







## Research Paper

## Community management does not equate to participation: fostering community participation in rural water supplies

Katherine F. Shields <sup>a,b,\*</sup>, Michelle Moffa <sup>b</sup>, Nikki L. Behnke<sup>b</sup>, Emma Kelly <sup>b,c</sup>, Tori Klug <sup>b,d</sup>, Kristen Lee<sup>b</sup>, Ryan Cronk <sup>b,e</sup> and Jamie Bartram <sup>b,f</sup>

<sup>a</sup> Department of Geography, University of Oregon, Eugene, OR, USA

<sup>b</sup> Department of Environmental Sciences and Engineering, The Water Institute at UNC, University of North Carolina at Chapel Hill, Chapel Hill, NC, USA

<sup>c</sup> Current address: IMPACT Initiatives, 9 Chemin de Balexert, 1219, Geneva, Switzerland

<sup>d</sup> Current address: Stantec Consulting Services, Inc, Pasadena, CA, USA

<sup>e</sup> Current address: ICF International, Durham, NC, USA

<sup>f</sup> Current address: School of Civil Engineering, University of Leeds, Leeds, UK

\*Corresponding author. E-mail: kfs@uoregon.edu

 KFS, 0000-0003-0625-7723; MM, 0000-0002-2830-946X; EK, 0000-0002-1195-8420; TK, 0000-0003-1261-2314; RC, 0000-0003-0157-4447; JB, 0000-0002-6542-6315

### ABSTRACT

Community management has remained the dominant paradigm for managing rural water supplies in sub-Saharan Africa. There is a widespread perception that community participation principles are inherently embedded in the community management model. In this paper, we analyze how an international nongovernmental organization engages rural communities in their rural water projects, and the ways in which community members are able to participate in the management and governance of their water supplies. Qualitative data were collected in 18 study communities – six each in Ghana, Kenya, and Zambia – through interviews, focus group discussions, and participatory mapping with community and water committee members. We argue that community management does not inherently lead to broader community participation, but rather that fostering community participation requires intentionality. We recommend implementers use collaborative planning processes and explicitly engage with intra-community diversity and inequalities in order to facilitate the opportunity for all community members to meaningfully participate in decision-making. Collaborative planning with diverse groups will also allow community members to realize their rights to transparency and accountability once community management structures are in place.

**Key words:** community ownership, governance, qualitative, rural water supply, sub-Saharan Africa, water committee

### HIGHLIGHTS

- We studied communities in Ghana, Kenya, and Zambia to understand the importance of participation in the community management of rural water supplies.
- We challenge the perception that community participation is inherent in community management.
- Fostering community participation requires intentionality.
- We recommend implementers use collaborative planning to engage intra-community diversity and inequalities.

### INTRODUCTION

Community management has become the governance norm for rural water systems in low-income countries (Hutchings *et al.* 2015). Community management is a governance model that gives users – or a committee of users – administrative and operational responsibility for their water supply and system (Harvey & Reed 2007). It is the project approach commonly used by international nongovernmental organizations (INGOs) (Hutchings *et al.* 2015) and aligns with a main pillar of the broader international development paradigm – building and strengthening civil society – which has been promoted by INGOs, donors and governments alike since the 1980s (Mercer 2002). Contemporary literature critiques the ‘pure’ community management model for rural water supplies, arguing that it falls short in sustainability and scalability without long-term external support,

This is an Open Access article distributed under the terms of the Creative Commons Attribution Licence (CC BY-NC-ND 4.0), which permits copying and redistribution for non-commercial purposes with no derivatives, provided the original work is properly cited (<http://creativecommons.org/licenses/by-nc-nd/4.0/>).

including technical, financial, administrative, and rehabilitation assistance (Moriarty *et al.* 2013; Hutchings *et al.* 2015; Whaley & Cleaver 2017). The model persists, however, in part due to the ideological and political discourse around it (Whaley *et al.* 2019); indeed, many sub-Saharan African countries, including Zambia, Ghana, and Kenya, continue to write community management components into their national water policies and strategies (Government of Ghana, Ministry of Water Resources Works and Housing 2007; Government of the Republic of Zambia, Ministry of Energy and Water Development 2010; Government of the Republic of Kenya, Ministry of Environment Water and Natural Resources 2013).

Concurrently, the broader theme of community participation in water supplies has emerged as a priority, underscored by the shift toward a demand-responsiveness development paradigm and the declaration of water as a human right (Schouten & Moriarty 2003; Albuquerque 2014) (although for an early critique see Feachem 1980). In this article, we adopt the community participation definition used in Principle 10 of the Rio Declaration, which encompasses the role of users in decision-making, users' right to information, users' ability to voice concerns about their service, and users' right to receive appropriate remedies and accountability from service providers (United Nations General Assembly 1992). Our adopted definition of community participation is pertinent to all water service delivery models, including but not limited to community-managed systems. These components of community participation are incorporated in sub-national, national, and international water agendas and associated with positive outcomes in the broader water literature (Albuquerque 2014; Bartram *et al.* 2018; Jiménez *et al.* 2019). This literature suggests various benefits of community participation in rural water supplies, including improved sustainability, better management and accountability, and increased awareness of water-related issues (Narayan 1995; Marks *et al.* 2014; Jiménez *et al.* 2019). However, we also acknowledge the potential 'tyranny' of participation (Cooke & Kothari 2001), and the fact that participatory development does not always or necessarily lead to improved well-being but can in fact perpetuate vulnerability (Nagoda & Nightingale 2017). Participatory development is not a silver bullet to achieving the sustainable development goals (SDG), but it will likely persist as a major development model and so is important to constructively critique. We also see the broader value of fostering participation for the co-construction of science and participatory democracy (Chilvers & Kearnes 2016).

