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# The Role of Statutory and Local Rules in Allocating Water between Large- and Small-Scale Irrigators in an African River Catchment

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# The Role of Statutory and Local Rules in Allocating Water between Large- and Small-Scale Irrigators in an African River Catchment

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## Abstract

This paper presents a case study of large- and small-scale irrigators negotiating for access to water from Nduruma River in the Pangani River Basin, Tanzania. The paper shows that despite the existence of a formal statutory water permit system, all users need to conform to the existing local rules in order to secure access to water. The spatial geography of Nduruma is such that smallholder farmers are located upstream and downstream, while large-scale irrigators are in the midstream part of the sub-catchment. There is not enough water in the river to satisfy all demands. The majority of the smallholder farmers currently access water under local arrangements, but large-scale irrigators have obtained state-issued water use permits. To access water the estates adopt a variety of strategies: they try to claim water access by adhering to state water law; they engage with the downstream smallholder farmers and negotiate rotational allocation; and/or they band with downstream farmers to secure more water from upstream farmers. Estates that were successful in securing their water access were those that engaged with the local system and negotiated a fair rotational water-sharing arrangement. By adopting this strategy, the estates not only avoid conflict with the poor downstream farmers but also gain social reputation, increasing chances of cooperative behaviours from the farmers towards their hydraulic infrastructure investments. Cooperative behaviours by the estates may also be due to their dependence on local labour. We further find diverging perspectives on the implementation of the state water use permits – not only between the local and state forms of water governance, but also between the differing administrative levels of government. The local governments are more likely to spend their limited resources on ‘keeping the peace’ rather than on enforcing the water law. At the larger catchment scale, however, the anonymity between users makes it more difficult to initiate and maintain cooperative arrangements.

## Keywords

Uncertainties; Spate irrigation; Floods; Water sharing; Institutions; Ephemeral river