

Cork oak woodland management in Sardinia's state forests

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Coordinator



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WHY CORK?

- > Sardinia has 83% cork oak woodlands cover of Italy (RAS, UDS 2008)
- > Cork oak woodland are the largest forest category after holm oak woodlands (*Q. ilex*) in an islands were 50% of the area is Forest Area – 1.200.000 ha (INFC, 2005)
- > Cork oak woodland cover In Sardina is around 140.000 ha (UDS, 2008):

Cork oak WOODED PASTURES 5-25% cover



CORK OAK FORESTS > 25% cover



MIXED FORESTS > 20% cover



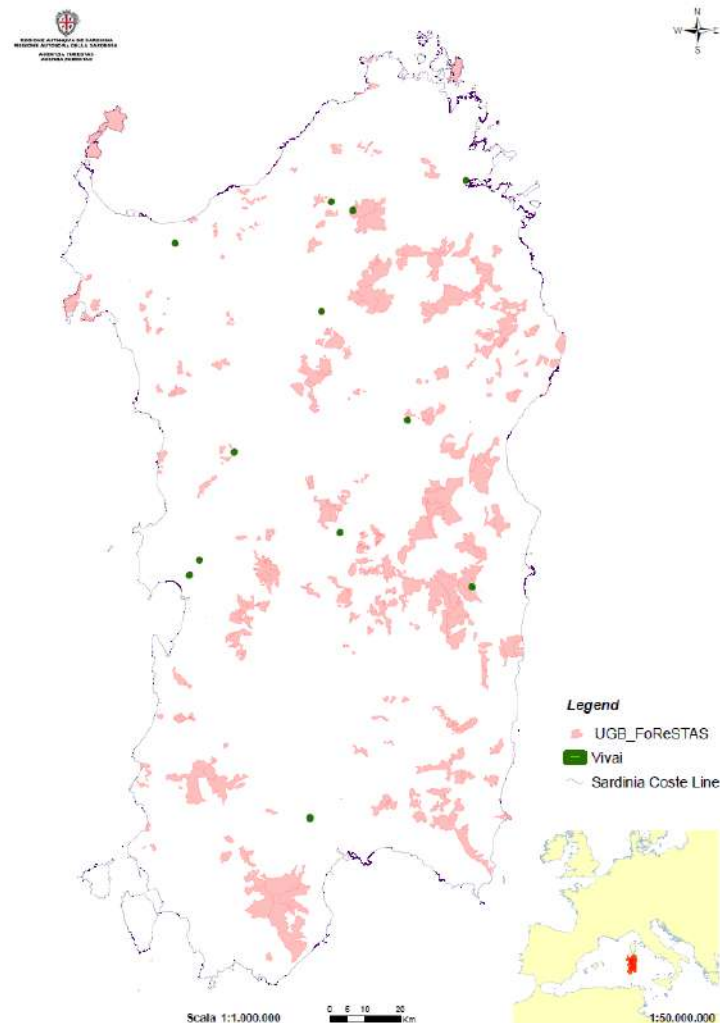
OUR AGENCY!

«Agenzia Forestale Regionale per lo Sviluppo del Territorio e dell'Ambiente della Sardegna (FoReSTAS)»

Founded by the regional Law n. 8/2016, **FoReSTAS** is the largest forest manager in Sardinia and operates under the Regional Ministry of Environment.

