



Policy Brief

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Disasters brought by natural hazards are an issue of great concern not only in the Philippines but in the whole world due to their social, environmental and economic impacts. With global warming, environmental degradation, increasing population density, and poverty conditions, the occurrences of disasters are expected to rise. Hence, effective policies and strategies on disaster risk reduction and management are imperative to mitigate disaster impacts.



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Examining the Philippines’ Disaster Risk Reduction and Management System

Introduction

Over the past decade, the Philippines endured hundreds of natural disaster occurrences, making it among the most disaster-prone countries in the world. In a study conducted by the World Bank in 2008, 50.3 percent of its total land area and 81.3 percent of its population are vulnerable to natural hazards. The 2016 World Risk Report published by the United Nations University Institute of Environment and Human Security (UNU-EHS) also revealed that the Philippines ranked third in the most disaster-prone countries in the world with a Risk Index¹ of 26.70 percent (Table 1). Only Vanuatu and Tonga, which are both located in the Southern Pacific Ocean, had a higher Risk Index than the Philippines in 2016 with scores of 36.28 and 29.33 percent, respectively.

Table 1. 2016 World Risk Index

Rank	Country	Risk (%)
1	Vanuatu	36.28
2	Tonga	29.33
3	Philippines	26.70
4	Guatemala	19.88
5	Bangladesh	19.17
6	Solomon Islands	19.14
7	Brunei Darussalam	17.00
8	Costa Rica	17.00
9	Cambodia	16.58
10	Papua New Guinea	16.43

Source: UNU-EHS

¹ The Risk Index measures the country exposure to natural hazards like storms, floods, earthquakes, droughts and sea level rise. The index is based on calculations drawing on the formula: exposure times vulnerability. Vulnerability is defined as “susceptibility times lack of coping capacities times lack of adaptive capacities”.

The inherent vulnerability of the Philippines to natural hazards² stems from its geographic location. As an archipelago situated in the Pacific ring of fire, with more than 7,000 islands and 36,000 kilometers coastline, the country is highly vulnerable to natural disasters. In fact, the country is most often affected by extreme weather disturbances such as floods, droughts, forest fires, and stronger typhoons as evidenced by the occurrence of destructive typhoons like Yolanda (2013), Pablo (2012) and Pepeng (2009).

Natural disasters pose serious risks to people especially the poor who are severely constrained with resources needed to prepare and plan for disaster impacts, and who usually have the lowest capacity to respond. They also cause disruption of economic activities resulting to losses in the country's gross domestic product (GDP).

The Centre for Research on the Epidemiology of Disasters (CRED)³ recorded 187 significant damaging natural disasters⁴ in the Philippines for the past ten years (2007-2016) causing the death of 16,262 people and injury to 44,018 persons (Table 2). They affected more than 100 million individuals in the country during this period and the socio-economic damages are estimated at US\$19.16 billion. In terms of disaster occurrences, the most disastrous year was observed in 2011 with 36 disaster events mostly attributed to tropical storms and floods. In terms of death tolls and damages, the most disastrous natural calamity was recorded in 2013 on the account of the deadly storm Yolanda that struck the Visayas region of the country which caused the death of 7,750 people and with damages amounting to US\$12.42 billion. The spike in injuries in 2010 however was due largely to viral and epidemic causes.

Table 2. Selected Natural Disaster Statistics in the Philippines, 2007-2016

Year	Occurrences	Death Tolls	Injured	Total Affected	Total Damages (000 US\$)
2007	16	129	24	2,023,092	16,815
2008	20	959	1,015	8,459,896	481,202
2009	25	1,307	900	13,352,484	962,107
2010	15	1,113	124,096	5,581,507	335,087
2011	36	1,989	6,703	11,729,947	730,025
2012	22	2,415	2,879	12,531,446	1,005,611
2013	14	7,750	29,893	25,667,133	12,422,810
2014	13	331	2,269	13,274,658	1,062,899
2015	16	201	131	4,019,201	1,965,966
2016	10	68	204	4,234,608	180,074
Total	187	16,262	168,114	100,873,972	19,162,596

Source: CRED

² Natural hazards are severe or extreme events such as a flood, storm, cold spell or heatwave, which occur naturally anywhere in the world. Hazards only become disasters when human lives are lost and livelihoods damaged or destroyed (CRED).

