

PART III C

*Chapter 24*

**Disaster Risk Management Policy  
in the Philippines**

*by*

Ronald I. Flores \*

Department of National Defense

Office of Civil Defense, National Disasters Coordinating Council

This chapter first highlights the particular risk-exposure of the Philippines to disasters and calamities. It then provides an overview of the Philippine Disaster Management System, of the comprehensive emergency management framework and of the funding mechanism of these disaster management programs. It also presents a project for a risk transfer scheme to cope with natural disasters.

---

\* Civil Defense Executive Officer.

## **1. Geographical location of the Philippines and the disasters /calamities**

The republic of the Philippines is located in East Asia, comprising over 7 100 islands in the West Pacific Ocean. It occupies the western ring of the Pacific Ocean, a most active part of the Earth characterized by an ocean encircling belt of active volcanoes and earthquake generators. The geographical location of the Philippines makes it prone to natural disasters like typhoons or tropical cyclones (with an average of 22 tropical cyclones a year, out of which 5 are destructive), floods, earthquakes (of which about 5 quakes a day or 1 825 quakes a year), volcanic eruptions (as the Philippines is a host for 22 active volcanoes), tsunamis, and extreme climate events, i.e. el Niño and la Niña.

Over the years, natural and man-made calamities have brought misery to our people and devastated public and private infrastructures. Rehabilitation of affected areas has considerably depleted the government treasury and prevented government from making yearly investments in development projects like farm-to-market roads, highways, bridges, ports, etc., as well as investments in human capital (education, health care, and safe drinking water). Resources that could otherwise be spent for these are funnelled to affected areas and displaced population to enable them to lead normal lives again as soon as possible.

## **2. An overview of the Philippine Disaster Management System (PDMS) - Presidential Decree (PD) 1566**

Given this backdrop of a harsh environment, the Philippine government has set in place a Disaster Management System which encompasses a comprehensive disaster risk management framework and an all hazards, multi-sectoral and community-based approach.

The Philippine Disaster Management System (PDMS) is governed by a set of decrees, orders and laws that enunciates the policies, doctrines, organizations and procedures in addressing disaster management concerns in the country. Under Presidential Decree (PD) 1566, S-1978, the following policies are affirmed:

- self-reliance shall be developed by promoting and encouraging the spirit of self-help and mutual assistance among local officials and their constituents;

- responsibility for leadership rests on the provincial governor, city/municipal mayor, and Barangay chairman, each according to his area of responsibility;
- each political and administrative subdivision of the country shall utilize all available resources in the area before asking assistance from neighboring entities or higher authority;
- the primary responsibility rests on the government agencies in the affected areas, in coordination with the people themselves;
- it is the responsibility of all government Departments, Bureaus, Agencies and instrumentalities to have documented plans of their emergency functions and activities; and
- the national government is there to support local governments. In times of emergencies and according to their level of assignment, all national government offices in the field shall support the operations of local governments.

### **3. Comprehensive Emergency Management Framework**

Pursuant to PD 1566, the National Disaster Coordinating Council (NDCC), the highest policy making, coordinating, and supervising body at the national level for disaster management in the country, is tasked to oversee the implementation of the following:

- Mitigation - refers to the measures aimed at minimizing the impact of a natural or man-made disaster on a nation or a community in terms of casualties and damages. Further refers to measures designed to prevent natural phenomena from causing or resulting in disasters or other similar emergency situations.
- Preparedness - refers to pre-disaster actions and measures being undertaken to avert or minimize loss of life and property, such as but not limited to community organizing, training, planning, equipping, stockpiling, hazard mapping, and public information and education initiative.
- Rehabilitation – refers to the process by which the affected communities/areas or damaged public infrastructures are restored to their proper or normal level of functioning or their actual condition prior to the occurrence of the disaster or calamity.
- Response – refers to any concerted effort by two or more agencies, public or private, to provide emergency assistance or relief to persons

who are victims of disasters or calamities, and in the restoration of essential public activities and facilities.

