

# BOOSTING FOREST ECOSYSTEMS

Forests and  
Water:

Good practice  
on Payment for  
Ecosystem  
Services

14/12/2023

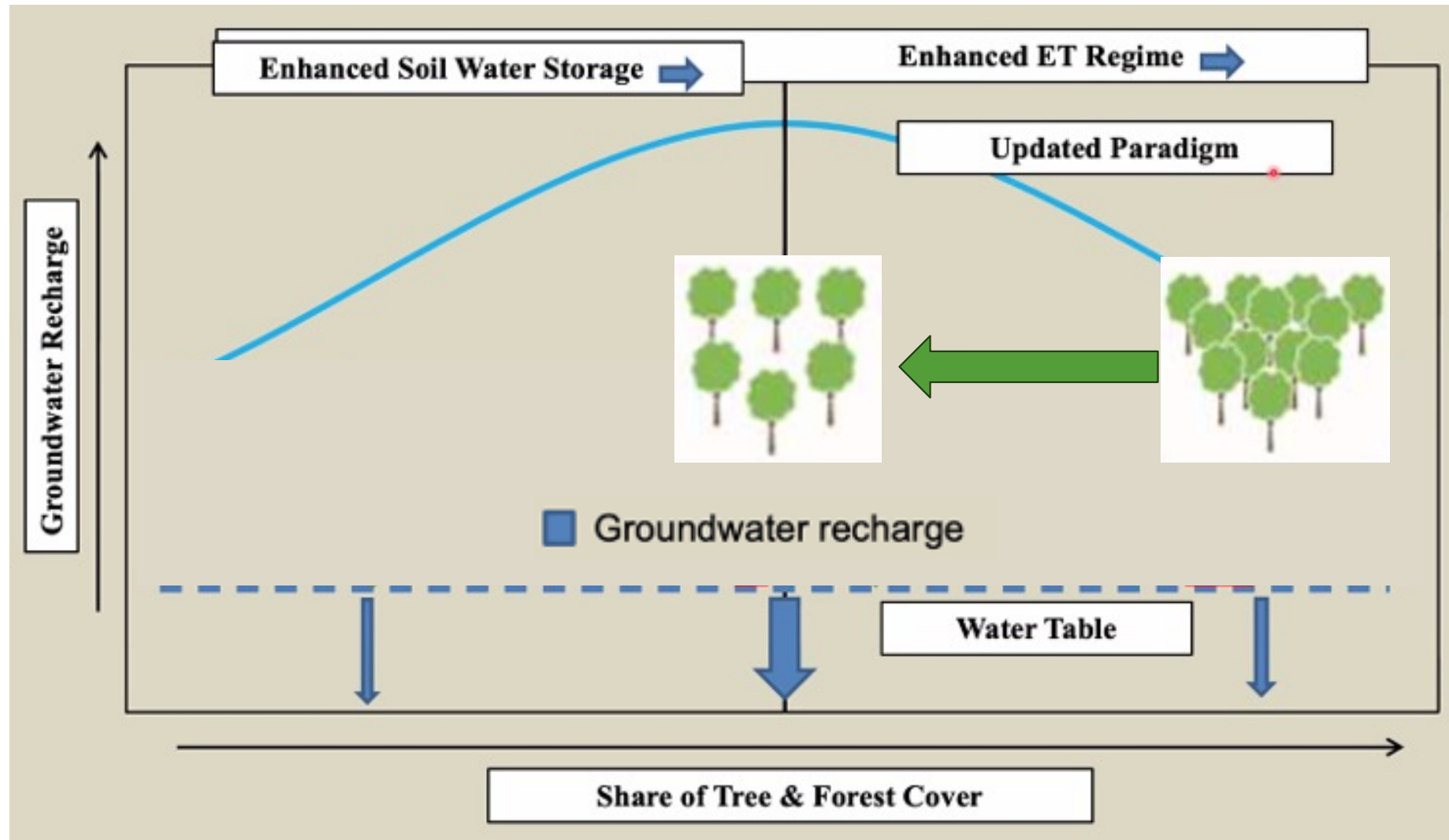


## CO-DESIGN OF A LOCAL P.E.S. SCHEME FOR “FORESTS & WATER” IN CATALONIA (NE Spain)



Scale: local-watershed

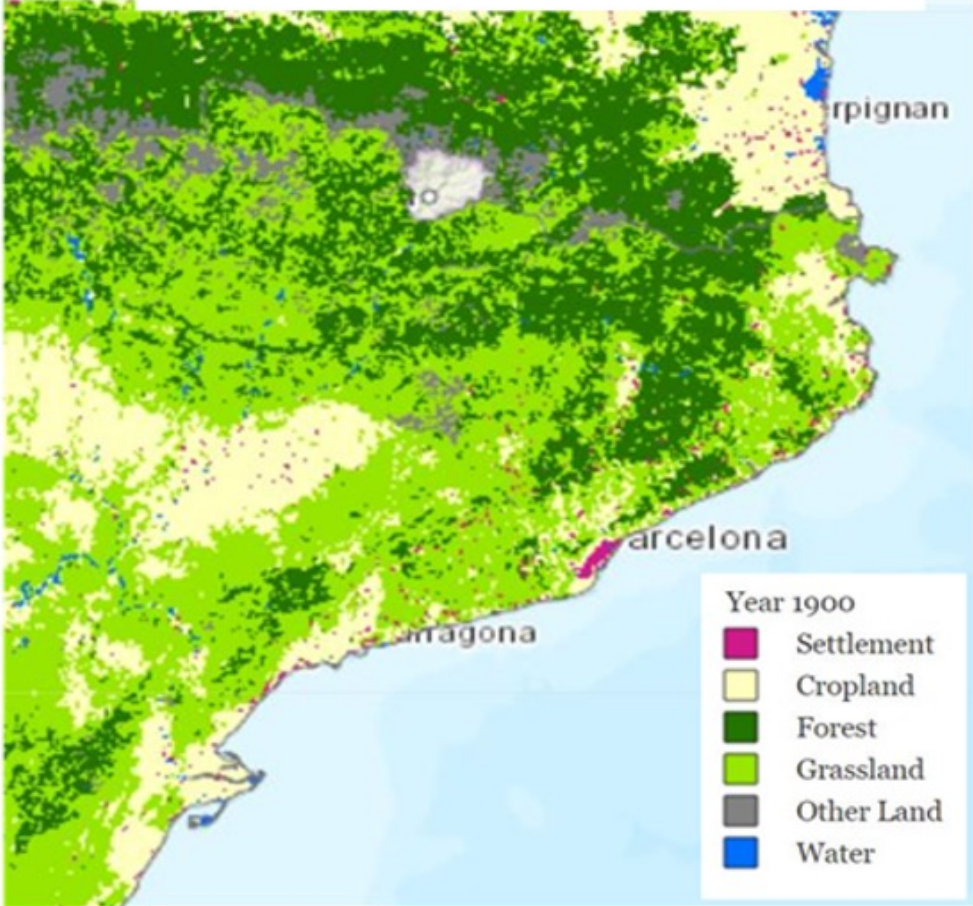
Priority service: groundwater recharge



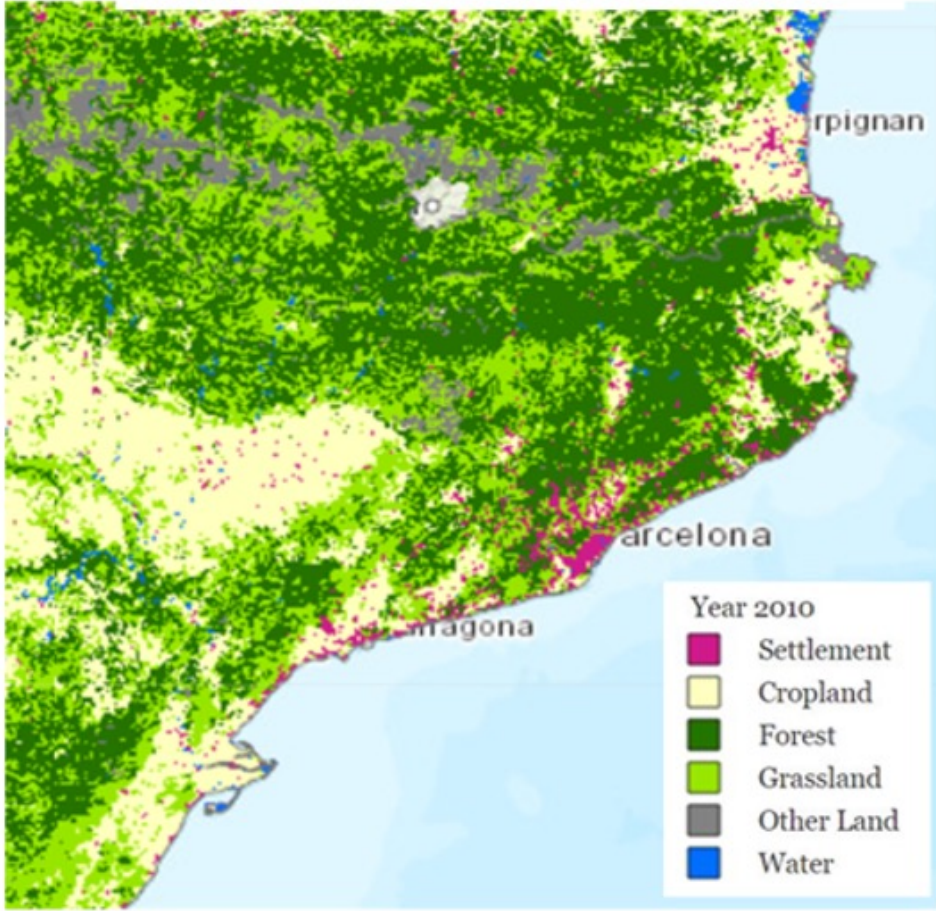
# Main challenges related to forests and water in Catalonia



Catalonia land cover 1900



Catalonia land cover 2010



Source: *Changing Face: Europe's land cover in 1900 and 2010*

Increase in forest (tree covered) area from 10% to 45 % , mainly by natural regeneration on abandoned farmland

# Main challenges related to forests and water in Catalonia

+ 73 % forest biomass in the last 25 years:  
low management rate

WATER  
QUANTITY  
(- 18%)

