

Contributions of the PLURIFOR project to forest risk management in Portugal

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União da Floresta Mediterrânica



UNAC is a private NGO representing the interests of the forest owners in the Portuguese Mediterranean area, near national and European institutions.

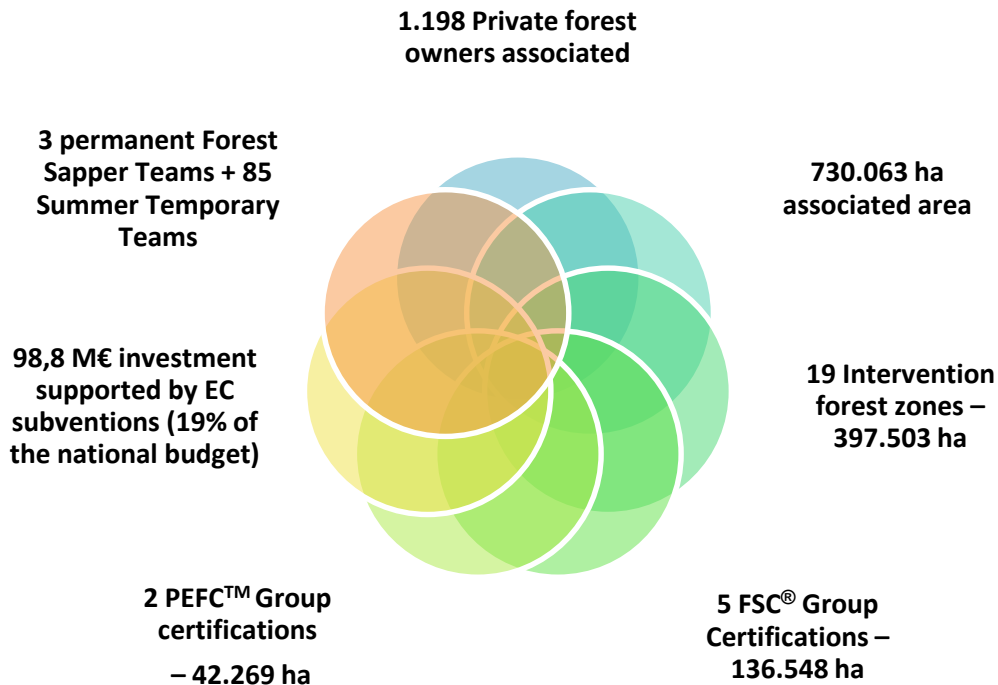
UNAC has currently 6 member organizations, an intervention area of 2 million ha, representing an agro-forestry area of 700.000 ha.

UNAC activities and expertise:

- political action;
- technical assistance to member organizations;
- coordination and development of projects;
- research, innovation and knowledge transfer;
- communication & public awareness.

