FINAL EUROPEAN CONFERENCE

Towards Forest Management in line with the Protection and Conservation of Biodiversity

16-18 February 2022

GoProFor
LIFE17 GIE/IT/000561

NATURA 2000

Climate credits

a new tool to enhance forests' contribution to EU mitigation goals through multifunctional forest management

www.lifegoprofor.eu

LIFE CLIMARK

Teresa Baiges Zapater

Centre de la Propietat Forestal

CTFC

Universitat de Lleida
Escola Tècnica Superior d'Enginyeria Agrària

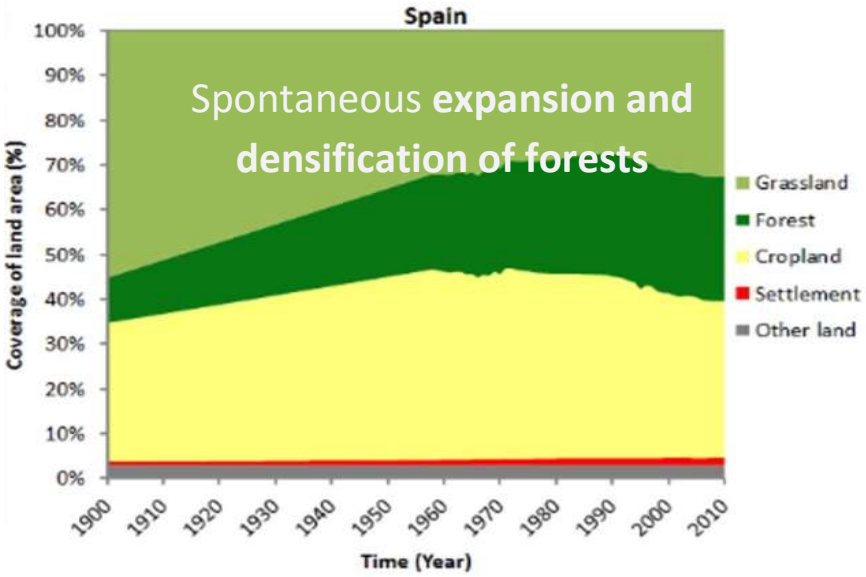
Consiglio Nazionale delle Ricerche

Generalitat de Catalunya
Departament d'Agricultura, Ramaderia, Pesca i Alimentació

Centre de la Propietat Forestal

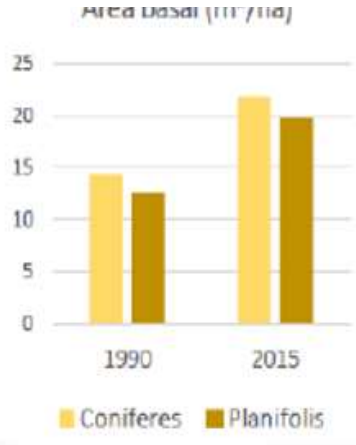
Oficina Catalana del Canvi Climàtic

Planting trees is not always the solution

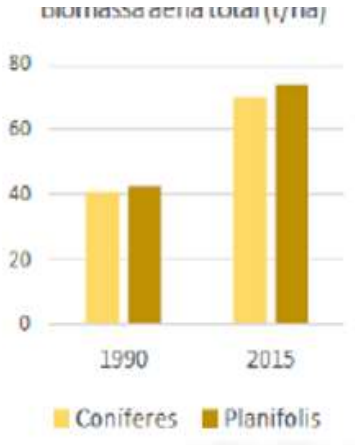


In the last 25 years in Catalonia

+ 57% Basal area



+ 73 % Biomass



60 % of forestland

78% private forests

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In the last 25 years in Catalonia:

Rate of $C0_2$ sequestration has dropped by 17%

Carbon stocks are threatened by natural disturbances

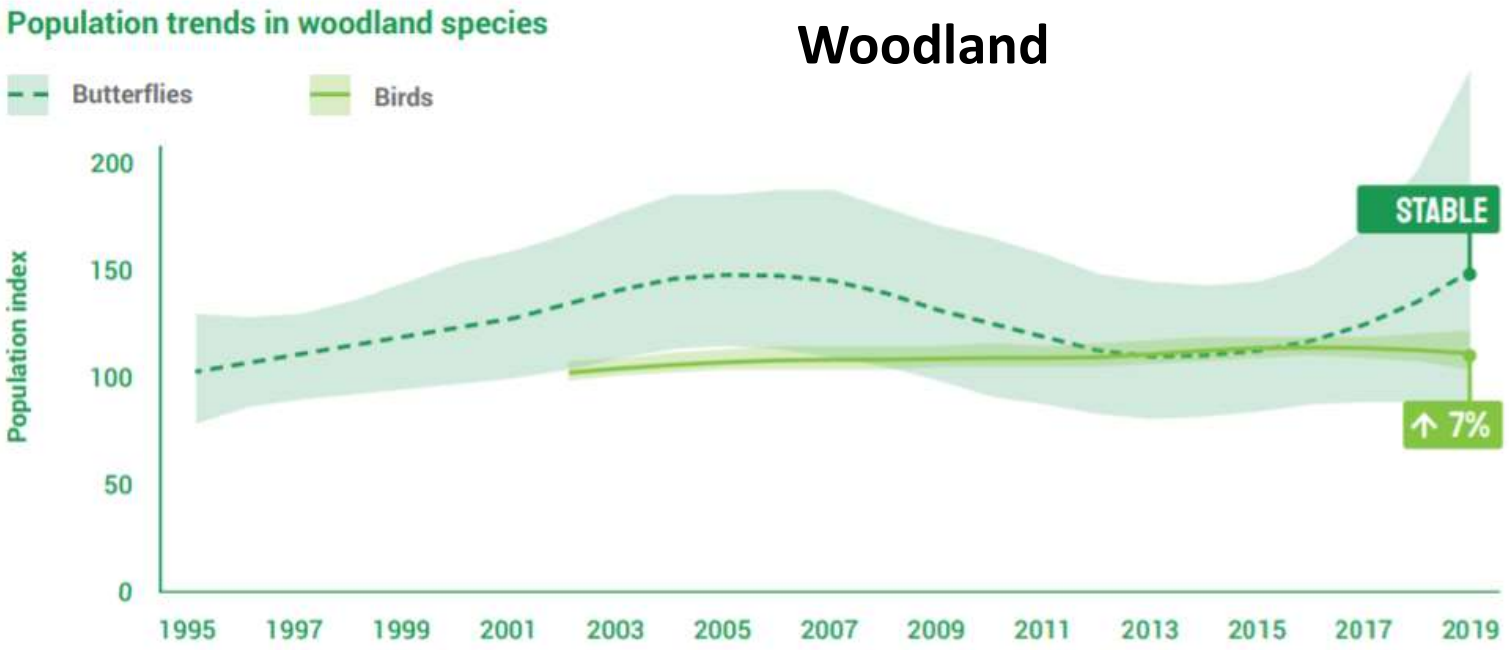
Water flow has been reduced by 30%

Low maturity and loss of biodiversity linked to bushes and open areas

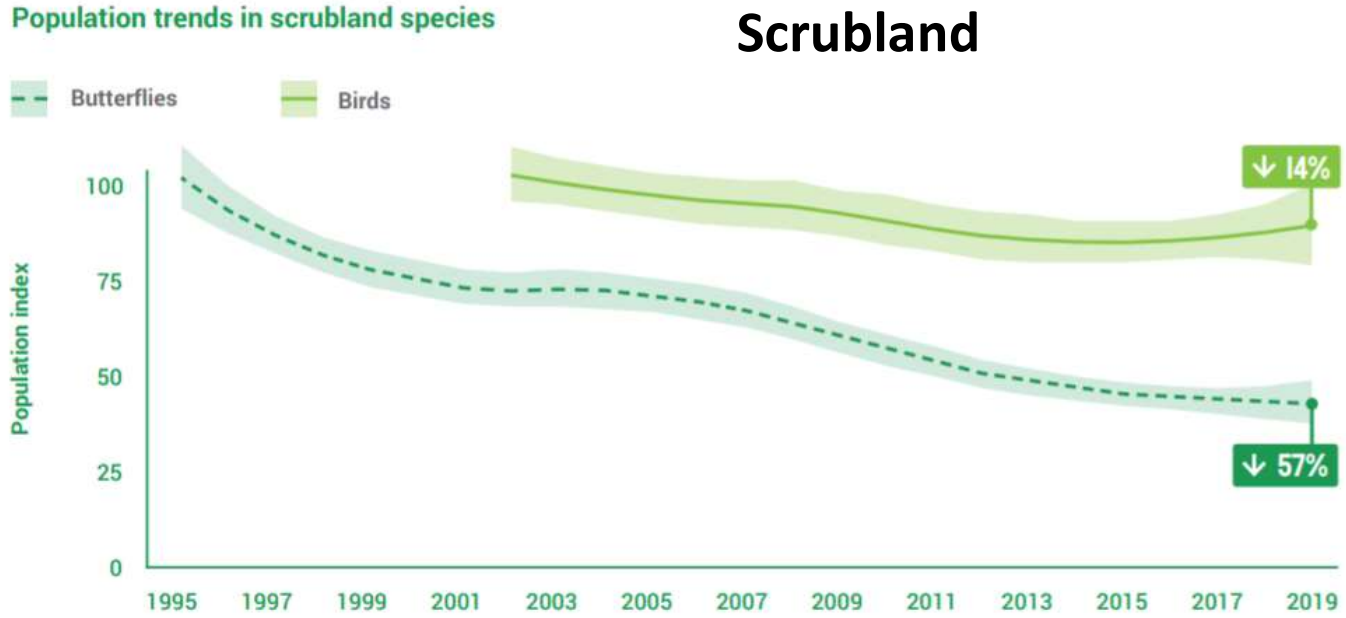
FORESTIME

OCCC-CREAF (2020)

