Abstract
Sharing Information for Wildfire Risk Management: The MEDSTAR Platform †

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Within the Interreg-Maritime project, the MEDSTAR platform, an integrated tool for accessing and sharing data for wildfire risk management, has been implemented relying on the technology of the consolidated MyDewetra.world platform.

MyDewetra.world [1] is an open-source web-based system for real-time monitoring and forecasting of natural hazards (such as floods, landslides and wildfires). It is designed to be a single point of access to a wide range of data and information at global, regional and local scales, coming from multiple authoritative agencies and institutions. Its architecture systematically organizes data layers and information, allowing for a wide community of users to access, share and integrate both time-varying data and static maps. MyDewetra.world has been recently employed at the national scale in the framework of relevant projects related to civil protection. The Bolivian implementation and the Ethiopian one are remarkable examples of the latest reached milestones.

The MEDSTAR platform allows access to data-providing services in all the phases of the wildfire risk management cycle. Real-time meteorological data and satellite observations can be accessed and elaborated for the monitoring of fire weather, soil moisture, vegetation conditions and burned areas as well data on fire activity provided by regional operational rooms and remote sensing. Several meteorological prediction models at different spatial resolutions can be accessed. These data feed the RISICO system [2,3] and the FWI, providing fire danger forecasts up to 10 days in advance. Static data, including fuel models, topography, land use/land cover, fire hazard maps and WUI, and data supporting fire-fighting activities, are also available. The platform includes several applications supporting operational activities, from the issue of the fire danger bulletin to the simulation of fire spreading. A catalogue allows access to data for downloading and sharing via WMS on other legacy systems.

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References