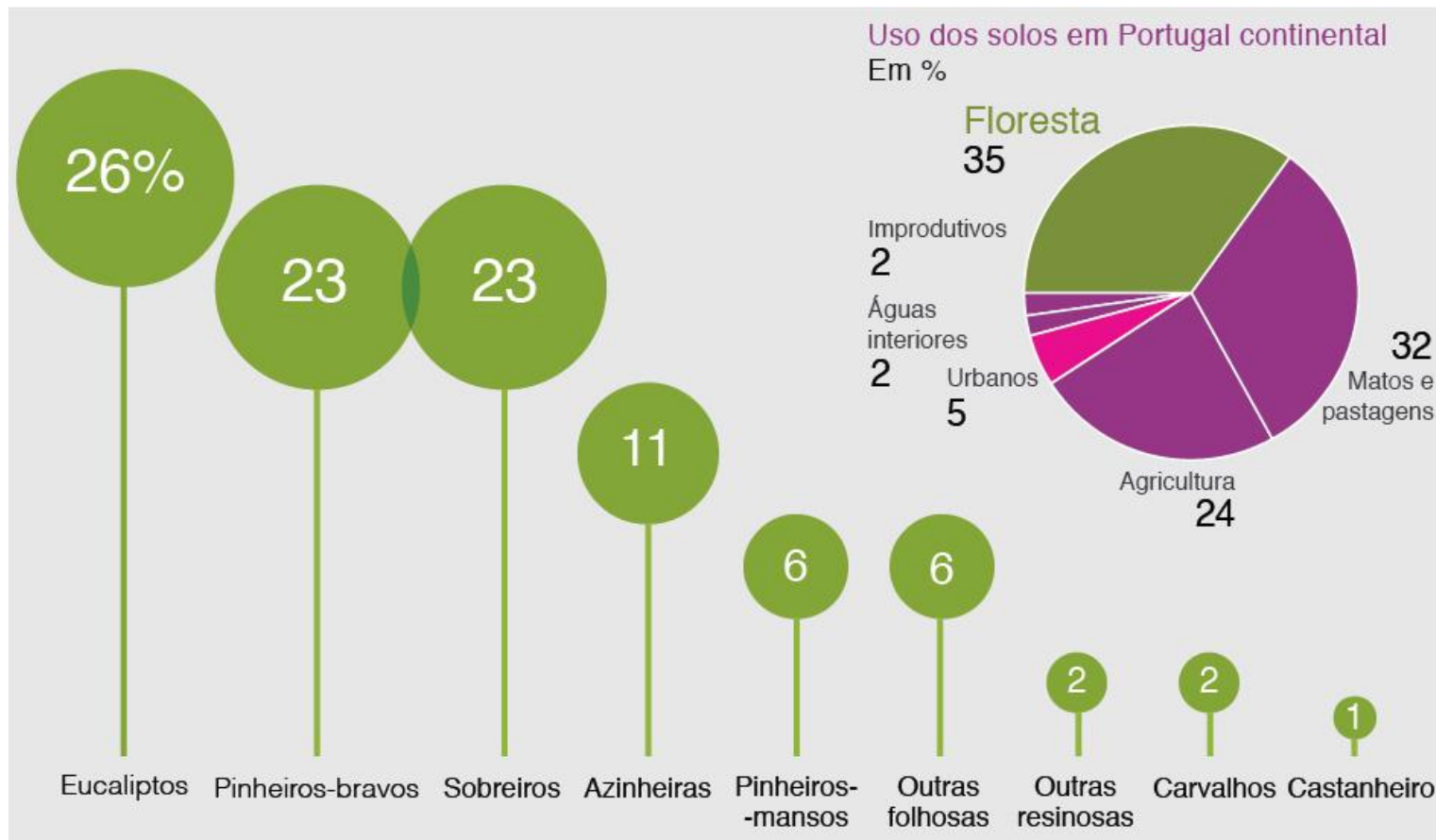


Non wood forest systems (cork oak + holm oak + umbrella pine) as the main intervention areas, but including eucalyptus and maritime pine plantations within the scope.

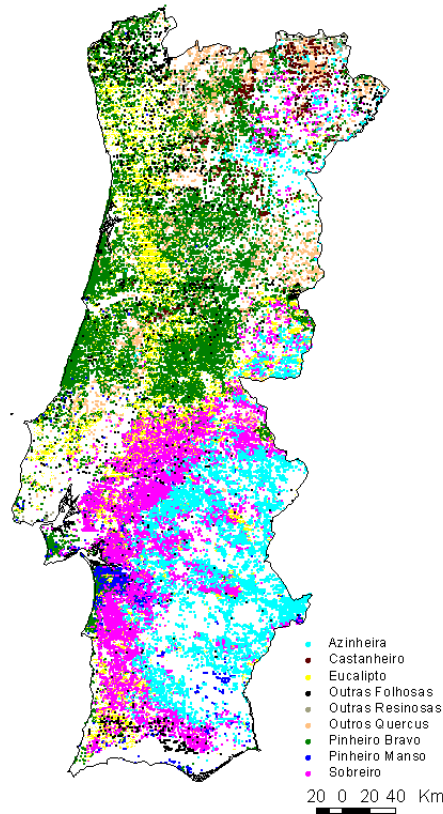
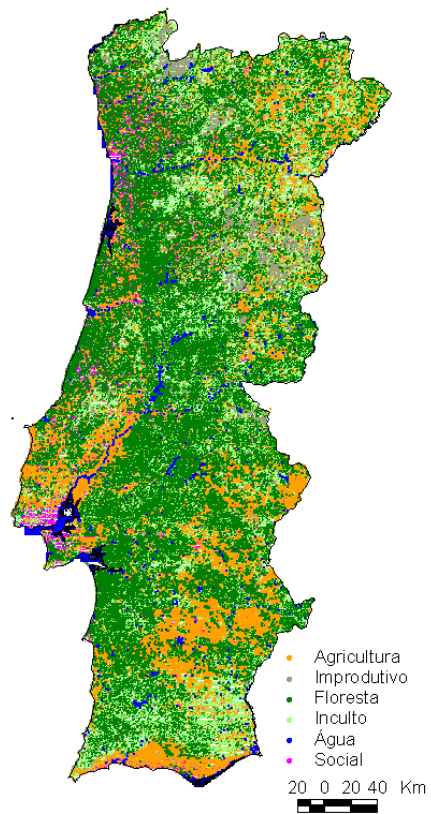


