

The Effects of Urban Flood Risk and Local River Management Policy: Comparative Case Study of Citizen Perception

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(a) Purpose of study or research hypothesis

This research investigates how individual citizen preferences for the primary functions of urban river restoration processes are associated with flood prevention and fluvial risk mitigation in Sahnji Stream of Jeju Island (Korea), Ahn-Yang Stream of Seoul (Korea), and Johnson Creek of Portland (Oregon, USA).

(b) Key issue(s) or problem(s) addressed

Conserving and maintaining clean streams in the urban environment is a main goal for restoration researchers, urban planners, and public staffs around the globe. This researcher could observe many urban stream restoration efforts are designed to provide well-managed water to society and enhance ecological functions in these study sites. Universally, urban stream restoration is regarded as a process that provides multiple benefits and functions for human activities, including industrial, agricultural, aesthetic, wildlife, and community uses. Among these functions, greening landscape infrastructure with riparian vegetation and increasing environmental parameters of the watershed have been commonly regarded as the primary goals and preferences in managing, restoring, and conserving urban stream systems. However, the reality of watershed and riverfront management can vary markedly from commonly estimated spatial landscaping revitalization and socio-cultural aspirations..

(c) Methodology or approach used

The relevant data on stream restoration were collected through the analytic hierarchy process (AHP) for the three stream cases of a populated inland area and a coastal region in South Korea as well as Oregon, US. This author first reviewed a set of results from an Analytical Hierarchy Process (AHP) model to do ranking-score the major stream restoration functions from the point of citizens' view.

(d) Results or conclusions derived from the project

As other scholars state, my findings indicate that citizens' views and interests could be based on the inconvenience of daily life caused by recent flood events. The citizens who are living in the heavily urbanized downstream areas were more psychologically vulnerable to floods than those in the upper reaches of the watershed. The stakeholders of the populated metropolitan area had a relatively high awareness of their role in environmental restoration, thus it was natural for them to place a high value on social restoration to mitigate flood risk.

(e) Implications of the project relevant to congress themes

Urban environmental and hydro-spatial managers could use such information when restoring and designing waterfront spaces in terms of the water resources supply-demand concept.

Keywords : Urban Stream Restoration, Comparative Case Study, Citizen Perception