Land Use Policy and Strategy Making in the Face of Water Related Risk

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Abstract

No natural resource may prove to be more crucial in the next decades to ensure human health and welfare than water resources. The uncontrolled expansion of human settlements heavily alters the natural landscape of the water systems and water balance. Water resource management is under added stress from climate change. There is a contest for the land between water resource management and human settlement development. Land use activities and water resources are intricately connected. External pressures on either water resources or the land result in chains of impacts and responses that are intertwined and interactive. In the Sri Lankan context, land use planning policies and strategies are prepared at many different jurisdictional levels, including national, regional, and local levels. Water-related risks such as floods, droughts, and water pollution have become challenges to sustainable human settlement development. Water-Related Risk (WWR) indicates the disconnection between land use planning and the management of water resources. The main objective of this paper is to analyze how water-related risks are considered when developing land use policies and strategies. The evolution of water resource management began with a technical focus, and it is currently undergoing a significant paradigm shift. The concepts of water risk management, the implementation challenges have been examined in the literature. Second, the article examined Sri Lankan planning procedures to comprehend how water risk is taken into account while developing land use policies and strategies. The challenges and prospects for implementing water risk management in Sri Lanka's planning practices are covered in the paper's discussion section. In recent years, policymakers have recognized that collaborative decision-making, sector integration, management of problem sources rather than effects, decentralized and more flexible management approaches, increased focus on human behavior through soft measures, inclusion of environmental explicit management goals, and open and shared information sources are the key factors in land use policy making for management of water-related risk. Analysis of existing land use policy and strategy making processes has highlighted that "land and water integration" is misunderstood at both regional and local levels. Finally, the discussion section focuses on suggestions for managing challenges.

Keywords: land use; integration; scales; water resources; water risk

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