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Citizen participation dilemmas in water governance: An empirical case of Kumasi, Ghana

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ABSTRACT

Citizen participation in decision-making on water-related initiatives offers a valuable pathway to move towards a more equitable and sustainable water delivery, now and into the future. However, given the acknowledged impacts of active citizen participation in the water governance process, there is an increase institutional search for ideal approaches to enhance local inputs in water decisions. To enhance institutional knowledge on this quest, this paper adopts a qualitative exploratory method using 48 interviews and 2 focus group discussions (6 participants in each group) to present an empirical case of Kumasi in Ghana. Findings from the study show that citizens are willing to participate in decision-making on water-related process through radio programs; public meetings; surveys or polls and telephone. It was also realised that Ghana Water Company focuses more on the technical aspect of water delivery than the social aspect which borders on appropriate engagement strategies that involve customers in the decision-making process. The results imply a significant difference regarding feasibility and outcomes for each currently deployed participatory mechanism. The study recommends a change in current institutional and governance arrangements to influence citizen participation strategies at all levels of water service delivery and governance.

1. Introduction

Water is a scarce resource in most cities in developing countries as a result of its physical non-availability and financial incapacity of cities to supply water for the growing populations (WHO/UNICEF, 2019). The scarcity of water in Sub-Saharan Africa is more of an economic rather than physical (Kirono et al., 2016). The condition challenges cities to have a governance approach that ensures that water security in all its forms such as availability, accessibility, and quality to citizens (Kirono et al., 2016; Munasinghe, 2019). Previous studies indicate that cities should always have structures in place that involve citizens in decision-making on water-related issues to sustain water service delivery (Nastar et al., 2018; Richter et al., 2018). The idea of participation requires citizens working together with service providers rather than having a defined chain of command whereby citizens are disregarded in decision-making processes (Abunyewah et al., 2020; Erdiaw-Kwasie and Yamoah, 2019; Okyere, Diko, Abunyewah, & Kita, 2019a). As a result, ominously, the UNESCO has demonstrated that the survival of urbanities lies in their ability to respond to the impacts of a ‘perfect storm’ of its governance system (UNESCO/UNICEF, 2018). Thus, a strong focus has been put on participatory approaches when it comes to water access and governance over the last decade (Ahlers, Schwartz, & Guida, 2013; Alda-Vidal, Kooey, & Rusca, 2018; Fan, Park, & Nan, 2018; Okyere, Diko, Abunyewah, & Kita, 2019a). Given the recent increased in water insecurity issues in many of the main cities in Ghana (Alda-Vidal et al., 2018; Harris & Morinville, 2013), this paper considers it an ideal case for the study.

In line with the Ghana National Water Policy that aims to ensure full participation of all stakeholders in decision-making on water-related issues in realization of the Ghana Water Vision for 2025 [which states “promoting an efficient and effective management system and environmentally sound development of all water resources in Ghana”], the study’s focus is timely and relevant. The paper primarily field-tests how existing citizen participation ‘formulas’ are delivering on effective water governance promises to meet sustainable development imperatives of urbanites in Ghana. In doing this, the paper presents and
discusses the study’s main findings and demonstrates the key findings with regard to citizen participation mechanisms in water governance. The study is based on the premise that literature related to citizen participation has failed to provide adequate empirical data to help explain how the nature and level of citizen participation impacts water-related decision making. This paper, therefore, explores the nature and level of citizen participation in decision-making on water governance process, with a focus on Ghana Water Company in the study area.

Traditionally, the concept of governance refers to the interactions among structures, processes, and traditions that determine how power and responsibilities are exercised, how decisions are taken, and how citizens or other stakeholders have their say (Abunyewah et al., 2020; Cobbinah and Erdiaw-Kwasie, 2018). However, contemporary perspective on the concept has emerged. Many scholars described this new governance as a mode of governing that shows a preference for collaborative approaches among government and non-government actors from the private sector and civil society (Abunyewah et al., 2020; Sithole, 2012). In the water governance field, Sithole (2012) suggests that higher levels of integration of participants’ subjective perspective, emphasis on governance approach that embraces mutual learning, coordination, and an adaptive decision has assumed particular significance.