The Portuguese forest context

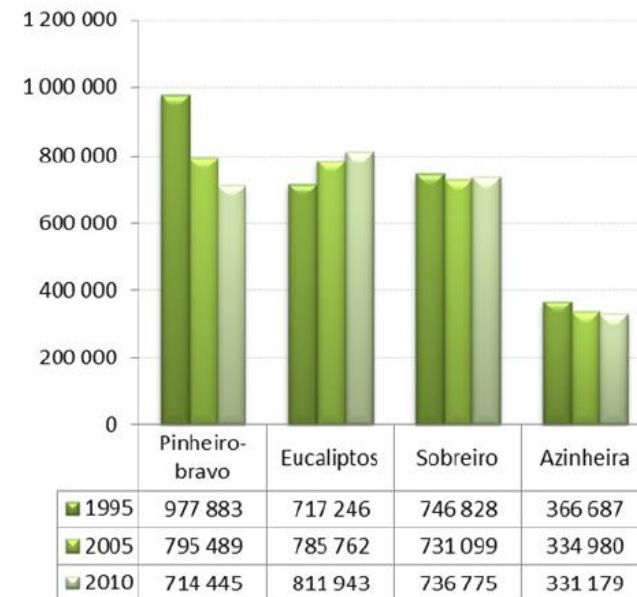
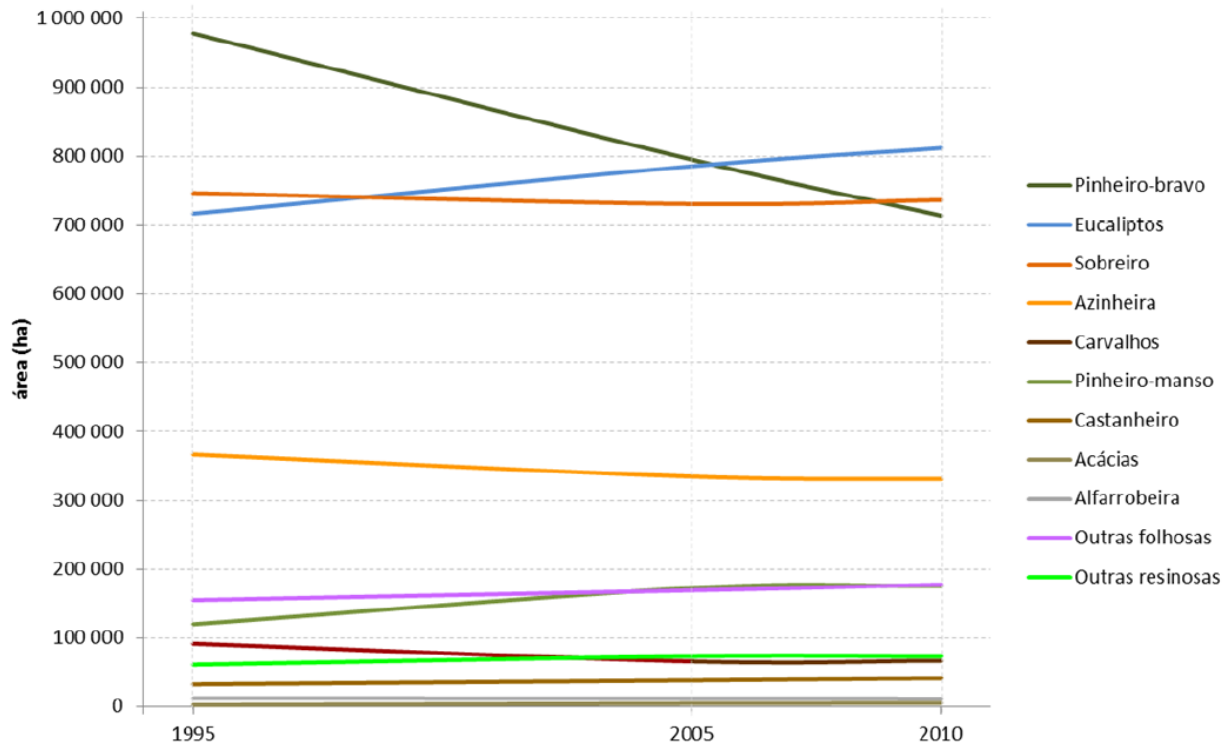




