



## Forest Climate Credits System of Catalonia

### Forestry projects for mitigation and adaptation to climate change (PROMACC)



ResAlliance

«Συμμαχία γνώσης για την ανθεκτικότητα του τοπίου για τη γεωργία και τη δασοπονία στη λεκάνη της Μεσογείου»



**Teresa Cervera Zaragoza**  
**Centre de la Propietat Forestal**



S.XX

57. - CAMPRODON (alt. 950 m.). - Hermita de N<sup>ra</sup>. S<sup>ra</sup> del Remei  
L. Roisin, fot. Barcelona

# FOREST TRANSITION IN CATALONIA 1940-1970



S.XXI

and **CLIMATE CHANGE**...over the last 25 years:

- the rate of CO<sub>2</sub> sequestration has decreased by 17%
- water flows in rivers has decreased by 30 %
- biodiversity linked to open areas has been affected by forest expansion







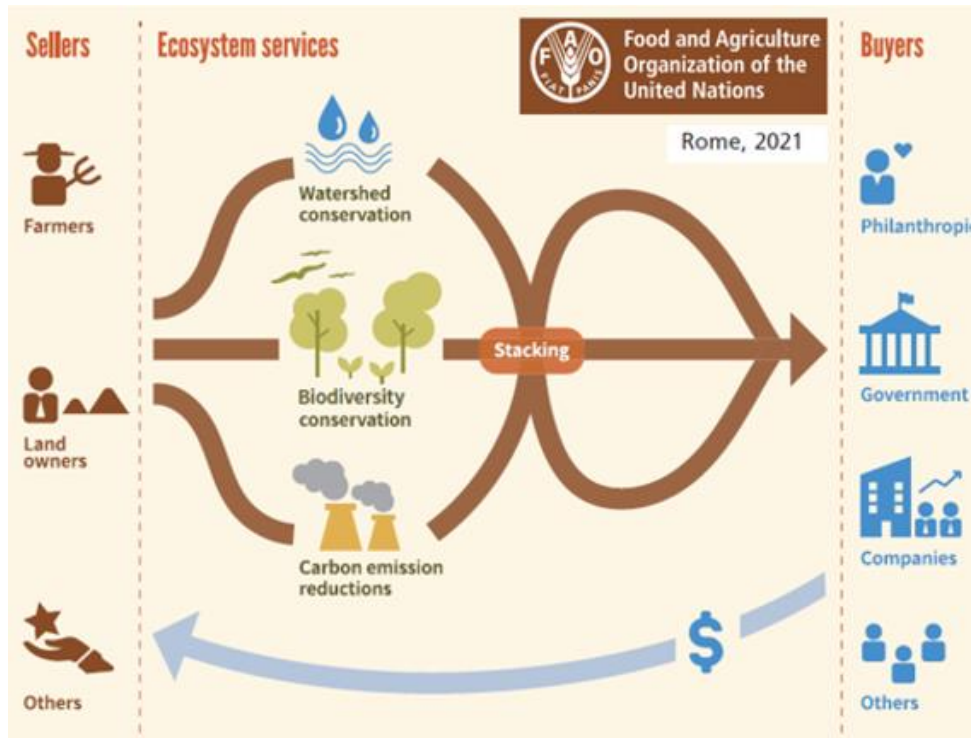


# Multifunctional forest management, beyond carbon

“ We defend the role of forest management in achieving landscapes that are more resilient to climate change. ”



