



National Disaster Coordinating Council

"...Let's not just talk about reacting to disasters; let's have a master plan for disaster mitigation..."
President Gloria Macapagal-Arroyo

Strengthening Disaster Risk Reduction in the Philippines:
Strategic National Action Plan
2009-2019



National Disaster Coordinating Council



Office of Civil Defense

EUROPEAN COMMISSION



Humanitarian Aid

**European Commission on Humanitarian Aid Organization
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United Nations International Strategy for Disaster Reduction



United Nations Development Programme

Strengthening Disaster Risk Reduction in the Philippines:

Strategic National Action Plan

2009-2019

foreword

The first two lines of Presidential Decree 1566 – “Strengthening the Philippine Disaster Control, Capability and Establishing the National Program on Community Disaster Preparedness” - states that the Filipino has always endured the hardship of a hostile environment and has continually sought survival against typhoons, floods, earthquakes, epidemics, fires and other major calamities. For more than 31 years since this Decree took effect, the Philippines continues to be a “laboratory” of major disasters, thus, we Filipinos have struggled our way to safety and survival.

With this in mind, the National Disaster Coordinating Council through its Executive Arm and Secretariat, the Office of Civil Defense, has formulated a ‘road map’ which will sustain disaster risk reduction initiatives in the country and promote good practices of individuals, organizations, local government units and the private sector. Having graced the 1st National Multi-stakeholder Dialogue on Disaster Risk Reduction in 2007, I believe that the forging of the Strategic National Action Plan (SNAP) for the Philippines is a big step towards attaining a disaster – free nation, especially with the involvement of various stakeholders.

Furthermore, the objectives and goals of the SNAP for the next ten years aim to contribute to our country’s sustainable development and poverty alleviation agenda. As we become more aware of the environment we live in and align our development plans with the SNAP, more opportunities will be made available for our people. With the continuous support of international and local actors in reducing the risks of communities to disasters, the Filipinos will be more than ready to face the threats of nature.

H.E. Gloria Macapagal-Arroyo
*President
Republic of the Philippines*

messages

We have strived for more than three decades in building our nation's capacities against disasters. We have faced tumultuous tides, fierce weather from all directions, and catastrophic rumbles from the grounds of the earth, and in the process, lost lives and properties. The national government through the years had made ties with local government units, communities and international players to strengthen the Philippine Disaster Management. In 2004, the National Disaster Coordinating Council (NDCC) developed and implemented the Four-Point Plan of Action on Disaster Preparedness. The NDCC through the Office of Civil Defense (OCD) facilitates the issuance of guidelines, plans and policies on disaster management.

With the adoption of the Hyogo Framework for Action (HFA) in 2005 by 168 states including the Philippines, a global blueprint on disaster risk reduction was put in place. To consciously and deliberately implement the HFA in the country, the NDCC has developed this document with the support of the United Nations and civil society organizations.

At this point, the SNAP converges our disaster management efforts to reducing disaster risks in our country. We now take action by identifying disaster risks and finding ways and means to reduce them, if not totally prevent them. By consolidating the good practices of LGUs and communities, as well as other stakeholders during the series of consultations and focus group discussions, the NDCC crafted a strategic action plan which will reflect years of learning from past experiences, long-term partnerships, and a promising future for a disaster-free country.

To say that our national government has done so much to prevent major disasters from battering our country is an understatement. Measuring our success and failures in bringing safety to our people will flood us with numbers far greater than the actual typhoons, earthquakes, landslides and even human-induced hazards that hit the Philippines. The National Disaster Coordinating Council (NDCC) has been there 24/7.

And we do not stop by simply managing the risks. This time, the Strategic National Action Plan (SNAP) for Disaster Risk Reduction (DRR) builds up our stance in reducing disaster risks in the Philippines. With this 'road map', we now attempt to intensify the mainstreaming of DRR with plans and policies of national and local agencies, communities, and other sectors. The SNAP is a by-product of actors and stakeholders who participated in the conduct of dialogues, consultations and discussions - sharing their experiences and good practices on DRR as well as their expectations from the national government, especially from the NDCC.

In this light, the SNAP gives us a clearer vision of what we have done and what needs to be done in reducing disaster risks in our country. From this point up to the next decade, we will all take a proactive stand in building a safer country for the Filipinos.

Hon. Gilberto C. Teodoro, Jr.
*Secretary of National Defense and
Chairman, National Disaster Coordinating Council*

MGen Glenn J Rabonza, AFP (Ret)
*Administrator, Office of Civil Defense and
Executive Officer, National Disaster Coordinating Council*

acknowledgment

The process of developing the Strategic National Action Plan on Disaster Risk Reduction (SNAP) of the Philippines began on July 25, 2007. It was during the National Multi-Stakeholder Dialogue on Disaster Risk Reduction when President Gloria Macapagal-Arroyo averred, “Let’s not just talk about reacting to disasters, let’s have a master plan for disaster mitigation.” Thus, with this guidance from President Arroyo, SNAP Philippines was set to motion. With funding support from the European Commission’s Humanitarian Aid Department (DIPECHO) and technical assistance by the United Nations International Strategy on Disaster Reduction (UNISDR) and United National Development Programme (UNDP), work went under way in early 2008.

The Office of Civil Defense (OCD), as the Secretariat and Executive Arm of the National Disaster Coordinating Council (NDCC), acknowledges several dedicated individuals, organizations, institutions, and government agencies that generously shared their experiences and expertise in several meetings, focus group discussions, workshops, and national multi-stakeholder dialogues. Their valuable comments and inputs reinforce the content of this document.

We also gratefully recognize the work of the inter-agency SNAP Task Force whose members were selected from the NDCC-Technical Management Group’s representatives as well as the respective Planning and Budget Officers of participating agencies.

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acronyms and abbreviations

4PPADP	Four-Point Plan of Action for Disaster Preparedness
ACF	Accion Contra el Hambre
ADPC	Asian Disaster Preparedness Centre
ADRC	Asian Disaster Reduction Center
AFP	Armed Forces of the Philippines
AIP	Annual Investment Plan
AI/PI	Avian Influenza/Pandemic Influenza
APSEMO	Albay Public Safety and Emergency Management Office
ASEP	Association of Structural Engineers of the Philippines
AusAID	Australian Agency for International Development
BDCC	Barangay Disaster Coordinating Council
B.E.E.P.	Building Emergency Evaluation Plan
BFP	Bureau of Fire Protection
BOC	Bureau of Customs
CBDRM	Community-Based Disaster Risk Management
CBMS	Community-Based Management System
CCJD	Center for Community Journalism and Development
CDP	Comprehensive Development Plan
CEMF	Comprehensive Emergency Management Framework
CLUP	Comprehensive Land Use Plan
CMI	Crisis Management Institute
CNDR	Corporate Network for Disaster Response
CSC	Civil Service Commission
CSF	Construction Safety Foundation Inc.
CSO	Civil Society Organization
DA	Department of Agriculture
DBM	Department of Budget and Management
DCC	Disaster Coordinating Council
DENR	Department of Environment and Natural Resources
DepEd	Department of Education
DILG	Department of Interior and Local Government
DIPECHO	European Commission on Humanitarian Aid Organization for Disaster Preparedness
DND	Department of National Defense
DOF	Department of Finance
DOH	Department of Health
DOST	Department of Science and Technology
DPWH	Department of Public Works and Highways
DQRP	Disaster Quick Response Program
DRA	Disaster Risk Assessment
DRM	Disaster Risk Management
DRMO	Disaster Risk Management Office
DRR	Disaster Risk Reduction
DSWD	Department of Social Work and Development

ECLAC	Economic and Social Commission for Latin America
EIA	Environmental Impact Assessment
ELA	Executive-Legislative Agenda
EMI	Earthquake and Megacities Initiative Inc.
ENSO	El Nino-Southern Oscillation
EWS	Early Warning Systems
FAPsO	Foreign-Assisted Projects Office
FGD	Focus Group Discussion
GAA	Government Appropriations Act
GIS	Geographic Information System
GLIDE	Global Unique Disaster Identifier
HFA	Hyogo Framework for Action
HLURB	Housing and Land Use Regulatory Board
IDP	Internally Displaced Person
IEC	Information, Education and Communication
INGO	International Non-Governmental Organization
INSARAG	International Search and Rescue Advisory Group
LCE	Local Chief Executive
LCF	Local Calamity Fund
LDCC	Local Disaster Coordinating Council
LGU	Local Government Unit
MDCC	Municipal Disaster Coordinating Council
MGB	Mines and Geosciences Bureau
MILF	Moro Islamic Liberation Front
MMDA	Metropolitan Manila Development Authority
MMEIRS	Earthquake Impact Reduction Study for Metropolitan Manila
MOA	Memorandum of Agreement
MOU	Memorandum of Understanding
MTPDP	Medium Term Philippine Development Plan
NAMRIA	National Mapping and Resource Information Authority
NAPC	National Anti-Poverty Commission
NCF	National Calamity Fund
NDCC	National Disaster Coordinating Council
NDCP	National Defense College of the Philippines
NEDA	National Economic and Development Authority
NFA	National Food Authority
NGA	National Government Agency
NHA	National Housing Authority
NGO	Non-Government Organization
NPFP	National Physical Framework Plan
NSTP	National Service Training Program
NSTP 2020	National Science and Technology Plan for 2002-2020
OCD	Office of Civil Defense
OIC	Organization of the Islamic Conference
PAGASA	Philippine Atmospheric, Geophysical and Astronomical Services

PBSP	Administration
PD	Philippine Business for Social Progress
PHIVOLCS	Presidential Decree
PIA	Philippine Institute of Volcanology and Seismology
PICE	Philippine Information Agency
PNP	Philippine Institute of Civil Engineers
PNRC	Philippine National Police
PO	Philippine National Red Cross
PSDMN	People's Organization
PWD	Private Sector Disaster Management Network
QRF	People With Disabilities
RDCC	Quick Response Fund
READY	Regional Disaster Coordinating Council
REINA	Hazards Mapping and Assessment for Effective Community-based Disaster Risk Management Project Strengthening the Disaster Preparedness Capacities of the Municipalities of Real, Infanta and Nakar (REINA), Quezon Province, Philippines to Geologic and Meteorological Hazards
RA	Republic Act
SARS	Severe Acute Respiratory Syndrome
SNAP	Strategic National Action Plan
SOPI	Safety Organization of the Philippines
STII	Science and Technology Information Institute
SUCs	State Universities and Colleges
SWOT	Strengths, Weaknesses, Opportunities and Threats
TWG	Technical Working Group
ULAP	Union of Local Authorities of the Philippines
UN	United Nations
UNDAC	United Nations Damage Assessment Coordination
UNDP	United Nations Development Programme
UNISDR	United Nations International Strategy for Disaster Reduction
UNMDG	United Nations Millennium Development Goals
UNOCHA	United Nations for the Coordination of Humanitarian Affairs
VDC	Victims of Disasters and Calamities
WHO	World Health Organization

executive summary



The Philippine Strategic National Action Plan for Disaster Risk Reduction (SNAP)¹ is a “road map” indicating the vision and strategic objectives of the Philippines for the next 10 years while pursuing the strategic goals of the Hyogo Framework for Action (HFA). The SNAP takes off from the Four-Point Plan of Action on Disaster Preparedness (4PPADP) of the National Disaster Coordinating Council (NDCC) and is necessary to sustain the gains from positive effects and lessons learned from disaster risk reduction (DRR) initiatives by different stakeholders. The SNAP contains 18 priority programs and projects from 2009 to 2019 based on 150 strategic actions gathered after several consultations with stakeholder groups. The SNAP utilizes the multi-hazard approach in managing the impact of natural and human-induced disasters especially the threat of climate change. The document in part is a synthesis of previous assessments done by competent organizations and results of a series of national dialogues and focus group discussions.

One guiding principle of SNAP requires multi-stakeholder participation to mainstream DRR in relevant sectors of society. Consultations are part of an inclusive and ongoing process that needs to be continued. Another principle of SNAP is that DRR is directly linked to poverty alleviation and sustainable development. In consonance with the expected outcome of the HFA, the SNAP envisions the reduction of disaster losses in lives, and in the social, economic and environmental assets of communities and the country. The SNAP is also consistent with parallel effort to design the Philippine Comprehensive Disaster Risk Management Framework.

The SNAP consists of an analysis of the status of DRR in terms of the five HFA priorities for action: a) governance (making disaster risk reduction a priority), b) risk identification, assessment, monitoring and early warning systems (improving risk information and early warning), c) knowledge management (building a culture of safety and resilience), d) risk management and vulnerability reduction (reducing the risks in key sectors), and e) disaster preparedness for effective response (strengthening preparedness for response). While good results of DRR projects and activities have significantly provided opportunities for sound practices to take root, existing organizational and societal structures do not necessarily allow positive values to thrive. Sustaining mechanisms such as making DRR a regular budgeted item, strengthening private-public partnerships, creating incentives for disaster risk reducing behaviour, instilling risk awareness at all levels of government, in households, firms and workplaces are all part of a general strategic plan. The SNAP attempts to enable stakeholders to see the larger picture, particularly through the lens of national safety or resilience.

Priority actions are clustered into five strategic objectives. By so doing, the overall motivating force driving each action is not lost but kept alive with a broad purpose fitting into the large scheme of a national action plan. Sub-objectives and components that have emerged from the consultations are enumerated under each strategic objective:

1. Enabling Environment. Adopt a responsive legal and policy framework which creates an enabling environment for all Filipino citizens and the government and guides them towards reducing losses from disaster risk.

Governance and Peace

Disaster Risk Management (DRM) Act. Strengthen the country’s legal, institutional and policy framework for disaster risk reduction (DRR).

Multi-Stakeholder Dialogues on DRR. Strengthen partnerships and build alliances for enhanced DRR advocacy.

Institutionalization of Disaster Management Office (DMO). Sustain disaster management programs and projects, particularly at the local levels.

¹ This closely follows the description found in “Project Proposal to Support the Development of Strategic National Action Plan for Countries in the Asia and Pacific Regions: Advancing Disaster Risk Reduction through the Hyogo Framework for Action.” (www.unisdr.org/asiapacific/ap-hfa/docs/snap.doc).

Enhancing Capacity Development for Local Disaster Coordinating Councils (LDCCs). Enhance capacity of LDCCs so that they will become self-reliant and capable of fully implementing the disaster management program.

Mainstreaming DRR into the Peace Process. Develop trust and confidence of the communities to the government agencies involved in the peacekeeping process; protect and preserve life and property (internally displaced persons (IDPs), protection of the rights of women and children).

Policy Support for Mainstreaming

Mainstreaming DRR in Various Government Projects and Plans. Prioritize DRR-enhanced programs and projects to budget allocation.

2. Financial and Economic Soundness (Mobilizing Resources). Pursue cost-effective ways and means to offset socio-economic losses from disasters and prepare the nation for disaster recovery.

Public-Private Partnership (PPP). Establish an enabling environment with innovative instruments for creating space for the public and private sectors to increase their contribution to risk reduction activities.

Resource Mobilization. Develop common understanding of resources needs for disaster mitigation and preparedness, and institutionalize DRR into day-to-day business, policies and actions of organizations.

3. Supportive Decision-Making for an Enlightened Citizenry. Use the best available and practicable tools and technologies from social and natural sciences to support decisions by stakeholders in avoiding, preventing, and reducing disaster impacts.

Information and Database Generation and Utilization

Information and Database Generation. Organize data collection and dissemination processes according to risk knowledge needs and develop information systems to support decision makers.

Knowledge Management. Ensure appropriate data and information are shared with all stakeholders.

Mainstreaming

Support DRR Mainstreaming through Sectoral Approach. Ensure the implementation of the national DRR policy through its integration into sectoral plans and programs.

Preparedness for Effective Disaster Response. Enhance disaster preparedness capacities and requirements including multi-stakeholder coordination.

4. Safety and Well-being Enhancement. Increase capacity, reduce vulnerability and achieve improved public safety and well-being.

Information, Education and Communication (IEC) Campaign. Increase the level of DRR awareness and competencies of concerned stakeholders.

Institutional and Technical Capacity Building. Strengthen institutional environment and build capability for disaster risk management on the ground.

Education and Research. Provide means to advance knowledge and its application for disaster risk reduction.

Warning Systems and Vulnerability Assessment

Forecasting and Early Warning. Enhance monitoring, forecasting, and hazard warning.

Risk Evaluation. Assess risks that need monitoring.

5. Implementation and Evaluation of Disaster Risk Reduction. Monitor and assess progress on DRR and prepare better for disasters in terms of identified risks and warning systems.

Development of Tools for Assessment and Monitoring of Disaster Risk Reduction (DRR) Measures. Equip stakeholders with assessment to efficiently monitor progress and evaluate impacts of programs and projects including the underlying risk factors.

The paradigm shift from disaster response to DRR is considered a challenge not only in the Philippines, but in other countries as well. To better implement SNAP, the Philippine legislature must enact a progressive bill to amend the reactive stance that PD 1566 posits. The SNAP rightfully fits into a national disaster risk management framework which emphasizes the mainstreaming of DRR into national plans and budgets. To fill the demand, a steady flow of qualified people is needed to address DRR tasks.

To implement the SNAP, it is recommended that NDCC takes the following steps:

1. Rally the support of civil society organizations (CSOs) and the private sector to continue the national multi-stakeholder dialogues and other fora on DRR.
2. Anchor the SNAP on the United Nations Development Program's (UNDP) Country Framework Plan so that DRR projects are undertaken strategically and are synchronized with donors' programs and thrusts.
3. Actively procure the inclusion of SNAP programs and projects in government plans such as the Medium-Term Philippine Development Plan (MTPDP) and the National Physical Framework Plan (NPFP) in partnership with the National Economic and Development Authority (NEDA).
4. Commit budget line items for disaster risk reduction to implement DRR mainstreaming consistently.
5. Investigate sound practices and adapt them as necessary.
6. Utilize the cluster mechanism to put together stakeholders who share the same DRR functions such as health, education, agriculture, shelter, livelihood, and food and to advance the implementation of SNAP programs and projects.
7. Disseminate and promote the SNAP through active advocacy using various means, such as developing a website and disseminating information through Office of Civil Defense (OCD) regional offices and by introducing the SNAP in diverse media.
8. Enjoin stakeholders who participate in the dialogues to conduct IEC campaigns within their organizations to instill DRR consciousness among the management and staff.

The SNAP document lists 16 implementation issues:

1. The SNAP should be adopted with proper grounding on prior obligations and prerequisite inputs and actions.
2. Responsibilities of citizens, public and private entities pertaining to DRR should be explicitly stated in a law.
3. The DRM system should be capable of anticipating scenarios related to emerging risks such as complex emergencies and impacts of climate change.
4. At the local level, the basic requirement is an administrative structure with adequate personnel, budget and logistics that are commensurate with the local risk profile and development needs.
5. Any DRR strategy in a locality involves the review of: ordinances, inter-agency collaboration, institutional arrangements, budget allocation; professional/ disciplinary involvement; characteristics at various levels (individual/ household/barangay/district/city-municipality/ province/region).
6. Priority actions at the barangay level in terms of disaster preparedness relate to setting up an early warning system, developing communication protocols and evacuation procedures.
7. Politicians are known to have prevented risk reducing measures. Incentives may be needed so politicians behave more favourably towards promoting DRR.
8. Definition of roles among stakeholders, the cluster approach in early recovery, and adherence to humanitarian standards are essential to have efficient and complementary working relationships.
9. As government budget allocation for DRR becomes clear, aid from international financial institutions will be directed to where it is really needed.
10. Other formal collaborative mechanisms should be explored.
11. Informal collaborative mechanisms are equally useful for DRR.
12. In order for stakeholders to contribute to the cause of DRR, communicating risks to them in an appropriate way is important.
13. To meet the strategic objectives of the SNAP, it is critical to determine the extent and how other sources of funding from partners can be obtained.
14. Understanding location-specific factors such as the multi-hazard approach, gender perspective and cultural diversity, community and volunteer participation, mechanisms for capacity building and technology transfer are essential in carrying out any DRR activity.
15. To utilize opportunities for transfer of knowhow in foreign-assisted projects while providing services support, interim activities and projects for SNAP can be coordinated by a project management office, similar to the Foreign-Assisted Projects Office in other national government agencies.

16. The United Nations International Strategy for Disaster Reduction (UNISDR) guidelines and HFA online monitor template are suitable for review, evaluation and reporting on the state of DRR in the country and may be used to also assess the progress of implementation of the SNAP.

The current level of national government expenditure on DRR based on Fiscal Year 2008 General Appropriations Act complemented by international funds is estimated at PhP20 billion, inclusive of the annual national calamity fund appropriation of PhP2 billion. The amount is nearly equal to the damage losses incurred during that year. At constant 2000 prices, the average annual direct damage is PhP15.3 billion from previous reported disasters between 1990 and 2008 based on NDCC data. The highest estimated direct economic loss to the country has exceeded PhP28 billion (at current prices in 1990) during this period, or reaching up to as high as 2.6% of the gross domestic product, on top of losses in lives, social and environmental assets of communities.

A preliminary analysis of 2008 DRR expenditure also indicates that half of the amount addresses some objectives of the SNAP priority programs and projects. Thus, work on mitigation and preparedness has taken root, yet stakeholders' actions require a set of measurable objectives and targets. The NDCC aims to protect the well-being of people and safeguard national economy and environment by devoting more concrete financial investments on DRR. As DRR is aligned with poverty alleviation and sustainable development goals, the SNAP programs and projects must be included as part of national development plans such as the Medium Term Philippine Development Plan (MTPDP).

Looking into the future challenge of coping with hazards, the country needs to review the SNAP periodically and align its priorities with the Philippine's development goals beyond 2019.





introduction

The Philippine Strategic National Action Plan (SNAP)² is a 'road map' indicating the vision and strategic objectives of the country for the next 10 years. The SNAP is based on:

- ▶ An assessment of the disaster risks, vulnerability, and capacity;
- ▶ Gap analysis that identifies and maps out significant ongoing initiatives, and;

² This closely follows the description found in "Project Proposal to Support the Development of Strategic National Action Plan for Countries in the Asia and Pacific Regions: Advancing Disaster Risk Reduction through the Hyogo Framework for Action." (www.unisdr.org/asiapacific/ap-hfa/docs/snap.doc).

- DRR activities based on the HFA that are considered by stakeholders as achievable priorities for the country, with adequate relevant resources, and capacity for implementation over the next three to ten years.

The necessity of the HFA for sustainable development is recognized by the Philippines, and it shares the expected outcome³ and strategic goals⁴ that the HFA espouses. By doing so, achieving the United Nations Millennium Development Goals (UNMDG) is also supported. The SNAP is an integral part of the nation's commitment to the HFA and other relevant global agreements.

Several factors support the development of the SNAP. The country needs a tool to set the future direction in making the country safer and communities resilient from disasters based on gains by shifting from relief and response to preparedness and mitigation. Apart from this, affirming lessons learned from DRR initiatives by different stakeholders must be given space for making the lessons an integral part of day-to-day business. Sound practices should be further promoted and supported by organizational and institutional means and be ultimately imbedded into the disaster risk management system of the country. The SNAP provides the opportunity to consolidate the efforts of the Philippine stakeholders thus contributing to reinforce a culture of prevention among individuals, households, community leaders, government officers, local chief executives, politicians, business entities, local government units, and national government agencies.

