

PART III B

Chapter 17

Natural Disasters Fund (FONDEN)

by

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The Natural Disasters Fund (FONDEN) was created in 1996 at the national level in order to increase Mexican Federal Government's resources and means to better cover damages arising from natural disasters. The fund is also aimed at better setting and organizing the budget exercise providing reliable and sound financial capacity to compensate for losses caused by natural phenomena without altering public finance. In this respect, one of the primary purpose of this new program is to timely cover the non insurable damaged infrastructure (Federal and local) caused by natural disasters. Against this backdrop, this chapter provides a detailed overview of the FONDEN main features and challenges.

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1. Introduction

Due to its geographical position, the Mexican territory finds itself under the threat of a great variety of natural phenomena which can cause disasters like earthquakes, volcanic eruptions, hurricanes, burning forest, floods, earth movement, aridity, etc.

In the event of disasters caused by nature, the Federal and Local Governments are required to orientate their budget exercise to allocate indispensable resources to cover the damages to the physical infrastructure and compensate the injured population.

As a consequence of these disasters, the regular programs of public construction, such as extending construction, ensuring maintenance, new construction, could not be implemented or suffered important decreases due to lack of money, since these resources were allocated to the reconstruction of the infrastructure destroyed by a natural phenomenon.

As a response to the Mexican Federal Government's concern to increase its capacity to attend the effects of natural disasters and with the purpose of giving an order to the budget exercise and be able to rely on enough resources to allow the government to attend the damages caused by natural phenomena without altering the results of public finances and their regular programs, the Natural Disasters Fund (FONDEN) was created in 1996 within the Federal Budget. The primary purpose of this new program was to timely cover the non insurable damaged infrastructure (Federal and local) caused by natural disasters.

Although with the creation of FONDEN the trouble related to avoiding a lead off on the Federal and local regular programs resources was in a way solved, since they were able to rely on fresh resources to attend emergencies and disasters, there was neither legal regulation providing correct control of the delivered resources nor appropriate transparency in the application of the money.

Therefore in 1999, the first FONDEN rules were issued. They encompassed the mechanisms, requirements, procedures, phases and terms that should be covered by the Federal Ministries and Mexican States to be able to access FONDEN resources to cover the damages caused by natural disasters.

With this new regulation, the government seeks for support to be delivered in a very transparent way, with no political conditions or favoritisms of any kind. In this respect, it was decided that the resources would be administrated by a trust fund.

Because of that, the idea of a Federal FONDEN trust shows up along with the 32 States FONDEN trusts, instruments that will be explained further on.

Although the procedure to deliver FONDEN resources through the trust fund has remained firm over the years, the FONDEN legal regulation has undergone many substantial modifications to ensure that the procedures to provide help and resources to the harmed population and damaged infrastructure in the event of natural disasters are carried out with the maximum efficiency and adequacy.

2. The purposes and genesis of the FONDEN

The FONDEN is a financial tool composed of many instruments and driven by various Federal Government Agencies. Its main purpose is to provide resources to the 32 Mexican States and to the Federal Agencies (in charge of federal infrastructure) to attend the harm and damages caused by a natural phenomenon, when the disaster's magnitude exceeds their capacity of response with their own budget.

Table 17.1 FONDEN contribution to losses arising from natural catastrophes

Type of Public Infrastructure	FONDEN resources percentage	State and Municipal resources percentage
1. Highways, bridges, ports, airports		
State	50	50
Municipal	30	70
2. Hydraulics (dam, infrastructure of drinking water and reorganizing, works of protection, etc.)		
State	50	50
Municipal	40	60
3. Educational and Health (schools, universities, health clinics, hospitals, etc.)		
State	50	50
Municipal	30	70
4. Primary Streets	20	80
5. Fishing, Basic Aquatic and of Breeding Grounds		
State	50	50
Municipal	30	70
6. Forest Resources	50	50
7. Natural Protected Areas	50	50
8. Coastal Zones, Rivers and Lagoons	70	30
9. Dwellings	70	30
10. Artistic and Historic Real State	30	70

The FONDEN is a federal program which provides support in a complementary and subsidiary way to the resources originally allocated to natural disasters. Therefore, to get the resources approved, it is necessary that the Mexican States and the Federal Agencies looking for complementary support justify that the disaster exceeds their financial standing (insufficient resources in their normal programs to cover the damages caused by the disaster).

