Mapping for Green Prescriptions and Planetary Health in Alpine areas

Project proposal to be presented for the Interreg Alpine Space call 2025

Green Prescriptions (GRx) represent an innovative approach that integrates Nature-based activities into healthcare to improve patient well-being while promoting more sustainable medical practices and enhancing the importance of natural areas conservation. Despite their potential, GRx remain underused across Europe due to low awareness, unclear operational models, and a lack of coordination between healthcare and environmental professionals. This gap often results in poorly coordinated interventions, with potential health risks for patients and negative impacts on sensitive ecosystems.
To address these challenges, this project proposes to integrate landscape ecology, ecosystem monitoring, and ecosystem-based management of natural areas into the design and implementation of GRx, ensuring these interventions benefit patients while protecting Nature.

Objectives

The objectives of the projects are to:

1. strengthen protection and preservation of natural and semi-natural ecosystems in the Alpine region by integrating ecological monitoring into GRx practices;
2. ensure that nature-based healthcare activities also support biodiversity and ecosystem services by leveraging cross-border collaboration between healthcare providers and environmental authorities.

Summary of planned activities

1) Ecological characterization

This Work Package (WP) will include the selection of pilot sites across Alpine regions, based on each partner's experience and local relevance, and their characterization in terms of ecosystem structure and biodiversity with the aim of detecting natural areas that are best suited for sustainable implementation of GRx.

2) Evidence collection and use-case mapping

This set of tasks will investigate the presence of established evidence of the interaction between Nature and positive effects on human health and well-being, including surveys on traditional ecological knowledge and local people habits, attendance and visitation frequency. Based on the results, a comparative analysis to locate similar ecosystems across the pilot sites and identification of common challenges will be conducted.

3) Assessment of human impact and ecological thresholds

Transversal tasks focused on monitoring of human disturbance in candidate GRx areas - with particular focus on potential overlapping with tourism activity.

4) Cross-Sector dialogue

This WP will focus on:

- Public engagement, multi-stakeholder workshops and certified training for healthcare practitioners (e.g., medical doctors, psychologists, nurses, etc.), with the aim of co-design feasible models of GRx local implementation with minimal ecological impact;

- Consultation on legal, operational and financial solutions to safety implementing GRx and find funding to achieve GRx protocols in the Alpine area also in the long term;

- Drafting of guidelines for health institutions/associations and protected areas managers to coordinate on safe and sustainable use of natural spaces for health and psychological well-being related purposes;

- Development of communication protocols between healthcare actors and land managers (e.g. alert systems, shared access planning).

(Optional) Small-Scale GRx testing

→ If medical partners are available and willing to take the responsibility of this task, design and implement a testing phase of experimental GRx protocols in real conditions (on the local scale), with limited user groups like, for instance, people affected by burnout, or with chronic pain.

Expected Outputs

- Open-source digital map of suitable natural areas, along with information on their ecosystem structure and potential vulnerabilities, to support the design of sustainable GRx interventions;
- A monitoring protocol and the definition of disturbance thresholds;
- A set of guidelines to ensure GRx optimize patient benefits while minimizing ecological impacts;
- Legal and operational guideline package for healthcare and environmental institutions, along with economic assessment of sustainable GRx implementation;
- Stakeholders engagement toolkit (training material, brochures, workshop reports), addressed to local citizens and visitors, local healthcare practitioners, decision-makers;
- Cross-border cooperation framework and communication protocol;
- (Optional) Report on pilot GRx test(s) and their effectiveness on a patient cohort, with evaluation feedback.

Expected Outcomes

The project will serve as a virtuous example of interdisciplinary collaboration between ecologists, environmental scientists, local environmental managers, and healthcare professionals, contributing to the achievement of the One Health and Planetary Health objectives. The project outcomes will be represented by:

- Enhanced protection and sustainable management of forest and semi-natural ecosystems in Alpine regions.

- Improved alignment between human health needs and biodiversity conservation efforts.
- Increased awareness among public institutions of how to safely and legally integrate nature into wellbeing programs.
- Stronger collaboration between healthcare and environmental governance actors.
- Foundations for future upscaling of safe, nature-compatible GRx programs and relevant economic benefits across borders.

At the moment, the consortium is potentially represented by:

- Ca' Foscari University of Venice - Leader
- University of Valle d'Aosta – co-leader
- Paracelsus University - Arnulf Hartl's team - partner
- BFW Austria - the austrian training and research centre for forests, nature hazards and landscape on the topic of green care. - partner
- University of Applied Sciences of the Grisons, Prof. Frank Bau - partner
- Pfyn-Finges Nature Park in Switzerland - partner
- Outdoor Active Germany - partner
- Parco del Ticino – MAB Val Grande - partner