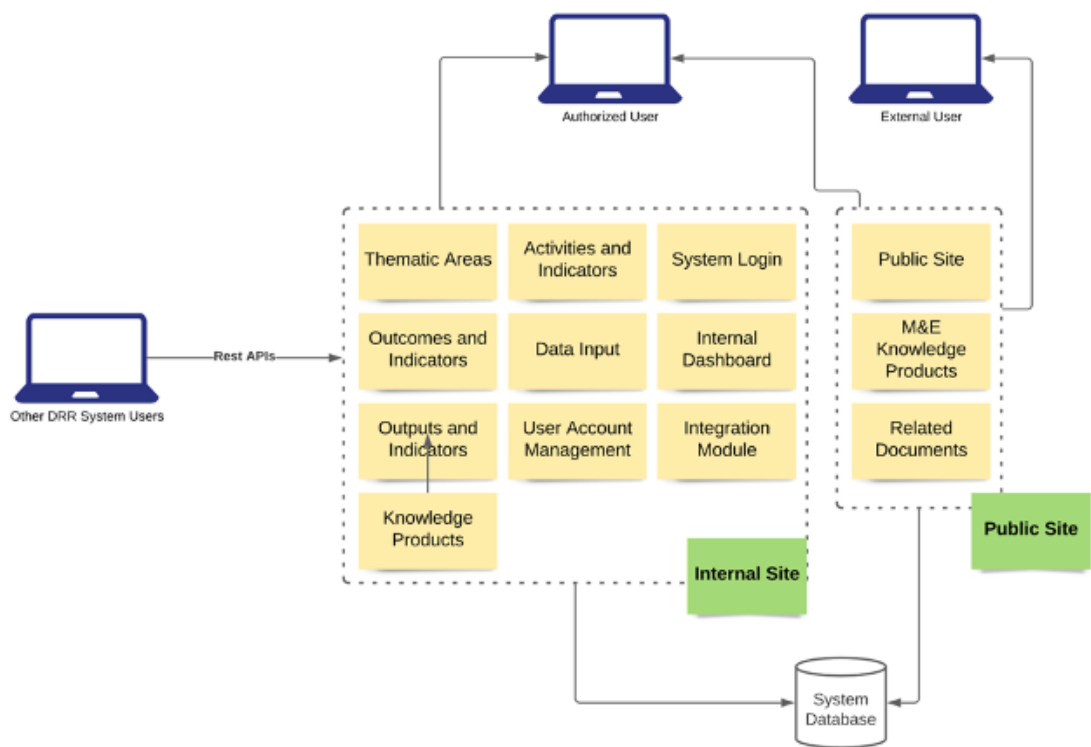


Figure 1: High Level Architecture

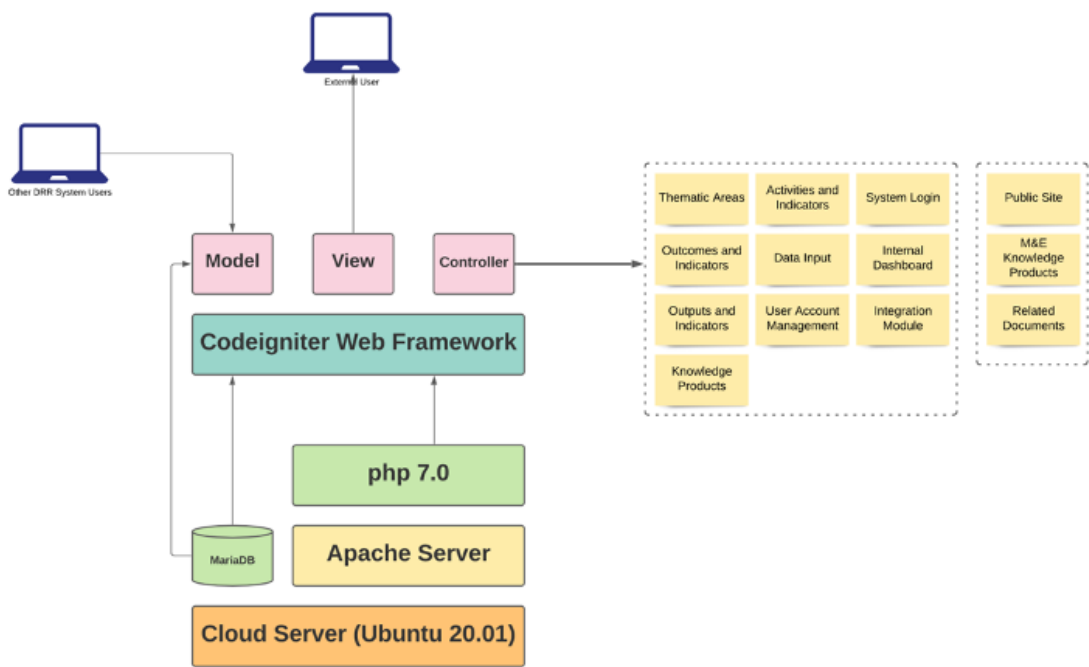
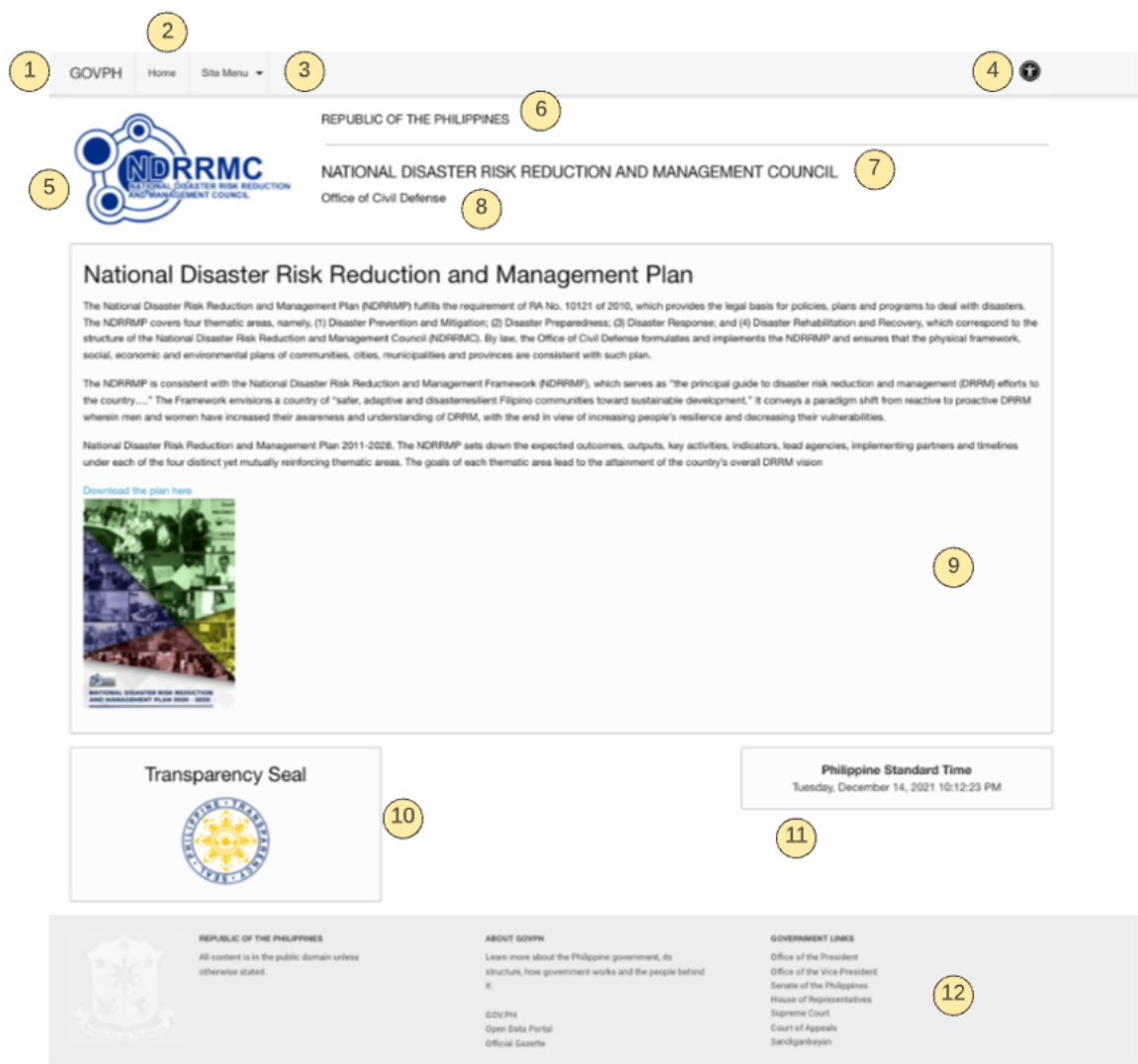


