A METHODOLOGY FOR FLOOD RISK APPRAISAL IN LITHUANIA

Abstract

This paper presents a methodology for flood risk mapping as envisaged by the Directive on the Assessment and Management of Flood Risks [Directive 2007/60/EC]. Specifically, we aimed at identifying the types of flood damage that can be estimated given data availability in Lithuania. Furthermore, we present the main sources of data and the associated cost functions. The methodology covers the following main types of flood threats: risk to inhabitants, risk to economic activity, and social risk. A multi-criteria framework for aggregation of different risks is proposed to provide a comprehensive appraisal of flood risk. On the basis of the proposed research, flood risk maps have been prepared for Lithuania. These maps are available for each type of flood risk (i.e. inhabitants, economic losses, social risk) as well as for aggregate risk. The results indicate that flood risk management is crucial for western and central Lithuania, whereas other parts of the country are not likely to suffer from significant losses due to flooding.

Key words: flood map, flood probability, flood risk, Lithuania