



RESOURCE

Integrated Approach to Flood Management

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Description / Abstract

Floods are considered to be the biggest of all natural disasters. Rapid urbanisation, economic and social development, climate change and its variability have all altered the hydrological cycle and, within that process, made our communities more prone to flooding. Flood management implies a set of engineering works and non-structural strategies for protection, prevention and mitigation of risk and damage that floods pose to settlements and human lives. Traditional flood protection measures are more focused on managing the safety of the inhabitants in floodable areas. In urban settlements, they are primarily orientated to water collection and conveyance by using the 'as fast as possible' principle. In the light of increasingly prominent climate change and climate variability, traditional flood protection measures need constant upgrading i.e. higher dykes and deeper channels. The chapter focuses on the concept of Integrated Flood Management (IFM), which combines flood mitigation and risk management by considering several key principles such as: water cycle management; the interrelationship between land use and flood protection; the consideration of the various socio-economic, environmental, and governance hazards; and the engagement of all relevant stakeholders in the decision-making process. The general IFM concept is presented together with the most common structural and non-structural measures and solutions. Flood protection challenges and inputs necessary for a successful IFM implementation are discussed. Recent examples of IFM best practices are reviewed, highlighting the role of spatial planning integration in flood management as a promising process that leads towards a sustainable and resilient built environment.

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