

# Current stage of the Marine Aquaculture Insurance in Spain

*Vigo, 6th &  
7th april 2006.*

*Juan José García Peláez, DVM.  
Department of Claims and Assessments.  
Agroseguro.*





# Current stage of the Marine Aquaculture insurance in Spain



- Industry challenges
- The aquaculture insurance
- Results
- Major risk management
- Conclusions

**Content**

[jpelaez@agroseguro.es](mailto:jpelaez@agroseguro.es)





# Current situation of the Marine Aquaculture

- Reduced sale prices:
  - Economies of scale
  - Increase farms sizes
- Imposed location of the farms:
  - The chosen criteria are environmental, tourism and even landscape
  - Off-shore cages

**Industry**

*The aquaculture insurance starts in 1997.*





# The producer situation

- Off-shore systems = greater uncertainty
- Capital concentration: specially in medium and family operated sized farms
- Diversification of the production (in the long run)

*Response*

*Diversification/Off-shore system/Production scale.*





## Our point of view as insurers

- Great exposure in off-shore farms
- The concentration of the capital: greater risk of large claims
- Limited geographic distribution (Canary and Mediterranean)
- The technical results varies a lot
- Have to find the resources to manage the new advances in the sector

*The insurer*

*The insurance must be able to deal with large claims.*





# Aquaculture coverage

## ■ Characteristics:

- Package of nominal cover
- Fish death or escapes

■ Production: sea bream, sea bass, turbot, mussels, trout farms and “corvina”

■ Main risks: storm, pollution, illness, predators, accidents, etc

*Coverages*

*We cover always the damage  
on the production*





# Insurance cover

## ■ Out of cover:

- Some diseases, like the winter syndrome
- Loses in the results accounts
- Damage of the installations
- Consequential Loss., etc

*Conclusion*





# Basic Guarantees

<i>Basic guarantees</i>	Cages and marine platforms	Naves and canals	Ponds	Hatchery/nursery	Under-water turbot cages
<b>Chemical and biological pollution</b>	X	X	X	X	X
<b>Oil Slick</b>	X	X	X	X	X
<b>Storms</b>	X				X
<b>Damage caused by boats/other drifting sea vessels</b>	X				X
<b>Lightning, fire or explosion</b>			X	X	
<b>Hurricane</b>			X	X	
<b>Exceptional variations in temperature</b>		X			
<b>Drop in salinity due to torrential rain</b>		X			

*The policy*

*Nominal covers.*





# Additional Guarantees

<i>Additional Guarantees I</i>	Cages and marine platforms	Naves and canals	Ponds	Hatchery/nursery	Under-water turbot cages
<b>Exceptional variations in temperature</b>	X		X	X	X
<b>Marine predators</b>	X				X
<b>Drop in salinity due to torrential rain</b>			X	X	X
<b>Floods</b>		X	X	X	
<b>Hurricane</b>		X			
<b>Lightning, fire or explosion</b>		X			
<i>Additional Guarantees II</i>					
<b>Illnesses</b>	X	X	X	X	X