Current institutions that perform relevant tasks will have to be assessed in terms of how well they meet emerging issues based on new realities and commitments. Given the changed circumstances since Presidential Decree 1566 of 1978, studies⁵ have consistently recommended that a new legislation be put in place.

The integrated DRM concept has been developed from lessons learned from dealing with hazards over the past two decades. It brings together "science, technology, policy and community together. Current thinking holds that resilience of communities comes from the dual activities of reducing vulnerability to hazard impact and building capacity to deal with them when they occur."⁶

National Platform: the Philippine Process

The Philippine process of drafting the SNAP can be traced by reviewing the joint initiatives taken by the government and other stakeholders. One initiative is the National Multi-stakeholder Dialogue on DRR held on 25 July 2007. The idea to hold a conference was borne after key NDCC representatives attended the First Session of the Global Platform on DRR in Geneva. Subsequent similar dialogues were also held on 29-30 April and 23 May 2008 which served as a barometer of progress on the implementation of the HFA. The significance of these national multi-stakeholder dialogues is based on the broad participation of stakeholders and a conscious effort to explore opportunities for closer collaboration with DRR champions. Drafting the Philippine Comprehensive Disaster Risk Management Framework⁷ is also considered as a parallel effort to the conduct of the multi-stakeholder dialogues.

³ Expected Outcome of the HFA: The substantial reduction of disaster losses, in lives and in the social, economic and environmental assets of communities and states.

⁴ Strategic Goals of the HFA: (1) Integration of DRR into sustainable development policies and planning ; (2) Development and strengthening on institutions, mechanisms and capacities to build resilience to hazards.; (3) Systematic incorporation of risk reduction approaches into the implementation of emergency preparedness, response and recovery programmes.

⁵ World Bank-NDCC, 2004 Natural Disaster Risk Management in the Philippines: Enhancing Poverty Alleviation Through Disaster Reduction; Japan International Cooperation Agency/PHIVOLCS/Metropolitan Manila Development Authority, 2004 Earthquakes Reduction Impact Study (MMEIRS); United Nations-Office for the Coordination of Humanitarian Affairs (UN-OCHA), 2005 United Nations Disaster and Coordination Team (UNDAC) Mission Report; Pacific Consultants Inc., 2005 Follow-on Study to the World Bank-NDCC Report; Delfin, F.G., Jr. and J-C Gaillard, 2008, Extreme Versus Quotidian: Addressing Dichotomies in Philippine Disaster Management, Public Administration and Development 28:190-199.

⁶ Britton, N., 2006 Getting the Foundations Right: In Pursuit of Effective Disaster Legislation for the Philippines, 2nd Asian Conference on Earthquake Engineering, 10-11 March, Manila.

⁷ A comprehensive framework on disaster risk management is being formulated under a project on National Assessment on the State of Disaster Risk Management in the Philippines funded by the Asian Development Bank through the UNDP.

This process took on a different path from other countries in the Asia-Pacific region (Indonesia, Cambodia, and Vanuatu) but was organized in cognizance of the guidelines prescribed by the UNISDR. In March 2008, a proposed resolution to enhance the membership of the NDCC did not prosper. The said resolution would have revitalized the four NDCC committees and constituted a multi-stakeholder advisory group on DRR. These four committees, primarily tasked to implement the Council's program on Disaster Management established through NDCC memoranda issued in 2002, have not been convened since 2004. The NDCC mechanism continuous to be the national platform for DRR in the country, with the Technical Management Group (TMG) conferring on a regular basis.

The SNAP takes off from NDCC's Four-Point Plan of Action for Preparedness (4PPADP). The 4PPADP consists of:

1. Upgrading the forecasting capability of warning agencies, particularly the Philippine Atmospheric, Geophysical and Astronomical Services Administration (PAGASA) and the Philippine Institute of Volcanology and Seismology (PHIVOLCS);
2. Intensification of public information and education campaign on disaster preparedness;
3. Enhancing capacity building of local chief executives (LCEs) and disaster coordinating councils (DCCs), and;
4. Strengthening mechanisms for government and private sector partnerships.

It is supported by consultations with stakeholders who, in the final analysis, must be part of ongoing dialogues in DRR. The last two national dialogues have been based on mutual understanding of organizational mandates, strengths, limitations/weaknesses, opportunities and threats. The inclusive process is designed to actively engage stakeholder group representatives in a continuous improvement strategy.

Philippine stakeholders have made significant gains in DRR over the last few years; however, gaps remain with respect to integrating specific activities in the pre-event and post-event phases. A system for measuring gains based on reforms has not been put in place. This has resulted to implementation delays and unaddressed gaps. Therefore, marshalling multi-stakeholder efforts from local, national and international fronts are in order.

In the development and implementation of the SNAP, two principles serve as guidelines:

1. DRR is directly linked to poverty alleviation and sustainable development.
2. DRR entails the participation of various stakeholders in order to mainstream DRR in relevant sectors in the society.⁸

A. Goal and Objectives

Consistent with the global commitment, the Philippine SNAP aims to build the resilience of communities to disasters. In more concrete terms, the expected outcome is to reduce disaster losses in lives, in the social, economic and environmental assets of communities and countries. The HFA sets targets by 2015, which coincides with the medium-term timeframe of the SNAP. The SNAP objectives provide support to strengthen cooperation and coordination mechanisms among various sectors and stakeholders.

⁸ DRR mainstreaming is manifested by practical DRR components in sectoral plans, specific units actively and effectively engaged in DRR functions in sectoral ministries and agencies, budget lines for DRR integration, and prudent public governance (Rego, L., 2007).

B. Concepts and Definitions

For consistency, definitions given by the UNISDR are adopted in lieu of those existing in current proposed legislation. It is useful to note that before the HFA, in 2002 the NDCC adopted the Comprehensive Emergency Management Framework (CEMF) which consists of pre-event actions (mitigation and preparedness) and post-event actions (response and rehabilitation).

C. The SNAP Process Methodology

Input to the SNAP is obtained through a review of documentation, strategic planning techniques (stakeholder or participation analysis, SWOT <strengths-weaknesses-opportunities-threats> analysis), and focus group discussions (FGDs). As SNAP is a tool to strengthen the national platform⁹ for disaster risk management, wider stakeholder participation is required. The Second and Third multi-stakeholder national dialogues have provided the appropriate venue to elicit facts and opinions from the different stakeholders on current and future DRR programs, capacities (strengths), weaknesses/limitations, opportunities and threats. Workshop participants (Annex A) drew up a plan of strategic actions to reduce disaster risk based on a structured discussion aided by key questions concerning the five HFA priorities for action.

The FGDs with private sector groups and media organizations (Annex B and C) were conducted thereafter to generate primary information from stakeholder groups about their concerns regarding DRR. The FGDs served to augment information gaps since little documentation was available for these stakeholder groups. Results of SWOT analysis and the FGDs were also utilized to analyze current against desired capacities of the key stakeholders.¹⁰

In this process methodology, UNISDR's HFA Online Monitor Template was utilized to review the progress and challenges in the implementation of DRR actions. It is a first attempt to apply the Template in assessing the current status in terms of the five HFA Priorities for Action. The results of analyses and the national dialogues (strategic actions identified and prioritized by the participating stakeholders) were synthesized further to yield a more coherent set of strategic objectives and priority actions.

Since the first draft was submitted at the end of May 2008, the plan has undergone revisions based on comments submitted by NDCC member agencies during discussions of the TMG meetings and through correspondence. In October 2008, a sustainability strategy was formulated in order to chart the course towards finalizing SNAP and eventually lead to its adoption as a planning document with timelines. This strategy called for a SNAP Task Force (Annex C) comprised of a few NDCC member agencies to be consulted to draw guidance and commitment from them to implement SNAP. The Task Force produced two significant outputs:

(1) Profiles of the priority programs and projects

During its first meeting on November 14, 2008, the Task Force approved the proposal to assemble designated representatives from NDCC member-agencies in a writeshop, organized back-to-back with another writeshop on the review of the national assessment of DRM. The writeshops were held in Tagaytay City on November 19-21, 2008.

The purpose of the writeshop was to review and finalize the initial set of SNAP priority programs and projects. By the end of the writeshop, profiles of 18 priority programs and projects were drawn up by the 60 reviewers (Annex D). The participants were divided into

⁹ According to the Hyogo Framework of Action: The expression "national platform" is a generic term for national mechanisms for coordination and policy guidance on disaster risk reduction that need to be multi-sectoral and interdisciplinary in nature, with public, private and civil society participation involving all concerned entities within in the country (including the United Nations agencies present at the national level, as appropriate). National platforms represent the national mechanism for the International Strategy for Disaster Reduction.

¹⁰ A separate Capacity Assessment report under the same project was prepared

five groups. Each group deliberated on the background (rationale), objectives, outputs/outcomes, activities, timelines, lead proponents/agencies of primary responsibility (APRs), and key partners. Where feasible, participants suggested estimated budgets and funding sources.

(2) Level of National Government's expenditure on DRR FY 2008

Budgetary considerations included clarifying whether there is sufficient funding dedicated to support sustained risk reduction initiatives. With regard to funding from the Government Appropriations Act (GAA), the following questions were found relevant:

- ▶ What should guide planning and budget officers?
- ▶ What budget line items are relevant to DRR?
- ▶ How much does each agency allocate for DRR?

The Task Force held the Workshop on Budgetary Allocation for DRR on February 24, 2009 with Director Carmencita Delantar of the DBM as facilitator. Forty Seven (47) planning and budget officers of government departments/offices and the Philippine National Red Cross (PNRC) participated (Annex E) in the workshop. A subsequent follow-up meeting was held on March 13, 2009. Baseline data was established initially thus providing points of reference to guide APR and potential partners to estimate SNAP priority program/project budgets. It was the first attempt to find out how much each agency has spent for DRR in a budget year, specifically 2008. The agencies reviewed the 2008 expenditure – funded through the 2008 Government Appropriations Act (Republic Act No. 9498), foreign aid, and from other sources. This activity lent support to the proposed Program/Project No. 8 Resource Mobilization.

Participating stakeholders were guided by logic based on planning and administrative protocols. The process drew participants to: (1) recognize and internalize the need to adopt roles pertinent to mandates that specifically relate to DRR, and (2) identify program and project activities funded by government, foreign and other sources and acknowledging the pertinent budget allocation.

D. Structure of the Document

The remainder of this document consists of four parts: (1) Current status and recurring issues – identifies key achievements and analyzes gaps in disaster risk management including capacity of stakeholders in the Philippines, and provides the basis of what needs to be done, (2) Strategic actions/responses – discusses the output of multi-stakeholder dialogues, FGDs, and key informant interviews and presents the priority programs and projects after making a synthesis, (3) Implementation issues – lists 16 underlying issues that require urgent attention as the strategic actions and responses are put into practice, and (4) Moving Ahead - which focuses on the next steps to take for SNAP.

current status



and recurring issues



The NDCC serves as the highest policy-making body for dealing with disasters in the country. To date, several projects and activities are being implemented by the Office of Civil Defense (OCD) and some member-agencies of the NDCC. Current functions of member-agencies are defined by law. As prescribed under PD 1566, regions, provinces, cities and municipalities are required to establish disaster coordinating councils (DCCs). The DCC is to be composed of representatives of national government agencies operating at these levels and local officials concerned. The Department of Interior and Local Government (DILG) is the overseer of DCCs. To date, DCCs had not been established in all local government units (LGUs), according to the DILG.¹¹

¹¹ The DILG statistics on community-based institutions in LGUs (2006) reports on the number of LGUs with functional DCCs. The figures are as follows: 64, Provincial Disaster Coordinating Councils; 89, City Disaster Coordinating Councils; 1,106, Municipal Disaster Coordinating Councils; and 20,674, Barangay Disaster Coordinating Councils. (Source: Table 15.11. Community-based institutions in LGUs, 2006, in NEDA, 2007, Socioeconomic Report, p. 121.)

To understand the underlying factors affecting decisions regarding how to deal with disasters, the succeeding sections focus on the nature of hazards that the country faces, the Philippine stakeholders, and the status of disaster risk reduction under the present institutional and organizational set-up. More than significant plans and projects, the reader's attention is drawn to processes and mechanisms which support and help sustain the objective of reducing losses at different levels.

A. The Hazardscape

The proneness of the Philippine archipelago to hazards is defined by its location and natural attributes. It is situated in the Pacific Ring of Fire where two major tectonic plates (Philippine Sea and Eurasian) meet. This explains the occurrence of earthquakes and tsunamis, and the existence of around 300 volcanoes of which 22 are classified as active because their eruptions have been found in historical records. The Philippines is located along the typhoon belt on the Western North Pacific Basin where 66 percent of tropical cyclones enter or originate. On the average, the country faces 20 tropical typhoons a year, of which 5 to 7 can be rather destructive. The eastern seaboard is highly exposed to tropical cyclones with wind speeds greater than 150 kilometers per hour. Mean annual rainfall in the country varies from 965 mm to 4,064 mm. Extreme rainfall events trigger landslides and lahar flows and are responsible for severe and recurrent flood in low lying areas. Tropical cyclones are responsible for an average of 40 percent of the annual rainfall in the country. Slow moving or almost stationary tropical cyclones account for extended periods of rainfall.

Other facts about Philippine disasters are:

- ▶ Annual direct damage from previous reported disasters between 1990 and 2006 amount to PhP20 billion per year in constant 2005 prices based on NDCC data. This is roughly 0.5% of the GDP on the average every year;
- ▶ Flooding has become the most prevalent disaster since 2000;
- ▶ Coastal areas along the over 17,000 km coastline are increasingly exposed to high risk and more vulnerable to tidal surges (some associated with seasonal typhoons) due to high population density;
- ▶ Based on historical average, earthquakes kill the most per event and cause the highest economic loss. The single event that killed the most (6,000 dead) was the earthquake of 1976 while the Luzon earthquake of 1990 caused PhP695 million of economic damages, the second highest ever recorded; and
- ▶ From 1995-2003, an annual average of 8,161 fire incidents occurred nationwide.¹²

Environmental factors such as denuded forests aggravate flood risks. The pace of deforestation since the 1930s accelerated in the 1950s and 1960s, before falling slightly in the 1980s. Even now, the effects of loose soil and reduced forest cover from past forestry activities are felt in frequent landslides and floods. The likelihood of drought and poor availability of water is also increased by the loss of forest cover.

Tropical cyclones (also called windstorms) have caused the most loss of lives and property. Accompanying or resulting from these hazard events are secondary phenomena such as strong winds, landslides, floods/flash floods, tornado and storm surges. There is evidence that the

¹² Data sources include: OCD; NDCC; PAGASA; the PreventionWeb, that provides a common information platform for the DRR community under the UNISDR (<http://www.preventionweb.net/english/countries/>); on fire incidents: <http://www.pia.gov.ph>.

occurrence of extreme weather events is a consequence of climate change. The Philippines may therefore be substantially affected by climate change.

Along with China and Thailand, the Philippines is among the lower middle income countries, according to World Bank's country income classification. High risk due to the above hazards can discourage foreign investments in the country and affect long-term economic development. However, the different regions and their component provinces, municipalities and cities that comprise differ in terms of exposure to hazards, risks and vulnerabilities.

Some parts of the country are more prone to specific hazards than others; some parts are exposed to more hazards than others. In an analysis of natural disaster hotspots by the Hazard Management Unit of World Bank,¹⁴ the Philippines is among the countries where large percentages of population reside in disaster prone areas. Many highly populated areas are exposed to multiple hazards: 22.3% of the land area is exposed to three or more hazards and in that area, 36.4% of the population are exposed. Areas where two or more hazards are prevalent comprise 62.2% of the total area where 73.8% of the population are exposed.

The western and central portions of the archipelago are less exposed to the full extent of tropical cyclones that enter the country's boundaries. Provinces with the highest climate risk in central Luzon are also those with the most urban centers. Climate risk includes exposure to super typhoons, and other extreme weather, El Niño-events (droughts), projected rainfall change and projected temperature increase.

The sub-national picture is highlighted by disparities in poverty incidence. Majority of the poorest provinces in terms of income are found in the Autonomous Region in Muslim Mindanao (ARMM) and Bicol Region while those with the lowest incidences are in Luzon, particularly Regions I to IV. The ARMM is rated to have a "very high" risk to El Niño; it is also situated in an area which has high tsunami potential. The Bicol river valley which traverses several Bicol provinces is a flood-prone area.¹⁵

Natural hazards are part and parcel of the Philippine environment, but disasters happen because human settlements, infrastructure, people and their economic activities are placed where hazards happen. Costs of disaster impacts are borne by government and individual households; thus, threatening socio-economic development gains. Other threats that warrant attention are complex emergencies that are primarily human-induced, often associated with armed conflict. Issues related to internally displaced persons (IDPs) are part of dealing with such threats. The country has also been preparing for regional and emerging risks such as avian influenza, weapons of mass destruction, and climate change.

B. Stakeholders¹⁶ in the Philippines

Through the years, the demand on disaster-related organizations has changed (i.e. the intensity of performance demanded of certain tasks has become more pronounced). With a paradigm shift from response and relief to preparedness and mitigation, long-term recovery needs to be considered earlier or before a hazard strikes. Planning for recovery essentially becomes part of

¹⁴ World Bank, 2005 Natural Disaster Hotspots: A Global Risk Analysis (Disaster Risk Management Series No. 5), pp. 4-12.

¹⁵ Manila Observatory. 2005. Mapping Philippine Vulnerability to Environmental Disasters (available http://www.observatory.ph/vm/cw_maps.html), December 2005; PAGASA. undated. Rainfall and Climatological Normals of the Philippines (1961-1990). Quezon City: PAGASA. In Delfin.

¹⁶ According to UNISDR's "Words Into Action", stakeholders may be grouped into: (1) Planning and policy making organizations, including key departments and concerned national agencies; (2) Owners and operators of economic and social infrastructure including critical for people's survival and continuous functioning of communities (including privately owned utilities); (3) Public agencies responsible for overseeing implementation of codes, regulating, sanctioning or providing incentives; (4) Key humanitarian and social services organizations; (5) Relevant professionals including land use planners, architects, engineers, developers, builders, advocates, educators, trainers, researchers, etc.; (6) Financial institutions including those that provide mortgage loans or insurance, communications, technology, etc.; (7) Non-governmental organizations, women's and community groups including advocates for residents in high-risk environments; (8) Media organizations (those that can communicate warnings and educate the public); (9) Technical and scientific institutions or services dealing with risk identification, hazards monitoring, early warning and preparedness.

preparedness planning. As reconstruction and rehabilitation proceeded in the countries affected by the Indian Ocean Tsunami of December 2004, the slogan: “Build Back Better” has influenced current practice greatly. This is to advocate that rebuilding does not create more vulnerable dwellings. Also, as disaster-affected households and communities need to recover, the need to be inclusive in making decisions that will affect them cannot be overemphasized. In this sense, planning for DRR is similar to planning for development; approaches that promote feedback and empowerment are needed.

Stakeholder roles in DRR range from legislating or adopting policies or programmes at national and local levels (public entities and officials), implementing the policies, mandating others to take action or provide incentives for others to take action, to assisting in implementation and providing political momentum such as advocacy groups.

A capacity assessment of the Philippine stakeholders was done during the April-May 2008 period in the course of the SNAP process. The report was submitted to the OCD.¹⁷

C. Status of Disaster Risk Reduction (DRR): Where We Are

Documentation such as the OCD Year-end Reports and the country report on the progress of HFA presented during the first session of the Global Platform for Disaster Reduction held on 5 June 2007 in Geneva,¹⁸ provided an update on the state of DRR in the Philippines. Thereafter, subsequent activities of NDCC afforded significant junctures in the country’s history to appraise the nation through the national dialogues - a promising mechanism for upholding continuous efforts to establish a national platform for disaster risk reduction. Different stakeholders presented the state-of-the-art and current practices in the sector and group they represent. As an integral part of the SNAP project, a separate report on the state of mainstreaming¹⁹ DRR in the country was also prepared. The study examined five national government departments/agencies, namely; NEDA (sub-national development and physical planning), DPWH (infrastructure sector), DepEd (education sector), DILG (local governance) and OCD.

The succeeding pages describe the progress of HFA implementation in the country using the HFA Monitor Template and UNISDR’s Words into Action as guides.²⁰ Lastly, results of the initial determination of the level of national government expenditure on DRR as initiated by the SNAP Task Force are also included in the last portion of this chapter.

Priority for Action 1: Governance - Making disaster risk reduction a priority.

Key Achievements. Considerable progress has been achieved since the last report concerning the new disaster risk management bill as various stakeholders actively lobby in an inclusive and consensus building process supported by the NDCC. Communities are foreseen to be increasingly involved in DRR as a community-based disaster risk management plan was jointly adopted by NGOs and the NDCC. This also ushered in a new level of awareness among local communities towards a more decentralized system. Gradually, the positive effects of establishing an office in charge of DRM affairs of the local governments are being observed by officials particularly in the Albay Province Safety and Emergency Management Office (APSEMO) which was officially established in 1995.

Through the SNAP project, the NDCC’s mechanism has been enhanced as the national platform on DRR. Multi-stakeholder dialogues and participatory workshops have been conducted through initiatives from various sectors.

¹⁷ Fernandez, A.L., 2008. Capacity Assessment Report on Key Disaster Risk Reduction Stakeholders. Submitted to OCD on 28 May 2008 as SNAP project output.

¹⁸ Government of the Philippines, 2007 Implementing the Hyogo Framework of Action (HFA) in the Philippines: A Country Report, NDCC (June).

¹⁹ Javier, Alwynn C., 2008. The State of Mainstreaming Disaster Risk Reduction in the Philippines. Submitted to OCD (June 2008).

²⁰ The HFA Monitor Template (UNISDR, 2008 HFA Monitor Template, Geneva) is a tool “to monitor, review and report on progress and challenges in the implementation of disaster risk reduction and recovery actions undertaken at the national level, in accordance with the Hyogo Framework’s priorities.” UNISDR’s Words Into Action: A Guide for Implementing the Hyogo Framework precedes the template by one year.

National Policy and Legal Framework. Since 1997, several bills have been proposed to the Philippine Senate to amend the current legislation on disaster management. Early this year, the Philippine Senate has filed a bill known as the “Philippine Disaster Risk Management Act” which is now on its period of interpellation. At the House of Congress, a committee report has been drafted consolidating the various DRM-related bills. PD 1566 does not reflect a comprehensive approach to disaster risk management, (DRM) being more response-oriented. As DRM covers cross-cutting issues related to land use planning, gender, conflict, multi-hazard approach, indigenous practices, regional differences and poverty reduction, it is essential that coverage is comprehensive and specific articles in the draft bill are harmonized with existing laws. The present law uses the term disaster control²¹ which no longer suits the DRR paradigm.

