

IN SUPPORT OF THE FSC ECOSYSTEM SERVICES PROCEDURE: A COST-EFFICIENT METHODOLOGY FOR ASSESSING NATURE-BASED INDICATORS IN PORTUGAL



The FSC Ecosystem Services Procedure (ESP) is a tool for verifying positive impacts from additional forestry activities on ecosystem services, including biodiversity conservation and carbon storage.

Scope and main objectives

- There is an increasing need for streamlining the way impacts on ecosystem services are demonstrated, by making the ESP more comprehensive, clearer, and simpler while lowering the costs and facilitate access for smallholders.
- Here, we present a methodology to assess and verify a set of nature-based indicators following a cost-efficient perspective grounded on the ESP, illustrated with a case-study ES certification claim in Portugal.

Conclusions

- The proposed methodology and set of nature-based indicators has already been used in the ES certification process of different management units in Northern Portugal (Figure 2).
- The indicators used in these units can support the assessment of Biodiversity, Carbon and Recreation Ecosystem Services impacts.
- Its simplicity, reliability and low costs make this approach and indicators replicable in other regions worldwide.

Methodology

In brief, the methodology follows four sequential steps (Figure 1):

- Starts with freely available digital land cover maps as a working basis for the characterization of existing habitats in the management unit.**
- Then, uses pre-existent national/regional-level legal and scientifically sound digital information to analyse the potential of the unit habitats for high conservation and ecosystem functioning values.**
- From this analysis, a stratification sampling approach is then applied to collect in-field information on biophysical indicators, such as the number of endemic species, vertical structure and occupancy area of vegetation strata, and regeneration or risk signs, among others.**
- Finally, ensembles the information into pre-defined spreadsheets to rank existing habitats according to their natural values and establish more target-oriented conservation and restoration actions in certified forests.**