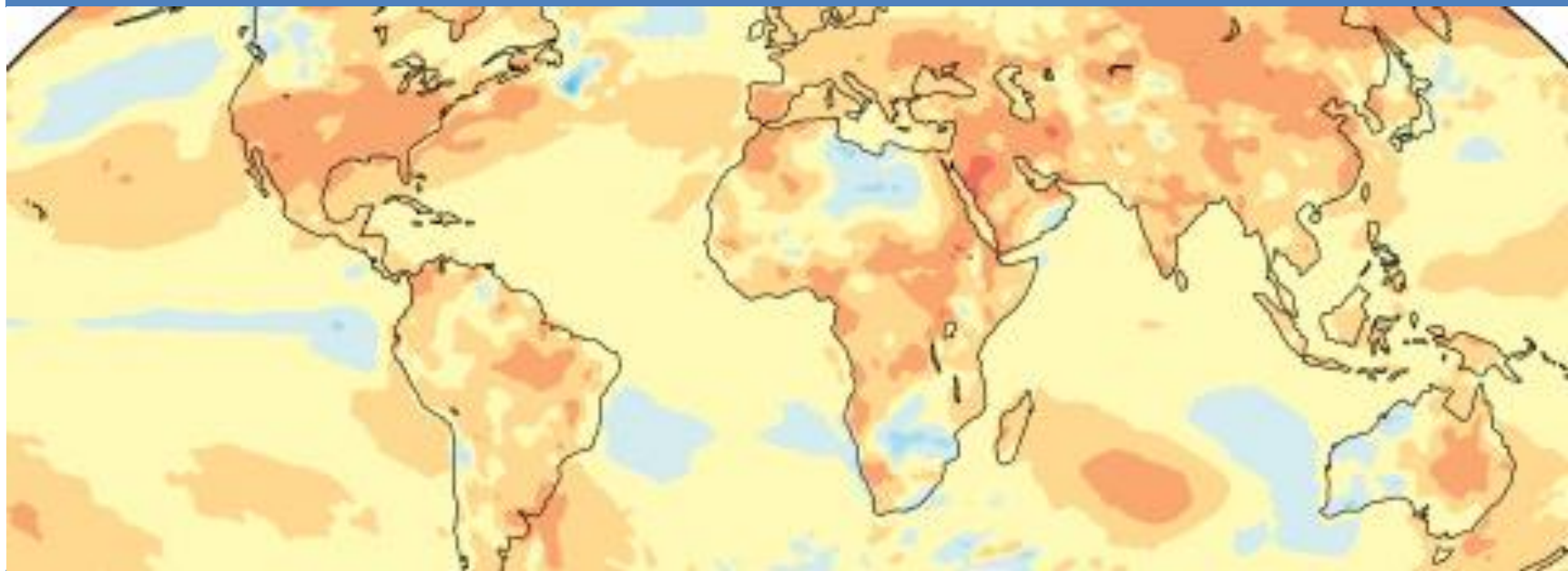
Portugal – Forest Composition



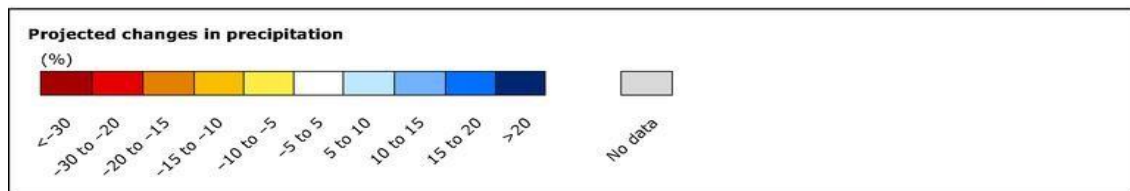
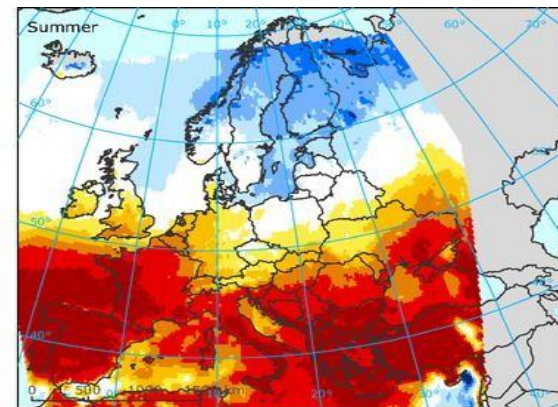
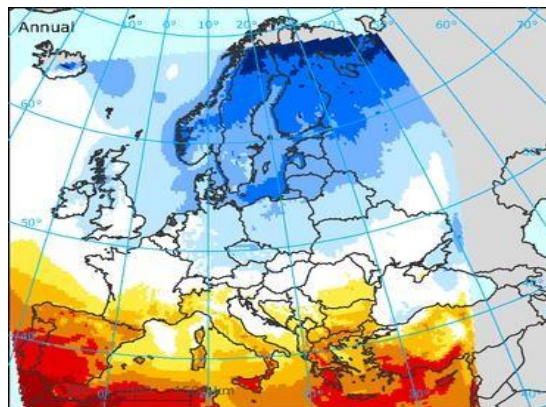
Portuguese Forest | Main figures



Climate Change



- Between 1960-2011
 - temperature increases
 - precipitation decreases
 - more warm days
 - less cold nights
- Scenarios:
 - for a warmer climate
 - less rain



Climate change: effects on Portuguese forests



