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Capacity Building for Water Management in Peri-Urban Communities, Bangladesh: A Simulation-Gaming Approach

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Description / Abstract

Peri-urban areas in the global south are experiencing over-exploitation and contamination of water resources as a result of rapid urbanisation. These problems relate to the ineffectiveness of the underlying institutions in this dynamic, multi-actor context. Institutions need to be considered during problem solving; however, peri-urban communities have limited insight into their institutional context. This research examines the extent to which problem solving capacity can be improved through gaming-simulation methods. A game-based approach is tested in a capacity building workshop with peri-urban communities in Khulna (Bangladesh). A role-playing game designed from game theory models is used to examine local drinking water problems through an institutional lens. Workshop evaluation shows that through role-play, participants learned about strategies in drinking water supply (in both the current and future scenarios) and about the potential to address water quality issues through cooperative groundwater monitoring. Results also show improved problem understanding with regards to institutions, actor strategies, and problem-solving constraints. Participants valued the interactive medium for comparing and evaluating strategies. This paper highlights limitations in game design and its implementation, and offers ways to address this in future applications.

Publication year
2018

Country
Bangladesh

Region
Asia

Publisher
Multidisciplinary Digital Publishing Institute - MDPI

Keywords
Urban/WASH Khulna

Thematic Tagging
Water services Youth
Language English
View resource
