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Cluster 6 Calls 2025
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AI-Based Mapping of Afforestation Potential for Climate Mitigation

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Topic(s) addressed:

- HORIZON-CL6-2025-01-BIODIV-05: Assessing and modelling ecosystems' dynamic processes to guide restoration activities and to improve models used for climate

Other topics of interest:

- HORIZON-CL6-2025-BIODIV-07: Restoring biodiversity and ecosystem services in degraded landscapes

Project idea

- The project aims to identify afforestation potential in non-forest and marginal lands across various ecological zones using AI-based spatial modeling and remote sensing.
- It will evaluate the carbon sequestration potential of these areas and assess changes in ecosystem services post-afforestation through tools such as InVEST.
- The project contributes to climate mitigation and sustainable land use planning in line with EU Green Deal targets.
- A core consortium is currently being formed.
- We are seeking international partners with expertise in land restoration, nature-based solutions, carbon accounting, and policy development.

Main expertise offered / sought

- Offered expertise:

Karadeniz Technical University, Faculty of Forestry, offers strong expertise in afforestation planning, carbon sequestration modeling, and ecosystem services assessment. We have experience in national-level projects using GIS, remote sensing, AI-based modeling, and InVEST tools. Currently, we are coordinating a TÜBİTAK-funded research project on forest carbon storage in Türkiye.

- Role in project: Coordinator

- Expertise sought: We are looking for partners with experience in:

- Land restoration and nature-based solutions
- Environmental policy integration and socio-economic impact assessment
- Field implementation and pilot monitoring
- Stakeholder engagement and communication strategies

Contact details

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