



# Local participation in decentralized water governance: insights from north-central Namibia

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## Abstract

Although several semi-arid African countries are decentralizing water services and attempting to increase the participation of local actors in water resource management, how effectively this is working, and whether it is improving water access, is not yet well researched. Little attention has been paid to the capacities (in terms of knowledge and resources) that local actors need to successfully influence the operation and management of water services they are made responsible for. In a qualitative study, we asked regional and local actors in the Omusati Region of north-central Namibia for their perspectives on how water reforms, initiated in the late 1990s, have impacted on their participation in water governance. Our analysis reveals that decentralized governance of water resources can be ineffective if governments do not allocate sufficient resources to support and enable local actors to participate efficiently and effectively in the governance system. In the context of the Paris Agreement and the Sustainable Development Goals, achieving greater equity and efficiency in the water sector while reducing climate risk will require that local actors receive more support in return for fuller and more effective participation. We suggest that policy and practice around decentralized water governance pay more attention to building the capacities of local actors to absorb the responsibilities transferred to them.

**Keywords** Water governance · Decentralization · Participation · Capacity building · Namibia

## Introduction

Policy documents and scientific discussions increasingly cite local public participation as central to effective water management. These documents and discussions focus on how local participation encourages diverse perspectives, thus strengthening context-specific responses and ensuring an equitable spread of benefits

across different social groups (Adhikari and Tarkowski 2013; Carr et al. 2012; Cosens and Chaffin 2016; Pahl-Wostl 2002). As a hybrid form of governance that enables communities to play a central role in managing water resources, the decentralized governance of water resources actively encourages local participation (Pahl-Wostl and Knieper 2014) and assumes this will yield more equitable outcomes (Brown 2011). In practice, however, decentralization has seldom improved or expanded local participation in relation to water governance (Gupta et al. 2013; Mapedza et al. 2016; Ziervogel et al. 2019).

In southern Africa, community-based management of natural resources has expanded in line with governments' stated intentions of increasing local participation and ownership (Shackleton et al. 2002). This includes the establishment of local-level water management institutions (Hossain and Helao 2008). However, the capacities of local actors to contribute meaningfully to decentralized water management, as well as the presence of enabling institutional arrangements and financial resources, tend to be limited (Faguet 2003).

Since 1997, the Namibian government has delegated ownership and responsibility for managing village-level water resources to local communities via what they call basin-management committees (BMCs), water users' associations

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(WUAs), and water-point committees (WPCs) (Remmert 2016). In this paper, we aim to assess the extent to which these reforms have supported water decentralization and inclusive water governance.

We begin by defining how the concepts of local capacity, participation, and decentralized water governance frame the research. After outlining our research methods, we reflect on the nature and extent of village-level participation in water governance in three villages in Onesi Constituency, which is located in the Omusati Region of Namibia. Our findings focus on the cross-scalar institutional support enabling local participation in water governance. The discussion then highlights how the capacity of local actors needs to be better supported to enable meaningful participation in water governance. This requires an understanding of the resource, institutional, and governance contexts that contribute to how participation is enacted. In conclusion, we argue that without a clear understanding of the capacities of the local-level actors to play their roles in decentralized water governance, the benefits of decentralization can be overstated.

## Local capacity and decentralized water governance

In exploring the extent to which decentralizing the management of water-services increases opportunities for local participation, the concepts of decentralized water governance, local capacity, and participation are central. In this section, we define how these terms are used in this paper.

*Water governance* is about who does what, when, and how (Moench et al. 2003). It encompasses rules and practices as well as the political, institutional, and administrative processes (both formal and informal) through which actors articulate their interests, air their concerns, take and implement decisions, and are held accountable for the development and management of water resources and for the delivery of services (Bakker and Munk Centre Program on Water Issues 2003; OECD (Organisation for Economic Co-operation and Development) 2011).

Since the mid-1990s, the governments of many African countries have *decentralized* the governance of water resources in the expectation that this will expand local participation and make water management more effective (Ferguson and Mulwafu 2001; Poteete and Ribot 2011). That is, some of the power and resources involved in planning and managing water assets have been transferred away from the central government to the regional and municipal levels to try to ensure that policies can be tailored to respond to local needs (Nikolov 2006; Rondinelli et al. 1983). This decentralization was expected to bring decision-makers and local communities into closer contact and empower local actors to shape policy reforms, thus making governments more accountable and responsive to local needs (Faguet et al. 2014; Lemos and Agrawal 2006; Remmert 2016; Shackleton et al. 2002).

