



SPANISH AGRICULTURAL INSURANCE SYSTEM

ENESA's Approach

Madrid, 9th February 2014



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Paper Outline.

1. Introduction.
2. Objective.
3. Background.
4. Stakeholders.
5. ENESA.
6. Limitations & Advantages.
7. Successful keys

Introduction.

Why are we here?



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Introduction.

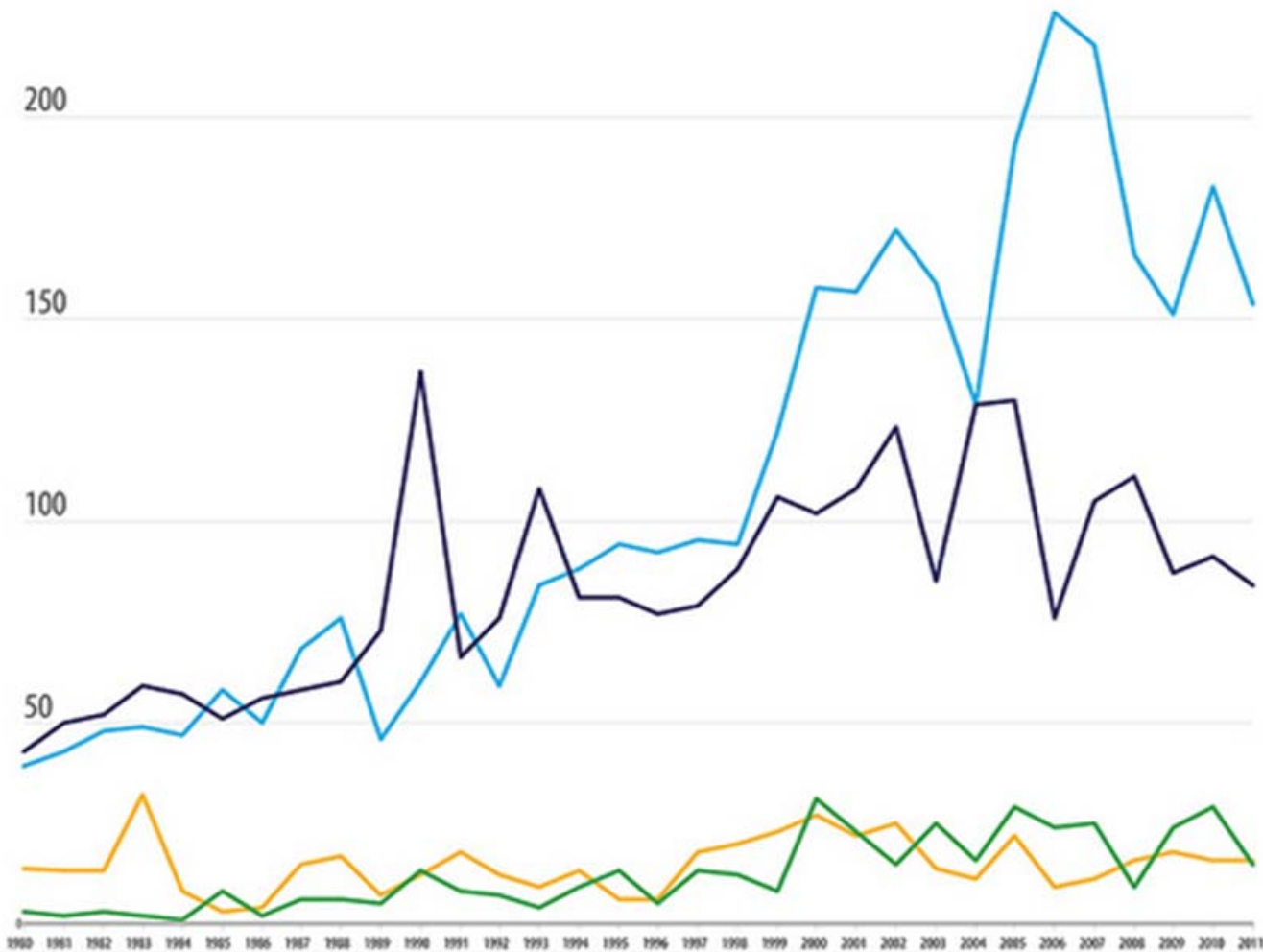
Number of Climate-related Disasters Around the World (1980-2011)

