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Institutional issues on disaster risk reduction and management

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Institutional Issues on Disaster Risk Reduction and Management

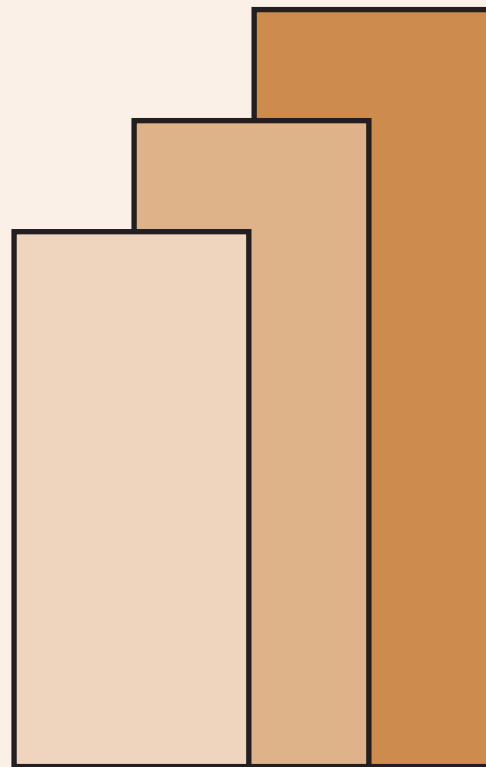
Sonny N. Domingo

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Institutional Issues on Disaster Risk Reduction and Management¹

Abstract

Ensuring the realization of the full potential of the incumbent DRRM policy requires appropriate sectoral and institutional translation of its espoused principles; reflecting more refined institutional arrangements, and policy and resource support. Strengthening institutional structures and crafting the appropriate platform for DRRM requires important decisions, particularly on the issue of mandate, jurisdiction, and response capability. A functionally superior platform would help address issues on institutional capacity and leadership, expediency of disaster response, stakeholder participation, and community preparedness and protection. DRRM tenets have to be internalized, imbedded, and exactly practiced within institutions inside and outside of the bureaucracy. This study aims to contribute to the current policy debate on the appropriate legislative vehicle toward institutional augmentation and reform.

Tags: Disaster Risk Reduction and Management, DRRM Institutional Platform, Institutional Analysis

¹ Report prepared by Sonny N. Domingo, Senior Research Fellow at the Philippine Institute for Development Studies (PIDS). Acknowledgement is due Ms Ma Divina C. Olaguera, Research Analyst II, for the excellent research assistance.

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Institutional Issues on Disaster Risk Reduction and Management

1.0 Introduction

1.1 Background of the Study

The policy landscape for Disaster Risk Management (DRM) in the country is rapidly evolving. Once stagnant for three decades with only a 1978 Presidential Decree (PD1566) supporting disaster preparedness and response initiatives, DRM now has substantive domestic and international policy backing.

The landmark passing of the Climate Change Act of 2009 (RA9729) and the National Disaster Risk Reduction and Management Act of 2010 (RA10121); and the ratification of the Hyogo Framework (2005-2015), Sendai Framework (2015-2030), and the Paris Agreement on Climate Change (2015) have augmented and reinvigorated efforts toward disaster resiliency among sectoral stakeholders and local communities. International cooperation is not only vibrant and responsive, but also exacting in terms of accountabilities.

DRRM in the country now spans the four thematic pillars of disaster prevention and mitigation, preparedness, response, and recovery and rehabilitation. Institutional arrangements have been forged within key actors in the bureaucracy to implement the provisions of the law, and ground national and sectoral plans on climate change and disaster risk management. Political subdivisions, empowered under the Local Government Code (1991), remain the most invested as they are also the frontline responders and the most affected by bio-physical, economic, and socio-political risks.

Corollary to the passing of RA10121 as the umbrella policy for DRM, the idea of proactivity and disaster resiliency has been maturing vice the usual reactive mind set and conservative bureaucratic processes. More and more, the core aim of the current policy to have “safer, adaptive and disaster resilient Filipino communities toward sustainable development” is being internalized in all aspects of national and local governance.

An enlightened level of consciousness seem to pervade the bureaucracy as regards DRRM. Although the level of mainstreaming can be qualified, Institutional involvement in all levels and in all sectors of government is evident. Resiliency, either defined broadly or hazard-specific, is now a major indicator of management proficiency for private entities and good governance for public institutions. Internal policy resolutions and initiatives helped translate and cascade national policy for both sectoral and local governance. Yet, avenues for improvement in policy and implementation remain, particularly in those areas with institutional underpinnings.

This study looks into current institutional issues and applicable institutional platforms for managing disaster risks in the country. It will contribute to the contemporary policy debate on the appropriate legislative vehicle toward institutional augmentation and reform.

1.2 Motivations and Objectives of the Study

This assessment draws from three main motivations.

First, previous studies have pointed out the institutional divide between climate change adaptation and disaster risk management, as well as the seemingly weak coordination and institutional leadership for DRRM in the country. The sunset review of RA10121 also pointed to the inability of the current law to establish “an institution that is in a sufficiently high position to oversee the implementation of streamlined disaster risk reduction and management policies nationwide, an institution that has the necessary authority, mandate and resources to lead and coordinate the efforts of different stakeholders towards a more resilient nation” (Domingo 2016, OCD 2016). Such contentions open up the discussion on the appropriate institutional platforms for grounding DRM policy in the Philippines.

The second motivation lies in the context of good governance, institution building and public welfare. Disaster risk management (DRM) concerns everyone as people are exposed to hazards in relative degrees and disaster risk is a reality for every person—from policy and decision makers in government to the general public, private sector and other interest groups.

Thirdly, recent years have seen rich discourses on institutional platforms as we entertain ideas on how to better approach and manage disaster risks. Formal and informal debates have raged in the halls of congress and the executive branch, as well as outside government among academics, DRM practitioners, sectoral stakeholders, and the general public. A safe consensus is that we need to a better mechanism to deliver response and pre-and post-disaster interventions, particularly in light of the consistent destructive barrage of natural and man-induced calamities that befall the country every year. An ad-hoc council composed of institutions with different primary mandates, and backstopped by a national secretariat do not seem to offer the most ideal institutional platform for DRRM.

In keeping with the above, and underscoring the importance of policy research as it relates to disaster risk reduction and management, the study seeks to look into institutional issues as they relate to DRRM. Specifically, it aims to:

- ❑ Discuss the contextual landscape for institution building toward disaster resiliency
- ❑ Assess how institutional transformation was grounded under the National Disaster Risk Reduction and Management Act (RA10121);
- ❑ Look into the policy direction and best institutional practice for disaster risk management; and
- ❑ Highlight learnings and provide recommendations on moving forward.

2.0 Framework and Methodology

2.1 Institutional and Development Policy Perspective

Republic Act 10121, the Philippine Disaster Risk Reduction and Management Act of 2010, provides for a comprehensive, all-hazard, multi-sectoral, inter-agency, and community-based approach to disaster risk management. With the core objective of safer, adaptive and disaster resilient communities, the law recognized four distinct yet mutually reinforcing thematic areas: (1) Disaster Prevention and Mitigation; (2) Disaster Preparedness; (3) Disaster Response; and (4) Disaster Rehabilitation and Recovery. Such served as guide in delineating institutional responsibilities and molded a directional approach toward policy grounding and institutional cooperation among the agency leads, implementing partners and other relevant stakeholders.

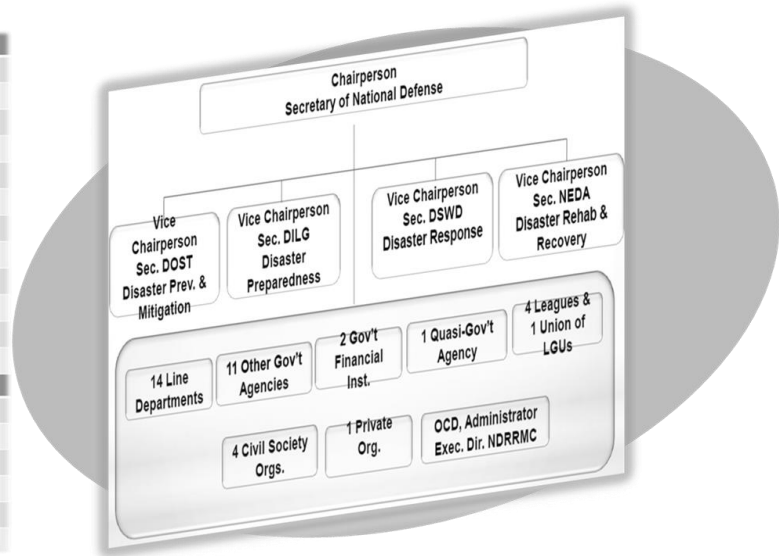
Capacity augmentation and institution building, which included of DRM structural platforms within the bureaucracy, and mainstreaming DRM in all national and sectoral plans were among the main strategies identified to achieve the desired resiliency outcome. Transforming the disaster coordinating councils of the 1978 presidential decree 1566, the national government endeavored to institutionalize DRRM councils and organic offices at the national, regional, provincial, city/municipal, and barangay levels.

RA10121 laid the foundation in making current the institutional arrangements for DRRM in the country. Under RA10121, the National Coordinating Council (NDCC) from PD1566 was replaced with the National Disaster Risk Reduction Management Council (NDRRMC) as the overseeing body headed by the Secretary of the Department of National Defense (DND) as Chairperson, and the Office of Civil Defense as secretariat. Figure 1 below shows the organizational structure and composition of NDRRMC.

The 2010 law authorized the NDRRMC with policy-making, coordination, integration, supervision, and monitoring and evaluation functions. The Act also mandated the establishment of Disaster Risk Reduction and Management Offices (DRRMOs) in every province, city and municipality, and a Barangay Disaster Risk Reduction Management Committee (BDRRMC) in barangays. Proactivity, responsiveness, stakeholder participation and resource and capacity augmentation became the mantra of the incumbent policy.

Figure 1. Organizational structure and composition of NDRRMC (OCD 2016)

NDRRMC MEMBERS (44)	
Chair, DND	
Vice Chair DOST (Prevention and Mitigation)	
Vice Chair DILG (Preparedness)	
Vice Chair DSWD (Response)	
Vice Chair NEDA (Rehab and Recovery)	
<input type="checkbox"/> 14 Departments	
<input type="checkbox"/> 12 Government Agencies	
<input type="checkbox"/> 2 Government Financial Institutions	
<input type="checkbox"/> 1 Quasi Govt	
<input type="checkbox"/> 5 LGU	
<input type="checkbox"/> 4 Civil Society Orgs	
<input type="checkbox"/> 1 Private Sector	
DRRM NETWORK	
1 National DRRMC	
17 Regional DRRMC	
81 Provincial DRRMC	
122 City DRRMC	
1,512 Municipal DRRMC	
42,026 Brgy DRRM Committee	



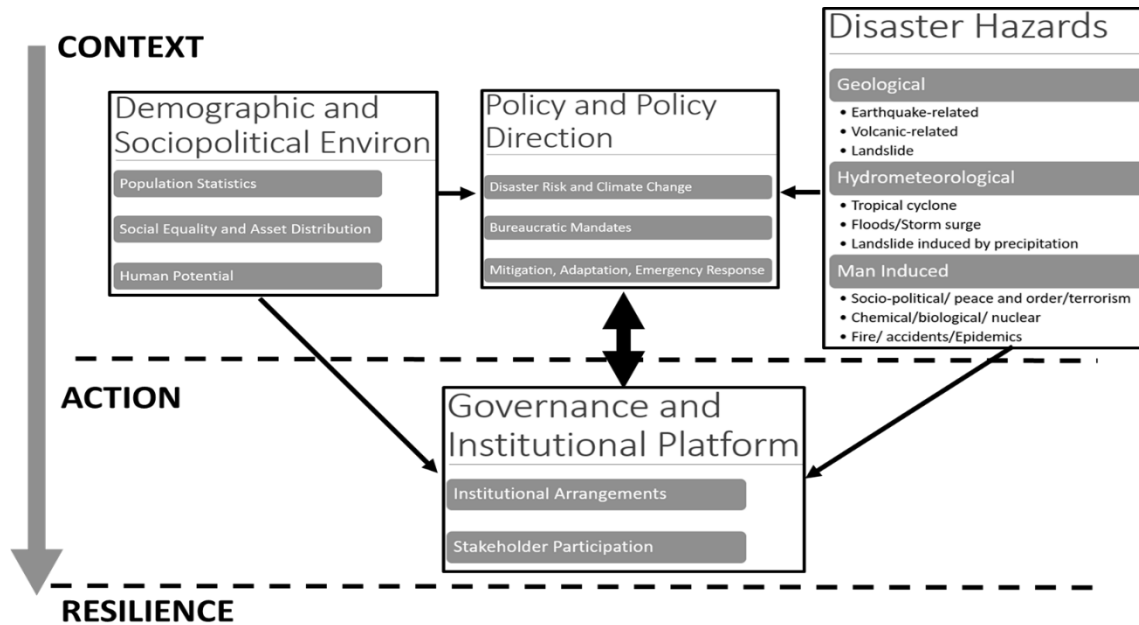
2.2 Evaluation Methodology and Framework

The study provides an in-depth discourse into institutional issues surrounding the grounding of DRRM policy in the country. Modifying Elinor Ostrom’s (2003) institutional analysis and development framework, the study looks into DRRM governance and institutional issues by contextualizing the biophysical, demographic, and socio-political impetus and laying out the policy pathway toward the ultimate national goal of multifaceted resilience. Figure 2 presents the framework of the study indicating the context, action arena and targeted outcome of institutional development for disaster risk management.

Pertinent documents were scrutinized in relation to attempts by the national government to institutionalize disaster risk management in the country. Submitted legislative bills in congress were reviewed, taking into consideration the special features and premises behind the proposed bills. Relevant DRM institutional setups in the international scene were also looked into for best practices and local applicability.

KIIs and FGDs covered observations and insights from the staff and officers of the Office of Civil Defence (OCD) as NDRRMC secretariat; the Department of Science and Technology (DOST) as vice chair for disaster prevention and mitigation; the Department of Interior and Local Government (DILG) as vice chair for disaster preparedness; the Department of Social Welfare and Development (DSWD) as vice chair for disaster response, and the National Economic and Development Authority (NEDA) as vice chair for rehabilitation and recovery. Focus groups were also conducted with DRRM practitioners and academics to gather different insights and perspectives on the subject matter.