However, the extent to which decentralization increases local participation in water governance depends heavily on the capacities of local actors (Faguet 2004a). Without the skills and resources to engage with local government structures, community participation can quickly become tokenistic.

Even when it is decentralized, water management and governance are necessarily situated within regional and national institutional structures and processes that are regulated by other levels of government (Moss and Newig 2010; Vogel and Henstra 2015). Therefore, to understand how local needs and demands are constrained or enabled by the higher-level institutional processes in which they are embedded, local community representatives require a good understanding of national and regional water governance (Juhola and Westerhoff 2011). Empowering local actors with an understanding of the multi-scalar nature of water governance is a crucial aspect of helping them identify areas of learning and opportunities for adaptive governance at all levels (Pahl-Wostl 2009).

We use the concept of *capacity* to refer to the knowledge, skills, and resources that individuals, institutions, and societies can use to effectively perform functions and achieve objectives (Norad (Norwegian Agency for Development) 2000; UNDP 2007). Capacity building can be defined as processes through which individuals, institutions, and societies obtain, strengthen, and maintain their abilities to achieve their goals. Defined in this way, capacity building for water governance occurs when actors have access to the necessary funds, human resources, knowledge, skills, and institutional support that enables them to understand how water resources are managed at different levels and that equips them to participate fully at the appropriate level. In the face of climate change and water scarcity, the capacity to design, implement, and constantly adapt strategies to address water management problems is increasingly critical (Pahl-Wostl 2009) but, so far, the development of the capacities of local-level actors in this regard has been insufficient (Wit and Stankiewicz 2006; Muller 2007).

In theory, WUAs and BMCs should be important entry points for widening and deepening community voices in water governance. Terry et al. (2015) unpack the role of WUAs in Uganda and suggest that their effectiveness is limited by participants having a poor understanding of their responsibilities. In line with this, we suggest that decentralization in the water sector should not only be about governments sharing responsibilities with local actors but should also include enabling local actors to take responsibility for managing water effectively (Helmsing 2002). Unless the capacity of local actors is strengthened, the planning and management needed in relation to water resources at the subnational level will continue to be problematic.

In this context, we explore what meaningful local *participation* means, and how this creates an enabling environment for effective action linked to water governance. Many other terms are used in the literature to describe this concept. We follow the World Bank's (1996) definition of participation as

“a process through which stakeholders influence and share control over development initiatives, decisions, and resources which affect them.” Participation can range from passive (for example, being in a network that is informed about tariff-rate negotiations) to active (for example, contributing to plans and implementing decisions in a variety of ways). Following Arnstein’s (1969) “ladder of participation,” we acknowledge that there are different levels of involvement in decision-making and implementation processes, from full engagement to tokenism, and that each level can lead to different outcomes (see Bruns 2003; Carr et al. 2012; Shackleton et al. 2002).

To count as empowerment, participation cannot just be about validating decisions made elsewhere; it must include the ability to influence decision-making processes and outcomes (Bossuyt and Gould 2000). As opportunities for increased local participation have opened up, assumptions are often made that local people, particularly those who are part of certain kinds of governance structures (such as WPCs in Namibia), are taking part in water governance. What remains unclear, however, is how effectively such actors participate and what capacities and resources they have to make their recommendations be heard. In this paper, we address this gap by exploring (i) the nature of villagers’ involvement in water-related decision making (such as identifying priorities for local water use); (ii) villagers’ access to institutional, financial, and technical resources that might help them to respond in well-informed ways; and (iii) some of the challenges and opportunities villagers experience in relation to effective governance of water resources.

## Research context and methodologies

### Decentralized water governance in Namibia

As in many other semi-arid regions, climate change is expected to increase rainfall variability, as well as the incidence of extreme events such as droughts and floods in Namibia (Muhangi and Acidri 2008). This is adding more pressure to an already-stressed water sector and radically undermining ecosystem viability and economic development (Kniveton and Todd 2006; Hughes et al. 2011; Ministry of Environment and Tourism 2011). As such, Namibia’s water management practices and governance systems urgently need strengthening.

Initiatives to decentralize water governance in Namibia began in the early 1990s, soon after the country won its political independence (Heyns 2005; Republic of Namibia 1997; Schnegg and Bollig 2016). The push for this reform was motivated, in part, by the fact that colonial water policy had excluded citizen participation and created unequal access to water resources (Republic of Namibia 2000; Hossain and Helao 2008; Ministry of Agricultural, Water and Rural Development – MAWRD 2000). As one of the driest countries in southern Africa, and needing to address social inequalities, Namibia urgently needed

new forms of governance, including its water system. Against this backdrop, the decentralization of functions and services was considered the best means of ensuring a more effective and equitable distribution of water resources (Republic of Namibia 2010; Hossain and Helao 2008).