³ The CRED is a research unit in Brussels, Belgium that promotes research, training and technical expertise on humanitarian emergencies, international disasters and conflict health studies.

⁴ The CRED records an event as a natural disaster if it meets at least one of the following criteria: 1) ten or more people reported killed; 2) 100 or more people reported affected; 3) declaration of a state of emergency; and 4) call for international assistance.

With global warming, environmental degradation, increasing population, poverty, and man-made hazards, impacts of natural disasters are expected to rise if no appropriate measures are put in place. Hence, effective policies and strategies on disaster risk reduction and management coupled with improved coping capacities are imperative to reduce disaster risks and avoid development of new or increased disaster risks. This Policy Brief examines the current disaster risk reduction and management policies and strategies in the Philippines, identifies issues and challenges, and proposes some recommendations that Congress may consider in improving the current policies on disaster risk reduction and management.

Philippines' Disaster Risk Reduction and Management Initiatives

The Philippines has gone a long way in addressing disaster risk through different approaches. From disaster preparedness and response in the 1970s, the country has shifted its approach to disaster management in the 1980s. In the 1990s, it was transformed to disaster risk management and eventually became disaster risk reduction in 2005 up to the present. The increasing intensity of typhoons that occurred in the recent years provided the impetus for change in approach. This development eventually resulted to a paradigm shift in the way people, communities and governments think, act and respond to the current and emerging risks that continually face them. The following were the notable disaster management initiatives of the Philippines in the past four decades:

- In 1978, the National Disaster Coordinating Council (NDCC) was established through Presidential Decree No. 1566 as the highest policymaking body and the focal organization for disaster management in the country. This law also provided for the establishment of regional, provincial, city, municipal and barangay disaster

coordinating councils (DCCs). These DCCs were formed primarily to advise the President and/or the local chief executives on all natural disaster preparedness and management plans, and to recommend the declaration of state of calamity and the release of calamity funds for relief and rescue operations, among others.

- In 2005, the NDCC Four Point Plan of Action for Preparedness (4PPAP) was approved. It aimed to increase public awareness and involvement with respect to measures that were put in place by the government to minimize the impact of disasters in the future.
- In 2008, the “National Assessment on the State of Disaster Risk Management (DRM) in the Philippines” was completed. This study, which was a joint project by the NDCC, Asian Development Bank (ADB) and United Nations Development Programme (UNDP), assessed the state of DRM in the Philippines, served as a benchmark on current status; identified the gaps, issues and opportunities that need to be addressed strategically to improve DRM governance; and developed an agenda for action which includes strategic interventions that would require attention and substantial resource investments to reduce the impacts of natural disasters.
- On May 27, 2010, Republic Act No. 10121 otherwise known as the “Philippine Disaster Risk Reduction and Management (DRRM) Act of 2010” was signed into law to strengthen the Philippine disaster risk reduction and management system. It aims to provide for the development of policies and plans and the implementation of actions and measures pertaining to all aspects of disaster risk reduction and management, including good governance, risk assessment and early warning, knowledge building and awareness raising, reducing underlying risk factors, and preparedness for effective

response and early recovery. RA No. 10121 has reconstituted the NDCC to become the National Disaster Risk Reduction and Management Council (NDRRMC).