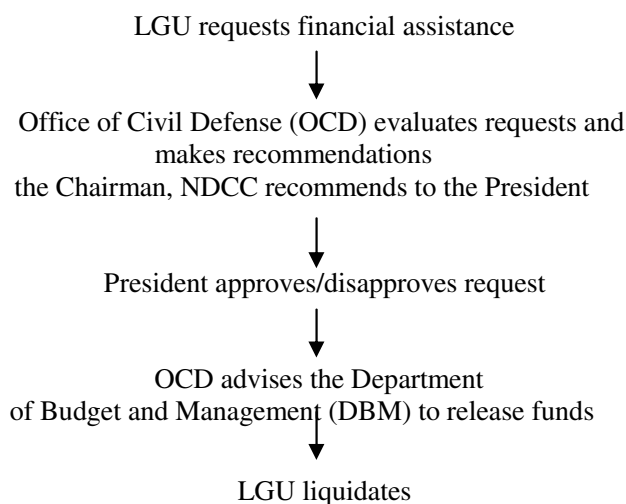
#### 4. Funding of disaster management programs/projects/activities

The ever-increasing threat of disasters on the lives and properties of the Filipinos has prompted the government to allocate funds at the national and local government levels, through the **National Calamity Fund (NCF)** and **the Local Calamity Fund (LCF)**. These funds shall be made available exclusively for disaster-related activities or services such as relief, rehabilitation, reconstruction, and other works or services in connection with calamities which may occur during the budget year or those that occurred in prior years including pre-disaster activities such as acquisition of supplies, rescue equipment, and training of personnel engaged in direct disaster management, including disaster risk reduction activities.

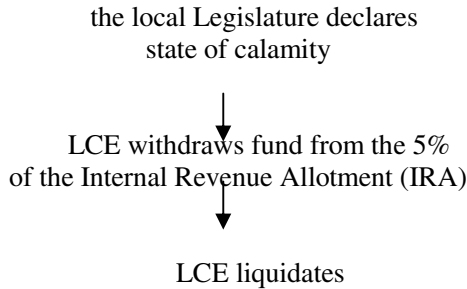
The NCF is proposed by the office of the President and is appropriated by the Philippine Congress. Currently and for next year, our NCF stands at US\$ 12.466 million.

When a disaster strikes and the resources of the Local Government Unit (LGU) are not sufficient to cover the relief, rehabilitation, and reconstruction efforts needed, the LGU makes a request to the national government for funding assistance from the National Calamity Funds.

##### *National Calamity Fund*



If the destruction and need for resources are minimal, the LGU uses its LCF to address the effects of disaster. The procedure for the utilization of the LCF is as follows:



The annual average cost of damage due to disasters from 2001 to 2003 alone, run to about US\$301 Million or PHP17 Billion. On the other hand, the National Calamity Fund appropriations for said years is US\$12.466 Million or PHP700 Million per annum, or roughly ten percent (10%) of the annual cost of damage. In spite of the government's desire to fully address the numerous requests from Local Government Units (LGUs) for financial assistance for the rehabilitation and restoration efforts, still a sizeable amount of the rehabilitation and reconstruction requirements remains unmet due to fund constraints.

Aside from the NCF and LCF funds, addressing the effects of disasters may also come from the following:

- donations from local and international sources ;
- insurance both from private and government financial institutions;
- special appropriation from congress; and
- realigned funds from the national coffers

## 5. Risk transfer scheme: a proposal

To date, the Philippine government is working through the OCD-NDCC for a risk transfer scheme, like a calamity insurance. A proposed resolution entitled "Mandatory property insurance, coverage of Local Government Units properties" is currently being evaluated by a technical committee of the NDCC. Once adopted, the proposed resolution shall be included in the bill to be filed by some members of the House of Representatives, entitled "an act streamlining and strengthening the Philippine disaster management capability, appropriating funds thereof and other programs".

The substantial/significant points to be included in the proposal are the following:

- **funding of disaster management activities** at the **local** level – five percent (5%) of the estimated revenues from regular sources shall be set aside as a Local Disaster Management Fund for preparedness, mitigation and prevention activities for potential occurrence of disasters as well as for disaster response, rehabilitation, reconstruction, and other works or services in connection with disasters or calamities, whether natural or man-made, occurring within the LGU or other areas, and for the **payment of premiums for property insurance**, provided, however, that such fund shall be used for the following:
  - payment of GSIs premiums for insurance policy coverage against loss or damage due to fire, typhoon, flood, earthquake, to insure rehabilitation and reconstruction of damaged public buildings, roads, and bridges.
  - provided that the appropriation and flexibility on the utilization of the Local Disaster Management Fund by the LGUs shall be based on the local Sanggunian in consultation with the respective Local Disaster Management Councils (LDMCs). Provided finally, that the unexpended calamity fund balances shall be treated as a continuing appropriation to support disaster management activities, **including payment of insurance premiums**.
  - the funds necessary to pay for the premiums shall be from the President’s Calamity Fund and the LGU’s authorized 5% expenditure for calamity-related situations.
- **Compensatory benefits** – any Accredited Disaster Volunteer (ACDV) who incurs death or injury while engaged in any of the civil defense/disaster management activities as defined under this act shall be entitled to the following compensatory benefits to be paid out of the initial amount of **US\$177,000,00** or **PHP10 million** to be appropriated to OCD for this purpose. **Portions of the said amount shall be used to pay for the insurance premiums for the individual personnel accident insurance of each Accredited Disaster Unit (ACDU)**.
 