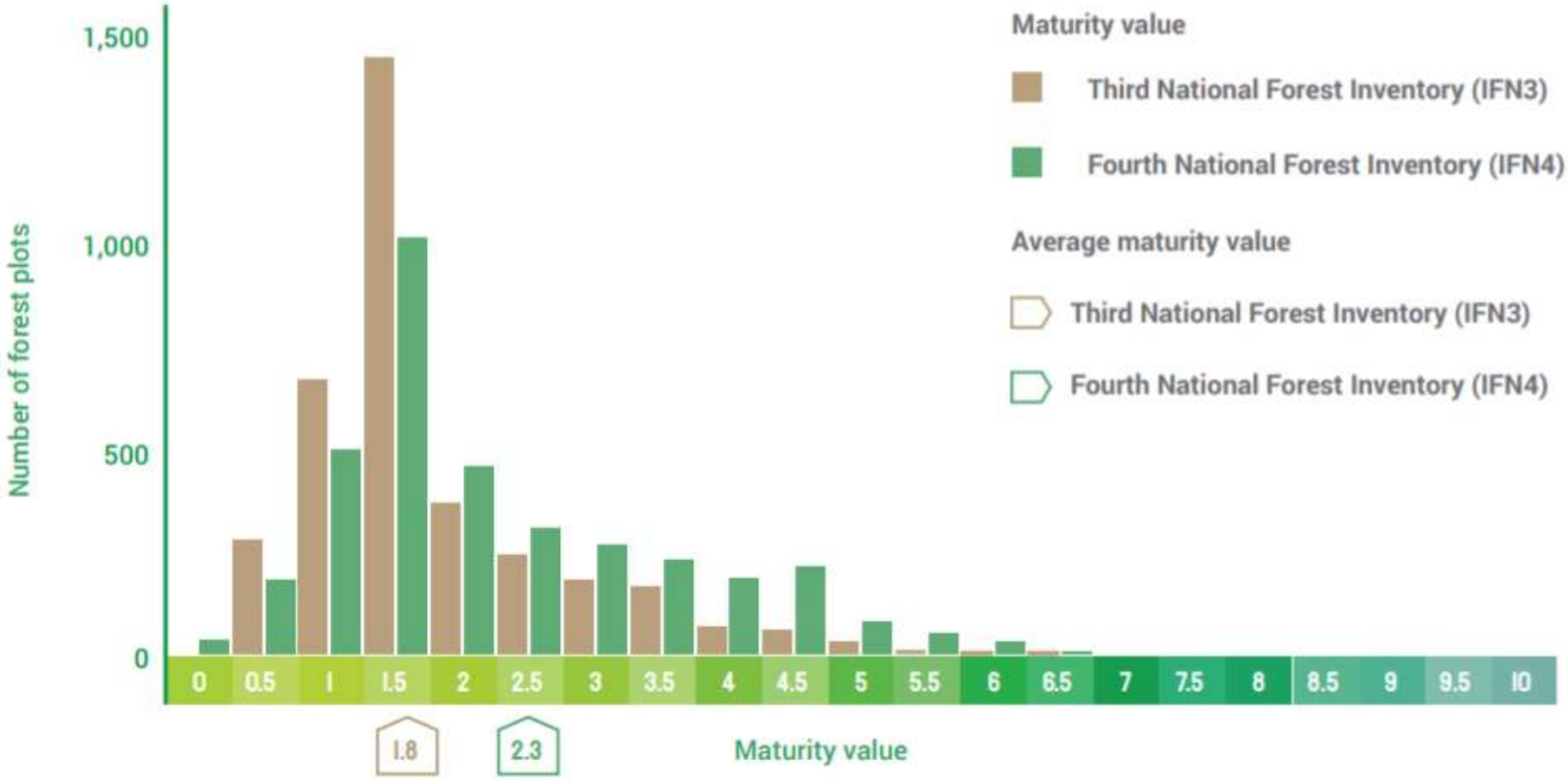
Woodland



Scrubland



