

TS-08

NATURAL HAZARD: PLANNING, MANAGEMENT AND SUSTAINABLE MITIGATION STRATEGIES IN COASTAL, RIVER AND URBAN AREAS

Keywords: Natural Hazard; Sustainable Mitigation Measures; Forecast; Decision Making; Modeling.

Natural hazards are generated by natural phenomena of different nature, for example extreme weather events, earthquakes, volcanic eruptions, fires, landslides etc.

This session focuses on hydrometeorological natural hazards originated by atmospheric, hydrological, or oceanographic conditions that can affect coastal, river and urban areas. Examples of these hazards are tropical cyclones (also known as typhoons and hurricanes); floods, including flash floods; sea storms; tsunamis.

Generally, risk is the probability of damage due to the hazard of the events and its interaction with exposure and vulnerability of the affected humans and environments.

Some of the main reasons for natural hazard risks are climate change, land use change, water use change and other pressures linked to population growth.

Therefore, the understanding of the processes that generate natural phenomena, and their modeling, are key factors in the planning and management phases of these risks and in the choice and design phases of adequate and sustainable mitigation measures such as Best Management Practices (BMPs), Low Impact Development (LID), and Nature-Based Solutions, among other concepts.

CHAIRS

Giandomenico Foti - DICEAM Department - Mediterranean University of Reggio Calabria, Italy.

Giandomenico Foti was born in Reggio Calabria (Italy) on June 16, 1980. He became a Ph.D. in Ocean Engineering at the Mediterranean University of Reggio Calabria. His research activity mainly concerns river and coastal morphodynamics and its interaction, and flood risk assessment and management.

Francesca Minniti - DICEAM Department - Mediterranean University of Reggio Calabria, Italy.

Francesca Minniti was born in Reggio Calabria (Italy) on September 11, 1991. She became a Ph.D. in Ocean Engineering at the Mediterranean University of Reggio Calabria. She deals with research topics such as coastal natural hazards (especially tsunamis), risk assessment, management and planning related to coastal and river flooding.