



Information systems for early warnings and wildfire risk management in Czechia

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In Central Europe, the occurrence of drought events and heat waves have significantly increased in number of wildfires. In the last 25 years, the average number of wildfires in Czechia has increased by 62% over the period 1966–1990. Our results showed the different impacts of climate change on wildfire risk in some regions of Czechia. The most vulnerable region is mainly southern Moravia. Responding to the increased wildfire risk was building a new early warning system combining computer fire models (calculation of fire weather index for 1-5 days ahead using several predictive weather models, phenological model describing the state of vegetation), daily soil moisture monitoring, historical data (map of the fires recorded in the period from 1971 to 2017, maps of forest change) and current data (on line data of wildfires from Fire Rescue Service). We utilize multiple GIS strategies to spatially analyze all risks. Wildfire warning service is a component of Integrated Rescue System of Czechia supplying warnings for the throughout country for both meteorological and hydrological risks. The system is operated in cooperation with the Czech Hydrometeorological Institute, the Czech Army and the Fire Rescue Service. Warning is sent to the Integrated Rescue Service who disseminates it to local authorities. The rising suburbanization in the wildland-urban interface, and escalating costs of wildfire management lead to an urgent need to prepare appropriate adaptation strategy.

This work was supported by the Czech ministry of the interior, project “Prognosis, indication of risk and prevention of the natural fires in the context of current and future conditions”.