

# LAND MANAGEMENT IN MOUNTAIN AREAS

Manlio Bacco, Alessio Ferrari, Nicholas Fiorentini (CNR) Livia Ortolani, Fabio Lepore, Gianluca Brunori (UNIPI)

The managing body "Consorzio Toscana Nord" (CTN), a public entity located in Tuscany, Italy, manages river basins and hydraulic works in a mountainous area of about 360.000 hectares. Land abandonment and the occurrence of extreme events in the last years, such as floods and landslides, are having negative impacts.

In order to better address the situation, CTN has introduced several digital tools (e.g., instant messaging and WebGIS) to facilitate communication with citizens in the area to receive intervention requests. Such requests, mainly via instant messaging, could be rather high in number in some periods of the year, and the IT personnel, in limited number, may struggle to keep up.

In the context of the DESIRA project, a digital tool - in the form of a chatbot - has been co-developed to support the management of such requests. The key objective was to partially automate the process, from citizens' reporting to the implementation of appropriate intervention measures.

A chatbot is a familiar and easy-to-use tool, based on Telegram in our case. It has the potential for reducing the operators' workload: by automating the management of simple tasks, such as requests for information/interventions, technicians can address other tasks and intervene only if the chatbot cannot meet users' needs. The service can be used at any time and with immediate response.

#### **Living Lab**

Tuscany, Italy

#### Use case statement

Integration of environmental and human monitoring with land management to improve efficiency and answer citizens' requests

## **Key Digital Technologies and Actors**

Telegram-based chatbot, database Farmers associations, citizens, CTN

### Keywords

chatbot, land management, e-governance

More info: <a href="https://desira2020.eu/tuscany-italy">https://desira2020.eu/tuscany-italy</a>



Through the chatbot, the local community can better participate in the process of land management using an e-governance tool for improved exchange of information. It aims at supporting maintenance activities to reduce hydrogeological risks, thus it has been welcomed by all the actors in the area.