 **3455**
FLOODS

 **2689**
STORMS

 **470**
DROUGHTS

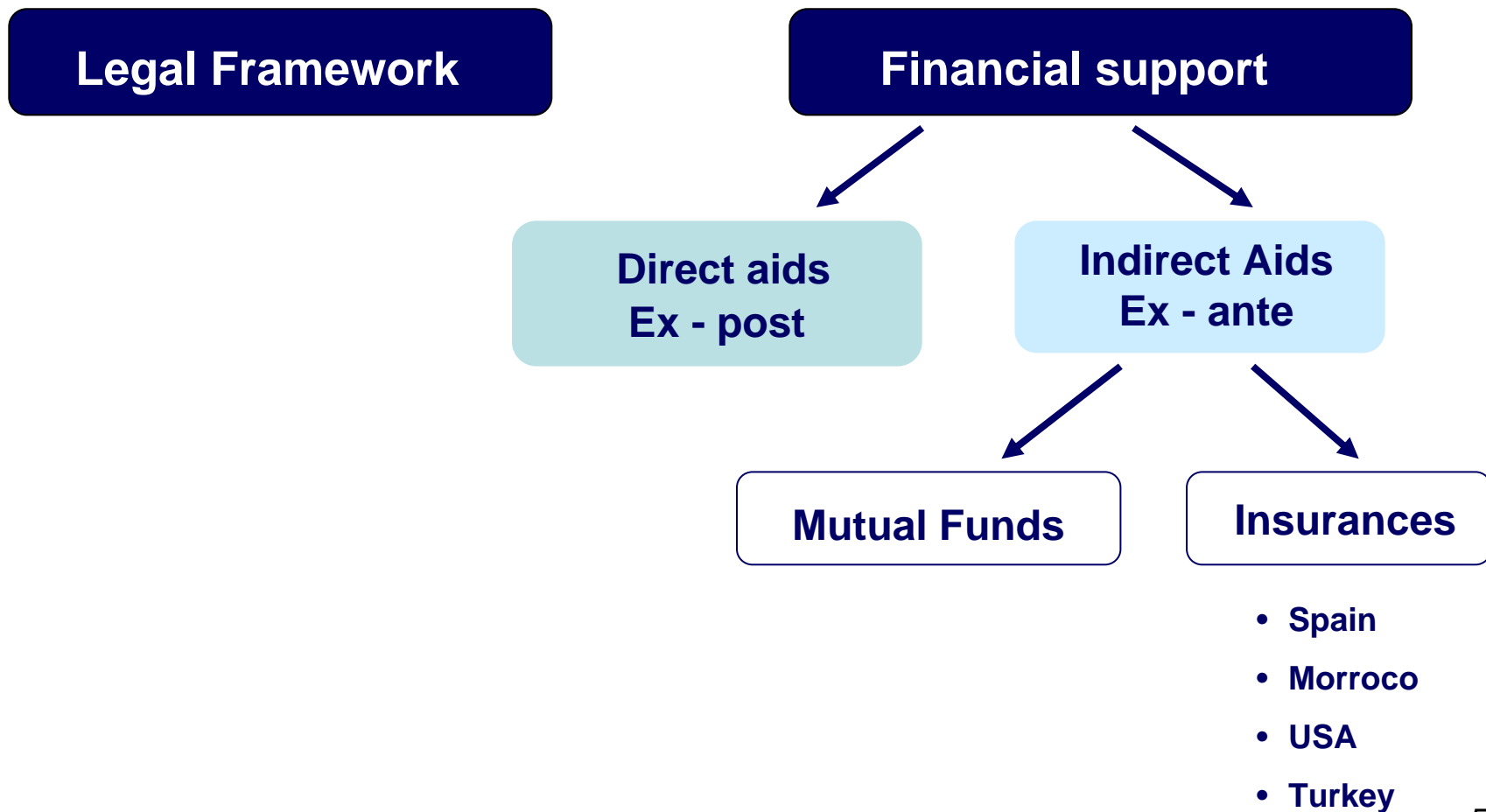
 **395**
EXTREME TEMPS





Introduction.

What could Governments do?





Introduction.

DIRECT PAYMENT EX POST

- Hard to implement.
- Difficult resources availability.
- Difficult damages assesment.
- Long administrative procedure
- Delay of payments.



INSURANCE GRANTS EX ANTE

- Emergency pre-empted.
- Greater financial soundnes.
- Transparency.
- Insurer responsible for:
 - damages assesment
 - payment of claims
- Early payment.



Spanish Agricultural Insurance System – Objective.

- Offering protection against non- controlable risks.
 - Adverse weather conditions
 - Accidents
 - Diseases
- Supporting financial stability of farms.
- Enhancing private business.

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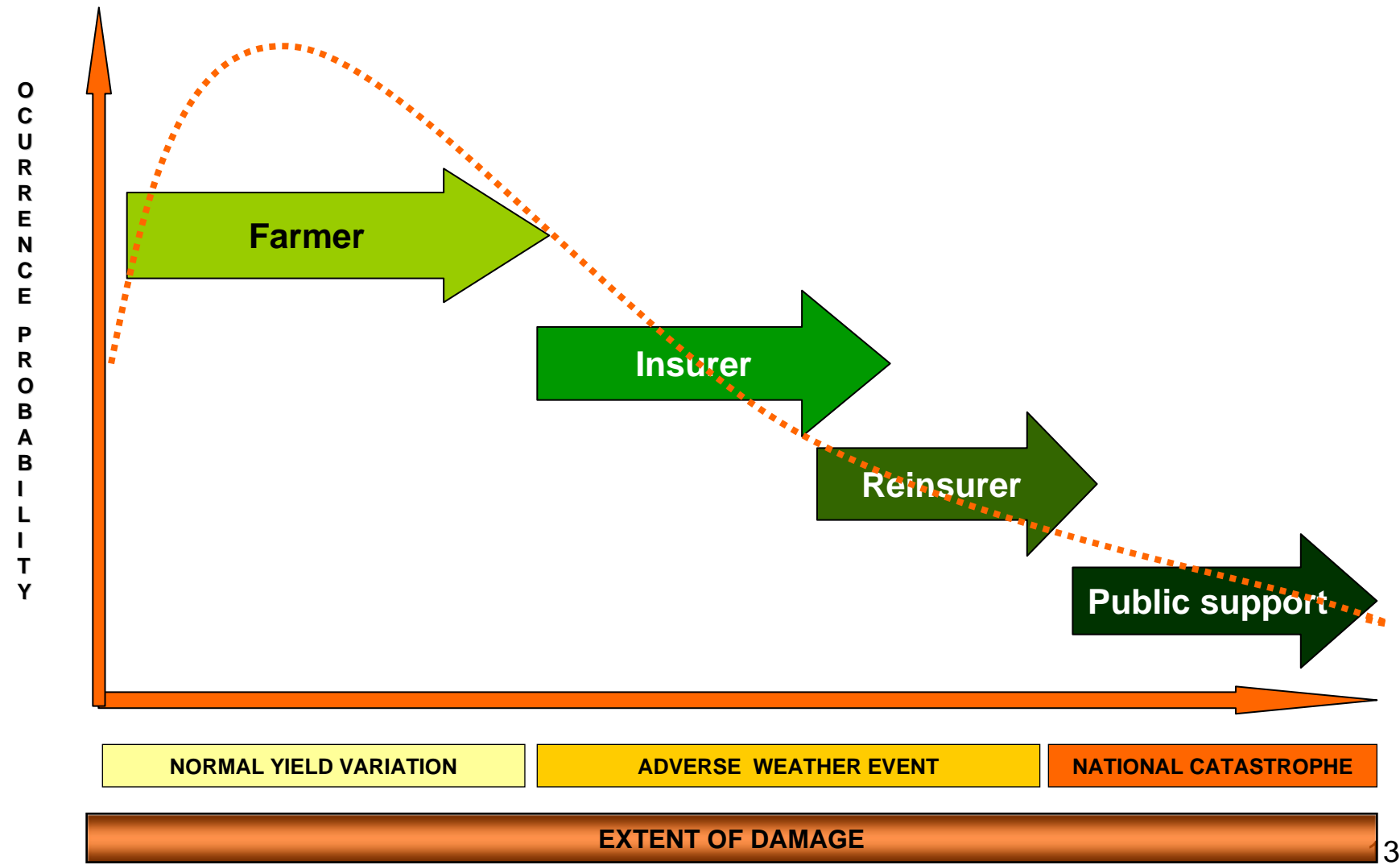