Figure 2: Deployment / Technology Stack

II. Features Implemented

The following are the features already implemented for the Monitoring and Evaluation System for NDRRMP:

Public Website Landing Page



Title of the Page	Public Landing Page	
URL:	http://[::1]/resilience/	
Description	The public landing page is the first page that will be encountered by users when they access the public site.	
Use Case	Users should be able to view the landing page	
Components	1	Link to GovPH website
	2	Link to home page
	3	Menu to other functionalities
	4	Accessibility functionalities
	5	NDRRMC logo
	6	Country Name
	7	Agency Name
	8	Secretariat Name

	9	Main content page
	10	Transparency Seal
	11	Philippine Standard Time
	12	Standard Government Footer




Title of the Page	Landing Page Menu	
URL:	http://[::1]/resilience/	
Description	This is the menu that can be used to access the other components of the public page	
Use Case	Users should be able to access the other components of the system.	
Components	1	Link to About us page
	2	Link to Monitoring and Evaluation page
	3	Link to Data drop page
	4	Link to References page
	5	Link to Contact us page

GOVPH

Home

Site Menu



REPUBLIC OF THE PHILIPPINES

NATIONAL DISASTER RISK REDUCTION AND MANAGEMENT COUNCIL

Office of Civil Defense


About NDRRMC

1

The National Disaster Risk Reduction and Management Council (NDRRMC), formerly known as the National Disaster Coordinating Council (NDCC), is a working group of various government, non-government, civil sector and private sector organizations of the Government of the Republic of the Philippines established by Republic Act 10121 of 2010.[2] It is administered by the Office of Civil Defense (OCD) under the Department of National Defense (DND). The council is responsible for ensuring the protection and welfare of the people during disasters or emergencies. The NDRRMC plans and leads the guiding activities in the field of communication, warning signals, emergency, transportation, evacuation, rescue, engineering, health and rehabilitation, public education and auxiliary services such as fire fighting and the police in the country. The Council utilizes the UN Cluster Approach in disaster management.[3] It is the country's focal for the ASEAN Agreement on Disaster Management and Emergency Response (AADMER) and many other related international commitments.