Global acknowledgement of the need for citizen participation in development is profound (Arnstein, 1969; Erdiaw-Kwasie and Yamoah, 2019; Okyere et al., 2019b), particularly in the governance of water in the developing world’s context (Terry et al., 2015). To ensure citizens involvement, ‘target 6b’ of Sustainable Development Goals (SDG) number 6 aims to ensure availability and the sustainable governance of water for all and looks forward to supporting and strengthening the participation of local communities in water governance (David et al., 2013). Again, the International Decade for the UN-General Assembly adopted Action (2005–2015), also known as the ‘Water for life’, further recognises the full participation of stakeholders, particularly women in water management and supply and related issues (UN-Water, 2015). The United Nations World Water Development Report (2015) indicates that vibrant and robust participation in the governance of water is a critical element to help propel sustainable and inclusive development for all citizens (UNESCO, 2015).

More recently, there is a general recognition of the need for integrated approaches to water governance (Pahl-Wostl, 2019). Given the breadth of the issues and the integral role of many organisations and stakeholders, modes of cooperation and coordination have been widely identified in the research literature as being essential for the improvement in service delivery outcomes (Amexo, 2014; Kekez et al., 2019). However, a majority of research efforts to date focus on water supply challenges that confront rural and urban regions and impressively articulate the effects of the discrepancies about infrastructure and coverage (Jiménez & Pérez-Foguet, 2010; Munasinghe, 2019). Also, research that assesses citizen participation ‘formulas’ in decision-making on water-related issues as a solution to water delivery challenges in urban centres remains scarce in the developing world context (Adams et al., 2019; Chitonge et al., 2020; Cobbinah et al., 2020).

Using Ghana as a case study, this paper seeks to fill in the knowledge gap by evaluating participatory mechanisms adopted in the governance of water service delivery in Kumasi. In doing this, the paper defines the theoretical scope of the article by reviewing relevant citizen participation typologies, collect data on specific citizen participation ‘formulas’ that are currently deployed by governing water institutions in the Kumasi area, presents locals’ perspectives on these deployed ‘formulas’, and consequently analyse the data in line with the theoretical framework adopted for the study. This paper consists of six parts. Section 2 reviews the literature on water governance and citizen participation focusing on developing countries. Section 3 describes the research area and methods. Section 4 presents the study results, whereas Section 5 captures the discussion and implications of the research findings. Section 6 presents the conclusion of the research.

2. Participatory water governance: Perspectives from Arnstein’s ladder of participation

Water governance is not a new concept both in literature and practice. Over the past decades, water governance has played a pivotal role in sustainable development including poverty reduction especially in developing countries (Benson et al., 2020). It has transitioned overtime under the principles of transparency, accountability, decentralization, and participation.

Looking at the debates within the water governance sector, water inequality and insecurity have been identified as transboundary and inter and intra sectoral competition, as well as reliance on a single source or supply network. Thus, it is through dissecting the links between control and access to water and social relations of power that scholars demonstrate the ways that urban waterscapes are never socially, nor ecologically, neutral (Adams et al., 2019; Swyngedouw and Swyngedouw, 2004). Participation has, therefore, emerged as one of the most advocated and used principles of water governance in an attempt to leverage access to water as well as social relations of power, which significantly impact water demand among a given population (Adams et al., 2019; Cobbinah et al., 2020). As a result, various forms of participatory approaches to water governance have sufficed (Akhmouch and Clavreul, 2016; Marginum & Robinson, 2015). With the ambiguity, confusion and large gaps that exist between policy and practice on participatory water governance, several questions have been raised. Critical of these questions is “when do we say water project beneficiaries have participated in decision making and to what extent should government/powerful elite support grassroots members during decision making”. Arnstein’s ladder of participation attempts to provide answers to these questions extensively by conceptualising participation into forms and typology (Arnstein, 1969).