Any ACDV who is injured or becomes disabled in carrying out disaster response activities shall be entitled to free medical care in any government hospital or institution.
- Rationale of the proposed project

- The scheme shall address the pressing concerns of non-rehabilitation and restoration of damaged properties. All government properties, infrastructure and buildings shall be covered by property insurance.
- Insurance coverage would include among others, protection of losses against fire, lightning and earthquake. Additional insurance coverage can be negotiated on a case to case basis.
- The following agencies will take part in the realization of the scheme:
  - the Government Service Insurance System (GSIS), the government Agency mandated to cover all government properties against losses caused by natural and man-made calamities, shall be requested to prepare a proposal with the premium rates most beneficial to the government.
  - the NDCC shall take the lead role in negotiating with the GSIS for the rates, guidelines and mechanics of the property insurance coverage.

The scheme if implemented will certainly reduce the burden of cost for the government.

## *Annex 1*

### **List of Speakers and Presentations at the Conference\***

#### **Session 1 - Insurability of catastrophic risks**

- Economics of catastrophe risk insurance, *Christian Gollier (University of Toulouse)*.
- Insurability of terrorism risk: challenges and perspectives, *Howard Kunreuther and Erwann Michel-Kerjan (Wharton School, University of Pennsylvania)*.
- Industrial, technological and other catastrophes, *Christian Lahnstein (Munich Re)*.
- Recent trends in the catastrophe risk insurance/reinsurance market, *Patrick Murphy O'Connor (Benfield)*.
- Role of the reinsurance industry in the management of weather related risks, *Peter Zimmerli (Swiss Re)*.
- Issues and options in the management of terrorism risk through insurance, *Robert Reville (Rand Corporation)*.
- Current state of the coverage for war and terrorism risks - including NBC - in the aviation sector, *Eugene Hoeven (IATA)*
- Free market solutions for terrorism risks coverage, *Ben Garston (MAP Underwriting and Lloyd's Terrorism Panel)*.

---

\* Power point presentations summarising papers included in this publication as well as other presentations made at the conference are available on the OECD Insurance homepage: <http://www.oecd.org/daf/insurance>.



- Improving insurability and affordability: the role of insurance in hazard identification, risk assessment, risk prevention and mitigation for industrial/chemical accidents, *Satyananda Mishra, IAS, Disaster Management Institute, Bhopal - Government of Madhya Pradesh, India*).

## **Session 2 - Financial market solutions to manage catastrophic risks**

- International financing solutions to catastrophic risk exposures, *Torben Juul Andersen (Copenhagen Business School)*.
- The use of risk linked securities to manage catastrophic risks, including terrorism, *Christian Mumenthaler (Swiss Re)*.
- Current challenges in terrorism risk securitization, *Gordon Woo (RMS)*.
- Financing catastrophic risks in non-OECD countries: challenges and perspectives, *Reinhard Mechler (IIASA)*.
- Current market trends for catastrophe bonds and risk linked securities, *Christopher McGhee (MMC Securities, Guy Carpenter)*.
- The potential for new risk transfer instruments to cover terrorism risks, *Michele David (The Bond Market Association)*.
- Rating agency's perspective on catastrophe bonds and risk linked securities, *Rodrigo Araya (Moody's)*.

## **Session 3 - Role of governments and development of public-private partnerships for catastrophe risk management**

- Role of governments in natural catastrophe risk management and financing in OECD countries, *Paul K. Freeman (University of Denver)*.
- Catastrophe insurance programs in emerging countries: field experience, *Eugene Gurenko (World Bank, Financial Sector Operations and Policy Department)*.
- Potential role for governments in terrorism coverage, *Dwight Jaffee (Haas School of Business, UC Berkeley)*.
- Public-private partnerships to cover terrorism risks in OECD countries, *John Cooke (International Economic Relations Consultant, London)*.