Member Agencies

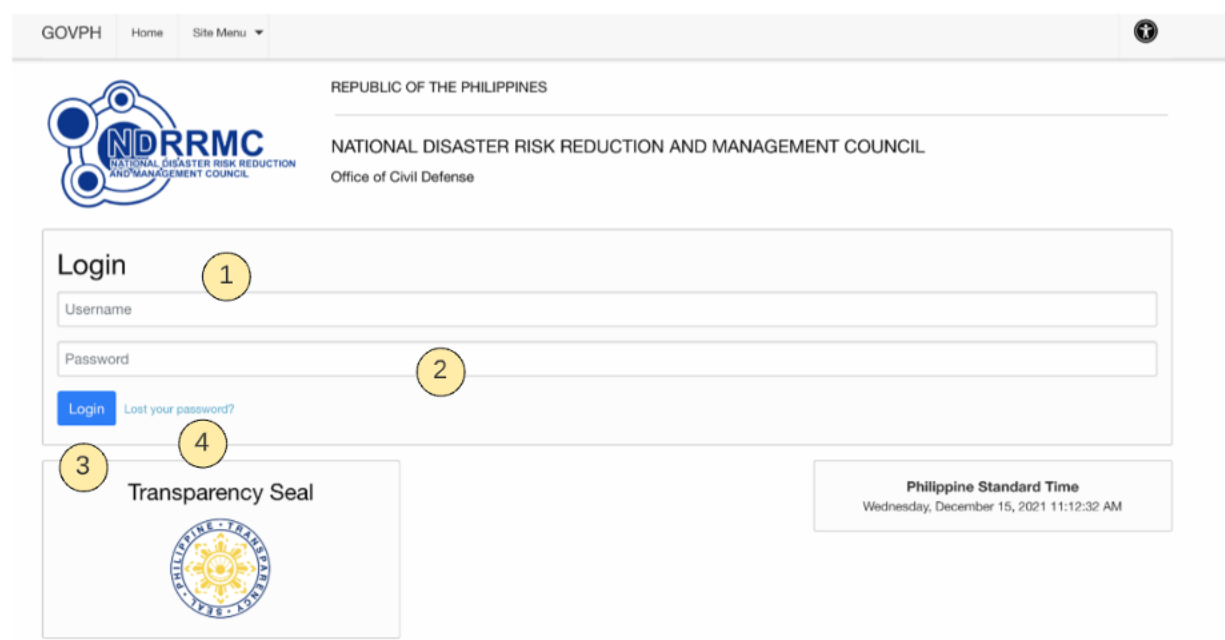
Transparency Seal



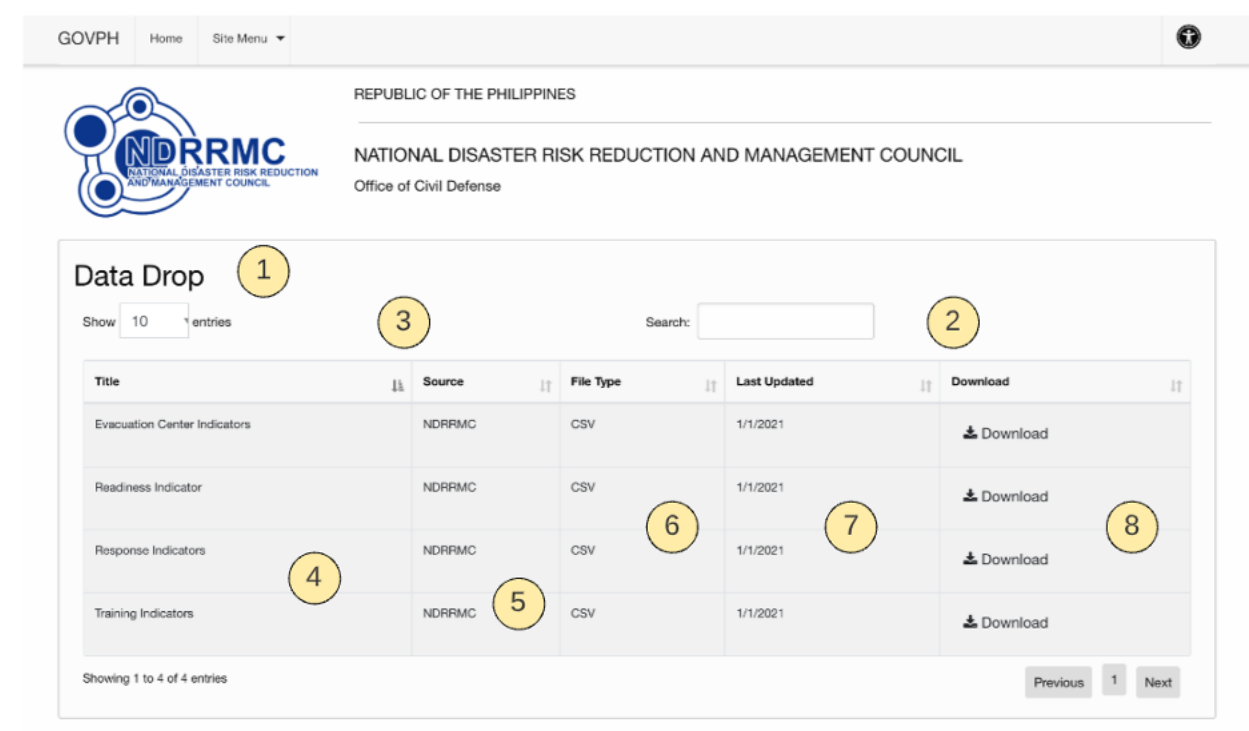
Philippine Standard Time

Wednesday, December 15, 2021 11:12:16 AM

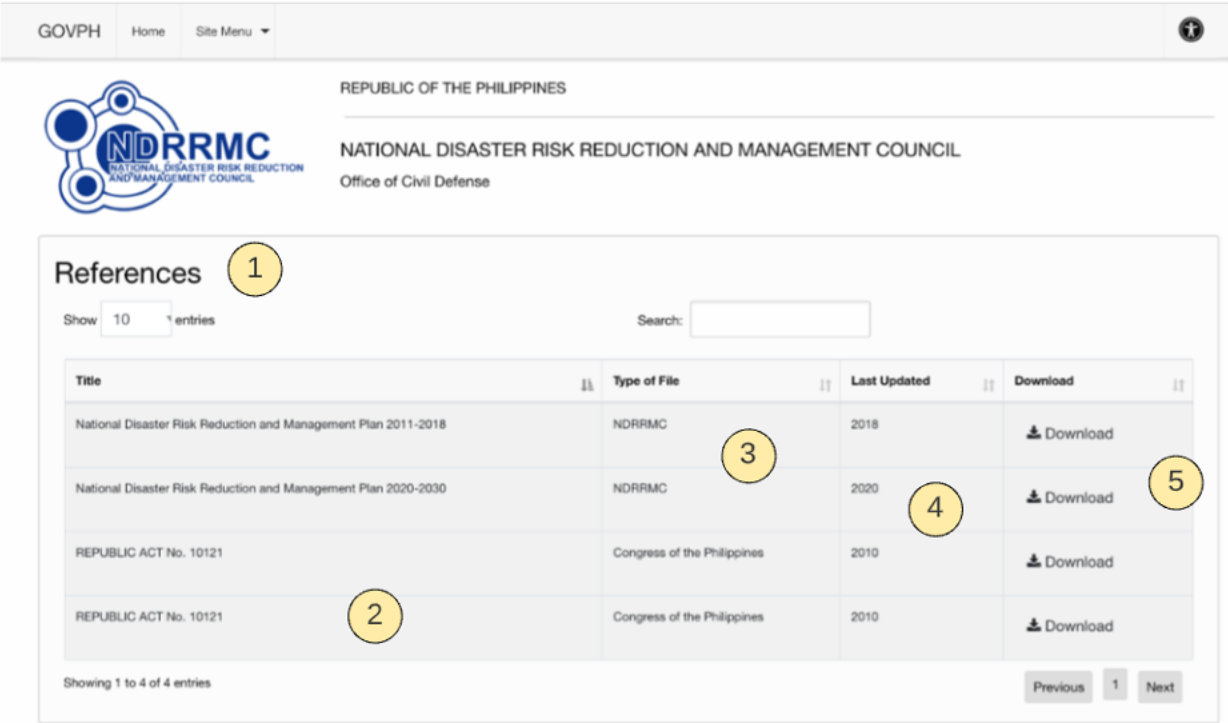
Title of the Page	About NDRRMC Page	
URL:	http://[:1]/resilience/main/about	
Description	Shows information about NDRRMC	
Use Case	Users can view information about NDRRMC	
Components	1	About NDRRMC Information



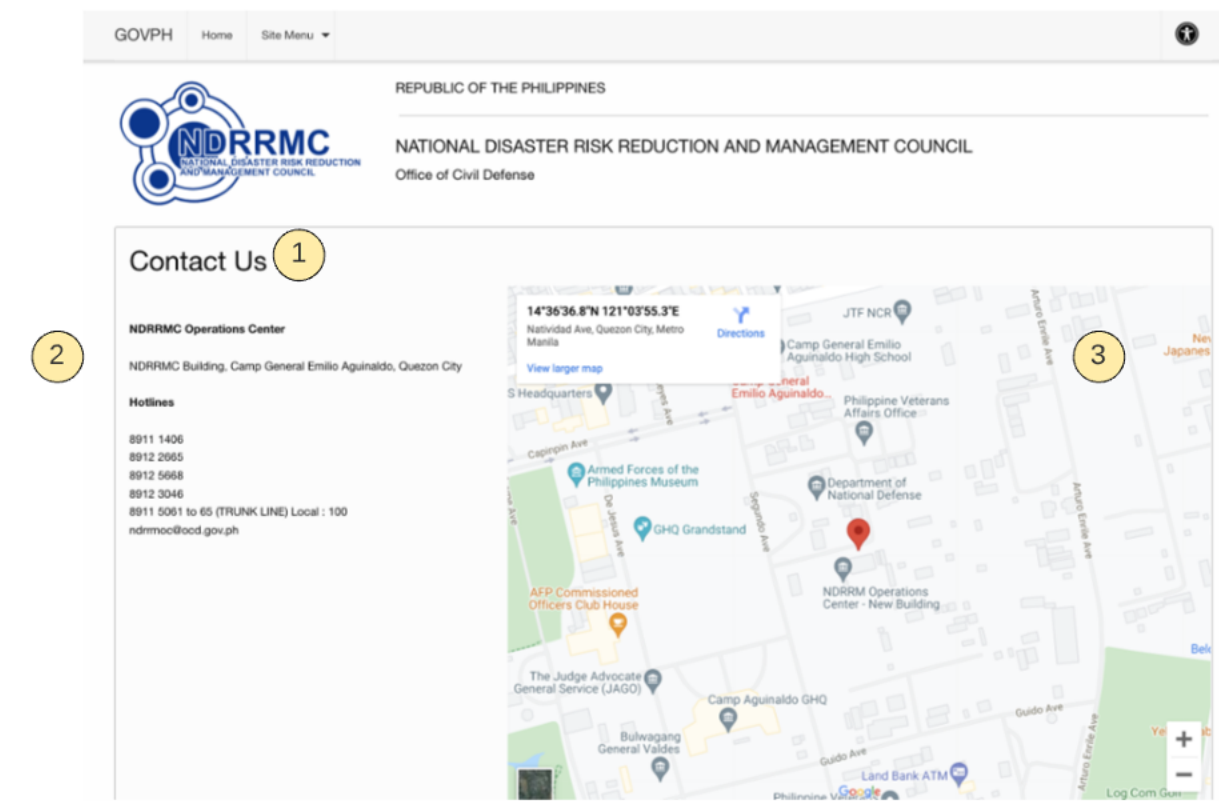
Title of the Page	Login Page	
URL:	http://[::1]/resilience/main/login	
Description	Users can login to the system	
Use Case	Authorized users can login to the system	
Components	1	User Name
	2	Password
	3	Login Button
	4	Password retrieval link