Figure 2. Conceptual Framework



3.0 Contextual Landscape

3.1. Insights from Literature

The literature provides invaluable insights as why institutional issues in disaster risk management need to be better understood and addressed.

The importance of institution building in DRRM has often been overlooked. Gopalakrishnan and Okada (2007) pointed out how the institutional dimension has been historically neglected in the discourse on integrated disaster risk management. Historical data and empirical evidence gleaned from national and international sources point to several instances of dysfunctional disaster management institutions at the global, regional, national, state, and local levels.

Institutions need to be strengthened. Ahrens and M. Rudolph (2006) identified institutional failure as the root cause for underdevelopment and susceptibility to disasters and explores their interdependent relationship. They demonstrated that only if a country's governance structure enables the implementation and enforcement of public policies conducive to a country's economic and social development can sustainable livelihoods be achieved and susceptibility to disasters be reduced. Accountability, participation, predictability and transparency were seen as the key features of a governance structure that fosters development and supports risk reduction. Persson and Povitkina (2017) argued that while natural calamities such as earthquakes, and certain disastrous hydro meteorological events are beyond human control, the governments' capacity to protect populations largely determines the degree of human suffering in disasters. Broad public participation, and representation are believed to induce resilience, but democratic institutions face challenges in securing protection from disasters in contexts of corruption, poor planning, and public administration incompetence.

Institutional dynamism at the local level is vital to grounding DRRM initiatives. Valdivieso and Andersson (2017) concluded that municipal operational rules combined with representation, municipal structures, institutional trajectories, and polycentric relationships between municipal governing councils and society are influential factors for successful environmental disaster risk management (EDRM). Such was the reason why some local governments successfully addressed issues related to EDRM, while others do not.

Capacity building within institutions translates to operational competencies in times of disasters. Kaynak, Ramazan and Erel, Mahmut (2016) found that institutional capabilities and the antecedents of disaster management performance were positively related to disaster-oriented competencies. Inter-organizational cooperation and efficient logistics service were seen as vital factors in disaster management success and in lessening the duration of catastrophes.

Logistical efficiency, operational readiness, and the ability of institutions to mobilize resources determine the urgency in action and allow for swift the delivery of DRRM services. Vaillancourt, Alain; Haavisto, Ira (2016) suggest that governments and other disaster responders address the role of country logistics performance, in particular the customs clearance process, the infrastructure, the ability to track and trace consignments, the complexity of the logistics service supplier network and the possibilities for timeliness of shipments and transportation when preparing for disasters. In addition to this, contingency planning within institutions facilitates operational continuity and response in times of disaster events. Steigenberger, Norbert (2016) stated that the three main themes that are required to successfully manage a disaster event are cognition, communication and coordination. The development of a well-tailored plan and effective training are of paramount importance. An effective disaster response plan outlines roles and responsibilities and prescribes a command structure that is as decentralized as necessary and as centralized as possible.

An enlightened and holistic perspective into disaster risk management, local economic development, and resilience building is necessary. Albeit the relationship between disaster causation and development has also become an acceptable view, integrating institutional initiatives toward disaster resiliency and local development among target communities is not simple. Manyena (2012) asserted that disasters are caused by a complex interaction of hazards, vulnerability and resilience. There are conceptual and policy dilemmas in merging distinct paradigms on disaster and development into a single framework, making the increased convergence of the disaster and development constructs difficult. He claimed that the assertion that disaster-risk reduction can help achieve sustainable development and vice versa mere rhetoric. Unless there is a shift from focusing on the hazard event to also recognising that disasters are not politically neutral, there is a danger of being locked into the hazard paradigm.

The policy backdrop for DRRM should therefore lend to apt institution building, capacity development, local government dynamism, logistical efficiency, and holistic development and resilience pursuit.

3.2. Biophysical, Economic and Socio-political Impetus

Natural and man-induced calamities exact catastrophic figures on human lives and properties in the Philippines every year. Using a 10-year moving average from 2005 to 2014, CRED EM-DAT (2017) and UNISDR (2017) computed an annual average of 18 catastrophic/disaster events hitting the country, incurring 1817 human deaths and \$1.7Billion or PHP85Billion in economic losses. The numbers show that aside from the cost on human lives, disaster events incur economic losses equivalent to at least 1% of the country's Gross Domestic Product (GDP) in 2014 levels. Probabilistic risk computation of the annual average loss per hazard in the Philippines show the country suffering most from wind, flood, and storm surge damage every year (Table 1). Annual average damage from all hazards total to around PHP422Billion, equivalent to 3% of the country's GDP in 2016. This placed annual disaster damages at an estimated 1 to 3% of GDP.

Table 1. Average annual loss per hazard (Prevention Web 2017)

Hazard	Absolute [Million PHP]	Capital stock [%]	GFCF [%]	Social exp [%]	Total Reserves [%]	Gross Savings [%]
Earthquake	35173	0.124	1.264	6.16	0.929	0.666
Wind	203575.5	0.718	7.317	35.655	5.379	3.857
Storm Surge	127081	0.448	4.568	22.258	3.358	2.408
Tsunami	1531.5	0.005	0.055	0.268	0.04	0.029
Flood	27271.5	0.096	0.98	4.776	0.721	0.517
Volcano	27880	0.098	1.002	4.883	0.737	0.528
Multi-Hazard	394632.5	1.392	14.184	69.118	10.428	7.477

The frequency and magnitude of disaster events that the country encounters every year rank it high among the nations with the greatest disaster risk and exposure scores according to the 2017 World Risk Index Report (Bündnis Entwicklung Hilft 2017) as reflected in Table 2. The Philippines ranked third among 171 countries with the highest disaster risk and exposure, but positively delivered in terms of coping capacity.

Table 2. World Risk Report 2017

Bündnis_Entwicklung_Hilft 2017

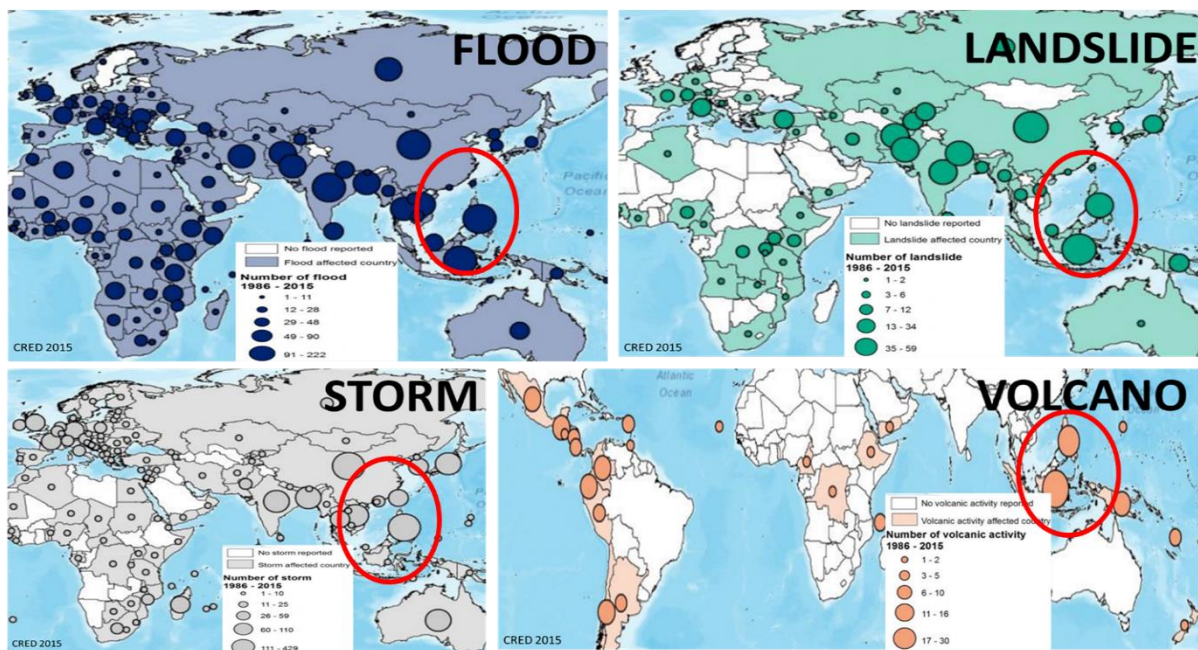
The 15 countries with the highest risk worldwide		The 15 countries with the highest exposure worldwide		The 15 countries with the greatest lack of coping capacities worldwide	
Country	Risk (%)	Country	Exp. (%)	Country	L. of. Cop. (%)
Vanuatu	36.45	Vanuatu	63.66	Afghanistan	92.82
Tonga	28.57	Tonga	55.27	Sudan	92.57
Philippines	27.69	Philippines	52.46	Chad	91.50
Guatemala	20.46	Japan	45.91	Haiti	90.82
Bangladesh	19.57	Costa Rica	42.61	Yemen	90.2
Solomon Islands	18.77	Brunei Darussalam	41.10	Central African Republic	89.63
Costa Rica	17.16	Mauritius	37.35	Guinea	89.58
Cambodia	16.92	Guatemala	36.30	Guinea Bissau	89.14
El Salvador	16.74	El Salvador	32.60	Iraq	89.09
Timor-Leste	16.37	Bangladesh	31.70	Zimbabwe	88.71
Papua New Guinea	16.34	Chile	30.95	Eritrea	88.31
Brunei Darussalam	16.22	Netherlands	30.57	Burundi	88.13
Mauritius	15.11	Solomon Islands	29.98	Myanmar	88.06
Nicaragua	14.88	Fiji	27.71	Nigeria	87.86
Fiji	13.50	Cambodia	27.65	Uganda	87.67

The same World Risk Report claimed that 'the poor are disproportionately affected by disasters

and are more likely to die as a result. For persons living in structurally unsound dwellings or earning low incomes, the odds of overcoming a natural disaster are much lower. In developing countries, natural disasters often result in extreme, life-threatening conditions

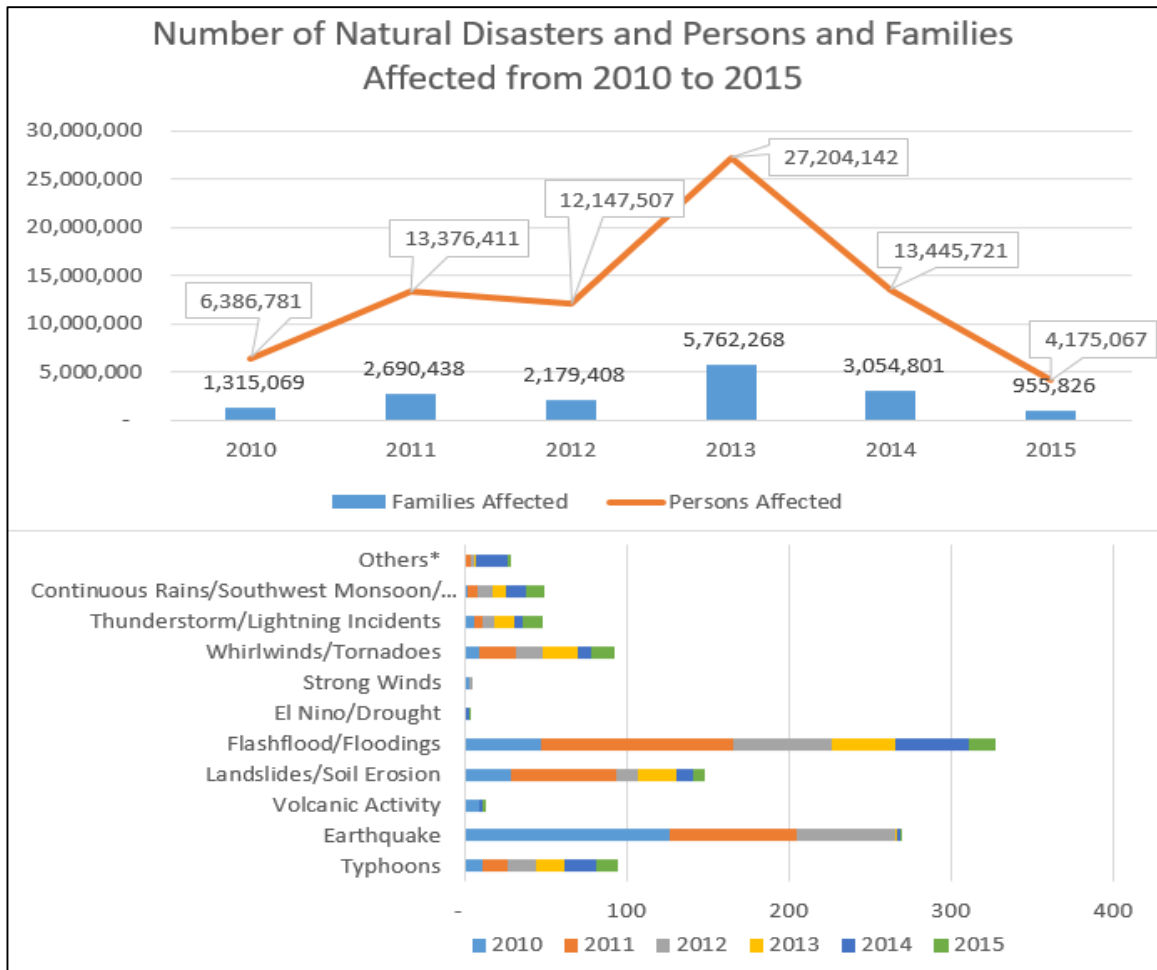
and the destruction of a person’s means of survival. In highly developed countries on the other hand, economic losses are more pronounced, with damage to infrastructure a major factor.’ This observation very much applies to the Philippines where hazard exposure coupled with a vulnerable population result loss of lives and livelihoods. Figure 3 illustrates the country’s exposure to natural geologic and hydro-meteorological hazards such as flood, landslide, storm and volcano.

Figure 3. Maps showing the Philippines’ exposure to natural geologic and hydro-meteorological hazards (CRED 2015)



The 2015 census placed the country’s population at 100.98 Million with 22.98 Million households. Poverty rate was estimated at 21.6% with 69% of total households experiencing food insecurity. Malnutrition is rampant among the young with 34% and 20% respectively suffering from stunting and underweight status. Seven percent (7%) of babies up to 60 months old are also wasting or severely malnourished. The vulnerability of the country’s population is vulnerable as also manifested in the OCD tally of multi-hazard exposure and people affected by disasters. Disaster incidents in 2015 negatively affecting 4.1Million people 0.96Million households, averaging 2.7Million families and 12.1Million individuals annually (Figure 4). Notwithstanding the effort of the national government to mainstream DRRM within the bureaucracy, massive welfare issues are encountered by the local population in terms of deaths, injuries, displacement, economic losses, and damages to properties. Such was particularly evident when super typhoon Yolanda struck in 2013 killing thousands and negatively impacting millions of people.