Due to the central role of a committee of community members in community-managed water systems, the concepts of community management and community participation are continually conflated in the context of rural water supplies and require further delineation (Harvey & Reed 2007). Community participation has been identified as an important 'means of implementation' for achieving SDG 6, 'ensure availability and sustainable management of water and sanitation for all' (United Nations General Assembly 2015). However, target 6b, 'Support and strengthen the participation of local communities in improving water and sanitation management', continues to entangle these concepts.

We appreciate that 'pure' community management without external support is rare to nonexistent in current practice, and thus the onus of fostering broader community participation lies not only with water committees but also with external implementing organizations. In this article, we consider the role that an INGO, sometimes in collaboration with other organizations or government agencies, can have in fostering community management and community participation in rural water supplies through its community engagement strategy. We analyze the forms of community participation that emerged from the qualitative data, leveraging the typology of community engagement strategies developed by Bowen *et al.* (2010): (1) transactional, with one-way communication or investment by the implementing partner; (2) transitional, an intermediate stage with some community involvement and more expansive two-way dialogue; and (3) transformational, with full community integration, two-way joint decision-making, and co-ownership of projects between the implementing partner and community. We argue that community management does not inherently lead to broader community participation, but rather that fostering community participation requires intentionality.

## METHODS

The study setting, data collection, and general analysis methods for this project are described in detail in an earlier paper from this project (Behnke *et al.* 2017). In brief, we collected data in 18 communities where the INGO works – six each in Ghana, Kenya, and Zambia. The INGO conducts integrated programming in a fixed area for up to 15 years through their Area Development Program (ADP) model.<sup>1</sup> ADPs are the sub-national offices responsible for direct work with communities.

<sup>1</sup> The INGO recently renamed their model from ADP to Area Program (AP). Since this transition had not begun during data collection, we refer to ADPs in this paper to retain consistency with our participants.

Communities for this study were selected using data from a representative survey of ADPs in each country (Kayser *et al.* 2015). Rural communities were eligible for the study if they had water systems that were implemented by the INGO, managed by a water committee, and functional at the time of survey.<sup>2</sup> We selected study communities from this list of eligible communities to ensure a variety of water system ages, water committee member selection methods (i.e. elections or appointments), languages, and geographical areas, accounting for logistical constraints such as transportation and safety.

Researchers spent approximately 1 week in each study community between June and August 2015, conducting interviews and focus group discussions (FGDs) with water committee members (92 interviews, 19 FGDs), community members (69 interviews, 20 FGDs), local leaders (49 interviews), and INGO staff (34 interviews). Interviews and FGDs were semi-structured and allowed participants to direct conversations to themes and topics not included in the guiding questions. Supplementary Table S1 summarizes community characteristics and data collection activities.

Visits began with a tour and community mapping activities to establish familiarity and rapport. Several water committee members present at the time of the visit were interviewed to triangulate responses and capture a variety of experiences and perspectives. Community members were selected to encompass diverse experiences with the water system(s), such as varied distance between the home and water point and the use of alternative water sources. Water committees or local leaders helped mobilize community members for FGDs. Researchers interviewed both national- and ADP-level staff who implemented or supported water systems or water programming. Snowball sampling, in which participants refer researchers to other relevant participants, was used to identify relevant government officials and other post-construction support (PCS) providers.

English audio recordings were transcribed directly. Recordings in local languages were translated into English and transcribed by transcribers fluent in both languages. Dedoose was used to code the data. Since analysis was inductive, coding and data analysis were structured to allow themes to emerge from the data. A two-stage coding process was adopted to allow for thorough inductive coding and ensure reliability within the coding group. Coded excerpts were grouped by participant to explore staff, water committee, and community perspectives and to identify overlapping and divergent opinions and experiences. Due to the semi-structured and exploratory nature of data collection, information on all themes was not collected from all communities. We use the term ‘unclear’ in Supplementary Tables when data on a certain theme was not collected in a community.

The author team has written several papers based on this dataset. With the exception of one (about seasonality), the main topic of each paper was outlined following the completion of our inductive coding based on major themes that emerged from the data. Unlike the other papers which were published shortly after the project concluded, this paper sat percolating in the minds of the author team. With this distance from the original fieldwork, the paper has benefitted from a more critical perspective on our project as well as a broader engagement with literature outside WaSH, including development studies and science and technology studies.

