

**CONFERENCE ON CATASTROPHIC RISKS
AND INSURANCE**

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NATURAL DISASTERS FUND (FONDEN)

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Powerpoint Presentation

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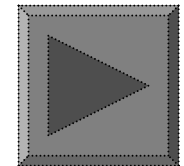


Mexico

Ministry of Interior

Fonden

Fonden Management
Office



Introduction

By his geographical position, Mexican territory finds itself under a great variety of natural phenomena which can cause disasters.

Earthquakes

Volcanic Eruptions

Hurricanes

Burning Forest

Floods

Earth movement

Aridity (dryness)



In the presence of disasters caused by nature, the response of the Federal and Local Government, obligates to orientate their budget exercise to destine indispensable resources to attend the damaged suffered in the physical infrastructure and to attend the injury population.



That situation caused that the regular programs of public construction, like extending the construction, giving maintenance, new construction, didn't accomplish or suffered important decreases by the lack of money, since these resources were designated to the reconstruction of the infrastructure destroyed by a natural phenomenon.



In attention to the Mexican Federal Government's concerning to increase their capacity to attend the effects of the natural disasters and with the purpose to allowed the government to attend the damaged caused by natural phenomena without altering the public finances, by 1996 was created the Natural Disasters Fund (FONDEN), like a new program which primary purpose was to timely attend the non insurable damaged infrastructure (Federal and local) caused by natural disasters.



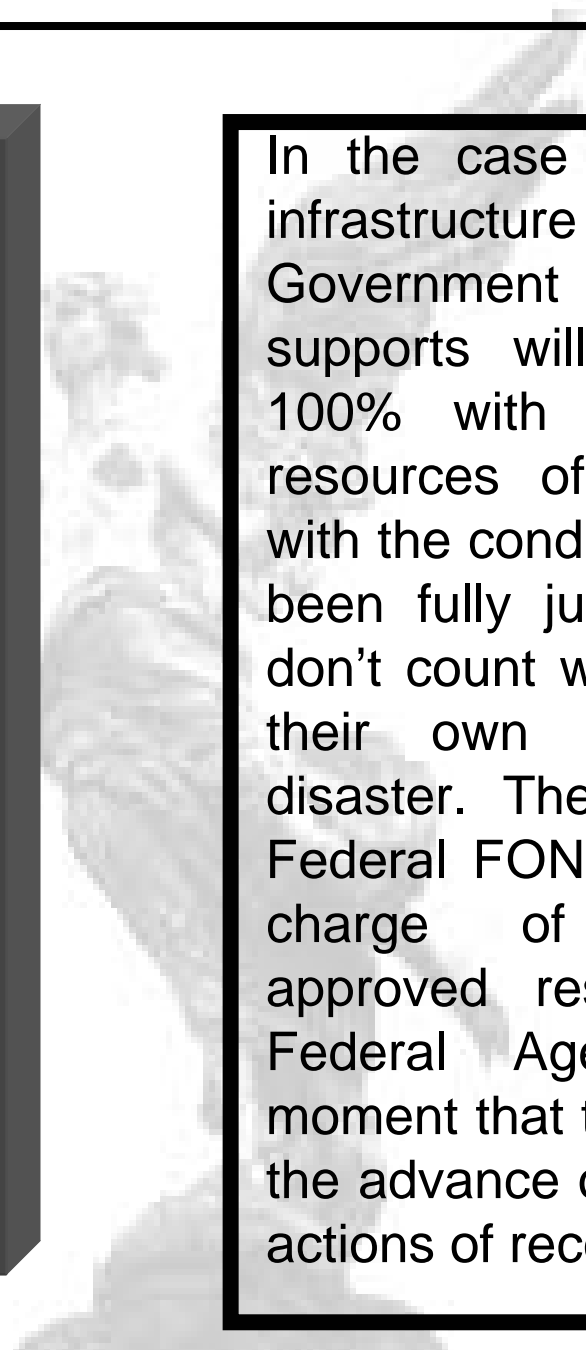
Although with the FONDEN constitution the trouble related to avoid a lead off on the regular programs resources was in a way solved, there were not a legal regulation which provides the correct control and transparency in the money application; therefore in 1999 the first FONDEN rules were issued, which has had many substantial modifications to accomplish that the procedures to access the resources be held with maximum efficiency and opportunity.