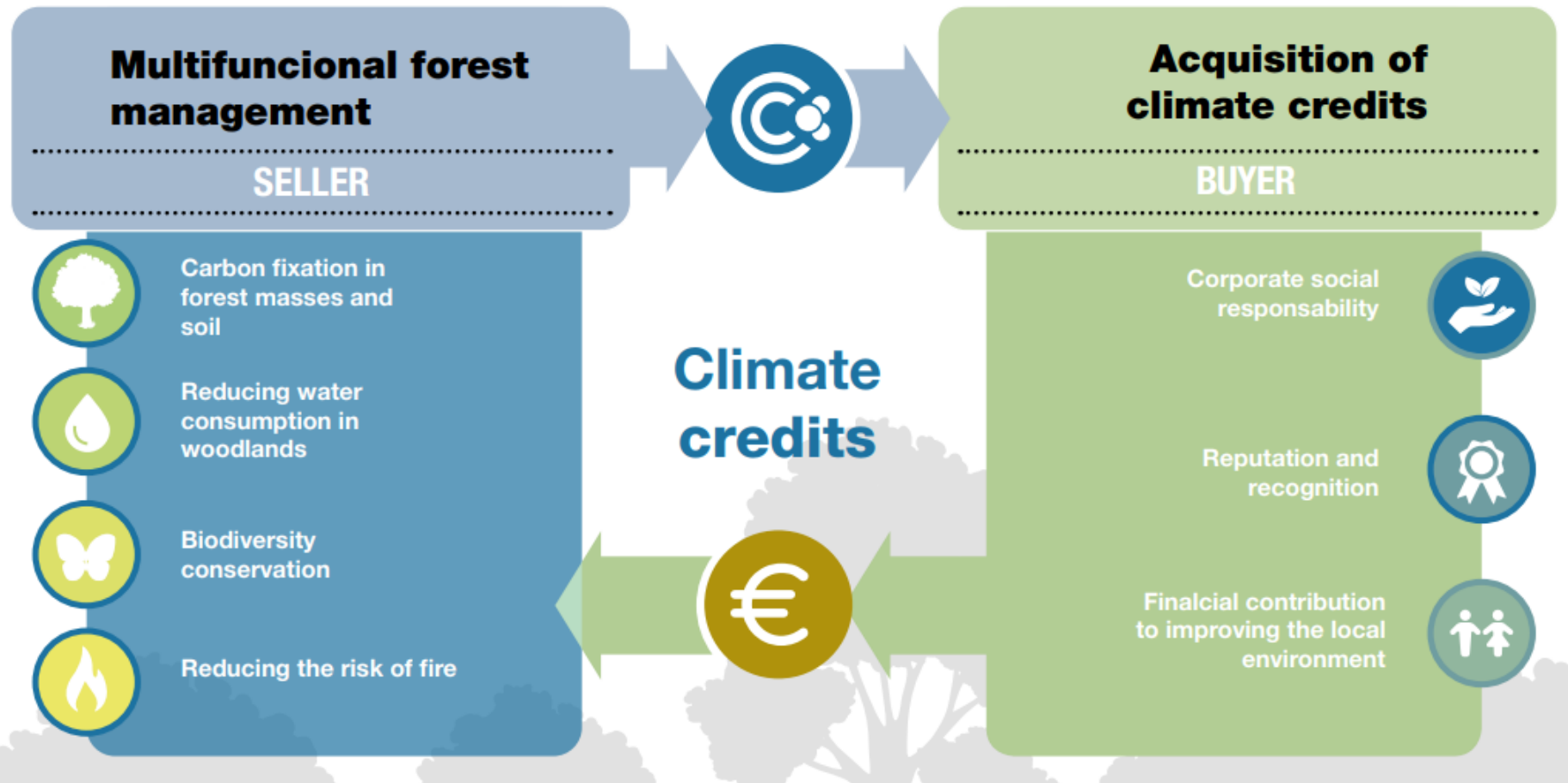
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**NATURE  
BASED  
SOLUTIONS**

**EFFECTIVE SOLUTIONS TO  
FIGHT THE CLIMATE CHANGE**

# Forest Climate Credits System of Catalonia



## CARBON

Forestry fixation in forest stands and soil

## WATER

Reducing water consumption in woodlands

## BIODIVERSITY

Biodiversity conservation





## Strategic vision

Joint forestry management

Identification of the main Forest Ecosystem Services (ES) to be provided



# Resilient landscapes

Forestry operational project

**PROMACC**

(Forestry projects for mitigation and adaptation to climate change)



# FCC System of Catalonia: principles

**Climate Smart Forestry (CSF)** “should enable both forests and society to transform, adapt to and mitigate climate induced changes”

Nabuurs G-J *et al* (2018)  
Kauppi P *et al* (2018)  
Verkerk PJ *et al* (2020)  
Bowditch *et al* (2020)

**Integrative forest Management (IFM)**, valuing at the same level the co-benefits of SFM and integrate biodiversity conservation criteria

## Mitigation

from the forests to the whole value chain (**bioeconomy**)



## Adaptation

Linked to **biodiversity** (composition, genetic, functional,...) and to **CC-induced disturbances**

## Social dimension of forestry

Involvement of stakeholders from local communities to global forest **Governance**

Provision of **Ecosystem Services** at various scales and for changing demands

**1 Climate Credit = 1 ha Resilient Landscape**





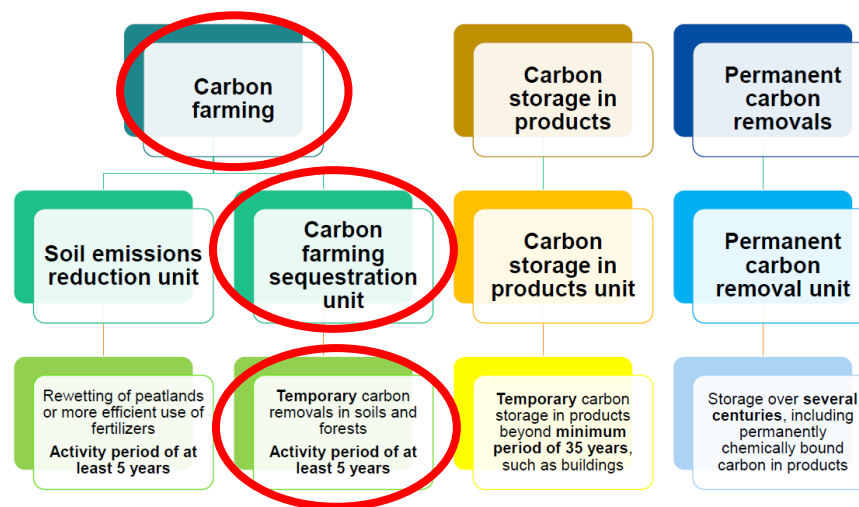
# FCC System of Catalonia: QU.A.L.ITY criteria