We received ethical approval and all relevant research permits or exemptions from the University of North Carolina Office of Human Research Ethics (exemption, Project No. 15-0902), the Ghanaian Ministry of Water Resources, Works and Housing (physical project approval letter, Reference No. SCR/JQ-52/173/049), Kenyan National Commission for Science, Technology and Innovation (physical permits, Nos NACOSTI/P/15/8498/6556 and NACOSTI/P/15/8024/6557), and the Zambian Ministry of Housing and Local Government (physical approval letter, Reference No. MLGH/101/18/22). All participants provided prior and informed verbal consent to participate in the study and have their interview or FGD recorded. Interviews and FGDs were carried out in local languages using translators, except where participants were fluent and comfortable speaking in English.

## Limitations

The goal of this project was to learn from ‘successful’ examples of community management, where ‘successful’ management meant that water systems were getting repaired when they broke down and communities were able to access drinking water. Therefore, our findings are not meant to be representative of all instances of community management in these countries or districts, but rather allow us to reflect on the successes and challenges of community management and community participation. Our findings are limited by the reliability of interviewees’ memories and recollections of water system events,

<sup>2</sup> Data for this survey (Kayser *et al.* 2015) were collected between June 2014 and January 2015.

particularly with systems built several decades ago. We are also limited by turnover in committee members, INGO staff, and government representatives. Finally, ADPs implement multi-sectoral programming. Here we focus specifically on water and sanitation programming but recognize that there may be other community engagement activities taking place that were not mentioned by participants and are therefore not addressed in this analysis.

## RESULTS AND DISCUSSION

After describing some of the water committee characteristics, we analyze ways in which the INGO sought to foster community participation beyond the community management structure and some challenges with these approaches.

Most of the community engagement efforts centered around establishing, strengthening, and supporting the water committees that managed their communities' water supplies. While the INGO classified the water systems simply as community-managed, communities received the long-term external support characteristic of a 'community management plus' model (Hutchings *et al.* 2015), including capacity building and access to training on management, technical issues, and financing. Government actors were involved throughout the process.

### Water committee characteristics

All of the rural water systems included in this study are managed by a water committee established and/or strengthened by the INGO. Supplementary Table S2 describes water management in the 18 communities, including the number of committee members, representation of women, processes for adding new members to the committee, decision-making methods, and the presence or absence of conflicts.

Committees ranged in size from three to 15 people. Eleven committees elected new members and four others appointed them. Two communities used a combination of appointments and elections, and one was not replacing committee members as they left the committee. Two committees made decisions strictly through voting, while four others only voted sometimes. Debate and discussion were prevalent across committees; decisions were often made by consensus (always:  $n = 4$ ; sometimes:  $n = 6$ ), or by majority opinion, if consensus was not possible and the problem was urgent ( $n = 5$ ).

Our data supported several commonly cited limitations of community water committee management (Moriarty *et al.* 2013; Hutchings *et al.* 2015). Some committees struggled to implement timely repairs due to competing work priorities or a lack of technical skills. A committee member in Zambia shared one example of a pump mender who was also a taxi driver; repairs could be delayed due to his competing priorities. Additionally, the responsibility of women on or off the committee often seemed to be limited to cleaning the area around the borehole despite the INGO staff's frequent mentions of 'gender balancing' or 'gender mainstreaming' components.

### A note on government

The perception of community management as making up for gaps in the capacity of government to manage rural water supply systems (Schouten & Moriarty 2003) can mask the ongoing and important role of government, particularly local government, in community management (Hutchings *et al.* 2015; Hutchings 2018). While this research focused on the INGO's engagement with communities, government played an important role, either directly or indirectly, in all of the communities studied. Government policy set the framework for engagement with communities. As a government official in Zambia noted: '[INGO name] follows what the government does; they will not do anything outside the regulations of the government.' INGO staff emphasized the importance of coordination with local government, particularly public health and water service officials, during community entry. In addition, INGO staff and government officials expressed the need for greater government involvement in training provision for water systems. One INGO staff member noted the importance of including the government in training: '*the government will also want to be part of it. It becomes more sustainable.*' The extent of government involvement in water system training varied across countries. In Ghana, the government contracted NGOs to conduct training. In Zambia and Kenya, government officials collaborated with the INGO on training. Collaboration in training was seen as particularly important for fostering links between the water committee and local government: '*[We] work closely with the government during that partnership to make sure that some of the trainings are conducted by environmental health technician[s] or water technicians within the ministry to make sure when we pull out of the area the water committee will really have that relationship with the government so that they can leverage special bonds for them to continue having a normal life*' (INGO staff member). However, in general, the INGO was seen as the responsible entity for 'soft' activities such as fostering community participation within the bounds of government policy.



### Fostering community participation

Within the community management paradigm, it is essential to ensure community participation in the water system is accessible to all community members even as the water system is managed by a subset of community members in the form of a committee. Here we analyze three distinct forms of community participation that emerged from the data: expected community contributions to the water system; community members' participation in decision-making about the water system; and community members' rights to transparency and accountability, including rights to information, voicing concerns, and receiving appropriate remedies. We address questions of equity in accessing these forms of participation in a subsequent section of the paper.