Arnstein (1969) highlights the levels of participation and summarises it into eight rungs on a ladder (see Fig. 1). On the ladder, the movement from one rung to the other corresponds to changes in degrees of citizen engagement and the extent of citizen power in determining a plan. The degree of citizen engagement ranges from non-involvement through tokenism to citizen power. The ladder illustrates participation as a struggle for power and control over resources between project beneficiaries and the powerful class. According to her, higher rungs of participation create an environment which induces social reforms and enables grassroots members to share in the benefits of the affluent society. Lower rungs (manipulation and tokenism) were the commonest in both developed and developing countries in the late 1960s and 1970s, however, in recent times, there has been a strategic shift to shared decision-making concerning water governance at the local level (Rogers and Hall, 2003; Akhmouch et al., 2020). Arnstein’s

![Fig. 1. Arnstein’s Ladder of Participation.](image-url)
work has been and continues to be an important step in water governance literature and practice. For instance, her work has changed the phase of participation in community development including water governance. In the context of water governance, Arnstein’s conceptualisation has helped in the redistribution of power and sharing of information to ensure that individuals and groups in the society actively take part in issues relating to water (Fig. 2).

Nevertheless, it has failed to account for institutional participation and its constraints (Laskey and Nicholls, 2019). Also, the ladder has been criticised on grounds that, in practice, sometimes the goal of citizens for engaging in decision making is not to take control (Collins and Ison, 2006). Choguill in her paper in 1996 indicates that ‘manipulation’ is not always the bottom rung, particularly in a context where there is no government support. In that scenario, she pointed out that citizens resort to self-management which should have been the bottom rung of Arnstein’s framework. Arnstein’s conceptualisation shows that participation is linear indicating policy problems remain constant, however, Bishop and Davis (2002) hold the view that policy problems are unique and require different levels and types of participation. This, therefore, means that participation is a non-linear concept.

3. Citizen participation and water governance: A focus on Ghana

Citizen participation is focused merely on the redistribution of power that enables the have-not citizens, presently excluded from the political and economic processes, to be deliberately included in the future (Arnstein, 1969; Erdiaw-Kwasie et al., 2014; Okyere, Diko, Abunyewah, & Kita, 2019a). In other words, citizen participation is perceived as a strategy by which the have-nots join in determining how information is shared, goals and policies are set, tax resources are allocated, programs are operated, and benefits like contracts and patronage are parcelled out. Given the heated controversy over the concept in the development space (Adams et al., 2019; Wesselink et al., 2011), diverse participation typology of citizen participation has been proposed in the context of urban renewal (Arnstein 1969, Nyseth et al., 2019), anti-poverty programs (Kumar et al., 2019; Zimmermann, 2020), as well as social programs to encourage a more enlightened dialogue (Cornwall, 2008; Theocaris and van Deth, 2018).

Adequate clean water is essential to everyone’s survival. Improvements in water governance and access to water supply and sanitation services are essential to addressing various social and economic inequities (Cobbinah et al., 2015; Cobbinah and Erdiaw-Kwasie, 2018). Luckily, global organizations are committed to addressing the water-quality crisis. The 2030 Agenda for Sustainable Development from the United Nations, for example, tackles water inequality within one of its seventeen priority goals, to ensure availability and sustainable management of water and sanitation for all. This initiative is a continuation of the United Nations’ Millennium Development Goals from the 2000s, which also included goals to reduce the portion of the population that lacked access to infrastructure for quality water and sanitation (WHO/UNICEF, 2019). These goals have resulted in access to improved sources of drinking water across the globe, however, water accessibility risks continue to pose governance challenges. It is officially estimated that three out of ten people do not have access to safe drinking water. The vast majority of those affected are in developing countries - almost half of the people drinking water from unprotected sources live in Sub-Saharan Africa, and the United Nations has identified water use as a priority for international aid (WHO/UNICEF, 2019).