**Regional regulation**  
Government Agreement 2023



**Scope of certification**  
Article 1 and 2 CRCF Regulation



## CRITERIA FOR A ROBUST EU CERTIFICATION SYSTEM

The EU certification framework can **only be used to certify carbon removals that meet the following QU.A.L.ITY criteria:**







# FCC System of Catalonia: QU.A.L.ITY criteria

## Quantification

- Calculation of net benefit
- Monitoring
- Baseline

## Additionality

- Additionality tests in case of activity-specific baseline

## Liability

- Monitoring rules
- Liability mechanisms

## Sustainability

- Minimum sustainability requirements
- Monitoring and reporting of co-benefits



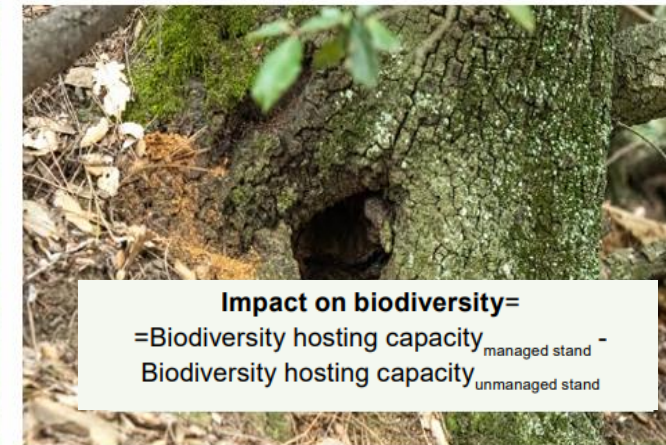


# QU.A.L.I.TY criteria: Quantification & Sustainability

## METHODOLOGY FOR CALCULATING THE IMPACT OF FOREST MANAGEMENT ON ECOSYSTEM SERVICES: CARBON, WATER AND BIODIVERSITY



generate co-benefits





# Quantification & Liability & Addicionality & Sustainability

## SFM

We calculate the impact for the **15 years immediately** after treatment

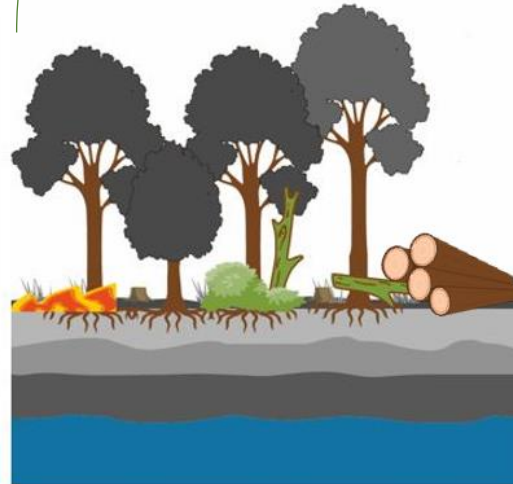
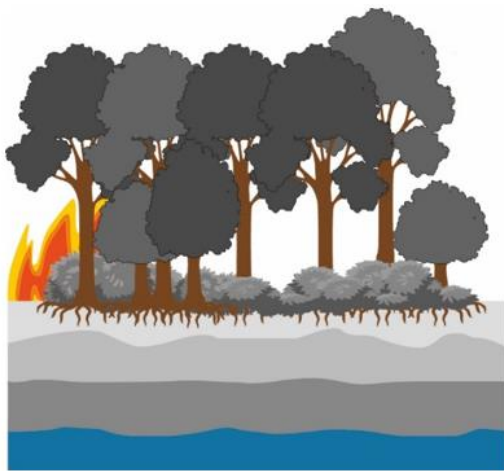
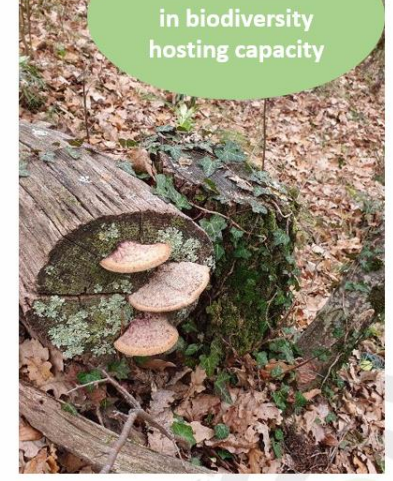
tCO<sub>2</sub> sequestered  
& tCO<sub>2</sub> avoided