In the case of damages to the infrastructure of a Federal Government Agency, the support will fully be charged to the resources of the FONDEN, with the condition that it has been fully justified that the Agency does not count with resources of its own to cope with the disaster.

In the event of damages to infrastructure of the Mexican States and their Municipalities, the support offered through the FONDEN is complementary and will be applied according to the following proportion:

3. Natural phenomena covered by the FONDEN

The diverse types of natural phenomena that can cause natural disasters are listed below:

1. Geological
 - earthquake;
 - volcanic eruption;
 - seaquake;
 - wash out;
2. Hydro meteorological:
 - dryness;
 - cyclone (tropical depression, tropical storm and hurricane);
 - extreme rains;
 - snow and hailstorm;
 - flood;
 - tornado;
3. Others: forest burning

The damages caused by any other natural phenomenon could also be covered by the FONDEN.

4. The FONDEN instruments

The FONDEN integrates 3 instruments:

- **Revolvable Fund:** Its object is to provide resources for the acquisition of aid supplies before situations of emergency and of disaster with the purpose to cover in an immediate way the urgent needs of the population (life, health, alimentation, medical attention, dress, temporary shelter) after a natural phenomenon, as well as the rescue of people in risk zones.
- **FONDEN Program:** Its object is to provide economic support for the repair and reconstruction of the infrastructure of the three orders of government (Federal, State and Municipal) damaged by a natural disaster; as well as for the affected dwellings of low income population with no possibility to access any type of public or private insurance and for the restitution of forest resources, protected natural areas, coastal zones, rivers, lagoons, etc.
- **FONDEN Trust Fund:** Its purpose is to allocate resources from its patrimony to perform the actions foreseen in the FONDEN Program, as well as to contract insurance policies and risks transfer instruments (disastrous bonds).

5. Entities having access to FONDEN resources

- The States government that has been surpassed in their financial and operating capacity to cope with the damages generated by a natural disaster. The municipalities are not able to request directly supports from the FONDEN; they have to carry out the necessary actions in order for their requests to be dealt with through their State.
- The Federal Government Agencies in case of damage to federal infrastructure. In this case, they have to justify that the resources of their regular programs are not sufficient to cover the damages.

6. Procedure for access to FONDEN resources

Below we will explain the procedure required in order to have access to FONDEN resources, from the occurrence of the natural disaster to the granting of the resources.

6.1. First stage- procedure to evaluate and quantify the damages

Step 1. Right after a natural phenomenon occurs, the State or the Federal Government Agency has to require one of the three specialized

federal departments to corroborate the existence of the disaster, depending on what kind of natural phenomenon has occurred (geological, hydro meteorological or forest burnings).

Step 2. In the next 4 days, the specialized federal department notifies the State about the existence of the disaster and the State proceeds immediately to the establishment of a Committee to evaluate and quantify the damages caused by the disaster to all kinds of infrastructure. This Committee integrates federal and State agencies which are responsible for the damaged infrastructure.

Step 3. In the next 10 days, a Committee meeting takes place, in which the federal and state agencies present their results about the evaluation on the damaged infrastructure from the diverse sectors affected and the amount of resources required for reconstruction. For damages affecting State infrastructure, the State can request in advance as much as 50% of the share's sum that correspond to the FONDEN, to immediately initiate the reconstruction works.

6.2. Second stage – procedure to authorize the necessary resources to cover the damages

Step 4. In the following 5 days, the Ministry of Interior receives the resources requests of the States and Federal Agencies and issues the natural disaster declaration in the Federal Official Newspaper. Simultaneously, the Ministry of Finances and Public Credit authorizes the FONDEN Trust to transfer the sum requested in advance by the State.