Consequently, in 1992, the Regional Councils Act and the Local Authorities Act were introduced with the objective of involving rural communities in the management of local water resources. The Ministry of Agriculture Water and Forestry’s Directorate of Water Supply and Sanitation Coordination (DWSSC) was the appointed custodian of water resources and made responsible for supplying rural communities in communal areas with potable water (Republic of Namibia 2008). The DWSSC is responsible for training extension officers and placing them in communities to promote community-based water management.

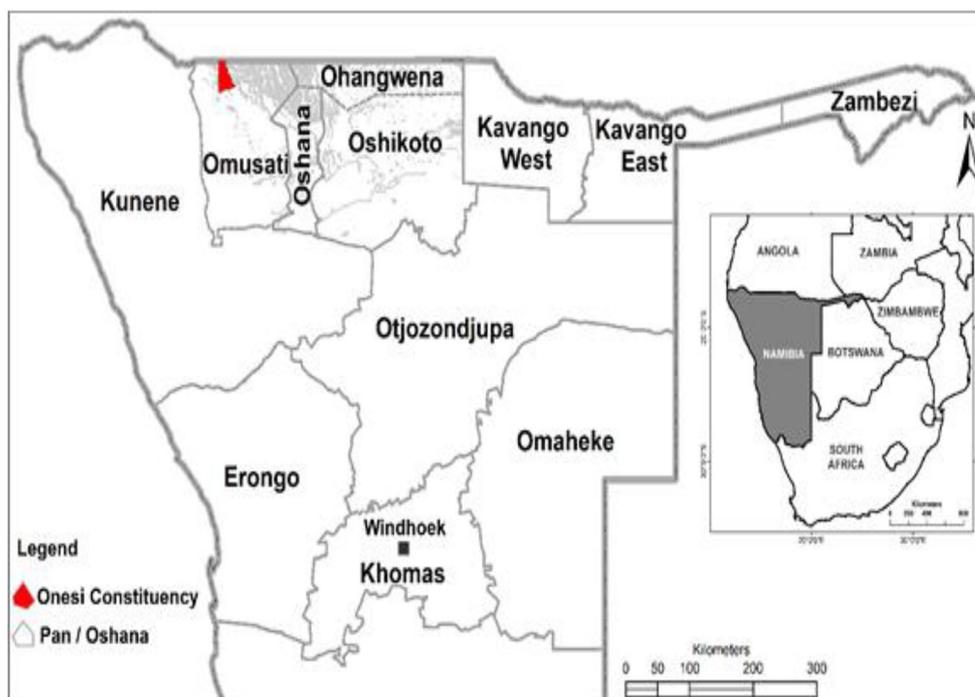
In 1997, the Namibia Water Corporation Act was passed and, with that, the state-owned Namibia Water Corporation (NamWater) was established to manage bulk water supplies in collaboration with the Department of Rural Water Supply (Republic of Namibia 2008). Communal standpipes were installed for rural communities. WUAs (for users of particular water points) were established and WPCs were elected to govern these water points on behalf of the WUAs (see Hossain and Helao 2008; Schnegg et al. 2016). Similarly, pipeline schemes, via which several water points and private off-takes are connected, are managed by local WPCs. WPCs coordinate the management and maintenance of water points or pipeline schemes and facilitate the payment of user fees to NamWater (Schnegg and Linke 2016). WPCs can also request technical support from DWSSC for maintenance and repairs.

Handing over the management and maintenance of water points to local WPCs has proven problematic. Made up of local householders, few WPCs have the capacity to monitor and maintain water points. In addition, some village residents cannot afford the water fees. This puts WPCs in the awkward position of having to demand payments from their neighbors. If they fail to collect, NamWater can shut off the water points (Hossain and Helao 2008). This forces poorer households and communities to revert to using unsafe water sources including dams, open canals, and hand-dug wells.