Spanish Agricultural Insurance System.

- **Private contract** between the farmer and the insurance company.
 - ⇒ Waiting periods
 - ⇒ Minimum damage thresholds
 - ⇒ Deductibles
 - ⇒ Bonus and surcharge system
- Contract **subsidised** by the government
- Contract **supervised** by the government
- Detailed contract **conditions** on www.enesa.es



Introduction.



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Spanish Agricultural Insurance System.

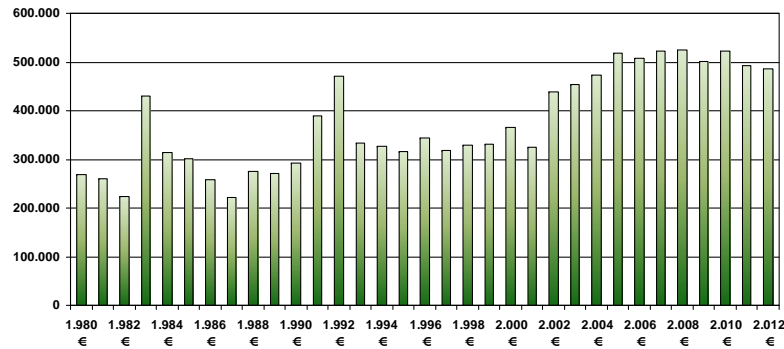
- More than 34 years of experience (since 1978).
- Coverage for all agricultural productions.
- Progressive development of livestock and aquaculture insurance since 2000.
- Recent design of forestry insurance.
- Sharing technical knowdlege with other countries.

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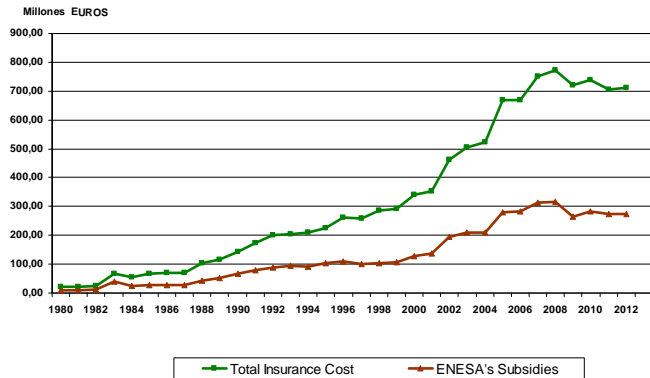


Spanish Agricultural Insurance System.

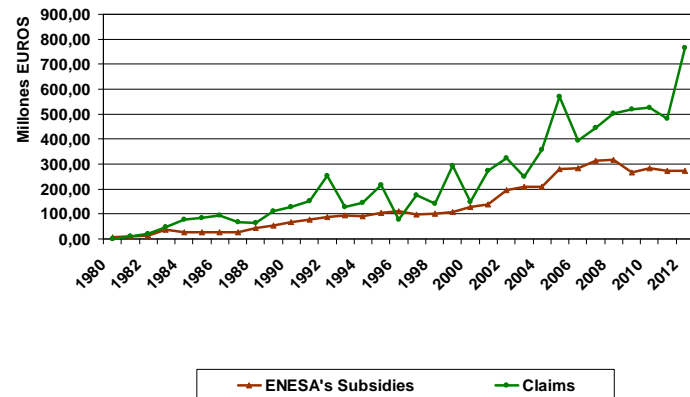
N. Policies



Budget



Claims



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Spanish Agricultural Insurance System - Partnership scope.

- Legal agreements between all political groups
- Annual plan approved by agreement in the cabinet
- Central and regional governments grant subsidies
- Non ad-hoc aids by the central government for insurable risks
- Devising technical-financial viability studies
- Defining several aspects on the insurance contract: agricultural practices, prices, underwriting period . . .

Long – term political agreement

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Spanish Agricultural Insurance System - Partnership scope.

Legal Framework

- Law 87/1978
 - Objective
 - Stakeholders role.
 - Scope.
 - Insurable risks
 - Insurable productions.
 - Making decision procedure.
- RD 2329/79 Regulations in application of the law
- Triennial & Annual Plan

Long - term sustainable system



Spanish Agricultural Insurance System – Stakeholders.