Previous scholarship demonstrates that community engagement processes must be intentional in fostering various forms of community participation in order to fulfill the human right to participation (Albuquerque 2014) and improve project outcomes and sustainability through increased legitimacy, public awareness, participant empowerment, and accountability (Narayan 1995; Prokopy 2005; Marks *et al.* 2013, 2014; Jiménez *et al.* 2019). Overall, however, we found that INGO staff and other interviewees did not often clearly distinguish engagement activities aimed at enhancing community management versus community participation, and they generally prioritized the former over the latter.

### Expected community contributions

Community members were expected to contribute their time, labor, and resources during the water system construction phase. One staff member in Zambia said, *'We believe that the communities totally don't have nothing, but they have something that they can offer. For example, we have offered materials but they can gather stones, fetch water, dig pits or bring sand. Then...we move in and give them materials that cost money.'* According to many staff ( $n = 9$ ), setting clear expectations about communities' responsibilities during water system construction is a key priority when entering a community. For example, one said, *'Community members were made aware that they were going to help out in terms of providing labor.'* Communities also prepared roads for vehicles, carried materials, provided security, and cooked for construction workers. A few staff members mentioned involving communities in the water system siting process, environmental impact assessments (Kenya only), and supply procurement. This approach utilizes local expertise but may or may not give community members true decision-making power. Staff rarely mentioned collective planning or exploring the most appropriate way to assign responsibilities to the community. In one of these rare instances, a staff member in Kenya said that while they might know what a community can contribute ahead of time, they may still ask, *'Here is this requirement of you participating in this undertaking. Now among these activities select, which ones you can do.'*

Expected community contributions before and during system construction are commonly reported in the community management literature (Narayan 1995; Prokopy 2005; Marks *et al.* 2014). While contributing to system construction may be an effective way to inform and invite a wide range of community members to participate, it is largely limited to a passive or transactional form of participation (Prokopy 2005; Bowen *et al.* 2010). A community engagement approach which only raises awareness and places demands on community resources may impede community members' confidence in their abilities to participate in later decision-making processes. Implementers should build upon the expected community participation during system construction to enable more transformational forms of community participation in subsequent phases, as the benefits of community participation are more pronounced when incorporated throughout all stages of the project cycle (Narayan 1995).

Post-construction, water committees continued to expect labor from community members. Women were commonly tasked with cleaning the area around boreholes on a regular basis, and people were expected to contribute if the borehole needed repairs. One community member in Zambia mentioned, *'Everyone who draws water is supposed to come if it's fixing the borehole.'* Another described, *'When there is need for something to be done like putting up the fence around the borehole, the [water, sanitation, and hygiene] committee informs the headman who gathers the community members for action.'* In many communities, it seemed that neither the community members who make these contributions nor the committee members themselves are remunerated for the work they do to care for the water systems. Pump menders and security staff (Kenya only) were the two positions most commonly paid for some or all of their labor. Lack of remuneration may lead to committee member resignation; one committee member in Ghana noted that 'most people lost interest' when the INGO requested volunteers to care for the borehole without any remuneration. In one entirely female committee in Zambia, the women mentioned that all men on the committee left because they were too busy. In Kenya, one committee member noted that

*'[the committee members] do a lot of work and they get nothing in return. I think they should be helped and given some money because they work hard.'*

Previous authors have suggested that demands for unpaid community contributions, especially without respecting communities' agency during decision-making, may place a disproportionate burden on certain community members such as the poor and women (Neumann 2013), wrongly characterize rural communities' time as an infinite and exploitable resource, or communicate to community members that donating time and labor is the only welcome form of participation (Prokopy 2005; Bartram *et al.* 2018).

### **Community participation in decision-making**

Relative to contributing expected time and labor, participation in decision-making is considered a more transformational form of community participation (Prokopy 2005; Bowen *et al.* 2010). In some cases, communities submitted proposals to the INGO or to local government in order to initiate the water supply projects ( $n = 7$ ), which is considered a form of the demand-responsive development approach and could lead to more effective operation and maintenance (Sara & Katz 1998). In Zambia, communities must first build sanitation facilities and raise money before getting assistance with the water supply system. The methods for submitting proposals or building the required sanitation facilities were often not prescribed, allowing communities agency which can lead to an increased sense of water system ownership (Marks *et al.* 2014). The increased level of community participation in the decision to initiate water supply projects in Zambia is in contrast to communities in other countries, where the INGO used a top-down community entry approach of contacting community leaders (usually a chief or headman) directly ( $n = 3$ ) or approaching communities through a child sponsorship program previously established by the INGO ( $n = 3$ ).

Community participation in decision-making during system construction was often limited and did not always include high-impact issues regarding the system's design, implementation, or management structure. As is often seen in the literature, our data suggest community participation at this stage was often oriented toward securing community consent or engaging communities in answering a limited number of predetermined questions, rather than toward giving communities real decision-making power (Prokopy 2005; Albuquerque 2014).