Wildfires in Portugal: the year 2017 and the “perfect storm”

JUNE

Severe drought, heat waves, extensive areas of forests and inflammable vegetation, added to high atmospheric instability (pyrocumulonimbus and a downburst)



Wildfires in Portugal: the year 2017 and the “perfect storm”

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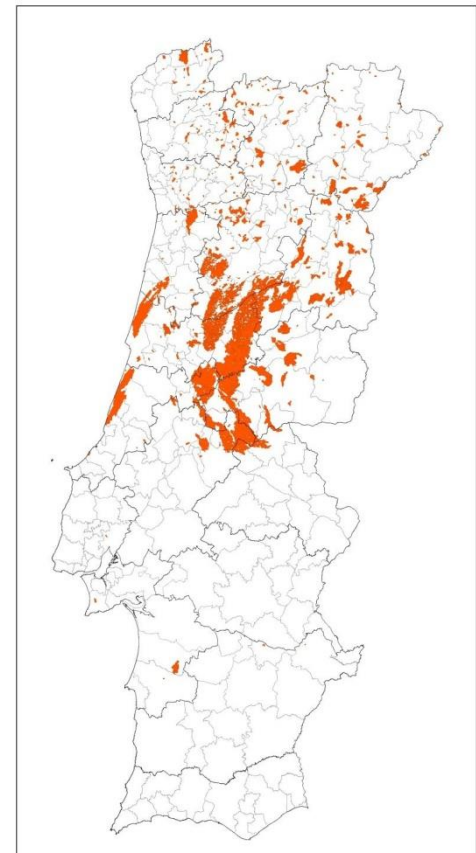


OCTOBER

Severe drought, heat waves, extensive areas of forests and inflammable vegetation, added to the hurricane Ophelia effect



