Abstract

Imotsko-Bekijsko Polje has an area of 9 500 ha and is one of the biggest karst fields (polje) in the Dinaric Mountains, extending over the territory of two states: Croatia and Bosnia and Herzegovina. Many hydraulic structures (reservoirs, retentions, tunnels, etc.) have been built since the middle of 20th century in order to protect polje against floods. Therefore, the security from flooding has increased substantially. However, there is still periodical flooding in the southeastern lowest part of the polje. The largest flood in recent times was in January 2010, when 2676 ha (28% of the area) was flooded. The polje is a typical karst with very complex hydrological and hydrogeological relations. In this paper two hydrological stations, Nuga at the lowest part and Kamenmost in the central part of the polje with respectable hydrological series, are statistically analysed. In particular, the efficiency of existing hydraulic structures for flood mitigation is estimated. The research points out that floods in Imotsko-Bekijsko Polje are largely influenced by water management objects (reservoir, retention, tunnel) and only indirectly by precipitation.

Key words: flood, Imotsko-Bekijsko Polje, karst polje, statistical test