PRIVATE

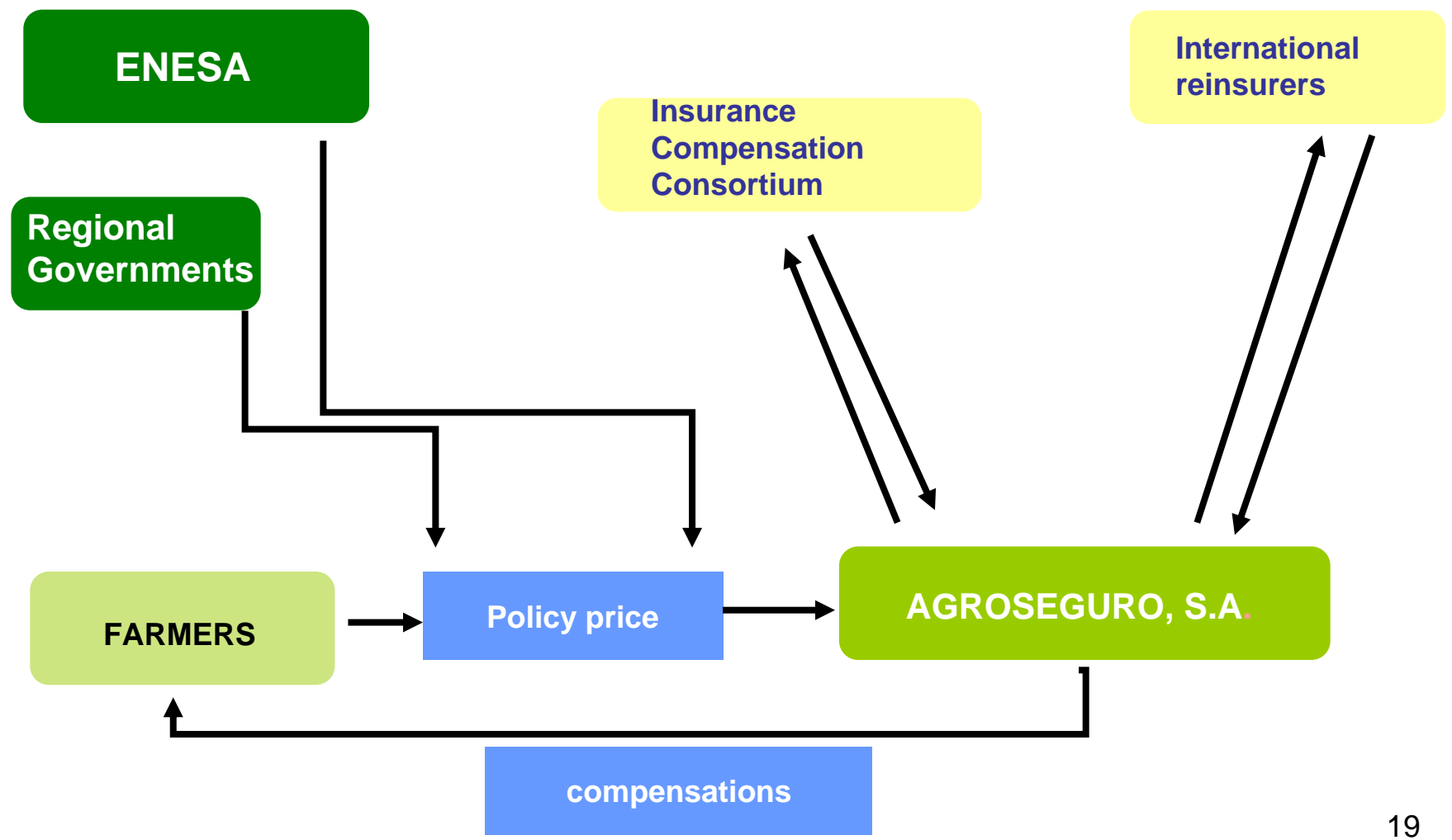
- ⇒ **Farmers**, represented by farmers' unions
- ⇒ **Insurers** grouped in **AGROSEGURO**
- ⇒ **Re-insurers**
 - Private

PUBLIC

- Public: **CCS**-Insurance Compensation Consortium
- ⇒ **Public administration**
 - Central Government
 - **ENESA**- Ministry of Agriculture, Food and Environment
 - **DGS+CCS**- Ministry of Economy
 - Regional Governments



Spanish Agricultural Insurance System - Cost sharing.