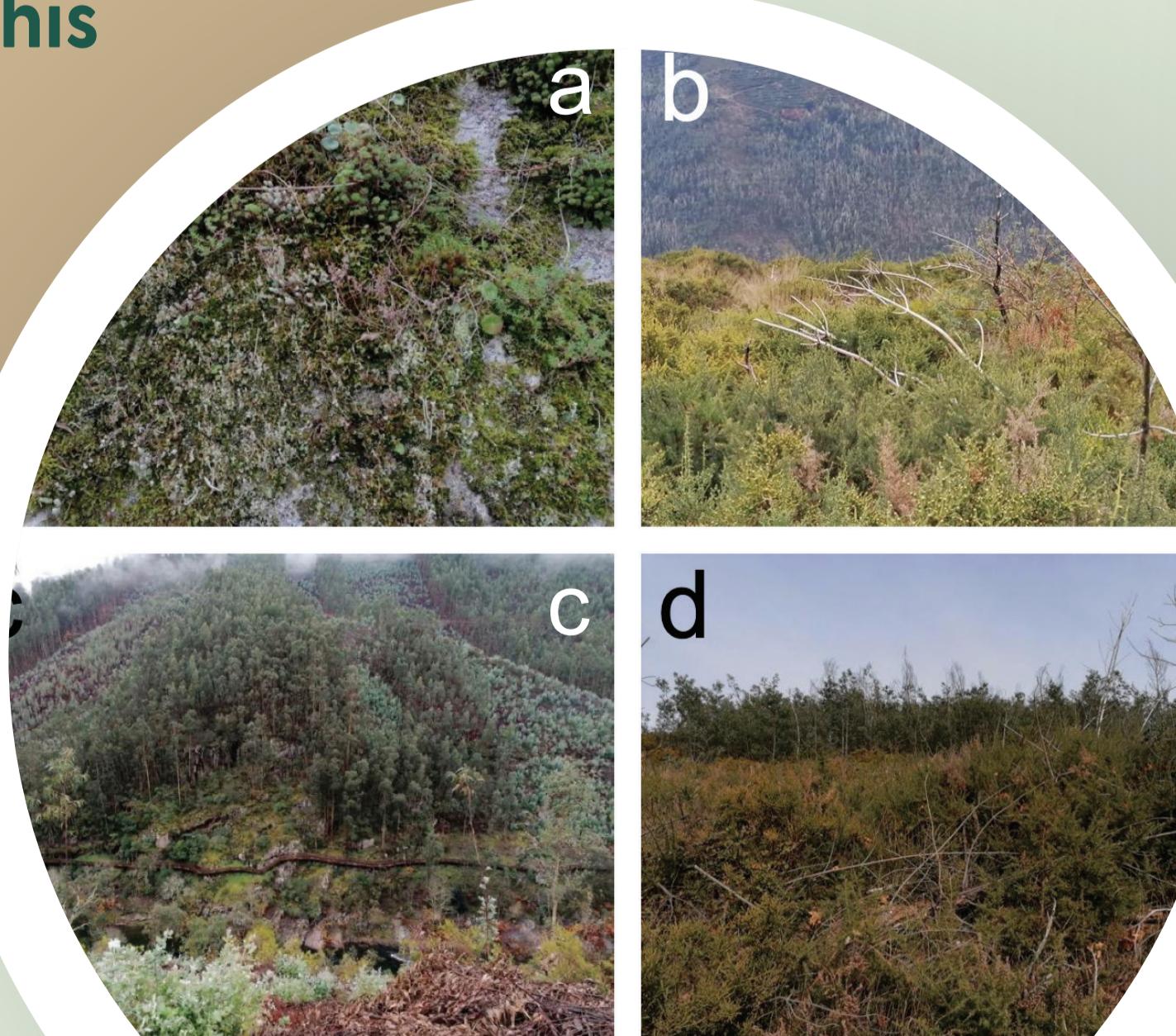


Figure 2

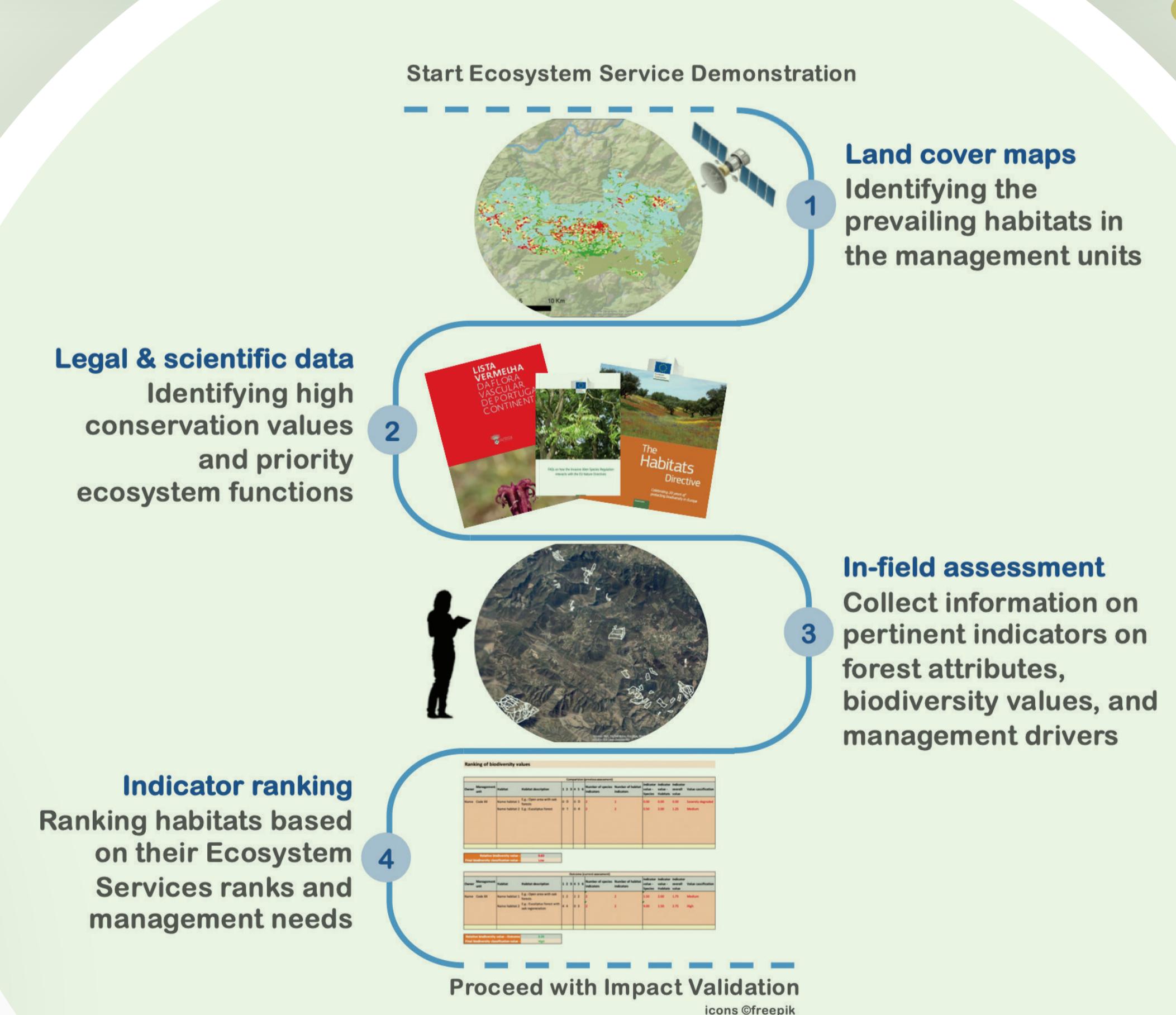


Figure 1