### Methodology

The research reported here was conducted as part of the Adaptation at Scale in Semi-Arid Regions (ASSAR) research project, which ran from 2014 to 2018 and aimed to deepen understandings of adaptation governance in semi-arid regions in Africa and Asia. In Namibia, the Omusati Region (see Fig. 1) was selected to represent a semi-arid region where communities are particularly vulnerable to the likely impacts of climate change and where pressure on water resources is growing (Bollig et al. 2013). As yet, water-resource

**Fig. 1** Location of the research site in the Omusati Region of north-central Namibia



management challenges in such regions are relatively unexplored empirically with the exception of few studies such as those by Hossain and Helao (2008) and Schnegg and Bollig (2016).

Given the multi-scalar lens that guided the ASSAR project, our research focused on actors, resources, and institutional arrangements at the village, constituency, and regional levels. Capturing the details of decision-making processes across these different levels helped us understand the complexities and capacity challenges involved in governance from the perspectives of a range of actors from local to sub-national levels (Eakin 2006).

In 2014, we began by analyzing secondary data<sup>1</sup> to inform our research focus and help in the refining of research questions. This was accompanied by an extensive review of key domestic water management practices, policies, strategies, and governance structures in Namibia. Between 2015 and 2017, 24 key informants were interviewed about their organizations' roles, influence, and capacities in decision-making processes linked to water governance. They included various state and non-state actors involved in water management at the national, sub-national (Omusati Region), and local level (Onesi Constituency). Some of the organizations represented include NamWater, the Olushandja Basin Management Committee, the Directorate of Water Resource Management, the DWSSC, the regional Disaster Risk Management Committee, the Omusati Regional Council, the Onesi Constituency Office, the local Traditional Authority, and local

WPCs. All informants were purposefully selected to include actors who have experience in water governance across scales in the region and who were willing to explore this with us via semi-structured interviews.

After the interviews, fieldwork was undertaken at the village level in 2017. In consultation with traditional authorities and the Onesi constituency office, criteria were developed to select case-study villages. Criteria included relative distance from the constituency office to determine the degree of participation in local governance, the presence or absence of influential leaders or champions who influence local action, and the presence or absence of community-led water management initiatives. Consequently, we selected three villages which showed different levels of involvement in water-resource management, ranging from Enongo, where people are more engaged, to Olwaadhiya, and Eenkalashe where they are less engaged. Livelihoods across the area are precarious, with most people relying on subsistence farming (rain-fed crops and livestock). Low and increasingly unpredictable rainfall is increasing the pressure on existing water resources (Bollig et al. 2013).

At the village level, focus groups were held to explore resident's views on water governance, (see Annex 1 for more details on participatory methods and focus group activities). Each focus group had almost equal numbers of men and women. A total of 28 individuals participated: six males and four females from Enongo, three males and three females from Eenkalashe, and six males and six females from Olwaadhiya.

The interviews and focus group discussions were transcribed and coded using computer software (NVivo 11) and then analyzed using a thematic approach (see Braun and

<sup>1</sup> In a summary report of this research, Spear et al. (2015) review the existing literature on contextual vulnerabilities in the ASSAR case-study areas.

Clarke 2006). The main themes under which the data was examined include multi-scalar perspectives on water governance, local participation, and capacities for engaging in water governance.

## Capacity challenges at the local level

In this section, we first outline the ways in which local actors have participated in decentralized water governance. We then discuss the capacities of local actors to act, describe how responsibilities are divided, and highlight institutional capacities and financial resources available at the local level. We place this in the context of coordination across scales in an attempt to situate local challenges within the context of the decentralization of water governance.

## Nature and degree of participation at the local level

In this research, participation in local water governance primarily takes the form of involvement in decision-making around priorities for local water use and allocation, providing input on issues such as tariff structures and user fees, and engagement in the ongoing operation, management, and maintenance of water facilities.

Results from the three villages in Onesi reveal that the nature and degree of participation in the management of water services vary significantly across different social groups. With regard to planning for local water use, the majority of participants from all three villages said they had never participated in identifying priorities for water use and allocation in their villages. Very few villagers, other than those who held positions in the village, including the village headmen/women or their assistants, had participated in any decision making. Moreover, the involvement of village leaders depended on the presence of associated governance structures, such as WPAs and constituency development committees, or their own individual networks and relationships with other traditional leadership structures.<sup>2</sup> The fact that social and individual positions were a key determinant of participation highlights the exclusion of those who are not well networked and those located lower in the social strata, including the poor and marginalized.