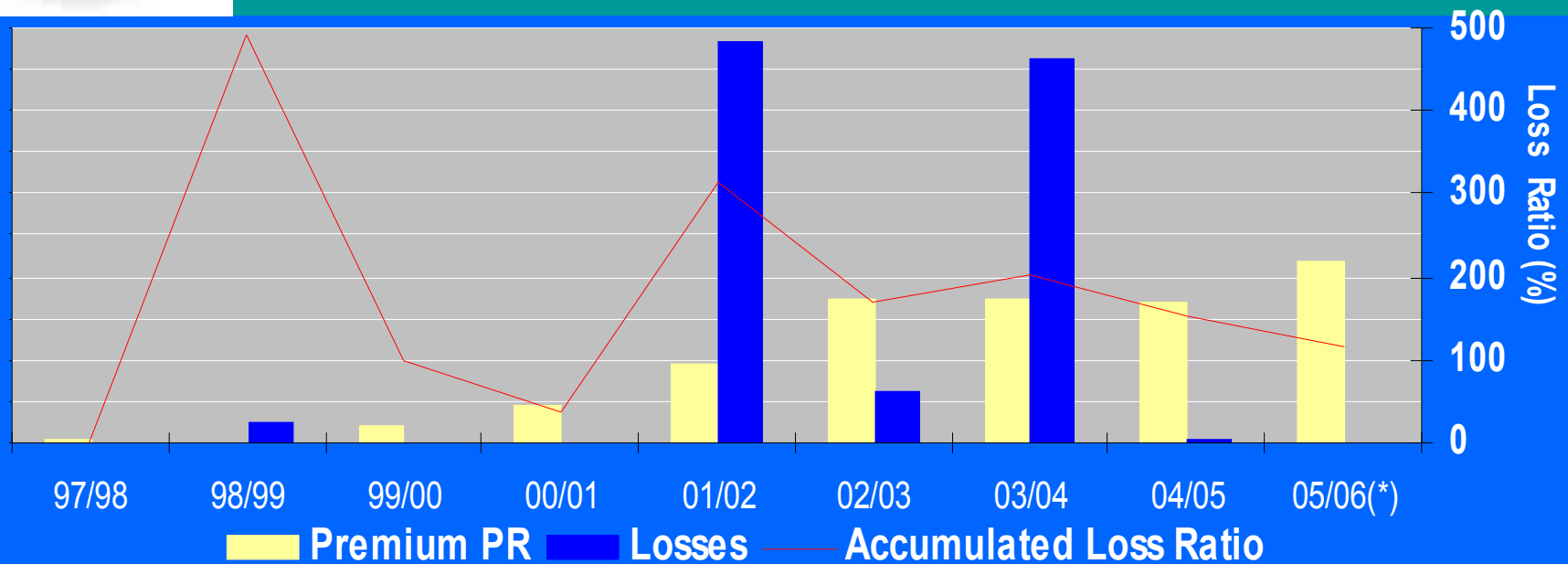
*The policy*

*Basic guaranties and two packages of additional.*





# Results 1997-2005



- Average loss ratio 152.56 % (1997-2004)
- Significant results variation
- Difficult to foresee the tendency

(\*) Guarantees still ongoing

*Results*

*Includes all the risk.*





# Results of the different type of claims

<u>Risk</u>	<u>Net Loss</u>
Storm	9.995.156,08 €
Disease	158.632,85 €
Predators	93.597,10 €
Oil slick	72.556,80 €
Ships	60.453,10 €