- On June 7, 2010, Executive Order No. 888 was issued institutionalizing disaster risk reduction (DRR) in the country and adopting the Strategic National Action Plan (SNAP) on DRR for 2009-2019. The SNAP 2009-2019 is the Philippines’ master plan for disaster mitigation, which serves as the country’s road map for the next 10 years indicating therein its vision and strategic objectives.
- On June 16, 2011, the NDRRMC adopted the National Disaster Risk Reduction and Management Framework (NDRRMF). The framework is considered an essential part of the development process and a key component to ensure the country’s sustainable development. It reinforces the paradigm shift in approach from disaster response to disaster risk reduction and management principles.
- On February 7, 2012, the National Disaster Risk Reduction and Management Plan (NDRRMP) was approved by the NDRRMC. The plan fulfills the requirement of RA No. 10121 of 2010, which provides the legal basis for policies, plans and programs to deal with disasters. It outlines the activities aimed at strengthening the capacity of both national government and local government units (LGUs)—together with partner stakeholders—to build disaster-resilient communities and to institutionalize arrangements and measures for reducing disaster risks.

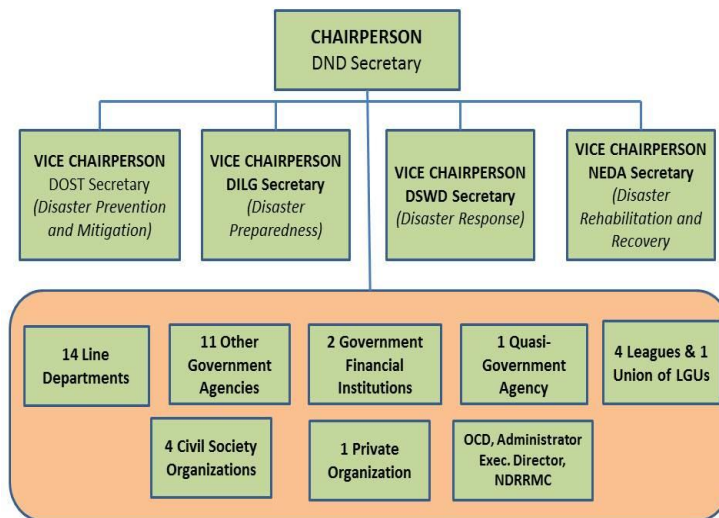
Governance Structure on Disaster Risk Reduction and Management

The NDRRMC, which is formerly the NDCC, is the National Council that is empowered with policy-making, coordination, integration, supervision, monitoring and evaluation functions for the

protection and welfare of the people during disasters or emergencies. It advises the President on the status of disaster preparedness, prevention, mitigation, response and rehabilitation operations being undertaken by the government and the private sector. It also serves as the top coordinator of all disaster management and the highest allocator of resources in the Philippines (RA No. 10121).

The NDRRMC is headed by the Secretary of the Department of National Defense (DND) as Chairperson with the Secretary of the Department of Science and Technology (DOST) as Vice Chairperson for Disaster Prevention and Mitigation, the Secretary of the Department of the Interior and Local Government (DILG) as Vice Chairperson for Disaster Preparedness, the Secretary of the Department of Social Welfare and Development (DSWD) as Vice Chairperson for Disaster Response, and the Director-General of the National Economic and Development Authority (NEDA) as Vice-Chairperson for Disaster Rehabilitation and Recovery. It also includes the heads of several concerned government agencies, nongovernment organizations (NGOs), and leagues of LGUs, a full list of which is found in Section 5 of RA No. 10121. Below is the chart of the NDRRMC’s Organizational Structure for quick reference.

NDRRMC ORGANIZATIONAL STRUCTURE



Source: OCD, DND

The structure of the NDRRMC is replicated at the regional and local levels thus linking all disaster-related offices and LGUs which have specific roles to play in disaster risk reduction and management. At present, there are 18 Regional DRRMCs (RDRRMC), 79 Provincial DRRMCs, 122 City DRRMCs, 1,512 Municipal DRRMCs, and 42,026 Barangay DRRMCs. The RDRRMC is tasked to coordinate, integrate, supervise and evaluate the activities of the Local DRRMCs (LDRRMCs). It is also responsible for ensuring disaster-sensitive regional development plans and, in case of emergencies, shall convene the different regional line agencies and concerned institutions and authorities (RA No. 10121).