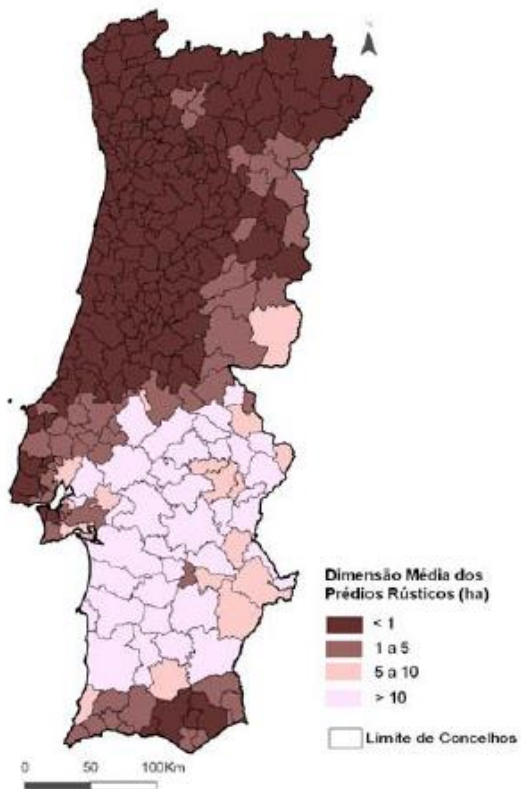
Wildfires in Portugal: the year 2017



Portugal – Forest Landownership

Private 87%
Communal 10%
State 3%





Very fragmented landownership (400.000 to 500.000 landowners)

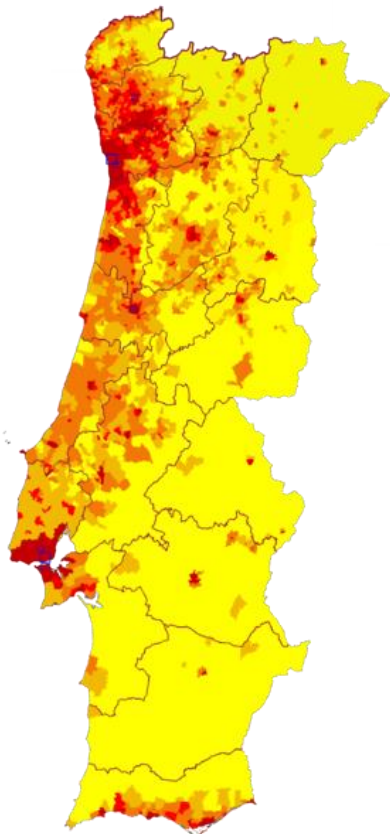
Dualistic ownerships structure:

85% forest holdings have less than 5ha;

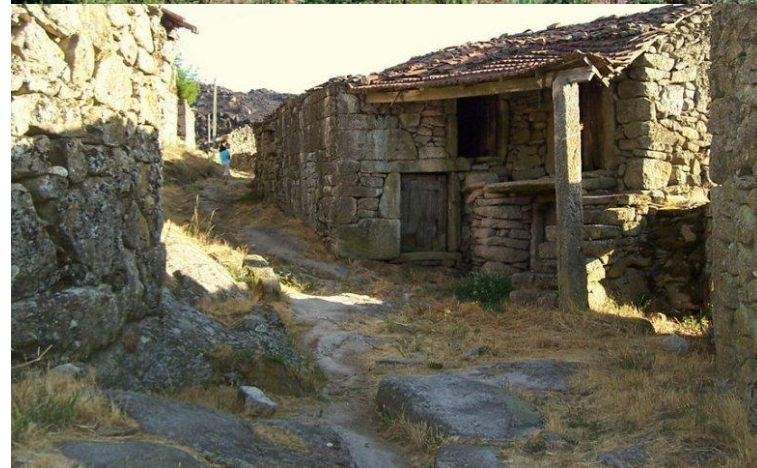
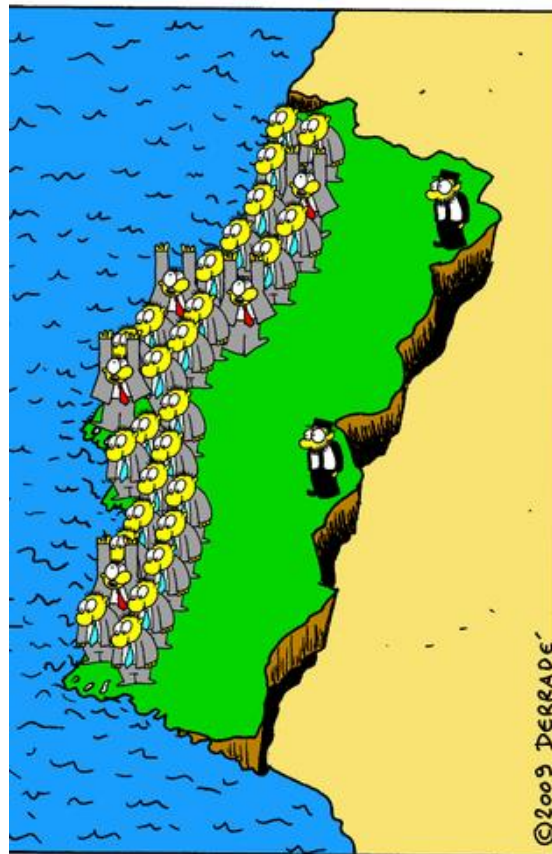
55% of the Portuguese forest is located in holdings with more than 100 ha