## Influencing outcomes across levels

While decentralization creates significant potential for enhancing local participation, it does not automatically empower villagers to influence the outcomes of water reforms. In Namibia, although WPCs foster greater inclusion for local

communities, their participation is often tokenistic. Very few villagers make suggestions or affect outcomes. Most informants pointed to the limited knowledge and resources they have, explaining that they are unaware of what lines of communication to use to raise their water concerns. They also stated that their opportunities to meet with WPC members or other influential people to discuss their concerns are limited. As one participant put it:

There's no one I can go to even if I had a suggestion.

Given these constraints, the extent to which local actors influence outcomes is limited. Their involvement tends to depend on whether local leaders, who act as “gatekeepers,” are willing to take their concerns to higher levels.

In Namibia, the traditional authorities can play an important role in enhancing inclusion and representation if they listen to communities and bring their concerns to the constituency and regional decision-making forums. In Enongo village, the headman is a member of the Traditional Authority. So, if someone there has a concern, they either speak to the councilor, or directly to the Traditional Authority, which then communicates with the relevant government authority. Villagers see the traditional authorities as important governance structures that articulate and represent the needs of the local community. As one constituency-level respondent observed:

If they [local community] see something wrong within their communities they just go and report to traditional authority ... That is an indication that there's a good relation ... if you see people just jumping to regional council or further up you will know we do not have a good relationship with our people here.

Where gatekeepers are strong and supportive of local people's priorities, the water reforms have had relatively positive outcomes. However, where gatekeepers prefer to maintain the status quo, transformation can be blocked. In Onesi, a large number of participants said that they “don't see the benefit of being part of decision making” and “don't see any incentives to do so”, and hence, they “prefer to leave decisions to the most influential people”. One respondent told us:

I attended a meeting and suggested (the government excavate the dam) ... but then the local leader refused and say, “no the government does not have money.”

To sum up, local leaders can either facilitate or hinder participation. Where leaders understand the needs of their people and are willing to be supportive, as in Enongo, the leader acts as a catalyst for local participation. The problem with this is that such gatekeepers do not always speak on behalf of those they represent. Mapping villages according to how traditional leaders engage with villagers, and use their influence at higher levels of decision making, is one way to begin to understand the varying extents to which local concerns are addressed across levels (Udendi et al. 2012).

<sup>2</sup> These traditional structures are based on the ethnic affiliations of the indigenous people of the territory.

## Capacity of local actors to participate in water governance

As mentioned, WPCs coordinate the operation and maintenance of water points and are responsible for collecting user fees. In line with decentralization, local residents are expected to formulate their own rules regarding how to share the costs and benefits of the water points and the WPCs then take responsibility for implementing the rules. Thus, the WPCs are considered to be in charge of water points on behalf of communities, but few of them have the financial, technical, or managerial capacity to undertake these responsibilities effectively.

According to committee members during a focus group discussion, user fees collected by WPCs are paid to NamWater to recover the cost of water use. From this amount, the WPCs receive a small annual membership fee (each water point user pays an equivalent of US\$3.5<sup>3</sup> per year) which means the funds available to cover operational and maintenance costs are inadequate. This assumes that committee members will be willing to carry out operational activities, such as opening the tap at specific times and collecting user fees, on a voluntary basis. Unsurprisingly, one of the challenges committee members identified during a focus group discussion is maintaining a balance between volunteering for WPC work and carrying out other livelihood activities such as farming. In many villages, committee members said they had been unable to juggle these roles, with some deciding to go on strike and cease attending to their responsibilities. This then led to the closure of some communal water points. As one regional member of the DWSSC explained:

As we speak, the local WPCs are on a strike. The community-based water management speaks of voluntarism. The Committee should volunteer themselves, in terms of chairing the meeting, taking notes and collecting money from various WUAs ... and paying it to NamWater. People started complaining that they cannot be doing voluntary work for government and NamWater.

## Lack of clarity in the division of responsibilities and limited platforms for coordination

Limited coordination between the national, regional, and local government, as well as a lack of clarity on their respective roles and responsibilities, constrains effective participation. Thus, while policy frameworks support decentralized decision making by multiple actors in the water sector, the functions of the various institutions overlap in ways that make their governance roles unclear and therefore challenging to manage. Accordingly, regional-level actors we interviewed highlighted the challenges of supplying water and maintaining infrastructure. While

<sup>3</sup> As per currency values on 27 August 2018.

NamWater is responsible for supplying water to the water points, the construction and maintenance of water infrastructure—including water points, pipelines, and boreholes—falls under the DWSSC. However, the regional government is also responsible for supplying water to rural communities. At constituency level, WPCs report to the DWSSC's regional offices when major repairs and maintenance are needed, but all fees for water consumption collected by WPCs are paid to NamWater, which sets its tariffs on a cost-recovery basis.