The World Bank’s report on Sub-Saharan Africa characterized the crisis in the region as a “crisis of governance”, and this has ignited unprecedented interest in governance issues across all sectors in Africa (World Bank, 1998). According to the World Bank (2000), a country’s ability to pursue sustainable economic and social wellbeing of its people is depended on the quality of its governance system. A
significant focus has emerged in the literature on the definition of water governance over the past decade. Mancheva (2020), for example, defined water governance as to how decisions that affect water delivery are made, who is involved in making those decisions, and how power is distributed in the service delivery. Elsewhere, Bakker and Morinville (2013) distinct water governance from water management, while acknowledging the two are closely linked. In their review, water governance refers to the decision-making processes stakeholders follow, and how they make decisions; while water management refers to operational approaches we adopt, and the models, principles, and information we use to make decisions. This paper, therefore, observes water governance to include the structures, processes and actors and the dynamic interactions among them that facilitate and influence decisions affecting water delivery services.

In terms of water governance approaches, the Global Water Partnership (GWP) (2002) describes ideal approaches as ones that include the ability to design public policies and institutional frameworks that are socially acceptable and able to mobilize social resources in support of them. To Pahl-Wostl (2019), understanding governance modes is a critical step towards building effective governance approaches and systems to address the complex societal challenge. The author further argued that the development of such dynamic governance approaches and systems requires a combination of purposeful design and self-organization that are essential for dealing with complex water management challenges (Pahl-Wostl, 2019). In related studies on the use and management of water, two broad governance themes are prevalent (De Loe and Bjornlund, 2010; Johannessen et al., 2019; Taylor and Sonnenfeld, 2019). First, a more comprehensive view of the institutional context for water governance that is much more distributed or polycentric across multiple scales and includes informal as well as formal institutional arrangements (Adams et al., 2019; Basson et al., 2018; Johannessen et al., 2019). The other theme explains a mode of planning that strives to be inclusive, collaborative and participatory, and is grounded in discursive decision making (Tlor and Sonnenfeld, 2019). Bakker et al. (2018) expanding these themes described distributed and collaborative governance as ‘shared water governance’. In their study, they explain that shared water governance works best when governments are committed to educate and empower citizens, build trust and help build collective wisdom. In their study, the importance of sustained capacity was noted and further explained that the benefits of shared water governance would only be realized in situations where financial and other resources are guaranteed and sustained over a long term.

The Ghanaian water governance trajectory follows a pattern where the tradition of state-led, and command-and-control regimes are giving way to models based on decentralised decision making and participatory planning. This decentralised approach involves state and non-state actors which includes water users, environmental organisations and citizens (Acheampong et al., 2016; Erdiaw-Kwasie and Acheampong, 2018). It is acknowledged that decentralised approach helps to overcome the multiple complex problems associated with centralised service provision such as delay in decision making in water provision, compromised local knowledge in water decisions, as well as increased transaction cost of services (Acheampong et al., 2016). In Ghana, there are a number of agencies that provide and regulate water under statute law, namely Ghana Water Company Limited, the Community Water and Sanitation Agency, and the Water Resources Commission. The Ministry of Water Resources, Works and Housing (MWRWH) is responsible for formulating water supply policy, overseeing operations of GWCL, sourcing for funding from agencies and coordinating sector investment plans.

Currently, water governance in Ghana is undermined by many challenges which impact on intervention outcomes. These challenges range across issues such as stakeholder participation, pro-poor governance, and democratisation of water services. For example, Harris et al. (2018) shared that there is little understanding of the importance of localisation and contextualization in how water governance institutions evolve, how it impacts on the lives of individual citizens, particularly on the lives of poor people. In their study, institutions are not seen merely as “the rules of the game” but rather, as embedded in practice where they are reproduced, transformed and subverted through interactions and negotiations between actors. Further findings show that approaches adopted by institutions leave no room for less organised, “informal” interests, especially poor people, to participate and gain access to water.