RA No. 10121 mandates the LDRRMC to take the lead in preparing for response and recovery from any disaster and its effects wherein the following criteria are observed:

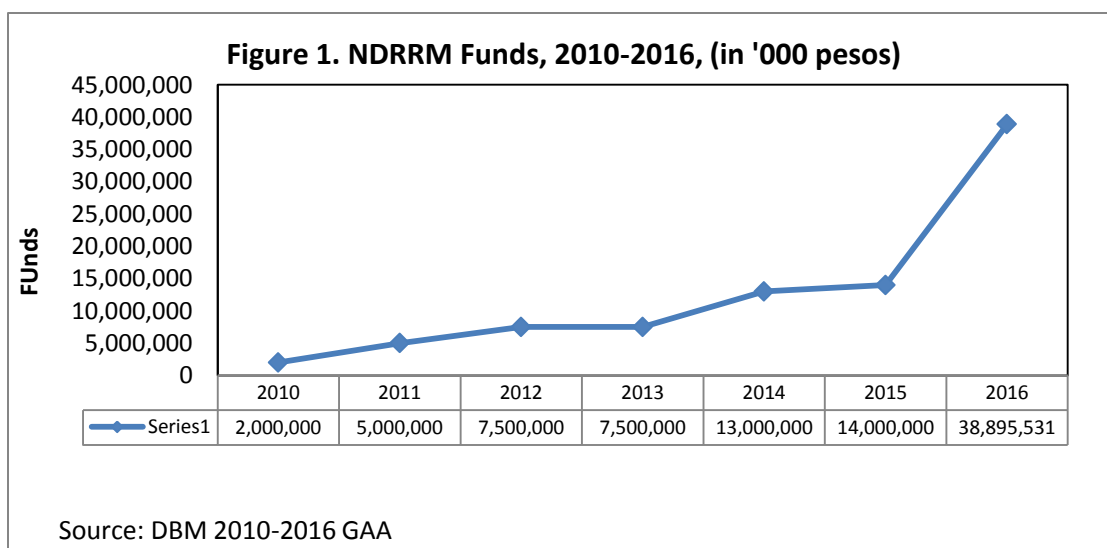
- The Barangay DRRMC, if a barangay is affected;
- The City/Municipal DRRMC, if two or more barangays are affected;
- The Provincial DRRMC, if two or more municipalities and cities are affected;
- The Regional DRRMC, if two or more provinces are affected; and
- The NDRRMC, if two or more regions are affected.

The NDRRMC and intermediary LDRRMCs support the LGUs that are in the frontline and have the primary responsibility of responding to a disaster. The NDRRMC and LDRRMCs set the coordination mechanisms and policies for the private sector and civil society groups (Office of Civil Defense, DND).

Disaster Risk Reduction and Management Funds

National Disaster Funds

The budget for DRRM is appropriated under the annual General Appropriations Act (GAA) known as the NDRRM Fund. It is specifically used for disaster risk reduction, mitigation, prevention, and preparedness activities. It is also utilized for relief, recovery, rehabilitation, reconstruction and other works or services in connection with natural or human-induced calamities. From 2010 to 2016, NDRRM Fund steadily increased, indicating the government’s recognition of the massive impact of the major disaster events in the country in the past years (Figure 1). A huge increase (178%) in the budget for disaster risk reduction was observed in 2016 following the devastating impact of typhoon Yolanda in late 2013. Of the Php38.9 billion NDRRM budget for 2016, about Php18.9 billion was allotted for the Comprehensive Rehabilitation and Recovery Plan (CRRP) for the Typhoon Yolanda-



devastated areas. For 2017, the NDRRM Fund amounts to PhP15.76 billion, which is 146 percent lower than the 2016 budget. The reduction is attributed to the completion of the CRRP, which accounted for almost half (49%) of the NDRRM Fund in 2016.

All government agencies and LGUs that are allocated with DRRM funds shall submit to the NDRRMC their monthly statements on the utilization of the DRRM funds and make an accounting in accordance with existing accounting and auditing rules. All departments, bureaus, offices and agencies of the government are authorized to use a portion of their appropriations to implement projects designed to address DRRM activities in accordance with the guidelines issued by the NDRRMC in coordination with the Department of Budget and Management (DBM).