High vulnerability – risk to lose forest  
cover, soil, landscape

WATER QUALITY

WATER CYCLE  
REGULATION

CULTURAL SERVICES  
LANDSCAPE

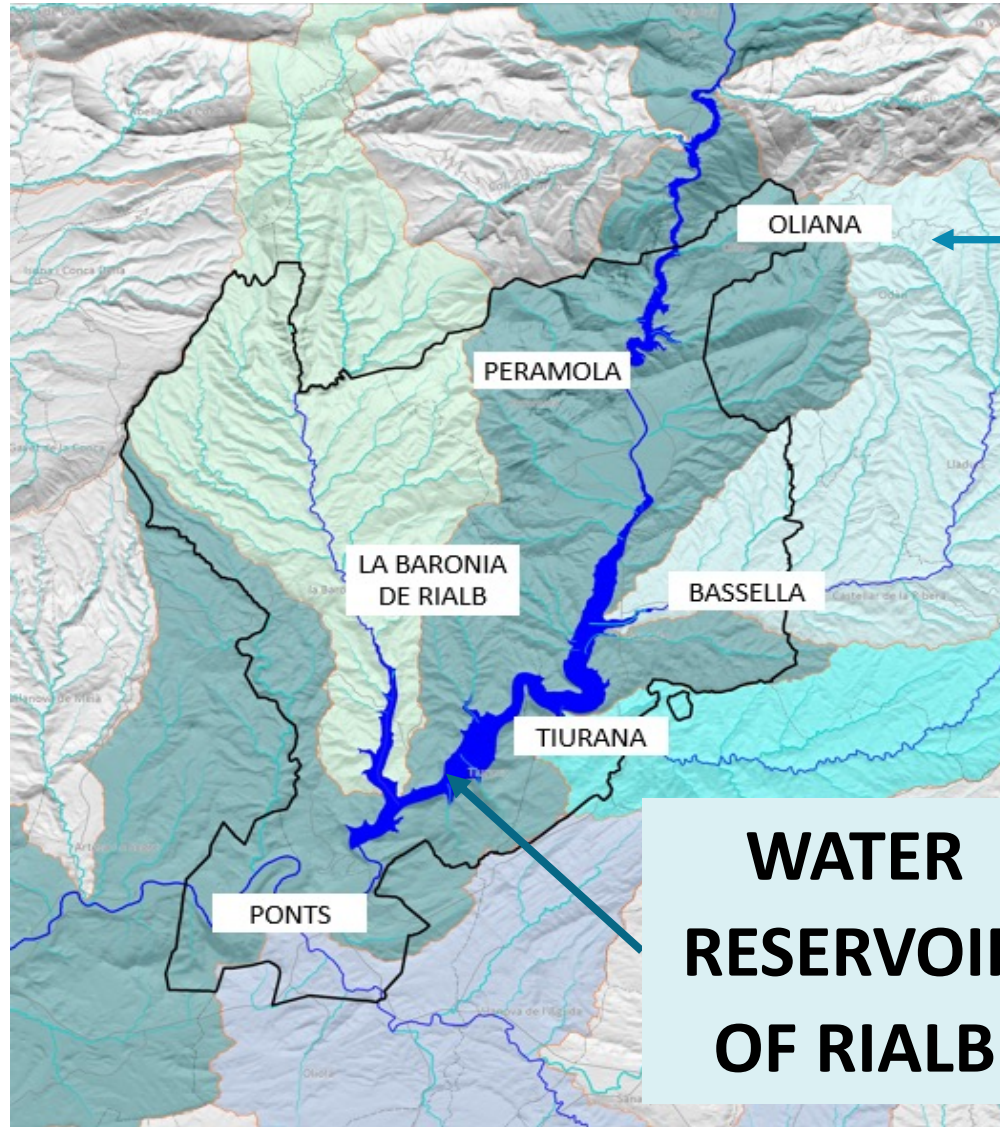
MULTIFUNCTIONAL  
FOREST MANAGEMENT

€?

Regulation of tree  
biomass  
(BALANCE)

Increase forest  
resistance and  
resilience to  
disturbances

# 1. Embedding the forestry project in a broad territorial vision (resilient landscapes)



**WATER RESERVOIR OF RIALB**

Forests in the **watershed of the reservoir** within the limits of the **6 municipalities** affected by the construction of the dam:

**350 Km<sup>2</sup> (35.000 ha)**



## 2. Build consensus on the link forestry & water



**Acknowledge the link in regulation  
& strategic planning  
(increasing governance)**



**The Urbanistic Masterplan of the  
Reservoir (local)**

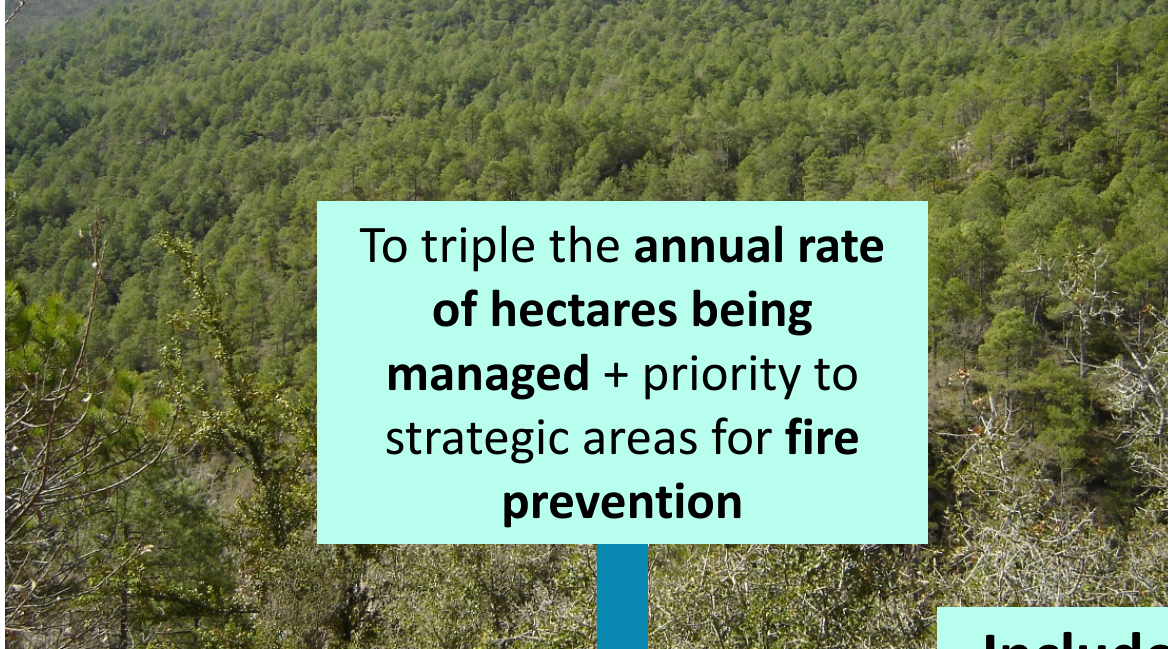
**+**

**The WFD Riverbasin Management  
Plan of Catalonia (regional)**

**4 MULTIACTOR Group MEETINGS to CO-CREATE THE SOLUTION (2018 – 2021)**



### 3. Outline the expected changes in the forests



To triple the **annual rate of hectares being managed** + priority to strategic areas for **fire prevention**

