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FloodMage

Floods cause injury and loss of life, substantial economic costs, and damage to the environment and cultural heritage. They have become more frequent in Europe: in recent years, more than twice as many flash floods of medium to large magnitude have been registered as in the late eighties. The primary driver of such increase is the relentless sprawl of urbanisation on floodplains. Climate change is an aggravating factor, triggering changes in precipitation and weather patterns, as well as sea level rise. Consequently, more frequent and severe floods are expected in the future. In this context, it is important to understand the future trends of extreme events, as it is to understand the trends of slow-onset events caused by climate change. Access to proper climate information is crucial for setting appropriate adaptation priorities and strategies addressing existing and emerging risk.

FLOODMAGE is a DRR climate service aimed to estimate the potential economic losses triggered by flood events of different kinds (pluvial, fluvial and coastal) in relation to medium to long term climate conditions. The service adapts to different spatial scales and builds upon seasonal meteo-climatic downscaling, high resolution exposure mapping, hydrodynamic and hydrostatic hazard modelling, and multi-variable risk assessment. The service is oriented to a variety of users, including the public administration, river basin authorities, land reclamation boards, asset managers, and insurers. FM provides insights on the economic and financial impacts linked to extreme event scenarios and draws a comprehensive outlook on how such impacts may change due to increased climate variability.

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