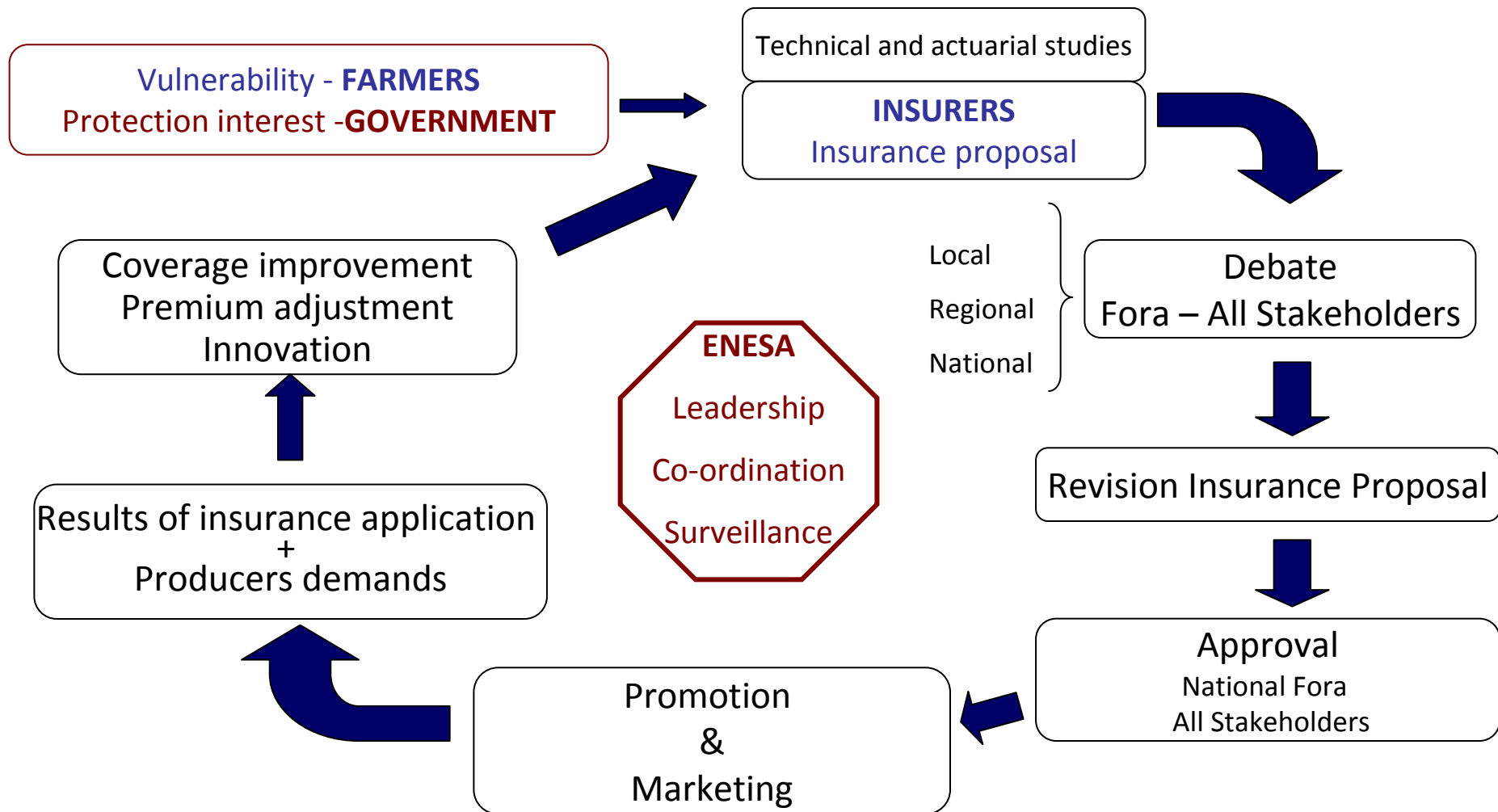
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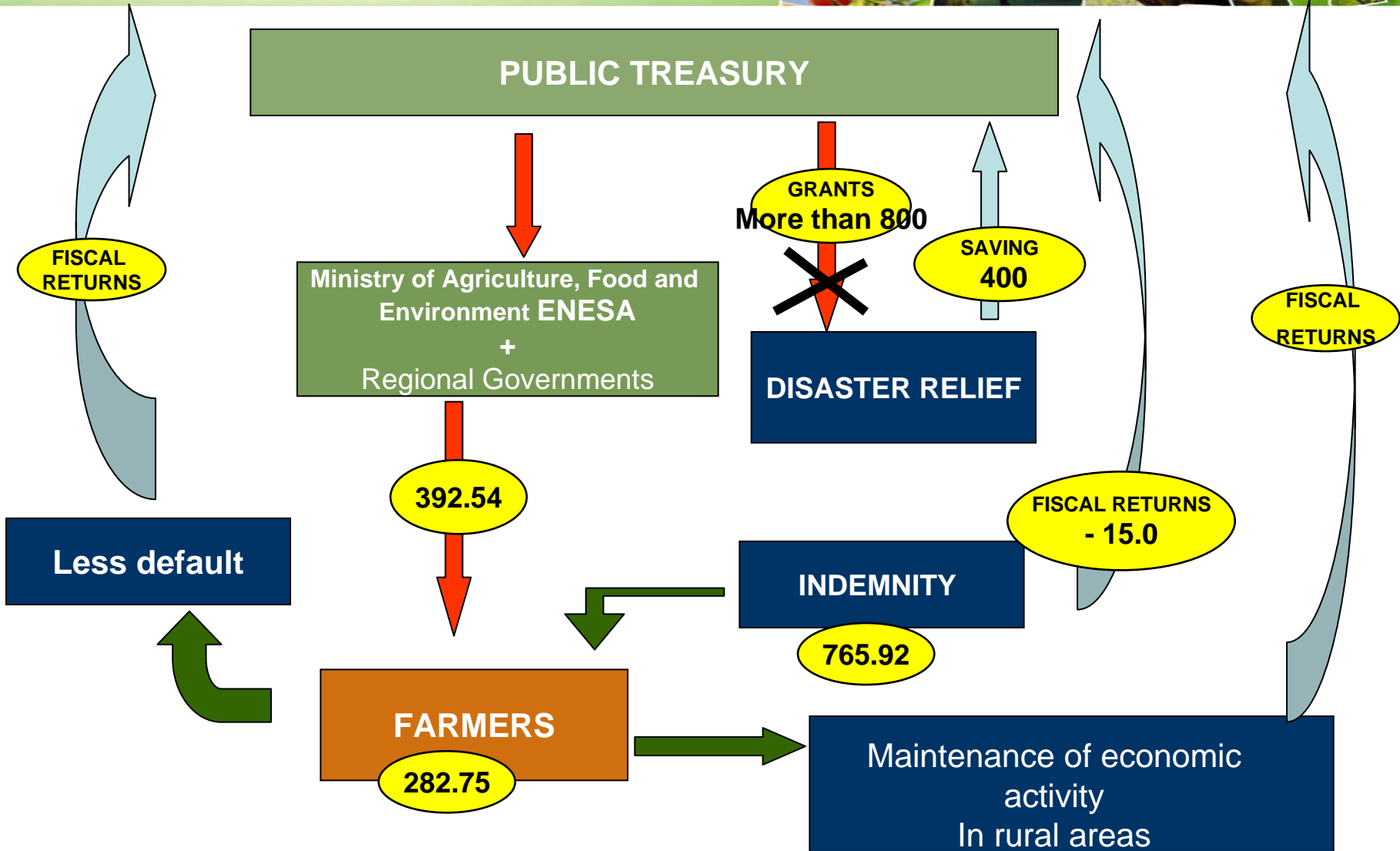
ENESA - Main functions.

