

teleconnection index and the extreme rainfall was estimated for both the present time and future period.

The impact of landslides to the landscape evolution in the island of Andros

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This paper presents the impact of landslide phenomena to the landscape evolution of Andros Island. The morphology of Andros Island, was highly affected by tectonism (extensional deformation) in combination with the highly weathered metamorphic rocks of the Cycladic metamorphic massif. These are the two main reasons for the landslide phenomena in the island. The landslides on the island have a specific distribution following the slopes with high angles. These are located on high altitude areas very close to the major tectonic structures, or on the side slopes of highly eroded valleys due to the running water action. The results of the fieldwork and the terrain analysis showed that the landslides are divided into three distinctive groups, corresponding to their scale and their formation conditions. The oldest (1st) group of landslides affects very large parts of mountain slopes that have been moved downwards due to driving forces connected with the tectonic evolution of the area and the deformation faults, but also with the action of weathering and erosion processes. The geological formation of the slope parts is responsible for the generation of the intermediate (2nd) group of landslides. All landslides included in this group of mass movements are manifested in sites which consist of schists with marble intercalations and marble bodies. These formations are intensively fractured. The youngest (3rd) group includes all the synchronous landslide phenomena. These landslide phenomena, which affect linear technical works and urban areas, are connected with the geomorphologic conditions, climatic regime as well as human activities, and are presented in many places over the island, mainly during of high precipitation periods.

Application of geological mapping and teledetection techniques for identification of olistostromes and olistoliths in the Outer Carpathians

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Olistostromes formed in the Outer North Carpathians during different stages of the development of flysch basins are quite frequent. They are known from the Cretaceous, Paleogene and Miocene flysch deposits of the main tectonic units (the Pieniny Klippen Belt, the Magura, Dukla, Fore-Magura, Silesian, Subsilesian and Skole nappes and from the Miocene molasse of the Carpathian Foredeep). Detailed field mapping enabled the identification of new localities with olistostromes and large olistoliths. In the inner zones of the Silesian Nappe they were found within the Lower Cretaceous deposits of the Hradište Formation in Żywiec, the Upper Cretaceous Godula Formation in the Silesian Beskid Mts., Late Cretaceous and Middle Eocene in Rożnów Lake surroundings. Olistostromes with large olistoliths, or occasionally olistoplaques, within and above the Oligocene-Early Miocene Krosno Beds occur near Gorlice and Skrzydlina. The Paleogene and Early Miocene olistostromes have been found in the Subsilesian Nappe and olistostromes composed of