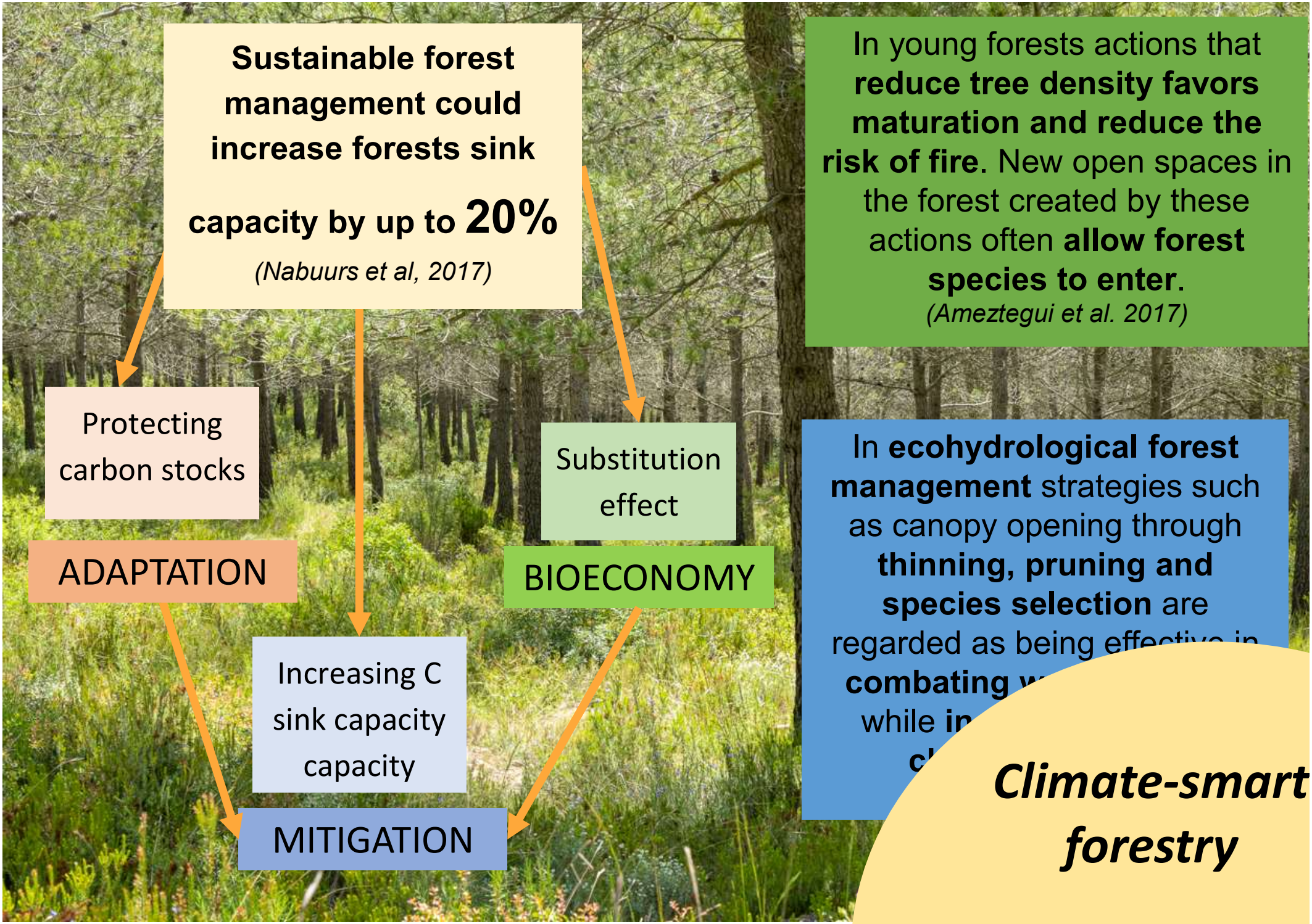
Forest maturity in Catalonia



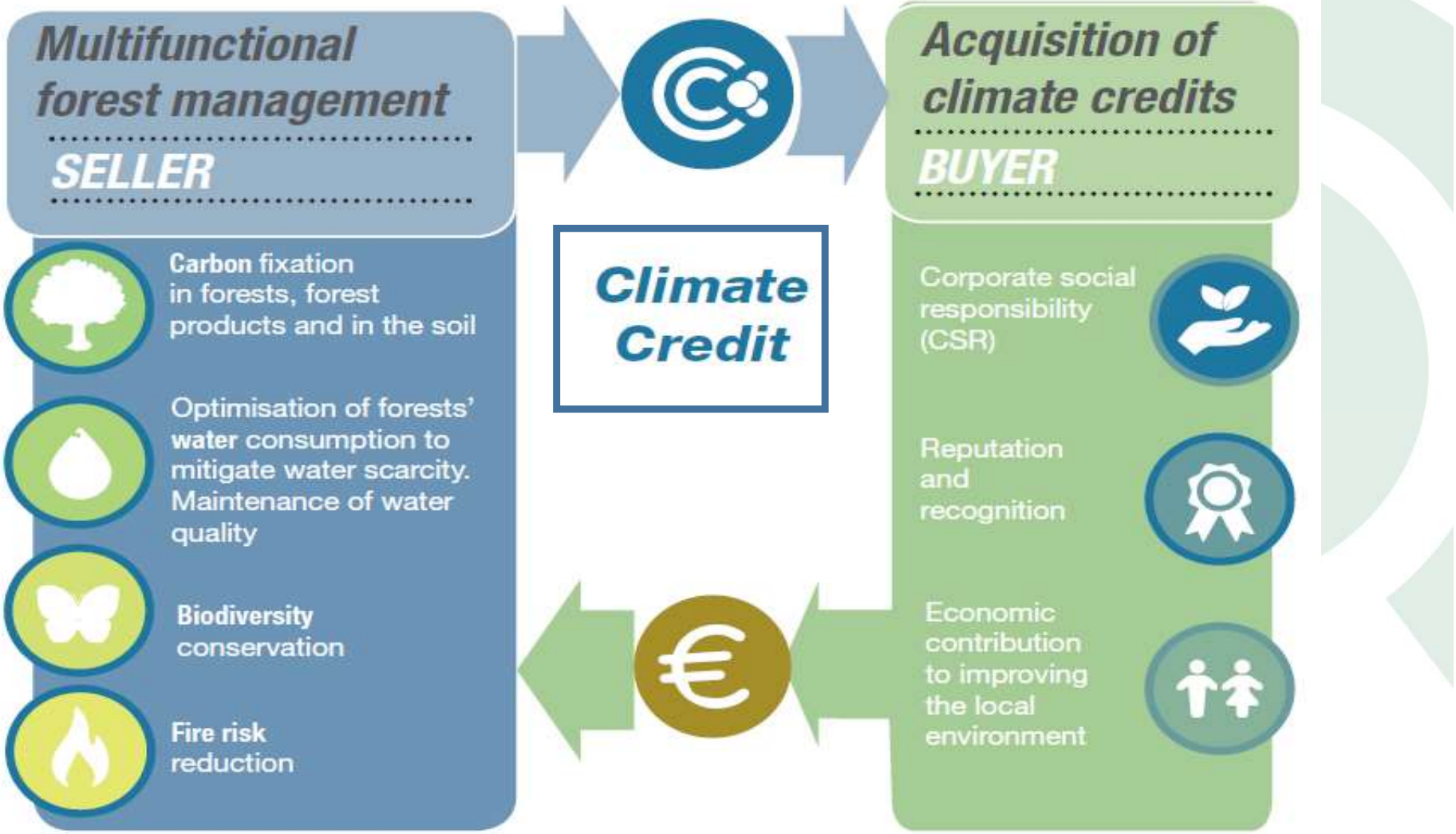
State of conservation of forest species and habitats in Catalonia (2013-2018)