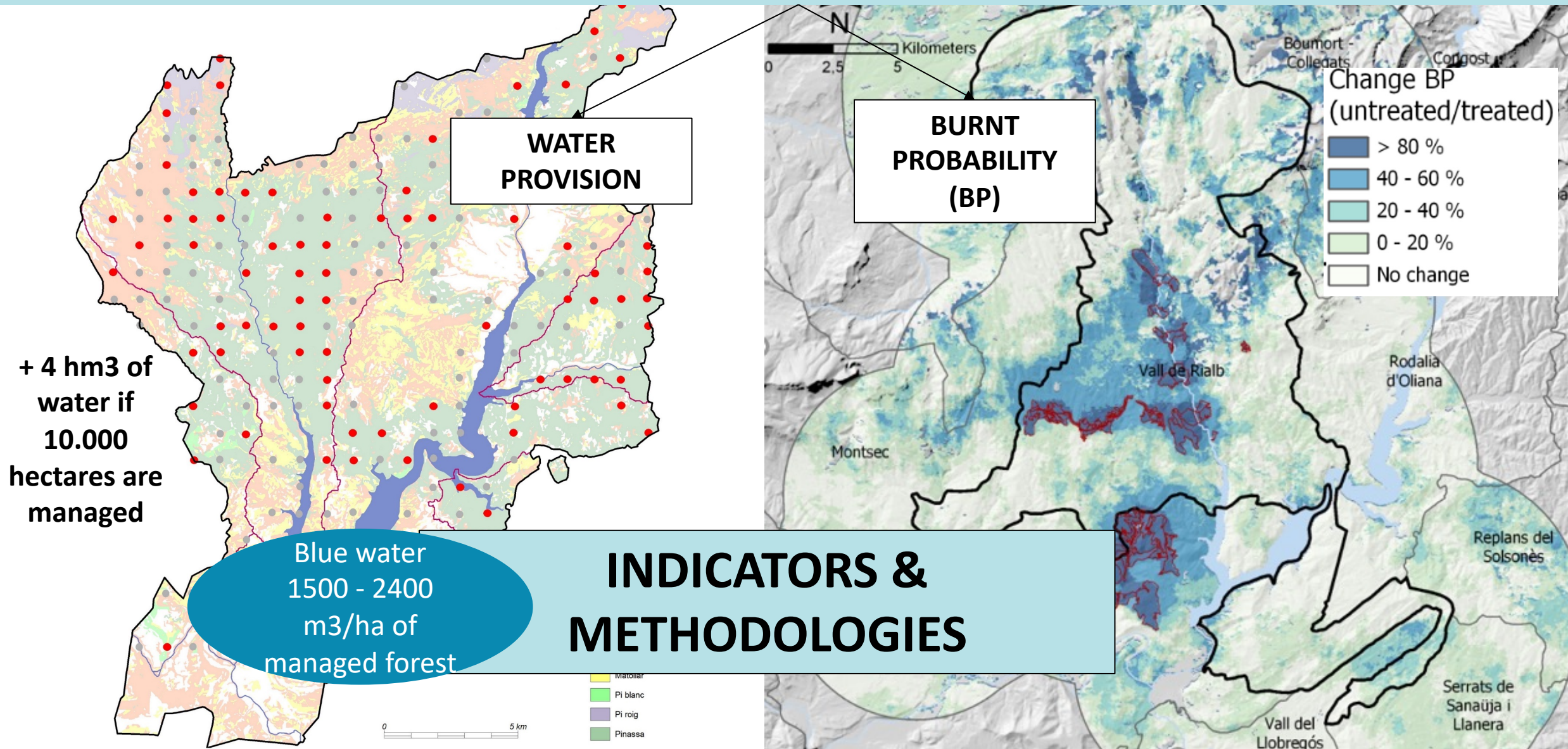


**Tree planting** in burnt areas with higher site quality to