Even before the adaption of the HFA in 2005, various stakeholders have been actively pursuing DRR activities and yet have not been given the proper legal mandate. For example, non-governmental organizations (NGOs) engaged in risk mitigation, are constrained from participating in development by some local officials. There is institutional commitment from various stakeholders towards recharging the legal basis of DRR actions. This is shown by active advocacy undertaken by the NDCC and NGOs and the consensus is being built as opportunities to dialogue increase. However, without major thrust by high government officials including the President, subsequent efforts are bound to be stymied.

Related laws and regulations pertaining to safety, mining, the building code, land management, forestry, environment, etc. are poorly enforced. These legal instruments have conventionally been dealt with without due attention to their function and contribution to reducing disaster risk and hazard vulnerability.

National Planning Instruments. The country’s main instrument for socio-economic development, the Mid-Term Philippine Development Plan (MTPDP) 2004-2010 incorporates DRR issues and investment projects in different sectors - dealing with environment and natural resources, responding to the needs of the poor (disaster relief), peace and order, science and technology, defense against threat to national security. However, the plan has no policy statement about DRR and its role in sustainable development and attainment of the UNMDGs. It is essential that not only does the MTPDP acknowledge damage from natural resources but that vulnerability jeopardizes development gains due to socio-economic, environmental, and information losses. As a national planning document, the future MTPDP should explicitly and formally adopt DRM.

DRR is also incorporated into the National Physical Framework Plan (NPFP). The national planning body, National Economic Development Authority (NEDA), is developing Guidelines for regions and provinces to mainstream DRR into the local development plans such as the Provincial Physical Framework Plan (PPFP), Comprehensive Land Use Plan (CLUP), and Comprehensive Development Plan (CDP). Said Guidelines also provide details on how to mainstream DRR in investment programming, financing, and project development, monitoring and evaluation.

National Multi-sectoral Platform. New fora for government and CSOs to openly discuss DRR issues and find solutions together were initiated. Prior to 2007, there was minimal exchange of information and experiences on DRR outside post-event activities. The National Multi-stakeholder Dialogue on DRR provided a venue for local, regional, national and international players in DRR in which to take stock of progress and move forward. These are however not yet institutionalized.

Another relevant forum was organized by DILG in cooperation with the German Technical Cooperation (GTZ), DIPECHO, the League of Provinces of the Philippines, the UP Department of

²¹ P.D. 1566 does not give a definition but “disaster control” is a military term. According to the U.S. Department of Defense, disaster control consist of “measures taken before, during, or after hostile action or natural or manmade disasters to reduce the probability of damage, minimize its effects, and initiate recovery” (<http://dictionary.babylon.com/>).

Geography and Philippine Geographical Society. The First National Conference on Mainstreaming Disaster Risk Reduction (NCDRR) in Local Governance was convened in March 2007. At the end of the conference, a Declaration of Commitment “to reduce the impacts of disasters...as part of good governance” was signed by one senator, DILG and DND secretaries, other government representatives, governors and mayors.

The National Multi-stakeholder Dialogues need to be continued in the spirit of inclusiveness and mutual learning, which has been the mark of all the three dialogues. Funding for such fora has partly been provided by international/bilateral donors. Government budget must be secured for organizing at least one national forum annually. Similar regional dialogues should be promoted to permit the flow of information to different parts of the country.

The NDCC’s TMG offers a regular forum but is only limited to NDCC members. In the absence of a strengthened DRM focal organization, NDCC members should be called upon to collaborate in future multi-stakeholder dialogues with a broader group of stakeholders.

Involving organized networks and federations facilitates the communication and dialogue process. Among these organizations are the PSDMN (Private Sector for Disaster Management Network) and the CNDR (Corporate Network for Disaster Response); both are networks of private companies. Most recently, the DRR NetPhils (Disaster Risk Reduction Network Philippines) was formed by CSOs involved in CBDRM, advocacy for the passage of the DRM Bill, and awareness raising and meaningful action towards the SNAP formulation and implementation at national and local levels. Networks of LGUs – the League of Cities, the League of Municipalities, and the League of Provinces - can be tapped to work towards this end. The representation of other stakeholders in the current NDCC structure is not sufficient; and thus, pending any legal changes, a more inclusive mechanism could be put in place.

Community Participation and Decentralization. The DCCs all over the country are “uneven” in quality. Some regions and LGUs do not have a functional or viable DCC. This is partly due to the low level of recognition of the hazards and risks by the inhabitants and the politicians that govern them. Although disaster management is a devolved function to LGUs, many LGUs do not have a dedicated office to handle it. However, cities such as Olongapo and Makati as well as provinces such as Bulacan and Sarangani have opted to establish local disaster management offices.

Experience has shown that local bodies can emerge to address a need in a high risk and vulnerable area. Albay Province has shown that a local government unit can move forward in DRR. The APSEMO evolved from the Provincial Disaster Operations Center, a response-oriented set-up funded by the Italian Cooperation for Development to cope with eruptions of Mount Mayon and annual destructive typhoons in the province. The office under the provincial government has permanent staff to undertake pre-disaster activities. The APSEMO serves as a contact point for partners like NGOs and international NGOs (INGOs) for project development and implementation support.

In the said plan, the OCD envisions to be the main driver in the promotion and resource mobilization of CBDRM in the country as well as in the integration of CBDRM into development planning.

While preparedness measures are undertaken by some groups in communities, there is weakness regarding linking these with the larger municipal, provincial and regional response and other post-event mechanisms. Ways and means to systematically involve volunteers and community members in contingency planning exercises and development processes should be done by the LDCCs led by the LCEs. Roles and responsibilities must therefore be assigned to all stakeholders.

The NDCC has adopted community-based disaster risk management (CBDRM) as a model to

engage communities in DRR undertaking. The evidence for this is crafting of the Strategic Plan to Integrate Community-Based Disaster Risk Management (SP-CBDRM) for 2007-2011 as part of the Partnerships for Disaster Reduction in Southeast Asia (PDRSEA) Phase 4 Project supported by the Asian Disaster Preparedness Center (ADPC) and the European Commission. Projects after HFA adoption have championed community participation. While many NGOs possess the skills and resources to mobilize people, many LGUs do not have such capacity.

Decentralizing to the local level brings out issues which are often affected by local politics. It would be useful that options are made known to LGUs. A DRM office in LGUs entails costs and may therefore be difficult to establish in poor municipalities. Putting the right person(s) in the job creates another difficulty. Changes in the local officials (as what happens during elections when incumbents do not get re-elected) bring in new persons who are not trained or even properly oriented on disaster management, thus negating earlier training. Professional practice in the field of disaster and emergency management is yet to be established.

Projects after HFA adoption have championed community participation as part of good practice. While many NGOs possess the skills and resources to mobilize people, many LGUs do not have such capacity. Moreover, although the NDCC recognizes the significance of CBDRM, most national agencies do not have the mandate, dedicated resources or local offices to advance CBDRM priorities.

Resource Allocation. The NDCC does not have an annual budget allocation; it operates through member agencies, regional and local DCCs. The current operating expenditures of the National Calamity Fund (NCF) is Two Billion Pesos (PhP 2 Billion) or about US\$ 42.5 Million. The NCF is tied for aid, relief, rehabilitation, and reconstruction programs.

Since 1996, LGUs are mandated by R.A. 8185 to allocate five percent (5%) of its Internal Revenue Allotment (IRA) as Local Calamity Fund (LCF) and can only be used upon declaration of a "state of calamity" by the local legislative body.²² In 2003, a Joint Memorandum Circular issued by the Department of Budget and Management (DBM) and the Department of Interior and Local Government (DILG) permits the use of the LCF for disaster preparedness and other pre-disaster activities. However, many local officials are still not aware that the LCF can be used for pre-disaster activities.

The PDCCs and RDCCs, assisted by their partners and NDCC must include in their contingency plan provisions to deal with a scenario of unmet rehabilitation funds from the national government through safety nets in the coordination process in order for rehabilitation to proceed.

Experience and knowledge of qualified practitioners and managers ought to be assembled together and put to good use more effectively through training courses, workshops, and education/learning opportunities for government staff at national and local levels, as well as the RDCCs and the LDCCs.

Donor-assisted projects are placed under the responsibility of OCD divisions which have regular functions. The OCD has limited capacity in program/project development and management. One effect is the existence of supply-driven projects (offered projects, not sought). A projectized approach to DRR should be minimized with time, particularly as mainstreaming must be practiced and capacity built in the long term. Capacity for project management can be developed in an officially designated office for the donor-assisted and initiated DRR projects. Eventually, a

²² Should all LGUs apportion five percent of their annual revenue, the total LCF is approximately PHP15 B. Poor LGUs may not see the LCF as a viable source of risk mitigation. LGUs can however design pre-disaster risk mitigation – infrastructure or training/skills upgrading activities as development projects so that they can tap the 20% of internal revenue allotment development fund (Delfin, F.G., Jr., The February 17, 2006 Ginsaugon Landslide: Summary of Policy Issues & Prescriptions, Colloquium, April 17, 2006, Geological Society of the Philippines, Mines and Geosciences Bureau, PAGASA, PHIVOLCS, UP National Institute of Geodetic Sciences).

clear accounting of DRR activities particularly of government expenditure for mitigation and preparedness should also be developed.

Technical equipment and facilities, particularly for monitoring and forecasting need constant updating and maintenance. The human resource complement in some stations must also be considered. Monitoring stations of warning agencies can be manned by trained residents and the youth as part of the community complement in DRR. In anticipation of low participation in this activity, forms of incentives may be devised.

Priority for Action 2: Risk identification, assessment, monitoring and early warning-Improving risk information and early warning.

Key Achievements. Institutional commitment among science and technology institutions towards developing practices to streamline risk assessment in the country is being complemented through a project funded by international donors. The evolving practices come from experiences built on a previous post-disaster project. Scientists, local government officers, NGOs and community members are increasingly finding ways to collaborate in science-based monitoring and early warning in prioritized towns and cities.

Data Analysis and Dissemination. Many stakeholders perceive the need for an information system. While the need for a data based information system for key hazards and vulnerabilities is recognized, there is no coherent strategy towards putting up such a system. An inventory of past disaster events and vulnerability information systems should be done to provide direction and support decision making. Based on target users, an appropriate information system may be designed. Scientific exchanges should be encouraged so knowledge can be promoted for the benefit of the wider population.

LGUs must have the capacity to generate data on disasters and their impacts. On the other hand, local residents should also be mobilized and enabled to provide ground truth data on risks and vulnerabilities. Some of the techniques are already being employed by certain projects but are not fully utilized to generate a more permanent database for communities and linked to the planning information of LGUs. Most LGUs are not equipped with the capability to collect and store planning data and information such as population statistics. Current planning tools promoted by the DILG could include disaster as a parameter. In this connection, LGU planning officers must be trained to integrate DRR into development planning.

Risk Assessments and Maps. Detailed risk assessments conducted so far cover about one-fourth of the country's land area through past initiatives and an ongoing project described below. Much needs to be done in terms of making relevant procedures part of normal business operations of concerned government agencies and local government units. Local chief executives must be educated about how risk assessment can help them serve their constituents.

A pioneering multi-agency and multi-level effort is the "Hazards Mapping and Assessment for Effective Community-Based Disaster Risk Management Project" (called READY) which is funded by a \$1.9-million grant from the AusAID with technical assistance from UNDP for the period 2006-2011. The project covers 27 provinces which have been selected on the bases of the hazard level (frequency and magnitude), elements at risks, availability of base maps, peace and order situation, economic indicators, and accessibility. READY builds on the experience of an earlier project using a similar approach. Together with local stakeholders, hazard maps are produced and community-based early warning systems are established. Through these tools, community residents are better prepared against geologic and hydro-meteorological hazards and are enabled to make sound decisions about locating settlements and human activities, thus empowering them in the process. In order to get the tools ready, Mines and Geosciences Bureau (MGB), PAGASA, PHIVOLCS, National Mapping and Resource Information Authority (NAMRIA)

and OCD need to work out a whole system by which the harmonized product is delivered. Under the Project, the PHIVOLCS also introduces the use of a hazard and risk assessment software called REDAS (Rapid Earthquake Damage Assessment System). The software includes dynamic evaluation of earthquake hazards and information of at risk elements in the community.

The field of DRM is just taking root in the country and needs full cooperation among scientists and engineers. In this regard, since maps are the bases of understanding risks and vulnerabilities, appropriate protocols and procedures must be put in place to ensure maps are harmonized. The LCEs must also be educated about how risk assessment can help them serve their constituents.

Early Warning Systems and Information Management. Forecasting and warning systems for typhoons and floods exist. Radio and television remain the speediest source of warnings related to hazard events.

Inexpensive tsunami sensors developed by PHIVOLCS scientists have been deployed in a pilot site in Lubang Island and are planned to be installed in other parts of the country. The installation of sensors is being done while also intensifying community-based early warning systems (CBEWS) in the provinces. CBEWS for tsunami, established in pilot coastal villages in several provinces, includes hazard and risk assessments, evacuation planning, drills, tsunami signage installation, and information and education campaigns. Drills utilize indigenous practices such as ringing of a bell ("batingaw"). SMART, a telecommunications company also donates mobile phones and airtime load to PHIVOLCS and OCD Region 5 (Barangay Bulusan, Irosin, and Sorsogon) as preparedness measure. Early warning signs like flood markers are only beginning to be put up in areas where recent hazard events became near disasters or reached disaster proportions. PAGASA has partnered with SMART to provide the public with weather alert service for typhoons, floods, and climate change updates. A more proactive approach to early warning is yet to develop in many hazard-prone LGUs.

There are few good examples where different parties collaborated in preparedness activities incorporating locally generated EWS. For example, a community radio station that was put up since late 1999 in the Municipality of Labo Camarines Norte (located 335 km south of Manila), was recognized as a good practice in an Oxfam Publication. DWLB-FM provided the cheapest yet fastest information tool to warn residents of threats and educate people of their responsibilities to reduce disaster risks.

Urbanized areas bring a challenge different from rural communities. A local tsunami early warning system for Manila Bay and vicinity is being started through a project implemented by PHIVOLCS with funding support by the Finnish government.

When communication facilities break down during strong typhoons, most LGUs do not have an alternate system to communicate warnings to residents and inform when and where to evacuate. Forecasting models and equipment for tropical cyclones are available but constantly require maintenance and upgrading; thus the need for appropriate government investment.

Setting up an end-to-end EWS that delivers accurate warning information of potential hazards dependably and in a timely manner to authorities and populations at risk, and enabling them to take action remains to be a challenge. A multi-hazard approach would make it possible to building on existing EWS capacities and infrastructure of various stakeholders. The job of facilitating stakeholders' involvement bears mostly on LDCCs, which themselves need capacity building in the area of community participation. Much work is needed to integrate the EWS in the emergency preparedness and response planning. NGAs also need to be alert on what guidelines may be needed and what technical assistance and know-how can be shared to communities and their LGUs.

Government funds must also be available to enable procurement of monitoring instruments and equipment, which has been dependent on foreign aid. Investment for continuous training of personnel, particularly from the warning agencies, is also a concern.

International Coordination/International and Regional Efforts. Global climate change, Severe Acute Respiratory Syndrome (SARS), acts of terrorism, and weapons of mass destruction are trans-boundary hazards that have emerged as priority concerns of the nation. Although enhanced capability through trained personnel and protective equipment is gradually being improved, other emergency preparedness components need to be integrated into current and future contingency plans.

The Philippines is an active member of the Association of Southeast Asian Nations (ASEAN) regional cooperation on risk reduction. There is a joint disaster drill called ASEAN Regional Emergency Response Simulation Exercise (ARDEX) held annually in a host ASEAN country and each with a different disaster scenario. The exercise tests regional capacity to respond and render humanitarian assistance using a different disaster scenario every year. In 2009, ARDEX will be hosted by the Philippine Government.

In addition, there are noteworthy sub-national efforts to monitor the migration of foreign birds which are potential carriers of the avian flu virus into Philippine territory. The Regional Task Force on Avian Influenza organized the Bantay Ibon (Bird Watch) in Eastern Visayas. In July 2008, a new bird watching group has been formed in about fifty (50) barangays in Leyte Province.

National, regional and local mechanisms to inform and educate citizens in support of international coordination in early warning should be established and utilized.

Priority for Action 3: Knowledge Management - Building a culture of safety and resilience.

Key Achievements. A good number of sound practices are getting known and opportunities for replication are increasing. Ways to communicate and transfer sound practices effectively are being explored by NGOs, media, and training institutions with international support. Where DRR projects operate, the level of DRR awareness of local stakeholders – at both family and community level – is increasing. As a tertiary course related to disaster management has begun in a university outside the capital city, discussions on appropriate curricula and academic institutions, as well as research agenda are gaining ground among stakeholders concerned about organizing knowledge and nurturing capable disaster management professionals. The disaster consciousness month is held in July every year while awards for outstanding performance in DRR are consistently given based on timely challenges and themes. Recognition through awards has increased the quantity and quality of practices for possible replication.

Public Information/Public Awareness. The national strategy to increase DRR public awareness contained in NDCC's Four-Point Action Plan on Disaster Preparedness is centered on NDCC-organized activities but fails to marshal non-governmental and private resources effectively. The degree of awareness or knowledge enhancement every year is not measured. Neither are Gawad KALASAG awardees (recognition of excellence in disaster risk management and humanitarian assistance) gauged in terms of levels of achievement which could provide benchmarks and guide awareness raising activities in a progressive way.

Notable is the designation of the month of July as the National Disaster Consciousness Month to heighten public awareness on the importance of disaster prevention, mitigation and preparedness. During this time, simultaneous nationwide earthquake drills, search and rescue exercises, and seminars are conducted. The OCD also holds the "Gawad KALASAG" awarding ceremony during this month. The Disaster Management School-on-Air is also aired on radio every July of each year.

In the READY project, IEC campaigns are conducted and maps are disseminated to communities. Community watching exercises are done by PHIVOLCS in order for local officials and residents to be aware of the risks and vulnerability, and to provide solutions to deal with them while PAGASA teaches the educators how to track tropical cyclones and the persistence methods for them to understand disaster scenario better. Current public education programs focus on information dissemination with a “top-down” approach, rather than a “bottom-up” approach which involves local communities, NGOs and other civil society organizations’ inputs to promote greater public ownership.

Although posters are produced and distributed every year, budgetary constraints limit the development, production and distribution of other IEC materials using various media. Stakeholders should be enjoined to conduct their IEC campaigns within their organization to instil DRR consciousness among the management and staff. The message of the campaign shall be that managing risks is everybody’s responsibility; they are themselves champions of DRR.

As IEC campaigns progresses, it would be useful to assess its effectiveness. Risk communication must seriously be undertaken with a scientific understanding of how Filipinos perceive hazard, warnings, and other related aspects of DRR. Citizens are also not aware how or where to obtain information. In some cases, the use of information is not also clear to those who receive it. An information management system which addresses particular users’ needs should be designed. Networks of institutions and organizations are quite effective in linking users to access certain pieces of information.

Science and technology institutions have organized public information activities. A DOST institute, the Science and Technology Information Institute (STII) produces articles and press releases to media. Film and media are also utilized by PHIVOLCS and PAGASA extensively. On the other hand, PAGASA also conducts annual seminars on themes such as climate change and El Nino Southern Oscillation (ENSO) to have an effective understanding of the terminologies and formats of weather forecast and climate outlooks and warnings. Evaluation of information materials used and performance of resource persons including knowledge gained by participants is regularly conducted by PAGASA.

Some technical information requires a social marketing strategy to be able to reach the citizenry. Computer access is poor in many part of the country, therefore alternate ways to communicate information and data are needed to reach the right audience. Local officials have an important role to play in raising public awareness about DRR. The level of awareness about DRM among LCEs need immediate attention. Learning opportunities through seminars and fora organized by the leagues of different levels of LGUS should be utilized. Also, disaster field or exposure trips where LCEs observe good practices and talk with the people involved can be effective in increasing their motivation and equipping them with the knowledge and attitude to move DRM forward in their respective LGUs.

There is a need for NDCC to oversee relevant disaster information systems. NDCC could use the synergy from the combination of contributing information sources and consolidate the information as needed.

Network Development and Cross-disciplinary Interaction. There are existing information systems in different offices, but linkages have not been systematized to be of use to the wider disaster community. Though significant amounts of useful data and tools to prepare, plan and cope against disasters were generated over the last 3-4 years, these remain largely underutilized. For example, the Metro Manila Earthquake Impact Reduction Study (MMEIRS), completed in 2004, has proposed forty-one (41) specific recommendations based on earthquake scenarios generated from risk and vulnerability assessment of Metro Manila. However, most of these recommendations have not been acted upon. Risk scenarios are essential for planning and emergency response purposes as they are used to assess community vulnerability and indicate extent of damage for

varying hazard intensities, locations and site-specific characteristics.

Often, information generators and analysts from different agencies and the academe that have collated and studied disaster data are not aware of the local state-of-the-art equipment. This shows that professionals and researchers concerned about disasters do not have a proper forum that shall help consolidate a national information management system for DRR.

Formal Education. Disasters are part of social studies and science curriculum and values integration in the primary and secondary public school curricula. College and masteral subjects that deal with certain aspects of disasters and disaster management are offered in a few universities such as the tertiary degree course in disaster risk management in Camarines State Agricultural College and as an area of concentration for a masteral degree in public management in Bicol University. On the other hand, a more systematic way to utilize students through the National Service Training Program (NSTP) pool of volunteers in disaster response (risk management, disaster preparedness) needs to be explored. For this reason, a DRM module for the NSTP should be developed.

There is institutional commitment from the DepEd to mainstream DRR into the education sector. However, no particular office handles relevant programs; efforts run the risk of losing continuity. DepEd has for the past two years been engaged with donor-assisted collaborative projects, e.g. a study of the impact of disasters to the sector, and instructional materials on preparedness for natural and human-induced hazards for the youth, parents and community. The underlying strategy of DepEd is providing DRR training to teachers. Resilient construction of new schools is also being promoted actively.

Some NGOs have activities focused on children. Government also needs to give further attention on pre-school children's disaster preparedness.

Professional and Multi-sectoral Training. The NDCC, through the OCD, Department of Health (DOH) and other partners, has been organizing training programs for LGUs such as the Hospital Preparedness for Emergencies (HOPE) Course under the Program for Enhancement of Emergency Response (PEER) supported by NZET and USAID. In the NDCC, the role of the Philippine National Red Cross (PNRC) is to provide training in services related to disaster preparedness, safety service, health service, and social services (psychosocial first aid). NGOs, and professional organizations and private volunteer organizations (PVOs) provide training focusing on mitigation and preparedness. Training initiated by few local stakeholders such as volunteer groups and LGUs, have been noted however such practice is yet to be seen in most vulnerable communities.

DRM-relevant courses are available at the Crisis Management Institute (CMI), which is under the National Defense College of the Philippines (NDCP). A web-based distance learning course originally developed by World Bank Institute (WBI) is being hosted by Earthquakes and Megacities Initiative (EMI) and OCD. The latter began in July 2006 and has since given certificates to 141 persons who completed the basic comprehensive DRM framework course.

DRR training courses, seminars, and workshops should be progressively conducted for specific target groups from among the stakeholders. It is recommended that target groups be prioritized and a training needs assessment for prioritized groups be conducted. Relevant stakeholders conducting training should be tapped in accordance with their capacities and resources. Any national or regional plan on training should start with an inventory of training and capacity building programs.