Of the amount appropriated for the NDRRM Fund, 30 percent is allocated as Quick Response Fund (QRF) as provided under RA No. 10121. The QRF is a stand-by fund for relief and recovery programs in order that situation and living conditions of people in communities or areas stricken by disasters, calamities, epidemics, or complex emergencies may be normalized as quickly as possible. In 2016, the QRF was lodged under the budgets of the following agencies: DND, DSWD, Department of Agriculture (DA), Department of Education (DepEd), Department of Health (DOH), Department of Public Works and Highways (DPWH), and National Irrigation Administration (NIA). There are also funds coming from the private sector through donations, endowments, grants and contributions. For 2017, it is lodged under the DND-Office of Civil Defense (OCD), DND-Armed Forces of the Philippines (AFP), DSWD-Office of the Secretary (OSEC), DOH-OSEC, DPWH-OSEC, and the National Electrification Administration (NEA). Release of

funds for these core agencies shall be automatically released upon the effectivity of the 2017 GAA. Release of the QRF for other agencies is subject to the submission of favourable recommendation from the NDRRMC and approval of the DBM. But this process may slow down the release of the QRF for other agencies which may be equally in dire need of such funds, hence somewhat defeating the purpose for which it was created.

When the QRF gets depleted, the agency may request for replenishment with a request to the DBM and to be approved by the Office of the President (OP).

Local Disaster Funds

RA No. 10121 mandated local governments to set aside 5 percent of their estimated revenue from regular sources as the LDRRM Fund to support DRRM activities such as preparedness programs including training and purchase of rescue equipment, but also for response activities. The LDRRM Fund can also be explicitly used for the payment of premiums on calamity insurance. Of the 5 percent lump sum allocation, 30 percent is automatically allocated as QRF which serves as a stand-by fund for relief and recovery programs. The rest of the 70 percent can be used for pre-disaster measures.

Other Disaster Funds

Aside from the NDRRM Fund, RA No. 10174 or the People's Survival Fund Act provides long-term financing streams to finance local climate adaptation measures and projects and serves as cushion to ease the impact of disasters on affected families and workers. Specifically, it is used for adaptation activities that include water resources management, land management, agriculture and fisheries, and health, among others. In the 2016 national budget, PhP1 billion was allocated under the People's Survival Fund.

Issues and Challenges

Notwithstanding the efforts to reduce the risks and vulnerability to natural hazards facing the country, problems still abound that hamper government's efforts to achieve the DRRM objectives. Unless these are addressed, putting DRRM into practice will remain a daunting task. Among the common problems and issues encountered by various organizations are the following:

- 1) *Weak coordination and collaboration among stakeholders.* According to the 2013 DILG Preparedness Assessment Report, there is much to be desired in terms of coordination between national government agencies, LGUs, civil society organizations, volunteers and the private sector. The current DRRM structure where authority is shared, responsibility is dispersed and resources are scattered, renders it difficult to operate an effective emergency management activities. According to the ADB, the secretariat of the NDRRMC lacks capacity to provide the coordination and facilitation functions for NDRRMC agencies. It has a weak knowledge management capability for delivering hazard and risk information to all of its stakeholders, encouraging other line agencies to take on this task (ADB, 2012). Moreover, the NDRRMC is composed of members from various departments with their respective roles and responsibilities aside from DRRM responsibilities. Because officials in the NDRRMC come from different departments, leadership and coordination are difficult (Silver, 2014).
- 2) *Lack of capacity of line agencies and LGUs to perform DRRM functions.* An oft-cited issue in the Philippine disaster management is the lack of capacities of line agencies and LGUs to assume DRRM activities. Among the reasons include limited manpower, lack of technical knowledge and understanding,

limited financial resources and lack of technology such as multihazard early warning system. The LGUs are not sufficiently empowered with technical capacity and resources to realize their duties required by law. The national table assessment on LGU compliance to RA No. 10121 conducted by the DILG-Bureau of Local Government Supervision in 2013 showed that only 23 percent of LGUs located in flood-prone areas are prepared for disasters in terms of awareness, institutional capacities, and coordination.