4. Methodology

4.1. Study location

Kumasi Metropolis is one of the thirty (30) districts in Ashanti Region of Ghana. According to the Ghana Statistical Service (2012), Kumasi estimated population in 2010 was 2,035,064, which constituted 36.2% of the region’s population size. Compared to the national and regional population growth rate of 2.5% and 2.7% respectively, the Metropolis is growing at a faster rate of 5.4% indicating the attractiveness of Kumasi in the region. Also, the unique centrality of the city as a traverse point from all parts of the country makes it a special place for many migrants, hence making it a huge commercial centre. This situation has serious implications for water supply in the Metropolis.

The Metropolis is traversed by a major river (Owabi) and streams like Subin, Wiwi, Sisai, Aboabo, and Nauben. These water bodies, especially Owabi, serve as the primary source of drinking water to residents not only within the Metropolis but the region as a whole. Notwithstanding the critical role played by these water bodies in the socio-economic wellbeing of residents, human activities have threatened the extinction of some of them. Building on watercourses by estate developers and urban agricultural practices are some of the human activities that have polluted these water bodies. This may partly explain the frequent occurrence of water shortage in the Metropolis (Harris et al., 2018).

The study area has been categorised into eight (8) districts using the existing operational districts of Ghana Water Company Limited (GWCL) in the Metropolis.

Out of these eight (8) districts, four (4) were purposively selected as shown in Table 1. In sampling these four case districts, the metropolis water reports were examined to gain knowledge about areas where water projects have been initiated and executed by the GWCL in the past years. This constituted the basis for the selection of the four case districts for this study. In each district, a community was again purposively sampled based on the presence of local community committees who are actively involved in water-related issues in the Metropolis (Table 2).

4.2. Study methods

4.2.1. Demographic characteristics of respondents

This section presents the demographic characteristics of the customers of Ghana Water Company Limited (GWCL) in the study area. It discusses the numbers of years of being a customer of GWCL, educational background, age as well as the marital status of the study respondents. Although the researchers intended to use a random sampling

| District Name | Selected Community |
|---------------|--------------------|
| North ‘B’     | Suame              |
| North East    | Pankrono           |
| South         | Atonsu             |
| West I        | Bantama            |
approach to select the population for the study, challenges faced on the field resulted in a convenient sampling technique being used. The challenges included that the study participants who were randomly sampled appeared to be new in these communities and as a result had limited knowledge about the existing water project. Thus, convenient sampling was adopted to help the researchers recruit members of the community who have experiences with the water project under consideration. The respondents interviewed for information in this study were members of the Kumasi metropolis as well as officials of the same institution located in the study area.

There were 46 female respondents, representing 76.7%; and 14 male respondents, representing 23.3%. On average, a total of 43 respondents representing 71.7% were between the ages of 29 – 40 years, while 16 respondents were between 40 and 60 years, representing 26.7%. Study findings indicate that 45% of respondents had attained a middle school education. Besides these results, it is found that about 21.7% had attained secondary or technical school education, about 15% had attained tertiary education, and 11.6% had no formal education. In the whole, it became evident that the educational level of respondents is rated low, the majority (85%) of them had not had higher education beyond secondary or technical school level. Exploring the number of years respondents have been customers of GWCL, 38.3% had been customers of GWCL for 21 years and above, about 31.7% are within 6 – 10 years, and about 21.7% fall within 11 – 20 years.

4.2.2. Data types, sources and collection methods

With regard to this study, at the district/community level, key variables that were adopted in the interview and focus group discussion (FGD) instruments included the following: level of involvement in decision making, governance processes and the effects on citizens’ participation. The study data sources included households (customers) and heads of Ghana Water Company Limited (GWCL).

Interviews and focus group discussions were held to collect primary data from the households (customers) and institutional heads. In this study, triangulation was established by comparing the interview results with feedbacks obtained from the focus group discussions. Given the workload on the field, interviews were carried with the help of field research assistants (FRAs) who were carefully recruited and trained to assist in the household data collection. They were made to understand the research objectives and all the questions to be asked. This was done to ensure that the field research assistants have a common understanding of the terms and phrases as well as to enable them to explain the questions in the local language to the respondents.