Overlapping functions and the unclear division of responsibilities means that holding the authorities accountable for repairs is difficult. One regional-level respondent explained:

Although WPCs are a part of the Water Act, some national-level stakeholders do not see the need of having WPCs ... so now they are even revisiting the Water Act trying to check how these WPCs are going to fit in ... and if they decide to keep them, then who is going to pay them? This thing is now between the government and NamWater: the government is saying NamWater is the main supplier of water, hence they have to pay those people because the user fees goes to NamWater. Then NamWater is saying, 'I am not the one who put those people there, why should I pay somebody who is not in my system?'

Villagers mirrored these concerns, arguing that the lack of proper lines of communication and coordination between the relevant actors inhibits their participation in water governance. Among the issues villagers raised was the fact that they have no input on the setting of water tariffs. Unfortunately, NamWater seldom engages with communities. As one regional Water Artisanal Officer explained:

NamWater do not work directly with WPCs ... we do not have direct meetings with the local community. We would like to have direct meetings but we cannot because of limited numbers of staff.

This points to a disjuncture between policy objectives and intentions and the ability of local, regional and national actors to support these intentions in practice. Although local water users are, in theory, expected to be central to water governance, the government does not have sufficient capacity or resources to engage with the many WPCs that now exist throughout the country. In addition, insufficient attention has been paid to enabling village representatives to engage with actors at the constituency and regional levels.

## Regional decision making

According to actors working at the regional level, centralized decision making and national priority setting still prevail in

Namibia's water sector. It is not only villagers and constituency actors who struggle to engage in decision making; even regional actors feel that they are not involved in setting the priorities that are enforced by the national government. Many respondents described how regional decisions often have to wait for funding sign-off at the national level. They explained that this slows down operations and impacts on their ability to act at a regional level. In essence, decentralization has been only partially implemented, and this challenges the apparent autonomy of several structures. When asked if the regional government has enough power to implement the decisions they make, a representative from DWSSC said:

We only have one government and we have regions. So, anything you do at the regional level you are still accountable to the national level ... We have different ministries within the regions but they are still having their supervisors at the head office where the budget and other things are being debated through the [national] minister. In the end ... they give you this money [to] work on this project; that's how we are.

Part of supporting participation at regional and village level requires understanding the extent to which local actors can exercise influence and control over decisions that affect them and the responses they receive when they express dissatisfaction with service delivery (Narayan 1999). Unfortunately, given the limited power available to actors at the regional level, it is not surprising village level involvement is limited too. For community participation to be effective, modes of engagement have to move beyond consultation to more substantive forms of influence over policy implementation. This is difficult to achieve when decentralization is only partially effected, as is the case with water governance in Namibia.

### Financial capacity to support action at the regional and local levels

Despite the fact that progress has been made to establish institutional structures at regional and village levels, funding remains a major constraint. There is a mismatch between funding allocations and administrative responsibilities at the regional and local levels. Both regional and local actors cited a lack of funds as the major impediment to effective water governance and noted that the DWSSC is unable to execute major repairs promptly because they lack the necessary funds. The BMCs also attributed their inability to hold meetings and carry out basin management and visits to local communities to similar constraints. One respondent noted the following:

Funding is one of the problems. If, you [want] to work with the communities, you do not need to allow them to stay for too long without visiting them. If you make

follow-up- meetings, the flow of information will continue. But if you only go there after a year ... you do not expect these people to remember what you told them. So that is one of the main preventing factors.

This shows the importance of making basic funding available to ensure that meetings can occur often enough to allow the relationships and channels that help local governance to function effectively to be built. With little or no face-to-face contact between actors at the regional and village level, it is not surprising that villagers do not know who to approach with their concerns.

We were also told that the training of WPC members in record keeping, cost management, and the carrying out of minor repairs tended to be very selective and, in many cases, was given to villagers who were already quite active and knowledgeable and who were easily able to find opportunities outside the village leaving behind less literate villagers who tend to have little knowledge of how to manage the WPs.

In addition, the lack of incentives to support villagers' participation in WPCs has been a major obstacle to the effective management and administration of the water points. According to one regional-level actor:

We are in the process of setting up a way to remove water points. Because we have the water point where everybody has to come and get water. But you find the person who is responsible to open the tap at 10 am, went to town. Right now, the WPCs are not working at all. They are on strike ... because they want to be paid.