FoReSTAS

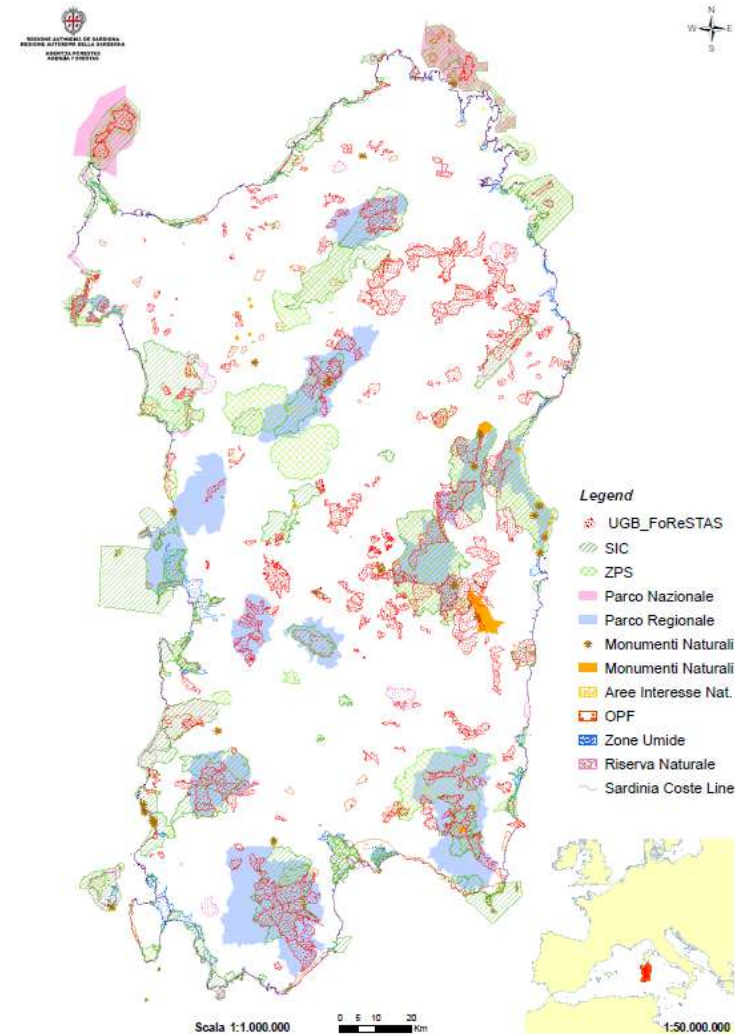
- Directly manages **220.000 ha** of land, corresponding to **10%** of the total surface of the region of Sardinia, with **176** Operates in the **whole region** for civil protection and fire management, with a Workforce of **4800 people**
- **FMU** scattered from the coastline to the high mountains to the interior
- Ownership: the Region (**37%**), Municipalities (**40%**) and private owners (**23%**) under R.D. 3267/'23.



OUR AGENCY!

Area overlapping with Protected Areas:

- **41%** Regional Ecological Network
- 80.000 ha of Special Areas of Conservation (33 SAC)
- 45000 ha Special Protected Areas
- MAB Unesco sites, parks, etc

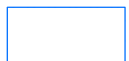
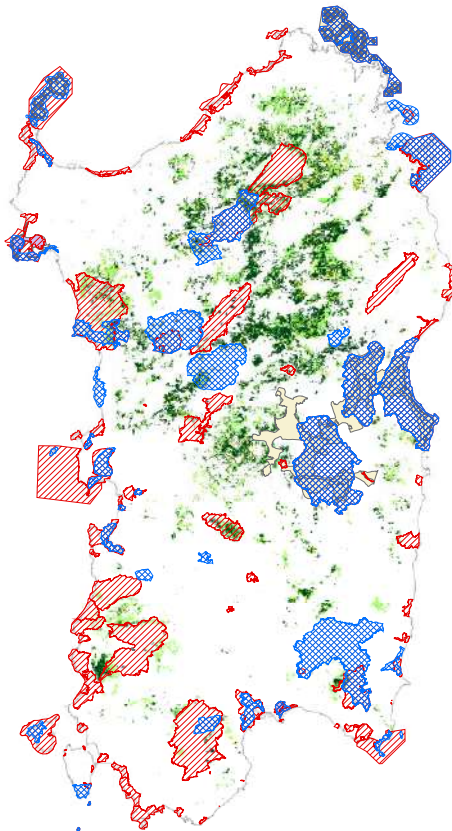


OUR cork oak woodlands!

Cork oak WL (green) over Natura 2000

13% cork oaks
(INFC, 2005)

30 out 93 SAC
(PFAR, 2008)



Speial Protected Areas (ZPS)



Special Areas fo Conservation (SIC)

Habitat Community interest

9330 – *Q. suber* forests

6310 - Dehesas with evergreen *Q. spp.*
(+ 6220 *Thero-Brachipodieta*)

**Conservation status: Unfavourable/
Inadequate/Bad** (EUNIS, 2018)



Home to endemic, rare, threatened
species of flora, mushrooms and fauna

OUR PLANS FOR CORK OAK WOODLANDS?