During the interview sessions, a semi-structured interview guide was used to collect data from both the residents and the institutional heads in the Kumasi Metropolis at the regional and district level respectively. The interview guide was grouped into the following; participation of the citizenry, mechanisms for citizens’ participation, obstacles to effective citizens’ participation, and benefits of effective citizens’ participation in decision-making on water-related issues in the study area. Also, two FGDs were held. The first FGD was held in Suame community, which involved other participants from Pankrono. On the other hand, the second FGD was held in Atosu, which also involved participants from Bantama. Each group for the FGD was made up of 6 participants. Participants included in the FGDs were selected through recommendations from community leaders and key informants by virtue of their experience and involvements in water projects. While the first FGD session was made up of 3 males and 3 females, the second FGD comprised of 4 males and 2 females. Participants selected for the FGDs were between 24 and 60 years. FGD was used for this study because of its inherent strengths to help explore issues on the approaches for the involvement of the citizens in decision-making on water-related issues, and the challenges that hinder effective citizens’ participation. Discussions on the benefits of citizens’ participation in decision-making on water-related issues in the study area were also done.

Research approval was obtained from the KNUST Human Research Ethics Committee. Here, consent forms were then presented to the Ghana water company as well as to the various respondents involved in the research. The researchers ensured confidentiality and anonymity. Respondents were assured that the information provided in aid of the study would be used for academic purposes. Right to privacy, willingness, voluntary participation, and informed consent was guaranteed to respondents.

4.2.3. Data Processing, presentation and analysis

Data collected from the field were coded and edited immediately research assistants returned from the field each day to ensure that all errors are corrected. First, all interviews were tape-recorded, transcribed verbatim and transferred into the NVivo software which was used for the data analysis. The FGDs in each community were also recorded and transcribed. Qualitative thematic analysis was performed on the gathered primary data, which included organising the data, finding and organising ideas and concepts, building overarching themes in the data, and ensuring reliability and validity in data analysis.

5. Study results

5.1. Mechanisms for citizen participation in decision-making in water governance processes

Mechanisms are instruments used to engage customers in the study area in decision-making in water governance processes. The study revealed a wide range of mechanisms that GWCL uses in making decisions on water governance. A majority of respondents agreed that GWCL uses the following mechanisms in making decisions on participation approaches in water governance issues, radio programs, public meetings, surveys or polls, and telephone.

5.1.1. Citizens participation through media (Radio Programs)

It emerged from the interview that 21.7% of the respondents agreed and preferred GWCL engagement of citizenry through radio programs in the metropolis. Data analysis from the interview revealed GWCL radio programs informed customers about on-going and new projects implemented in the metropolis. Issues usually discussed during GWCL
radio programs included illegal connection by households, tampering with meters, encroachment on intake points and indebtedness of customers. For the purposes of ensuring customers’ engagement, the audience are allowed to participate in discussions through phone-in-calls. The GWCL, therefore, compiles all received suggestions and incorporate them into their daily water management and delivery decisions in the form of public memos and notices. Cases where issues raised require immediate attention, the GWCL deployed its workers to address such rising concerns.

“One day I heard officials of GWCL on Nhyira FM discussing water issues in the metropolis and the way forward. GWCL also announced the impending mass disconnection of customers owing bills. I called into the program to complain about poor customer care in the district and they promised to attend to it. I can say that the issue has been addressed by GWCL.” [C2R18]

Study findings further reveal that radio as a medium and mechanism for stakeholders’ engagement in water supply is fast and has a high coverage concerning the number of people reached. Nonetheless, there are inherent weaknesses in the radio mechanism to engage stakeholders in decision making. For instance, information on the day, time and the host radio station where such programs are organised are not usually communicated on time. This situation yields endless frustrations and disappointments among customers who solely depend on the radio as a means to participate in water-related issues. Consequently, a majority of stakeholders are relegated during decision making on water supply issues that affect them.