The argument here is that insufficient funding undermines effective participation in water governance at the local level. For example, participants in focus group discussions attributed the defaulting of user payments and the closure of water points to the challenges of collecting payments when local WPCs go on strike. Due to strikes, WPCs and private off-takers do meter readings and then visit the DWSSC regional office in Outapi which assist in calculating payments' due. However, the failure to pay bills in time has led NamWater to close water points. For this reason, regional actors are increasingly supporting a move away from communal water points to private off-takers.

Despite the fact that there is no institutional support for this move to private off-takes, those households that can afford it are increasingly opting for private off-takes. While a private off-take makes it relatively easy for higher-income households to manage payment and access water, if communal water points are not maintained, those who cannot afford to install private taps (which cost about US\$84)<sup>5</sup> and pay for water use will have less (or no) access to potable water. So, although local actors are expected to carry certain responsibilities as part of the shift towards decentralization, if communities do

not feel that their participation is valued or supported, they refuse to cooperate, creating potentially negative impacts for many villagers.

## Discussion

### Different levels and types of participation lead to different outcomes

Participation is widely seen as a central tenet of decentralization and as critical to achieving efficiency, equity, and the effective management of decentralized water resources (Adhikari and Tarkowski 2013; Agrawal and Ribot 1999; Enserink et al. 2007; Iribarnegaray and Seghezzi 2012; Neef 2009). Participation is also often cited as a means of ensuring that policies and programs are responsive to local needs, based on the view that involved communities can more easily raise their concerns (Faguet 2004a, b, 2012). In some situations, by bringing the government closer to people, participation can lead citizens to a deeper understanding of key issues and help them make better-informed decisions (Pahl-Wostl 2002).

Adhikari and Tarkowski (2013) have shown how BMCs and WUAs in India contribute to more effective water management and have enhanced local actors' participation in water reforms. Similarly, studies in two African countries: Ferguson and Mulwafu (2001) in Malawi and Terry et al. (2015) in Uganda—indicate that decentralization has widened and extended participation in water governance. Our own findings show that the participation of local actors in water governance has increased where WUAs and WPCs are fully functional. Here, community members do take responsibility for the daily operation of their water point including opening the tap and for collecting fees for water consumption and maintenance. However, the ability of WPCs to facilitate more active participation of the members has been poor so far, partly because of their very limited resources. Although the principle that if users pay for water resources, they value them more is not disputed; in the villages we studied, user fees are impacting on water access. As poorer and more marginalized householders cannot afford to pay for water, they are increasingly excluded from accessing safe water and have little option but to revert to hand-dug wells and poorer quality water sources. Yet, in line with the Sustainable Development Goals, it is precisely the voices and needs of the marginalized that need to be heard if truly equitable access is to be achieved.

### Without support for local participation, the benefits of decentralization remain limited

Despite local groups managing the day-to-day supply of water in rural Namibia, the success of these decentralized

arrangements depend on the resources and capacities of actors involved in the system across levels. In particular, constituency and regional actors who are expected to support the local villages have limited capacities and resources. Evidence from this study suggests that, in Namibia, decentralized water governance has enabled the central government to delegate responsibilities to local authorities and village members. However, this has not been matched with the resources and capacity building needed to empower those at the local level.

Consequently, some aspects of water governance remain centralized, thus reducing the authority of officials at the regional level to make critical decisions and delaying action on important issues affecting water point operation and local participation. For instance, because of resource and staff constraints, DWSSC has been unable to prioritize the installation of new water points. Similarly, the performance of BMCs in enhancing community engagement has been poor. From a governance point of view, this is an indication of limited autonomy and authority over issues at the local level, despite government rhetoric that bottom-up participation in water management will be supported (see Faguet et al. 2014). Our findings confirm an observation made by Wunsch (2001) that the failure of decentralized reforms in Africa is often the result of a limited allocation of resources at the local level.

### Attention needs to be paid to who is able to participate

Although the decentralization of water governance can potentially improve service delivery and equity (Mansuri and Rao 2013), little work has been done on how decentralization has impacted different social groups. There is some evidence that, while participatory processes generally aim for more inclusion, in reality, “participatory exclusions” exclude significant groups of people, particularly the poor and marginalized (Agarwal 2001). This suggests that attention must be paid not only to the mechanisms of participation, but also to how social differentiation works to select who is included or excluded.