One possibility is that the INGO does not generally allow communities more agency and influence during early stages of rural water projects because of the perception that such decisions require technical expertise. Indeed, evidence suggests that increasing community participation in technical decision-making can lead to worse project outcomes (Khwaja 2004; Marks *et al.* 2014). However, implementers should not use this evidence to exclude community members from decision-making processes but rather as motivation for joint planning and knowledge transfer. In a report on participatory processes for realizing the human right to safe drinking water and sanitation, Special Rapporteur de Albuquerque writes, 'Many decisions viewed as purely technical are in fact value choices, and the public must participate in making them. Experts still have a role to play, but that role is ideally one of facilitator, helping to synthesize and communicate expert knowledge and enabling people to take informed decisions' (Albuquerque 2014).

Post-construction, the responsibility of fostering broad community participation in decision-making extends to include the water committee managing the system. Some water committees include community members in discussions or approving committee decisions, especially in regard to setting tariff rates (see Supplementary Table S2). For example, when asked how water fees are decided, one participant in Kenya replied:

*'[The chairperson and elected committee] sit down and then plan for the activities that they are going to take carry out for the whole year. They say, 'This year we want to do some repairs, what are the expenses?' They sit down, they calculate, ... Then [the chairperson] calls meetings for the registered [community] members. The committees, we sit down and we explain to them, 'Guys this is what we have sat down and discussed. What are your views? Are we going to continue running the project negatively, are we going to improve on this project?' Then they say... 'Okay we cannot. We have to do something.' They discuss, we come to a consensus.'*

Some water committees came to consensus on decisions without input from community members, beyond sometimes the chief or headman. In other communities, however, participants did not discuss established pathways for obtaining broader community participation in committee decision-making. While these communities may also have established pathways that they simply did not share, implementers should not assume the community management paradigm naturally supports

broader community participation and influence in later decisions about the water system. Rather, implementers should intentionally demonstrate empowering community members to engage in decision-making during system planning and construction and consider training water committees on how to continue fostering sustainable community-wide participation in decision-making.

### **Transparency and accountability**

Community members' rights to transparency and accountability, including their rights to information, voicing concerns, and receiving appropriate remedies (Bartram *et al.* 2018), are critical participation pathways. For INGO staff, transparency with the community was important both to avoid community members' suspicions about decision-making processes and to promote system sustainability. An employee in Zambia discussed how asking community members to create maps indicating where boreholes will be drilled prevents later questions about how the location was decided. An employee in Kenya noted that clearly communicating each project design and implementation step, including material procurement and installation, can help communities understand the system and ease the process of system handover. An employee in Zambia also mentioned that it was straightforward for community members to report grievances: if community members believe a headman is not representing community interests, they will bring complaints directly to INGO staff. However, such pathways for reporting public concerns did not appear to be formalized and staff did not indicate the extent to which information and communication with the INGO were equitably accessible to all community members.

According to a few community members, successful water committees have a high degree of transparency and accountability. Several water committees reportedly invite community members to attend some or all of their meetings, though one committee in Kenya noted challenges in getting community members to attend. According to one community member in Kenya, community members are only invited to meetings when there is a particular topic for discussion: *'They only call us if there is something serious, for example if there is water shortage. They will explain to us the causes of the problem and we will discuss together how to solve that problem.'*

Community members often said they knew one or more members of the water committee and could talk to them about their water system if they wanted. They described how information is passed on from water committees to various community members and how community members could directly approach the water committee if they noticed a problem. Respondents did not discuss any formal pathways for communities to request information from or report grievances to water committees, which suggests transparency and accountability may depend on community and committee power dynamics and culture. This silence suggests that formal pathways do not exist. INGOs could consider providing training on or otherwise helping to facilitate pathways for transparency and accountability, such as mechanisms to request information and report grievances. We also suggest INGOs collaborate with local government to create pathways for enhanced transparency and accountability.

Intentionally fostering transparency on the part of implementers and water committees can improve system outcomes. A study of 45 rural water projects in India found that regardless of whether they had a voice in decision-making, households were more likely to pay water tariffs and believe the system will still be functioning for 10 years if they understand how the committee makes decisions, sets the tariff, and spends money (Prokopy 2005). Once information is available to and accessible by community members, community members may be more empowered to voice grievances and hold decision-makers accountable for their actions (Albuquerque 2014). Collaboration between INGOs and government to create a position such as an ombudsperson may help to realize these actions by community members.

### **Gaps in community engagement processes**

We identified three challenges with the INGO's community engagement strategy in the studied communities: collaborative planning; acknowledging communities' diversity and power dynamics; and fostering community participation outside of water committees.

#### **Collaborative planning**

Many of the community engagement activities that emerged from the data originate from the INGO and lack the collaborative element of incorporating input from both the community and other external actors such as local government. Our data indicate that staff generally made community members aware of their expected contributions in terms of time and labor during system construction and establishing a water committee, rather than engaging in collaborative planning. Similarly, training content and timing and official handover ceremonies as the INGO prepared to exit the community appear to be largely driven by the INGO or other external actors. Community input in decision-making was often constrained to one-off

consultation around issues such as system siting rather than allowing communities meaningful ongoing influence and agency. We suggest that fostering more collaborative planning between an INGO and community alone is not the appropriate step forward; INGOs should instead foster collaborative planning between communities and local government. When the INGO inevitably steps back from its role, a strong collaborative relationship between communities and local government is the most appropriate way to ensure ongoing support and resources to the water system and community.