- 3) *Less priority given to DRRM activities.* DRRM activities are not often among the top priorities in some LGUs. More pressing problems such as health, food and education are often prioritized particularly at the local level due to foreseen immediate benefits compared to DRRM with long term result. DRRM activities are seen by communities as long term investment which cannot bring immediate impacts. Hence, there is difficulty in getting support for DRRM, especially if the community has not experienced many disasters. Municipalities that are not familiar with disasters do not see the need for implementing DRRM programs and institutions (Silver, 2014).
- 4) *Weak implementation of laws and policies.* The lack of governance and weak enforcement of disaster management-related laws have led to the proliferation of establishments and informal settlers in low-lying and high-risk areas (no building zones). According to the 2009 Global Facility for Disaster Reduction and Recovery (GFDRR) Annual Report, many structures do not fully comply with the regulations set in the Building Code and Environmental Compliance Certificates (ECCs). In some LGUs, appropriate building codes and standards are compromised to reduce construction costs. Poor regulation in the

construction of buildings and other physical establishments in disaster-prone areas contribute to increased risks in communities.

- 5) *The lack of and difficulty in accessing DRRM data/information.* The lack of and difficulty in accessing adequate DRRM data/information adds to existing problems on disaster management. Information such as disaster risks, costs and damages as well as best practices are inefficiently collected, disorganized and are scattered and not readily available online. There is no centralized database consolidating necessary disaster information. Some data have to be officially requested in writing or worse, require payment to get them.
- 6) *Post-disaster focus of disaster funds.* The Philippine government has several funds to cushion the impacts of disasters. These include the NDRRM Fund, LDRRM Fund, People's Survival Fund, and special provisions in the GAA. Funds also come from private sector through donations, endowments, grants and contributions. The Commission on Audit (COA) reported, however, that public spending on disaster management is characterized as largely reactive as shown by the huge balances of calamity funds before the occurrence of a disaster and the corresponding increase in expenditures during disaster response. It noted that the national government tends to allocate more funds on disaster response, not on preparedness.
- 7) *Monitoring of disaster fund expenditures.* The NDRRM Fund generally increased for the past five years. From PhP2 billion in 2010, it substantially increased to PhP14 billion in 2015, indicating government's recognition of DRRM initiatives in view of major disaster events in the country for the past years. RA No. 10121 requires all departments/agencies and LGUs that are allocated with

DRRM fund to submit to the NDRRM monthly statements on the utilization of DRRM funds. The same is true with the utilization of the QRF. There is no data available to be able to assess the degree of "disaster response adequacy" using the QRF. A Philippine Institute for Development Studies (PIDS) study revealed that there is no narrative report or document on QRF-funded activities, services, and projects indicating the accomplishments and timing of fund use. This is a serious systemic concern considering that huge amounts of money are being poured into the QRF, and that answering efficiency concerns could mean saving more lives and properties.

- 8) *Slow disbursement of disaster funds.* Another problem in the financing system for disaster risks is the slow disbursement of disaster funds. The Philippine Development Plan (PDP) 2011-2016 reported that disbursement of disaster funds to disaster victims sometimes takes up 9 to 12 months from the moment of application of LGUs. Delays in disbursement of funds are usually caused by the failure of LGUs to comply with the criteria and requirements set by funding institutions.
- 9) *Difficulty in tracking foreign disaster assistance.* The government launched in November 2013 the Foreign Aid Transparency Hub (FAiTH)⁵ to monitor foreign assistance to the country in response to calamities. The portal came in response to urgent call for the government to monitor the movement of foreign aid for Yolanda victims so that various foreign aids will go exactly where they are supposed to go. The portal contains data on amount pledged and received but it does not contain the dates of

⁵ The FAiTH is a pioneering web portal of the Aquino administration in response to the growing need for transparency and accountability in the management of humanitarian donations.

commitment and disbursement, hence, the amounts disbursed per year are not reflected. While the COA can access information on disaster funds channeled through government agencies, it cannot track the amount of international assistance channeled through private and other institutions.