1. More cork!!
2. Conservation and resilience of our ecosystems
 - Enhancing Ecosystem Services
3. Seeking acknowledgement of our Sustainable management
4. Improved Governance

MORE CORK!!

- > Our industries are suffering for the lack of raw material
- > Demand for cork is increasing at a global level



**Debarking of increasingly abandoned stands and auctions,
Restoration of cork oak plantations**



Lack of **profitability**: Giving cork the right price (CORK QUALITY ASSESSMENT)

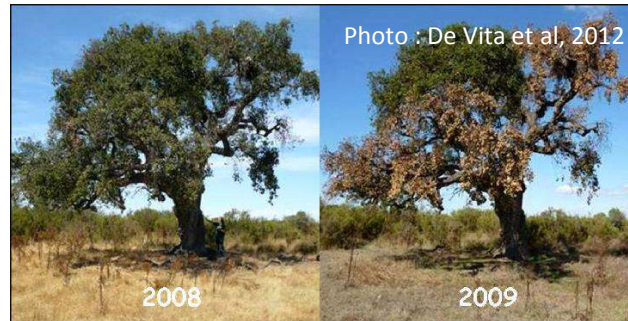
*> Human derived ecosystems, such as cork oak woodlands, can be maintained only through sustainability based on **profitability** (Bugalho et al 2011)*

CONSERVATION AND RESILIENCE

Forest fires



Oak decline



> Greater complexity of the stands (mixed vs pure; soil cover...) for resilience and adaptation to CC effects

> Balance Land Uses (grazing, tillage)

Pests and diseases



Overgrazing and soil fertility



> Propagation material



ENHANCING ECOSYSTEM SERVICES

REGULATING

PURE CORK oak forests in Sardinia

Tot VALUE	427 (euro ha ⁻¹ year ⁻¹)
- Watershed prot.	261
- Cork production	93
- Fodder	44
- Carbon seq.	37 (Corona et al. 2017)

CULTURAL HERITAGE



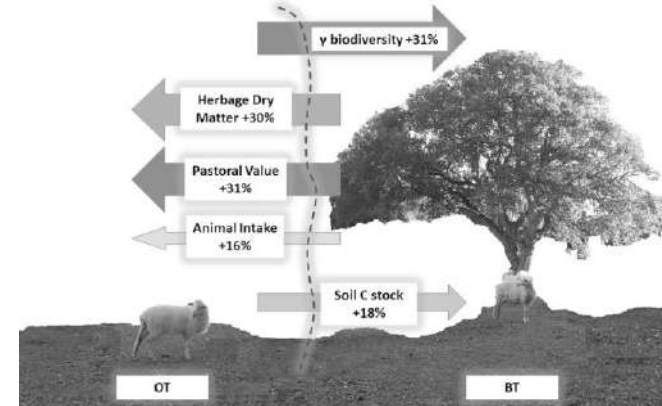
History and Identity



PROVISIONING



TRADE OFFS



[Seddaiu et al. 2018]

AKNOWLEDGING SUSTAINABLE MANAGEMENT

FOREST CERTIFICATION

> *Consumer Preferences link cork to
high quality wines (APCOR survey, 2017)*



**PILOT CERTIFICATION 2010-2013 OF 8.000 HA MANAGED BY FORESTAS (yes we can)
Studying INDICATORS FOR CORK OAK MGM SUSTAINABILITY (Pollastrini et al. 2018)**

IMPROVED COMMUNICATION

Key message: Cork Oak Woodlands NEED human intervention to be conserved!

IMPROVED GOVERNANCE



STRENGTHENING THE BONDS ALONG THE CORK VALUE CHAIN

THE IMPORTANCE OF FUNCTIONAL NETWORKS

**NATIONAL RURAL
NETWORK ON CORK**

www.reterurale.it



RESEARCH NETWORKS
From Science to practice



H2020 INCREDIBLE



INCREDIBLE receives funding from the European Commission's H2020 programme through the RUR-10-2016-2017 call, Thematic Networks compiling knowledge ready for practice

Tank you for your attention

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SardegnaForeste



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