Figure 4. Number of Geological and Hydrometeorological events from 2010 to 2015 and their effect on Individuals and Families (data source: OCD/NDRRMC 2016)



Demographic, economic and political weaknesses aggravate the yearly onslaught of calamities that befall the Philippines. Slow economic development, wealth distribution disparities, high population growth, and rapid urbanization are some of the factors that increase vulnerability to disaster events. While most of the disaster events that happen in the Philippines, particularly the natural calamities, are beyond human control, effective governance and apt institutional capacity can greatly lessen their ill-effects.

As such, an effective disaster risk management scheme requires action on several fronts. Good governance and institution building cut across all areas of intervention including disaster mitigation response and rehabilitation, social protection and anti-poverty effort, investment on augmented capacity and resilient infrastructure, and sustainable resource management.

Disaster risk reduction and management has to be internalized, imbedded, and exactly practiced within institutions inside and outside of the bureaucracy. Only then the desired resiliency outcome truly manifest.

3.3 Policy and Policy Direction

Policy and institutional platforms for disaster risk reduction and management underwent a slow, but deliberate transformation in almost four decades. The desire and intention to strengthen the national government and the local communities against the impacts of disaster events took on the essence of institutional cooperation and collaboration and self-help through the creation of intergovernmental ad hoc bodies, and the institution of policy within local governments toward self-reliance and first-response capacity.

The policy landscape gained clarity in 1978 when then President Ferdinand Marcos passed into law Presidential Decree No. 1566 also known as “Strengthening the Philippine Disaster Control Capability and Establishing the National Program on Community Disaster Preparedness”. The decree created the National Disaster Coordinating Council (NDCC), the highest policy-making body on disaster-related concerns, in an attempt to gain effective multi-sectoral oversight, and institutionalize and strengthen disaster control in the country.

The drive toward local government autonomy and self-reliance got legislative backing when more than a decade later, Republic Act No. 7160 or the Local Government Code (LGC) of 1991 came into force. The law espoused decentralization and heralded local autonomy to enable the political subdivisions of the state to develop and become self-reliant and more effective partners in the attainment of national goals. Toward this end, applicable local government structures were instituted and local government units were given more powers, authority, responsibilities, and resources. Still, during this time, disaster response was an ad-hoc responsibility, and existing personnel were just assigned the added responsibility of disaster preparedness and response.

PD 1566, together with certain provisions in Republic Act No. 7160, became the default policy on DRM until the passing of landmark legislations on climate change and disaster risk reduction and management in 2009 and 2010, respectively. Republic Act 10121 or the Philippine Disaster Risk Reduction and Management Act of 2010, and Republic Act 9792 or the Climate Change Act of 2009 established proactive national framework strategies and plans, and made available the necessary institutional structures and resources required for disaster risk management, and climate change mitigation and adaptation in the country. Under the new law, more resources were made available to government instrumentalities for DRRM activities, projects and programs. Attempt was also made to establish organic DRRM offices in all provinces, cities and municipalities with the approval of regular plantilla positions for DRRM practitioners/officers. Although many local government units complied with this provision of the law, many others failed to hire permanent personnel due to fiscal limitations. In many instances, DRRM personnel assignments and institutional involvement remained ad hoc and temporary.

From 2005, the country also became a signatory to the Hyogo Framework of Action, a United Nations initiative which presented a global blueprint for disaster risk management to substantially reduce disaster losses by the year 2015. This was succeeded by the Sendai Framework which runs from 2016 to 2030 and aims to provide continuity in global disaster risk reduction cooperation while recognizing the complex dimensions of risk and the presence of global and national platforms.

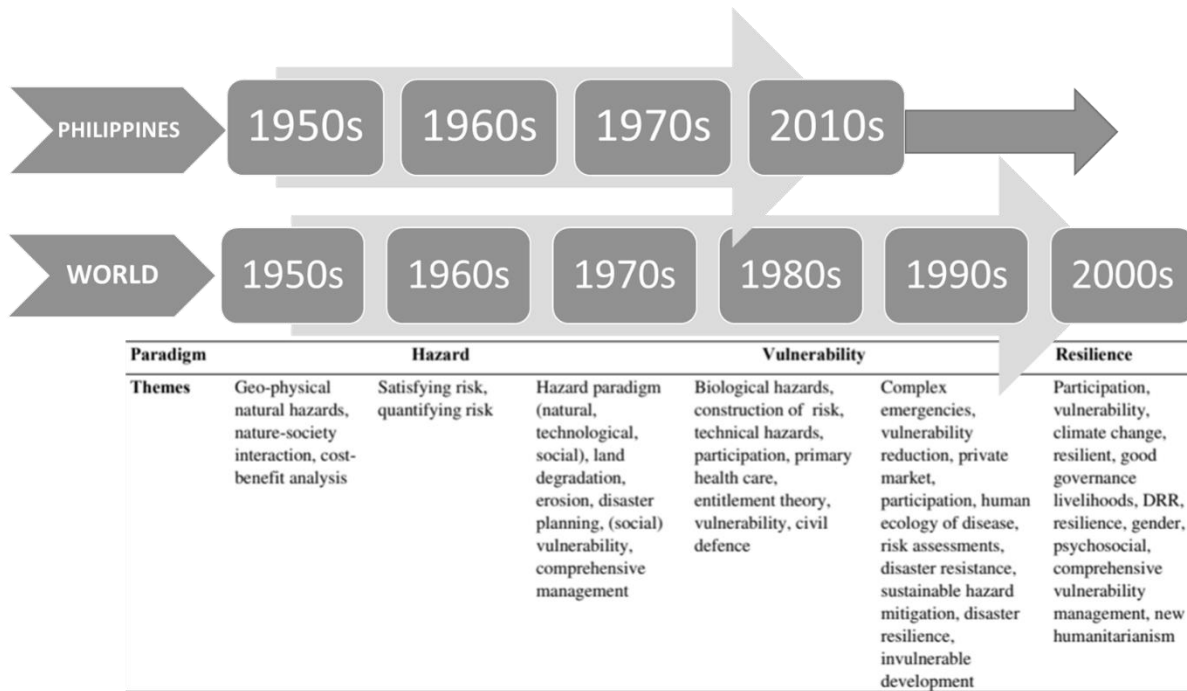
In 2015, the Philippine government attended the 21st Conference of the Parties (COP) of the UNFCCC in Paris, where an agreement was negotiated by representatives of 196 parties to respond to the global climate change (CC) threat by keeping a global temperature rise this century well below 2 degrees Celsius above pre-industrial levels. Empirical evidence has raised the concern about the effects of global warming to the increase frequency and intensity of natural calamities. With the ratification by the Philippine Senate of the Paris Agreement in March 2017, the government formalized its commitment to revisit and reconstruct the Independently Determined National Contribution (IDNC) submitted during COP21 and come up with Nationally Determined Contributions (NDC) reflective of adaptation and mitigation actions and synergies across different sectors. It was affirmed that adaptation toward resiliency is priority; and financial resources, technology transfer and capacity building support are needed for downscaling CC models, climate-scenario building, and climate monitoring and observation. The government agreed to conditionally pursue greenhouse gas (GHG) emission reduction of about 70% relative to the business as usual scenario by 2030 with mitigation actions coming from the energy, transport, waste, forestry and industry sectors. The NDC implementation is conditional on the support to be received which includes among others, financing, technology and capacity building support from developed countries. The first NDC status report will be submitted in 2020.

The sunset review of RA10121 pointed out the weakness of the incumbent law in terms of grounding and implementation. It mentioned the lack of high-level institutional leadership that can rigorously pursue and direct DRRM initiatives at all levels in the government bureaucracy, even possibly transcending the limitations of political subdivisions, and mobilizing the resources and strengths of the private sector and civil society. This view is consistent with the constant clamour over the years to come up with a stronger and more organic bureaucratic platform that can handle the demands of all facets of DRRM.

The awakening of government consciousness toward a change in disaster risk management paradigm was a product of years prompting: both by advocates of structural reform as well as practical urgency from disaster-related biophysical, economic and socio-political impetus.

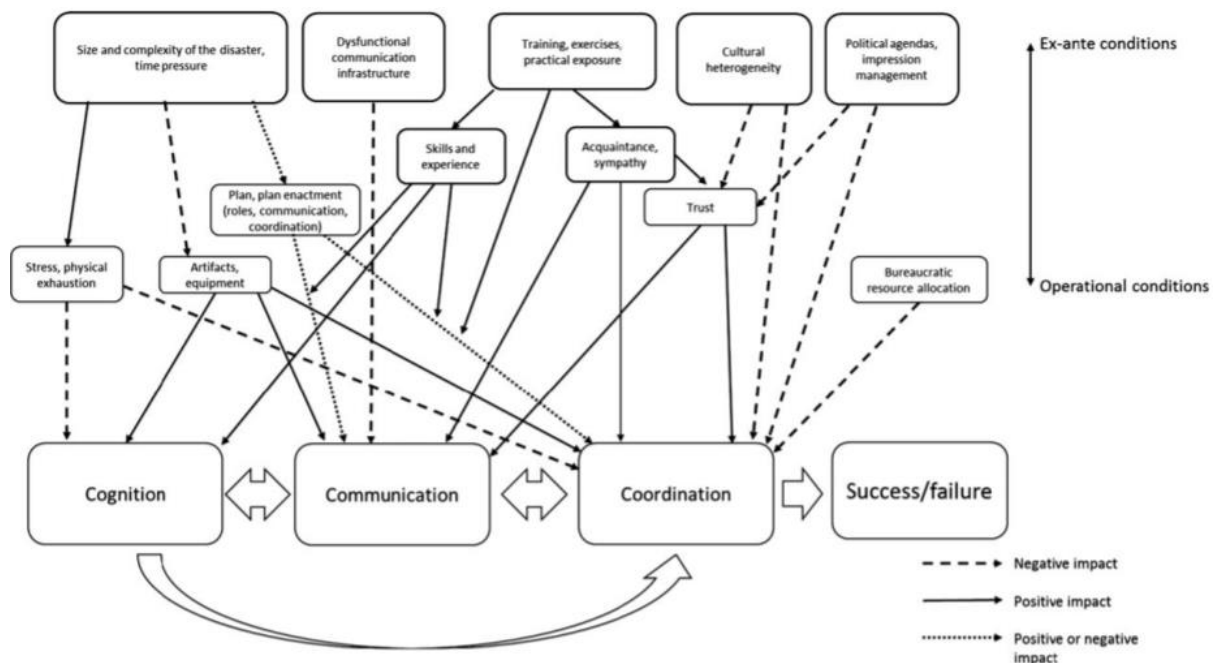
Globally, different paradigms of looking into disaster risk management have evolved over more than half a century of investigation and application: hazard-based paradigms from 1950-1970s, vulnerability-focused paradigms in the 1980s and 1990s, and resilience models in 2000s. Attention moved from just responding to Geo-physical natural hazards to an enlightened approach toward vulnerability reduction, private market, participation, risk assessments, disaster resistance, sustainable hazard mitigation, disaster resilience, climate change mitigation and adaptation, good governance, comprehensive vulnerability management, new humanitarianism and disaster resilience. The Philippines did not catch this wave of transformation until the late 2000s when it passed landmark legislations on CC and DRRM. There is common consensus now that things are moving interestingly fast and the momentum toward significant change in DRRM institutional building is getting increasingly palpable.

Figure 5. Shift in disaster Management Paradigms over the past decades (adopted from Manyena 2012)



A very apt illustration of the significant factors and enabling condition toward successful DRRM is presented in figure 6. Norbert (2016) identified cognition, communication and coordination as key in determining the success and/or failure of DRMM initiatives. One can intuitively glimpse from this work that an integrative institutional framework covering institutional structure, apt planning and management, efficient resource provision, capacity building, and positive bureaucratic employment can lead to the realization of DRRM goals. Evident as well is the crux that appropriate institutional initiatives can serve as disincentives to the negative elements that contribute to non-accomplishment. Such tenets could serve as guide in crafting and laying the foundation for effective DRRM institution building.

Figure 6. Integrative Institutional Framework for DRM (Adopted from Norbert 2016)



4.0 Institutional Action Arena

4.1. Incumbent Policy Grounding

Implementation of RA10121

Initiatives under Republic Act 10121 were toward managing risks and strengthening institutional arrangements and capacity at the national and subnational levels. Institutional augmentation and arrangements were guided by four distinct yet mutually reinforcing thematic areas: (1) Disaster Prevention and Mitigation; (2) Disaster Preparedness; (3) Disaster Response; and (4) Disaster Rehabilitation and Recovery. The ultimate aim of those who crafted the law was to have safer, adaptive, disaster resilient Filipino communities toward sustainable development.

Domingo (2016) in a review of the implementation of the NDRRM Plan of RA10121 found that disaster risk management as espoused, had influenced development processes and institutional initiatives in half a decade of implementation. However, the national document's guiding role in directing institutional DRRM initiatives becomes questionable without manifest leadership from NDRRMC and OCD at the top, and the thematic pillar leads from the wings. Sans the NDRRMC's and its secretariat's (OCD's) coordinative role, the institutional initiatives under the four thematic pillars proceeded with independence from the NDRRMP, albeit a noteworthy fit between the plan and existing initiatives. The DRRM leadership need to actively promote institutional consciousness on the tenets and advocacies embodied

within the law and its implementing instruments rather than just rely on institutional convenience for agency-initiated deliverables.

Ensuring the realization of the full potential of RA10121 or the national Disaster Risk Reduction and Management Act requires appropriate sectoral and institutional translation of its espoused principles; reflecting more refined institutional arrangements, and policy and resource support. The figures below present the resources made available to the national and local DRRM initiatives for the years 2010 to 2017.