Step 5. Within the next 2 days, the Ministry of Interior should carry out the following tasks:

- Check that there is no duplication in the actions to be carry out between the federal and state agencies;
- Check that the requested resources are not for the reconstruction of damages that are not linked to the natural disaster;
- Check that the damaged infrastructure has not been the object of other previous support from the FONDEN; in this case, it should request and incorporate in the file the documents proving that the infrastructure was insured (the insurance situation will be explained with greater detail in part 11).
- Devise and present the global resources request (including its opinion about the file contents and its conformity to the legal norm) for approval by a collegial instance composed by 5 Ministers of State.

Step 6. Within the next 4 days, the collegial instance gathers to discuss the approval of the requested resources. If approved, they recommend that the resources be authorized by the Ministry of Finances and Public Credit and delivered by the FONDEN Trust, under the following procedure:

- In case of federal infrastructure, the authorized resources will be paid directly by the trustee of FONDEN Trust;
- In the event of State or municipal infrastructure, the authorized resources will be deposited by the trustee of FONDEN Trust in the according State FONDEN Trust, once the State Government deposits its correspondent part, in order for the reconstruction payments to be carried out.

The procedure described above has a time limit of 27 work days from the occurrence of the disaster to the authorization of the resources.

7. Execution of the authorized resources

- When the resources are meant to cover the cost of reconstruction of damaged State and municipal infrastructure, the Ministry of Interior informs the State about the total amount of resources approved by the FONDEN and for each sector affected, which will be deposited in the corresponding State FONDEN Trust, once the State Government deposits its correspondent part, according to the percentages indicated in the part 2 of this document and the calendar of contributions that the State presents before the State FONDEN Trust.

In that sense, all matters related to the works and actions required for the reconstruction and the use of the resources approved, is dealt with directly by the Technical Committee of the State FONDEN Trust, until full completion.

- When the resources are for the reconstruction of federal infrastructure, the trustee of the Federal FONDEN Trust is in charge of delivering the approved resources to the Federal Agencies at the moment that they present him the progress of the works and actions of reconstruction.

8. Federal FONDEN Trust and States' FONDEN Trusts

Federal FONDEN Trust - It was established in 1999 and its patrimony comes from each tax year remnants of the budgetary resources of the FONDEN Program and the remnants of the concluded programs of reconstruction.

Its main purposes are to:

- Provide the approved resources to the Federal Agencies for the reconstruction of federal infrastructure affected by a natural disaster;
- Deposit in the States' FONDEN Trusts the authorized resources for the works and actions linked to the reconstruction of the State and municipal damaged infrastructure;
- Provide to the Federal Agencies and deposit in the States' FONDEN Trusts resources with a temporary character until they obtain the reimbursement of the insurance policies, which should be deposited in the Federal FONDEN Trust once recovered;

States' FONDEN Trust - As the Federal FONDEN Trust, they were established in 1999, one for each Mexican State. Their constituents are the Local Government of each State and they have the same trustee in all of them as well as in the Federal Trust, which is a Development National Bank.

Their patrimony is constituted with the contributions provided by the Federal FONDEN Trust and the contributions made by the States and their Municipalities.

Their main purposes are to:

- Manage the resources received by the Federal FONDEN Trust and by the Governments of the States and their Municipalities;
- Finance the works and actions for the reconstruction of the affected State and municipal infrastructure, according to the percentages of payment indicated in part 2 of this document;
- Return to the Federal FONDEN Trust within the first 5 days of each month, the financial interests generated from the federal resources deposited in the State FONDEN Trust for the reconstruction of infrastructure damaged by a disaster;
- Receive donations to be used only for the purposes of the trust.

If at the end of a particular natural disaster reconstruction program, some remnants are left due to the cancellation of works and actions or to the incompleteness of the program, these should be returned to the Federal FONDEN trust and to the State Government, in the proportions that they have contributed and according to the percentages established for each type of infrastructure.

On other hand, if the natural disaster reconstruction program is completely finished and some remnants are left due to the obtention of better prices (compared to the ones foreseen), on the acquisition of the materials

and in the labor costs, those resources could be used for the constitution of a State Natural Disasters Fund.

9. Statistics

Since the beginning of human written history, there have been many tales about large-scale natural disasters, some going back to prehistoric times and that were transmitted through myths and legends, which frequently have found verification in physical evidence discovered in recent archaeological studies.