- Coordinating **public and private activities.**
- **Defining the main lines of action through the Annual Plan.**
- **Granting subsidies for farmers.**
- **Developing feasibility studies.**
- Promoting **insurance in the agrarian sector.**
- Sharing know-how **all over the world.**

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Financial flows- 2012

Insured Capital: 11.200 million €
N policies: 484.513



LIMITATIONS

- Long period is required for satisfactory implementation
- Risk must be dispersed for the sustainability of the system
- The moral hazard must be limited
- Individualized application entails higher processing costs
- For widespread implementation, public sector involvement is needed



ADVANTAGES

- Financial soundness
- Predictable annual budget for grants
- Coverage adapted to special characteristic of areas, productions risks, farmers...
- Individual assesment of damages
- Quickly and efficient management
- Transparency
- Enhancing other agricultural policies.
- Reducing social pressure.



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Spanish Agricultural Insurance System - Successful keys.

Mutual recognition

Universalize risks & productions

Risk dispersion

Financial solvency

Assurance technic

Consensus

Voluntary

Solidarity

Dynamic

Coordinated Agrarian Policy

No ad-hoc grants

PUBLIC-PRIVATE



AGRICULTURAL INSURANCE & DROUGHT

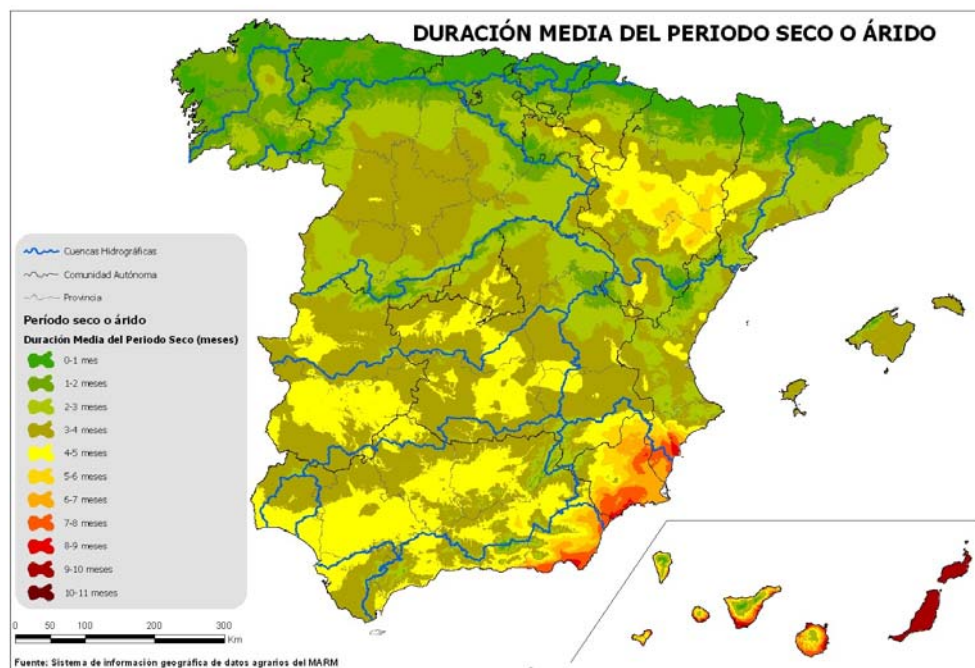
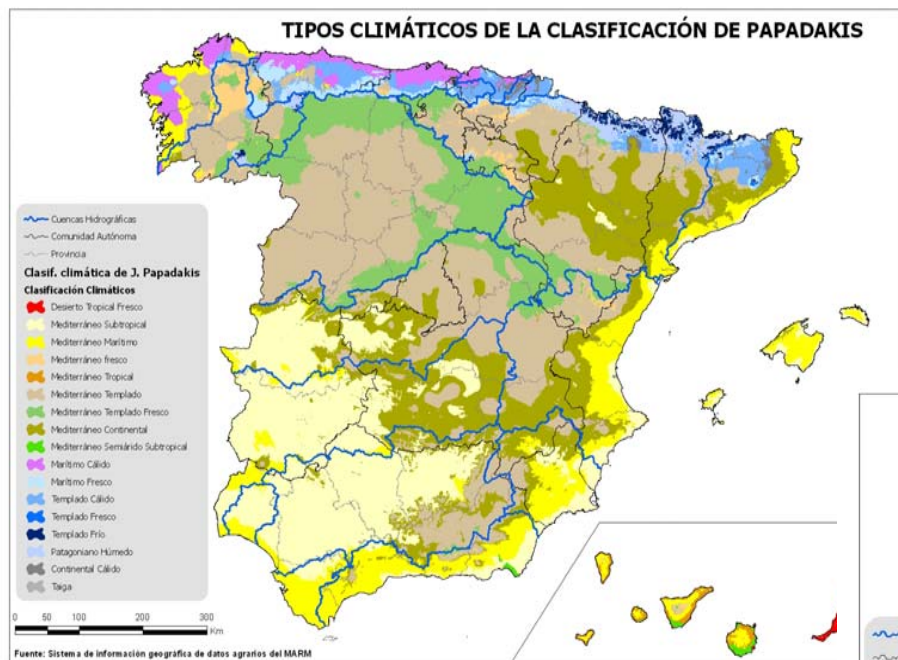
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Spain - Agroclimatic conditions.