Funding and Resource Allocation

It is noteworthy that resource allocation at the national and local levels are substantial. Figure 7 reveals that the National DRRM fund had receive considerable boosts in allocation since the passing of RA10121, peaking at almost PHP39Billion in 2016. Quick response funds, which are standby funds for disaster response also peaked in 2016 at PHP4.1Billion. Funding for the national calamity fund dropped in 2017 to less than half the previous year, but picked up again to PHP25.5Billion in the recently approved 2018 General Appropriations Act (GAA). Allocations for the QRF were also increase to PHP6.5Billion for 2018. Movements in national funding are somewhat obligatory given infused funding for special allocations, including planned spending for aid, relief, community rehabilitation services, and repair and reconstruction of permanent structures. Institutional shares are reflective of the pillar focus, with DSWD as co-chair of disaster response getting more of the QRF pie.

Indicative local DRRM fund allocations for local governments have been increasing over the years with figures in 2017 tallying to more than PHP24Billion (Figure 8). However, such funding still need relative augmentation considering that the country has 18 administrative regions, 81 provinces, 33 urbanized cities, 1489 municipalities, and 42036 barangays. Considering as well that LDRRM Funds are pegged at 5% of internal revenue allocations, then you have a situation where inequities exist. Poorer communities, which are supposedly more exposed and vulnerable to a multitude of hazards, are given less funding under the law.

Figure 7. NDRRMF and QRF Allocation, 2009-2017

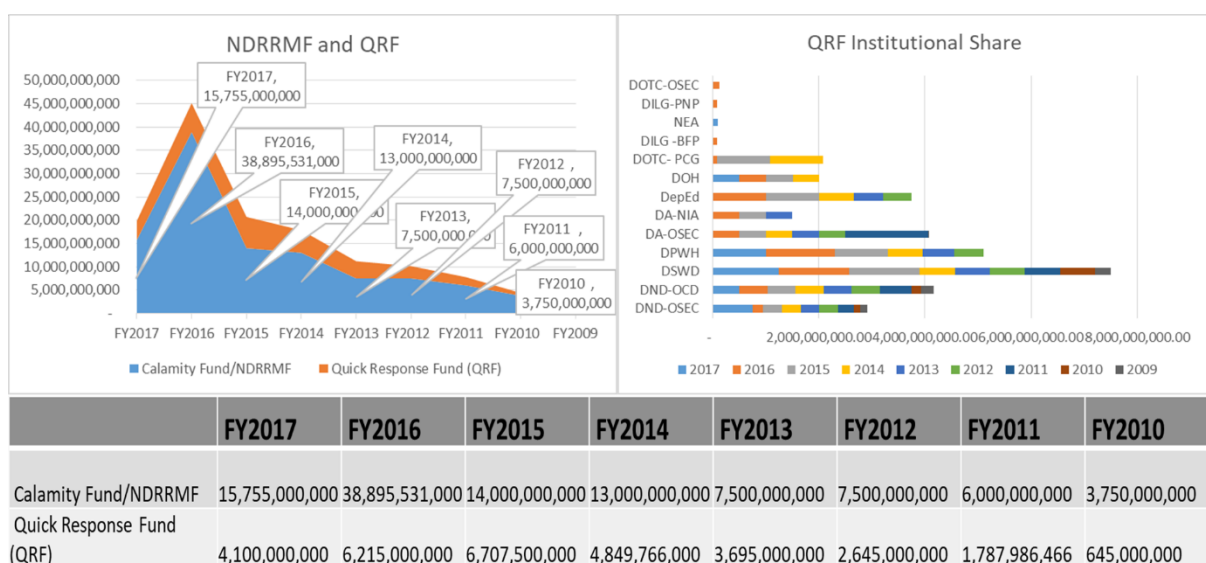
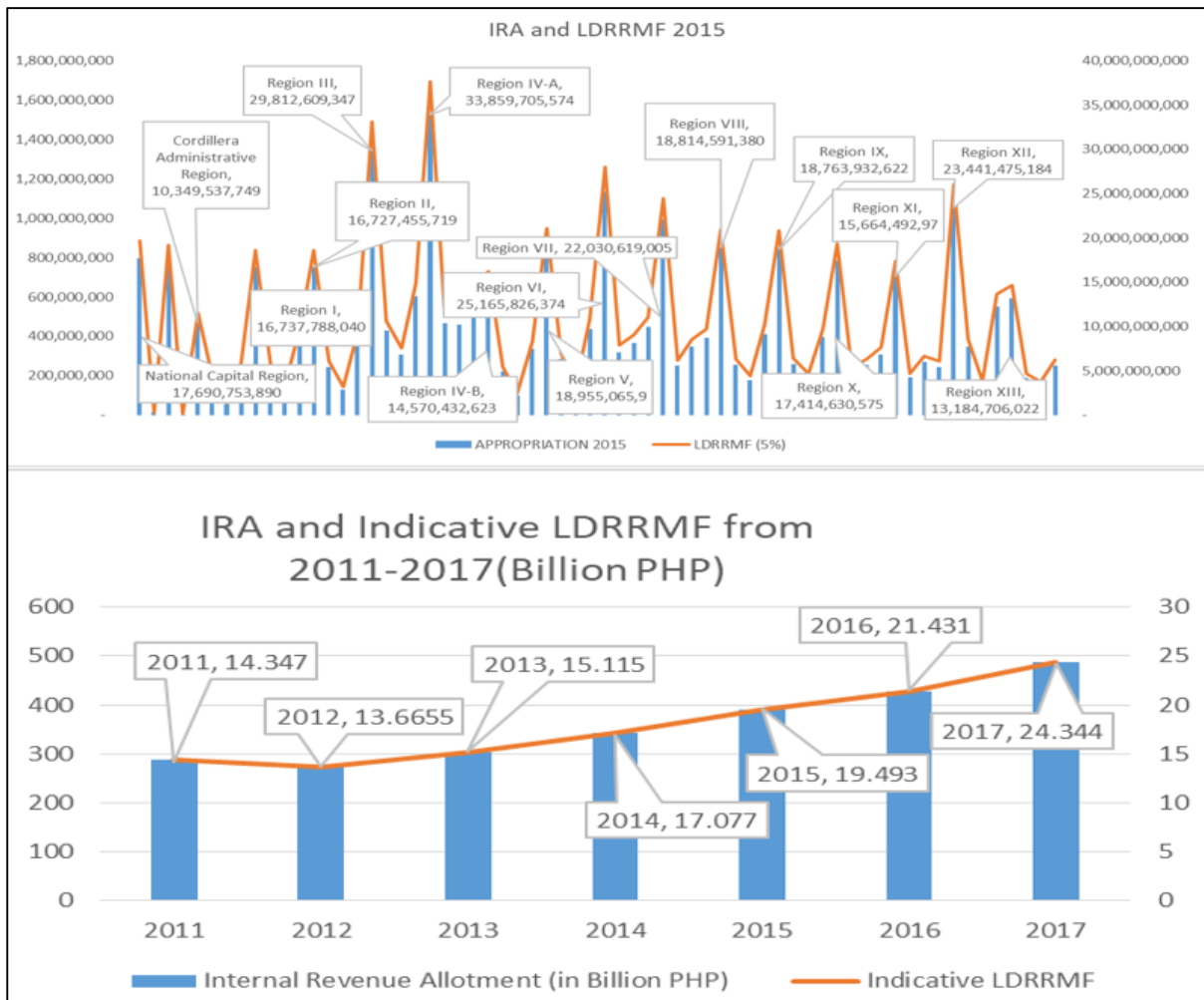


Figure 8. IRA 2015 per Region and Indicative LDRRMF 2011-2017



From documents at the national level and narratives from local governments and responders, there are both strengths and weaknesses in grounding the incumbent DRRM policy. With the drive to mainstream DRRM, it can be claimed that awareness has reasonably spread within and outside of government, including local communities. The nation had seen unprecedented levels of resource infusion in DRRM since the passing of RA10121, yet full benefits from this are hampered by inefficient fund utilization, unequal resource distribution, inept directional funding, and accounting and auditing issues. Such can be largely addressed by answering questions on institutional leadership, both at the national and sub-national levels, as well as all other instrumentalities within the bureaucracy.

4.2. Proposed Governance and Institutional Platform

The halls of congress have been recently busy with talks on the policy augmentation of RA10121. The sunset review of the law pointed to certain weaknesses in implementation that can only be addressed through legislative action.

There is recognition that what the nation has with the current law is substantive, yet issues in its grounding point to institutional barriers within the bureaucracy. The realization as well that the barrage of natural disasters that impact the country every year is ever present and intensifying as climate change complications define the “new normal”.

Several legislative bills, including a draft unified bill are now pending in the lower house. Common among the submitted legislative proposals is the recognition that there is a need to strengthen the leadership and institutional platform for DRRM. There is consensus that the ad hoc arrangement that we have now under the incumbent policy weakens the implementation and favourable features of the law. This, and the premise that the Philippines is disaster-prone and is among the most exposed and vulnerable to natural hazards, give urgency to the cause.

A point of debate is to whether to adopt an independent agency or create a new department as institutional platform for an expanded DRRM policy. The summary tables below (Table 3) present the features and merits of the proposed bills relating to the augmentation of RA10121.

Table 3. Features of House Bills on DRRM submitted to Congress

Bill	House Bill No. 344	House Bill No. 108
Proponent	Yedda Marie Romualdez	Gary C. Alejano
Premise	<ul style="list-style-type: none"> • Frequent Typhoons • Loss of life and properties • Slow disaster response • Lack of support to victims • People constitutional right for protection • Address vulnerabilities • Build community resilience • Strengthen institutional capacity 	<ul style="list-style-type: none"> • Integrated and coordinated DRR policy • Excellence in civil protection • Strengthen institutional structures • Strengthen communities • Enhance private sector participation • Adopt universal principles in humanitarian assistance
Platform	Department of Disaster Preparedness and Emergency Management (DDPEM) <ul style="list-style-type: none"> • Central and regional offices • Independent authority • Headed by Secretary, Undersecretaries 	Emergency Management Agency (EMA) <ul style="list-style-type: none"> • Field offices in Regions, provinces, municipalities and barangays

		<ul style="list-style-type: none"> • Independent body attached to office of the president • Headed by Board composed of Director and 2 members with 5-year terms • Director is Cabinet Secretary level • Create EMA secretariat headed by executive director
<p>Functions</p>	<ul style="list-style-type: none"> • Advise government and stakeholders • Formulate and implement national plan • Identify, assess and prioritize hazards • Set standards for preparedness, mitigation, response, rehabilitation, M&E, analysis, and planning • Review and evaluated local plans (LDPRMP, CDP and CLUP) • Formulate SOPs for deployment and communication • Establish training institute • Ensure PAPs and consistent with policy • Establish operations facility in all regions • Create necessary offices to perform mandates • Prepare criteria for enlistment of community disaster volunteers • Take lead in disaster preparedness, response and recovery • Institute mechanism for international humanitarian assistance • Impose penalties to violators • Submit annual report to the President • Congressional oversight committee and sunset review after 5 years 	<ul style="list-style-type: none"> • Formulate policy and develop national Emergency and Disaster Prevention and Preparedness plan and framework • Advise the president and recommend declaration of state of calamity • Ensure harmony of PAPs with national policy • Submit annual reports to the OP and congress • Identify hazards and disaster risks • Consult and work with stakeholders • Organize volunteers • Deputize law enforcement agencies in enforcing law • Provision for joint local government office • Allow importation/donation of relief goods and related supplies

Resources	Resources and budget of offices transferred and abolished, until GAA provision	Release, allocation and accounting of the National Calamity Fund
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Bill	House Bill No. 596	House Bill No. 2638
Proponent	Prospero A Pichay Jr	Wes Gatchalian
Premise	<ul style="list-style-type: none"> Develop, promote and implement a comprehensive program for preparedness, response, mitigation, and recovery for disasters and emergencies 	<ul style="list-style-type: none"> Assist victims/ communities damaged or destroyed or adversely affected by disasters Extend aid, relief, resettlement, rehabilitation and livelihood Repair and reconstruction of infrastructure
Platform	<p>Philippine Emergency and Disaster Management Authority (PEDMA)</p> <ul style="list-style-type: none"> Emergency and Disaster Field Offices in every Province Independent national agency attached to the Office of the President Headed by Board composed of Chairperson and 2 members with 5-year terms Chairperson is Cabinet Secretary level, 2 other members Undersecretary level 	<p>Philippine Disaster Rehabilitation Commission</p> <ul style="list-style-type: none"> Independent commission attached to the Office of the President Composed of 7 members appointed by the President with 6-year terms President to choose chairman from the 7 members Executive Director to professionally manage the commission With Regional Offices and sub-offices
Functions	<ul style="list-style-type: none"> Formulate policy and develop national Emergency and Disaster Prevention and Preparedness plan and framework Advise the president and recommend declaration of state of calamity Ensure harmony of PAPs with national policy Submit annual reports to the OP and congress Facilitate the participation of NGOs 	<ul style="list-style-type: none"> Advise the president and recommend declaration of state of Disaster Formulate and implement policy and plans for relief, rehab, resettlement and livelihood, and infra support Apply, receive and accept grants and donations Enter into and carry out contracts with private or public entities

	<ul style="list-style-type: none"> • Identify hazards and disaster risks • Consult, coordinate and work with stakeholders • Organize volunteers • Enforce curfews and compel evacuation as needed • Deputize law enforcement agencies in enforcing provisions 	<ul style="list-style-type: none"> • Coordinate and consult with stakeholders • Call upon any government instrumentalities for assistance as necessary • Submit annual reports to the OP and congress • Residents of affected communities to be priority in employment
Resources	Inclusion in annual General Appropriations Act (GAA), Calamity Fund	30Billion initial fund, and Inclusion in annual General Appropriations Act (GAA),

Bill	House Bill No. 3093	House Bill No. 4203
Proponent	Winston Castelo	Bernadette Herrera Dy
Premise	<ul style="list-style-type: none"> • Disasters damage social and economic fabric of communities and lead to collapse of local economies • Develop, promote and implement a comprehensive program for preparedness, response, mitigation, and recovery for disasters and emergencies • Strengthening RA10121 and in the implementation of the NDRRM plan • Capitalize on the existing institutional arrangements with current policy 	<ul style="list-style-type: none"> • Address humanitarian emergencies, including calamities and disasters, through the establishment of a specialized, full-time, independent, empowered and capacitated agency for disaster risk reduction and management • Reduce vulnerabilities and disaster risk • Establish permanent institutionalized framework for DRM
Platform	Department of Disaster Management (DDM) <ul style="list-style-type: none"> • Transformation of OCD and NDRRMC into DDM 	Emergency Response Department (ERD) <ul style="list-style-type: none"> • New Department headed by Secretary, undersecretaries and assistant secretaries • With Bureaus, Services, and Regional and Local Offices • Assume functions of NDRRMC and OCD, among others, and assume administrative control of RDRRMOs and LDRRMOs • Establish Bureau of Hazard Education and Risk Mitigation, Bureau of Disaster Preparedness,

