

A Combined Analytical Narrative to Study the Politicization of Irrigation Management in the Tarai: Critical Realism, Hydrosocial Theory and Sociotechnical Approach

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Abstract: The aim of this paper is to argue that the articulation of two different perspectives on irrigation systems, the Hydrosocial Cycle and Irrigation Studies, is a compelling way of shedding some light on the production of social reality and power relations in the Sunsari Morang Irrigation System (SMIS), one of the biggest irrigation systems in Nepal, situated in the Far Eastern Tarai.

There is a long tradition of institutionalist irrigation studies in Nepal, including the in-depth studies carried out by the Nobel Prize winner Elinor Ostrom and her team of researchers. However, since then many social scientists have criticized Ostrom's views on irrigation, as well as the irrigation policies that have been based on her institutionalist approach, namely Participatory Irrigation Management (PIM). The main criticism of this theory is its lack of socio-historic depth, its conclusions overlooking the importance of power relations and social inequalities in access to irrigation water (Klooster, 2000; Mosse, 2003). Indeed, PIM has been known both to fail to address inequalities in water access and sometimes to even heighten them. Such situations have been observed in some irrigation systems in Nepal and around the world (Manor, 2004; Pradhan, 2011).

In this paper, we look at irrigation management from a historical constructivist approach. According to constructivism, social reality is the production of social interactions between actors, taking into account the constraints of their social environment: actors are constrained by the social structures within which they interact, but maintain a reflexive capacity to act strategically to change or reproduce these social structures over time (Archer, 1995). To be more precise, here we will use the constructivist theoretical framework of the Hydrosocial Cycle (Linton, 2010; 2014), showing that water issues not only concern water but also the interactions between actors at different levels (Candau et al., 2015). Thus, we first wish to study the way irrigation policies and social structures are interwoven, and how this equation produces in SMIS an irrigation-management reality, which is often different from the theory, by replacing it in the historical dimension of changes in local political and social relations. Then, we will focus on how water policies are interpreted, integrated and transformed by local actors for an individual or group's benefit. And lastly, we will try to show how the deconstruction and co-construction of the participatory discourse has allowed the reconstruction of the local political arena through the control of irrigation water.

To balance this ontological approach to water management, which is often disconnected from the realities in the field, our work is in keeping with the attempt made by Mollinga (2013) to use Irrigation Studies as a socio-technical approach in order to balance the hydrosocial analysis. By focusing on irrigation systems "from within", this approach is able to feed field data to the mainly theoretical approach of the Hydrosocial Cycle, and therefore helps us to conceptualize more accurately the way "hydrosocial relations" are produced, reproduced and contested over a territory. By doing this, we hope to both further theoretical research on water and society, and to contribute to improving the knowledge of water management in Nepal's Tarai.

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