Conclusion and Recommendations

Notwithstanding the efforts of the government in reducing and managing disaster risks, much still needs to be done in order to realize the goals set under RA No. 10121. Improving the current DRRM system would make a significant contribution to protecting the people and national development.

The need for greater coordination is well recognized for effective disaster management in the Philippines. Hence, greater organizational, management and task synchronization at all levels of the country's DRRM system should be a top priority. With the existing institutional set-up, it is proposed that a champions' group (NDRRMC, DILG, NEDA, DBM, Department of Finance and Climate Change Commission) be convened to oversee the implementation of the Philippine Disaster Risk Reduction and Management Act of 2010. The said group can work based on a term of reference that includes clear enforceable targets, roles and responsibilities, and accountabilities. This will facilitate greater coordination among line agencies and LGUs, and help translate policies into actions and results (CPBRD, 2015).

In the House of Representatives of the 17th Congress, two bills (House Bill Nos. 344 and 3093) are filed seeking the creation of the Department of Disaster Preparedness and Emergency Management (DDPEM) to replace the NDRRMC. The legislative proposal seeks to create an agency that has a distinct and separate mandate to carry out safer, adaptive

and disaster-resilient plans, and the establishment of a centralized response system that will attend to all kinds of disaster-related emergencies such as earthquakes, typhoons, flashfloods and landslides.

Correspondingly, there are two bills that have also been filed in the Senate in this 17th Congress by Senators Alan Peter Cayetano and Antonio Trillanes IV (Senate Bill Nos. 73 and 287, respectively) which seek to create an accountable, permanent and full-time Emergency Response Department (ERD) or Emergency Management Agency (EMA). Such specialized department/agency shall accordingly give primacy to pre-disaster resilience-building and quick response mechanism, as well as prioritize life preservation and basic subsistence needs in the communities affected by a disaster and effectively manage post-disaster recovery.

The current NDRRMC is saddled with many functions that it cannot handle all its DRRM responsibilities, particularly its coordination and facilitation functions for NDRRMC agencies. The enactment of a law creating a department on disaster and emergency management (be it DDPEM, ERD or EMA) is hoped to reduce, if not totally eliminate, the bureaucratic red tape which has caused many delays in the delivery of immediate assistance in afflicted areas. It must be noted, however, that any attempt to create a new government agency must take into consideration the continuing goal of streamlining and rationalizing the bureaucracy.

Strong institutions contribute significantly to the effectiveness of disaster management system. Hence, capacity building and training interventions for line agencies and LGUs are needed to effectively perform their assigned DRRM functions. With the country's limited resources, the government may enter into partnerships with other institutions to maximize use of resources and avoid duplication of efforts. Capacity building should be principally

aligned to the following needs: a) understanding of the provisions of RA No. 10121 and related legislation, and how other laws affect DRRM; b) ability to draft a comprehensive DRRM plan; c) technical capability of local personnel to understand and apply DRRM concepts; d) awareness of new local officials on the importance of sustainable DRRM programs; and e) skills for hazard and risk-mapping down to the barangay level. Relatedly, there must be a continuing disaster risk reduction education and public awareness building. Heightened awareness of disaster prevention, mitigation and preparedness protects people from disaster risks and empowers them to respond to emergencies and contribute to mitigating disasters. The LGUs must be trained in educating the local community in disaster prevention and preparedness.

It is notable that RA No. 10692 or the Philippine Atmospheric, Geophysical and Astronomical Services Administration (PAGASA) Modernization Act of 2015 was finally signed into law on November 23, 2015. This is a commendable achievement in the Philippines' environmental management especially in light of the adverse impacts of the frequent and ferocious typhoons in the country causing loss of lives, homes, infrastructure, livelihood and services. The law seeks to strengthen the Weather Bureau's role and technological and operational capabilities in providing timely, accurate and reliable monitoring, forecasting, and warning services. This will ensure the protection and security of the people and communities against natural hazards. Damages can be prevented and lives can be saved if the country is scientifically informed and appropriately prepared.

