



Operational Group: GEO SUBER – Cork oak monitoring

Practical problem

The practical problem is the lack of mechanisms to monitor the vitality of the cork oak forests in real time, fragility that has been identified in the past without significant advances until now and very relevant to an ecosystem that during the last 3 decades is in a process of loss of vitality.

Partners

Type:

Agri association

Research/ Teaching

Agri enterprise

Name:

Unac - União da Floresta Mediterrânica; APFC – Associação de Produtores Florestais do Concelho de Coruche Limítrofes

Instituto da Conservação da Natureza e das Florestas, I.P.; Faculdade de; Ciências da Universidade de Lisboa ; Instituto Superior de Agronomia

Systerra – Engenharia e Gestão Lda.; Companhia das Lezírias S.A.; Luís Filipe Bual Falcão da Luz; Pedro Sacadura Teixeira Cabral Duarte da Silveira; Sociedade Agrícola Monte da Sé, Lda.; Pedro Miguel Belo Ramos Courinha Martins; Anta de Cima – Sociedade Agrícola, Unipessoal Lda.; Sociedade Agrícola do Freixo do Meio, Lda.

Project

Objectives:

Ensure periodic monitoring of the cork oak vitality through remote sensing and provide the forest owner through an online platform with the information for the management, namely the annual inventory of dead trees and production of cartography in support of the cork oak cutting requirements.

Expected results:

On-line platform for cork oak vitality monitoring; Mobile application for visualization/ access the data; Periodic cork oak mortality cartography; Adaptive management recommendations; Simplification of mandatory procedures (identification of the dead cork oaks for felling); Assess the influence of the foliar index evolution on the cork harvesting; Georeferenced historical record of mortality

Results so far/first lessons:

In 2004 an inventory of cork oak mortality was carried out, based on digital aerial photography and spectral treatment of the images (2008, Ribeiro and Surový), demonstrating the potential of the remote sensing approaches. The actual Copernicus program (Sentinel 2 mission), made available free satellite images, with high spatial/ temporal resolution which is an opportunity for forest monitoring.

Who will benefit:

Cork producers, forest associations/cooperatives, forestry technicians, municipalities and forestry national authority

Start: July/2017
End: June/2020

Budget: 218.161 €