### Community diversity and power dynamics

From a human rights perspective, the motivations for fostering community participation are often as much about promoting equity, empowerment, and democratic governance as improving system outcomes. Implementers must actively consider communities' diversity in their community engagement processes, or they risk further entrenching inequalities (Albuquerque 2014). For example, the published evidence suggests poorest households in a community are less likely to participate in the community management of water supplies and less informed about water committees' activities relative to their higher-income counterparts (Das & Takahashi 2014; Ducrot 2017). Majority ethnic groups, more educated households, and people with higher social status may also participate to a disproportionate degree relative to more marginalized subpopulations (Albuquerque 2014).

We found that the INGO and water committees engage explicitly with gender as a category of difference in their rural water work. However, this acknowledgment in and of itself has not changed the burden of women's unpaid labor, particularly around the daily cleaning of the water system. Indeed, it is possible that a focus on equal representation on committees has increased women's burden of cleaning and community outreach. In contrast, staff did not speak about other categories of difference, such as class, race, ethnicity, or ability, suggesting that staff may not prioritize or recognize equity and inclusion in these categories to the same extent as gender. The finding that staff comments did not mention diversity considerations beyond gender mainstreaming aligns with a common idealized perception of rural communities by external actors as homogenous, which hides existing inequalities and the differences in participation that accompany them (Harvey & Reed 2007; Moriarty *et al.* 2013; Hutchings *et al.* 2015).

Working through agents with power such as local leaders, as was frequently reported by participants in our study, may reinforce existing community power structures and lead to exclusivity. In one community in Zambia, the headman reportedly locks up a community borehole even when women want to draw water and without water committee permission. One headman in Zambia reportedly dissolved a water committee *'because he thought we work more powerful [sic] than him'*, in the words of one prior committee member. To overcome such power imbalances and promote participation, one community in Zambia said that while the headman may be involved in decision-making, in general the water committee can engage the community directly without involving the headman by writing and delivering household letters. Solutions such as this can help ensure participation is more equally available to all community members. In addition, one community in Ghana made diversity an explicit objective. As explained by a focus group translator: *'He is a different tribe and they saw that there is the need to also spread the leadership rules in the community such that not only one side of the family will be controlling everything; so that he was choose[n]...as a leader.'*

As these solutions demonstrate, communities are aware of, and in some cases actively working against, some of the ways that community management can perpetuate and potentially exacerbate inequities in a community (Rusca *et al.* 2015). For implementing organizations, simply acknowledging inequalities is insufficient. Community members with already high levels of local power are usually best placed to take the advantage of or influence the distribution of resources that external organizations such as INGOs bring to a community (Nagoda & Nightingale 2017). Organizations must work in collaboration with the community to ensure equity for all community members, as it pertains to both participation in the process (procedural equity) and access to water (distributional equity) and mitigate elite capture of benefits (social and material) from water system installation and improvements. True engagement with power and inequality will require INGOs to acknowledge the political nature of development activities, which have been historically hidden by rendering access to water as a technical challenge (Li 2007) and to work in new and reflexive ways (for one example see Cunningham *et al.* 2019).

### Fostering community participation outside of water committees

Perhaps most importantly for this paper is the absence of INGO activities fostering community participation outside of the water committees and, at times, local leadership. When asked specifically about community engagement, staff focused on interactions with water committee members or local leaders, suggesting that the participation of these individuals in the



management of the water system equates to community participation. As described above, most references to the participation of the wider community by staff are about mobilizing community labor for system preparation and construction, rather than the full range of community participation as we have defined it. Our data suggest the INGO exclusively or almost exclusively trained water committee members. Staff did not discuss training the wider community, though this was requested by some committee members in interviews and FGDs. One challenge with an exclusionary training approach is that members of the broader community may not feel comfortable engaging in meaningful participation measures such as providing input in decision-making, asking for information, or voicing concerns without a basic level of knowledge about their water system. A second challenge is potential knowledge loss if trained members, particularly younger or more educated members, leave the committee or migrate from the community (Ducrot 2017). While training an entire community may be neither feasible nor a justifiable demand on community members' time, implementing organizations should consider incorporating principles around fostering community participation, public capacity, and democratic governance into their water committee training curriculum.

Challenges in consistently cultivating a range of participation forms in the INGO's community-managed water projects may reflect the view that community participation is inherent within the community management model. As we have highlighted in this paper, there were several ways in which community members participated in these water projects: contributing to construction or management, participating in decision-making, and using their right to information through transparency and accountability. However, these forms of participation are not equal; contributing to construction is transactional rather than transformational. As implementing organizations seek to foster community participation, they should strive to foster transformational participation. Furthermore, Chilvers & Kearnes (2016) highlight the need to move beyond simply increasing inclusion and developing better techniques of participation. They suggest that reflexivity and humility are key to fostering participation. We argue that this means shifting from participation as a desired endpoint, a box to check, to participation as a process which can foster joint decision-making, transparency, accountability, and other aspects of participatory democracy.