To foster accountability and transparency, a monitoring system should also be developed to track public expenditures for DRRM. This will lead to a better understanding of and behavior

toward a more comprehensive strategy to address the impacts of disasters. This has not yet been done and there is still no comprehensive analysis of public spending on DRRM. Moreover, to effectively monitor foreign disaster funds that go to the government and private sectors, the government needs to improve its current FAiTH so as to include funds channeled to the private and other sectors. As a matter of fact, the COA is "completely unaware" of the amount of funds channeled through private and other nongovernment organizations. In addition, the portal should be regularly updated and reflect dates of commitment from donor agencies and time of fund disbursement as these are not reflected in the current set-up.

In view of the slow disbursement of disaster funds, mechanisms to expedite releases especially during emergencies should be made. Information on possible funding sources and how they can be accessed should be cascaded to the LGUs. The LGUs should then be acquainted with the application guidelines and requirements of the funding source.

Lastly, an ex-post evaluation of the NDRRM Law is recommended to determine whether the law needs changes or improvements. Section 27 of the Philippine Disaster Risk Reduction and Management Act of 2010 states that Congress shall conduct a sunset review of the law within five years after it takes effect or as the need arises. Sunset review was defined as a systematic evaluation by the Congressional Oversight Committee of the accomplishments and impact of the law and the performance and organizational structure of its implementing agencies. While Congress was set to review the main text of RA No. 10121 in 2015, regional consultations have been initiated by the OCD but these were limited to the law's Implementing Rules and Regulations.

References:

- Asian Development Bank (2012). Country Operations Business Plan: Philippines, 2013–2015. Budget of Expenditures and Sources of Financing (2012 to 2015). Department of Budget and Management.
- Carlos, C. (2001) The Philippine disaster management story: Issues and challenges. Manuscript. Quezon City: National Defense College of the Philippines, Camp Aguinaldo, Manila.
- Commission on Audit (2014). Assessment of Disaster Risk Reduction and Management (DRRM) at the Local Level.
- Commission on Audit (2014). Disaster Management Practices in the Philippines: An Assessment.
- Domingo, Sonny N. (2014). Quick Response Funds and DRRM Resources in the Department of National Defense and Various Departments. Discussion Paper Series 2014-27.
- General Appropriations Act (2010 to 2015). Department of Budget and Management.
- National Disaster Coordinating Council (2005). Philippine Report on Disaster Reduction. National Disaster Coordinating Council, Manila.
- National Disaster Risk Reduction and Management Plan (2011-2028).
- National Economic and Development Authority (2011). Philippine Development Plan (PDP) 2011-2016. Pasig City.
- National Expenditure Program (2016). Department of Budget and Management.
- Orquiza, O. (2011). Philippines--Comprehensive DRM Framework End of Course Project. Retrieved from <http://www.slideshare.net/anne.orquiza/philippines-comprehensive-drm-framework-end-of-course-project>.
- Quieta, JP. (2015). Bottlenecks in Policy Reforms on Climate Change and Disaster Risk Reduction and Management. CPBRD Discussion Paper, Issue No. 6.
- Silver, F. (2014) Priority, Capacity, Information (A three-stage approach to implementing disaster risk reduction and management at the local level). Project NOAH Open-File Reports, Vol. 3, 115-136.
- United Nations University Institute of Environment and Human Security (2016). 2016 World Risk Report.
- World Bank (2008). Integrating Disaster Risk Reduction into the Fight Against Poverty. Washington, D.C., World Bank.

This Policy Brief was principally prepared by Mr. Sherwynne B. Agub with inputs from Microeconomics Sector Head Peter Anthony S. Turingan, under the supervision of the SEPO Directors and the overall guidance of its Director General.

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