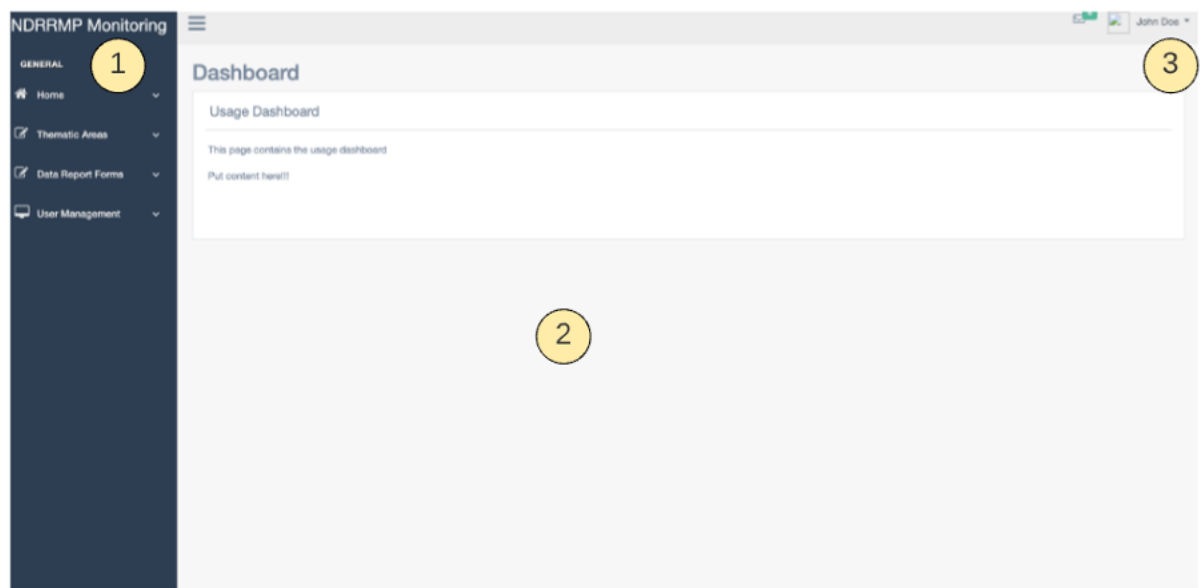
Title of the Page	Data Drop Page	
URL:	http://[::1]/resilience/main/data	
Description	Allows user to download various data sheets that are available on the system	
Use Case	Users can download various data sheets	
Components	1	Filter on the number of elements to be shown in the table
	2	Search bar
	3	Sort table
	4	List of titles
	5	Source of data
	6	Type of data
	7	Last updated
	8	Action (download)



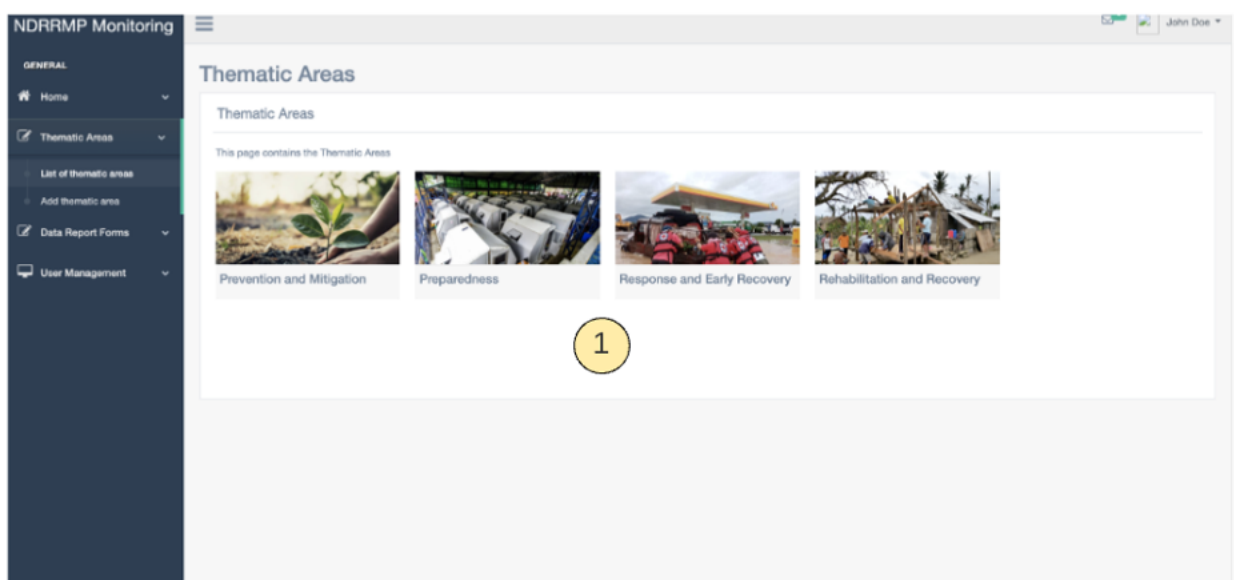
Title of the Page	References Page	
URL:	http://[::1]/resilience/main/references	
Description	Allows user to download different reference materials from the system.	
Use Case	Users can download various reference materials	
Components	1	References title
	2	Title of files
	3	Source of file
	4	Last Updated
	5	Action (download)