Even in the most advanced countries, it is very difficult to gather trustful and reliable information about the losses produced by disasters and even more difficult in developing countries like México, where there is no practice to carry out a quantification of goods and losses. For these reasons, the available statistics imply high margins of error, above all in data referring to economic losses and losses of human lives.

Therefore, only some general statistics of large natural disasters that have occurred in Mexico from the 1980's to date are included in table 17.2, and only those considered relevant to appreciate the importance of certain basic factors.

Table 17.2 Main Natural Catastrophes that have occurred in Mexico since 1980

YEAR	PHENOMENON	STATE	POPULATION AFFECTED	LOSSES USD
1980	Hurricane	Tamaulipas	25,000 victims	10 million
1982	Hurricane	Sinaloa	257,000 victims	450 million
1985	Earthquake	D.F.	4,287 deceased and 37,300 victims	4,000 million
1985	Rains	Nayarit	48,000 victims	420 million
1988	Hurricane Gilbert	Yucatán, Q. Roo, Campeche, Tamaulipas, Coahuila, Nuevo León	250 deceased and 15,000 victims	750 million
1990-1991	Floods	Sonora, Baja California Sur, Sinaloa y Chihuahua	40,000 victims	53 million
1993	Floods	Baja California Sur	10,000 victims	63 million
1995	Earthquake	Colima y Jalisco	34 deceased and 1,000 victims	7 million
1997	Hurricane Pauline	Guerrero y Oaxaca	228 deceased and 50,000 victims	800 million
1998	Rains	Chiapas	407 deceased and 28,753 victims	N.D.
1999	Rains	Puebla, Hidalgo, Veracruz, Tabasco y Oaxaca	329 deceased and 295,000 victims	1,000 million
2002	Hurricane Isidore	Campeche, Chiapas, Yucatán y Quintana Roo	448,000 victims	250 million
2002	Hurricane Kenna	Jalisco y Nayarit	319,000 victims	48 millions
2003	Hurricanes Ignacio y Marty	Baja California Sur	20,000 victims	43 million

Considering only the direct economic losses, the annual cost of disasters in Mexico during the last years, according to statistics, has been close to 500 million dollars, which is a very significant amount for Mexico, given the size and capacity of its economy.

From 1999 to August 2004, more than 400,000 dwellings have been reconstructed because of the damages caused by natural disasters, with an estimated cost of 500 million dollars, for actions concerning only the low income population.

The increase in the number of disasters in recent years is attributed mainly to the population increase and the human settlements in areas particularly exposed to natural phenomena, which turn into disasters, but also to the environmental deterioration of Mexican soil, particularly due to deforestation.

10. FONDEN main strengths and weaknesses

10.1. The FONDEN's main strengths are:

- Offering an exclusive federal program for natural disasters, including aid to the population before emergency situations that could be generated by a natural phenomenon;
- Transparency in the delivery of resources, whether for reconstruction or for the life and health of the population in case of emergencies;
- Money availability at any time of the year; since the resources are placed in a Trust Fund, they do not have to be returned to the Federal Treasury at the end of the year;
- Guarantee that the resources will not be exhausted, as by law disposition, the Ministry of Finances and Public Credit has the obligation to carry out the necessary budgetary procedures to ensure resources sufficiency at any time and before any natural disaster, no matter the amount required;
- Possibility to include additions and technical improvements in the infrastructure that will be reconstructed, in order to reduce its vulnerability to a new natural phenomenon.

10.2. The FONDEN's weaknesses are:

- The extreme poverty in some regions of the country, which causes a natural phenomenon, even of low or medium magnitude, to become a natural disaster of large proportions due to the weak and badly

structured infrastructure, and to the fact that a great number of dwellings are built in very risk-prone zones (up the hills, on the edge of rivers, etc.);

- Delay in the reconstruction of the damaged infrastructure and the dwellings affected, because of the necessity to comply with a great number of legal dispositions;
- The FONDEN does not foresee resources for domestic household goods of very low income population that lost its patrimony due to a natural disaster;
- The lack of required regular maintenances of local and federal infrastructure, due to insufficient budgetary resources in the State and Federal Agencies, which causes that in the presence of a natural phenomenon, the damages turn out to be a lot greater than they should.