Favorable Unknown Unfavorable

Habitats


Sustainable forest management could increase forests sink capacity by up to 20%
(Nabuurs et al, 2017)
In young forests actions that reduce tree density favors maturation and reduce the risk of fire. New open spaces in the forest created by these actions often allow forest species to enter.
(Ameztegui et al. 2017)
Protecting carbon stocks
Substitution effect
ADAPTATION
BIOECONOMY
In ecohydrological forest management strategies such as canopy opening through thinning, pruning and species selection are regarded as being effective in
combating
while in
cl
Increasing C sink capacity capacity
MITIGATION
Climate-smart forestry

Our project: A voluntary market of climate credits



Climate Credit : valuation, at the same level of the co-benefits of **Multifunctional Forest Management** on **Carbon**, **Water** and **biodiversity**

Climate Credits
... beyond carbon

- ✓ **tCO_2 sequestered & tCO_2 avoided**
- ✓ **m3 of water released** (less trees, more water !)
- ✓ **% of improved biodiversity hosting capacity (based on *Biodiversity Potential Index* -IBP)**

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Life

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Best practices in relation to biodiversity included in the «Climate credit» scheme:

- **Landscape level - Governance**

Participatory setting of priority criteria and selection of the sites

- **Forest management: Obligation to apply integrative forest management** which includes:

- Diagnosis IBP in the preliminary forest inventory
- Tree marking in thinnings in private land – formation to forest workers
- Retention forestry criteria (to diffrent silvicultura approaches)

- **Inclusion of biodiversity value in the economic budget:**

- Estimation of the impact of forest management in biodiversity
- Inclusion of the value of biodiversity conservation in the budget

- **Official and transparent registration – data collection**

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An example: Pilot project in the Collserola Natural Park (Barcelona)

PROMACC
CC Mitigation and Adaptation Project (2021-2023)

Facilitators/Promoters: 2 Local forest working cooperatives (BOSCAT + FOREST4)

Parc de Collserola

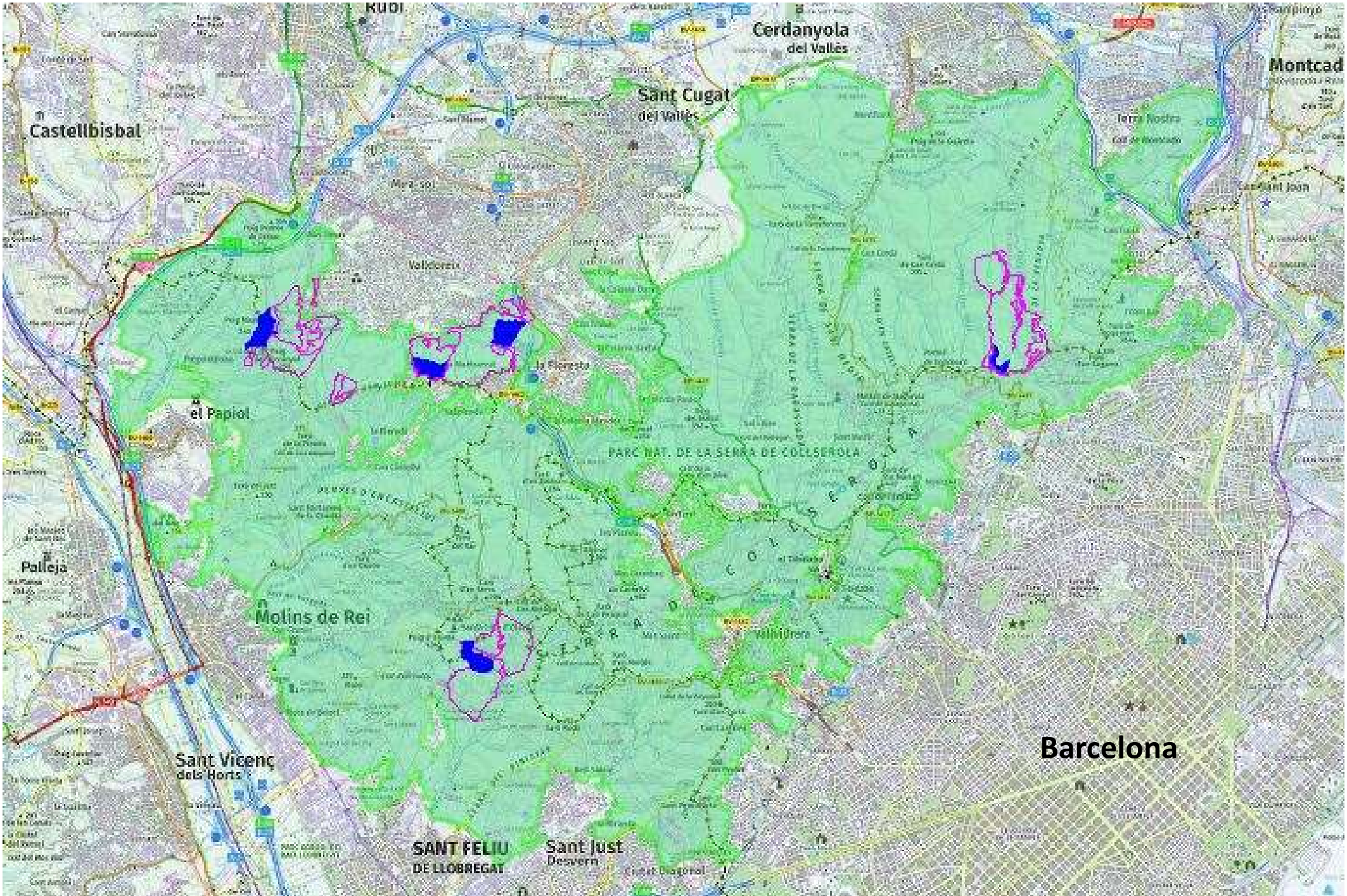
Diputació Barcelona · AMB Àrea Metropolitana de Barcelona