Portugal – Rural abandonment



Population Density





Diversity and heterogeneity



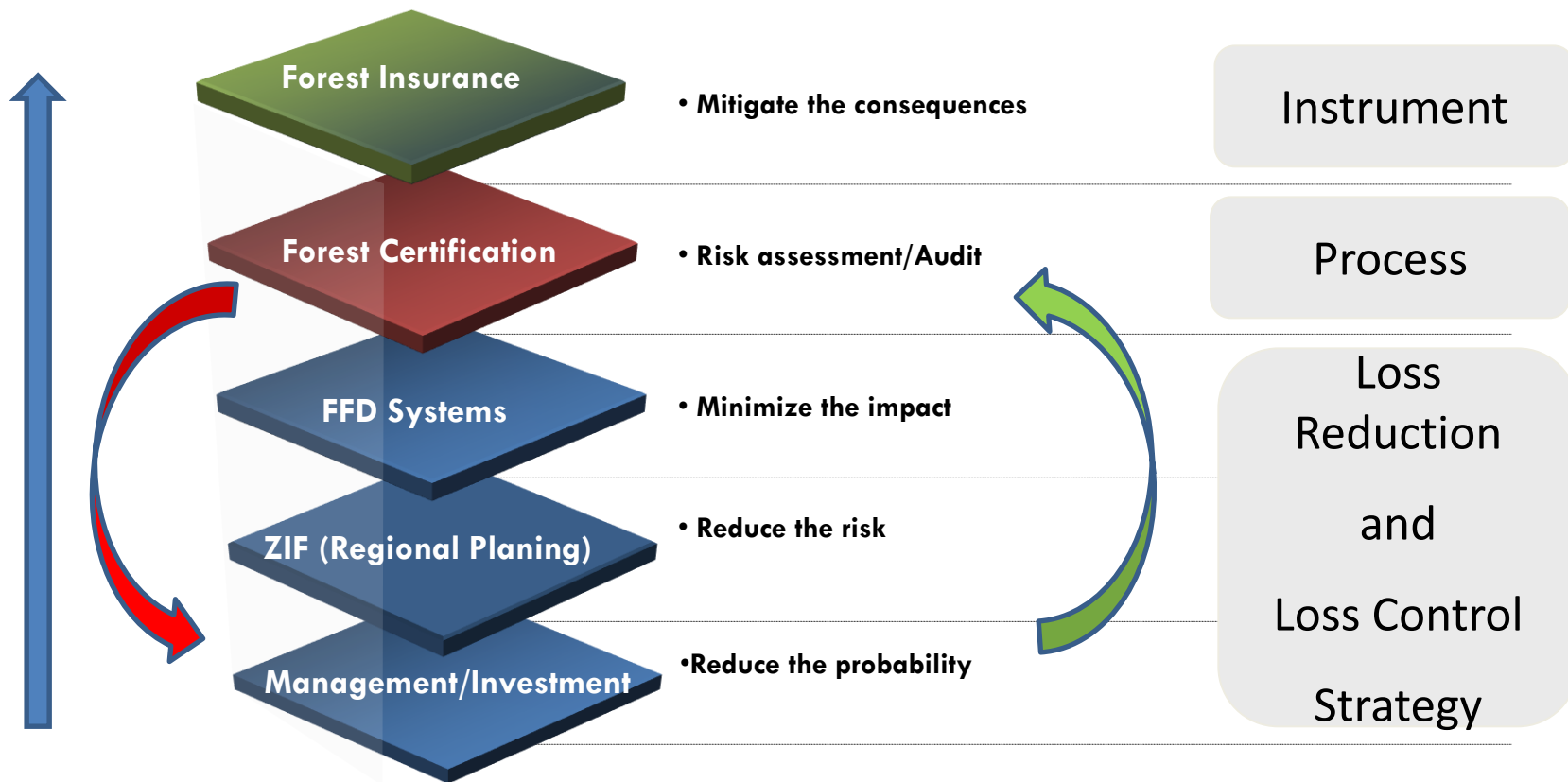


monotonous and continuous

Main Drivers

1. Expansion of the forest area, particularly of unmanaged forests (from mosaic landscape to the continuous landscape)
2. Rural abandonment and the decrease in biomass use that induced the increase of unmanaged and flammable vegetation and also the plagues and diseases spreading
3. Climate change and the worsening weather conditions are increasing and intensifying the severity of forest fires and new emergent plagues and diseases appear
4. Fire suppression prioritized over fire prevention
5. Plagues eradication prioritized over plagues introduction prevention





Chestnut gall wasp



Eucalyptus weevil



Fusarium



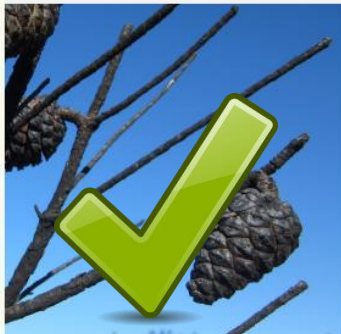