The purposes and Genesis of the Fonden

The FONDEN is a financial tool composed by many instruments and driven by various Federal Government Agencies which participates in their operation, which has as a main purpose to provide resources to the 32 Mexican States and to the Federal Agencies (that are in charged of federal infrastructure) to attend the harm and damages caused by a natural phenomenon, whose disaster's magnitude overcame their capacity of response with their own budget.

It's a federal program which provide support in a complementary and subsidiary way to the resources destined originally to the attention of natural disasters. Therefore, to get the resources approved it's necessary that the Mexican States and the Federal Agencies that are looking for the complementary support justified that the disaster surpasses their financial standing, with regard to not have sufficient resources in its normal programs to attend the damages caused by the disaster.



In the event of damages in infrastructure of the Mexican States and their Municipalities, the supports that offers the FONDEN are complementary and they will be applied according to the proportions based on what kind of infrastructure was damaged. The resources will be deposit in the State FONDEN Trust according to the State Government calendar to take on the reconstruction.

In the case of damages in infrastructure of some Federal Government Agency, the supports will be offered in 100% with charge to the resources of the FONDEN, with the condition that there is been fully justified that they don't count with resources of their own to attend the disaster. The trustee of the Federal FONDEN Trust is in charge of deliver the approved resources to the Federal Agencies in the moment that they present him the advance of the works and actions of reconstruction.

The FONDEN instruments

- 1. Revolvable Fund:** Instrument that has for object to provide resources for the aid supplies acquisition with the purpose to attend in an immediate way the urgent needs of the population before situations of emergency and of disaster generated by a natural phenomenon related to life, health, alimentation, medical attention, dress, temporary shelter, as well as the rescue of people.
- 2. FONDEN Program:** His object is to provide economic support for the reconstruction of the infrastructure of the three orders of government damaged by a natural disaster; as well as for the affected dwellings of the low income population with no possibilities to access to an insurance and for the restitution of the forest resources, protected natural areas, rivers, lagoons, etc.
- 3. FONDEN Trust Fund:** Its purpose is to give resources from its patrimony to attend the actions foreseen in the FONDEN Program, as well as the contracting of insurances and risks transfer instruments (disastrous bonds).

Federal Fonden Trust

BANBRAS

His main purposes are:



- Provide the approved resources to the Federal Agencies for the reconstruction of the federal infrastructure affected by a natural disaster;

- Deposit in the States FONDEN Trusts the authorized resources for the works and actions regarding 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 deposit in the Federal FONDEN Trust once recovered;

States FONDEN Trust

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

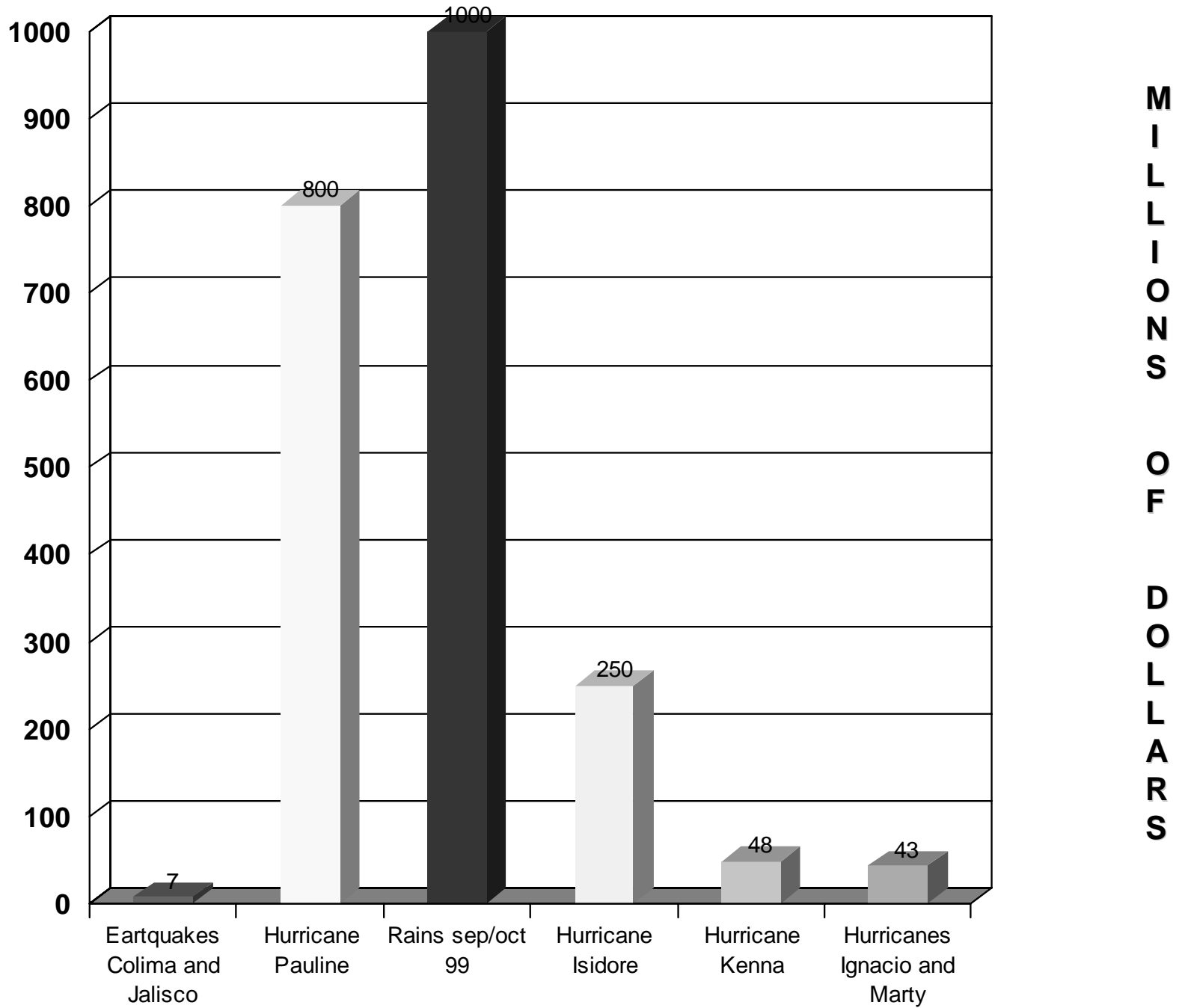
Their main purposes are:

- To manage the resources received by the Federal FONDEN Trust and by the Government of the States and their Municipalities;**

- To pay the works and actions for the reconstruction of the state and municipal affected infrastructure, according to the percentages of payment indicated in the legal regulation.**

Some of the main statistics of Natural Disasters occurred in Mexico in the past ten years.

YEAR	PHENOMENON	STATE	POPULATION AFFECTED	LOSES USD
1993	Floods	Baja California Sur	10,000 victims	63 millions
1995	Earthquake	Colima y Jalisco	34 deceased and 1,000 victims	7 millions
1997	Hurricane Pauline	Guerrero y Oaxaca	228 deceased and 50,000 victims	800 millions
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 millions
2002	Hurricane Isidore	Campeche, Chiapas, Yucatán y Quintana Roo	448,000 victims	250 millions
2002	Hurricane Kenna	Jalisco y Nayarit	319,000 victims	48 millions
2003	Hurricanes Ignacio y Marty	Baja California Sur	20,000 victims	43 millions



FONDEN main strengths and weaknesses

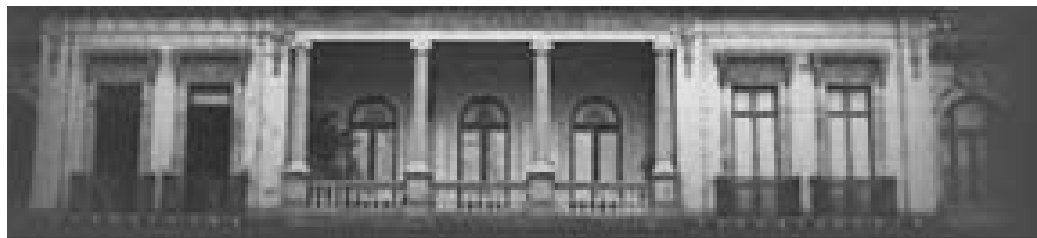
1. The FONDEN strengths are:

- Having an exclusive federal program for the attention of natural disasters, including the aid to the population before emergency situations that could be generated by a natural phenomenon;



FONDEN main strengths

- Transparency in the resources delivery, whether for reconstruction or for the attention of the life and the 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 are not subject to be returned to the Federal Treasury at the end of the year;



FONDEN main strengths

- Guarantee that the resources will not be exhausted, regarding that by law disposition, the Ministry of Finances and Public Credit has the obligation to carry out the necessary budgetary procedures to count with resources sufficiency at any moment and before any natural disaster, no matter how much are the totals required;
- Possibility to include additions and technical improvements in the infrastructure that will be reconstructed, in order to reduce its sensitivity to get damaged by a new natural phenomenon.



