

Stuart-Hill, Sabine; Lukat, Evelyn; Pringle, Catherine; Pahl-Wostl, Claudia

Research Report

Coordination beyond the state to solve complex water problems: Insights from South Africa

Briefing Paper, No. 21/2020

Provided in Cooperation with:

German Institute of Development and Sustainability (IDOS), Bonn

Suggested Citation: Stuart-Hill, Sabine; Lukat, Evelyn; Pringle, Catherine; Pahl-Wostl, Claudia (2020) : Coordination beyond the state to solve complex water problems: Insights from South Africa, Briefing Paper, No. 21/2020, Deutsches Institut für Entwicklungspolitik (DIE), Bonn, <https://doi.org/10.23661/bp21.2020>

This Version is available at:

<https://hdl.handle.net/10419/242604>

Standard-Nutzungsbedingungen:

Die Dokumente auf EconStor dürfen zu eigenen wissenschaftlichen Zwecken und zum Privatgebrauch gespeichert und kopiert werden.

Sie dürfen die Dokumente nicht für öffentliche oder kommerzielle Zwecke vervielfältigen, öffentlich ausstellen, öffentlich zugänglich machen, vertreiben oder anderweitig nutzen.

Sofern die Verfasser die Dokumente unter Open-Content-Lizenzen (insbesondere CC-Lizenzen) zur Verfügung gestellt haben sollten, gelten abweichend von diesen Nutzungsbedingungen die in der dort genannten Lizenz gewährten Nutzungsrechte.

Terms of use:

Documents in EconStor may be saved and copied for your personal and scholarly purposes.

You are not to copy documents for public or commercial purposes, to exhibit the documents publicly, to make them publicly available on the internet, or to distribute or otherwise use the documents in public.

If the documents have been made available under an Open Content Licence (especially Creative Commons Licences), you may exercise further usage rights as specified in the indicated licence.



<https://creativecommons.org/licenses/by/4.0/>



Joint project with:



U N I K A S S E L
V E R S I T Ä T



and with partner organisations in six case study regions

Briefing Paper 21/2020

Coordination Beyond the State to Solve Complex Water Problems – Insights from South Africa

Summary

This Briefing Paper presents one of six analyses of cross-sectoral coordination challenges that were conducted as part of the STEER research project and on which separate Briefing Papers are available.

South Africa's water legislation is internationally recognised for its ambitious implementation of integrated water resource management (IWRM). IWRM is a concept that was developed to address complex water challenges by considering the connections between land and water, and widening the knowledge space to other water-using sectors and actors. Stakeholder participation and coordination – key aspects to IWRM – represent a network governance style, which contrasts with the hierarchical governance style that most governments embody. We find three challenges regarding the implementation of IWRM in South Africa: **Firstly, a dual governance system:** The landscape of South African organisations relevant to catchment management consists of organisations from the western administrative and traditional governance systems. The western administrative governance system includes organisations such as the Department of Water and Sanitation (DWS), which is mandated to manage water resources, and the Department of Cooperative Governance and Traditional Affairs, which mediates with traditional authorities regarding various issues, including land management. Currently, these organisations do not cooperate on land-water issues as needed. **Secondly, a lacking implementation of water legislation:** The South African National Water Act of 1998 outlines Catchment Management Agencies (CMA) as network governance structures that should manage the catchment at a local scale

and include all water users. However, after more than 20 years, these structures have not been implemented. This is also due to a conflict in governance styles between the stakeholder-integrating CMAs and the expert-driven, hierarchical DWS. **Thirdly, conflict between governance styles:** In the absence of the CMA, several informal or non-statutory network governance structures have developed in the uMngeni catchment (e.g. Catchment Management Forums and the uMngeni Ecological Infrastructure Partnership). In several instances, actors representing these structures and government representatives are in conflict over the different approaches to knowledge management and decision-making; these differences are rooted in their respective governance styles. In the last few years, the DWS started the process of a Catchment Management Strategy, which requires stakeholders to participate and formulate their needs. This process could become a mediating tool for the conflicts that arise between the actors when using the different hierarchical and network governance styles.

We propose the following recommendations:

1. Integrating traditional authorities into planning processes in a culturally sensitive way is crucial in supporting IWRM.
2. Network structures – designed by government or self-organised – may provide the social capital needed at the local and regional governance levels to implement IWRM.
3. In order to mediate between the existing hierarchical and network governance knowledge, management strategies should represent a hybrid governance style.