No regular training needs assessment to cover various aspects of DRR is conducted. In the absence of a strategic plan, the role of organizations that conduct trainings are not properly appreciated in terms of a broader national and local DRM framework. Neither have tracer studies of those who were trained been systematically done. In terms of future professionalization and

human resource management issues, DRM training course organizers should consider conducting tracer studies to find out how their participants have done after receiving training.

Capacity building for PDCC, MDCC and BDCC members is high priority however, before any training activity, it is instructive to analyse the DCC. LGUs whose LDCCs need capacity building assistance need to be prioritized. The DILG launched a handbook for LGUs on a Sourcebook for Barangay DRM Training Workshop. The publication of the handbook was supported by the OCD, Philippine-Canada Local Government Support Program, and the Center for Disaster Preparedness, an NGO based in the country to promote community-based disaster management to the LGUs.

Technological and scientific institutions such as PAGASA and PHIVOLCS provide knowledge building opportunities for journalists, through annual seminars for journalists. Media with support from government, international NGOs, DIPECHO, and the Center for Community Journalism and Communication (CCJC) organized round table discussions on DRR reporting held in late 2007. A survey conducted revealed the needs of media in DRR reporting. Among the needs pertain to the fact that DRR is often reduced in importance compared with other attention-getting articles.

Targeting journalists alone is not as effective as originally thought. A strategy that considers the corporate culture of broadcasting and print media companies is necessary. Media organizations clearly expressed their need for readily available information on DRR, possibly through the internet.

Priority for Action 4: Risk management and vulnerability reduction – Reducing the risks in key sectors.

Key Achievements. Local communal actions in few disaster-affected areas ably demonstrate how far partnerships can go in making communities resilient. As a result, environmental challenges that impact on physical vulnerability in these communities are also being dealt with in a holistic way. Professional organizations and academicians are showing keen interest and getting involved in the integration of risk reduction in planning and construction through collaborative arrangements with government authorities. With monetary and technical support provided by international organizations, the government's development planning has advanced significantly in its thrust to incorporate DRR in physical planning with tools adapted to the country. Economic and financial tools and instruments such as damage and needs assessment and risk transfer mechanisms have also been receiving attention among a few sectors through opportunities offered by external support agencies.

Environmental Management/Integration with Risk Reduction Practices. While environmental and natural resource laws do provide a framework, their interpretation does not easily translate into instruments for DRR. Environmental laws cover mining, forestry, protected areas, agriculture and fisheries, wildlife resources, solid waste, toxic substances, hazardous and nuclear wastes, and pollution control. While there are laws that overlap, the links among the policies are not articulated. There is no mention of disaster risks in these laws thereby betraying the low level of awareness of past lawmakers about the linkage of environment and disasters. A 2008 National Assessment study on the environment's role in DRR states that that the Mining Act is "popularly identified" as a law which conflicts against DRR management.

Enforcement of laws dealing with environment and natural resources has not been easy. It has been known for the past decades that the decline and degradation of forests, mangroves, mountain slopes, hydrological capacity of rivers, and other natural attributes of communities have resulted in sub-optimal conditions that lead to severe disaster impacts. One measure to check illegal logging in Quezon Province is through watchdog groups. In 2004, mudslides and floods caused by deforestation have rendered farmlands useless and buried communities in three towns. DENR authorizes watchdog groups to arrest suspected illegal loggers. Alerted of rampant illegal logging in Sierra Madre mountains, a multipartite team consisting of national

government, local government, community organizations, and NGOs had been organized as a watchdog group in August 2008. From past experiences, the success of these initiatives depend whether politicians and influential families realize how negative acts set back development. In many areas of the country, local politics constrain mitigation efforts.

Local planning capacities are being sensitized to DRR by the NEDA. The NEDA is actively building awareness and capacity to mainstream DRR in land use and physical framework plans. The National Land Use Committee prepared the National Framework for Physical Planning which indicated hazard prone areas for future land use and physical plans. Some progress is foreseen as capacities of the regional development councils and development councils of provinces, municipalities and cities built to implement risk-sensitive planning. DRR is best incorporated in existing land use and environmental mechanisms and programs rather than create new ones so that these become stronger and more sustainable in the long run. Environmental threats posed by climate change also create a need to consider adaptation and mitigation policy measures relevant to DRR.²³

In consideration of the above, any DRM bill should take into account how to harmonize with the existing laws, especially environmental laws.

Social Development. Social development is challenged by factors or issues that predominate in different geographic areas. Recurring issues include those that surround conflict in Mindanao and food security covering most parts of the country. Any progress to reduce vulnerability is easily set back as intractable issues surface. Although there is increasing consciousness on finding ways to handle DRR in places where armed conflict takes place, issues related to IDPs need to be dealt with. The increase of IDPs brings out humanitarian aid concerns which are then taken up by LDCCs. The Provincial Disaster Coordinating Council of Sarangani, a 2008 Gawad KALASAG awardee, has been recognized for its comprehensive disaster contingency management program that has peace and development, resettlement and housing, and enhanced food for work as innovations. Integrating DRR into the peace building process is potentially helpful in addressing the needs of the IDPs.

Integrating DRR into support systems for the poor and victims of disasters needs to be institutionalized. Issues pertaining to food and grains, in particular and poverty alleviation, in general are dealt with in a piecemeal manner. In the case of food grains, LGUs need to enter into a formal memorandum of agreement with the National Food Authority (NFA) in order for the LGU to have ready access to the cheap staple food in case of a disaster that may result in serious grains shortage. Some LGUs have signed a memorandum of agreement (MOA) on rice credit in anticipation of any possible emergency condition.

Coping with disasters is an implicit part of poverty alleviation programs and very much associated with post-event relief activities. As one of the instruments to mobilize resources for the poor, the government's coordinating body for poverty alleviation, NAPC is also tasked to develop a policy environment for microfinance in the country's poverty reduction strategy, especially in the area of savings generation. The national policy under RA 8425 stipulates enhancing microfinance industry as a tool to fight against poverty and mitigate disaster risk. Disaster-oriented microfinance has been recognized as a safety net for people in hazard-prone areas with the possibility of offering a menu of financial products. Experience in the 2004 landslides in Quezon Province pertaining to a microfinance institution there; shows that savings and insurance instruments have the ability to protect poor members who are most vulnerable to disasters through life insurance benefits, loan redemption fund, and burial benefits.

²³ It should be noted that the terminology is interpreted differently engaging in managing climate and disaster related risks. Disaster mitigation activities relate to environmental management, land use and urban planning, and the engineering protection of critical facilities. The climate change professionals would term these disaster mitigation activities reactive adaptations (i.e., adaptation that takes place after impact of climate change has been observed). The term adaptation is "adjustment in natural or human systems in response to actual or expected climatic stimuli or their effects, which moderates, harms, or exploits beneficial opportunities (United Nations, 2006).

Microfinance services supporting disaster recovery must be part of a broader disaster risk mitigation strategy. A better understanding of microfinance and disaster mitigation is needed for poverty reduction vis-à-vis reduced negative socio-economic impacts (or losses) from a disaster. Also, environmental NGOs, DRM advocates and watchdog groups should work together by bringing the experiences and lessons learned from their respective community engagements in order to fully address economic and ecological issues in a comprehensive manner.

In addition, building on the strengths of the DSWD and in partnership with other agencies/organizations oriented towards social service (health, water and sanitation, housing), the lessons learned should be incorporated into development planning and disaster/emergency planning, especially at the local level. The LDCCs should play an active role in addressing pre-event concerns of safety and well-being of the vulnerable population and the poor communities, in cooperation with the social service providers in their respective LGUs. The cluster approach could be explored as a venue for further integrating DRR into day-to-day affairs.

Reducing Economic Vulnerability. Very little has been done to protect economic activities and productive sectors. Although some private enterprises may have business continuity plans, how well these are linked with a local government's contingency plan leaves many doubts. This is because DCCs rarely, if any, involves the private sector. The country's business center, Makati City in Metro Manila is among the few exceptions.

In the rural sector, crop insurance for palay and high value crops and livestock insurance through the Philippine Crop Insurance Corporation (PCIC) are available but many farmers do not subscribe for reasons usually ascribed to as financial. Farmers are offered annual life insurance by the PCIC worth PhP50,000 which covers death due to accidents and natural disasters. However, many farmers are not aware of the insurance.

Moreover, deterioration of forest and other environmental resources in some areas have been traced to people who exploit the natural habitat to seek ways to make a livelihood. The role of people in protecting the environment has been recognized but the links between environment and disasters appear to be less understood or ignored by different sectors in the local community.

Development priorities articulated in the MDG and the Common Country Assessment (UNDP, 2004) sets environmental sustainability as a priority. To achieve this, enhancing forestry programs, ensuring land tenure security, improving land use and productivity are part of government programs.

There are very few financial institutions which provide emergency loans to residents especially the poor whose livelihood are affected by disasters. The key players in the insurance industry and relevant government agencies should form a working group to explore risk transfer options.

In February 2008, the Government Service Insurance System (GSIS) has called on all government agencies to insure government properties. The legal basis is R.A. 656 which mandates all heads of government office to secure from the General Insurance Fund administered by GSIS all insurance covering properties and other insurable risks of natural and manmade disasters. Relevant insurance entities like PCIC and GSIS must develop a strategy to inform their respective markets. On the other hand, public and private sector can develop fiscal incentives for pro-active risk management.

Incorporating DRR Elements in Planning and Management of Human Settlements. There is likelihood that a separate and "new" planning process is reinvented to accommodate DRR. However, an added dimension into the existing one needs only to be integrated so that disaster risk and vulnerability are reduced. Current planning practices need only to be enhanced so that DRR capacities such as the use of appropriate tools at various planning levels are strengthened. For example, while GIS has diffused to the LGUs, a number of issues remain to be addressed.

These include compatibility of databases/datasets, availability of required personnel, and level of priority given by the local chief executive. In cooperation with mapping agencies, proponents of GIS-based risk assessment and integration of DRR into planning, such as NEDA, need to review data compatibility.

Suitability analysis of relocation areas should also be included among tasks in land use planning by LGUs. A collaborative working arrangement with mapping and risk assessment agencies and entities thus links with DRR partners are not only limited during the hazard event or post-event activities but also further strengthened in a broader development sense.

Enforcing the Building, Structural and Fire Codes has always been a challenge. As Makati Fire Safety Foundation, Inc. (MFSFI) has shown, inspection of buildings and establishments, and providing training and technical support, a substantial improvement in safety substantially help in increasing building and fire code compliance. The Association of Structural Engineers of the Philippines (ASEP) and the Philippine Institute of Civil Engineers (PICE) are currently reviewing the Building Code, last revised in 1992. Consultation has formally started with the first ASEP Multi-stakeholders Forum on National Structural Codes and Standards in August 2008. Efforts of such NGOs and professional organizations should be supported by government at all levels.

DRR Integrated into Post-disaster Recovery and Rehabilitation Process. There is institutional commitment to adopt working arrangements such as the cluster approach, not only to prepare for relief and response, but to reduce disaster risks in both the “hard” (e.g., resilient school buildings) and “soft” (e.g., respective tasks of each organization) dimensions of management. Since the NDCC institutionalized the cluster approach through a circular issued in 2007, some significant DRR actions have been initiated.

The cluster approach is providing a forum for stakeholders sharing a specific concern called “cluster” (for example, education) to be proactive in terms of all phases of DRM. Regular meetings of a few clusters have thus created a continuum, increasing prospects for DRR integration in the disaster cycle, including rehabilitation and recovery.

The cluster approach is also providing a mechanism among professionals and practitioners of similar interest from NGOs, INGOs, the academe, private sector and government to exchange information and proactively engage in mutually beneficial activities. With the purpose of enhancing coordinative capacities and preparedness for post-disaster and recovery, other clusters should be encouraged and supported to be actively engaged not only during and after disasters

The Building Safe Learning Environments (BSLE) Project (June 2007-June 2008) implemented by DepEd with funding support from UNICEF, Swedish and Dutch governments, covers both structural and non-structural mitigation measures in disaster-affected schools and daycare centers in four provinces. The project benefits about 60,280 schoolchildren and 1,500 teachers in 72 public elementary schools. Child-focused INGOs/NGOs or education cluster members share their resources and disseminate education materials to the schools.

In the last 2-3 years, NGOs that have provided relief and rehabilitation assistance to disaster victims are more careful to provide properly designed houses and infrastructure. Some of these NGOs which have been drawn into later recovery processes are getting more involved in developmental work such as promotion and implementation of social services and economic livelihoods. Though generally heading towards a sustainable development approach, these post-disaster activities need to be assessed within the context of development plans of the affected LGU.

Procedures to Assess Disaster Risk Impacts of Major Development Projects. Commitments to integrate DRR into their strategies, plans and programmes are steadily being carried out by government and non-governmental organizations. These are particularly evident in the public

infrastructure and education sectors, and in the pipeline among NDCC's activities is the construction of safe hospitals. The NDCC should promote the integration of DRR in other government sectors not only in their programmes and plans, but also in their procedures.

Mainstreaming DRR in the infrastructure sector (particularly national roads and bridges) is being addressed by an ADPC-NDCC project that incorporates risk impact assessment procedures before construction of new roads and bridges. The DPWH has provided a venue for other government agencies, professional organizations of civil engineers, and other interest groups through a national workshop on MDRR in the infrastructure sector. The project on mainstreaming DRR in the construction of roads and bridges highlighted several challenges that impede mainstreaming in public works and infrastructure sector. It became clear that the key to successful DRR integration in road construction was in the planning phase of the project cycle when risks are recognized through a feasibility study. If risk reduction measures were not included at the planning phase, their inclusion at latter stages is unlikely, or could be costly and inconvenient. Risk assessment should be conducted in feasibility studies and detailed engineering design. District level engineers should be trained to conduct risk assessment.

Safety of school buildings has caught the attention of DepEd. School buildings resistant to hazards are for learning and public use, serving as evacuation centers in post-disaster situations. NDCC has also partnered with My Shelter Foundation, United Architects of the Philippines, and the Private Sector Disaster Management Network in planning and organizing for the construction of innovative school buildings. Under a partnership with other civic and media organizations, the Millennium School Design Competition, an international search for a durable and environmentally-friendly design was held. The winning design will be used for the reconstruction of the Nato Elementary School in a region struck by typhoon Milenyo in 2006.

Over the last 2-3 years, some discussion began on the use of damage and needs assessment as economic and financial aspects of DRR are considered. Estimating past total damage cost in project development would provide input to cost-benefit analysis and evaluate the efficiency of mitigation and preparedness. From different existing damage estimation methods, a suitable one should be selected based on criteria after consultation among NDCC members. This activity should be linked with relevant studies about risk transfer and other economic aspects of DRR.

Priority for Action 5: Disaster preparedness²⁴ for effective response - Strengthening preparedness for response.

Key Achievements. Disaster preparedness has been strengthened at the national level. Efforts to spread the cluster coordination mechanism to different parts of the country contribute to local disaster preparedness. Its usefulness has been proven at the provincial level, cultivating a team spirit among humanitarian actors which synchronized activities by cluster. Much is achieved through regular information sharing and joint planning. Manuals and training modules for different target groups are increasing in number and quality is expected to improve from feedback with usage and knowledge building. Memoranda of agreement sealing partnerships provide a formal mechanism to clarify roles and responsibilities before, during and after disasters. Drills are integrated into school curricula and have received greater attention from the President resulting in disaster awareness among citizens.

Strong Policy, Technical and Institutional Capacities and Mechanisms for DRM. The NDCC is intensifying efforts to institutionalize DRR at the national, regional and local levels through MOAs and programs for institutional capacity building. Mainstreaming of DRR in line agencies is hampered by unresponsive organizational structures and practices that need modification and adaptation to the risk management process. LGUs need further guidance from national

²⁴ UNDP's nine (9) components of disaster preparedness: vulnerability assessment, planning as an inclusive process, institutional framework, information systems, resource base, warning systems, response mechanisms, public education (communication) and training, rehearsals.

government agencies and their regional offices to pursue DRR as an intrinsic part of a devolved function and as an element of the development strategy. A few communities though showed outstanding performance in many areas of DRR.

Good practices illustrated by Gawad KALASAG awardees have progressively shown improvements in preparedness by continuing dialogues among different stakeholders, good understanding about hazard/risk maps, mobilization towards the cluster approach, existence of updated contingency plan, regular conduct of drills, LGUs issuance of disaster-related ordinances, conduct of regular LDCC meetings, installation of early warning devices (such as flood markers), and the use of local calamity fund (LCF) for preparedness and mitigation.

Although few good cases exist, there is disconnect between national and local level capacities. It is noteworthy that in September 2008, the DILG through its regional offices conducted an “audit” to assess the disaster preparedness of LGUs and to generate benchmark information on whether provinces, cities and municipalities are prepared or not.

People in areas under armed conflict are handicapped by the peace situation in their locality. Any progress in DRR achieved may easily be rendered useless in the extreme case. Stakeholders recommend that DRR be incorporated into peace building programs to develop a ‘culture of peace promotion.’

Disaster Preparedness and Contingency Plans Prepared and Reviewed Periodically. “No disaster is the same as the last.” Therefore, stakeholders at different levels have to be alerted on this fact, and that new lessons are learned after every disaster.

In 2008, the OCD has assisted more than 50 priority provinces (total: 81 provinces) in preparing contingency plans. Other provinces will be assisted as funds become available. Based on insights from LGUs experiences, the manual on “Contingency Planning for Emergencies” for LGUs has gone through its 3rd edition in 2007. The UN Commissioner for Refugees (UNCHR) continues its support to the manual’s production, and the conduct of contingency planning and training activities.

During the annual National Disaster Consciousness Month in July 2008, nationwide earthquake drills, and search and rescue exercises were conducted. Preparedness of students with impaired hearing was demonstrated as the earthquake drill was conducted at the Philippine School for the Deaf in the National Capital Region or NCR (Metro Manila). Task Force Urban Search and Rescue NCR and OCD Region III (of Olongapo City) were launched using various response equipment in partnership with PHIVOLCS, PAGASA, MGB-DENR, and NAMRIA-DENR, the OCD facilitated the conduct of flood drills and tsunami drills all over the country.

In relation to disaster preparedness trainings, the OCD initiated the crafting of a DRM Capability Plan of the DND. Towards this end, key officers of the Armed Forces of the Philippines and DND participated in the Strategic Planning Workshop in September 2008.

The transfer of lessons learned to the whole range of target audiences is still far from satisfactory. Constant efforts to share knowledge must be exerted by training organizations, NGOs, and the academic institutions. Different media and training methods should be utilized to address particular types of audiences. The 10-minute video documentaries collected in the 2008 Oxfam DVD (Building Resilient Communities: Good Practices in DRM in the Philippines) are effective ways to transmit key messages to a variety of audiences as the actual players themselves speak from experience. Disaster field trips or exposure trips for local officials, including LCEs, should be explored as a way to learn DRM as it happens on the ground.

Updating contingency plans poses a challenge to most LGUs. Also, different hazards identified needs corresponding appropriate emergency preparedness methods by respective LGUs.

Therefore, hazard identification should be made well and scenarios analyzed as necessary. The OCD should also enable RDCCs to conduct contingency planning exercises and in turn provide assistance to the LDCCs.

Financial Reserves and Contingency Mechanisms - Establishment of Emergency Funds Promoted.

The DRM system is strapped of funds where they are essentially needed. The country's disaster management at different levels often depends on external sources of funds. While part of the national calamity fund (NCF) may be utilized for pre-disaster activities outside the regular budget of line agencies and proposed capital expenditure for pre-disaster operation, priority is however given to emergency relief operations, and repair, rehabilitation and reconstruction of public infrastructure and lifelines damaged by disasters. It should be noted though that NCF has been utilized for PHIVOLCS studies associated with two volcanoes.

Despite the availability of the LCF for practically different phases of DRM, many LGUs are not able to use the LCF strategically. Reasons for any or a combination of the following: (1) Local officials are unaware that the LCF can be used for preparedness and mitigation; (2) Local officials are wary about how spending LCF may expose them to auditing procedures of the Commission on Audit.

To deal with the issue of non-utilization of and the need for strategic use of funds, local officials should be re-oriented regarding the LCF. The topic can be taken up with more depth in seminars and training courses targeting LCEs and local government officials. This can be done through case studies showing how the LCF can be innovatively used or how funds can be strategically allocated for making their towns and cities safer.

The government and individual households bear the majority of costs caused by natural disasters, as shown by a 2005 World Bank-NDCC study. The need to study more effective options to financing disaster risk and relieving the burden from the public sector has been partly addressed by another World Bank study commencing in 2008.

Being a relatively new and unexplored subject, the study of risk transfer mechanisms may not easily find partners to collaborate with. Much of the extent to which risk transfer or sharing succeeds will depend on accurate hazard identification and vulnerability analysis. Therefore, progress in these two areas should also proceed steadily through partnerships among scientists/engineers, citizens, and politicians.

Definition of roles among the stakeholders in the cluster approach and adherence to humanitarian standards are essential in order to redirect competition to complementation and efficient working relations. As institutionalized by NDCC, the cluster approach has worked well in terms of putting together the stakeholders which share the same DRR functions like health, education, and agriculture. It has served to clarify the roles of stakeholders besides providing a mechanism for professionals and practitioners who share the same topical concerns. The cluster approach could be used for contingency planning to deal with common thematic concerns across geographic areas and agencies

Procedures to Exchange Relevant Information during Hazard Events and Disasters, and to Undertake Post-event Reviews. During hazard events, relevant information is exchanged among the key stakeholders on response and relief. The OCD operates and maintains the NDCC Operations Center (NDCC OPCEN), a 24/7 facility with continuously trained staff backed up by equipment, stable systems, and sound procedures. The NDCC OPCEN is activated into an Emergency Operations Center (EOC) in the event of a disaster. All NDCC member-agencies with disaster response mandate are required to send focal persons to the facility during the activation period to speed up coordination and information management. The facility is linked with international response systems such as the United Nations Damage Assessment Coordination (UNDAC),

International Search and Rescue Advisory Group (INSARAG), the virtual Onsite Operations and Coordination Center (OSOCC), and those within the ASEAN region. The facility needs a rapid disaster assessment and coordination system, with a reliable telecommunication infrastructure. With the adoption of the cluster approach, regional and provincial coordination is facilitated. However, there is no feedback mechanism between the NDCC and the municipalities and cities.

The telecommunication infrastructure of the NDCC OPCEN and its information management system should be constantly reviewed and updated as new lessons are learned with every disaster. The OCD through NDCC chair issues official information to the media based on reports received from the NDCC members. It is, however, observed that data gathering methods among the members differ and need to be harmonized. Parties which gather data during hazard events should exchange notes about their methods and procedures. On the basis of agreed criteria, agreements can be made and formalized through an NDCC memorandum.

Post-event reviews that involve various stakeholders are not regularly conducted. However, a significant post-event review of the December 2006 typhoon in Bicol region was undertaken through a “lessons learned” workshop five months after the disaster. This workshop was organized by the NDCC and the UNDP. Post-event reviews have been found useful by various stakeholders and therefore support for these activities must continue. Documentation of the findings and recommendations should be made available to practitioners, academe, and science community to contribute to the overall body of knowledge about DRM.

