

Hochschule für Technik und Wirtschaft Berlin
Master's in International and Development Economics

Water Governance in Uzbekistan
**Lessons learnt from an economic field experiment on
irrigation**

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by
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Abstract

The governance of common-pool resources, such as irrigation systems, is a highly debated topic in research. Empirical findings reveal that actors can successfully manage these resources through cooperation in hybrid governance structures if they are able to design and enforce their own rules. Thereby, certain factors, such as the composition of a group of resource users, influence the likelihood of cooperation and the performance of self-managed resource systems. This study employed an economic field experiment to compare the effects of externally imposed and self-set rules of water distribution on homogeneous and heterogeneous groups of irrigation users who differ in their economic endowment. The experiment was conducted with 20 farmers in an Uzbek community. Furthermore, questionnaires, group discussions and interviews complemented the analytical method. The results show that groups which are homogenous in their economic endowment generally are more inclined to comply with self-designed rules than groups that are economically heterogeneous. Thus, homogenous groups achieve a better performance in terms of resource maintenance and water harvest under self-governance. However, water distribution was more equal and illegal activities decreased in both homogeneous and heterogeneous groups with self-implemented rules. It was found that trust was a crucial factor regarding both greater individual rule adherence and more cooperative behaviour within homogeneous entities compared to heterogeneous groups of irrigation users. Finally, the results support the argument that economic heterogeneity among resource users lowers the likeliness of cooperation in self-governed common-pool resource systems.

Keywords: *common-pool resources, self-governance, heterogeneity, rule compliance, water distribution, Uzbekistan*