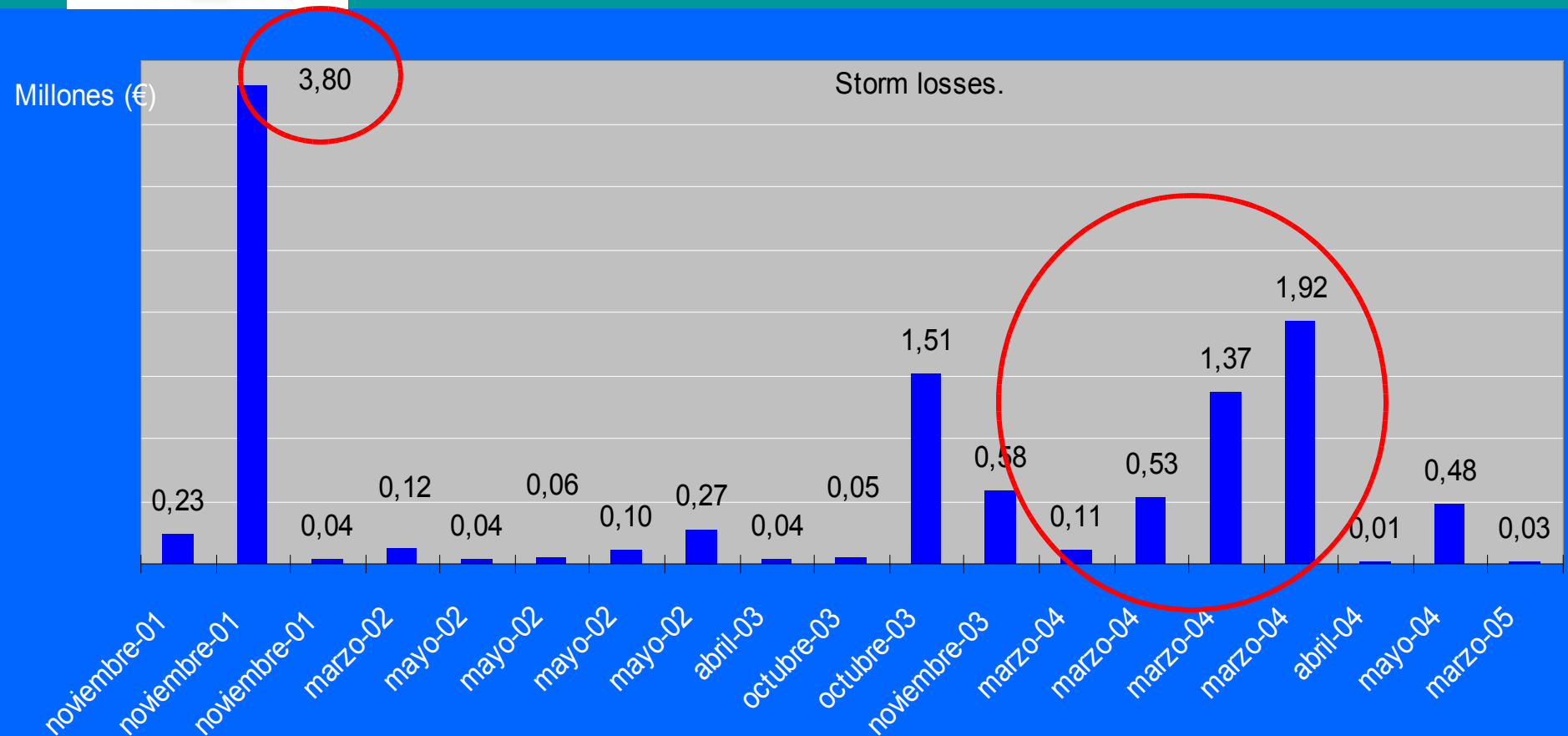
**Storm**

*Storms are the largest risk.  
Responsible for 95 % of the claims.*





# Storm compensations



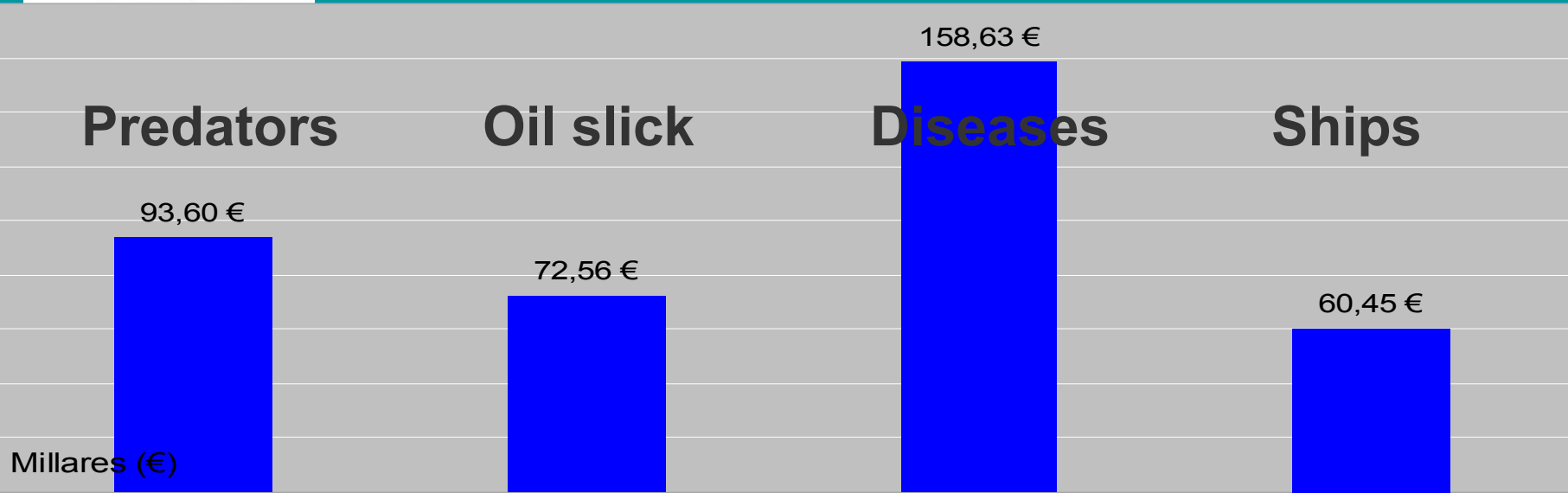
## Results

*Distribution of the risk is limited. In march 2004, a storm hit farms up to 453 km apart.*





# Paid claim for other causes



**Other risks.**

*This represents 4% of all the paid claims.*





# Storm Risk Management

- When a farm is insured, it's assumed that the fish and the farm are adequately managed
- Against low intensity storm: quality and proper management
- Main components of the risk : location and maintenance.

**Storm**

*The engineers (NEED TO) design system to support specify sea conditions.*





# Storm Risk Management

- The risk of a storm depends on:
  - Location (depth, protection, currents and winds)
  - Maintenance and quality of the underwater constructions

Once the insurance gets contracted, the farms could have a tendency to relax the maintenance program and therefore the risk increases

**Maintenance**

*¿How can we, as insurers, be sure that the farm will be maintained properly after the contract is operating?*





# Maintenance and risk



- Tension in the grid
- Wearing of the metal components
- Ageing and fouling of the nets
- Cleanness of the components.