## CONCLUSION

In this article, we analyze how an INGO seeks to foster broader community participation in their rural water projects. Overall, we saw evidence of challenges in collaborative planning and acknowledging communities' agency and diversity.

There were evident gaps around making meaningful community participation opportunities available to community members outside of water committees, especially after water systems were constructed. Implementers must transition to community participation efforts that give community members real decision-making power and influence by incorporating community members' priorities and ideas and acknowledging community agency. This process likely requires a shift to flexible, reflexive, and adaptive programming and the incorporation of qualitative and participatory methods into needs assessments. Furthermore, implementers must actively engage with rural communities' diversity and power dynamics through community engagement processes designed to increase both procedural and distributional equity and mitigate elite capture of project benefits. Finally, implementers cannot assume that broader community participation in decision-making and community member capabilities to realize their rights to transparency and accountability will arise naturally because a water system is managed by a subset of community members.

## ACKNOWLEDGEMENTS

The authors thank team members from World Vision US and World Vision International Jordan Smoke, Ashley Labat and Greg Allgood for their valuable guidance of this project, Ben Tidwell for his feedback on this paper, and the WaSH directors of the Ghana, Kenya, and Zambia World Vision country offices, Bansaga Saga, Stephen Maina, Enock Oruko, Sebastian Kunda, and Emmanuel Nyundu for making fieldwork possible. We also thank Julian Oliver and Leah Everist for their role in developing this study and conducting fieldwork and Dr Peggy Bentley, Dr Valerie Flax, and Dr Vidya Venkataraman for their guidance in the creation of study tools. Special thanks are due also to the following groups from each of the three countries: World Vision national and ADP office staff, PCS providers, local government officials, community leaders, and committee and community members for sharing their time and experiences with UNC researchers. This study would not have been possible without their participation. We would also like to thank the interpreters and transcribers in all three countries for their dedicated contribution to this study.

## FUNDING

This project was made possible with support from World Vision, the Wallace Genetic Foundation, the Morehead-Cain Foundation, the American Water Works Association (AWWA), the Jon Curtis Student Enrichment Fund, the UNC Class of 1938 Fellowship, and the Summer Undergraduate Research Fellowship (SURF). Ryan Cronk was supported by a training grant from the National Institute of Environmental Health Sciences (Grant No. T32ES007018).

## DATA AVAILABILITY STATEMENT

Data cannot be made publicly available; readers should contact the corresponding author for details.

## REFERENCES

- Albuquerque, C. d. 2014 The Special Rapporteur on the Human Right to Safe Drinking Water and Sanitation. *United Nations General Assembly: A/69/213*. <https://digitallibrary.un.org/record/778353?ln=en>.
- Bartram, J., Brocklehurst, C., Bradley, D., Muller, M. & Evans, B. 2018 Policy review of the means of implementation targets and indicators for the sustainable development goal for water and sanitation. *Npj Clean Water* 1 (3), 1–5. <https://doi.org/10.1038/s41545-018-0003-0>.
- Behnke, N. L., Klug, T., Cronk, R., Shields, K. F., Lee, K., Kelly, E. R., Allgood, G. & Bartram, J. 2017 Resource mobilization for community-managed rural water systems: evidence from Ghana, Kenya, and Zambia. *Journal of Cleaner Production* 156, 437–444. <https://doi.org/10.1016/j.jclepro.2017.04.016>.
- Bowen, F., Newenham-Kahindi, A. & Herremans, I. 2010 When suits meet roots: the antecedents and consequences of community engagement strategy. *Journal of Business Ethics* 95 (2), 297–318. <https://doi.org/10.1007/s10551-009-0360-1>.
- Chilvers, J. & Kearnes, M. 2016 Science, democracy and emergent publics. In: *Remaking Participation: Science, Environment and Emergent Publics* (Chilvers, J. & Kearnes, M., eds). Routledge, London, pp. 1–27.
- Cooke, B. & Kothari, U. 2001 *Participation: The New Tyranny?* Zed Books, London, New York.
- Cunningham, I., Willetts, J., Winterford, K. & Foster, T. 2019 Participation and power dynamics between international non-governmental organisations and local partners: a rural water case study in Indonesia. *Water Alternatives* 12 (3), 953–974.
- Das, P. & Takahashi, L. 2014 Non-participation of low-income households in community-managed water supply projects in India. *International Development Planning Review* 36 (3), 265–291. <https://doi.org/10.3828/idpr.2014.16>.
- Ducrot, R. 2017 When good practices by water committees are not relevant: sustainability of small water infrastructures in Semi-Arid Mozambique. *Physics and Chemistry of the Earth* 102, 59–69. <https://doi.org/10.1016/j.pce.2016.08.004>.
- Feachem, R. G. 1980 Community participation in appropriate water supply and sanitation technologies: the mythology for the decade. *Proceedings of the Royal Society of London – Biological Sciences* 209 (1174), 15–29. <https://doi.org/10.1098/rspb.1980.0068>.
- Government of Ghana, Ministry of Water Resources Works and Housing 2007 *National Water Policy*. Available from: <https://www.ircwash.org/sites/default/files/Ghana-2007-National.pdf>.
- Government of the Republic of Kenya, Ministry of Environment Water and Natural Resources 2013 *The Development of the National Water Master Plan 2030*.
- Government of the Republic of Zambia, Ministry of Energy and Water Development 2010 *National Water Policy*.
- Harvey, P. A. & Reed, R. A. 2007 Community-managed water supplies in Africa: sustainable or dispensable? *Community Development Journal* 42 (3), 365–378. <https://doi.org/10.1093/cdj/bsl001>.
- Hutchings, P. 2018 Community management or coproduction? The role of state and citizens in rural water service delivery in India. *Water Alternatives* 11 (2), 357–374.
- Hutchings, P., Chan, M. Y., Cuadrado, L., Ezbakhe, F., Mesa, B., Tamekawa, C. & Franceys, R. 2015 A systematic review of success factors in the community management of rural water supplies over the past 30 years. *Water Policy* 17 (10), 963–983. <https://doi.org/10.2166/wp.2015.128>.
- Jiménez, A., LeDeunff, H., Giné, R., Sjödin, J., Cronk, R., Murad, S., Takane, M. & Bartram, J. 2019 The enabling environment for participation in water and sanitation: a conceptual framework. *Water* 11 (2), 308.
- Kayser, G. L., Guo, A. Z., Morgan, C., Oliver, J., Chan, R. & Bowling, M. 2015 *The World Vision Baseline Evaluation of Water, Sanitation, and Hygiene Programs*.
- Khwaja, A. I. 2004 Is increasing community participation always a good thing? *Journal of the European Economic Association* 2 (2–3), 427–436. <https://doi.org/10.1162/154247604323068113>.
- Li, T. M. 2007 *The Will to Improve: Governmentality, Development, and the Practice of Politics*. Duke University Press, Durham, NC.
- Marks, S. J., Onda, K. & Davis, J. 2013 Does sense of ownership matter for rural water system sustainability? Evidence from Kenya. *Journal of Water, Sanitation and Hygiene for Development* 3 (2), 122. <https://doi.org/10.2166/washdev.2013.098>.
- Marks, S. J., Komives, K. & Davis, J. 2014 Community participation and water supply sustainability: evidence from handpump projects in Rural Ghana. *Journal of Planning Education and Research* 1–11. <https://doi.org/10.1177/0739456X14527620>.
- Mercer, C. 2002 NGOs, civil society and democratization: a critical review of the literature. *Progress in Development Studies* 2 (1), 5–22.
- Moriarty, P., Smits, S., Butterworth, J. & Franceys, R. 2013 Trends in rural water supply: towards a service delivery approach. *Water Alternatives* 6 (3), 329–349.