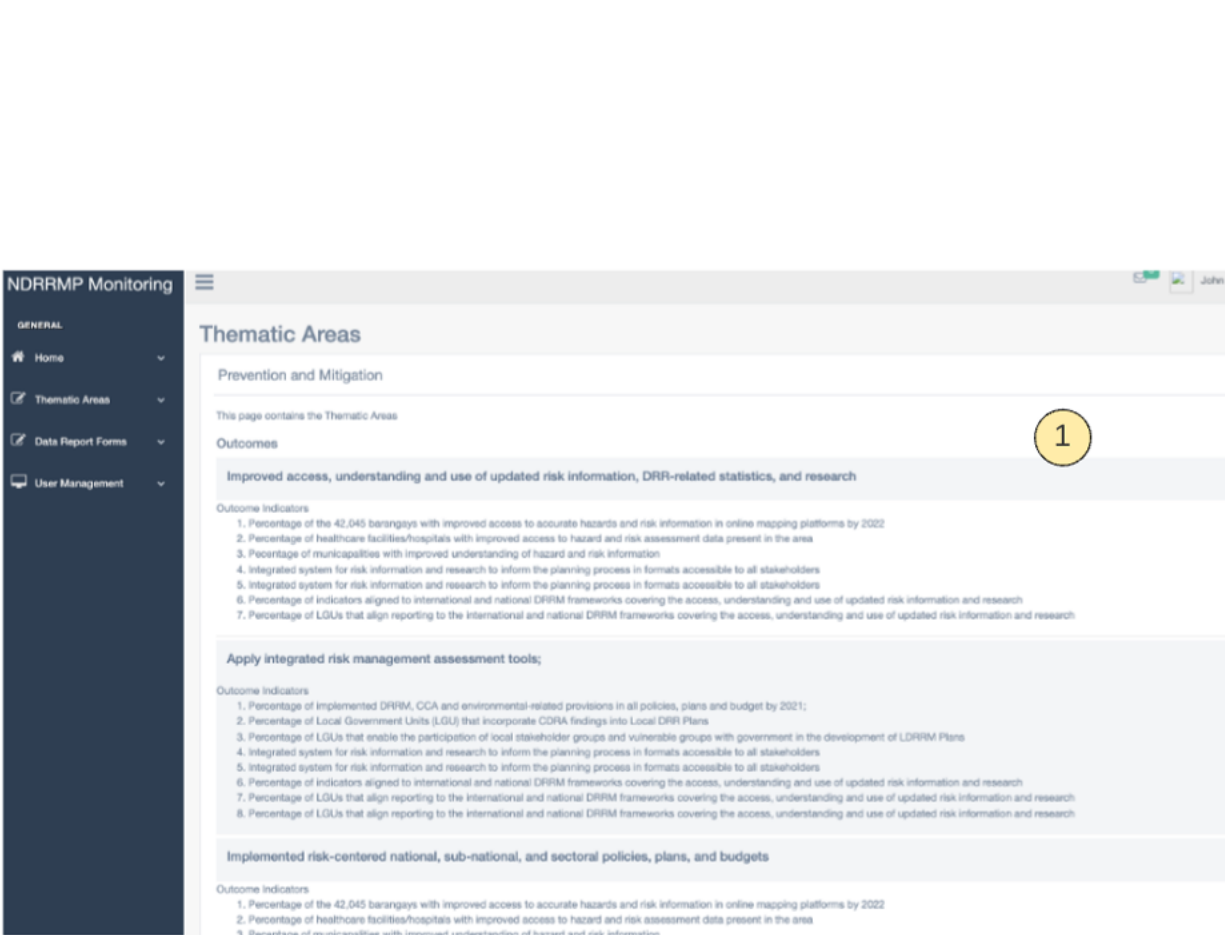
Title of the Page	Contact Us Page	
URL:	http://[:1]/resilience/main/contact	
Description	Shows the contact details of the OCD	
Use Case	Users can see the contact details of OCD	
Components	1	Contact Us title
	2	Contact Information
	3	Map



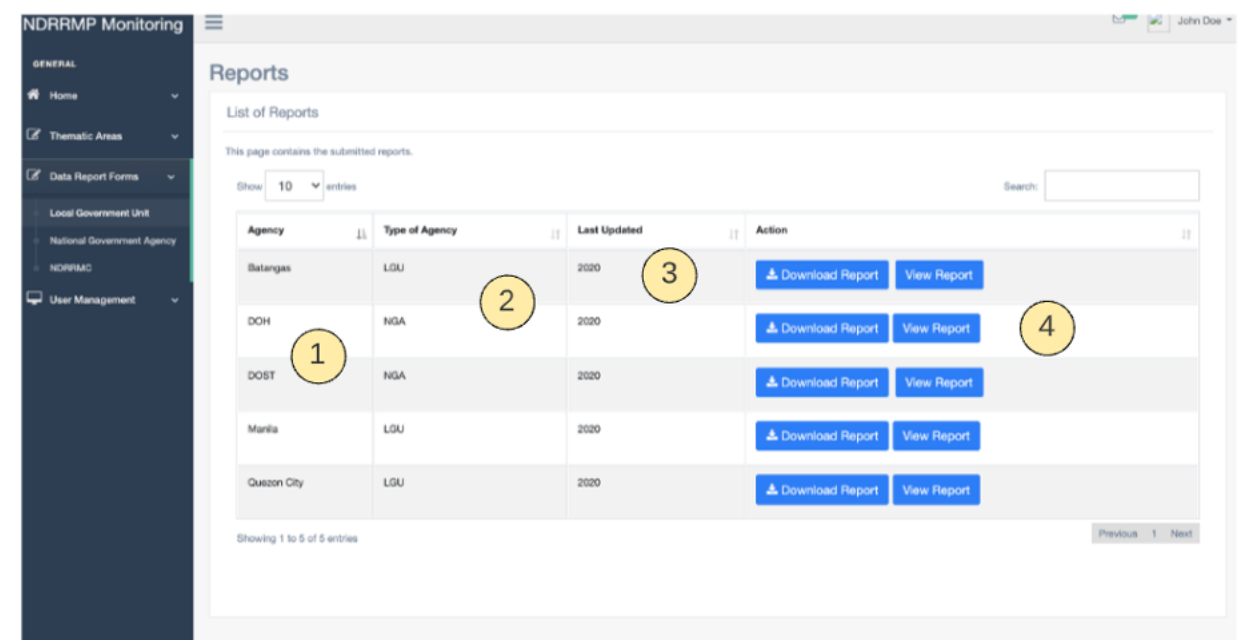
Title of the Page	Internal Dashboard	
URL	http://[::1]/resilience/Dashboard	
Description	This is the landing page once a user logs in to the system.	
Use Case	Users can see the internal dashboard upon logging in	
Components	1	Sidebar menu
	2	Main content
	3	User



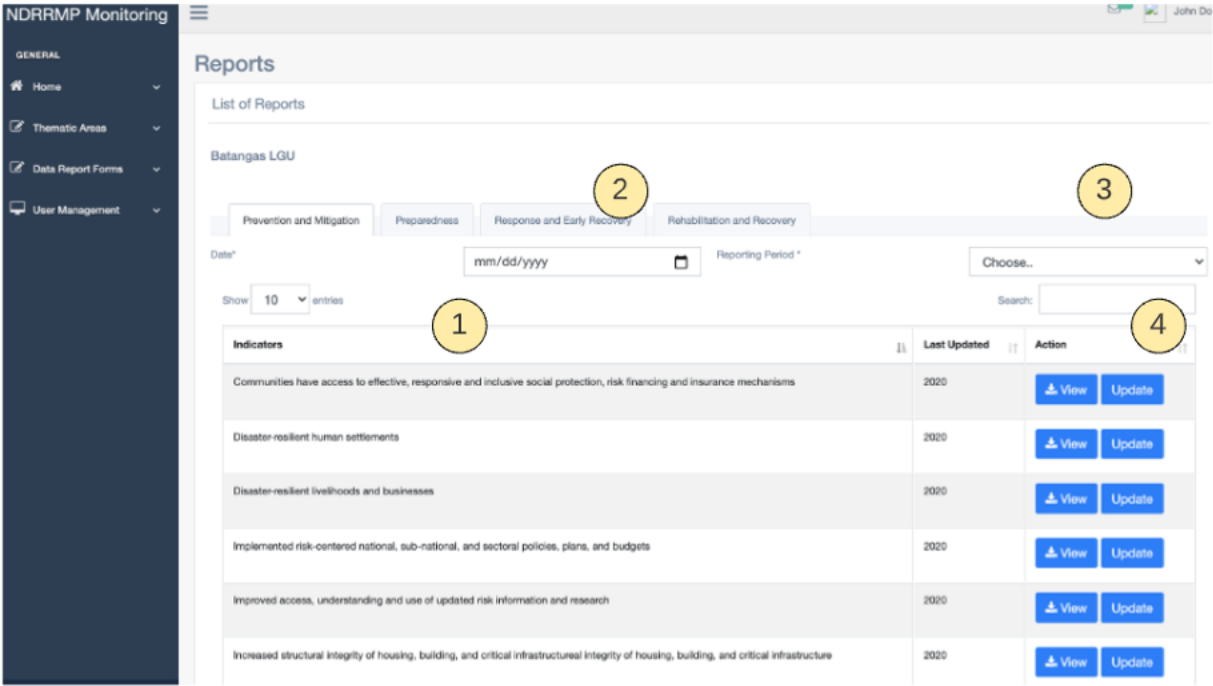
Title of the Page	Thematic Areas page	
URL	http://[::1]/resilience/Thematic	
Description	This page contains the various thematic areas	
Use Case	Users should be able to see thematic areas	
Components	1	Thematic Areas