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Agricultural Insurance & Drought.

What need we bear in mind?

- ❑ Drought damages are progressive .
- ❑ Drought is a systemic risk
- ❑ Damages could be shadowed by other factors or risks.
- ❑ Moral hazard and adverse selection must be controled.
- ❑ Crop's development could be the best choice to evaluate drought's damages

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Agricultural Insurance & Drought.

Options:

Yield Insurance.

- Geographical reference.
- Individual reference.

Index Insurance.

- SPI : based on rainfall (Morroco, India).
- NDVI: satellite images.



Agricultural Insurance & Drought.

Yield Insurance - Spain

- ❑ Apply since 1983
- ❑ Designing for cereals, leguminous, sunflower, olive trees, almond trees without irrigation and fruit trees in several áreas.
- ❑ Guaranteed yield: 50% or 70%.
- ❑ Individual yield defined with historic data from de own farmer.
- ❑ Geographical yield: reference defined by government's data.
- ❑ Collaboration with Morroco.



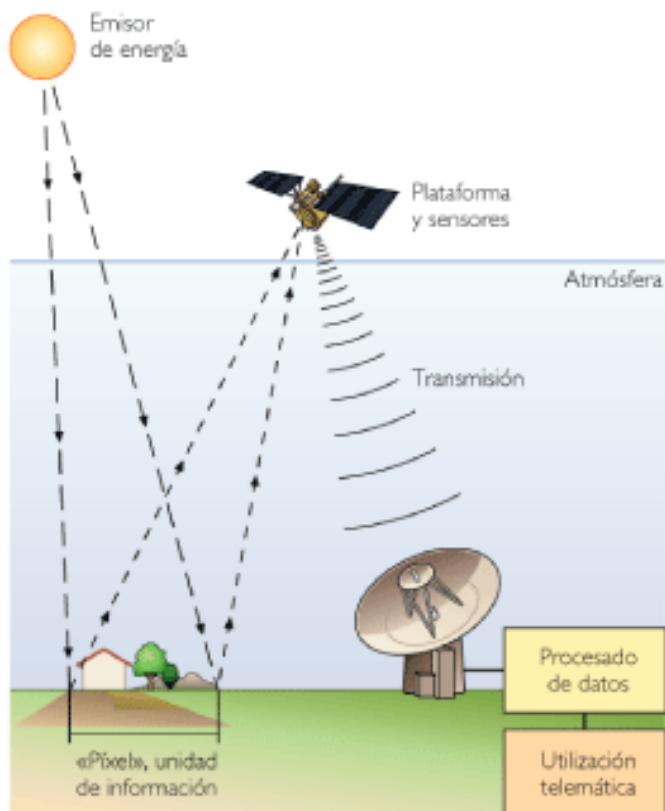
Agricultural Insurance & Drought.

Index Insurance - Spain

- ❑ Apply since 2001.
- ❑ Based on NDVI measured by satellite images (MODIS).
- ❑ Coverage: additional food support due to pasture availability reduction.
- ❑ Different level of claims according to season, area and intensity of drought
- ❑ NDVI survey by University (LATUV).
- ❑ Collaboration with Chile.



Index Insurance - Satellite.



Normalized Difference Vegetation Index (NDVI)

Simple graphical indicator that can be used to analyze [remote sensing](#) measurements, and assess whether the target being observed contains live green vegetation or not.



Index insurance for pasture.

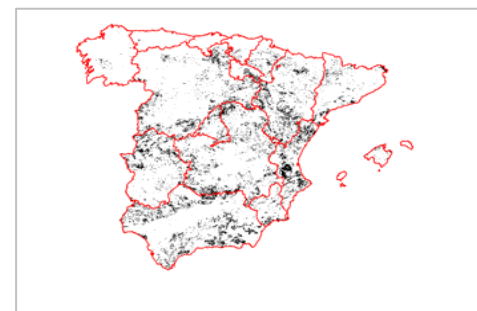
Where could we measure?

CORINE LAND COVER

1:100000 → 30 mts²



74 Clases de cubierta
1 : 2.000.000 → 100 Ha



DEGRADACION A RESOLUCION NOAA (100 Ha/píxel)