2. The FONDEN weaknesses are:

➤The extreme poverty in some regions of the country which causes that before the presence of a natural phenomenon, even of low or medium magnitude, it become a natural disaster of large proportions by the weak infrastructure and badly structured, besides having a great number of dwellings built in very risky zones (up the hills, in the edge of rivers, etc.);



FONDEN weaknesses

➤ Delay in the reconstruction of the damaged infrastructure and the dwellings affected, because the necessity to comply a great number of legal dispositions;



➤ Does not foresee resources for domestic household goods to the population of very low income that have lost its patrimony before a natural disaster;



FONDEN weaknesses

➤The lack of required maintenances time to time to the local and federal infrastructure, by not having enough 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 it should.



Challenges and perspectives of the FONDEN

1. Change from a reactive system to a preventive system.

The prevention system strategy set three primary steps:

a) Knowing the dangers and threats to which we are exposed, thru study and knowledge of the natural phenomena;



b) Identify and establish in the three levels of government the characteristics and the actual grades of risk; understood this as the product of the danger by the exposition and by the vulnerability;

c) Design actions and programs to reduce risks before the presence of natural phenomena, thru the reinforcement and adjusting of infrastructure and preparing the population to learn what to do before, during and after a disaster.

Challenges and perspectives of the FONDEN

2. Natural Disasters State Funds.

Attending to an eminently federalist spirit, we seek that in a medium time limit all the States count with their own natural disaster fund, in order to decentralize this function from the federal government and avoid that all natural disasters that occur in the country continue being attended with federal resources.



Challenges and perspectives of the FONDEN



3. Eradicate the extreme poverty in some regions of the country and the vulnerability from great part of the dwellings and infrastructure.

It's consider like a main target in the Mexican National Developing Plan 2001-2006, succeed to decrease substantially the marginalization index and to manage to eradicate the extreme poverty of the country.

For that to prevail, we are seeking the way to destine more resources for the attention of the extremely poverty population, since mostly of the damages caused by natural disasters occur in those regions, because the structures and foundations being so vulnerable.

Challenges and perspectives of the FONDEN



4. Insurances

Another Federal Government goal is to achieve that all the Federal agencies and the States can have their infrastructure properly insured, so when a natural disaster of large magnitude shows, they could be able to avoid the enormous disbursements that those kinds of disasters brings along. The idea is that the resources delivered from the FONDEN for the attention of natural disasters can gradually diminish and the insurances and other risks transfer instruments take charge of the amounts to pay the damages.

Challenges and perspectives of the FONDEN

Insurances

That's why the FONDEN legal regulation search to promote the insurance culture, compelling the Federal Agencies and State Governments to compromise to incorporate in their next budgets and annual programs, the sufficient resources to insure the infrastructure damaged by a disaster that is going to be reconstructed with FONDEN resources, before receiving the supports for the reconstruction, avoiding that if the infrastructure turns out to be damaged again in the future by a new natural phenomenon, the FONDEN has to provide with the resources again.

In parallel to the previous information, the Mexican Government has been working intensely in the insurance of the FONDEN Trust patrimony, through the transfer of the risks by contracting an insurance policy or a "catastrophic bond" in those cases of large proportions natural disasters.



The catastrophe insurances or bonds: a financial instrument to solve a problem of political economy

- **T**he requirement of resources in case of a catastrophic disaster is enormous and volatile, reason why it is not possible nor recommendable to use budgetary resources of direct way.
- **G**iven the magnitude of financial resources required for the mitigation of the disasters, a recurrent solution is “self-insurance” through the creation of trusts.
- **N**evertheless, years with low fiscal revenues there are perverse incentives to stop contributing resources to the trust causing their depletion.
- **T**he new scheme that has followed the Ministry of Finance is based on insurances or catastrophe bonds, which 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 receive a great amount of resources. It would be much more complicated to mitigate the entire disaster with only fiscal resources.
 - **It solves the problem of political economy**, since it creates a frame of incentives that stimulates renewing periodically the cover.
- **T**herefore, this scheme is focused in contracting catastrophic covers first able to transfer the risk of earthquake and to protect the existing resources in the trust.
- **T**his kind of scheme enforced the State to fund a possible disaster in a permanent way, since:
 - “The responsibility of not renewing a catastrophic insurance is enormous, whereas stop contributing to the trust during a year, is a relatively smaller responsibility.”

