

August 2022

The WRC operates in terms of the Water Research Act (Act 34 of 1971) and its mandate is to support water research and development as well as the building of a sustainable water research capacity in South Africa.

Contributions of an ethically-grounded and value-based approach to water governance – the case of two contrasting catchments

From the purview of water resource governance, ethics is essential because it provides the means to uncover the values that underpin the claims advanced by different societal groupings in relation to access to water resources. Using the lower Sundays River and upper Vaal River catchments as case studies, a project funded by the WRC sought to bring ethics and value-based analysis to the domain of water governance. This was done by drawing on theories of ethics to reflect on and reason about values from the perspective of consequentialism, deontology, virtue ethics, Ubuntu moral theory and systemic-relational approaches.

What is ethics?

A central component of philosophy, ethics is a field of inquiry focusing on the study of “why” questions to attempt to uncover the nature of moral life. It is concerned with the principles by which conducts, morals and values are clarified and justified, as we seek to distinguish between right and wrong in our behaviour towards other people and the rest of nature.

By asking, for instance, why it is justified to demand that humans should not commit murder, ethics aims to uncover not just the meaning of the concepts employed in the statement. It also aims to justify why this expectation is plausible and holds for every human being.

Why is ethics necessary in water resource governance in South Africa?

From the purview of water resource governance, ethics is essential because it provides the means to uncover the values that underpin the claims advanced by different societal groupings in relation to access to water resources. An ethical approach to water governance helps to clarify such value claims, identify the interaction of values in specific contexts, and enable a deeper reflection of the implications of policy and governance decisions.

The history of our country, in which the majority of people were excluded from the benefits derived from the use of

water resources, raises ethical concerns that we continue to grapple with. Because of this history, the question of equity in all its dimensions is central to the way water resources are governed and managed. The National Water Act has equity as a core value, but we still struggle to overcome the inequalities and inequities of the past. We need ethical thinking to help clarify the nature of these challenges and how best to address them.

Freshwater resources are finite. There is a need to use water judiciously. The problem of over-exploitation, whether in the form of declining water quantity or quality, raises several fundamental ethical concerns. When pollution occurs, who benefits and who bears the costs of such environmental degradation? How do these costs affect the ability to achieve goals such as equity and sustainability, including distributive justice? Will future generations have sufficient good quality water for their own use and prosperity? Do humans have an obligation to protect water ecosystems so that other living things can also benefit from water resources?

Lessons from the case studies

Using the lower Sundays River and upper Vaal River catchments as case studies, this project sought to bring ethics and value-based analysis to the domain of water governance. This was done by drawing on theories of ethics to reflect on and reason about values from the perspective of consequentialism, deontology, virtue ethics, Ubuntu

moral theory and systemic-relational approaches. Applying these theoretical frameworks in the selected catchments enabled the identification of key values informing water governance, followed by a value-based analysis of how stakeholders go about reconciling or trading off conflicting values. The method aimed to shed light on the potential of an ethics-based approach to contribute to realising the foundational values of equity, sustainability and efficiency enshrined in the National Water Act.

Lesson 1: The simultaneous pursuit of equity, sustainability and efficiency is complex and challenging

Evidence on the interactions between efforts to realise equity, sustainability, and efficiency in the case study catchments suggests that these interactions are mostly conflictual. The single-minded pursuit of one value has frequently constrained, counteracted, or even reversed the gains towards another value, at least in the short-term.

The study showed that there is a lack of understanding by water sector actors of the full meanings of equity, efficiency, and sustainability as expressed through the National Water Act. For example, equity is a multidimensional concept that has procedural, distributive, contextual and recognitional components. The interpretation of policy has tended to focus on the distributive dimension, but this may not lead to a holistic achievement of equity. In the same sense, efficiency is also multidimensional, as is sustainability.

It is ideal to shift current policy and practice away from conflictual interactions between the values to mutually enhancing interaction. This allows progress towards the achievement of one value to contribute to achieving the other values. The framework developed by this project for analysing value interaction in water governance identified the following factors that may impact on such interactions: i) context, ii) governance, iii) time-frame dependence, iv) spatial-scale dependence, v) agency and capability, and vi) resources and investment.

Lesson 2: A high degree of institutional adaptive capacity is needed to achieve equity, sustainability, and efficiency

Polycentricity was considered as a governance approach that could contribute to effective cooperative governance in the two catchments. The National Water Act envisages polycentric institutional design, but due to implementation challenges, particularly with establishing Catchment Management Agencies (CMA), this has only partially materialised.

Drawing on the key characteristics of polycentricity, an analytical grid was developed to determine the degree of polycentricity in the two catchments. Empirical evidence suggests that polycentric governance is far from mature in these catchments, impacting on the adaptive capacity of the institutions and their governance approaches. Given the complexity of achieving equity, efficiency and sustainability, the potentially high degree of adaptive capacity offered by a polycentric governance approach is desirable.

This raises serious policy and implementation questions regarding institutional design and operationalisation in the catchments, and by extension in the country. Questions are also raised about whether there is enough room for learning and experimentation, and whether the current governance processes benefit from a diversity of knowledge sources and knowledge sharing across social-ecological scales.

Implications and recommendations

The study makes several recommendations for policy and practice:

- **A deeper understanding of the full meanings of equity, efficiency, and sustainability is needed in the way in which water policy is written and implemented.** There is a need for a balanced focus on all dimensions of these values as they are inter-linked, avoiding short-sighted policy measures that may focus on just one dimension e.g., distributive equity or technical efficiency.
- **The development and revision of relevant policy instruments should take account of how the three values may interact.** This includes awareness of the context in which such interaction come into play and the factors that will contribute to shifting interactions from conflictual to mutually enhancing. As interactions are likely to change over different timescales, thought should also be given to developing indicators for monitoring progress over the short, medium, and long-term.
- **There is an urgent need for the completion of institutional reform and re-design in the water sector.** As exemplified in the two catchments, the failure to complete this process impacts on water sector institutions' abilities to enhance their fit to local social-ecological realities and to enhance their adaptive capacity, promote participation and experimentation, learning and knowledge sharing from diverse sources and systems.
- **Training of policy makers, managers and water sector stakeholders is required** across institutional and governance scales on how ethical thinking may

contribute to clarifying value claims in the water sector, and its role in water diplomacy and dispute resolution. This is necessary because much of the conflict around water is indeed value conflict.

Conclusion

Using the lower Sundays River and upper Vaal River catchments as case studies, this project sought to bring ethics and value-based analysis to the domain of water governance. Several analytical frameworks were developed and applied to examine the interactions between values, to use ethical theories for reflecting on value claims, to assess the degree of polycentricity, and to reflect on ethical dimensions of water governance challenges. The study raises the need for deeper understanding of the true meaning of the values of equity, efficiency, and sustainability. It identifies the need for policy guidance on how the pursuit of these values may interact over different timespans, and what needs to be done to shift interactions from conflictual to mutually enhancing. The need for institutional reform is highlighted, to enhance institutional fit and adaptive capacity to local social-ecological realities and to promote participation and experimentation, learning and knowledge sharing from diverse sources.

For more information,

download the report, *Contributions of an ethically-grounded and value-based approach to water governance – the case of two contrasting catchments* (WRC Report no. 2934/1/22) at <https://bit.ly/3PfomCm> or email WRC Research Manager, John Dini, at johnd@wrc.org.za