National Government Expenditure for Disaster Risk Reduction

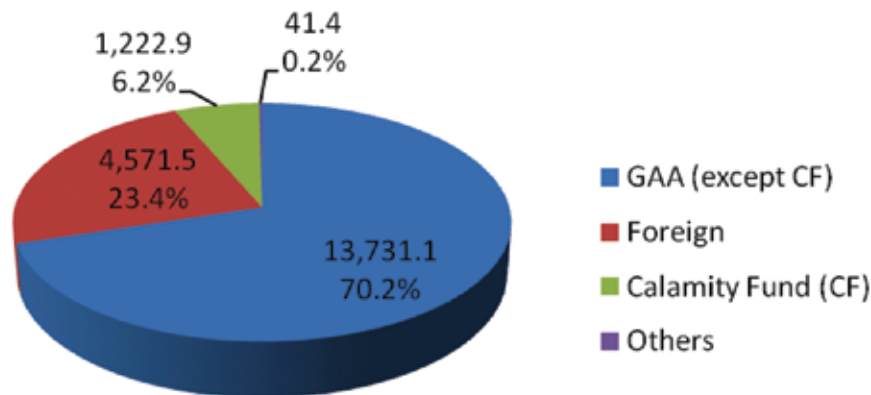
In February-March 2009, the SNAP Task Force convened budget and planning officers of government agencies and the PNRC and for the first time attempted to determine the level of national government expenditure on DRR for budget year 2008. Although preliminary in nature, the indicative estimates offer a point of reference for succeeding budget years.

Budget allocation for DRR by national government is approximately PhP20 billion. If the compulsory 5 percent allotment by each agency is assumed appropriated and spent accordingly, an additional amount of PHP 15 billion is estimated. The amount is from various sources: the GAA (Republic Act No. 9498) – 70%, foreign (counted as ODA) – 23.3%, calamity fund – 6.2%, and other sources – 0.2%. Transfers between government agencies are part of the ‘other’ sources. An example is the Department of Tourism acquiring services of the Crisis Management Institute (DND) to implement training courses and thus providing the maintenance and operating expenses (MOOE) of the activities.²⁵

The current level of national government expenditure for DRR based on Fiscal Year 2008 General Appropriations Act complemented by international funds and inclusive of the annual national calamity fund appropriation is nearly equal to the damage losses incurred during that year. The amount is nearly equal to the damage losses incurred during that year. Damage loss that year is 0.31% of the gross domestic product (GDP).

Between 1990 and 2008, the highest estimated direct economic loss to the country was 2.6% of the GDP. The recorded damage was PhP28.4 billion (at current prices in 1990) on top of losses in lives, social and environmental assets of communities. At constant 2000 prices, the average annual direct damage is estimated at PhP15.3 billion from previous disasters between 1990 and 2008 based on NDCC data.

²⁵ Preliminary calculations indicate the following breakdown: capital outlay, PHP 7.7 B (39%); maintenance and operating expenses, PHP 7.4 B (38%); and personnel services, PHP4.5 B (23%).



Total DRR expenditure: PHP19.6 billion

Figure 1. Breakdown of national government expenditure on DRR for FY 2008 (in million Philippine pesos).

Excluding the calamity fund, the national government expenditure for DRR is 70% of the total. In 2008, both mitigation and preparedness activities account for almost 69% (also excluding cost of flood control measures). The remaining 31% is for relief and reconstruction.²⁶ Relief, rehabilitation and reconstruction are partly covered by the calamity fund which comprises 6.1% of the total. Foreign funding is about 23% of the total DRR expenditure. Almost the entire amount of PhP4.5 billion was utilized by DPWH for flood control and drainage projects. The second largest user of international funds is PAGASA for installation of monitoring equipment and facilities, hazard mapping and assessment activities at a far PHP7.9 million. A significant amount has been provided to the Philippine government by international organizations for mitigation projects such as READY (about US\$4.3 million or PhP210 million over a four year period).²⁷

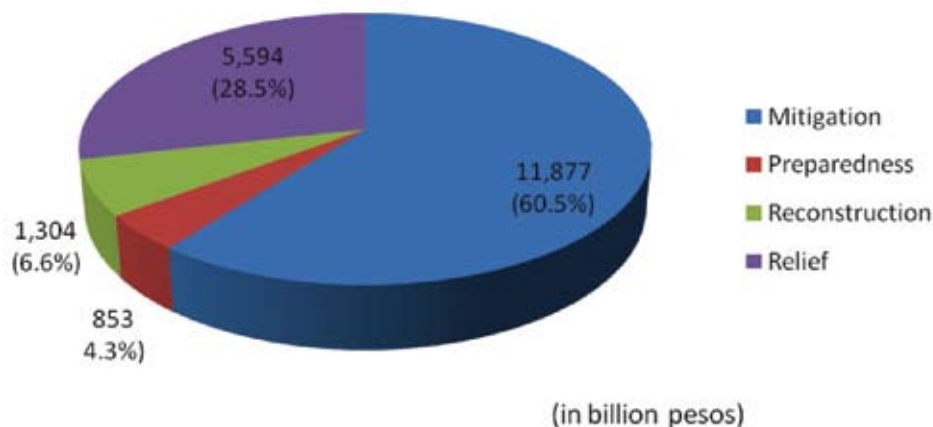


Figure 2. Breakdown of national government expenditure on DRR in terms of disaster phase.

Post-disaster experiences since 2005 have led to a significant shift from relief and response to mitigation and preparedness. Fiscal year 2008 saw a substantial amount coming from foreign

²⁶ In 2007, the Calamity Fund reached a level of PHP10 B, increased by the Calamity Assistance and Rehabilitation Effort (CARE) to Typhoon Victims which was intended for rehabilitation, repair and reconstruction works and activities in areas damaged by typhoons Milenyo, Paeng, Reming, and Seniang. Funds for specific purpose were made available to the implementing agency with recommendation from the NDCC, except for PHP2 B which went directly to the DepEd for the repair/rehabilitation of classrooms and school buildings. The implementation phase of projects spilled over to 2008 and eventually 2009/2010. Only a portion of this spill-over was captured by submissions made to attain the workshop objectives, particularly DSWD's PHP247 M (of the PHP750 M allocation) for Core Shelter Assistance, Livelihood Assistance and Cash for Work.

²⁷ Calculated at US\$ 1 = PHP49.

sources such as the United Nations organizations. Foreign-funded projects have significantly added to build capacity in risk assessment and other fundamental areas where local resources are augmented by foreign funding. This enables the use of science and technology expertise needed to carry on DRR tasks meaningfully and sustainably.

Partners' contribution such as that of PNRC's PhP817 million for training is not yet appropriately placed within the context of a nationwide-scale capacity building program. A road map such as the SNAP can help ensure complementation between government and its partners, or filling of gaps in areas where government is not engaged. It shall be noted that in the NDCC structure, the PNRC is the sole NGO member of the NDCC.

Summary

Numerous projects and activities have been undertaken by various Philippine stakeholders. Some of these efforts have been valuable experiences for those who have been involved; however, sustaining the positive results have always been constantly threatened.

There are indications that these positive results have not simply penetrated day-to-day affairs or businesses. Old practices of doing things remain and existing organizational and societal structures do not allow the gains to thrive in the decision-making environment as well as operational setting.

Although human (or technical) and financial resources are often committed, in-kind contribution must not however be neglected. Partnerships between government and private entities – public-private partnerships have been done spontaneously when need arises or in a few instance, formalized through memorandum of agreement (or understanding). These significant moves, however, do not fall under a general strategic plan of action where the contribution of each stakeholder is seen in terms of the larger whole, particularly through the lens of national safety or resilience.

Threats remain if the level of awareness about dealing with hazards is low and when little focus on risks is considered whenever one is faced to make a decision. In the worst case, this behaviour may manifest a 'culture of disasters' rather than a 'culture of prevention.' The example of Australia and New Zealand can be instructive here. Both countries adopted risk management standards²⁸ which set into motion a wide-ranging set of activities spurring government and private sectors to re-think and ultimately adopt the risk management framework into their business philosophy and day-to-day operations. The message is that risk awareness must penetrate all levels of government, and in household, firms, and offices.

At the operation level, the commitment of budget for DRR is not yet a practice. Putting up separate office to handle DRR is a suggestion often made but doing so puts strain in the government bureaucracy. The example of APSEMO can be enlightening. Some ideas to resolve the issues or to address the needs have been offered above mainly based on existing documentation. In the following section, strategic actions and responses obtained from the national dialogues and consultations are laid down.

²⁸ Standards Australia, 2004 Risk Management Standard (AS/NZ 4360:1999 rev. 2004); Standards New Zealand, 2000 HB 4360:2000: Risk Management for Local Government, Wellington.



strategic actions/
responses



working together

Strategic actions/responses are derived from the national dialogues²⁹ through a SWOT analysis whereby strengths for planning can be used and the impact of weakness for/in planning reduced. The periods in which these are realistically achievable are distinguished in relative terms (for example: level of implementation - policy level, programme level/project level; spatial scale: national, regional local, barangay). The timeframe is also decided based on the availability of resources.

About 150 strategic actions/responses were proposed in the national dialogues. In the National Assessment study, an agenda of 89 actions were suggested. A convergence of the actions from the two sources is observed. When combined, the actions are clustered into five strategic objectives and 18 programs/projects. By so doing, the overall motivation driving each action is not lost but kept alive with a broad purpose fitting into the large scheme of a national action plan. Figure 1 presents the five strategic objectives under which the 18 priority SNAP programs/projects are classified.



Figure 3. SNAP Strategic Objectives.

Table 1 shows a matrix containing the program/project title, objective(s), activities, key proponents, partners, period (or timeframe) and estimated budget/funding sources. A program or project consists of activities which can be undertaken short-term, medium-term, and long-term.³⁰

²⁹ Second National Dialogue, Mandaluyong City, 29-30 April 2008; Third National Dialogue, Cebu City, 23 May 2008. The Third National Dialogue focused on issues in the Visayas and Mindanao from where most of the participants came from.

³⁰ Short-term or immediate priority for implementation (2009-2012): Do-able with current resources; Medium-term: high priority but government may be constrained by limited resources (2009 -2015); Long-term: a priority for a long term commitment (2009- 2019) requiring additional resources.

The next paragraphs introduce the strategic objective, the programs/projects relevant to the objective, the corresponding outputs/outcomes, and description with brief contextual background. Profiles of each the 18 priority programs/projects are in Annex G.

Strategic Objectives, Priority Programs/Projects and Respective Outputs

Strategic Objective I: Enabling Environment. Adopt a responsive policy and legal framework which creates an enabling environment for all Filipino citizens and the government and guides them towards reducing losses from disaster risk.

1. Governance: Disaster Risk Management (DRM) Act. *A legislation to institutionalize disaster risk reduction to every agency of the government.*

The Philippines has undergone major socio-political changes since PD 1566 of 1978 which has the same procedures like its precedent, the Executive Order 335 issued by President Manuel L. Quezon in anticipation of the World War II breaking in the Pacific. Worldwide, the emphasis has also moved from “disaster” side of the balance sheet to the “management” side. The current legislation perpetuates an outdated and reactive disaster response structure; organizational and administrative arrangements fail to utilize the country’s resources effectively and efficiently. Several studies have pointed out the need for a strategic framework to guide all stakeholders. One local study³¹ asserts that key stakeholders including CSOs indicate that ‘what is actually happening on the ground may not be stipulated in national-level disaster management initiatives and laws.’ The country depends on the international community for disaster-related assistance, but international donors are shifting support from emergency relief to integrating disaster risk management into development activities.³² The country needs a law that will complete mainstreaming of DRM in planning and day-to-day business thus strengthening the country’s proactive position to reduce disaster risk. The latest proposed DRM Act filed at the Senate satisfies the basis for establishing the institutions, protocols and the programs to reduce disaster risks nationwide. With support from the Executive Branch and the House of Representatives, the goal of making DRR a way of life can be achieved.

2. Multi-Stakeholder Dialogues on DRR. *Regular mechanism developed for increase DRR advocacy.*

Since 2008, the NDCC has actively engaged stakeholders in arenas of discussion which has led to improved information exchange and strengthened partnerships. Other sectors of Philippine society such as professional organizations and the business sector are also actively engaged in knowledge and experience sharing through academic meetings or chamber of commerce gatherings. Government in cooperation with these stakeholders and international community can hold regular dialogues which will serve as platform for DRR. The existence of a mechanism to bring together DRR advocates outside of the NDCC circle is critical in building public awareness on reducing disaster risks. Such dialogues will ensure sustainability of cross-sectoral meetings such as regular cluster meetings and national conferences on DRR. A secretariat will be responsible for organizing logistics and schedule of relevant activities to be circulated among the national dialogue participants or a wider network through different media including the internet. A link shall be established among the DRR-related meetings and fora.

³¹ Carlos, C. (2001), The Philippine Disaster Management Story: Issues and Challenges. Manuscript, National Defense College of the Philippines, Quezon City, in Neil Britton, Getting the Foundations Right: In Pursuit of Effective Disaster Legislation for the Philippines, 2nd Asian Conference on Earthquake Engineering 2006, March 10-11, 2006, and Manila.

³² The Paris Declaration of Aid Effectiveness of 2005 asserts the relevance of disaster and emergency assistance to sustainable development and poverty reduction. The Paris Declaration of Aid Effectiveness is an international agreement endorsed by over 100 ministers, heads of agencies and other senior officials committed their countries and organizations (which includes international financial institutions) to increase efforts in harmonization, alignment, and managing aid for results with a set of actions and indicators.

3. Institutionalization of Disaster Management Office (DMOs). *Established DMO with facilities, manpower and budget*

A few LGUs have established 'new' administrative structures or arrangements within their own particular contexts and needs. Pioneering in this effort is the Albay Province in establishing the APSEMO in 1995. APSEMO is a provincial-level DMO, which initially took the lead in disaster response and rehabilitation activities, but has adopted the role of a key development player in provincial and regional strategic plans. Other municipalities and cities which experienced severe disasters thereafter have looked at the first DMO as a model but are not predisposed to such a move. More importantly, devising an alternative structure to the existing one must be based on a solid rationale. This requires an analysis leading towards a legal and administrative framework at the national and local levels, and guidelines such as one on the use of a Sanggunian resolution. Political commitment both from the Executive and the Legislative Branches must also be assured.

4. Enhancing Capacity Development of Disaster Coordinating Councils. *Capacitated LDCCs - trained, equipped, prepared for response.*

Many LDCCs are not capable of carrying out the disaster-related tasks and responsibilities. The NDCC has intensified its training program in order to build capacity among DCCs. Also, the OCD has updated the manual for LGUs on "Contingency Planning for Emergencies" in October 2007. The usage of this manual can be assessed to further understand and address issues and gaps. Capacity building of DCCs at all levels needs to be sustained from province to barangay. At the time of this writing, DILG shall have gathered baseline data on the state of disaster management in LGUs. A more systematic process of capacity development will make sure that progressive improvements will be made over a period of time. A system of prioritizing LGUs may be devised in tandem with a set of target indicators to monitor progress.

5. Mainstreaming DRR into the Peace Process. *"Winning the hearts and minds of the people in the conflict areas."*

As part of the peace process in Mindanao, establishing the legal framework at the national level and the legal basis on the Mindanao autonomy are also on going. The region is also highly vulnerable to hazards such that disaster risk reduction essentially is part of the issue of internally displaced persons (IDPs) in the peace talks. Aided by risk and vulnerability assessments, disaster-related concerns can be an entry point for negotiations. In the same manner, mitigation measures regarding IDPs can be tackled. DRR needs to be mainstreamed in the process to deal with the underlying factors of risk and thus deal with poverty alleviation and development as well.

6. Mainstreaming DRR in Various Government Plans and Programs.

- ▶ *Impacts of risks on development programs and projects well recognized in government plans,*
- ▶ *Measures to reduce vulnerability and to increase capacity to cope with disasters integrated in plans, programs and projects, and*
- ▶ *Measures identified to ensure that programs and projects do not contribute to further risks.*

Existing national development plans and programs do not adequately address the recurring negative effects of disasters. Also, most sectoral and local plans do not sufficiently consider DRR. However, the ongoing initiative on mainstreaming DRR in sub-national planning at the NEDA provides a turning point in this regard. In order to go on with the adjustments required and further expansion to all levels, programs and projects should be enhanced in terms of how well disaster risks are reduced and subsequently prioritized to ensure budget allocation. For example, measures to ensure that programs and projects do not contribute to further risks must be put in place and implemented adequately. Advocacy activities for the effective use of

the Guidelines on Mainstreaming in Sub-national Development and Land Use/Physical Planning must be undertaken to further reduce vulnerability and risks impacts of development programs and projects. This project makes certain that development planning processes advance to fully integrate DRR.

Strategic Objective 2: Financial and Economic Soundness. Pursue cost-effective ways and means to offset socio-economic losses from disasters and prepare the nation for disaster recovery.

1. Public-Private Partnership (PPP).

- ▶ *Partnership arrangements among stakeholders,*
- ▶ *Memoranda of agreement or understanding forged with business sector, NGOs and other groups, and*
- ▶ *Resources generated.*

Government and private partnership in DRR contributes much to offset or reduce disaster impact or losses. With NDCC member-agencies promoting partnerships on DRR among stakeholders, effective and efficient utilization of available resources for DRM programs redound to the safety and well-being of citizens. There is a need to understand the underlying mechanics of putting these partnerships to optimal use. Based on the results of the analysis, innovative instruments for creating space for the public and private sectors to work together can be devised.

2. Resource Mobilization. *Inventory of available resources; strategic approach to mobilizing resources for DRM.*

The current system regarding DRR allocation can be described as follows. The OCD, together with the Department of Finance (DOF) and the Department of Budget and Management (DBM), mobilizes resources for response. Allocation of budget for DRM among NDCC members is being promoted through a memorandum circular. Relevant national government agencies source out funds from financial institutions for large-scale projects such as those involving mitigation measures like reforestation and infrastructure.

In light of these circumstances, there is a need for a strategic approach to mobilizing resource for DRM. Institutionalizing DRR into policies and day-to-day business should be supported by understanding of factors affecting disaster mitigation and preparedness, such as the current dedicated budget allocation and the resource needs in view of the goal to achieve resilience.

Strategic Objective 3. Supportive Decision Making for an Enlightened Citizenry. Use the best available and practicable tools and technologies from social and natural sciences to support decisions by stakeholders in avoiding, preventing, and reducing disaster impacts.

1. Information and Database Generation. *Topographic maps and nautical charts, disaster information management system.*

Baseline data and information are important for appropriate hazard, vulnerability and risk assessment and effective disaster response. Such data are useful for understanding past, present and future, and therefore for decision making at any point in time. These data are presently dispersed in various offices and may not necessarily be in a suitable format. These need to be collated and organized into a comprehensive information system. An information system that serves specific users and purposes in a consistent manner is desired. Data collection must also be organized so that data are updated regularly and disseminated when needed (e.g., for forecasting and early warning). Means of dissemination can be devised based on demand of particular target groups.

2. Knowledge Management. *Supportive decision-making and an enlightened citizenry.*

DRM as a field of study is relatively recent in the Philippines. Being multi-disciplinary, it cuts across engineering, natural and social sciences. A large amount of intellectual capital and best practices are generated in the Philippines and various parts of the world. Where much uncertainty remains, managers and ordinary citizens alike need input for practical decisions based on sound science and useful innovations. There is a need to systematize available knowledge resources on disaster risk reduction needed by a variety of local audiences. Directions for research and development on risk factors and their mitigation can be guided over the long term.

3. Supporting DRR: Mainstreaming through Sectoral Approach. *Decisions supported by tools and technologies that facilitate the financial and economically sound mainstreaming of DRR.*

Current schemes do not necessarily embed DRR in activities and processes of day-to-day business. DRR measures for each sector can be synchronized and harmonized with development thrusts and planning procedures. Towards this direction, the NDCC has had mainstreaming projects with the ADPC in the areas of sub-national development and physical planning, infrastructure sector (particularly roads and bridges), and education sectors during the period 2007-2008 and continuing to the present. The initiatives to mainstream DRR have been stimulated through donor funded projects.

For DepEd and DPWH the focal departments that implement the 'mainstreaming projects' for infrastructure and education respectively, 'special offices' are utilized for the purpose. In other words, these are dealt on project basis. Transitioning to "real mainstreaming" requires appropriate integration into policy formulation planning and design of development programs and projects and thus institutional and organizational resources, processes and linkages are properly utilized in order not to worsen the risk level or create new forms of vulnerability. Other sectors not covered by the above studies, should be examined and improved accordingly.

4. Preparedness for Effective Response. *Enhanced preparedness strategies including coordination mechanism and infrastructure.*

There is a constant need for reviewing preparedness for disaster response, particular under a new set of circumstances set off by the DRM framework and the other priority SNAP programs and projects. Mobilizing resource for response requires a strategic approach. Unbalanced and uncoordinated responses during disasters will persist unless protocols are established. Having standard operating procedures (SOPs) on effective responses will make interventions meaningful and resource spending cost effective. Holding of dialogues and exchanging information to strengthen coordination between disaster practitioners and development workers are essential. The approach includes utilizing volunteerism and participation in order to make disaster response more effective.

Strategic Objective 4. Safety and Well-being Enhancement. Increase capacity, reduce vulnerability and achieve improved public safety and well-being.

1. Information, Education and Communication (IEC) Campaign. *A comprehensive national DRR IEC program developed and implemented.*

There are advocacy campaigns such as "Pag Alerto, Malayo sa Peligro" and others undertaken by various groups. These have been undertaken without fully understanding the level of DRR awareness among citizens. There is also a need to assess how much media knows about DRR. If media and relevant message carriers are well equipped with the right information, they can truly popularize DRR and DRM. Dissemination of IEC materials and awareness raising of communities

and organizations is essential to ensure support, participation and cooperation for reduce disaster risk. Different forms of media need to be more effectively used in communicating to issue warning and to educate people.

2. Institutional and Technical Capacity Building. *Strengthen institutional environment and build capacity for DRM on the ground.*

Gaps in disaster management in the Philippines have been pointed out in several studies. The capacities of individuals and institutions on DRR are limited and inadequate, especially that the shift to mitigation and preparedness has been made. Disaster issues need to be addressed in the context of capacity assessment with a view of desired future capacities. Thus, institutional and capacity building shall be based on an understanding of capacity assets and needs. Capacity development strategies shall strengthen the institutional environment and build up capability for disaster risk management on the ground.

3. Education and Research.

- ▶ *For Education: Disaster risk management professionals and other human resources,*
- ▶ *For Research: Results of basic and applied DRR research program.*

As pointed out earlier, the multi-disciplinary study of disasters is relatively recent. Whereas education in the natural sciences such as geology and engineering are well established, academic foundations in the social sciences (public administration, geography, economics, planning, sociology) and cross-disciplinary studies appear to be tangential in not only providing a capable work force but also in creating a research base upon which disaster risk reduction can thrive. There is need to ensure that a critical mass of disaster professionals and researchers is produced to satisfy the country's demand and sustain a viable source of input for deepening knowledge on disasters in the country. A disaster research and technology development (DRTD) agenda based on an assessment of research needs is critical for the country. Research is needed in the areas of interface of climate change and disaster risk reduction, impact prediction, early detection and warning systems.