IWRM calls for significant coordination and integration between government and citizens

Complexity and uncertainty are inherent problems of water resource management and governance. Managing and governing water resources is a multi-sectoral and multi-level task. Several frameworks, including IWRM, have been developed to address these challenges and improve resource management outcomes. A crucial aspect of IWRM is coordination between actors and the use of coordination structures. The widespread lack of such coordination constitutes a considerable governance gap and obstacle to IWRM implementation (Pahl-Wostl et al., 2020). Therefore, the research underlying this Briefing Paper focussed on how coordination supports the actual implementation of IWRM. It was conducted under the umbrella of the research project STEER, which set out to identify innovative solutions for solving highly complex water problems. The uMngeni catchment in KwaZulu-Natal, South Africa, was a case study of STEER and is used in this paper to explore IWRM implementation and the role of different governance styles.

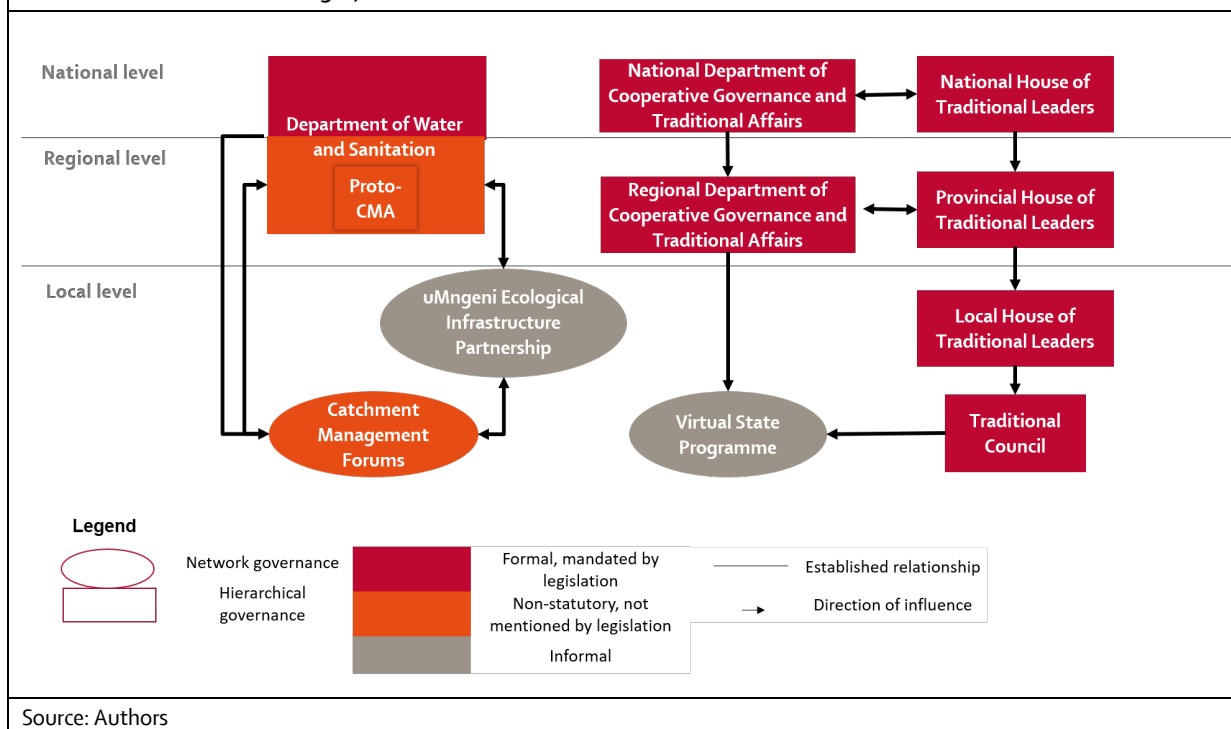
Governance styles are characterised by a certain logic of governing and the role and relationship of different actor groups (see Pahl-Wostl, 2019). For a long time, governments have embodied the hierarchical governance style, for example by setting strict rules that citizens must follow. Often the involvement of non-governmental actors in governmental processes has been limited, which has led to poor information exchange and the exclusion of critical reflection. Network governance describes the cooperation of multiple organisations and sectors with a variety of knowledge responding to current and emergent issues. It is in the deliberation of multiple – and often conflicting –

views that the creative ideas and novel solutions needed to address complex problems can emerge. In this context, relationships are built on mutual trust (Pahl-Wostl, 2019). In practice, governance bodies represent elements of various styles. This enables hybrid styles to mediate between two ideals, thereby enhancing and combining their strengths while compensating for their weaknesses.

