Experiential learning and the power of women

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Abstract

An emerging body of research explores the use of experiential learning games as an intervention to facilitate sustainable natural resource management. These games are structured spaces where players can acquire knowledge by experiencing, reflecting, and experimenting. Learning outcomes associated with games include improving system understanding, enhancing problem-solving capacities, changes in social norms, participatory institutional change, and strengthened collective action. While games have become a more common intervention tool, measuring impacts on individual and collective real-life behavioural change well after game sessions is still rare. We conducted games with users of a local public good – a rainfed dam for irrigation – in 56 randomly selected villages in Madhya Pradesh, India. Additional 27 villages were randomly drawn as control sites. These communities depend on rainfed dams for complementary irrigation. Nonetheless, many dams in the study area are maintained poorly and water usage is hardly coordinated undermining the effectiveness of the irrigation system. While there are good examples of successful long-term interventions to support communities, these are often very time and facilitation intensive and consequently implemented with limited reach. We explore the potential of games as a scalable, low-cost intervention to facilitate behavioural changes in sustainable water management. We find a lasting direct treatment effect on actual dam maintenance while there is no effect on the existence of dam management rules. In addition, we find that the larger the share of women in the sessions, the more likely is maintenance taking place at a site two years after the intervention. Our study increased the confidence that games can play a critical role in designing natural resource management interventions on a large scale. If kept simple, their clear structure can be easily learned by civil society and government field workers. The low intervention costs and favourable return on investment should be motivation to integrate such intervention in resource related programs. The games can complement widespread more technical interventions by supporting participatory behavioural change processes. Until December 2022, implementing partners have applied the specific game tool in more than 1700 communities across different states of India.

Keywords: Games, India, social dilemma, social learning, water management

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