4. Forecasting and Early Warning. *Enhanced monitoring, forecasting and hazard warning.*

Developing appropriate EWS requires a number of activities that depend on collaboration among stakeholders. They require understanding and mapping different hazards, technologies for monitoring and forecasting impending events, processing and disseminating understandable warnings to political authorities and the population, and undertaking appropriate and timely actions in response to the warnings, and review/update of contingency plans and drills/rehearsals. They provide information so that individuals exposed to the hazard can take action and prepare to respond effectively. Given the challenge of an archipelagic country and variety of hazards the Philippines experiences, there is a continuous need to make effective and timely forecasting and EWS available to communities.

The components of this proposal require an appropriate design based on social methods of analysis as well as the involvement of natural scientists and engineers. Although NGOs and other stakeholders have on going efforts, it is to their advantage and to the object of their activities (i.e., community residents) that field work results are reported in the on going dialogues. Including this subject in a disaster-related science and technology program also will be most beneficial for disaster research in the country.

5. Risk Evaluation. *Assessed risks that need monitoring.*

Risk assessment creates the core of DRM process. It is on the basis of assessed risks that mitigation and preparedness activities may be determined. A robust system, that helps government and

citizens know the physical and environmental risks they are exposed to, is necessary to deal with natural hazards. This project requires input such as base maps and historical records from the information system as well as knowledge base. Appropriate methods for assessment of vulnerability and risks are agreed upon and utilized for their regular conduct. Assessment results serve as input to scenario building and estimation of damage losses, thus they assist in making preparedness and recovery plans. As a substantial amount of resources are required, progress in this area has been supported by foreign funding, as shown by the READY project. A system of priorities in terms of public and critical facilities, and vulnerable towns/cities and barangays may be strategically established.

Strategic Objective 5. Implementation and Evaluation of DRR. Monitor and assess progress on DRR and prepare better for disasters in terms of identified risks and early warning.

1. Development of Tools for Assessment and Monitoring of DRR Measures. *Monitoring and evaluation (M&E) tools.*

An ongoing initiative of NEDA is the selection of vulnerability and capacity assessment tools that will make it possible to produce baseline data as a starting point for meaningful monitoring. This project addresses the need to monitor and assess the socio-economic impacts of programs and projects, including the underlying risk factors. Appropriate monitoring and evaluation tools will be utilized and upgraded while applying lessons learned to prepare better for disasters.

Local and regional differences became evident after the results of the Second and Third National Dialogues were put side by side. In the Third National Dialogue, armed conflict issues were raised. Peace advocacy and peace building have been included as a component under “enabling environment”. It was also evident that the stakeholders appreciated the fact that risk levels and exposures to hazards are not the same for all LGUs and that inter-regional linkages may have to be established according to need, i.e., when earthquake fault zones or flood-prone areas are shared.

A consolidated list of actions proposed at the multi-stakeholder workshops is found in Annex H. The list strives to retain the linguistic preference of the participating stakeholders; however a few needed to be re-worded to conform to a suitable unifying framework as part of the synthesis process. Financial and economic soundness, as well as implementation and evaluation of risk reduction are generic to any program or action plan. Accordingly, no attempt is made to prioritize the relevant action. It is strongly recommended that these two strategic objectives be incorporated in the detailed planning and design of projects.

The five strategic objectives are further classified into two types. One type is “generic”, i.e., suitable in a variety of projects or actions and therefore can be commonly applied to all. The other is “specific”, which means the objectives are distinct. Thus, among the five strategic objectives, financial and economic soundness, and implementation and evaluation of DRR (particularly monitoring progress) are the generic ones. The remaining three are of specific nature wherein components shall include measures to ensure the project is economically and financially sound, and monitoring is in place.

The strategic actions are defined also in terms of the timeframe. To further consolidate the actions which dialogue participants identified, profiles of the programs/projects are provided. These profiles identify the priority objective, output, activities, partner institutions/stakeholders, and time frame. Some identified strategic actions are found suitable as activities in a particular project. Apart from these proposed projects, strategic actions do-able immediately and those that require further study are also categorized. The programs/projects can be distinguished from the other two by specifying a time frame.

HFA Online Monitor

In terms of regularly keeping track of the progress on how well HFA goals are achieved, a system of indicators in an online template called HFA Monitor has been adopted by the country with technical assistance from UNISDR and UNDP Bangkok offices. The country's authorities may adopt additional indicators to monitor the implementation of DRR activities. Indicators can justify priorities and financial requirements of DRR activities. As completed by the OCD, the report can be accessed online through the Prevention website.

Summary

All of the 18 programs/projects are considered essential to achieve the goal of disaster resilience at the community and country level. They also suggest what spheres of activities might be undertaken by key DRR stakeholders. Some activities are meant to be conducted over the long-term and most likely sustained as a regular part of day-to-day operations and planning process, while others are more product-oriented and achievable over the short, medium, or long-term with accompanying resource requirements. The sourcing out of funds and other resource requirements is a challenge that needs met fairly early so that these programs/projects are implemented.

The SNAP programs/projects may be placed under an arbitrary categorization as follows:

Ground-breaking: No specific government agency has explicitly been undertaking the proposed activities in a comprehensive manner.

No. 5 Mainstreaming DRR into Peace Process

No. 18 Development of Tools for Assessment and Monitoring of DRR Measures

High-momentum: By virtue of advocacy by the NDCC, CSOs, and in certain activities, impetus provided by the international community, work proceeds at a quick and steady pace but nevertheless requires being watchful and focused in a concerted way.

No. 1 Disaster Risk Management Act

No. 3 Institutionalization of Disaster Management Office

No. 12 Preparedness for Effective Disaster Response

No. 16 Forecasting and Early Warning

No. 17 Risk Evaluation

High-maintenance: Those systems and mechanisms that were put in place from the past legal and institutional framework are faced with challenges in terms of changing from outdated disaster-focused practices to an orientation towards multi-hazard DRM. In order to achieve maximum benefit from the state-of-the-art of DRR, significant resources are needed.

No. 4 Enhancing Capacity Development for Local Disaster Coordinating Councils

No. 6 Mainstreaming DRR in Various Government Plans and Programs

No. 11 Supporting DRR Mainstreaming through Sectoral Approach

Requisite: Basic components to comprise a re-invigorated DRM are vital to the country's success in reducing disaster losses.

No. 2 Multi-Stakeholder Dialogues on DRR

No. 8 Resource Mobilization

No. 9 Information and Database Generation

No. 13 Information, Education and Communication Campaign

No. 14 Institutional and Technical Capacity Building

No. 15 Education and Research

Emerging: Seeds have been planted but progress has been slow. The activities are relatively "new" and "uncharted" although experiences in other countries have proven successful; thus, an innovative approach is required.

No. 7 Public-Private Partnership

No. 10 Knowledge Management

Table 1. Strategic National Action Plan (SNAP) on Disaster Risk Reduction, 2009-2019
PRIORITY PROGRAMS and PROJECTS

No.	SNAP Program Project	Background	Objective	Activities	Output	Agency of Primary Responsibility (APR)	Partners
I. ENABLING ENVIRONMENT. Adopt a responsive policy and legal framework which creates an enabling environment for all Filipino citizens and the government and guides them towards reducing losses from disaster risk.							
1	Governance: Disaster Risk Management (DRM) Act	The country needs a law that will complete the mainstreaming of DRM. The latest proposed DRM Act filed at the Senate satisfies the basis for establishing the institutions, protocols and the programs to reduce disaster risks nationwide. With support from the Executive branch and the House of Representatives, the goal of making disaster risk reduction (DRR) a way of life can be achieved.	Strengthen the country's legal, institutional and policy framework for DRR	<p>Short Term (2009-2010):</p> <ul style="list-style-type: none"> ▶ Hold fora on DRR as well as advocacy and lobbying activities for the Senate and House of Representatives. ▶ Conduct advocacy activities for the passage of the DRM law ▶ Formulate a national policy on DRR <ul style="list-style-type: none"> ▶▶ Form advocacy network groups of all DRM stakeholders for concerted lobby efforts for the enactment of the new DRM Act ▶▶ Consolidate and integrate all documented efforts and initiatives on DRR in the country ▶▶ Build consensus on appropriate institutional and administrative set-up to deal with DRR that can be incorporated into the comprehensive DRM Act <p>Note: The national policy deals with the following among others:</p> <ul style="list-style-type: none"> ▶▶ Adopting provisions that are based on the level of identified risks and vulnerabilities of local government units (LGUs)/regions ▶▶ Adopting provisions that will settle or harmonize policies related to DRR functions such as health, environment, agriculture, trade, land use planning, finance, public works, and others ▶▶ Designating the lead organization to plan and manage DRR programs ▶▶ Stating the responsibilities of the State, national and regional agencies, government corporations, local chief executives, business establishments, building contractors, and community residents ▶▶ Requiring that LGUs should have designated bodies to carry out DRR planning and confirming the roles of Department of Interior and Local Government (DILG), Department of Budget and Management (DBM) and Civil Service Commission (CSC) in the process ▶▶ Requiring that DRR be an integral part of the country's science and technology plan ▶▶ Requiring that the Medium-term Philippine Development Plan (MTPDP) consolidates government investment projects related to DRR 	A legislation to institutionalize DRR in all agencies of government	OCD	OP DSWD DILG PIA NAPC

No.	SNAP Program Project	Background	Objective	Activities	Output	Agency of Primary Responsibility (APR)	Partners
				<ul style="list-style-type: none"> ▶ Requiring that technical capacities related to DRR be strengthened in the fields of emergency management, risk assessment, early warning, recovery planning, among others ▶ Requiring the adoption of measures dealing with economic vulnerability and to factor in financial soundness in DRR ▶ Providing mechanisms and principles for coping with emerging risks and complex emergencies 			
2	Multi-Stakeholder Dialogues on DRR	<p>The existence of a mechanism to bring together disaster risk reduction DRR advocates outside of the National Disaster Coordinating Council (NDCC) circle is critical in building the public consciousness on reducing disaster risks.</p> <p>Regular cluster meetings and national conferences on DRR are significant on partnership and consensus building activities.</p>	Hold multi-stakeholder dialogues on DRR to strengthen the foundations for DRR	<p>Short-term to Long-term (2009-2019)</p> <ul style="list-style-type: none"> ▶ Develop regular dialogue mechanism such as regular national conferences, meetings and fora ▶ Hold dialogues to provide inputs on current status, needs and future work on DRR ▶ Hold DRR summit/national conferences ▶ Increase probability of replicating good practices through documentation, reporting and dissemination of good practices on DRR 	Regular mechanism developed for increased DRR advocacy	OCD	OP DILG DepEd DOST DOTC PIA PNRC LGUs
3	Institutionalization of Disaster Management Office	The existence of a permanent facility on the local level that handles the planning and implementation of DRM programs and projects is crucial in sustaining the momentum of disaster management of the ground	Promote the establishment of DMOs at local levels especially in those high risk LGUs	<p>Short term (2009-2010)</p> <ul style="list-style-type: none"> ▶ Inventory of functional LDCCs ▶ Identification of existing DMOs in the country ▶ Prioritization of LGUs that require DMOs <p>Medium term (2011-2015)</p> <ul style="list-style-type: none"> ▶ Provision of technical assistance to target LGUs to facilitate the passage of Sanggunian resolution mandating the establishment of DMOs 	DMOs established (facility, manpower and budget)	DILG	DBM OCD NEDA CSC LPP LCP LMP LB

No.	SNAP Program Project	Background	Objective	Activities	Output	Agency of Primary Responsibility (APR)	Partners
4	Enhancing Capacity Development for LDCCs	P.D. 1566, NDCC issuances, and the 4PPADP exist. However many LDCCs are not capable of carrying out the disaster-related tasks and responsibilities.	Enhance capacity of LDCCs to fully implement DRR programs and projects	Short-term to Long term (2009-2019) <ul style="list-style-type: none"> ▶ Continuous conduct of trainings (i.e. geographic information system (GIS), skills training, etc. ▶ Standards setting in the development of training modules and Standard Operating Procedures (SOPs) ▶ Search and Rescue (SAR) equipage ▶ Establish protocols and procedures on incident command system (ICS) 	LDCCs are self reliant and capacitated (trained, equipped, prepared for response)	DILG	PNRC LPP LCP LMP LB CSOs
5	Mainstreaming DRR into the Peace Process	Setting the legal framework at the national level and the legal basis on the Mindanao autonomy are ongoing. Disaster risk reduction needs to be mainstreamed in the process to deal with the underlying factors of risk.	Develop trust and confidence of the communities to the government agencies involved in peace keeping process. Protect and pre-serve the life and property of internally displaced persons (IDPs). Protection on the rights of women and children in conflict affected areas.	Short-term to Long term (2009-2019) <ul style="list-style-type: none"> ▶ Integrate DRR topics to the community-based disaster risk management (CBDRM) and peace process training activities and programs; ▶ Organize partner NGOs for the peace and development process; ▶ Capacity building for the LCEs in the Autonomous Region in Muslim Mindanao (ARMM) and other areas with IDPs on DRM and peace building; ▶ Support the AFP's infrastructure building projects 	"Winning the hearts and mind of the people in the conflict area"	AFP OPAPP	DILG Relevant LGUs MEDCO CSOs
6	Mainstreaming DRR in Various Government Plans and Programs	Existing plans and programs do not sufficiently address the recurring negative effects of disasters. Most sectoral and local plans do not sufficiently consider DRR ongoing initiative.	Integrate DRR in government systems and processes	Short -Term (2009-2010): <ul style="list-style-type: none"> ▶ Orient the sectoral representatives of NGAs and LGUs on the advantages of mainstreaming DRR in development planning, investment programming/financing, and project evaluation and development ▶ Build consensus on improved development planning processes that integrate DRR ▶ Advocate for the use of the Guidelines on Mainstreaming in Sub-national Development and Land Use/Physical Planning 	Impacts of risks on development programs and projects well recognized in government plans Measures to reduce vulnerability and to increase capacity to cope with disasters integrated in	NEDA	NGAs LGUs CSOs Private sector

No.	SNAP Program Project	Background	Objective	Activities	Output	Agency of Primary Responsibility (APR)	Partners
					plans, programs and projects Measures identified to ensure that programs and projects do not contribute to further risks		
II. FINANCIAL AND ECONOMIC SOUNDNESS. Pursue ways and means to offset socio-economic losses from disasters and prepare the nation for disaster recovery.							
7	Public-Private Partnership (PPP)	Government and private partnership in DRR contributes much to offset or reduce disaster impact or losses. With the NDCC member-agencies promoting partnerships on DRR among stakeholders, effective and efficient utilization of available resources for DRM programs redound to the safety and well-being of citizens.	Establish an enabling environment with innovative instruments for creating space for the private sector to increase its contribution to risk reduction activities	<p>Short-term (2009-2010):</p> <ul style="list-style-type: none"> Establish compliance mechanism for business sector on DRR standards Develop a manual on DRR for private sector, NGAs, and LGUs Engage telecommunication firms as partners on DRR advocacy (i.e. free text messages on emergencies/disasters) Involve private companies and NGOs in the monitoring of infrastructure with the OCD handling coordination <p>Medium-term (2011-2015):</p> <ul style="list-style-type: none"> Establish policies on handling disaster management fund and contributions by businesses industries and private sector Allot pre-disaster funding as part of disaster preparedness coordination with partner organizations <p>Long-term (2016-2019):</p> <ul style="list-style-type: none"> Develop SOPs on monitoring, warning, and response for LDCCs and organizations working on DRM (pre, during and post-disaster periods). Inform, educate and mobilize local NGOs, business communities, housing developers on prevention and mitigation 	Partnership arrangements among stakeholders established through memorandum of agreement or understanding forged with business sector, NGOs and other groups	OCD	DOTC DILG PIA PNRC GSIS PCCI KBP SOFI

No.	SNAP Program Project	Background	Objective	Activities	Output	Agency of Primary Responsibility (APR)	Partners
8	Resource Mobilization	The OCD jointly with the Department of Finance (DOF) and the Department of Budget and Management (DBM) mobilize resources for response. Allocation of budget for DRM among NDCC members is being encouraged through a memorandum circular. Relevant national government agencies source out funds from financial institutions for large-scale projects such as those involving mitigation measures like reforestation and infrastructure. There is a need for a strategic approach to mobilizing resource for DRM.	Develop common understanding of resource needs for disaster mitigation and preparedness Institutionalize DRM into day-to-day business, policies and actions of organizations	<p>Short-term (2009-2010):</p> <ul style="list-style-type: none"> Inventory of available resources and generation of other sources that would be required to support mainstreaming of DRR Develop manuals and protocols for the proper utilization of available resources Generate funds from private sector and other stakeholders including funding support from international donors for DRR activities and other mitigation measures Evaluate the use of local calamity funds (LCF) Develop directory of available financing windows for LGUs <p>Medium-term (2011-2015):</p> <ul style="list-style-type: none"> Educate and promote insurance schemes among farmers, local communities and responders Encourage hazard insurance coverage for government, private infrastructures, and other business establishments <p>Medium-term to Long-Term (2011-2019):</p> <ul style="list-style-type: none"> Develop of training modules for financial management training for LGUs 	Inventory of available resources for DRR	DBM	DOF NEDA OCD
III. SUPPORTIVE DECISION-MAKING AND AN ENLIGHTENED CITIZENTRY (SCIENCE-BASED DECISION-MAKING AND LEARNING LESSONS). Use the best available and practicable tools and technologies from social and natural sciences to support decisions by stakeholders in avoiding, preventing, and reducing disaster impacts.							
9	Information and Database Generation	Base data and information are important for appropriate hazard, vulnerability, risk assessment and disaster response. These need to be updated regularly.	Organize data collection and dissemination processes according to risk knowledge needs and develop information systems to support decision makers	<p>Medium-term (20011-2015):</p> <ul style="list-style-type: none"> Develop inventory of elements at risk (i.e. critical infrastructures such as hospitals and schools) Generate/update topographic/base maps and nautical charts Devise a disaster information management system to handle database, profiling, and statistics Devise mechanism to organize databank and share information for rapid/joint damage needs capacity assessment Standardize formats of database information system 	Disaster information management system with updated data sets	OCD DOST	DENR DSWD DPWH DILG DOH DOTC AFP NEDA

No.	SNAP Program Project	Background	Objective	Activities	Output	Agency of Primary Responsibility (APR)	Partners
10	Knowledge Management	There is a need to systematize available knowledge resources on DRR needed by diversified stakeholders.	Ensure appropriate information and data are shared with all stakeholders.	<ul style="list-style-type: none"> Standardize data collection and processing methods for disaster documentation and reporting Capacitate BDCCs and MDCCs in the collection, reporting, and documentation of data on damages 	DRR enlightened citizenry	DOST DENR	DSWD DOE OCD PNRC
				<p>Long-term (2016-2019):</p> <ul style="list-style-type: none"> Develop disaster information and database at all levels Develop and adopt a common spatial database Establish DRR database from national to local levels 			
				<p>Short-term (2009-2010):</p> <ul style="list-style-type: none"> Map out available knowledge resources <p>Medium-term (2011-2015):</p> <ul style="list-style-type: none"> Collate and disseminate good practices on DRR for replication Validate local knowledge and mainstream scientific knowledge <p>Long-term (2016-2019):</p> <ul style="list-style-type: none"> Support reflective learning and dissemination of DRR information Sustain research and development on risk factors and their mitigation 			
11	Support DRR Mainstreaming through Sectoral Approach	Disaster risk reduction measures for each sector can be synchronized and harmonized with development thrusts and planning procedures.	Ensure the implementation of the national DRR policy through its integration into the sectoral plans and programs.	<p>Short-term (2009-2010):</p> <ul style="list-style-type: none"> Institutionalize disaster management system at local levels, e.g., health emergency Integrate DRR into the Comprehensive Land Use Plan (CLUP) vis-a-vis DRR in LGUs local planning processes Review city/municipal land use plans taking into account the areas risk profile Integrate contingency planning in CLUPs <p>Medium-term (2011-2015):</p> <ul style="list-style-type: none"> Formulate a national framework for climate change adaptation and DRR for LGUs Intensify implementation of poverty reduction programs in disaster prone areas. Build LGU capacity to effectively mainstream DRR in governance Strengthen mainstreaming of DRR using science and technology 	Decisions supported by tools and technologies that facilitate the financial and economically sound mainstreaming of DRR	OCD	DILG DOST DOE NEDA HLURB NAPC

No.	SNAP Program Project	Background	Objective	Activities	Output	Agency of Primary Responsibility (APR)	Partners
				<p>Long-term (2016-2019):</p> <ul style="list-style-type: none"> ▶ Mainstream DRR in government's planning tools, e.g., Medium-term Philippine Development Plan (MTPDP), Regional Physical Framework Plan (RFPF), Provincial Physical Framework Plan (PPFP), Comprehensive Development Plan/Executive-Legislative Agenda (CDP/ELA), Annual Investment Plan (AIP) ▶ Assist provinces in the review of CLUPs of component cities (including database methods for disaster risk assessment and management) through regional ties ▶ Establish an organized and systematic damage and needs assessment (DANA), health, fire, rescue, relief and evacuation system at the local level ▶ Mainstream DRR in other development themes: across all sectors i.e. gender, child friendliness, health, elderly, persons with disabilities (PWD), etc 			<p>DILG DOH NEDA NAPC</p>
12	Preparedness for Effective Disaster Response	<ul style="list-style-type: none"> ▶ Unbalanced and uncoordinated responses during disaster will persist unless protocols are established. Having SOPs on effective responses will make interventions meaningful and resource spending cost effective. ▶ Holding of dialogues and exchange information to strengthen coordination between disaster practitioners and development workers is essential ▶ Mobilizing resource for response requires a strategic approach. ▶ Utilizing volunteerism and participation can make disaster response more effectively. 	Enhance disaster preparedness capacities and requirements including multi-stakeholder coordination	<p>Short-term (2009-2010):</p> <ul style="list-style-type: none"> ▶ Improve immediate response to disasters ▶ Strengthen networking with stakeholders ▶ Involve private companies and NGOs in coordinating and monitoring the building of infrastructures ▶ Establish joint and collective inter-agency mechanisms ▶ Evaluate implementation of contingency planning in LGUs ▶ Conduct scenario-based simulation exercises 	Enhanced preparedness strategies including coordination mechanism and infrastructure	OCD	<p>DSWD DOH DPWH AFP PNRC</p>
				<p>Medium-term (2011-2015):</p> <ul style="list-style-type: none"> ▶ Construct multi-purpose structures with adequate facilities which can also serve as evacuation centers ▶ Establish inter-regional disaster response system ▶ Utilize cluster approach for contingency planning to deal with common thematic concerns across geographic areas and agencies 			<p>DOST DepEd</p>