The principles of IWRM were adopted in South Africa under the National Water Act of 1998, which sets out to ensure that the nation’s water resources are protected, managed and used in a sustainable way. The Water Act is administered by the DWS, which is required to implement effective policies, procedures and planning strategies for water resources and services. In implementing IWRM, the Water Act calls for a strong participatory process in the development of water-related planning documents and water resources standards (Claassen, 2013). It also calls for the integrated management of land and water resources.

Land resources in South Africa are managed under a dual governance system, a combination of both western administrative governance systems coupled with traditional governance systems (represented by local, provincial and national Houses of Traditional Leaders). The Department of Cooperative Governance and Traditional Affairs oversees and supports these traditional governance structures in accordance with legislation. The inclusion of traditional representatives in water governance and catchment management is crucial, as traditional authorities administer one-third of the land in KwaZulu-Natal, and with that its land-use. Questions of spatial planning and sustainable resource management can therefore only be addressed jointly. Although traditional leadership is

Figure 1: Examples of coordination bodies in the uMngeni catchment (western administrative bodies on the left and traditional on the right)



Source: Authors

enshrined and recognised in the Constitution and other legislation, it lacks a clarified role in state governance and is largely absent in water governance structures (Figure 1, no line indicates no relationship).

In the uMngeni, many structures are emerging to fill voids of non-implementation

We investigated governance styles and coordination structures relevant to South Africa's water governance landscape in the uMngeni catchment. We found that the formal governance landscape is strongly characterised by a hierarchical style. This is evident in the way the DWS designs water management structures and develops strategies and plans. The DWS also dominates the governance landscape at the provincial and local levels. The Department of Cooperative Governance and Traditional Affairs and the Houses of Traditional Leaders dominate matters related to the customary use of land and resources. This is also done in a strongly hierarchical style with very limited coordination at the catchment and local levels.

The Water Act outlines several other structures that embody a more network governance approach (Claassen, 2013). For example, it enables the establishment of CMAs, coordination bodies envisaged to manage water at a regional level. CMAs are required to seek cooperation and agreement on water-related matters from various actors and interested stakeholders. However, due to conflicting governance styles in the DWS and the promulgated CMA, the CMA for the regional area in which the uMngeni catchment is located has not been implemented. Instead, a hybrid organisation, the proto-CMA, was created as a division within the regional DWS (Figure 1). Both the proto-CMA and the regional DWS embody a hierarchical governance style and were designed to extend this style to the regional level. Furthermore, the proto-CMA only started work a few years ago without formal representation of catchment water users. As a result, a key tool for implementing IWRM, the Catchment Management Strategy, which includes plans for allocating water, has still not been developed. This strategy will define management practices and decision-making for managing the catchment. It presents a collaboration opportunity to anchor knowledge from self-organised structures and joint elaboration within the strategy. As such, the strategy would be an example of hybrid governance, bridging the hierarchical governance style of the government and the network governance style of non-state actors.

In view of the provisions of the Water Act for multi-sectoral and multi-level stakeholder representation, several coordination bodies constituting network governance style emerged in the uMngeni catchment to fill this gap. The uMngeni Ecological Infrastructure Partnership is an informal stakeholder platform that brings together a diverse array of actors, including municipalities, government departments, environmental organisations, industry associations and water boards with the common goal of investing in ecosystem services that contribute to enhanced water security in the catchment. Catchment Management Forums provide another example of network governance style. Catchment Management Forums are non-statutory coordination platforms for local stakeholders dealing with issues at hand. These structures were originally introduced to prepare for the establishment of CMAs

and, although they are run by stakeholders, they are also used by the DWS for informing stakeholders.

Four Catchment Management Forums exist in the uMngeni catchment and provide governance bodies in which traditional leadership figures could potentially take part. However, this connection is fragile because of a conflict in governance styles between the traditional authorities (hierarchy) and the Catchment Management Forums (network). Examples of conflict include the lack of acknowledgement of – and an appropriate invitation to – the traditional authority by an appropriate authority of the Catchment Management Forum. As these forums are an egalitarian representation of stakeholders, such authority does not exist. In some cases, when Catchment Management Forums were planned in the area of a traditional authority, the traditional authority cancelled them on short notice. This action reflects their hierarchical approach to cooperation.

A further example of network governance style in the uMngeni catchment is the Virtual State Programme, which is a voluntary and apolitical structure that operates at a local level. It supports communities under traditional leadership in understanding how government works to deliver services. The programme provides contact with the traditional authorities, but this is limited to an information approach and is not a collaborative partnership built on mutual trust. Although the programme set out to enhance coordination between the traditional authority and the wider community, to date the traditional authority still makes unilateral decisions on community involvement. This might be an indicator of a conflict between the hierarchical governance style of the traditional authorities and the network governance style of the programme.