- Nagoda, S. & Nightingale, A. J. 2017 Participation and power in climate change adaptation policies: vulnerability in food security programs in Nepal. *World Development* **100**, 85–93. <https://doi.org/10.1016/j.worlddev.2017.07.022>.
- Narayan, D. 1995 The contribution of people's participation: evidence from 121 rural water supply projects. In: *The World Bank: Environmentally Sustainable Development Occasional Paper Series No. 1*.
- Neumann, P. J. 2013 The gendered burden of development in Nicaragua. *Gender and Society* **27** (6), 799–820. <https://doi.org/10.1177/0891243213499447>.
- Prokopy, L. S. 2005 The relationship between participation and project outcomes: evidence from rural water supply projects in India. *World Development* **33** (11), 1801–1819. <https://doi.org/10.1016/j.worlddev.2005.07.002>.
- Rusca, M., Schwartz, K., Hadzovic, L. & Ahlers, R. 2015 Adapting generic models through bricolage: elite capture of water users associations in peri-urban Lilongwe. *European Journal of Development Research* **27** (5), 777–792. <https://doi.org/10.1057/ejdr.2014.58>.
- Sara, J. & Katz, T. 1998 *Making Rural Water Supply Sustainable: Report on the Impact of Project Rules*. UNDP – World Bank Water and Sanitation Program.
- Schouten, T. & Moriarty, P. 2003 A brief history of community management of rural water supply. In: *Community Water, Community Management: From System to Service in Rural Areas*. No. August 2009: 11–19. <https://doi.org/10.3362/9781780441061>.
- United Nations General Assembly 1992 *Rio Declaration on Environment and Development*. A/CONF.151.
- United Nations General Assembly 2015 *Transforming Our World: The 2030 Agenda for Sustainable Development*. New York, NY, USA.
- Whaley, L. & Cleaver, F. 2017 Can 'functionality' save the community management model of rural water supply? *Water Resources and Rural Development* **9**, 56–66. <https://doi.org/10.1016/j.wrr.2017.04.001>.
- Whaley, L., Macallister, D. J., Bonsor, H., Mwachunga, E., Banda, S., Katusiime, F., Tadesse, Y., Cleaver, F. & Macdonald, A. 2019 Evidence, ideology, and the policy of community management in Africa. *Environmental Research Letters* **14** (8). <https://doi.org/10.1088/1748-9326/ab35be>.

First received 25 May 2021; accepted in revised form 23 August 2021. Available online 7 September 2021