enhance resilience

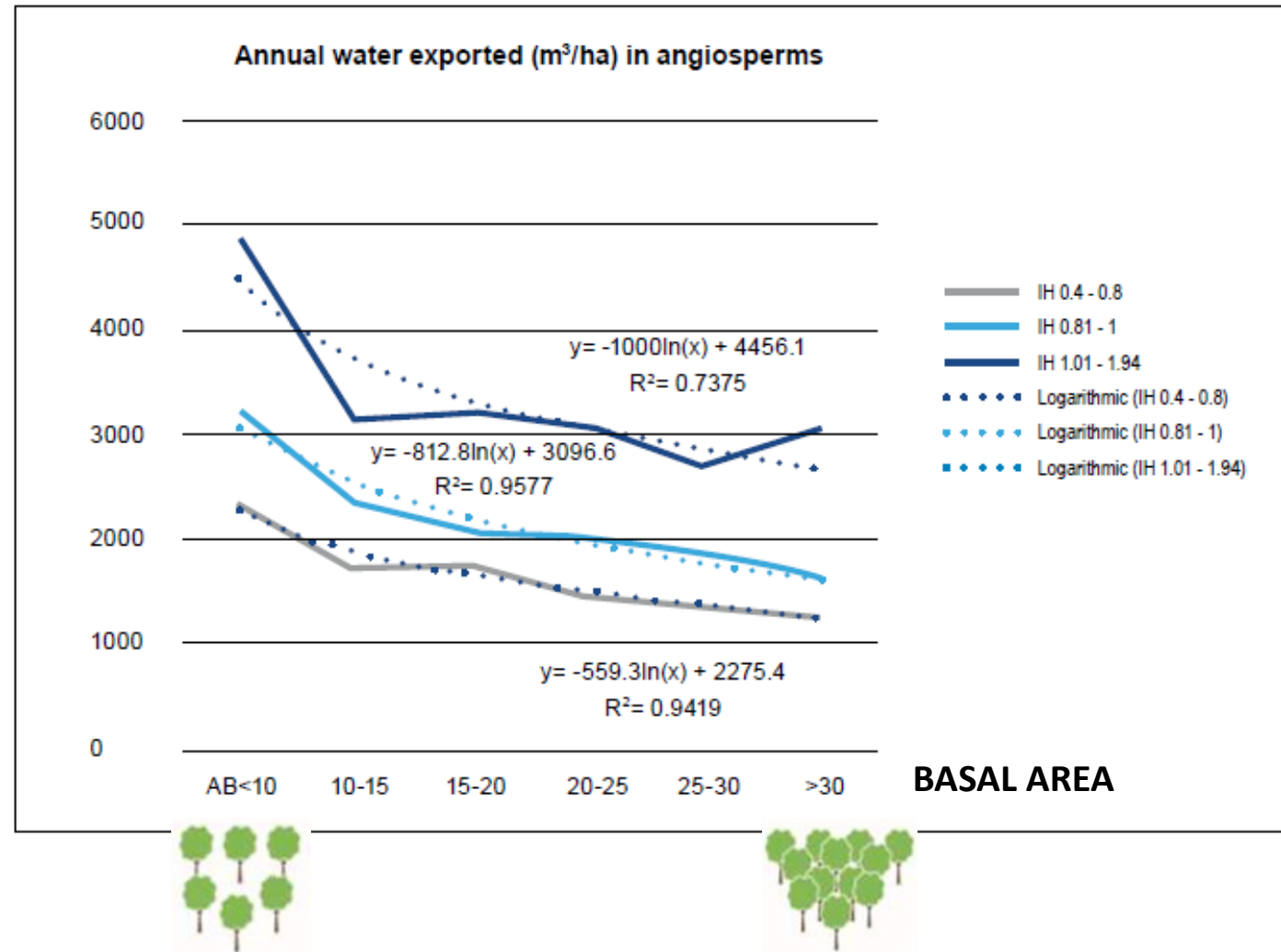
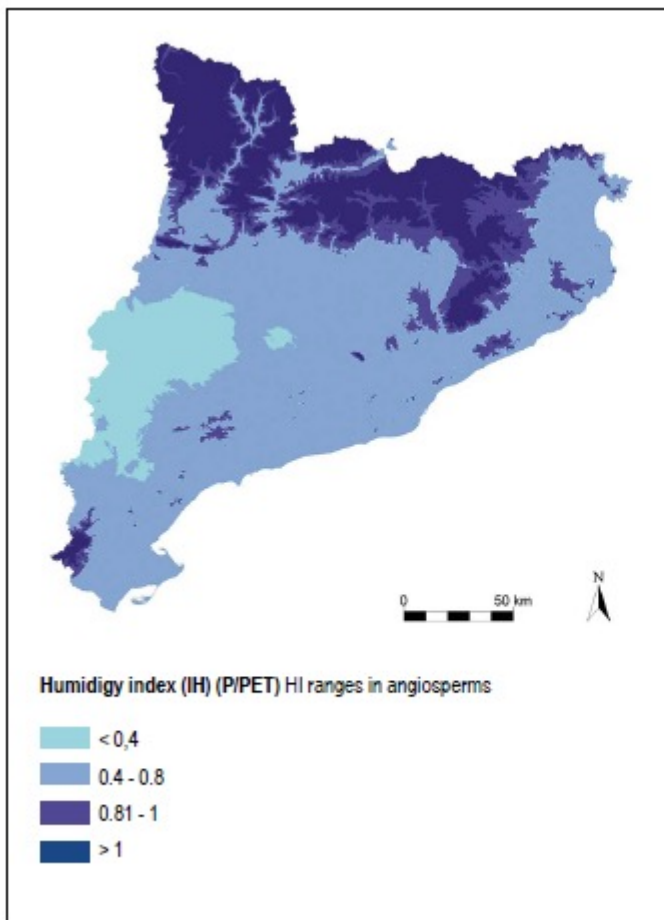


