

The project in brief

PASTORALP is a project co-financed by the LIFE program aimed at reducing the impacts of climate change on alpine pastures, increasing their resilience and decreasing their vulnerability.

The main specific objectives are:

- identify and test adaptation strategies;
- increase the awareness of local pastoral communities on climate change issues (capacity building);
- promote efficient and sustainable management strategies for alpine pastures, taking in account also socio-economic issues.



Partners



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Pastures vulnerability and adaptation strategies to climate change impacts in the Alps

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mid-term update



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LIFE16 CCA/IT/000060



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EARLY RESULTS

Conservation and safeguard of alpine ecosystems

Two pastoral areas have been purchased by the Gran Paradiso National Park in the framework of this project. These lands will be used as project demonstration areas in which management strategies against climate change will be tested and adopted. These territories entail different habitats listed in the Habitat 92/43/CEE directive, making this places an important site also for biodiversity safeguarding and monitoring.

**Biodiversity Monitoring**

Sensors and diagnostic devices have been installed in the National Park of Ecrins for a real-time monitoring of pasture vegetation under different climatic regimes and management.

Permanent monitoring transects have been settled in pastoral areas of Gran Paradiso National Park, where different adaptation management strategies are tested and adopted to tackle climate change (i.e grazing with donkeys, grazing in wooded areas). Dynamics of insects of particular interest for pastoral biodiversity (*Bombus patronum*), butterflies (*Parnassius apollo*), grasshoppers and crickets are also regularly monitored along these transects.

Mapping pastoral resources

About 7000 hectares of alpine grasslands have been mapped and classified in the Gran Paradiso National Park using ground surveys and remotely data (Sentinel 2). On the basis of these maps, crop simulation models will be used to assess the impacts of future climate.

**Identification of adaptation strategies by participatory approaches**

Two consultation workshops (one in each Park) have been organized with local stakeholders, in order to discuss the main critical issues (both climatic and socio-economic) affecting alpine pasture management. Participatory approaches were used to identify common feasible adaptation strategies to be adopted to overcome these issues, as well as to increase capacity building among the local community.



NEXT STEPS

- Analysis and calibration of DayCent and PaSim models, for analyzing impacts of the projected future climate on pastoral resources and defining the best adaptation strategies;
- Vulnerability analysis of alpine pastures on the basis of environmental and socio-economic indicators;
- Implementation of a Platform tool (PASTORALP platform tool) for supporting decision making and the management of alpine pasture under climate change scenarios;
- Definition of a strategic adaptation plan for alpine pastoral resources and recommendations for counteracting climate change impacts;
- Seminars and workshops;
- Demonstration events.

Both strategies and tools developed under this project will be easily and successfully applied in other pastoral areas of the Alps.