		<p>Bureau of Humanitarian Relief, and Bureau of Admin and Finance</p> <ul style="list-style-type: none"> • PAGASA and PHILVOLCS as attached agencies
Functions	<ul style="list-style-type: none"> • As office of primary responsibility for the issuance of appropriate rules, regulations, guidelines 	<ul style="list-style-type: none"> • Advise the president and recommend declaration of state of calamity • Establish policies and standards • Promulgate rules and regulations, and administrative issuances • Make inventory of DRRM related assets in all levels • Review national building code • Develop and maintain GIS of national, regional and local data, protocols and plans • Mainstream DRRM and CA in all national, sectoral development plans and policies • Coordinate and consult with other agencies and stakeholders • Coordinate all monetary contributions and donations for equitable and efficient disposition • Accountability and transparency mechanism for public scrutiny • Visitorial power of Secretary and representatives • Standby arrangements with private sector • Power to commandeer private property for public purpose • Submit annual reports to the OP and congress

Resources	Inclusion in annual General Appropriations Act (GAA), Calamity Fund	20Billion initial fund, or 1% of Government Revenues whichever is higher
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Bill	House Bill No. 4648	Draft Amendatory Bill
Proponent	Doy C. Leachon	Joey Sarte Salceda, Henedina R. Abad, Amado T. Espino Jr., Yedda Marie K. Romualdez, Gary C. Alejano, Prospero A. Pichay Jr., Wes Gatchalian, Winston Castelo, Bernadette Herrera-Dy, Doy C. Leachon
Premise	<ul style="list-style-type: none"> • Disaster-prone country • Disasters have massive costs to life and property • Need to address root causes of vulnerability, strengthen the country’s institutional capacity for DRM, and build resilience in local communities • Adherence to universal norms and principles and standards of humanitarian assistance • Need for independent department • DRM as part of national, regional, and local development and poverty reduction strategies, plans and budgets 	<ul style="list-style-type: none"> • Uphold the people's constitutional right to life and property by minimizing the root causes of vulnerabilities, strengthening the country's institutional capacity and building the resilience of local communities • Incorporate internationally accepted principles of disaster risk and vulnerability reduction and management and climate change adaptation, and standards for humanitarian assistance • Ensure a science-based in a whole-of-society approach and bottom-up participation • Ensure the accessibility of climate and geospatial information and services • Recognize and strengthen the capacities of LGUs, communities and other stakeholders • Mainstream disaster risk and vulnerability reduction • Adopt risk sharing and risk transfer mechanisms • Adhere to the principle of “Build Better Forward” in recovery and rehabilitation • Enable substantial and sustainable participation of CSOs, private groups, volunteers and communities • Use advanced science and the most up-to-date technologies by engaging academe/higher education institutions • Ensure transparency and accountability in disaster risk governance • Participation of Civil society, non-governmental organizations, practitioners, organized voluntary work organizations and community-based organizations plus women, girls, youth, aged, migrants, indigenous peoples and urban poor

		<ul style="list-style-type: none"> • Adoption of DRM by private sector financial institutions, including financial regulators and accounting bodies, as well as philanthropic foundations shall integrate disaster risk management • Media to contribute to raising of public awareness and understanding
Platform	<p>Public Emergency Response and Safety Department (PERSED)</p> <ul style="list-style-type: none"> • Transformation of NDRRMC into PERSED • New Department headed by Secretary, undersecretaries and assistant secretaries • Establish Bureau of Disaster Prevention, Bureau of Disaster Risk Mitigation, Bureau of Disaster Preparedness, and Bureau of Rehab and Recovery • OCD as part of the new Department • Institution of an advisory council similar to the composition of NDRRMC • Creation of Regional Emergency Risk and Safety Departments, with OCD as secretariat with vice chairs DOST, DILG, DSWD and NEDA • Renaming of provincial, city and municipal offices to Emergency Response and Safety Department Office 	<p>Department of Disaster Resilience (DDR)</p> <ul style="list-style-type: none"> • New Department headed by Secretary, undersecretaries and assistant secretaries • Creation of 3 services, namely the Operations Service, the Administration and Finance Service, and the Capacity Development Service each headed by an Undersecretary. • Seven (7) divisions, each headed by an Assistant Secretary. • Regional and other field offices • Public Assistance and Complaints Office (PACO) in every region to work jointly with DOJ, Ombudsman, DOF • Transfer of OCD Personnel to the Department • Institution of DDR Council similar to the composition of the NDRRMC headed by the Secretary as Chairperson for Inter-agency Coordination, the Secretary of the Department of National Defense (DND) as the Vice-Chairperson for Logistics and Resource Mobilization, 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, the Secretary of the Department of Science and Technology (DOST) as Vice Chairperson for Disaster Prevention and Mitigation, and the Director-General of the National Economic and Development Authority (NEDA) as Vice Chairperson for Disaster Rehabilitation and Recovery. • Constitute a technical management group composed of representatives of DDR Council members • Regional and Local DDR Councils

		<ul style="list-style-type: none"> Local DDR Offices at province, city and municipality and BDR Committee in Barangays Transfer to the Department of OCD, PAGASA, Phivolcs, Geosciences Section of MGB, BFP and CCC
Functions	<ul style="list-style-type: none"> Advise the president and recommend declaration of state of calamity Establish policies and standards Take the lead in preparing for, responding to and recovering from disasters Integration of emergency response and safety education in school curricula Accreditation, mobilization and protection of disaster volunteers Institution of mechanisms for international humanitarian assistance including importation and donation of relief goods and equipment Renaming of LDRRMF to LERSDF but still at least 5% of revenue from regular sources Submit annual reports to the OP and congress 	<ul style="list-style-type: none"> Manage all funds appropriated by Congress and from other sources, including all donations Submission of DDR annual work and financial plans (AWFPs) by council members, with quarterly progress report and validation from LGUs Integration of DRVR and CCA in the Disaster Resilience Framework and Plan LGUs to fund the initial year requirements for the creation of the minimum five (5) mandatory positions of the LDRO Creation of the Department Disaster Resilience Research and Training Center (DDR -RTC) Establishment of a National and Regional Information Management System for Disaster Resilience constituting a physical central database of all disaster risk reduction and climate change data, including a geographic information system on geo-hazard assessments and climate risk. information, education and communication that is appropriate, integrated, inclusive, localized, science-based, gender, culture and disability sensitive and accessible using multimedia Adoption of Disaster Risk Transfer, Insurance and Social Welfare Accreditation, Mobilization, and Protection of Disaster Volunteers and National Service Reserve Corps, CSOs and the Private Sector Facilitation of importation of consignments of goods and equipment for DRM
Resources	Inclusion in annual General Appropriations Act (GAA), Calamity Fund, 1Billion revolving fund	10 Billion upon approval, GAA inclusion thereafter, DR or Calamity fund, 30% QRF, at least 7% LDRF

Premise Behind the Bills

The eight house bills, including the consolidated amendatory bill, acknowledge the urgency of establishing a stronger institutional platform to address issues on the massive costs to life and property of disasters.

Strengthening institutional structures for DRRM would help address perennial issues on expediency of disaster response and insufficient support to disaster victims, as well as enhance civil and community protection.

There has to be adherence to universal norms and principles and standards of humanitarian assistance by upholding the people's constitutional right to life and property and incorporating internationally accepted principles of disaster risk and vulnerability reduction and management and climate change adaptation.

Enablers also need to be put in place for stakeholder participation including avenues for the involvement of CSOs, private groups, volunteers and communities. Academic and research institutions could also engage toward science-based DRRM interventions.

A strong institutional platform for DRRM, may it be an independent agency or a new Department, would allow all of the abovementioned requisites, address root causes of vulnerability and inaction, and build resilience in local communities.

Institutional Platform

Among the proposed legislations, five bills are proposing the creation of a new department, two bills recommend an independent authority or agency, and one bill desires a commission: HB 344 by Yedda Marie Romualdez proposes the creation of the Department of Disaster Preparedness and Emergency Management (DDPEM), HB 108 by Gary Alejano proposes the creation of the Emergency Management Agency (EMA), HB 596 by Prospero Pichay proposes the creation of the Philippine Emergency and Disaster Management Authority (PEDMA), HB 2638 by Wes Gatchalian proposes the creation of the Philippine Disaster Rehabilitation Commission, HB3093 by Winston Castelo proposes the creation of the Department of Disaster Management (DDM), HB 4203 by Bernadette Herrera Dy proposes the creation of the Emergency Response Department (ERD); HB 4648 by Doy Leachon proposes the creation of the Public Emergency Response and Safety Department (PERSED), and the Draft Amendatory Bill by Joey Salceda and the other proponents above proposes the creation of the Department of Disaster Resilience (DDR).

The establishment of an independent agency or authority is good, but the creation of a new Department, if it has the support of the current administration, would be functionally superior. This would answer with conclusiveness questions about institutional capacity and leadership, and delineation of responsibilities.

Talk over as well around the issue of jurisdiction and response capability. Delineation between the armed services of the government and the new department has to be made. Qualities as a civilian service institution need to be firmed up if armed encounters and related

situations are to be taken off the mandate menu. Response capability has to be built up with massive investment in material resource as well as collaborative arrangements with other institutions within government as sources of warm bodies and equipment. If the new institutional platform is to accommodate “emergency management” as one of its primary mandates, then response capability cannot be compromised. The proposal to tap existing relevant agencies in government to become a part of the new Department is sensible.

The participation of the private sector and civil society organizations, including local and international volunteers, need to be given due recognition and attention. Facilitative arrangements will be put in place to allow for whole of government approach, stakeholder participation and civilian volunteer augmentation.

Policy Direction: Proposed Amendatory Bill

Policy direction for DRRM is getting more defined with the crafting of the draft amendatory bill jointly sponsored by Congressional Representatives Joey Sarte Salceda, Henedina R. Abad, Amado T. Espino Jr., Yedda Marie K. Romualdez, Gary C. Alejano, Prospero A. Pichay Jr., Wes Gatchalian, Winston Castelo, Bernadette Herrera-Dy, and Doy C. Leachon. Discussions in congress now focus on this consolidated document, hence it is only applicable that this paper provide more focus on the joint bill.

Noting that the incumbent policy is substantial, but there is lack of institutional leadership to fully ground the provisions of the law, the draft substitute bill harmonized the different pending DRR bills which either sponsored the establishment of new a department or an independent authority/agency. Below are discussions on certain features of the proposed bill that would redefine the DRRM landscape once it gets through the legislative gauntlet and becomes a law.

The substitute bill goes for the creation of a new department that will focus on disaster resiliency. it will make current and amend the provisions of RA10121 or the National DRRM act of 2010. Massive infusion of resource is also expected with the department requiring PHP10Billion for its initial year of operation, on top of the national and local calamity funds.

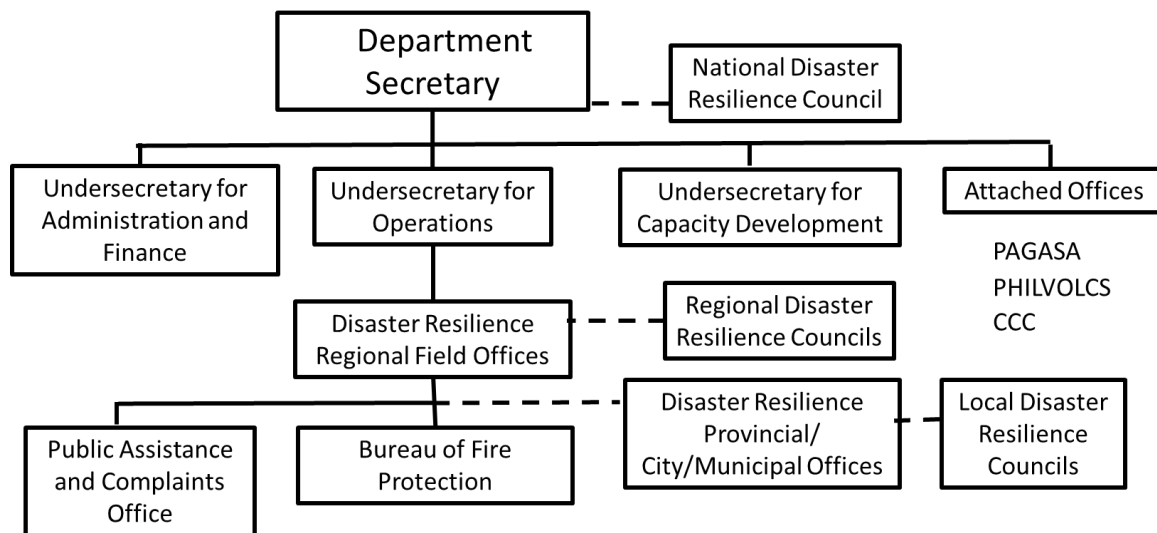
New Department will be headed by a Secretary, and supported by Undersecretaries and Assistant secretaries. Three core services will be created, namely the Operations Service, the Administration and Finance Service, and the Capacity Development Service each headed by an Undersecretary. Seven (7) divisions, each headed by an Assistant Secretary, will support the major services. Office of Civil Defence (OCD) personnel and structure will be absorbed into the new Department. Also proposed to be transferred as part of the new Department are PAGASA, Phivolcs, Geosciences Section of MGB, Bureau of Fire Protection (BFP), and the Climate Change Commission (CCC).

On the field are Regional and other field offices to ground DRRM policy and respond to disaster events and emergencies. Also, to be established are Public Assistance and Complaints Office (PACO) in every region to work jointly with the DOJ, Ombudsman, DOF.

To serve as oversight and avenue for interdepartmental cooperation, a DDR Council similar to the composition of the NDRRMC will be instituted. This will be headed by the Secretary as Chairperson for Inter-agency Coordination, the Secretary of the Department of National Defense (DND) as the Vice-Chairperson for Logistics and Resource Mobilization, 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, the Secretary of the Department of Science and Technology (DOST) as Vice Chairperson for Disaster Prevention and Mitigation, and the Director-General of the National Economic and Development Authority (NEDA) as Vice Chairperson for Disaster Rehabilitation and Recovery. Regional and Local DDR Councils will also be established to service localities.

