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The impact of Damaging Hydro Geological events on people in a Mediterranean region

O. Petrucci and A.A. Pasqua

National Research Council – Research Institute for Geo-Hydrological Protection (CNR-IRPI), Cosenza, Italy (o.petrucci@irpi.cnr.it)

Bad weather periods are a source of multiple hazards, because they can trigger several types of damaging phenomena which may cause different types of impacts on several natural and manmade elements in a wide range of circumstances. The whole of all the phenomena triggered by bad weather periods have been defined as Damaging Hydro Geological Events (DHE).

Phenomena which occur during DHEs can be roughly sorted in some main groups: landslides, floods, erosion processes and sea storms. Each type of phenomenon is characterized by a proper dynamic and, according to the social and economic framework in which it develops, can cause different impacts.

Despite during bad weather periods all these phenomena occur at the same time (or in a short while), often strongly amplifying damage and hinting emergency management actions, the studies available in literature tend to analyse each type of phenomenon (and its impact) separately, thus supplying a fragmentary framework of the effects.

In the present work, basing on a dataset concerning effects of DHEs in Calabria (southern Italy), a classification of the effects on people affected by the different types of triggered phenomena is attempted. The results is a classification of main circumstances during which the different types of phenomenon triggered can hit people.

This kind of result can be useful in education programs for people living in risk prone areas, in order promote more conscious behaviours during DHEs and to avoid unnecessary risk-taking behaviour.