No.	SNAP Program Project	Background	Objective	Activities	Output	Agency of Primary Responsibility (APR)	Partners
IV. SAFETY AND WELL-BEING ENHANCEMENT. Increase capacity, reduce vulnerability and achieve improved public safety and well-being.							
13	Information, Education and Communication (IEC) Campaign	<ul style="list-style-type: none"> There is a need to assess on how much media knows about DRR and the impact of the advocacy campaigns such as "Pag Alerto" Media can truly popularize DRR if the message carriers are equipped with the right information. Dissemination of IEC materials and raising of awareness of communities and organizations are essential to ensure support, participation and cooperation. Media needs to be more involved in communicating, warning and educating people on DRR. 	Increase the level of DRR awareness and competencies of concerned stakeholders	<p>Short-term (2009-2010):</p> <ul style="list-style-type: none"> Assess the level of DRR awareness and ongoing activities e.g., "Pag Alerto" Campaign Survey DRR activities of media organizations Draw up guidelines for national, regional and local campaigns based on results of survey and review Develop alternate means of communications on DRR such as websites, etc Identify, develop and implement new elements of national DRR IEC program <p>Medium-term (2011-2015)</p> <ul style="list-style-type: none"> Conduct an impact assessment on the new IEC program. 	A comprehensive national DRR IEC program developed and implemented	PIA	DILG DepEd DOST DENR DOH OCD
14	Institutional and Technical Capacity Building	Limited and inadequate capacities on DRR	Strengthen institutional environment and build up capacity for DRR on the ground	<p>Short-term (2009-2010):</p> <ul style="list-style-type: none"> Conduct systematic assessment of institutional and technical capacities of implementing agencies and other stakeholders <p>Medium-term (2011-2015):</p> <ul style="list-style-type: none"> Conduct DRR capability building programs for key response and coordinating agencies of NDCC as well as for sector agencies (infrastructure, education, health, water resources, housing, tourism, transportation, etc.), and LGUs 	Enhanced apacity assessment and capability building programs on DRR.	OCD	DILG DOH NEDA

No.	SNAP Program Project	Background	Objective	Activities	Output	Agency of Primary Responsibility (APR)	Partners
15	Education and Research	There is need to ensure that a critical mass of disaster professionals is produced for the country's needs and that general knowledge on DRR has deepened.	Provide means to advance knowledge and application for DRR	<p>Education</p> <p>Short-term (2009-2010):</p> <ul style="list-style-type: none"> ▶ Develop DRR publications and training materials ▶ Integrate DRR subjects in tertiary education curriculum; modules for primary and secondary schools ▶ Support teachers' training program with technical assistance from DRR experts and warning organizations <p>Medium-term (2011-2015):</p> <ul style="list-style-type: none"> ▶ Integrate DRR into formal and informal education ▶ Develop human resources through specialized courses on DRR ▶ Establish a National DRR Training Institute ▶ Conduct special training programs for women, and youth, and local community residents 	Disaster risk reduction and other human resources	DepEd CHED	DOST DENR DILG DOH PNRC DAP NDCP
				<p>Research</p> <p>Medium-term (2011-2015):</p> <ul style="list-style-type: none"> ▶ Formulate a national agenda for research and technology development on DRR ▶ Conduct research on identification of development sectors, ecosystems, and geographical areas most vulnerable to climate change and impact prediction ▶ Package best practices on DRR for replication in other areas ▶ Conduct research on indigenous technologies for detecting and forecasting calamitous events 			
16	Forecasting and Early Warning	There is a continuous need to make effective and timely forecasting and early warning systems available to Philippine communities.	Enhance monitoring, forecasting, and warning of hazards.	<p>Short-term (2009-2010):</p> <ul style="list-style-type: none"> ▶ Institutionalize public announcement systems and local emergency broadcast system <p>Medium-term (2011-2015):</p> <ul style="list-style-type: none"> ▶ Procure equipment and establish facilities for hazard monitoring ▶ Develop localized disaster early warning systems <p>Long-term (2016-2019):</p> <ul style="list-style-type: none"> ▶ Establish community-based early warning systems for various hazards ▶ Train and tap LGUs for hazard monitoring 	Enhanced monitoring, forecasting and hazard warning	DOST	DILG DOH DENR DOST OCD PNRC PIA

No.	SNAP Program Project	Background	Objective	Activities	Output	Agency of Primary Responsibility (APR)	Partners
17	Risk Evaluation	A robust system that helps government and citizens know the physical and environmental risks they are exposed to is necessary to deal with natural hazards.	Identify, assess, and monitor risk	<p>Medium-term to Long-Term (2011-2019):</p> <ul style="list-style-type: none"> Identify and evaluate risk of public and critical facilities (e.g., government buildings, dams, airports) Conduct hazards mapping and assessment at town/city to barangay levels Conduct vulnerability assessment on a regular basis 	Assessed risks that need monitoring	DILG	DENR DPWH DSWD DOST NEDA PICE ASEP
V. EVALUATION AND MONITORING OF DRR. Monitor progress and prepare better for disasters. (Stakeholders are representatives of all governmental and non-governmental agencies and organizations with a role in disaster preparedness, from disaster risk reduction and disaster response.)							
18	Development of Tools for Assessment and Monitoring of DRR Measures	There is no monitoring and evaluation tools to assess the socio-economic impacts of completed DRR programs and projects. However, vulnerability and capacity assessment tools are being developed to come up with baseline data.	Equip stakeholders with appropriate assessment and monitoring tools to deal with underlying risk factors	<p>Short-term (2009-2010):</p> <ul style="list-style-type: none"> Formulate M&E manuals, tools and procedures to assess benefits and impacts of DRR programs and projects Develop key performance indicators (KPIs) to measure outputs <p>Medium-term (2011-2015):</p> <ul style="list-style-type: none"> Implement and monitor risk management tools to deal with identified risk factors Upgrade and utilize appropriate vulnerability and capacity assessment tools Continue M&E of completed programs and projects and apply the lessons learned to prepare better for disasters 	DRR Monitoring and evaluation (M&E) tools	NEDA	DENR DOST DBM



implementing issues

Pre-requisites. The SNAP is to be adopted with proper grounding on prior obligations and prerequisite inputs and actions.

Responsibilities. The new DRM law shall explicitly state responsibilities of citizens and levels of government. Japan's legal framework concretely specifies the responsibilities of the State, the local government units, designated national and local public corporations, public organizations, administrators of establishments and lastly, "residents under local government are obligated to contribute toward the cause of disaster prevention by taking their own measures to prepare for disaster and by participating in voluntary disaster prevention groups, etc." In addition to what is provided for in the preceding paragraph, residents shall contribute toward the cause of disaster prevention by taking their own measures to prepare for disaster and by participating in voluntary disaster prevention groups etc.

Emerging risks. Complex emergencies, cascade of hazards, and extreme weather events are just a few emerging risks. In the past, the system tended to be sidetracked by 'new' risks and the shortage of time to intently reflect on lessons. It is only prudent to anticipate worst future scenarios.

Administrative structure. Establishing a DMO at the local level is commonly proposed. Experience shows that under present laws, this is difficult to do unless LCEs make DRR a priority. As listed among the priorities above, what is basic is an administrative structure with adequate personnel, budget and logistics that are commensurate with the local risk profile and development needs of the LGU.

Implications to the local environment. Points to establish in any locality prior to a DRR strategy involve a review of:

- ▶ Legal framework (i.e. ordinances)
- ▶ Inter-agency collaboration, institutional arrangements and budget allocation
- ▶ Professional and disciplinary involvement
- ▶ Characteristics at different levels: individual/household/community/barangay/district/city-municipality/province/region

Barangay level institutional capacity. Priority actions at the barangay level in terms of disaster preparedness relate to setting-up of EWS, development of communication protocols, and development of evacuation procedures.

Mechanisms and incentives. Political figures such as legislators, high government officials, and LCEs can constrain the implementation DRR. For fear of property devaluation, politicians are known to have influenced declaration of high risk areas when hazard maps are produced. Also, sound practices may cease to work when the local chief executive changes. Often, PNRC forges an MOU with the LGU to ensure status quo arrangements. For proper implementation and sustainability of the Community-Based Flood Early Warning System project of PAGASA, MOA and board resolution were forged with the local government units. Incentives to modify the politician's behaviour may be needed.

Stakeholder competition. Definition of roles among the stakeholders, the cluster approach among in early recovery, and adherence to humanitarian standards are essential in order to redirect competition to complementation and efficient working relations.

Effective aid mechanisms. As government budgets are clearly allocated for DRR, aid from international financial institutions shall be adjusted accordingly. The SNAP can be an effective tool in re-directing aid to where it is really needed.

Formal collaborative mechanisms. Formal mechanisms in place are task forces, committees, memoranda of agreement or understanding, and joint trainings. Other formal mechanisms that may be explored or intensified are the following: creation of liaison positions or groups; transfer of staff between agencies; sending copies of reports to heads of other agencies and concerned organizations; adherence to a single report format by two or more cooperating agencies; contracting out an independent monitoring and evaluation entity; merging of agencies; and creation of incentives (financial, promotional, professional) to encourage working on joint projects.

Informal collaborative mechanisms. Informal collaborative mechanisms are equally useful for DRR. Some informal mechanisms are: lending of resources (personnel, transport) by one agency/entity to another on an informal basis; use of informal information systems by decision

makers; encouragement of informal communication between agency staff (through weekend staff retreats, interagency sports competition, occasional seminars); having participant agency offices in the same location; periodic meetings of agency decision makers on an informal basis; staff participation; use of supportive management style by agency; and utilization of bargaining strategy with other actors rather than reliance on present rules.

Communicating risks. The ability of stakeholders to contribute to the cause of DRR is commensurate to their understanding of risks. For example, media personnel may communicate risks differently from a scientist, but what matters most is the recipient of the message. It is, thus, first useful to communicate risks in an appropriate way.

Strategic use of funds. Given budget constraints, organizations and agencies are usually in need of external funds. However, committing budgets for specific actions considered priority and effective over the long term is an essential step towards meeting the strategic objectives of this action plan. It is critical to determine to what extent and how can other sources of fund support for DRR from NGOs and other partners.

About half (PhP10 billion) of the total national government expenditure for DRR for FY 2008 from the budget allocation, calamity and foreign funds can be identified as contributing to the SNAP objectives and can therefore be directly linked with the SNAP priority programs/projects/activities (excluded are DPWH's flood control and drainage projects, DOH Health Emergency System, DepEd's repair and reconstruction of school buildings, and DSWD's use of the calamity fund for relief and recovery assistance projects). This indicates that stakeholders can build on this experience and synchronize activities in a better way under a road map. While this remaining half do impact on DRR, the crux of the matter is ensuring that mechanisms are put in place to mainstream such relevant activities into development planning with purposeful adherence to the principles of the HFA.

Mainstreaming the Sectors. The SNAP opens opportunities to further integration of current practices into a DRR framework in a more effective manner. For example, in the public works' sector, impacts from the flood control and drainage projects which cost PhP8 billion in 2008 can be maximized using further input from risk assessment. Efforts in the health, tourism, agriculture, transportation and communication, trade and industry, social welfare, the lifelines and other sectors need to be marshalled so they can synchronized DRR efforts at different levels.

Drivers of progress. The UNISDR identifies drivers of progress³³ that can affect the HFA strategic actions and outcomes. These are: multi-hazard approach, gender perspective and cultural diversity, community and volunteer participation, mechanisms for capacity building and technology transfer. These issues are location specific requiring prior appreciation as part and parcel of carrying out any activity.

Project management. The OCD has served as the Secretariat and Executive Arm of NDCC over the years. There has been no significant capability building and transfer of know-how to the OCD staff in the various projects undertaken by the council. In order that interim activities and actual projects for SNAP are coordinated, a program management office can be set up at OCD. This is similar to the Foreign-Assisted Projects Office (FAPSO) in other NGAs like DENR and Department of Agrarian Reform (DAR). The FAPSO manages and coordinates the support services that are funded by official development assistance from bilateral and multilateral sources.

Review system. Monitoring, evaluation, and reporting on the progress of DRR implementation require a system that can be comparable with those of other countries. The UNISDR guidelines and HFA template are suitable for the purpose.

³³ These were referred to as crosscutting issues in HFA, but were changed to "drivers of progress" as DRR itself is a crosscutting issue, as explained in the HFA Monitor Template.



moving ahead



The SNAP is a road map which can serve as a guide within the next ten years to make the Philippines a safer place to live and work in. The country's commitment to DRR needs to be reflected in the agenda of institutions and plans of decision makers. There are certain prerequisites in which the action can be purposely taken in accordance with what the stakeholders have identified.

The SNAP has a greater prospect of being put into practice if the Philippine legislature enacts a progressive bill to amend the current reactive posture that PD 1566 posits. During the national multi-stakeholder dialogues, the need for a new DRM law incorporating the tenets of the HFA has been pronounced. A DRM act shall enable the utilization of strengths and opportunities of stakeholders organize resources and coordinate activities for the best outcomes in support of poverty reduction and sustainable development.

With regard to the timeframe to achieve national development goals, SNAP timelines can be compared relative to other plans as shown in Figure 4.

	YEAR																		
Plans/Goals	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
UNMDG																			
MTPDP																			
NSTP2020																			
NPFP																			
HFA																			
SP-CBDRM																			
SNAP						short term			medium term					short term					

Figure 4. Strategic planning timelines relative to SNAP. (Note: UNMDG: United Nations Millennium Development Goals; MTPDP: Medium-Term Philippine Development Plan; NSTP2020: National Science and Technology Plan, 2002-2020; NPFP: National Physical Framework Plan, 1993-2022; HFA: Hyogo Framework for Action 2005-2015; SP-CBDRM: Strategic Plan to Integrate Community-Based Disaster Risk Management (CBDRM) to the Socio-economic Development Processes in the Philippines, CY2007-2011; SNAP: Strengthening Disaster Risk Management in the Philippines: Strategic National Action Plan, 2009-2019.)

The SNAP is strategically scheduled to commence in 2009, two years prior to the completion of the current MTPDP. Its short-term strategic actions are timed to be completed at the same time as the Strategic Plan to Integrate Community-Based Disaster Risk Management (SP-CBDRM). More importantly, SNAP's medium-term period is timed with the completion of the HFA and the

targeted year of the UNMDG (2015). Much synergy can be realized during the periodic review of the 30-year National Physical Framework Plan (NPFP) and the National Science and Technology Plan (NSTP) by 2020.

The SNAP rightfully fits into a DRM framework for the country. Within this framework, SNAP also incorporates mainstreaming elements that are only too pervasive in the strategic actions identified by the stakeholders. Mainstreaming shall underpin the national DRM framework. The SNAP, therefore, pushes for the incorporation of a DRM section in the MTPDP, integration of DRR into sectoral plans, inclusion of DRR in the Philippine Investment Plan, and making DRR a regular budget item. This ushers in a new era wherein stakeholders play its role in the serious pursuit of making communities and the country resilient.

Good outcomes obtained by the initiatives of various stakeholders should not be allowed to dissipate but should be buttressed by nurturing of individuals who comprise the DRR field. Subscribing to the principle of subsidiarity, SNAP encourages each stakeholder to take care of what it can do best in a spirit of solidarity having shared goals with constituted authority (Stohr, 2001). A key undertaking is that stakeholders from allied professions must put their collective knowledge together. Through learning from experience and systematic study backed up by state-of-the-art social and natural sciences, people who can make DRR a reality can continually provide the input to make laws work and institutions function. Ensuring a steady flow of qualified people to take up DRR tasks presents a challenge to all countries especially in the context of shifting from response to preparedness and mitigation.

To set the stage for SNAP, therefore, multi-stakeholder dialogues must continue. A national dialogue will bring together the sound practices to the fore and help acquaint stakeholders with DRR and promote cross-learning among them. It is essential to continue to funding and holding national and regional dialogues devoted on DRR. These activities may serve as impetus for stakeholders who may have been left out in the past. The INGOs have been supporting the conduct of these dialogues; business and industry organizations may also be tapped to get involved by providing resources. The private sector may recognize DRR as part of corporate social responsibility

In the present institutional set-up, it appears that the cluster approach has worked well in terms of putting together the stakeholders which share the same DRR functions such as health, education, and agriculture. At the national level, this mechanism can be used to jumpstart projects of common interest. Each cluster shall review the relevant proposed actions contained in the SNAP. As some of the proposed strategic actions are already in progress, task forces may be set up within the cluster mechanism to assess how the existing project may be carried out under new circumstances, i.e. in the context of SNAP. For example, the advocacy “*Pag Alerto Malayo sa Peligro*” can be designed and carried out with more vigor, after a review and while involving the media and other relevant stakeholders. New projects generating from SNAP can be taken up in a similar manner as funding sources are identified.

Apart from integration into the MTPDP, implementation of SNAP should also be anchored on the Country Framework Plan of the UNDP in order to assure that preparedness and mitigation projects are undertaken strategically and in synchronization with donors’ programs. Looking to the future

challenge of coping with hazards, the country shall need to review the SNAP periodically and adopt priorities based on need for succeeding years after 2019.

To a certain extent, foreign donors had a sizeable influence on the shift from relief and response to preparedness and mitigation by making funds available for projects of the latter type. The trend to promote preparedness and mitigation is continuing and is aligned with the HFA. Emphasis on pre-disaster activities is certainly the direction to take for such focus is needed as lessons of recent past lessons have consistently shown.

Ensuring access to information related to the SNAP shall also be pursued by the NDCC. The SNAP website can serve as a forum for all stakeholder groups including the media. The regional offices of OCD shall be the information channels to the LGUs where internet access may be limited. Stakeholders who have participated in the national dialogues shall be enjoined to conduct IEC campaigns within their organization to instill DRR consciousness among the management and staff. The message of the campaign shall be that managing risks is everybody's responsibility – from the leaders – the President to the legislator, to the LCE – to the worker, fisherman and farmer, and to the child at school.



annexes

Annex A

List of Participating Organizations

1st National Multi-stakeholder Dialogue on Disaster Risk Reduction
Renaissance Hotel, Makati City, 29-30 April 2008

Food and Agricultural Organization (FAO)
International Federation of Red Cross (IFRC)
International Labor Organization (ILO)
International Organization for Migration (IOM)
United Nations Children's Fund (UNICEF)
United Nations International Strategy for Disaster Reduction (UNISDR)
United Nations Development Programme (UNDP)
United Nations Habitat
United Nations Office for the Coordination of Humanitarian Affairs (UNOCHA)
United Nations Populations Fund (UNPF)
World Food Programme (WFP)
World Health Organization (WHO)
Australian Agency for International Development (AusAID)
Canadian International Development Agency (CIDA)
Japan International Cooperation Agency (JICA)
Asian Development Bank (ADB)
World Bank (WB)
European Embassy
Spanish Embassy in the Philippines
Asian Disaster Preparedness Center (ADPC)
Office of the Executive Secretary (OES)
Presidential Management Staff (PMS)
Office of the President (OPS)
Department of Interior and Local Government (DILG)
Department of Public Works and Highways (DPWH)
Department of Science and Technology (DOST)
Department of Social Welfare and Development (DSWD)
Department of Labor and Employment (DOLE)
Department of Environment and Natural Resources (DENR)
Department of National Defense (DND)
Department of Health (DOH)
Department of Agriculture (DA)
Department of Education (DepEd)
Department of Finance (DOF)
Department of Energy (DOE)
Department of Tourism (DOT)
Department of Foreign Affairs (DFA)
Department of Telecommunications and Communications (DOTC)
Armed Forces of the Philippines (AFP)
Philippine National Red Cross (PNRC)

Philippine Information Agency (PIA)
 Philippine National Police (PNP)
 National Mapping and Resource Information Authority (NAMRIA)
 Philippine Atmospheric, Geophysical, and Astronomical Services Administration (PAGASA)
 Philippines Institute of Volcanology and Seismology (PHIVOLCS)
 Mines and Geosciences Bureau (MGB) - DENR
 National Economic and Development Authority (NEDA)
 Metro Manila Development Authority (MMDA)
 National Anti-Poverty Commission - Victims of Disasters and Calamities (NAPC-VDC)
 National Defense College of the Philippines (NDCP)
 Office of Civil Defense Central Office
 Office of Civil Defense Regional Centers
 Regional Disaster Coordinating Council (NCRPO, Regions 2,4A, 7, and CARAGA)
 Albay Public Safety and Emergency Management Office (APSEMO)
 League of Municipalities in the Philippines
 National Energy Corporation (NEC)
 National Transmission Corporation
 Local Water Utilities Administration (LWUA)
 National Irrigation Administration (NIA)
 National Water Regulatory Board (NWRB)
 National Telecommunications Commission (NTC)
 Bureau of Fire Protection (BFP)
 Philippine Amusement and Games Corporations (PAGCOR)
 Senate House of Representatives
 Lower House of Representatives
 Private Sector Disaster Management Network (PSDMN)
 Gawad Kalinga Foundation
 Accion Contra El Hambre
 Ateneo School of Government
 Center for Disaster Preparedness (CDP)
 Earthquakes and Megacities Initiative (EMI)
 Manila Observatory
 Oxfam Great Britain (OGB)
 Leyte Center for Development Incorporated (LCDI)
 Infanta Integrated Community Development Assistance Incorporated (ICDAI)
 Buklod Tao
 PBS-RTVM
 Philippine Star
 DZMM
 GMA 7
 MNTV 37

List of Participating Organizations

2nd National Multi-stakeholder Dialogue on Disaster Risk Reduction

Edna Shangri-La, Mandaluyong City, 29-30 April 2008

International Federation of Red Cross (IFRC)
International Organization for Migration (IOM)
United Nations Children's Fund (UNICEF)
United Nations International Strategy for Disaster Reduction (UNISDR)
United Nations Development Programme (UNDP)
United Nations Economic and Social Development in Asia and the Pacific (UNESCAP)
United Nations Office for the Coordination of Humanitarian Affairs (UNOCHA)
Australian Agency for International Development (AusAID)
European Commission on Humanitarian Aid Organization (ECHO)
German Agency for Technical Cooperation (GTZ)
Japan International Cooperation Agency (JICA)
United States Agency for International Development (USAID)
Department of Interior and Local Government (DILG)
Department of Budget and Management (DBM)
Department of Public Works and Highways (DPWH)
Department of Science and Technology (DOST)
Department of Social Welfare and Development (DSWD)
Department of Labor and Employment (DOLE)
Department of Environment and Natural Resources (DENR)
National Mapping and Resource Information Authority (NAMRIA)
Philippine Atmospheric, Geophysical, and Astronomical Services Administration (PAGASA)
Philippines Institute of Volcanology and Seismology (PHIVOLCS)
Mines and Geosciences Bureau (MGB) - DENR
Association of Structural Engineers in the Philippines (ASEP)
National Economic and Development Authority (NEDA)
Metro Manila Development Authority (MMDA)
National Anti-Poverty Commission - Victims of Disasters and Calamities (NAPC-VDC)
National Defense College of the Philippines (NDCP)
Office of Civil Defense – National Disaster Coordinating Council
Office of Civil Defense (NCR, Regions 1, 2, 3, 4A, 4B and 5)
Regional Disaster Coordinating Council (NCRPO, Regions 1, 2, 3, 4A, 4B and 5)
Provincial Disaster Coordinating Council (Bulacan, Sarangani, Pampanga, and Sorsogon)
Albay Public Safety and Emergency Management Office (APSEMO)
Municipal Disaster Coordinating Council (Camalig, Daraga, Guinubatan, and Labo)
Center for Community Journalism and Development
Development Academy of the Philippines (DAP)
International Institute of Rural Reconstruction (IIRR)
Private Sector Disaster Management Network (PSDMN)
Philippine Rural Reconstruction Movement (PRRM)
PNOC - Energy Development
SAC Infanta Prelature
Gawad Kalinga Foundation
Universidad de Sta. Isabel