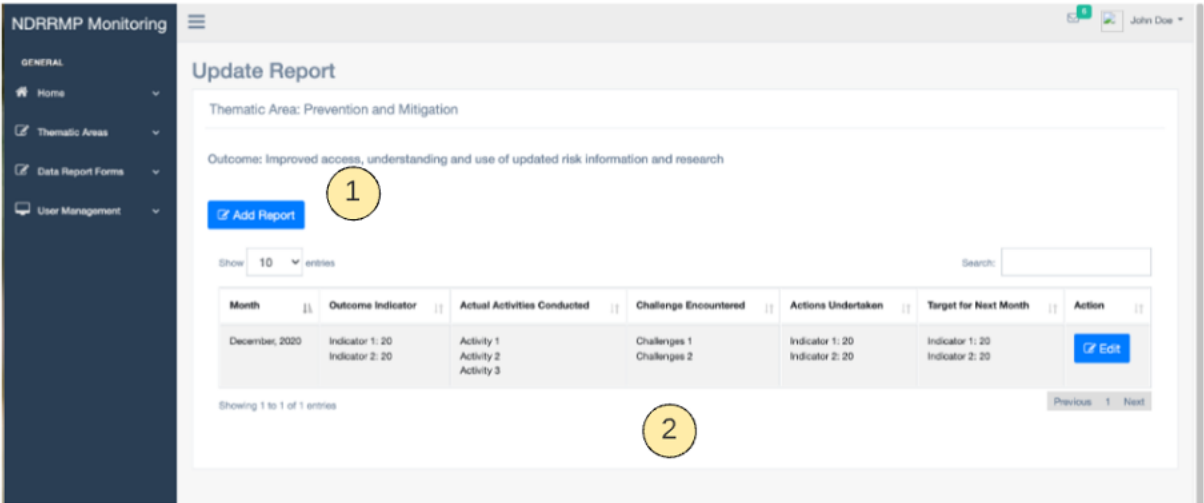
Title of the Page	Outcomes Page	
URL	http://[::1]/resilience//thematic/view/1	
Description	This page contains the list of outcomes	
Use Case	Users should be able to the outcomes per thematic areas	
Components	1	Outcomes



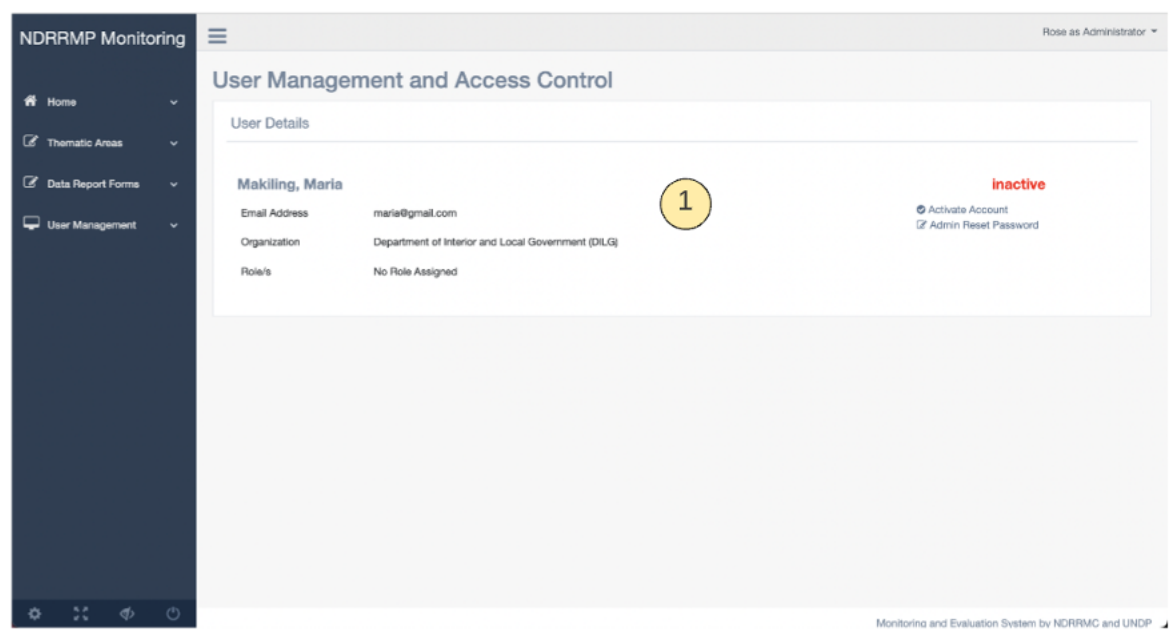
Title of the Page	Reports Page	
URL	http://[::1]/resilience/report	
Description	This page can be used to submit and view reports from various agencies	
Use Case	Agencies should be able to submit reports Admin user should be able to view reports from agencies.	
Components	1	List of agencies
	2	Type of Agencies
	3	Last updated
	4	Actions (download or view report)



Title of the Page	Report Encoding	
URL	http://[::1]/resilience/report/view/1	
Description	This page can be used to update/encode report	
Use Case	Agencies should be able to encode report	
Components	1	List of indicators
	2	Date f reporting
	3	Reporting period (can be annual, midyear, monthly)
	4	Actions (view, update)



Title of the Page	Update Report	
URL	http://[::1]/resilience/report/view/1	
Description	Once an outcome is selected, user can edit the indicator, and other relevant data.	
Use Case	Agencies should be able to encode report	
Components	1	Add report
	2	Indicator Table



Title of the Page	User Profile (inactive)	
Description	Shows a user profile that is inactive	
Use Case	Admin user should be able to see whether a user is active or not	
Components	1	User data

Title of the Page	Users list	
Description	Shows list of users	
Use Case	Users should be able to see all users of the system and their status	
Components	1	User list table

Title of the Page	User Profile (active)	
Description	Shows a user profile that is active	
Use Case	Admin user should be able to see whether a user is active or not	
Components	1	User data

Title of the Page	User list (filtered by agency)	
Description	Shows the user table with agency filter	
Use Case	Admin should be able to filter users by agency	
Components	1	User list

Title of the Page	User Menu	
Description	Menu can change the role of a particular user	
Use Case	Users should be able to change their respective roles	
Components	1	User Menu