Current Local DRRM Offices will be transformed into Local Disaster Resilience Offices at the province, city and municipal levels. Barangay disaster resilience committees will also be maintained in Barangays. Figure 9 shows the indicative structure of the proposed Department of Disaster Resilience as described in the draft document and interpreted by the author.

Figure 9. Indicative Structure of the Department of Disaster Resilience (author’s interpretation)



There are innovative suggestions enclosed under the proposed amendatory bill:

- The submission of annual work and financial plans (AWFP) for the different council members is innovatively functional. In the same light, there should be an attached investment programming document for the “National Disaster Resiliency Framework and Plan” as espoused under the bill.
- On local disaster resilience fund, there is a proposed upgrade of IRA allocation from 5% to 7% giving more resources to local governments for DRRM activities. It should be highlighted though that the LGUs can actually allocate more.

- The Department of Disaster Resilience Council (DDRC) is equivalent to the current NDRRMC in term of composition. It should not be relegated to just an advisory function, but also serve as platform for inter-departmental initiatives.
- The perennial problem of inequitable resource distribution and unavailability of funds at the local level can be offset by the creation of the “prevention, mitigation and preparedness fund for 3rd-6th class municipalities”. This is an innovative fund source for poorer or less-endowed municipalities and addresses the weakness of devolved institutions with regard to resource availability. Similarly, structured departments, like that of the DA, have perennially suffered from inequitable resource distribution and unavailability of funds at the local level. Another item to look into is how to subsidize the PLANTILLA requirements for DR offices in these poor municipalities.
- The proposed Transfer of DRRM *Powers and Functions of OCD, PAGASA, Phivolcs, Geosciences Section of MGB, BFP and CCC* to the new Department would effectively address the institutional divide between DRR and CCA, and give teeth to the new department in terms of early warning and emergency response. The original mandate of OCD pertaining to civil defense, and those of PAGASA, MGB, and PHILVOLCS in terms of R&D should, however, not be prejudiced.
- Emergency management, if indeed to be a part of the new department’s mandate, should be backed by provisions in the new law. The proposed inclusion of the Bureau of Fire Protection (BFP) as part of the new department is consistent with this and would give the new Department emergency response capabilities.

The policy direction for DRRM in the country is getting interesting. Attention to disaster resiliency initiatives has been gaining support in all levels and political subdivisions of the government, including communities and outside stakeholders. Granting that the current momentum is sustained and things fall into place, the coming years would be witness to the monumental transformation of the institutional landscape for DRRM in the country. Everything considered, this is an opportune time to address current policy weaknesses and put in place a strong bureaucratic platform for DRR.

4.3. International Best Practices and Institutional Platform

For policy guidance, it is recommended that the practices of neighbouring countries in institutionalizing DRRM be reviewed for possible local fit. The southeast Asian countries of Thailand, Indonesia and Malaysia present good cases of DRRM institutional setups that address similar regional disaster hazards. Australia, New Zealand and the United States present progressive disaster and emergency management institutions lodged within sub state jurisdictions. India gives an example of an empowered institution with procurement provisions, while Nigeria shows a platform complemented by military response units.

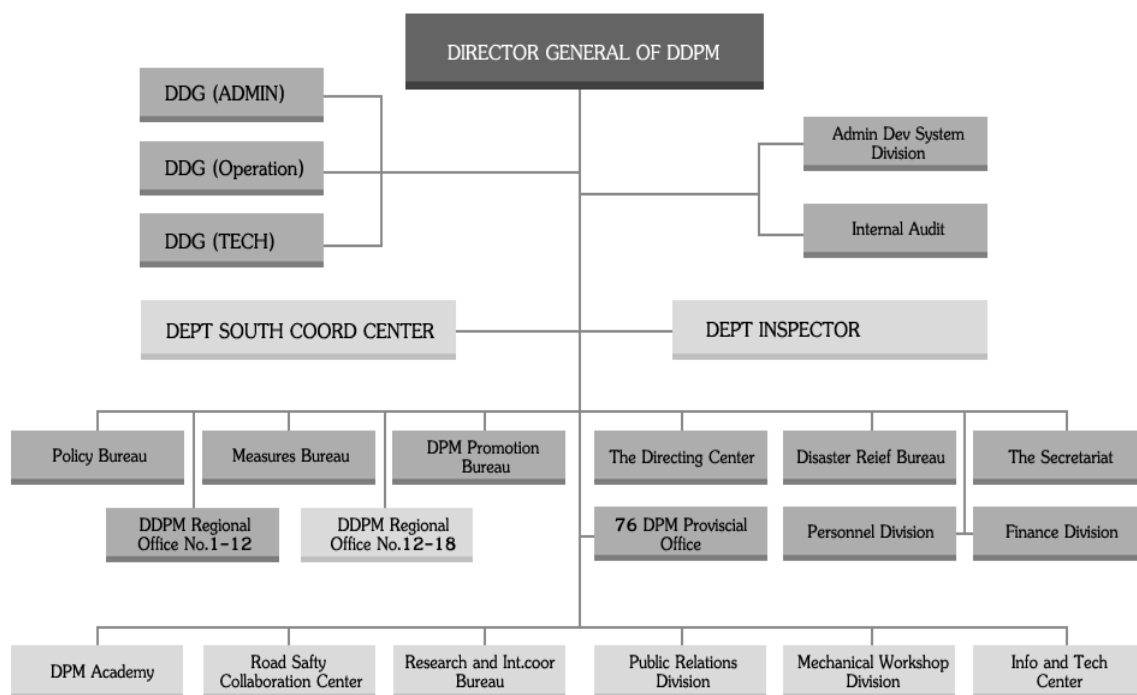
4.3.1. Thailand: Department of Disaster Prevention and Mitigation (DDPM)

Lodged under the Ministry of Interior, Thailand’s Department of Disaster Prevention and Mitigation (DDPM) is mandated to formulate policy, guidelines and measures on disaster prevention and mitigation; study, analyze, research and develop systems on disaster prevention, disaster warning and disaster mitigation; develop information technology on disaster prevention and mitigation; provide training to build capacity and improve skills on disaster management and disaster relief; and promote, support and implement programs for assisting disaster victims and disaster recovery.

(Figure 10) DDPM is headed by a Director General with three Deputy DGs for Administration, Operations and Technology. It manages 5 bureaus, 3 divisions, 2 groups, 12 int centers, 6 provincial centers and 76 DPM provincial offices. Bureaus and major divisions in its structure cover policy, measures, DPM promotion, personnel management, finance, DPM secretariat and disaster relief. On the ground are 76 DPM provincial offices. DDPM also has an Academy for disaster prevention and mitigation, a road safety collaboration center, an internal coordination bureau, a public relations division, a mechanical workshop division and an information and technology center.

DDPM was established in 2002 to handle disaster management responsibilities, in response to increasing disaster situations due to population increase, urbanization and impact of climate change. The institutional structure was designed to have a more effective mechanism for preventing disaster damage and loss, and for mitigating calamity due to man-made and natural disasters. (DDPM 2017)

Figure 10. Organizational Structure of DDPM-Thailand (DDPM 2017)



HQ: 5 BUREAUS, 3 DIV, 2 GROUP, 12 CENTERS,(INT) 6 CENTERS PROV. 76 PROVINCES

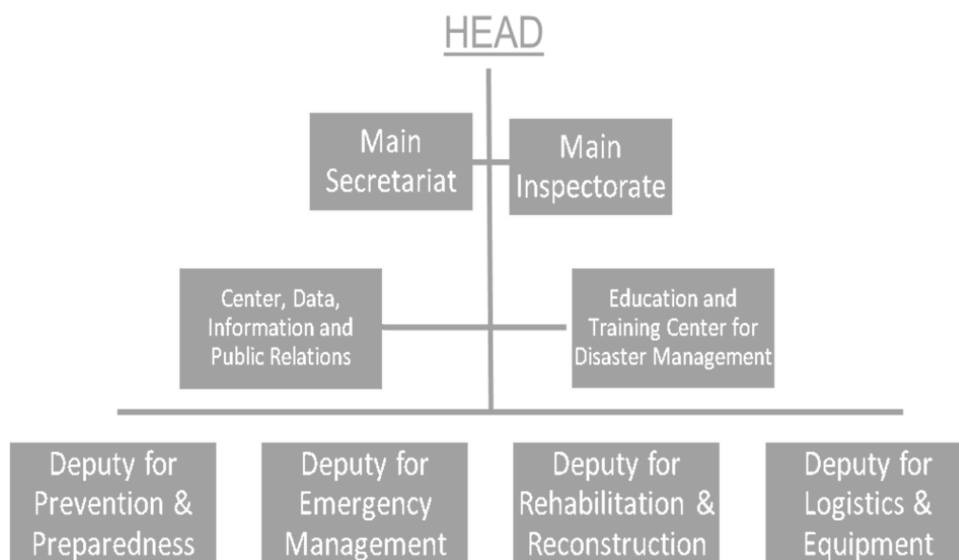
4.3.2. Indonesia: Badan Nasional Penanggulangan Bencana (BNPB) or National Disaster Management Authority

Lodged under the Office of the President, the Indonesian Badan Nasional Penanggulangan Bencana (BNPB) or National Disaster Management Authority is mandated to formulate and establish disaster management policies, and including handling of refugees; and, provide guidance and direction on disaster management effort for disaster prevention, emergency response, rehabilitation, and reconstruction. Its other duties and responsibilities include guidance on disaster relief effort; establishment of standards for DRM; and delivery of information to communities; and ese/ account for state budget and national and international donations /aid.

BNPB reports to the Indonesian President once a month in normal conditions and more frequently when there is a state of emergency.

As reflected in Figure 11, the Head of the BNPB is supported by the offices of the Main Secretariat and Main Inspectorate. It manages two enters for Data, Information and Public Relations; and Education and Training for Disaster Management. Four Deputies back the BNPB Head: Deputies for Prevention and Preparedness, Emergency Management, Rehabilitation and Reconstruction, and Logistics and Equipment.

Figure 11. Organizational Structure of BNPB-Indonesia (BNPB 2017)



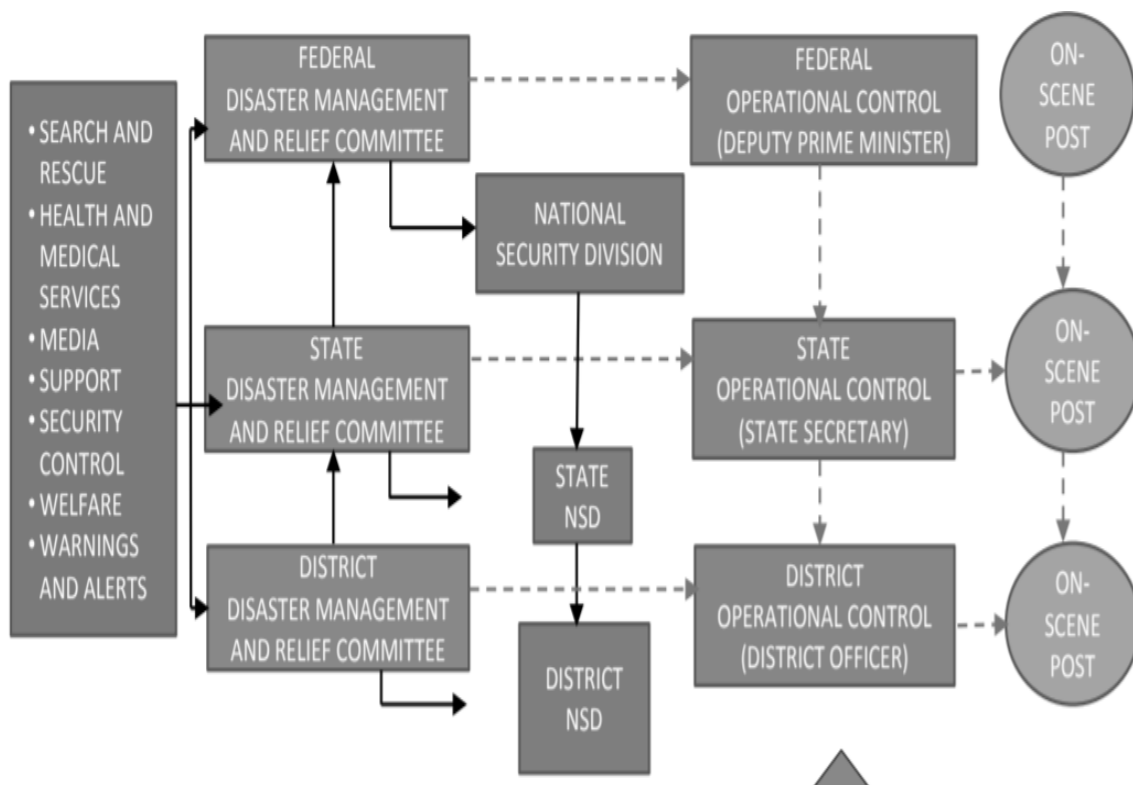
4.3.3. Malaysia: National Disaster Management Agency (NADMA)

The Malaysian National Disaster Management Agency (NADMA) is new agency falls under the Prime Minister’s Department. It took over disaster management from the National Security Council in 2015 (NSC 2016). NADMA’s mandates include the management and coordination

of natural disasters. Includes Civil Defence Department with Small agency units at the Federal/ State/ District and community or village levels. Agency focus is on disaster-prone states in the East Coast, Sabah and Sarawak. Figure 12 below illustrates the organizational structure of NADMA.

In crafting NADMA, the Malaysian government modelled its institutional disaster response structure from those of the Philippines and Indonesia. Indonesia was able of establish its response capability, while the Philippines utilizes the capability of the different institutions and their agencies and uses only in times of disaster. The Malaysian crossbreed version might have established the organizational platform already utilizing line agencies already equipped with command structure.

Figure 12. Organizational Structure of NADMA-Malaysia (NADMA 2017)



4.3.4. India: National Disaster Management Authority (NDMA)

The Government of India enacted in 2005 the Disaster Management Act, which pushed for the creation of the National Disaster Management Authority (NDMA), headed by the Prime Minister, and State Disaster Management Authorities (SDMAs) headed by respective Chief Ministers, to spearhead and implement a holistic and integrated approach to Disaster Management in India.