- Role of the US government in the prevention and mitigation of terrorism risks, *Robert Liscouski (Infrastructure Protection Office, Department of Homeland Security, USA)*.
- Disaster risk management policy in Japan, *Kazuhiro Kawachimaru (NIPPONKOA Insurance Company Ltd)*.
- The Spanish experience in the management of extraordinary risks, including terrorism, *Ignacio Machetti (Consorcio de Compensación de Seguros)*.
- A stakeholder approach for developing a public-private partnership: the Hungarian case, *Reinhard Mechler (IIASA)*.
- Disaster risk management policy in China, *Yuanchang Zheng and Jianguo Mu (Department of Disaster and Social Relief, Ministry of Civil Affairs)*.
- The French experience in natural catastrophe risk management, *Suzanne Vallet (Caisse Centrale de Réassurance)*.
- Earthquake risk management policy in Indonesia, *Werner Bugl (PT Asuransi, MAIPARK Indonesia)*.
- Disaster risk management policy in Mexico, *Carlos Bayo Martinez (FONDEN)*.
- Disaster risk management policy in the Philippines, *Ronald I. Flores (Department of National Defense, Office of Civil Defense, National Disasters Coordinating Council)*.
- Disaster management in India, *D. Madan (Under Secretary, National Disaster Management Division, Ministry of Home Affairs, Government of India)*.
- Management of extraordinary risks, including terrorism, in India: achievements and perspectives, *C. S. Rao (Indian Insurance Regulatory and Development Authority)*.

# Table of Contents

## Part I

### Insurability of Catastrophic Risks

<i>Chapter 1</i>	<b>Some Aspects of the Economics of Catastrophe Risk Insurance</b> <i>by Christian Gollier, University of Toulouse</i> .....	13
<i>Chapter 2</i>	<b>Industrial, Technological and Other Catastrophes</b> <i>by Christian Lahnstein, Munich Re</i> .....	31
<i>Chapter 3</i>	<b>Recent Trends in the Catastrophic Risk Insurance / Reinsurance Market</b> <i>by Patrick Murphy O'Connor, Benfield</i> .....	41
<i>Chapter 4</i>	<b>Insurance of Atmospheric Perils – Challenges Ahead</b> <i>by Peter Zimmerli, Swiss Re</i> .....	51
<i>Chapter 5</i>	<b>National Security and Compensation Policy for Terrorism Losses</b> <i>by Lloyd Dixon and Robert Reville, RAND Center for Terrorism Risk Management Policy</i> .....	59
<i>Chapter 6</i>	<b>Current State of the Coverage for War and Terrorism Risks in the Aviation Sector</b> <i>by Eugene Hoenen, International Air Transport Association (IATA)</i> ....	73
<i>Chapter 7</i>	<b>Terrorism Insurance : An Overview of the Private Market</b> <i>by Ben Garston, MAP Underwriting at Lloyd's</i> .....	81

## Part II

### Financial Markets Solutions to Manage Catastrophic Risks

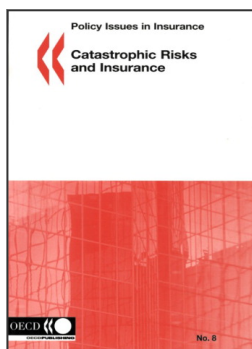
<i>Chapter 8</i>	<b>Current Challenges in the Securitization of Terrorism Risk</b> <i>by Gordon Woo, Risk Management Solutions Ltd</i> .....	91
------------------	--	----

<i>Chapter 9</i>	<b>Financing Disaster Risks in Developing and Emerging Economy Countries</b> by Reinhard Mechler, IIASA .....	105
<i>Chapter 10</i>	<b>The Potential for New Derivatives Instruments to Cover Terrorism Risks</b> by Michele David, the Bond Market Association .....	163
<i>Chapter 11</i>	<b>Catastrophic Risk Securitization: Moody's Perspective</b> by Rodrigo Araya, Moody's .....	171
<i>Part III</i>		
<b>Role of Government and Public-Private Partnerships for Catastrophic Risks Management</b>		
<i>Part III.A.</i>	<b>Analytical and Comparative Reports.....</b>	185
<i>Chapter 12</i>	<b>Comparative Analysis of Large Scale Catastrophe Compensation Schemes</b> by Paul K. Freeman and Kathryn Scott, University of Denver .....	187
<i>Chapter 13</i>	<b>Rapid Onset Natural Disasters: the Role of Risk Financing in Effective Catastrophe Risk Management</b> by Eugene Gurenko and Rodney Lester, World Bank .....	235
<i>Chapter 14</i>	<b>Designing a Disaster Insurance Pool Participatory and Expert Approaches in Hungary and Turkey</b> by Joanne Linnerooth-Bayer, IIASA, Anna Vári, Hungarian Academy of Sciences and Reinhard Mechler, IIASA.....	267
<i>Part III.B.</i>	<b>Country Surveys – OECD Countries .....</b>	291
<i>Chapter 15</i>	<b>The French Experience in the Management and Compensation of Large Scale Disasters</b> by Suzanne Vallet, Caisse Centrale de Réassurance.....	293