Title of the Page	User Search	
Description	Before creating an account, users must be able to check whether an account already exists	
Use Case	Admin users should be able to create accounts	
Components	1	User search

Title of the Page	Data Dashboard	
Description	This page shows basic indicators on a thematic area	
Use Case	Users should be able to see indicators on a thematic area	
Components	1	Title Page
	2	Thematic Area
	3	Score Cards
	4	Chart
	5	Chart functionality (sort, download)
	6	Filter by region
	7	Filter by location

Title of the Page	Data Table	
Description	Shows detailed table for the thematic area	
Use Case	Users should be able to see the data table for a thematic area	
Components	1	Data table

Title of the Page	GIS based dashboard	
Description	Shows a map with indicator data	
Use Case	Users should be able to see a GIS map with indicator data	
Components	1	GIS map

III. Database Schema

The TNA report identified the following tables to be part of the database of the system:

Data Name	Type of Data	Description
User Table		
Email Address	Text (email)	Contains the email address of the user
Organization	From List	Contains the user’s current organization
Roles	From List	Contains the roles of a user
Active Role	From List	Current role of the user
Last Name	Text	User’s last name
Middle Name	Text	User’s middle name
First Name	Text	User’s last name
Suffix	Text	User’s suffix
Organization Table		
Organization Name	Text	Name of the organization
Type of Organization	From List	Type of Organization
Indicator Data		
Indicator Value	Value	Value of the indicator
Indicator Text	Text	Description of the Indicator
Item ID	Parent Item	Can be outcome or activity

Baseline Data		
Indicator	Indicator ID	Indicator associated to the baseline data
Baseline Value	Value	Value of the baseline
Target Data		
Indicator	Indicator ID	Indicator associated to the target data
Target Value	Value	Target Value
Actual Accomplishment		
Indicator	Indicator ID	Indicator associated to the actual value
Actual Value	Value	Actual Value
Means of Verification		
Indicator	Indicator ID	Indicator associated to the means of verification
Means of verification	Text	Means of verification
Actual Activities		
Activity	Text	Actual Activity
Item	Item ID	Item where the activity is associated
Challenges Encountered		
Challenge	Text	Challenge encountered
Item	Item ID	Item where the challenge is associated
Actions Undertaken		
Challenge	Text	Challenge encountered
Item	Item ID	Item where the challenge is associated
Targets for Next Month		
Targets	Text	Targets for next month
Item	Item ID	Item where the target is associated
Items		
Item Name	Text	Name of the item
Item ID	ID	ID

Item parent	Item ID	ID of the parent
-------------	---------	------------------

From the identified tables, the following schema was developed to show the relationships between the tables in the database.

Figure 3: Database Schema

The database schema shows the relationship between the tables in the database. The following are some of the key relationship highlights:

- A user is associated with the following tables
 - o Organization: multiple
 - o Role: multiple, but only 1 is active
- Each role is associated to a task (Create, Read, Update, Delete)
- Each organization is associated with multiple outcomes
- Each thematic area has a set of outcomes
- Each outcome has multiple outcome indicators
- Each outcome indicators is associated with the following tables:
 - o Actual activities: multiple
 - o Baseline data
 - o Means of verification: multiple
 - o Target data
 - o Targets for next month: multiple
- Each activity is associated with
 - o Actions undertaken: multiple
 - o Actual accomplishments: multiple

IV. Description of APIs for Data Integration and Related Services

The system will use the following APIs to share data with other applications:

get_outcome(outcomeID)	This API returns a json file containing the outcome given a corresponding outcome ID
get_outcomeIndicators(outcome)	This API returns a json file containing all the outcome indicators given a corresponding outcome ID
get_activities(outcomeIndicatorID)	This API returns a json file containing all activities given a corresponding outcome indicator ID
get_targetData(outcomeIndicatorID)	This API returns a json file containing all target data given a corresponding outcome indicator ID
get_baseline data(outcomeIndicatorID)	This API returns a json file containing all baseline data given a corresponding outcome indicator ID

V. Design Features

In this section we will present the design features of the various components of the system.

Public Website

The public website follows the government website template. The government website template is a standard template released by DICT for use of all websites that will be deployed by government agencies.

The following are the basic guidelines for the use of the government template:

- 1) The general background of the website should be white.
- 2) Government websites should be designed using a responsive framework with a standard width of 1190 pixels (px) on regular screens that scales down gracefully on smaller devices of 320 px in width.
- 3) Government websites has seven major sections:
 - a. Top Bar
 - b. Mast head
 - c. Auxiliary menu
 - d. Banner
 - e. Content area
 - f. Agency Footer
 - g. Standard Footer
- 4) The font being used is Arial, font size 12 for the main text content.

Internal Website

The internal website uses an open source web template *gentella template*. The template is used for internal admin pages.

The following are some of the design guidelines for the template

- 1) The background is grayish blue.
 - 2) It utilizes an optimal 1190 px screen, and uses 12 columns.
 - 3) The left sidebar serves as the main menu, and the main menu is always across the different pages
 - 4) The side bar occupies 2 columns.
 - 5) The main page occupies 10 columns and is usually separated into two major sub columns.
-
- 5) The font being used is Arial, font size 12 for the main text content.

Dashboard

The system's dashboard is developed using google data studio. For the design, the dashboard mostly follows Google's design for the data studio.

- 1) An agency header is seen in each of the page and it will contain the logo of UNDP and NDRRMC
- 2) The background of the dashboard is white
- 3) It will have basic search and filter functionalities.

- 4) The graphs to be shown are simple line graphs, bar charts and donut charts.
- 5) Font to be used is Arial, font size will be 12 for the main content.

VI. Personnel Requirements

There two aspects on the personnel requirements of the system:

- 1) Manpower : It is important that dedicated personnel be assigned to maintain the system and ensure that it is encoded. At the side of OCD as secretariat of the system, it is recommended that two (2) dedicated personnel be assigned to maintain the technical and the content aspect of the system. The proposed items are as follows:

Item	ITO 1 (SG 19) (Information Technology Officer)
Detailed Job Description	<ul style="list-style-type: none">1) Maintain the database of the system2) Ensure that the technology stack is updated3) Develop an alert mechanism for agencies who are not able to submit data in a timely manner4) Perform enhancements on the system5) Ensure that data submitted is correct6) Modify the dashboards as needed
Qualifications	<p>Graduate of a BS in Computer Science/ Information Technology/ Information and Communications Technology / Management Information Systems</p> <p>Must have 2 – 3 years’ experience in the maintenance and management of monitoring and evaluation systems</p> <p>Must have experience in working with Php, MySQL, XAMPP stack, Preferably with background Google Data Studio</p>

Item	IO 1 (SG 11) (Information Officer)
Detailed Job Description	<ul style="list-style-type: none">1) Update the content of the system2) Formulate a website dissemination plan3) Engage with agencies on comments on the system4) Manage the knowledge materials uploaded in the system

Qualifications	Graduate of a Communications course Must have 1 – 2 years’ experience in managing government websites Has strong communication skills (both written and oral) Preferably with background Google Data Studio
----------------	--

2) Capability Requirements for Agencies

Agencies who would submit data to the system can use their existing plantilla items provided that they can identify personnel who can be assigned to collect activity data internal to the agency, and submit it to the M&E system (agency focal person). Aside from encoding data, it would be good if the assigned personnel can conduct data management, data storage and data validation to ensure that the data to be submitted to the system is accurate. The following capacity development program can be provided to the agency focal person:

- 1) Data Storage (how to store data properly)
- 2) Data Management (use of spreadsheets and other tools)
- 3) Data Analysis (use of cloud based dashboards for data visualization)

VII. Infrastructure Requirements

The system was developed as a web based application hosted in the cloud. The following are the proposed cloud server requirements:

- Dedicated vCPU cores: 8 cores
- Memory: 8 - 16 GB
- SSD Storage: 1000 GB
- Transfer: 4 TB
- Network In: 40 Gbps
- Network Out: 2 Gbps
- Dedicated IPv4 and IPv6 addresses
- Standard Linux Distributions
- Deploy via Custom Image & StackScript
- One-Click App Marketplace
- Full root access
- Direct console access through Lish
- Provision via Cloud Manager or Linode CLI
- Programmatic management via Linode API
- Multi-queue NIC support
- Available across all regions

[1] Technical Assessment Report

	ANNEX A -
	Annual Thematic Pillar Report Outline (for OCD National Office)
<i>Acknowledgement</i>	
<i>Foreword/Messages</i>	
<i>Table of Contents</i>	

List of Tables and Figures

I. Executive Summary (2 pages)

The Executive Summary discusses the analysis of accomplishments vis-a-vis the outcomes in each disaster risk reduction and management (DRRM) thematic pillar in a clear and succinct manner. It should also highlight some of the key challenges, lessons learned as well as recommendations to further improve the implementation of interventions in each of the thematic pillar.

II. Introduction (3 pages)

- Discuss the structure of the report by explaining each of the major section
- Discuss the approach and methodology used in monitoring and evaluation (M&E) as well as the coverage/ reach. This section should discuss the data collection methods and approaches used in conducting M&E-related activities. It should also include a geographical map of the areas covered by the M&E and the list of stakeholders involved in the process.

III. Analysis of Accomplishments vis-à-vis the National Disaster Risk Reduction and Management Plan (NDRRMP) 2020-2030 Outcomes (10 pages)

- Thematic Pillar 1: Disaster Prevention and Mitigation
- Thematic Pillar 2: Disaster Preparedness
- Thematic Pillar 3: Disaster Response and Early Recovery
- Thematic Pillar 4: Rehabilitation and Recovery

This section will provide an analysis and assessment of the accomplishments vis-à-vis the outcomes per DRRM thematic pillar. It should include figures/ tables summarizing the baseline, target, and actual achieved value in all the outcomes. Further, this section should also include case stories highlighting the good practices, lessons learned, and innovations from the National /Regional Disaster Risk Reduction and Management Councils (N/RDRRMCs), local government units (LGUs), civil society organizations (CSOs), academic institutions, private sector, and communities involved in the implementation of DRRM-related programs, projects, and activities (PPAs).

IV. Conclusions and Recommendations (3 pages)

This section will highlight the key strengths and weaknesses of implementing PPAs in each of the DRRM thematic pillar. It will also discuss the recommendations and explore potential 'ways forward' for N/RDRRMCs, LGUs, CSOs, academic institutions, private sector, and communities to further improve their interventions and efforts in each thematic pillar.

V. References (1 page)

Provide a list of selected references, particularly what was used as grey literature or secondary data, in developing the report

VI. Annexes

Attach relevant annexes to the report (e.g., photos, data gathering tools, directory of stakeholders involved)

**ANNEX B -
N/RDRRMC Annual Accomplishment Report Outline
(for OCD National and Regional Offices)**

Acknowledgement
Foreword/Messages
Table of Contents
List of Tables and Figures

I. Executive Summary (3 pages)

The Executive Summary discusses the analysis of accomplishments against the outcomes across the four disaster risk reduction and management (DRRM) thematic pillars in a clear and succinct manner. It should also highlight some of the challenges, lessons learned, and recommendations to further improve implementation of DRRM agenda in the country.

II. Introduction (5 pages)

- Discuss the structure of the report by explaining each of the major section
- Provide an overview of the Philippine Disaster Situation (for OCD Central Office) / Regional Disaster Situation (for OCD Regional Offices). This part should present the most recent disasters in the country/ region and a brief description of the vulnerabilities and factors influencing the susceptibility of the country or region to different hazards and risks.
- Discuss the approach and methodology used in M&E as well as the coverage/ reach. This section should discuss the data collection methods and approaches used in conducting M&E-related activities. It should also include a geographical map of the areas covered by the M&E and the list of stakeholders involved in the process.

III. Analysis of Accomplishments vis-à-vis the NDRRMP Outcomes (20 pages)

- Thematic Pillar 1: Disaster Prevention and Mitigation
- Thematic Pillar 2: Disaster Preparedness
- Thematic Pillar 3: Disaster Response and Early Recovery
- Thematic Pillar 4: Rehabilitation and Recovery

This section will provide an analysis and assessment of the accomplishments vis-à-vis the outcomes of the NDRRMP 2020-2030. It should include figures/ tables summarizing the baseline, target, and actual achieved value in all the outcomes across the four DRRM thematic pillars. Further, this section should also include case stories highlighting the good practices, lessons learned, and innovations from the National/ Regional Disaster Risk Reduction and Management Councils (N/RDRRMCs), local government units (LGUs), civil society organizations (CSOs), academic institutions, private sector, and communities involved in the implementation of DRRM-related programs, projects, and activities (PPAs).

IV. Conclusions and Recommendations (5 pages)

This section will highlight the key strengths and weaknesses of DRRM implementation in the country/ region. It will also discuss the recommendations and explore potential 'ways forward' for N/RDRRMCs, LGUs, CSOs, academe, private sector, and communities to further advance safer, resilient, and adaptive communities.

V. References (1 page)

Provide a list of selected references, particularly what was used as grey literature or secondary data, in developing the report

VI. Annexes

Attach relevant annexes to the report (e.g., photos, data gathering tools, directory of stakeholders involved)

ANNEX C - Guide for Case Study Writing

GUIDE FOR CASE STORY WRITING	
Title of Case Story	Make sure your title is catchy and it conveys the idea behind your story.
The Context	Explain the situation of the stakeholder (e.g., individual, organization, community) before the implementation of DRRM-related interventions. Highlight the hazards and vulnerabilities affecting the stakeholder.
Introduce the Stakeholder	<p>Give a background detail about the stakeholder.</p> <ul style="list-style-type: none">· Mention his/her name, age, position, livelihood, place where he/ she lives (For individual)· Mention the vision and trust, activities, members (For organization)· Present the physical, economic, and socio-cultural profile (For community)
The Change or the Uniqueness in the Story You wish to Highlight	<p>The central part of your story where you highlight the DRRM intervention (e.g., program, project, activity) implemented and the impact of the said assistance to the stakeholder. Highlight the benefits and changes brought about by the intervention provided.</p> <ul style="list-style-type: none">· What were the main interventions carried out? Highlight how the stakeholder was involved in the intervention.· When and where were the interventions carried out?· Who were the key implementers and collaborators?· Was there anything that made the interventions different from others that provided/ implemented DRRM-related assistance? What were the unique approaches/methods adopted to implement the intervention?· What were the results of/ and gains achieved from the intervention to/by the stakeholder? What changed in the life of the stakeholder because of the intervention?· What worked well in the process of implementing the DRRM intervention (Success Factors)?· What did not work in the process of implementing the DRRM intervention (Challenges)?
The Conclusion	Highlight key messages and lessons learned