NDMA today is under India’s Ministry of Home Affairs. It is mandated to lay down the policies, plans and guidelines for Disaster Management to ensure timely and effective response to disaster. NDMA is also empowered to authorize the Departments or authorities concerned,

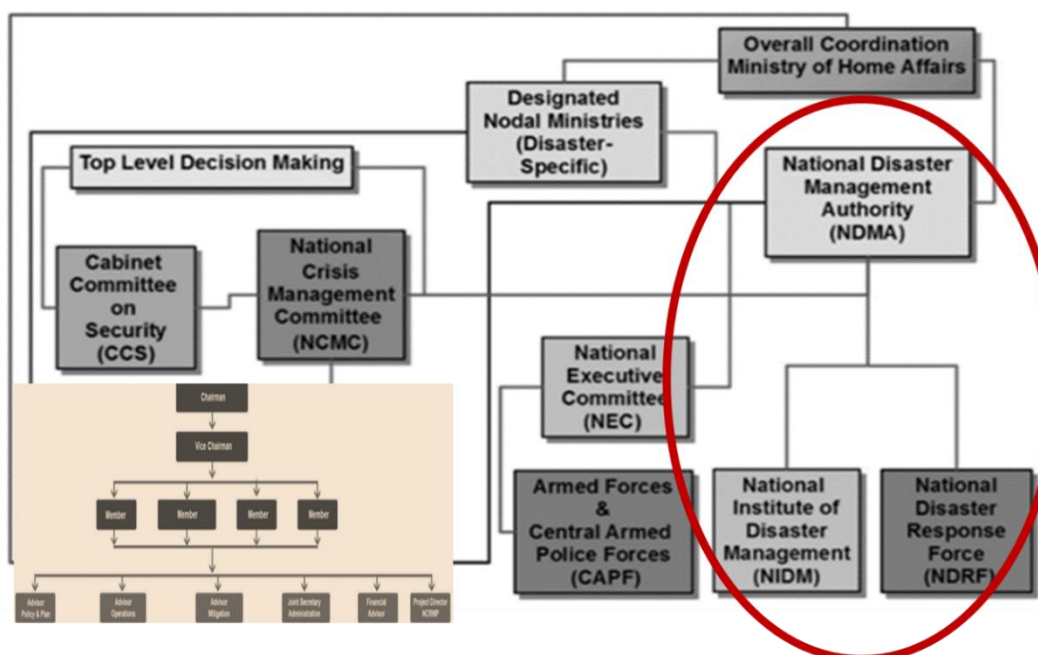
to make emergency procurement of provisions or materials for rescue and relief in a threatening disaster situation. It supervises direction and control of deployed specialist response force in disaster situations.

Other mandates of NDMA include: approve the National Plan for disaster management; approve plans prepared by the Ministries or Departments of the Government of India in accordance with the National Plan; lay down guidelines to be followed by the State Authorities in drawing up the State Plans; lay down guidelines to be followed by the different Ministries or Departments of the Government of India for the Purpose of integrating the measures for prevention of disaster or the mitigation of its effects in their development plans and projects; coordinate the enforcement and implementation of the policy and plans for disaster management; recommend provision of funds for the purpose of mitigation; provide such support to other countries affected by major disasters as may be determined by the Central Government; take such other measures for the prevention of disaster, or the mitigation, or preparedness and capacity building for dealing with threatening disaster situations or disasters as it may consider necessary; and, lay down broad policies and guidelines for the functioning of the National Institute of Disaster Management.

The National Policy framework has been prepared after due deliberation and keeping in view the National Vision to build a safe and disaster-resilient India by developing a holistic, proactive, multi-disaster and technology-driven strategy for DM. NDMA has adopted a mission-mode approach involving a number of initiatives with the help of various institutions operating at the national, state and local levels. Central ministries, States and other stakeholders have been involved in the participatory and consultative process of evolving policies and guidelines.

NDMA in its organizational structure (Figure 13) is headed by a Chairman and Vice Chair and is supported by authority members and advisors for Policy and Plan, Operations, Disaster Mitigation, Administration, Project management and Finance (NDMA 2017).

Figure 13. Organizational Structure of NDMA-India (NDMA 2017)



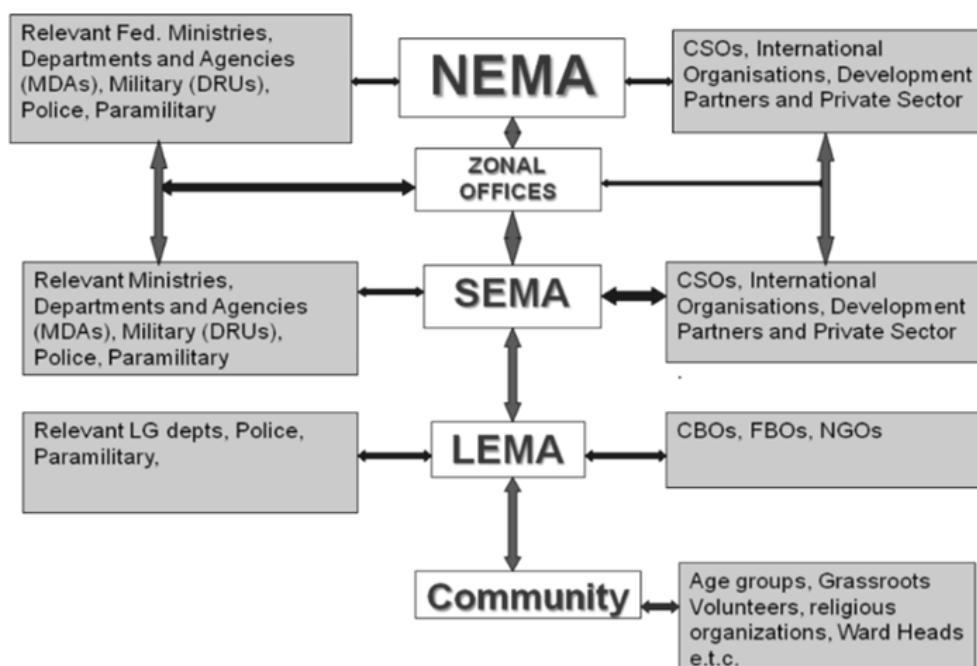
4.3.5. Nigeria: National Emergency Management Agency (NEMA)

The Federal Government through the National Emergency Management Agency (NEMA) has a mandate to assist States and Local Governments in disaster response and recovery. NEMA is at the center of a network of disaster management institutions (Figure 14), liaising and coordinating their efforts. Responsible for the formulation of policy on all activities relating to the disaster management, coordination of the plans and programs, it has six (6) zonal offices and military response units for disaster and emergency response. State Emergency Management Agency (SEMA) and the Local Emergency Management Authority (LEMA) are the coordinating body at the State and Local Government levels (NEMA 2017).

Six functional zonal offices located in each of the six geo-political zones of the country were established to decentralise disaster management and ensure active participation of the grassroots. The offices are located in North Central (Jos), North West (Kaduna), North East (Maiduguri), South West (Lagos), South (Port Harcourt) and South East (Enugu). Decentralized zones allow for quicker response to disaster situations as they are extensions of the national agency. Their responsibilities include implementing policies and carrying out any other assigned functions. There are plans to establish additional zonal offices and call centres in the country to further facilitate quick reaction to distress alerts. With the decentralized approach, NEMA's response time for the assessment and delivery of relief assistance for urgent situations has significantly improved.

Aside from zonal offices, NEMA also has military Disaster Response Units (DRUs). DRUs are units in military formation dedicated to emergency/disaster responses and stationed in identified Army, Navy and Airforce formations across the country. The involvement of the military is necessitated especially for situations that may require physical human strength and some military equipment (NEMA 2017).

Figure 14. Organizational Structure of NEMA-Nigeria (NEMA 2017)



4.3.6. Australia: Emergency Management Australia (EMA)

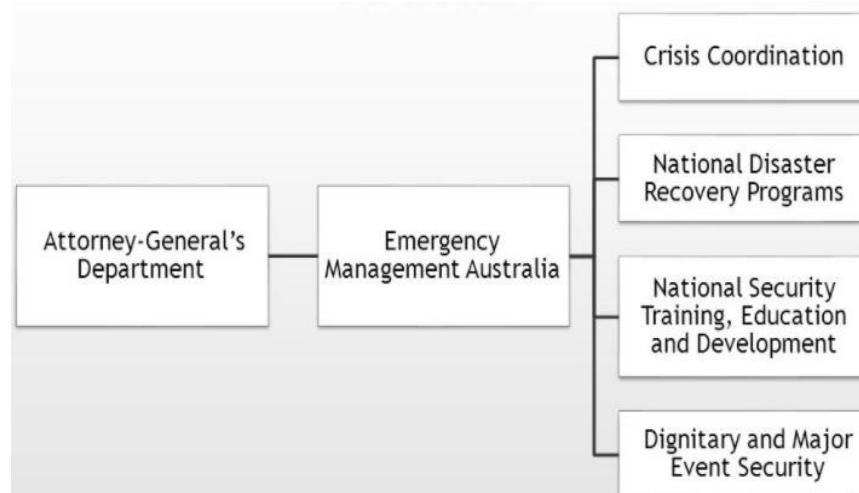
Australia's Emergency Management Australia (EMA) is a division of the Attorney-General's Department. EMA provides national leadership in the development of emergency management measures to reduce the risk to communities and manage the consequences of disasters. Its emergency management functions are shared between the Australian Government and the Australian states and territories. Part of EMA's functions are to develop and maintain national plans; coordinate Australian Government crisis response and recovery efforts, coordinate protective security arrangements for Australian high office holders, visiting foreign dignitaries, at-risk foreign missions in Australia as well as security arrangements for special events in Australia and overseas.

EMA has respective main functional structures for crisis coordination, national disaster recovery programs, national security training, education and development, and dignitary and major event group as reflected in figure 15.

While state and territory governments are responsible for emergency management in their jurisdictions, EMA coordinates Australian Government support, both physical and financial. EMA also has the Australian Government Crisis Coordination Centre (CCC)—an all-hazards, 24/7 facility that provides whole-of-government situational awareness to inform national decision-making during a crisis. The CCC also coordinates physical Australian Government assistance during disasters and emergencies and manages the National Security Hotline, a vital component of Australia's national counter-terrorism efforts.

The Australian Institute for Disaster Resilience (AIDR), a disaster resilience knowledge centre, was also established in 2005 in support of the National Strategy for Disaster Resilience. AIDR coordinates and promotes the development, sharing and use of information for anyone working with, or affected by, disasters. It capitalizes on knowledge and experiences overseas and in Australia, working with government, community, research, education partners and the private sector to enhance disaster resilience through innovative thought leadership, professional development and knowledge sharing (EMA 2017).

Figure 15. Organizational Structure of EMA-Australia (EMA 2017)



4.3.7. New Zealand: Ministry of Civil Defence & Emergency Management (MCDEM)

New Zealand's Ministry of Civil Defence & Emergency Management (MCDEM) is under the Department of the Prime Minister and Cabinet. MCDEM's mandate is to manage central government's response and recovery functions for national emergencies, and support the management of local and regional emergencies.

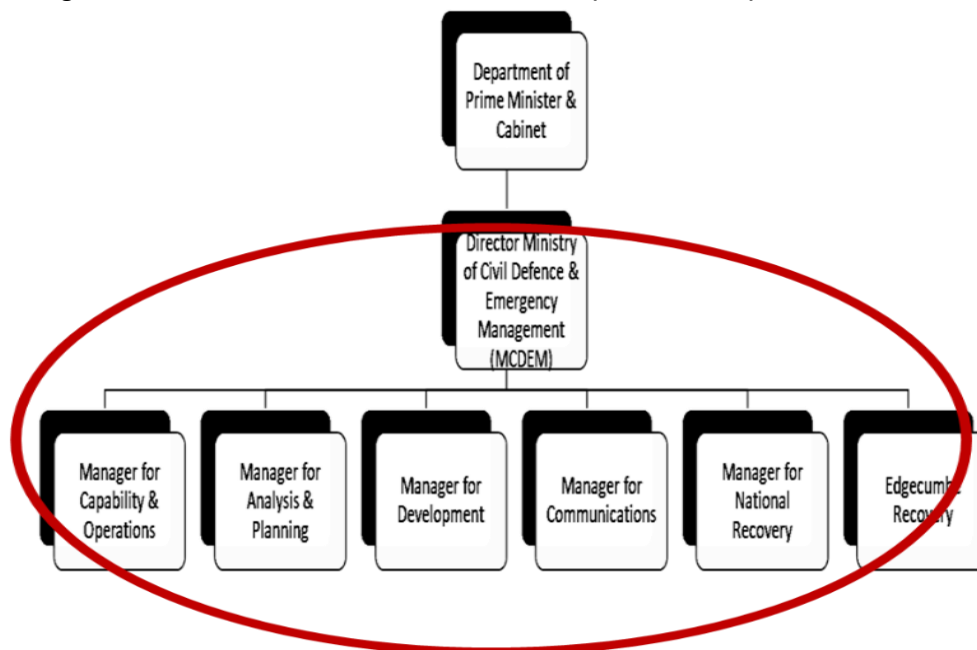
Local governments are organized into 16 Civil Defence Emergency Management Groups (CMGs) within each region. If local governments are overwhelmed, pre-existing mutual-support arrangements are activated. Central government has the authority to coordinate the response through MCDEM's National Crisis Management Centre (NCMC) (MCDEM 2017).

MCDEM is headed by a Director and supported by managers for Capability and Operations, Analysis and Planning, Development, Communications, and National Recovery (Figure 16).

The primary function of MCDEM is to support and enable communities to manage emergencies. It works with a multitude of agencies that comprise the civil defence emergency management sector, each with different responsibilities and focus, and varying levels of resources and capability. Organisations involved include communities and their local authorities, central government departments and agencies, emergency services, welfare agencies, lifeline utilities and education providers, researchers, international agencies, and non-government organisations.

MCDEM subscribes to the principles of disaster risk reduction, readiness, response and recovery. It leads the national response and recovery for Geological events like earthquakes, volcanic, tsunami landslides; Weather events like coastal hazards, floods, severe storm; and Failure of Infrastructure like telecommunication, power networks. The government of New Zealand also characteristically uses the terms 'civil defence'; and terminologies 'emergency or incident' instead of 'disaster' (MCDEM 2017).