8.400 ha

Priority criteria for the selection of sites:

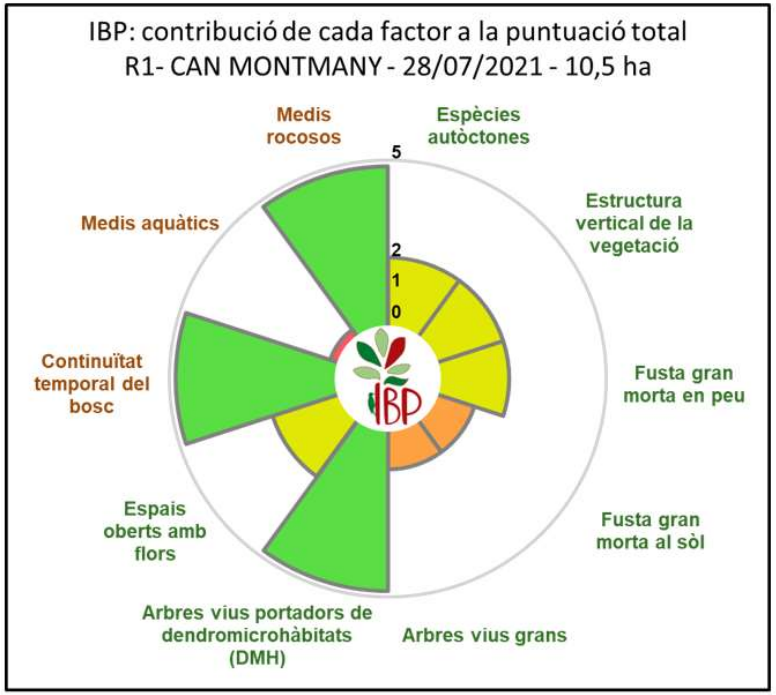
- Prevention of large fires and fires at the urban-forest interface
- Synergies with existing agricultural and forest management initiatives
- Forests with a technical plan for forest management
- Of interest for raising awareness and promoting the concept of climate credit

1) Proposal for the execution of forestry actions in **40 hectares**, distributed in **5 forests**



TREATMENTS	Priority sites / Characteritics
1. Tree thinning: Competition regulation/ Selective cutting / Dehesa-type forest	Dense adult forests (pine and holm oak) with lower current growth than seasonal quality. Strategic Management Points (PEGs) or high emission risk areas
2. Partial selective bush removal	Regenerated post-perturbation with high accumulation of biomass not managed since the perturbation
3. Integration criteria for biodiversity conservation	Fostering structural complexity Conservation of old trees, large or with unique elements (MH) Generation of large dead wood standing and on the ground, in order to favor the saproxylic organisms Treatments that promote the presence of flower species, to favor butterflies and pollinators