11. Challenges and perspectives of the FONDEN

11.1. Evolution from a reactive system to a preventive system.

One of the main targets of the “Mexican National Developing Plan 2001-2006” is precisely to transit from a natural disaster reactive system to a natural disaster preventive system.

The prevention system strategy sets three primary steps:

- Knowing the dangers and threats to which we are exposed, through study and knowledge of natural phenomena;
- Identify and establish at the three levels of government (national, State and municipal) the characteristics and the actual grades of risk; understood as the product of the danger by the exposition and by the vulnerability;
- Design actions and programs to mitigate and reduce the risks before the occurrence of natural phenomena, through the reinforcement and adjustment of the infrastructure and the training of the population to learn what to do before, during and after a disaster.

To implement the above-mentioned tasks, more resources are required to invest in the prevention of disasters. This is why every year we try to get sufficient resources assigned in the Federal Budgetary of Expenses to achieve those purposes and be able to avoid large disbursements of resources to cover the damages caused by a natural disaster of large magnitude.

Today, the Federal Government already has two natural disasters prevention programs: i) the Fund for the Prevention of Natural Disasters; and ii) the Preventive Trust, which can be used by the Federal Agencies as well as by the States requiring resources for the execution of works or actions or for the acquisition of specialized equipment for the prevention of disasters.

11.2. Natural Disasters State Funds.

In an eminently federalist spirit, we are taking action so that in the medium term, all the States have their own natural disaster fund, which would allow the decentralization of this function from the federal government and avoid that all natural disasters occurring in the country continue to be covered by federal resources.

11.3. Eradicate the extreme poverty in some regions of the country and the vulnerability of a considerable part of the dwellings and infrastructure.

It is considered a main target in the Mexican National Developing Plan 2001-2006 to decrease substantially the marginalization index and to eradicate the extreme poverty of the country.

In this view, we are considering ways to dedicate more resources to the extremely poor population, living in the regions where most of the damages caused by natural disasters occur due to the extreme vulnerability of structures and foundations.

11.4. Electronic FONDEN (E-FONDEN)

The Mexican Government is working day by day to look for innovations and be at the vanguard in matter of prevention and attention of natural disasters.

The E-FONDEN project aims at increasing transparency and reducing the time needed for the approval of resources to cover the losses stemming from natural disasters, by making it possible to fulfill the requirements and process in an electronic way, allowing its fast analysis and monitoring.

The main aspects of the project are:

- The system will have the capacity to provide information on the progress of the process in an executive form through warnings, which will allow the user to identify failures in the process;
- Electronic formats will allow to avoid errors in the integration of manual files;

- The security system will allow the user to define policies of level access;
- The procedure to access FONDEN resources could be electronically monitored at any time by any Federal or State Agency;

The main advantages of the project are: increase in productivity; reduction of times; simplification of processes; improvement of service quality; efficiency increase; reduction of costs and errors; promotion of transparency; increase in security and decrease in work.

11.5. Insurance

Another Federal Government goal is to achieve that all Federal agencies and States have their infrastructure properly insured, in order for them to avoid, when a natural disaster of large magnitude occurs, the enormous disbursements that those kinds of disasters bring along. The idea is that the resources delivered from the FONDEN for the attention of natural disasters can gradually decrease and the insurances and other risks transfer instruments take charge of the amounts to pay the damages.

This is the reason why the FONDEN legal regulation aims to promote an insurance culture, compelling the Federal Agencies and State Governments to commit to incorporate in their next budgets and annual programs sufficient resources to insure the infrastructure damaged by a disaster that is going to be reconstructed with FONDEN resources, before receiving support for the reconstruction. Should the infrastructure be damaged again by another natural phenomenon, this would allow, to avoid the FONDEN having to provide resources again.

In parallel to this, the Mexican Government has been working actively in the insurance of the FONDEN Trust patrimony, through the transfer of risks by contracting an insurance policy or a “catastrophic bond” in those cases of large-scale natural disasters.

12. Catastrophe insurances or bonds: a financial instrument to solve an economic issue

- The requirement of resources in case of a catastrophic disaster is enormous and volatile; it is therefore neither possible nor recommendable to use direct budgetary resources. A common solution is “self-insurance” through the creation of trusts.
- Nevertheless, in years with low fiscal revenues, there are negative incentives to stop contributing resources to the trusts, causing their depletion.