The extent to which poor and marginalized households are part of decision-making processes seems to be limited in Namibia. Our case study reveals that for reform to be successful, social differentiation cannot be overlooked. Although the policy intention was to include all community members through WUAs, existing forms of social differentiation in Namibian villages created unequal terms of participation. WUA membership rules exclude those who cannot pay user fees, thereby automatically preventing poorer households from taking part in local water governance. In addition, responsibilities currently allocated to villagers focus on operational matters and the collection of payments; they have no space to challenge or change how the WUAs and WPCs function. This has led to such frustration that some WPCs have opted to abandon their operational

responsibilities. Faced with highly uncertain water supplies, many better-off households stopped using the communal water points and installed taps in their homes instead. This leaves poor households, who cannot afford to install their own private taps, at risk. Since, the capacities and resources available to different actors vary significantly from one social group to the other, the potential for decentralization to benefit households differs even within the same community. If this is not recognized and planned for, inequality in relation to access to water services is highly likely.

## Conclusion

This research has shown that for actors to carry out their responsibilities and participate effectively in water governance, they require appropriate knowledge and resources (Table 1 provides a summary factors enabling and constraining local participation). As has been seen in the outcomes of decentralization processes across Africa (Oosterveer and Van Vliet 2010; Terry et al. 2015), when the capacities of actors are not carefully assessed and provided for, reforms have a high chance of failing or not delivering the intended outcome.

When aiming to increase local governance of water services, more attention should be paid to differential impacts of the proposed shift on different social groups. Decentralization, increased participation, and equity are not linear processes that automatically create equal outcomes for all. This study confirms that increasing community participation does not necessarily transform existing power dynamics or assist poor and marginalized communities to meet their needs (Agarwal 2001). Tools such as stakeholder mapping can be helpful in identifying which actors have stakes in the system, and what types of integrated planning might be appropriate to achieving effective and equitable water governance (Reed et al. 2009).

One of the key objectives of widening citizen participation in the delivery of infrastructure services is to incorporate local knowledge and experiences into decision-making (Ziervogel et al. 2016). Increasingly, the urgent need for communities to adapt to climate change is also highlighting the need for local participation in decision making (Lemos and Agrawal 2006; Naess 2013). Where lessons need to be learned is how to more effectively support local participation in order to build adaptive capacity for climate change, as well as for water and resource management more broadly.

Although widening participation can increase the effectiveness of water governance, tensions that can arise around the transfer of responsibilities to the local level should be anticipated and managed. Processes linked to payments for water services must be carefully thought through, particularly where poverty levels are high. Similarly, it should be acknowledged that many local actors do not have sufficient knowledge or resources to take responsibility for maintaining water infrastructure and services. From the perspective of rural villagers in Namibia, reforms linked to decentralization appear have been more about taking part of the service-delivery workload off government hands and leaving the poorest of villagers to shoulder more burdens.

More focus is needed on understanding governance gaps and ensuring coordinated efforts to deliver the expected outcomes, especially when multi-scalar systems are involved (Nalau et al. 2015). This may require increased involvement of regional and local actors in policymaking, alongside defining clear roles and responsibilities at each level of governance. This could enhance the capacity for effective participation and help to make local government more responsive to local needs. In this regard, fostering capacity building at all levels, as well as inclusive approaches through public participation and engagement, should be key drivers towards achieving the goals of decentralized water reforms.

**Table 1** Factors that enable and constrain local participation in water governance in northern Namibia

Factors enabling participation	Factors constraining participation
Access to resources that allow villagers to respond in the desired way	Lack of clarity in the division of responsibilities
Enabling institutional structures such as water point committee and tribal authorities	Limited platforms for coordination across scales
Social strata and individual networks with other actors	Limited power at the regional level
Technical resources and knowledge around water infrastructure	Centralized decision making and national priority setting
Strong and supportive leaders that enable participation between the village and constituent level	Lack of human resources including limited managerial and technical resources to undertake decentralized responsibilities
Local leaders that act as gatekeepers that take village concerns to the constituent or regional level	Insufficient funding for organizing meetings and enabling travel
	Limited opportunities to discuss concerns around water governance
	Volunteer nature of water point committee operations

Although decentralization presupposes that water governance will become more inclusive and participatory for local communities, few of the expected benefits have materialized in the Namibian villages studied. More research is needed to understand if decentralized water governance has delivered more benefits elsewhere, and the extent to which local actors are participating meaningfully. Either decentralization has to be reconsidered in terms of how it might deliver benefits at the local level or more attention must be placed on both the institutional structures and the resources available to enable local actors to participate more effectively.

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