

## **Ostrom's institutional design principles and reservoir management: a study on adaptation to climate variability and change**

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**Abstract** Elinor Ostrom's institutional design principles for common pool resources management were refined and extended recently by water resources researchers for studying the governance of adaptation to climate change. Regarding hydrological variability and change and their influence on the management of water reservoirs, this paper shows how Ostrom's theory can be helpful to better analyse the institutional framework that supports the governance of these systems. This paper analyses the political process of generating adaptation strategies for the management of water resources of one particular reservoir located in the drought-prone semi-arid region of Brazil. The work was based on documental analysis of water resources policy frameworks and plans, as well as past experiences in coping with extreme drought events. The application of Ostrom's extended principles allowed the suggestion of relevant institutional proposals for a more robust management of the analysed reservoir.

**Key words** water policy; semi-arid; drought; reservoir; climate variability; climate change