Pinewood Nematode



Emerging pests and diseases



Forest fire



Soil degradation



Storms





PAST....

FUTURE....

11 Operational Groups in Portugal



8

- Cork oak

2

- Umbrella pine

1

- Maritime pine

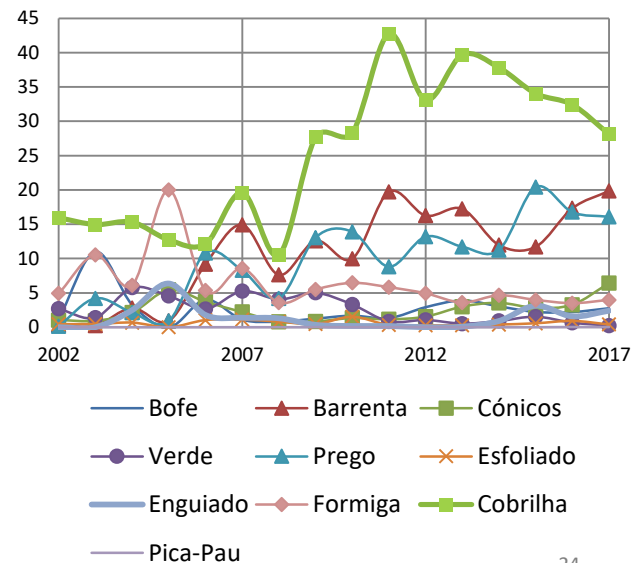
FUTURE....

8 OG

• Cork oak

• Three of them are related to plagues and diseases

- *Coroebus undatus* (jewel beetle)
- *Platypus cylindrus* (oak pinhole borer)
- *Phytophthora cinnamomi*



FUTURE....

2 OG

• Umbrella pine

- one related to the pine cone plagues and diseases
- one of the goals is to develop a warning system called SafePinea



1 OG

• Maritime pine

- Fusarium prevention
- Development of integrated strategies for the prevention of the pine pitch canker



FUTURE....

Merci!

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