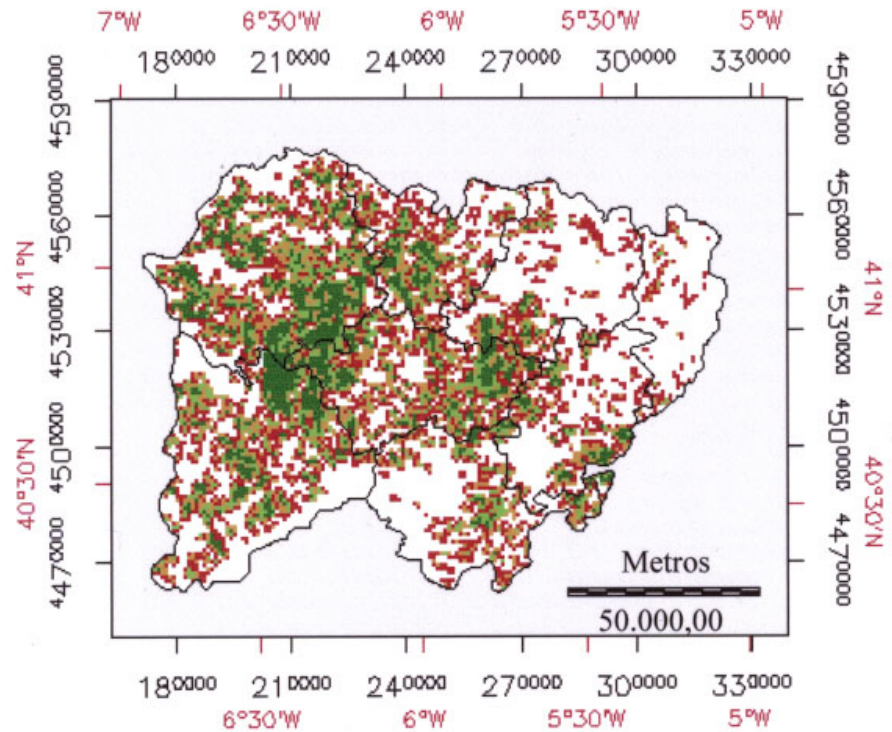
PIXELES CON APROVECHAMIENTO

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Index insurance for pasture.

Where could we measure?



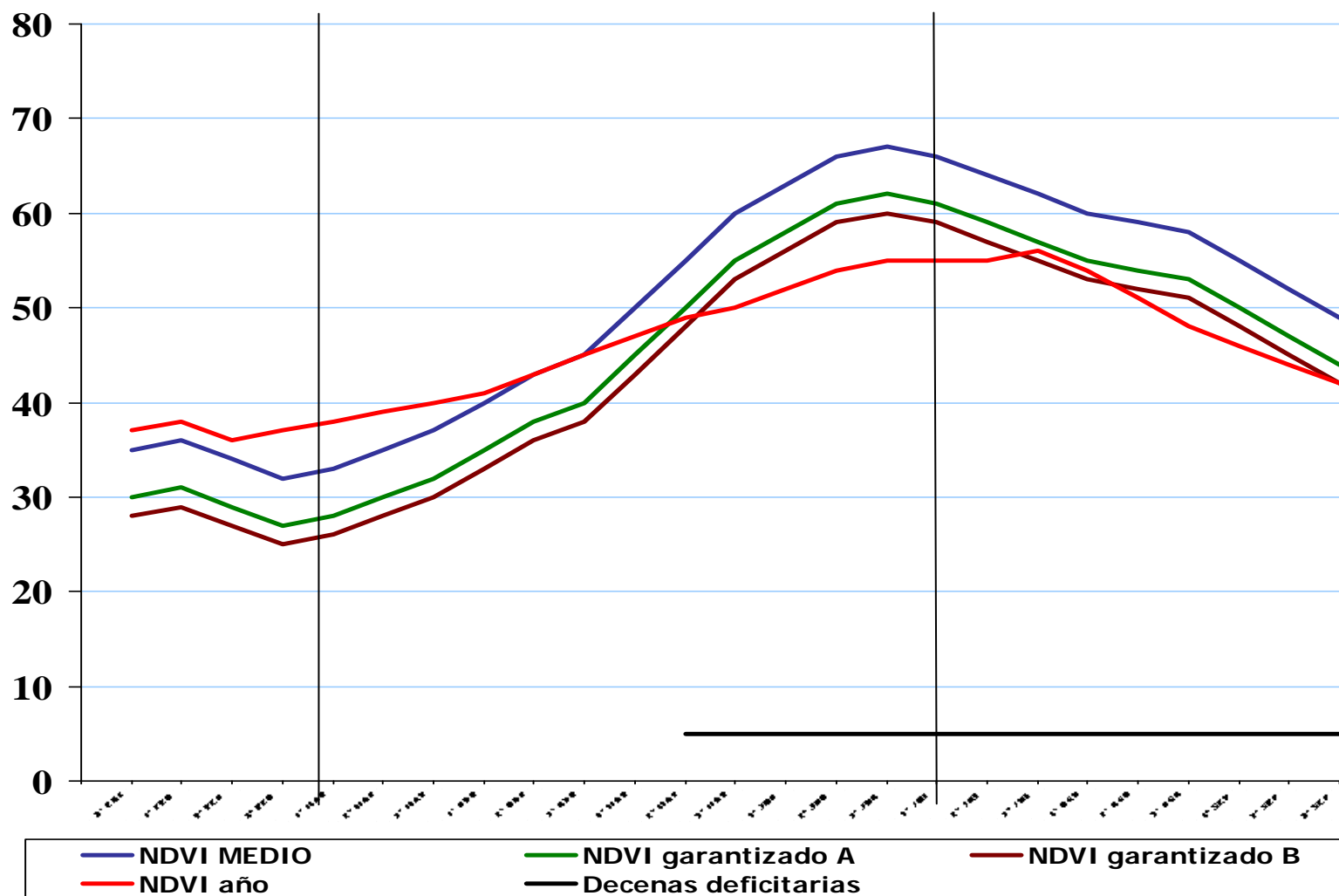
SALAMANCA

Index insurance for pasture.





Index insurance for pasture.



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Index insurance for pasture.

	Medium cost without subsidy Euros/animal	Medium cost with ENESA's subsidy Euros/animal
Bovine	32,82	21,20
Equine	32,89	21,83
Sheep	4,84	3,01
Goat	4,84	3,01

Yield Insurance

Index Insurance

STRENGTH

- Reducing anti- selection.
- Compensation more accurate.
- Easier to be understood by farmers

- Limited administrative expenses.
- Limits moral hazard.
- Avoid direct damages assesment

WEAKNESS

- Need special measures to reduce moral hazard.
- High administrative expenses.
- Need a predefined procedure to damage assesment.

- Not applicable to all sort of risks.
- Geographical reference.
- Anti- selection could happen.
- Difficult to be understood by farmers.
- Difficult to select an useful parameter.



THANKS

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