Figure 16. Organizational Structure of MCDEM-New Zealand (MCDEM 2017)



4.3.8. USA: Federal Emergency Management Agency (FEMA)

The Federal Emergency Management Agency (FEMA) Part of the Department of Homeland Security of the United States of America. Responsible for coordinating government-wide relief efforts, FEMA is designed to bring an orderly and systemic means of federal natural disaster assistance for state and local governments in carrying out their responsibilities to aid citizens. FEMA is a robust organization with 14, 844 employees from the headquarters office in Washington, DC; 10 regional offices located throughout the country, National Emergency Training Center, Center for Domestic Preparedness/Noble Training Center and other additional facilities. (FEMA 2017)

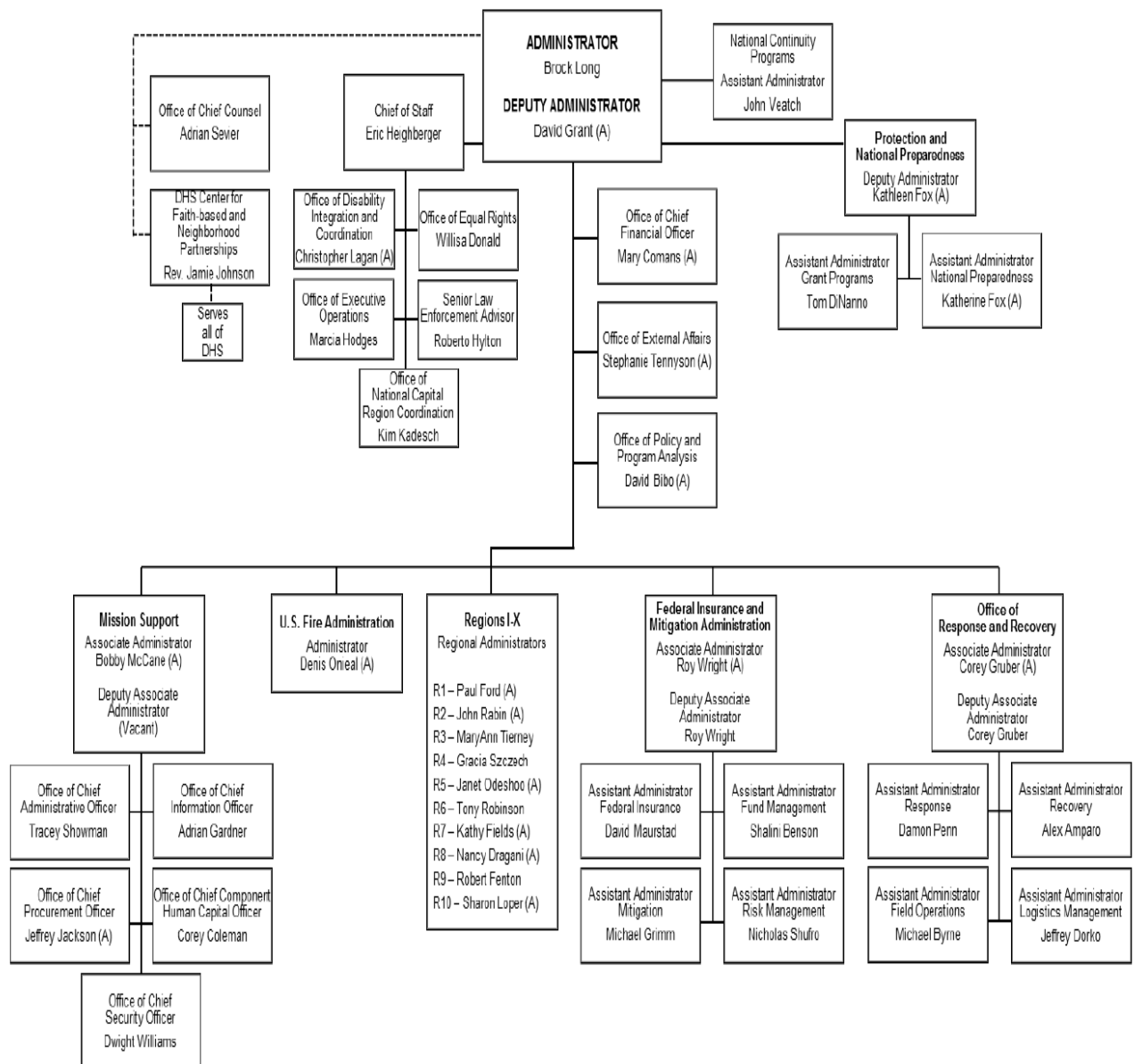
Although the agency has evolved institution-wise over the years, FEMA's mission for the past 4 decades to lead America to prepare for, prevent, respond to and recover from disasters endures. It coordinates the federal government's role in the prevention, mitigation, response, and recovery from all domestic disasters, whether natural or man-made, including acts of terror. A 1988 Act of congress activates FEMA to provide physical and financial assistance whenever there is a presidential disaster declaration of an emergency.

The Act empowers FEMA and gives it the mandate to coordinate government-wide relief efforts, but the state governors need to declare a state of emergency and formally request from the US president that the federal government respond to the disaster. The only exception to this protocol is when an emergency or disaster takes place on federal property or to a federal asset.

Part of FEMA's charter is to provide experts in specialized fields and funding for rebuilding efforts, relief and recovery, training of response personnel throughout the United States and its territories.

The structure and affiliation of FEMA have adapted through different periods of stresses in the USA. The current organizational structure of FEMA is reflected in figure 17 below. FEMA was created in 1978 and it operated as an independent agency from 1979 to 2003. It was briefly elevated to cabinet rank in 1996 by then president Clinton. But the terror bombings of 911 and the passing of the Homeland Security Act led to its reorganization as a major agency of the new Department of Homeland Security (FEMA 2017).

Figure 17. Organizational Structure of FEMA-USA (FEMA 2017)



5.0 Insights and Recommendations

The study provides an in-depth discourse into institutional issues surrounding the grounding of DRRM policy in the country. Modifying Elinor Ostrom's (2003) institutional analysis and development framework, the study looked into DRRM governance and institutional issues by contextualizing the biophysical, demographic, and socio-political impetus and laying out the institutional policy pathway toward the ultimate national goal of multifaceted resilience.

The 2015 census placed the country's population at 100.98 Million with 22.98 Million households. Poverty rate was estimated at 21.6% with 69% of total households experiencing food insecurity. Malnutrition is rampant among the young with 34% and 20% respectively suffering from stunting and underweight status. Seven percent (7%) of babies up to 60 months old are also wasting or severely malnourished. The vulnerability of the country's population is also manifested in the OCD tally of multi-hazard exposure and people affected by disasters. Disaster incidents affect an average of 2.7 Million families and 12.1 Million individuals annually.

Notwithstanding the effort of the national government to mainstream DRRM within the bureaucracy, the toll on communities is significant in terms of deaths, injuries, displacement, economic losses, and damages to properties. An annual average of 18 catastrophic/disaster events impact the country, incurring 1817 human deaths and \$1.7 Billion or PHP85 Billion in economic losses. Probabilistic risk computation of the annual average damage from all hazards total to around PHP422 Billion. This placed annual disaster damages at an estimated 1 to 3% of GDP at 2014 to 2016 levels.

Policy and institutional platforms for disaster risk reduction and management underwent a slow, but deliberate transformation in almost four decades. Enshrined in policy is the intention to strengthen the national government and the local communities against the impacts of disasters through institutional cooperation and collaboration and self-help.

DRRM was delivered through intergovernmental ad hoc bodies, and the institution of policy within local governments toward self-reliance and augmented first-response capacity. But the sunset review of RA10121 pointed out the weaknesses of the incumbent law in terms of grounding and implementation. It mentioned the lack of high-level institutional leadership that can rigorously pursue and direct DRRM initiatives at all levels in the government bureaucracy. The limitations of political subdivisions have to be transcended, and the resources and strengths of the private sector and civil society have to be mobilized. This view is consistent with the constant clamour over the years to come up with a stronger and more organic bureaucratic platform that can handle the demands of all facets of DRRM.

The awakening of government consciousness towards a change in disaster risk management paradigms was a product of years prompting by advocates of structural reform, as well as practical urgency from disaster-related biophysical, economic and socio-political impetus. An integrative institutional framework covering institutional structure, apt planning and management, efficient resource provision, capacity building, and positive bureaucratic employment can lead to the realization of DRRM goals. Evident as well is the crux that

appropriate institutional initiatives can serve as disincentives to the negative elements that contribute to non-accomplishment. Such tenets could serve as guide in crafting and laying the foundation for effective DRRM institution building.

Grounding policy requires appropriate sectoral and institutional translation of its espoused principles; reflecting more refined institutional arrangements, and policy and resource support. It is noteworthy that resource allocation at the national and local levels are relatively substantial. Movements in national funding are somewhat obligatory given infused funding for special allocations, including planned spending for aid, relief, community rehabilitation services, and repair and reconstruction of permanent structures.

The National DRRM fund had received considerable boosts in allocation since the passing of RA10121, peaking at almost PHP39Billion in 2016. Quick response funds (QRF), which are standby funds for disaster response also peaked in 2016 at PHP4.1Billion. Funding for the national DRRM fund dropped in 2017 to less than half the previous year, but picked up again to PHP25.5Billion in the recently approved 2018 General Appropriations Act (GAA). Allocations for the QRF were also increased to PHP6.5Billion for 2018, with institutional shares reflective of the four DRRM pillar focus.

Furthermore, indicative local DRRM fund allocations for local governments have been increasing over the years with figures in 2017 tallying to more than PHP24Billion. However, such funding still needs relative augmentation considering that the country has 18 administrative regions, 81 provinces, 33 urbanized cities, 1489 municipalities, and 42036 barangays. Considering as well that LDRRM Funds are pegged at 5% of internal revenue allocations, then you have a situation where inequities exist. Poorer communities, which are supposedly more exposed and vulnerable to a multitude of hazards, are given less funding under the law.

The halls of congress have been recently busy with talks on the policy augmentation of RA10121. The sunset review of the law pointed to certain institutional weaknesses in implementation that can only be addressed through legislative action. There is recognition that what the nation has with the current law is substantive, yet issues in its grounding point to institutional barriers within the bureaucracy. There is realization as well that the barrage of natural disasters that impact the country every year is constant, and that climate change complications are defining a “new normal” in terms of disaster magnitude.

Eight pending bills in the House of Representatives, including consolidated amendatory bill, acknowledge the urgency of establishing a stronger institutional platform to address issues on the massive costs to life and property of disasters. A point of debate is to whether to adopt an independent agency or create a new department as institutional platform for an expanded DRRM policy. The establishment of an independent agency or authority is good, but the creation of a new Department, if it has the support of the current administration, would be functionally superior. This would answer with conclusiveness questions about institutional capacity and leadership, and delineation of responsibilities.

The premises are clear: strengthening institutional structures for DRRM would help address perennial issues on expediency of disaster response and insufficient support to disaster victims, as well as enhance civil and community protection. There has to be adherence to universal norms and principles and standards of humanitarian assistance. Facilitative arrangements for the participation of the private sector, civil society organizations, and other community stakeholders also have to be put in place.

Crafting the appropriate institutional platform for DRRM requires important decisions, particularly on the issue of mandate, jurisdiction, and response capability. Delineation between the armed services of the government and the new department has to be made, and qualities as a civilian service institution need to be firmed up. Response capability has to be built up with massive investment in material resource as well as collaborative arrangements with other institutions within government as sources of warm bodies and equipment. If the new institutional platform is to accommodate “emergency management” as one of its primary mandates, then response capability cannot be compromised. The proposal to tap existing relevant agencies in government to become a part of the new Department is sensible.

The proposed legislative action is on the right track especially with some innovative suggestions enclosed under the proposed amendatory bill:

- The submission of annual work and financial plans (AWFP) for the different DRRM council members is innovatively functional. In the same light, there should be an attached investment programming document for the “National Disaster Resiliency Framework and Plan” as espoused under the bill.
- On local disaster resilience fund, there is a proposed upgrade of IRA allocation from 5% to 7% giving more resources to local governments for DRRM activities. It should be highlighted though that the LGUs can actually allocate more.
- The Department of Disaster Resilience Council (DDRC) is equivalent to the current NDRRMC in term of composition. It should not be relegated to just an advisory function, but also serve as platform for inter-departmental initiatives.
- The perennial problem of inequitable resource distribution and unavailability of funds at the local level can be offset by the creation of the “prevention, mitigation and preparedness fund for 3rd-6th class municipalities”. This is an innovative fund source for poorer or less-endowed municipalities and addresses the weakness of devolved institutions with regard to resource availability. Another item to look into is how to subsidize the PLANTILLA requirements for local DRRM offices in these poor municipalities.
- The proposed Transfer of DRRM *Powers and Functions of OCD, PAGASA, Phivolcs, Geosciences Section of MGB, BFP and CCC* to the new Department would effectively address the institutional divide between DRR and CCA, and give teeth to the new department in terms of early warning and emergency response. The original mandate

of OCD pertaining to civil defense, and those of PAGASA, MGB, and PHILVOLCS in terms of R&D should, however, not be prejudiced.

- Emergency management, if indeed to be a part of the new department's mandate, should be backed by provisions in the new law. The proposed inclusion of the Bureau of Fire Protection (BFP) as part of the new department is consistent with this and would give the new Department emergency response capabilities.

For policy guidance, it is recommended that the practices of neighbouring countries in institutionalizing DRRM be reviewed for possible local fit. The Southeast Asian countries of Thailand, Indonesia and Malaysia present good cases of DRRM institutional setups that address similar regional disaster hazards. Australia, New Zealand and the United States present progressive disaster and emergency management institutions lodged within federal sub-state jurisdictions. India gives an example of an empowered institution with procurement provisions, while Nigeria shows a federal platform complemented by military response units.

Disaster risk reduction and management has to be internalized, imbedded, and exactingly practiced within institutions inside and outside of the bureaucracy. Only then the desired resiliency outcome truly manifest. There is common consensus now that things are moving reasonably fast and the momentum toward significant change in DRRM institutional building is getting increasingly palpable.

The policy direction for DRRM in the country is getting interesting. Attention to disaster resiliency initiatives has been gaining support in all levels and political subdivisions of the government, including communities and outside stakeholders. Granting that the current momentum is sustained and things fall into place, the coming years would be witness to the monumental transformation of the institutional landscape for DRRM in the country. Everything considered, this is an opportune time to address current policy weaknesses and put in place a strong bureaucratic platform for DRR.

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