Despite this plethora of structures and opportunities, these have so far not yielded sustainable outcomes, and hence severe socio-ecological problems in the catchment persist. We identified three key challenges around water governance that need to be addressed to enhance governance capacity.

Firstly, conflicts in governance styles are evident between the hierarchy of the government and the network governance embodied by the Water Act. This is also true in relation to the traditional governance structures of South Africa. Actors who are used to hierarchical governance in government agencies and actors from non-governmental organisations used to network governance have differing ideas about how resources such as knowledge should be used. The existing multi-stakeholder platforms are a place where a variety of knowledge and ideas exist. However, these are not utilised by the hierarchical governance actors, which leads to conflict. This shows how South Africa is still struggling to create synergies between the established role of the state and the effective network approaches that are necessary to achieve sustainable outcomes.

Secondly, although these network governance bodies hold promise for the necessary transformation to implement IWRM, a failure to acknowledge and incorporate aspects of traditional governance systems undermines the ability of the government to achieve the objectives of the Water Act. The absence of traditional governance structures in water governance further

exacerbates existing asymmetries in participation and power. Currently, mainly urban citizens participate in water governance, whereas individuals living in townships or remote rural areas are often excluded, as they lack the capacity to access or participate in forums. Hence, the opinions and needs of the country's Black majority concerning water governance are not well represented. Furthermore, land-use matters in relation to water are not being addressed adequately.

Thirdly, the South African government continues to struggle in implementing the foreseen policies and coordinating structures of the water sector. Although the arising network governance structures may help to fill some structural gaps, without effective coordinating tools and practices these are unlikely to achieve the integrated management or collaborative governance needed. Here we found that more emphasis needs to be placed on the well-coordinated procedural aspects of governing, including planning, management and decision-making. Hybrid structures in the hands of the government, such as the Catchment Management Strategy, would represent just such a procedural structure, which could shift the network knowledge into actual implementation.

Urgently needed innovations are to be found beyond the state and its current practices

In conclusion our recommendations for dealing with complexity and uncertainty in water resource management, especially under resource-scarce conditions, are:

1. The implementation of IWRM as an international, institutional blueprint requires the careful adaptation of institutions to local conditions regarding capacities, culture and governance styles. This is particularly important when implementation is difficult due to lacking capacities on the side of the authorities. The social capital at the local and regional governance levels may deliver support and should be harnessed. Network structures – be they designed by government or self-organised – provide critical resources and enable the emergence of novel solutions, which are needed to implement IWRM.
2. In order to sustainably manage land-water resources, the power of traditional authorities (where they exist) must be acknowledged. Integrating traditional authorities into planning processes at all levels of the governance landscape through appropriate structures that are sensitive to culture is crucial to achieve more sustainable and IWRM.
3. Without anchoring knowledge from the regional and local levels in governmental procedures and strategies, coordination bodies cannot effectively manage land and water resources. In order to mediate between the existing hierarchical and network governance knowledge, management strategies should represent a hybrid governance style. These strategies are crucial for implementation and must be given priority.

References

Claassen, M. (2013). Integrated water resource management in South Africa. *International Journal of Water Governance*, 1(3), 323-338.

Pahl-Wostl, C. (2019). The role of governance modes and meta-governance in the transformation towards sustainable water governance. *Environmental Science & Policy*, 91, 6-16. <https://doi.org/10.1016/j.envsci.2018.10.008>

Pahl-Wostl, C., Knieper, C., Lukat, E., Meergans, F., Schoderer, M., Schütze, N., ...Vidaurree, R. (2020). Enhancing the capacity of water governance to deal with complex management challenges: A framework of analysis. *Environmental Science & Policy*, 107, 23-35.

The research project "STEER" was funded by the Federal Ministry of Education and Research (BMBF) as part of the funding measure "Water as a Global Resource" (GRoW).

Dr Sabine Stuart-Hill
Senior Researcher

Centre for Water Resources Research (CWRR),
University of KwaZulu-Natal,
South Africa

Evelyn Lukat
Researcher

University of Osnabrück,
Germany

Catherine Pringle
Researcher

Resilient Systems Institute,
South Africa

Prof Dr Claudia Pahl-Wostl
Professor

University of Osnabrück,
Germany

DOI: 10.23661/bp21.2020



This Open-Access-Publication is free to read (<https://www.die-gdi.de/publikationen/briefing-paper/>), share and adapt under the terms of the CC BY 4.0 license.