*Good practice*

*It is in the producers interest to maintain the farm properly.*





# Maintenance and risk

- Variation in the maintenance: a new scenario
  - Increase assumed risk
  - The applied prime does not take into account the increased risk
- How we prevent it:
  - Establishing minimum requirements and minimum technical conditions
  - Analyzing of individual underwriting request

*Tools*

*Policy is available at:  
[www.agroseguro.es/Servicios.html](http://www.agroseguro.es/Servicios.html)*





# Risk Management Tools: Policy design

- Minimum insurance requirements:
  - Minimum depth of the farm
  - Maximum size and depth of the net to the bottom
- Technical conditions:
  - The grid must have tension
  - Breaking strain of the nets and ropes

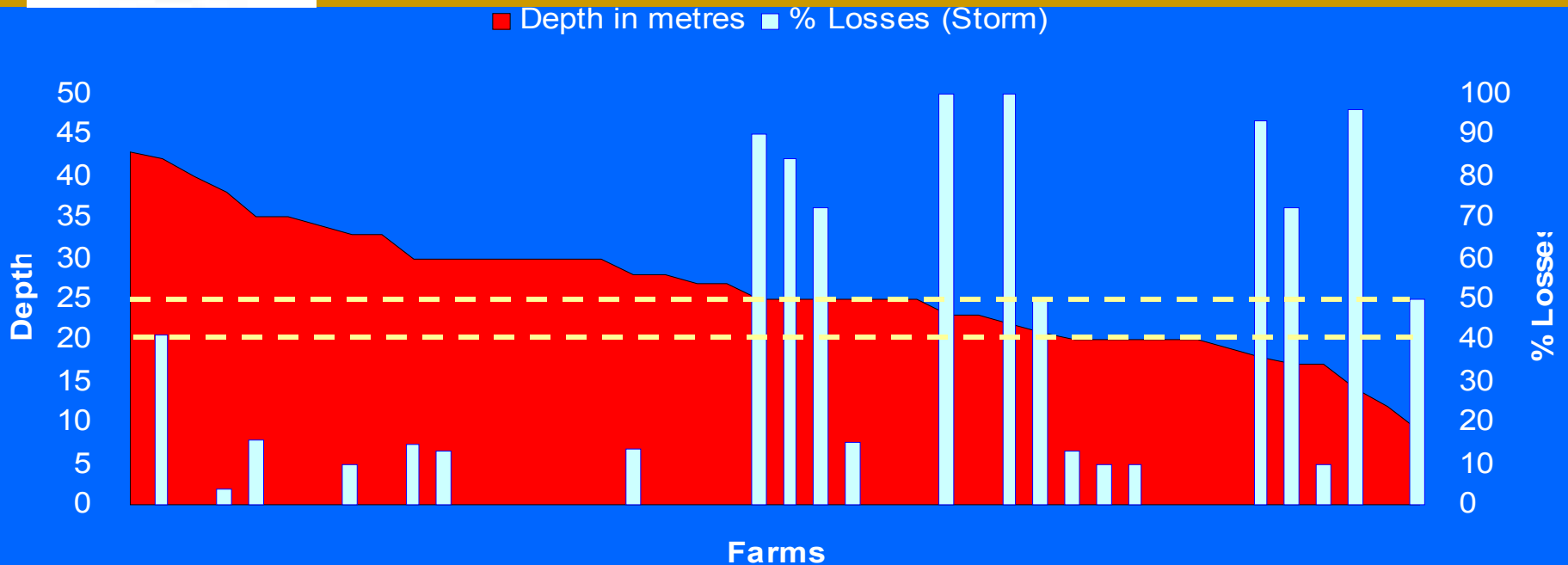
**Policy**

*Minimum conditions to receive, and maintain  
the insurance.*





# Depth



➤ The farms that had 100% losses and were located in less than 20 m, have not been rebuilt in the same location

*Location*

*The results support.*





# Risk Management Tools: INSPECTION

- Are done by independent professionals with experience in aquaculture and contracted by Agroseguro
- Three types:
  - Previous to the insurance grant
  - During the cover period
  - In case of a claim

*Tools*

*The inspections are a key aspect of the insurance.*





# Risk Management Tools: INSPECTION

- Very useful tool to manage the risk of storm, by the insurer
- Needed to calculate the premium
- In case of a claim, is need to asses the adjuster
- Need to improve it

*Inspections*

*Identify the critical point of control.*





# Conclusions

- CDD: Principal of compensating and distributing risk, made within our crop insurance system
- Climate change??
- The future has to be:
  - Keep improving the policy conditions and inspections
  - The insurance must take an active role to prevent the risk
  - Include the insurance in the technology innovation, SIG systems... but don't forget listen to the local practice
  - Storms, be realistic, nothing to do against the "big one"

*The future*

*The insurance is a useful tool to manage risk.*





**C/ Gobelas 23 – 28023 Madrid**

**Telf.: +34 91 837 32 00 Fax: +34 91 837 32 27**

**[www.agroseguro.es](http://www.agroseguro.es)**

**E-mail: [agro@agroseguro.es](mailto:agro@agroseguro.es)**



Muchas gracias por su atención.