- The spending linked to natural disasters of large magnitude are highly unpredictable, fiscal resources are not enough to cover it.
- The new scheme is based on policy insurance or catastrophe bonds and has two great advantages:
 - **Magnify the resources of the trust**, the payment of the insurance premium is covered with resources of the trust. When the catastrophe happens, the trust receives a great amount of resources. It would be much more complicated to cover the full cost of the disaster with fiscal resources only.
 - **It solves the economic issue**, since it creates a frame of incentives that stimulates renewing periodically the cover.

Therefore, this scheme focuses on contracting catastrophic covers first able to transfer the risk of earthquake and to protect the existing resources in the trust.

This kind of scheme provides incentives for the State to fund a possible disaster in a permanent way, since the responsibility of not renewing a catastrophic insurance is enormous, whereas stopping contribution to the trust during a year is a relatively smaller responsibility.

13. Objectives of the project

The first risk that should be transferred from the FONDEN trust to the financial markets is the earthquake risk, since:

- Although it is the less recurrent risk, it is the one that can cause the biggest disasters.
- In México, we have enough data about this risk as we have top specialists on the topic.

Other risks could then possibly be transferred.

It is necessary to develop a system that evaluates the weather and topographic risks and that determines the probability of maximum loss (PML) by type of risk and geographic location.

14. Proposal of earthquake risk cover

There are two main financial instruments to transfer the earthquake risk:

- Traditional Reinsurance
- Catastrophe Bond.

The Mexican government is working very hard to have the earthquake risk cover proposal contracted before the end of the year.

Once the earthquake risk cover has been issued, we will be able to advance in others risks coverage (hurricane, flood, agrarian risks, volcanic eruption, etc.).

For now the budget of the FONDEN will be dedicated to paying the catastrophic insurance premiums and will retain a small sum for recurrent, less destructive, events. In doing this, the FONDEN will dispose of a sound and large capacity to face catastrophic events of great magnitude without affecting public budget.

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

Part II

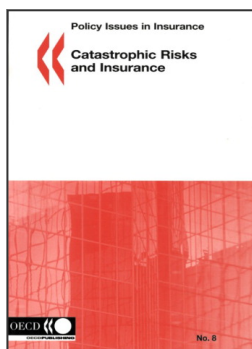
Financial Markets Solutions to Manage Catastrophic Risks

<i>Chapter 8</i>	Current Challenges in the Securitization of Terrorism Risk <i>by Gordon Woo, Risk Management Solutions Ltd</i>	91
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<i>Chapter 9</i>	Financing Disaster Risks in Developing and Emerging Economy Countries by Reinhard Mechler, IIASA	105
<i>Chapter 10</i>	The Potential for New Derivatives Instruments to Cover Terrorism Risks by Michele David, the Bond Market Association	163
<i>Chapter 11</i>	Catastrophic Risk Securitization: Moody's Perspective by Rodrigo Araya, Moody's	171
<i>Part III</i>		
Role of Government and Public-Private Partnerships for Catastrophic Risks Management		
<i>Part III.A.</i>	Analytical and Comparative Reports.....	185
<i>Chapter 12</i>	Comparative Analysis of Large Scale Catastrophe Compensation Schemes by Paul K. Freeman and Kathryn Scott, University of Denver	187
<i>Chapter 13</i>	Rapid Onset Natural Disasters: the Role of Risk Financing in Effective Catastrophe Risk Management by Eugene Gurenko and Rodney Lester, World Bank	235
<i>Chapter 14</i>	Designing a Disaster Insurance Pool Participatory and Expert Approaches in Hungary and Turkey by Joanne Linnerooth-Bayer, IIASA, Anna Vári, Hungarian Academy of Sciences and Reinhard Mechler, IIASA.....	267
<i>Part III.B.</i>	Country Surveys – OECD Countries	291
<i>Chapter 15</i>	The French Experience in the Management and Compensation of Large Scale Disasters by Suzanne Vallet, Caisse Centrale de Réassurance.....	293

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



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