Local Government Leagues (ULAP, LPP, LCP, LMP, and LMB)
Radio ng Bayan
World Bank (WB)
World Health Organization (WHO)
Asian Development Bank (ADB)
Asian Disaster Preparedness Center (ADPC)
European Embassy
Spanish Embassy in the Philippines
Senate House of Representatives
Lower House of Representatives
Department of National Defense (DND)
Office of the Executive Secretary (OES)
Presidential Management Staff (PMS)
Office of the President (OPS)
Department of Justice (DOJ)
Department of Health (DOH)
Department of Agriculture (DA)
Department of Education (DepEd)
Department of Finance (DOF)
Department of Trade and Industry (DTI)
Department of Energy (DOE)
Department of Tourism (DOT)
Department of Foreign Affairs (DFA)
Commission on Higher Education (CHED)
Armed Forces of the Philippines (AFP)
Philippine National Red Cross (PNRC)
Philippine Information Agency (PIA)
Philippines Institute of Civil Engineers (PICE)
Philippine Coast Guard (PCG)
Philippine National Police (PNP)
National Housing Authority (NHA)
Accion Contra El Hambre
Ateneo School of Government
Balay Rehabilitation Center
CARE International Philippines
Center for Disaster Preparedness (CDP)
Christian Aid Foundation
COPE Foundation Inc.
DMCC Barrio Obrero
Earthquakes and Megacities Initiative (EMI)
Save the Children Federation – US
Manila Observatory
Philippine Press Institute
Ramon Magsaysay Memorial College
World Vision Development Foundation
Oxfam Great Britain (OGB)
Plan International Philippines

List of Participating Organizations

3rd National Multi-stakeholder Dialogue on Disaster Risk Reduction

Waterfront Hotel, Cebu City, 23 May 2008

United Nations International Strategy for Disaster Reduction (UNISDR)
United Nations Development Programme (UNDP)
German Technical Cooperation (GTZ)
Department of National Defense (DND)
Department of Interior and Local Government (DILG)
Department of Public Works and Highways (DPWH)
Department of Science and Technology (DOST)
Department of Social Welfare and Development (DSWD)
Department of Environment and Natural Resources (DENR)
Department of Health (DOH)
Department of Agriculture (DA)
Department of Education (DepEd)
Commission on Higher Education (CHED)
Armed Forces of the Philippines (AFP)
Philippine National Red Cross (PNRC)
Philippine Information Agency (PIA)
Philippine National Police (PNP)
National Economic and Development Authority (NEDA)
Office of Civil Defense – National Disaster Coordinating Council
Office of Civil Defense (ARMM, Regions 1, 4A, 4B, 6, 7, 8, 9, 10, 11, 12)
Regional Disaster Coordinating Council (ARMM, Regions 6, 7, 8, 9, 10, 11, 12)
Provincial Disaster Coordinating Council
Center for Disaster Preparedness (CDP)
Christian Aid
Oxfam Great Britain (OGB)
Plan International Philippines
Kapisanan ng mga Broadcaster ng Pilipinas
Mindanao Emergency Response Network (MERN)

Annex B

List of Participants:

Focus Group Discussion
for Media
7 May 2008, NDCC
Conference Room, Camp
Aguinaldo, Quezon City

1. Charmaine Villanueva
Senior Analyst
Philvolcs

2. Jocelyn Saw
Manager,
SAGIP Kapamilya

3. Girlie Sevilla Alvarez
Program Director, Center for
Community Journalism and
Development (CCJD)
Coordinator of SEANET

4. Edna Juanillo
PAGASA

5. Ruth Rodriguez
Office of Civil Defense

6. Lilia Agra
Office of Civil Defense

List of Participants:

Focus Group Discussion for
Private Sector
12 May 2008, NDCC
Conference Room, Camp
Aguinaldo, Quezon City

1. Vicente Dizon
Trustee
Construction Safety
Foundation, Inc.

2. Jossielito Dollaga
CSFI

3. Ma. Consuelo Ignacio
MSC – DCC
CSFI

4. Rogelito Mina
General Manager
CSFI

5. Floreen Simon
Programme Manager
Corporate Network for
Disaster Response

6. Alex Escaño
President
Private Sector Disaster
Management Network/MFI
Foundation, Inc

7. Eros Zuñiga
National President
Safety Organization of the
Philippines

8. Matts Ferino
Office of Civil Defense

9. Victoria Co
Philippine Business for Social
Progress

10. Kristine Rivadelo
PBSP

Documentors

11. Madelaine Anne Meris
Training Specialist
NDCP Crisis Management
Institute

12. Sheen Carmel Opulencia
Training Specialist
NDCP Crisis Management
Institute

Annex C



REPUBLIC OF THE PHILIPPINES

NATIONAL DISASTER COORDINATING COUNCIL

National Disaster Management Center, Camp General Emilio Aguinaldo, Quezon City, Philippines

NOV 11 2008

NDCC MEMORANDUM

Number 18
Series 2008

Subject: Constitution of the NDCC Task Force on Strategic National Action Plan (SNAP) on Disaster Risk Reduction

To ensure the implementation and operationalization of the Strategic National Action Plan (SNAP) on Disaster Risk Reduction, the Department of National Defense as the Head Agency of the National Disaster Coordinating Council (NDCC), is proceeding with a sustainability strategy that aims to effect a speedy conclusion towards the finalization, documentation, and approval of SNAP planning document. For this purpose, hereby constituted is the NDCC Task Force on SNAP (hereby referred to as SNAP TF) composed of the following departments/agencies:

Chairperson:	Department of National Defense (DND)
Vice-Chairperson:	Department of Budget and Management (DBM)
Members:	Department of Education (DepEd)
	Department of Environment and Natural Resources (DENR)
	Department of Energy (DOE)
	Department of Health (DOH)
	Department of the Interior and Local Government (DILG)
	Department of Public Works and Highways (DPWH)
	Department of Science and Technology (DOST)
	Department of Social Welfare and Development (DSWD)
	National Economic Development Authority (NEDA)
	Philippine National Red Cross (PNRC)
	Armed Forces of the Philippines (AFP)

On behalf of the undersigned, the Administrator of Office of Civil Defense (OCD) is designated to act as the SNAP TF Chairperson to be assisted by the National Defense College of the Philippines (NDCP) as the SNAP TF Secretariat. The Secretaries/Heads of the above-named organizations are hereby directed to designate a senior staff to be a member of the SNAP TF. He/she must have participated in one of the OCD-organized multi-stakeholder dialogues on disaster risk reduction and/or have attended at least two (2) Technical Management Group-NDCC meetings held in the last 2-3 months, and is thus familiar with the SNAP process, outputs and outcomes.

The SNAP TF is given the following responsibilities:

1. Validate the twenty-one (21) priority programs/projects on disaster risk reduction as enumerated in the draft SNAP document;

Telephone: (+632) 911-5061-64, 912-5668, 912-2424 Fax: 911-1406
E-Mail: info@ndcc.gov.ph Website: www.ndcc.gov.ph

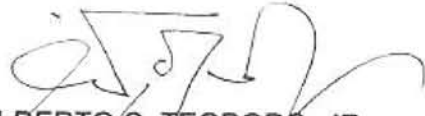


2. Establish budget estimates, potential fund sources and project timelines based on data obtained from NDCC member-agencies;
3. Sort out relevant facts, opinions and insights for integration into the SNAP; and
4. Provide policy directions and resolve issues pertaining to SNAP implementation.

This memorandum also serves as notice of the first SNAP TF meeting to be held on 14 November 2008, 10:30 AM to 1:00 PM at the Aguinaldo Room, AFP Commissioned Officers' Club, Camp General Emilio Aguinaldo, Quezon City.

Please submit the full name and designation of your appointed representative to the OCD Planning Division at telephone numbers 912-0441 and 912-5947. Your designated staff is requested to fill-up the attached questionnaire and discuss the accomplished form during said meeting. Enclosed are relevant documents for reference.

For guidance and compliance.


GILBERTO C. TEODORO, JR.
Secretary of National Defense
and Chairman, NDCC

 SECRETARY OF
NATIONAL DEFENSE



GCT-083645

Annex D

List of Participants:

Writershop on SNAP, Tagaytay, November 21, 2008

Group A

Facilitators: Ms. Josefina Timoteo & Ms. Ruth Rodriguez
Documentor: Mr. Jay Pinaroc
Members: Assistant Secretary Lynn Moreno, OES
Cdr. Danilo Abila, PCG
Mr. Rey Martija, DSWD
Mr. Lyndon Plantilla, PIA
Ms. Amelia D. Supetran, UNDP

Group B

Facilitators: Dir. Susan Cruz & Dir. Neri Amparo
Documentor: Ms. Susana Quiambao
Members: Cdr. Luis Base, AFP
Mr. Drexel Roque, LCP
Ms. Aileen Patauian, PNP
Lt. Geoffrey Gervo, PCG
Atty. Priscilla P. Duque, OCD

Group C

Facilitators: Ms. Crispina Abat & Mr. Eugene Cabrera
Documentor: Ms. Regina Marino
Members: Ms. Thelma Manuel, NEDA
Engr. Rebecca Garsuta, DPWH
Ms. Ofelia Castro, NAMRIA
Ms. Imee Manal, UNDP

Group D

Facilitators: Dir. Vicente Tomazar & Dir. Norma Talosig
Documentor: Mr. Elvis Cruz
Members: Dir. Betty Sumait, DPWH
Ms. Karen Loreno, PNRC
P/S Supt. Joseph Bacareza, BFP
LCDR Eduardo de Luna, DOTC

Group E

Facilitators: Dir. Elvira Calina & Dir. Raffy Alejandro
Documentor: Mr. Jed Juntereal
Members: Mr. Ryan Christopher Viado, DOST
Dir. Renato Solidum, PHIVOLCS
Mr. Ninio Relox, PAGASA
Mr. Ruel Belen, NAMRIA
Mr. Seville David Jr. MGB

Annex E

List of Participants:

WORKSHOP ON BUDGETARY ALLOCATION FOR DISASTER RISK REDUCTION

National Disaster Management Center Conference Room

Camp General Emilio Aguinaldo, Quezon City

24 February 2009

- | | | |
|--|--|---|
| 1. Mary Jane Pacheco
Department of Energy | 17. Lina Catangay
Department of Education | 32. Clarence Baguilat
Department of Environment and
Natural Resources |
| 2. Ruel DM Belen
National Mapping and Resource
Information Authority | 18. Carmencita Delantar
Department of Budget and
Management | 33. Evangeline Tuazon
Department of Environment and
Natural Resources |
| 3. Selwyn Briones
National Mapping and Resource
Information Authority | 19. Jennifer Manlusol
Department of Budget and Management | 34. Mary Jane Mansic
Department of Environment and
Natural Resources |
| 4. Marjorie Tiburcio
National Mapping and Resource
Information Authority | 20. Zita Ann Ercabate
Department of Budget and Management | 35. Josie Manauag
National Defense College of the
Philippines |
| 5. Cdr Robert Patrimonio
Philippine Coast Guard | 21. Resty Macut
Department of Social Works and
Development | 36. Violeta Gazo
Commission on Higher Education |
| 6. SN1 Wilmer Geneta
Philippine Coast Guard | 22. PSupt Darwin Miranda
Public Safety Department | 37. Eva Dasiodasin
Department of Agriculture |
| 7. Richel De Mesa
Philippine Institute of
Volcanology and Seismology | 23. PCI Eric Mendoza
Philippine National Police | 38. LCdr Ed De Luna
Department of Transportation
and Communication |
| 8. Emma Pangilinan
Philippine Institute of
Volcanology and Seismology | 24. Dr. Prisco Nilo
Philippine Atmospheric,
Geophysical, and Astronomical
Services Administration | 39. Antonio Fernandez
OCD Consultant |
| 9. Jeremy Marie
Lorenzo OASCOM,
Department of National Defense | 25. Lilibeth Gonzales
Philippine Atmospheric,
Geophysical, and Astronomical
Services Administration | 40. Rodenia Doma
Office of Civil Defense |
| 10. Salvacion Manzano
OASCOM,
Department of National Defense | 26. Norma Moya
Philippine Atmospheric,
Geophysical, and Astronomical
Services Administration | 41. Aquilino Ducay
Office of Civil Defense |
| 11. LCDR Luis Base,
PN Armed Forces of the Philippines | 27. Ana Urmeneza
Department of Public Works and
Highways | 42. Maria Katrina Igarra
Department of Education |
| 12. Melanie Manaloto
Office of the Presidential Adviser on the Peace
Process | 28. Lilia Banaag
Department of Public Works and
Highways | 43. Atty Carmelita Sison
Commission on Higher Education |
| 13. PO3 Jeomar Nuda, PCG
Department of Transportation
and Communication | 29. Emma Pelayo
Department of Public Works and
Highways | 44. Ruth Rodriguez
Office of Civil Defense |
| 14. Luigi Miles Mojica
Department of Transportation
and Communication | 30. Melinda Capistrano
Department of Environment and
Natural Resources | 45. Rosita Pacete
Office of Civil Defense |
| 15. Jose Maria Natividad
Philippine National Red Cross | 31. Imelda Dela Cruz
Department of Environment and
Natural Resources | 46. Regina Marino
Office of Civil Defense |
| 16. Sheena Carmel Oplencia
National Defense College of the
Philippines | | 47. Eufrecina Mercedio
Office of Civil Defense |
| | | 48. Lilia Agra
Office of Civil Defense |
| | | 49. Milagros Tigno
Office of Civil Defense |

Annex F

Mitigation Activities and Services of the Technical and Scientific Institutions

A. Mines and Geosciences Bureau (Website: <http://www.mgb.gov.ph/>) Services:

1. Lands geological survey
2. Marine geological survey
3. Mineral lands administration and mine management
4. Information, education and communication
5. Mining environment and safety
6. Laboratory services

Programs: Geo-hazard assessment, hydrogeological/groundwater assessment, advocacy and intensified information, education and communication campaigns, technical assistance to LGUs for development projects and land use planning, studies on environmental impact

Products: Geological maps, technical reports, mineral gazette, other publications

B. Philippine Atmospheric, Geophysical and Astronomical Services Administration (PAGASA) (Website: <http://www.pagasa.dost.gov.ph/>)

Services:

1. Real-time collection of meteorological data for effective use in providing weather information, issuance of timely and accurate forecasts and warnings for the general public, shipping and civil aviation
2. Numerical weather prediction modelling
3. Hydro-meteorological investigations and special services
4. Telemetry system services for flood forecasting
5. Forecasting and warning centers for Pampanga, Agno, Bicol and Cagayan Rivers
6. ENSO monitoring
7. Climate information, monitoring and prediction services
8. Calibration and repair of meteorological instruments
9. Planetarium
10. Time service
11. Solar radiation
12. Astronomical Observatory
13. Telescoping/stargazing

Natural disaster reduction programs and projects: information, education and communication campaigns, Special Tropical Weather Disturbance Reconnaissance, Information Dissemination and Damage Evaluation (STRIDE), case studies, hazard mapping, typhoon review, Weather Modification Experiment (WEMEX), Global Network for Isotope Monitoring (GNIP)/International Atomic Energy Agency and World Meteorological Organization

C. Philippine Institute of Volcanology and Seismology (PHIVOLCS) (Website: <http://www.phivolcs.dost.gov.ph>)

Services:

1. Educational trips
2. Data, digital images, slides, video, publications
3. Lectures
4. Certifications for active faults and volcanoes

Programs and projects

1. Operation and maintenance of volcanological observatories
2. Station management and network development
3. Seismic data processing and management
4. Strong-motion network management and earthquake engineering
5. Seismology and seismic hazard assessment research and development
6. Instrumentation research and development
7. Exhibits, publications, video and CD packaging, seminars
8. Mapping and paleoseismology of active faults
9. Ground deformation studies along the Philippines fault zone in Southern Leyte
10. Seismic hazards identification and mapping/mapping and analysis of liquefaction hazard
11. Kinematic analysis of Central Luzon structure
12. Geodynamic study of Northern Luzon and Taiwan (GPS project with Academia Sinica of Taiwan)
13. PHIVOLCS-Tokyo Institute of Technology electronic tilt meter survey of the 15-km N-S trending creeping zone of the West Valley Fault System
14. Identification and characterization of volcanic systems
15. Volcano-hydrologic and lahar studies
16. Geologic hazards mapping of active and potential active volcanoes
17. Mayon studies (funded by NDCC calamity fund)
18. Kanlaon studies (funded by NDCC calamity fund)
19. Utilization of AIRSAR data for crater lake breakout modelling of Parker Volcano, Philippines: a preliminary approach

Annex G

A Consolidated List of Prioritized Actions Proposed at the Second and Third National Multi-Stakeholder Dialogues

Note: Actions wherein the stakeholder's priorities were stated clearly are indicated: first, second and third priority.

1. Enabling environment.

Adopt a responsive policy and legal framework which creates an enabling environment for all Filipino citizens and the government and guides them towards reducing losses from disaster risk.

First Priority

- ▶ Legislate or adopt policies or programmes at national levels (governance)
- ▶ Include DRR in the Mid-Term Philippine Development Plan (governance)
- ▶ Re-orient local officials regarding the local calamity fund (governance, risk management)

Second Priority

- ▶ Adopt an administrative structure with adequate personnel, budget and logistics considering local risk profile and development needs of LGUs (governance)
- ▶ Pursue peace talks and sustain local peace process (governance)
- ▶ Strengthen links among stakeholders (governance, disaster preparedness)

Third Priority

- ▶ Regularly hold dialogue on DRR among stakeholders on disaster management including academics, professionals and the private sector (governance, knowledge management)
- ▶ Dialogue, coordination and information exchange between disaster managers and development sectors (governance, knowledge management)
- ▶ Incorporate DRR into peace building programs to develop 'culture of peace promotion' (governance)

2. Financial and economic soundness (mobilizing resources).

Pursue cost-effective ways and means to offset socio-economic losses from disasters and prepare the nation for disaster recovery.

- ▶ Adopt DRR as part of corporate social responsibility (risk management)
- ▶ Establish insurance mechanism (risk management)
 - ▶▶ to help in vulnerability of disaster-prone groups/ areas
 - ▶▶ for volunteers assisting in disasters
 - ▶▶ for deputized civil defense coordinators
 - ▶▶ to deal with property loss
- ▶ Harmonize national, regional, and local initiatives to achieve cost effectiveness (risk management, governance)

- ▶ Utilize existing resources such as pool of National Service Training Program (NSTP) volunteers for disaster response (risk management, disaster preparedness)
- ▶ Adopt permanent public– private institutional management (risk management, governance, disaster preparedness)
 - » Ensure that local government can immediately act
 - » Later on National government can sustain
 - » Include NGO partnership for synergy
- ▶ Allocate a percentage of national budget of line agencies for DRR (governance)
- ▶ Allocate DRR funds from Countrywide Development Fund (pork barrel) (governance)

3. Supportive decision making for an enlightened citizenry.

Use the best available and practicable tools and technologies from social and natural sciences to support decisions by stakeholders in avoiding, preventing, and reducing disaster impacts.

First Priority

- ▶ Develop, adopt and regularly update a national common spatial database with useful thematic information such as infrastructure (risk assessment)
- ▶ Incorporate disaster risk in the comprehensive land use plan and employ the plan for LGU DRR plan (risk management)
- ▶ Promote diffusion of DRR knowledge at the community level through mass media (knowledge management)
- ▶ Delineate geohazard prone areas and classify areas according to flood risk level with maps of appropriate scale (risk assessment)

Second priority

- ▶ Establish DRR database covering national and local level (risk assessment, knowledge management)
 - » That communities to participate using Community-Based Monitoring System (CBMS) as tool
 - » That is sensitized to gender concerns
 - » That harmonizes the DRR framework with sustainable development
- ▶ Evaluate hazards and risks at appropriate scale (risk assessment)
- ▶ Create an online DRR portal on the Internet that will serve the needs of particular target groups (knowledge management)
- ▶ Establish inter-regional disaster response system (disaster preparedness)
- ▶ Organize pool of stress debriefers (disaster preparedness)

Third priority

- ▶ Produce hazard and risk maps for all LGUs by 2012 (risk assessment)

4. Safety and well-being enhancement.

Increase capacity, reduce vulnerability and achieve improved public safety and well-being.

First priority

- Develop and produce information materials in local languages (knowledge management)
- Information, education and communication campaigns on DRR (knowledge management)
- Develop mechanisms for rapid and joint damage needs, and vulnerability and capacity assessment as well as information sharing (risk assessment)
- Conduct contingency planning through joint/collective inter-agency mechanisms (disaster preparedness)
- Capacity building of DCCs at all levels (knowledge management)

Second priority

- Develop human resources in the DRR field (knowledge management)
- Manualize DRR standards (such as the Humanitarian Charter and Minimum Standards in Disaster Response or Sphere standards governing the implementation of relief programs) (disaster preparedness)
- Integrate DRR in the educational system (knowledge management)
- Develop training packages/modules for sustained capacity building activities in risk management (knowledge management)
- Develop preparedness and contingency plans at various levels (disaster preparedness)
 - mobilize resources and respond to emergencies especially at barangay level

Third priority

- Systematically document and replicate good practices in DRR (knowledge management)
- Strengthen capacity of warning agencies in terms of manpower, funding and equipment
 - Upgrade capacity to monitor and forecast hazard events (risk assessment)
- Identify and evaluate risk of public facilities (catastrophic loss risk and risk drivers) (risk assessment)
- Strengthen training and learning circle of DRR (disaster preparedness)
 - Train various stakeholders: community residents, barangay officials, media personnel
 - Train state universities and colleges (SUCs) to become DRR advisors to LGUs
 - Train government personnel in national, regional and local government
- Establish DRR education at the graduate level (knowledge management)

5. Implementation and evaluation of disaster risk reduction.

Monitor progress and prepare better for disasters.

- Upgrade capacity to monitor and forecast disaster causing events (risk management)
- Evaluate hazards and risks at appropriate scale (risk assessment).
- Review and exercise preparedness and contingency planning (including multi-hazard mapping) (disaster preparedness)
- Adopt HFA template to monitor implementation of DRR activities (knowledge management, disaster preparedness, risk management)
- Develop monitoring and evaluation tools to justify financial requirements at all levels (risk management).

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National Disaster Coordinating Council

www.ndcc.gov.ph

Office of Civil Defense

Planning Division

telefax +632 912-5947 +632 912-0441

email secretariat@ndcc.gov.ph ndcc_secretariat@yahoo.com

www.snap-phil.net

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