Objectives of the project

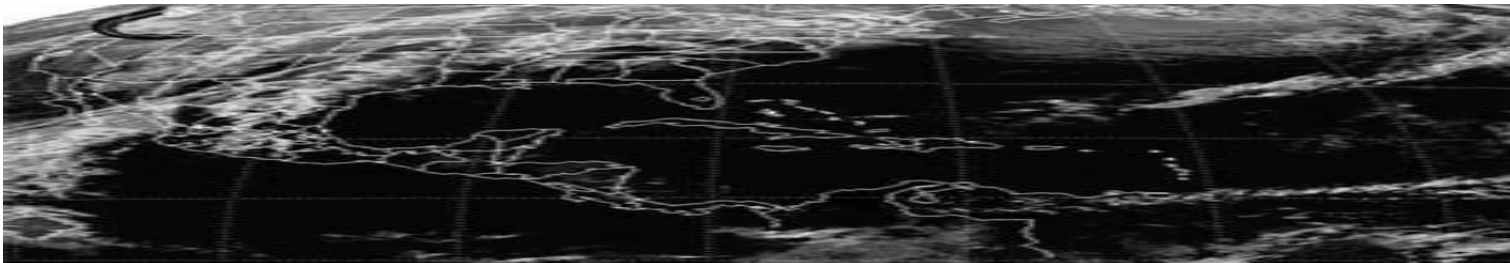
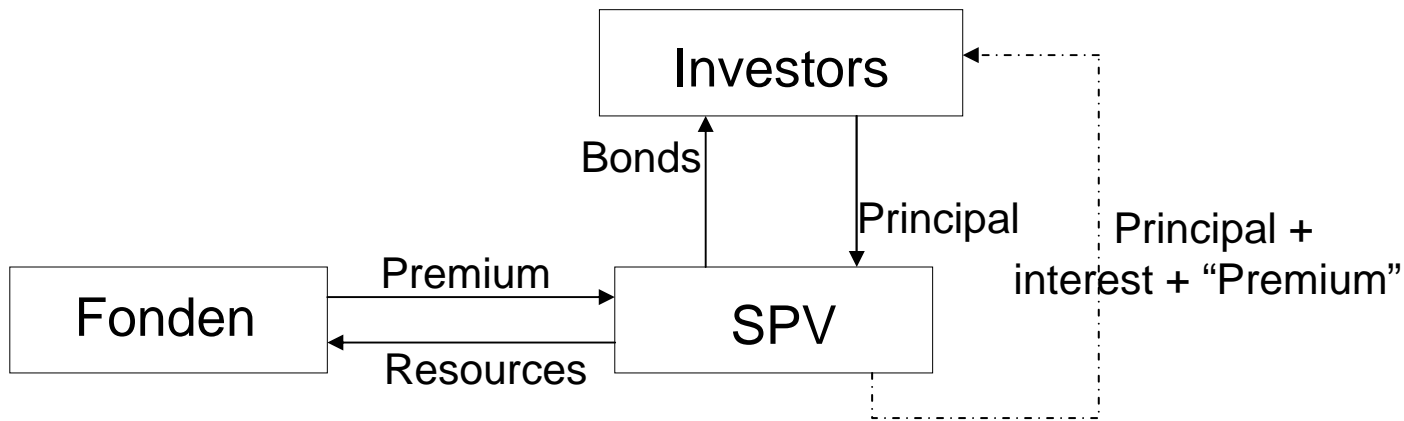
- **T**he first risk to transfer from the FONDEN trust to the financial markets is the earthquake, since:
 - Although it's the less recurrent risk, is the one that can cause the biggest disasters.
 - We have enough data about the risk. We had top specialists in the topic.



Possibly other risks could be transferred. Is necessary to develop a system that evaluates the weather and topographic risks that determines the probability of maximum loss (PML) by type of risk and geographic location.

Proposal of Cover of Seismic Risk

- There are several financial instruments to transfer the earthquake risk:
 - Traditional Reinsurance: It is a “typical” insurance contract which is covered by the payment of a premium.
 - Catastrophe Bond: Where the structure is the following one:



Mid term strategy

- Once the earthquake cover has been issued, then 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 destined to pay the catastrophic insurance premiums and will retain a small sum for recurrent less destructive events. By this way, the Fonden has an enormous capacity to confront catastrophic events of great magnitude without affecting the public finances.



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