<i>Chapter 16</i>	<b>Disaster Risk Management in Japan</b> by Non-Life Insurance Rating Organization of Japan and K. Kawachimaru, NIPPONKOA Insurance Company Ltd* .....	303
<i>Chapter 17</i>	<b>Natural Disasters Fund (FONDEN)</b> by Carlos Bayo Martinez, FONDEN, Mexico .....	321
<i>Chapter 18</i>	<b>The Spanish Experience in the Management of Extraordinary Risks, Including Terrorism</b> by Ignacio Machetti, Consorcio de Compensación de Seguros .....	337
<i>Chapter 19</i>	<b>The Turkish Catastrophe Insurance Pool (TCIP) and Compulsory Earthquake Insurance Scheme</b> by S. Yazici, Permanent Delegation of Turkey to the OECD .....	349
<i>Part III.C.</i>	<b>Country Surveys – Emerging Economies</b> .....	365
<i>Chapter 20</i>	<b>Natural Disasters and Disaster Relief Policy in China</b> by Y. Zheng, Department of Disaster and Social Relief, J. Mu, National Disaster Reduction Center of China, Ministry of Civil Affairs .....	367
<i>Chapter 21</i>	<b>Disaster Management in India</b> by D. Madan, National Disaster Management Division, Ministry of Home Affairs, India .....	381
<i>Chapter 22</i>	<b>Management of Extraordinary Risks, Including Terrorism, in India Achievements and Perspectives</b> by C.S. Rao, Indian Insurance Regulatory and Development Authority .....	393
<i>Chapter 23</i>	<b>Earthquake Risk Management Policy in Indonesia</b> by Werner G. Bugl, Asuransi Maipark Indonesia .....	399
<i>Chapter 24</i>	<b>Disaster Risk Management Policy in the Philippines</b> by Ronald I. Flores, Department of National Defense, Office of Civil Defense, National Disasters Coordinating Council .....	411
<i>Annex 1</i>	List of Speakers and Presentations at the Conference .....	419

---

\* Background Note of Mr Kawachimaru's presentation (NIPPONKOA Insurance Company Ltd), based on *Governmental Earthquake Insurance System in Japan*, from *Earthquake Insurance in Japan*, written and published in March 2003 by Non-Life Insurance Rating Organization of Japan.



**From:**  
**Catastrophic Risks and Insurance**

**Access the complete publication at:**  
<https://doi.org/10.1787/9789264009950-en>

**Please cite this chapter as:**

Flores, Ronald I. (2006), "Disaster Risk Management Policy in the Philippines", in OECD, *Catastrophic Risks and Insurance*, OECD Publishing, Paris.

DOI: <https://doi.org/10.1787/9789264009950-25-en>

This work is published under the responsibility of the Secretary-General of the OECD. The opinions expressed and arguments employed herein do not necessarily reflect the official views of OECD member countries.

This document and any map included herein are without prejudice to the status of or sovereignty over any territory, to the delimitation of international frontiers and boundaries and to the name of any territory, city or area.

You can copy, download or print OECD content for your own use, and you can include excerpts from OECD publications, databases and multimedia products in your own documents, presentations, blogs, websites and teaching materials, provided that suitable acknowledgment of OECD as source and copyright owner is given. All requests for public or commercial use and translation rights should be submitted to [rights@oecd.org](mailto:rights@oecd.org). Requests for permission to photocopy portions of this material for public or commercial use shall be addressed directly to the Copyright Clearance Center (CCC) at [info@copyright.com](mailto:info@copyright.com) or the Centre français d'exploitation du droit de copie (CFC) at [contact@cfcopies.com](mailto:contact@cfcopies.com).