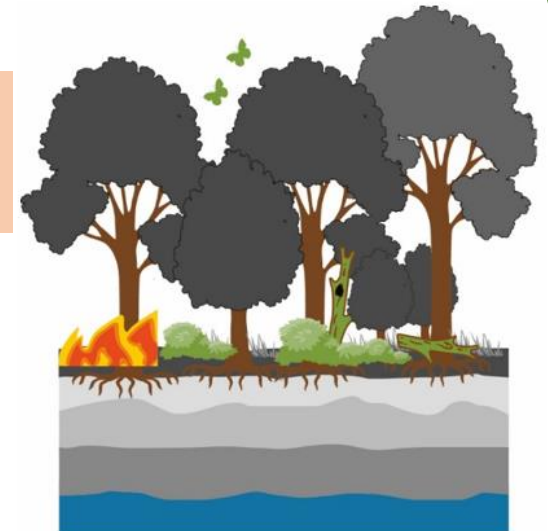
m<sup>3</sup> of water  
exported



% increment  
in biodiversity  
hosting capacity



Monitoring  
period



5 yrs

10 yrs

15 yrs





# QU.A.L.ITY criteria: Additionality







# PROMACC – Local forestry projects and impact on FES



Serra de Collserola.



AFG Les Arenes.



Conca Segre-Rialb.



Serres de Miralles-Ancosa.

PROMACC CODE	NAME	PROMOTERS	CC n	IMPACT OF 1 CLIMATE CREDIT		
				t CO2	m3 water	%Bio
01_2022	Serra de Collserola	Forest4 SCCL; BOSCAT	40	36	2098	29
02_2022	AFG Les Arenes	AP de Castellar del Vallès, Gallifa i Sant Llorenç Savall	45	22	2035	44
03_2022	Vall de Lord	Associació Forestal de la Vall de Lord	107	34	2555	16
04_2022	Conca Segre-Rialb	Associació de la propietat forestal Segre-Rialb	80	26	1192	18
05_2022	Serres Miralles-Ancosa	AP forestals Serra Miralles-Orpinell	34	16	789	57
06_2022	Vall de la Muga	Fundació Pioneers of Our Time	58	88	2857	26
08_2022	Zona volcànica de la Garrotxa	Parc Natural de la Zona Volcànica de la Garrotxa	42	93	1384	6
01_2023	Gavarres	AP Boscos de Celrà i AG Forestal de les Gavarres	35	10	2448	6





# PROMACC – Local forestry projects – Price of Climate Credit



PROMACC CODE	NAME	PRICE OF 1 CLIMATE CREDIT			
		€	€/tCo2	€/m3H2O	€/ %Bio
01_2022	Serra de Collserola	3337	95,6	1,6	118,8
02_2022	AFG Les Arenes	2792	45,4	1,4	63,5
03_2022	Vall de Lord	4103	99,9	1,3	210,2
04_2022	Conca Segre-Rialb	3206	123,3	2,7	181,8
05_2022	Serres Miralles-Ancosa	3487	217,4	4,4	61,2
06_2022	Vall de la Muga	4429	50,5	1,6	170,4





# PROMACC – Local forestry projects – Credits sold



Codi	Nom	Cclim generats	Pressupost €	CClim comprats	Finançament €
01_2022	Serra de Collserola	40	133475,49	32	106689,72
02_2022	AFG Les Arenes	45	126846,35	45	126846,35
05_2022	Serres Miralles-Ancosa	34	119264,96	6	20000,00
06_2022	Vall de la Muga	58	256003,23	7	31003,85
<b>Total</b>	<b>2021-2023</b>	<b>177</b>	<b>635590,03</b>	<b>90</b>	<b>284539,92</b>





## Voluntary compensation, CSR initiatives, ODS

The PROMACCs are prepared to enter **the environmental financing circuits**, facilitating companies and institutions to **invest in forest & nature-based solutions**, within the framework of **CO<sub>2</sub> voluntary compensation, ESG reporting & other corporate social responsibility initiatives**.

The System offers:

- **ISSUANCE OF A CERTIFICATE**
- **GENERAL AND SPECIFIC COMMUNICATION**
- **IDENTIFICATION IN THE OFFICIAL REGISTER**
- **CLOSE LINK WITH THE TERRITORY**





<http://creditsclimaticsforestals.cat>



**Climate  
Credits**

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**Life Climark**