**Include biodiversity conservation criteria + social criteria**

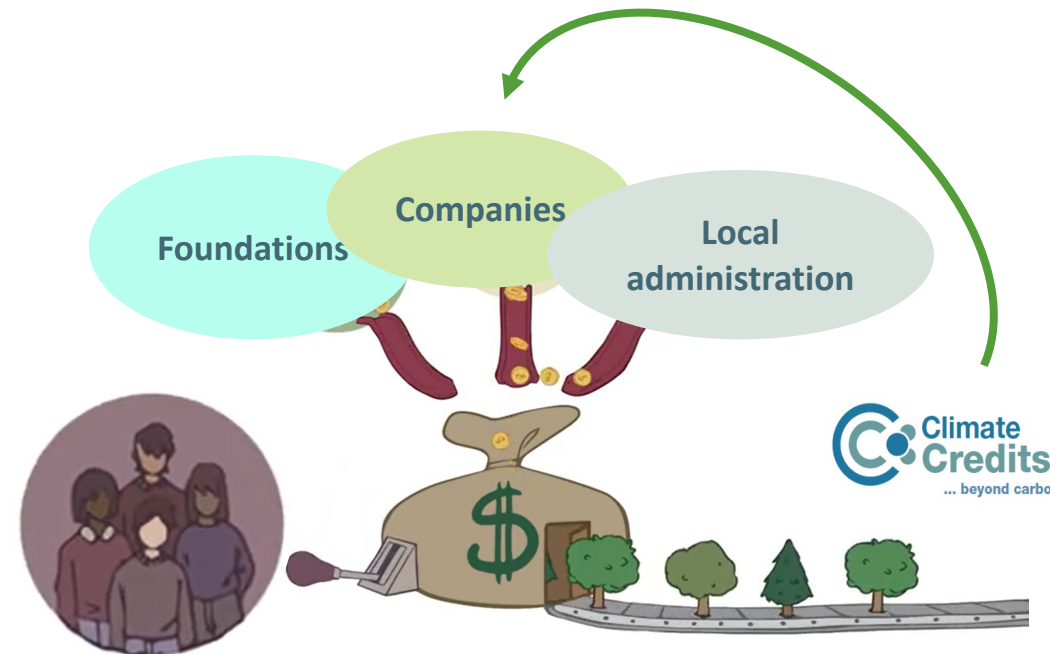
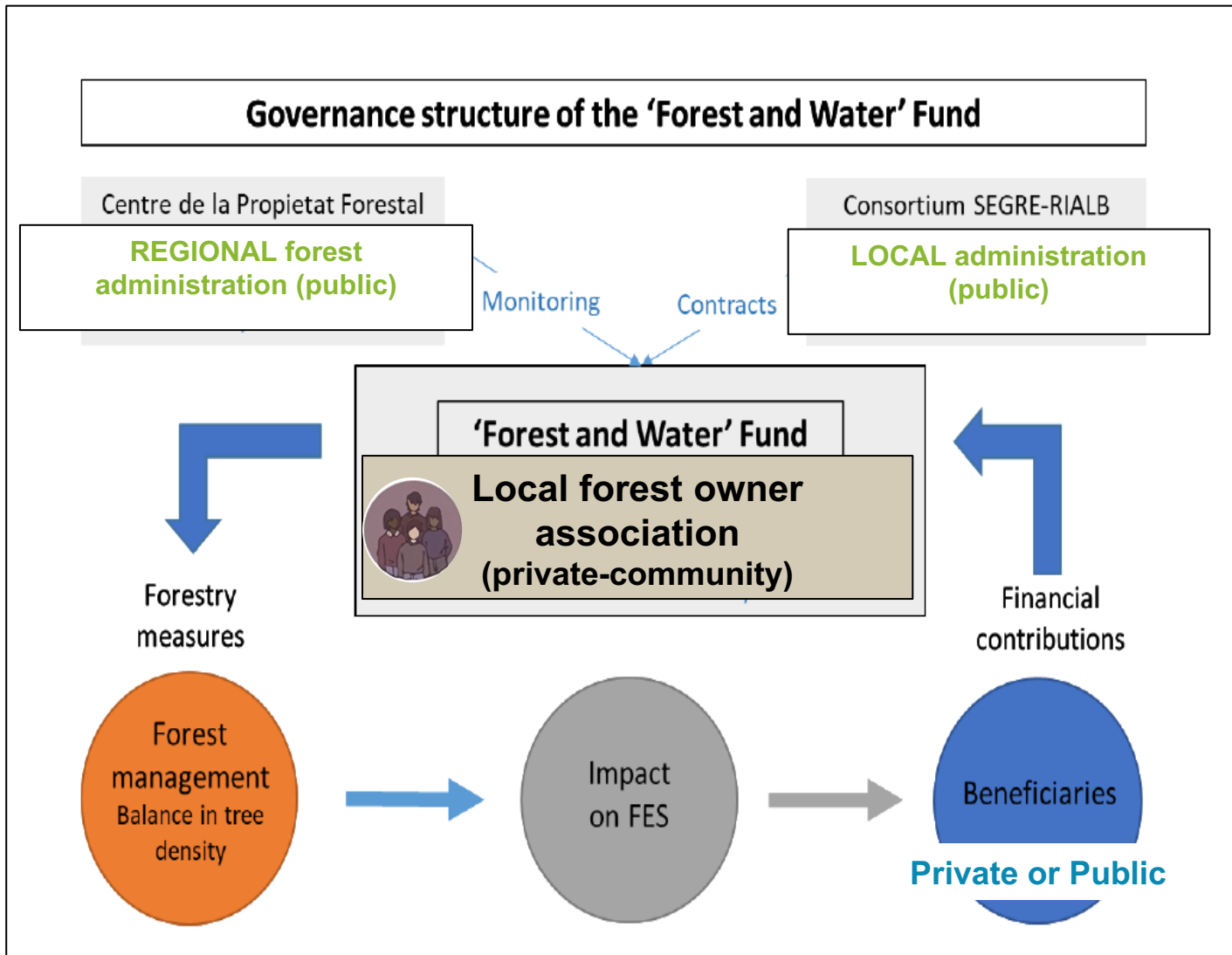
# 4. Find evidence of the potential impact of forestry on the E.S. and monitoring tools







# 5. Design of the P.E.S. scheme





**THANK YOU!**

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### **Forests for water in Catalonia**

The Catalan case promotes positive links between forestry and water in the Mediterranean...

...forest management means more available water and better water quality.

Centre de la Propietat Forestal in collaboration with Forest Science and Technology Centre of Catalonia