IBP: **15** out of 35 (43 %)



Treatments proposed

- Coppice thinning of *Quercus. ilex*
- Reduction of 30 % basal area *P. halepensis*
- Selective removal of bushes leaving around **30 % cover**

- **Retention of key habitats for biodiversity**:
  - marked trees with MH,
  - Trees with diam. > 30
  - *Dead trunks with dia. > 25 cm*

- **Generation of key habitats for biodiversity**:
  - all pines will be left on site,
  - *When cutting, leave high (1m) trunk stems (1-3/ha)*
  - *Open áreas closed to tracks*

2) Quantification of impact

FOREST MANAGEMENT SCENARIO vs NO MANAGEMENT (BAU)

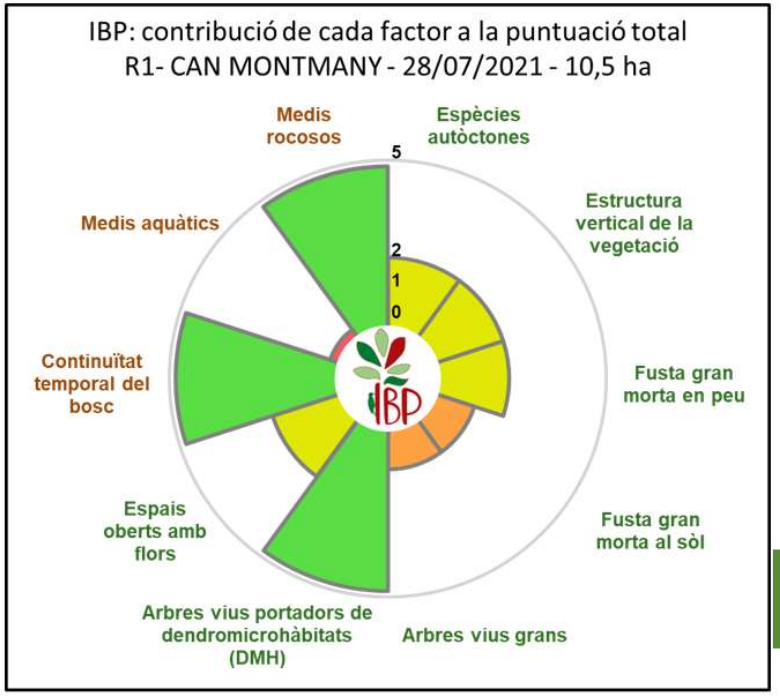
The PROMACC project for Collserola generates:

1.500 additional tCO_2 sequestered/avoided,

18.000 m^3 of blue water released

27 % improvement in biodiversity hosting capacity.

IBP (before): **15** (43 %)



Estimation IBP after treatment:

20

(20 - 15) /15 = 33 % improvement

Treatments proposed

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3) Complementary awareness-raising actions by differents stakeholders

- **Project awareness campaign** (Press and social media, conferences, installation of information panels, ...)
- **Personalized teambuilding / open house actions,** with the staff of the financing entities
- **Others:** Collaboration with volunteer associations, local firewood supply with climate credit label, ...

4) Calculation of the Climate Credits

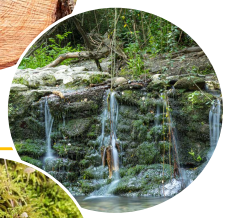
The PROMACC project for Collserola generates:

- **1.500 additional tCO_2** sequestered/avoided,
- **18.000 m^3** of blue water released
- **27 % improvement in biodiversity hosting capacity**.

Global project costs
Social value

Climate Credits
... beyond carbon

Carbon balance



Water provision

Biodiversity potential

Financers PROMACC Collserola:
2 private companies and 1 private foundation

Lessons learned

- IBP factors works very good for pedagogy and as a starting point for in-site management discussions, and to orientate management criteria

- When there this additionality is valued and payed, forests owners are in favour of integrative management

- Companies and other local public and private entities are willing to invest in forest management for climate change for different reasons, providing minimum garanntees are assured

- Good for involving other society segments in forest conservation & management and to start discussions on the new policies to come

- Difficulties in putting «the right price» to the provision of services (provision costs? Social value?)

- Integrity criteria to avoid «greenwashing»

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Thank you !

tbaiges@gencat.cat
Teresa Baiges

@lifeclimark