“I am always not aware of the day and time for GWCL radio programs. As a result, I do not listen and take part in discussions” [FGD2P8].

“During GWCL radio programs, I mostly call in to express my views on issues under discussion. Unfortunately, the GWCL officials give a maximum of two minutes for callers to express their opinion which is not enough” [C3R37].

5.1.2. Citizens participation through public meetings

A public meeting can be viewed as a forum where individual citizens, local committees and GWCL officials come together to exchange information and opinions on water-related issues. The study showed that 40% of the interview respondents confirmed their preference for participation in water governance through public forums organised by GWCL. The study made it evident that public forum offers a platform for issues such as poor customer care, complaints not attended to by GWCL officials, billing issues, the extension of pipelines in new areas, poor flow of water and construction of overhead tanks, connection and re-connection of households to the water main (the major pipes that transport water to communities in these regions), indebtedness of customers, tampering of meters and development of guidelines on service delivery standard to be discussed. The public meeting provides a platform for customers to meet GWCL officials on a face-to-face basis to channel their grievances concerning service delivery and cost of water supply. It also offers customers the opportunity to ask for clarification of ambiguous trending issues in the news and social media. In addition, the study revealed that continuous face-to-face public engagement enhanced mutual trust-building among stakeholders. More so, the use of public forum also enabled immediate feedback on prevalent issues of water governance within the region. This study revealed that public forum through face-to-face is the best avenue to resolve equivocal situations and solicit increased public participation in water supply programs.

“GWCL public forums present both young and the old, rich and poor the same platform to air every opinion on issues” [FGD1P3].

“I love public forums because it offers customers the opportunity to meet GWCL officials face-to-face to channel their discontentment with service delivery” [C4R30].

Although the face-to-face medium of engagement ranked number one (1st), this participation strategy is still characterised with weaknesses that undermine its outputs. Firstly, the public forum is usually considered an excellent platform for opposing groups to share their discontentment about differing viewpoints. However, it is observed that although such disagreements tend to be personal ones, it usually consumes a lot of the meeting time and result in limited time for the discussion of pressing community issues. Such tensions undermine the expected outcomes of such meetings. Secondly, public forums that are poorly organised and mediated by stakeholders may increase projected time specified to commence and end the meeting. Thus, exceeding the timeframe for public forums usually results in crossing over of agenda boundaries as well as minimal time allotted for discussing issues. Thirdly, during outbreak of epidemics such as COVID-19 and Tuberculosis, participation approach like face-to-face meeting become apparently impossible. A significant proportion of study respondents expressed concerns about how the over dependent on this approach undermine timely updates in service provision as well as effective response to customer requests. Lastly, the study revealed that not all people at the forum are given an equal platform to articulate their views. People selected to talk during public forums are mostly those with higher societal status who usually monopolise discussions.

“Sometimes such public meetings degenerate into arguments among participants. These disagreements sometimes lead to physical fights and uncontrolled misunderstandings…” [C3R42].

“Mostly public forums start 1–2hrs behind the scheduled time and a lot of time is spent discussing certain issues outside the meeting agenda. This increases the scheduled closing time” [C2R11].

“GWCL officials mostly select community leaders and those termed as vocal to take part in discussions. I have raised my hands on several public forums to take part in discussions, but GWCL officials never called me” [C1R8].

5.1.3. Citizens participation through mail surveys or polls

Surveys or polls are utilised by GWCL to uncover citizens’ stance on water-related issues in their communities. The study showed that 13.3% of the interview respondents confirmed that GWCL uses surveys or polls to solicit views on service delivery in the metropolis. Respondents indicated that surveys or polls by GWCL, in theory, is expected to present residents the opportunity to express their opinions and provide feedback to GWCL on service delivery in the metropolis. Similarly, this participation strategy is also anticipated to give locals the chance to evaluate existing water project or programs being implemented. Study findings unveiled that the GWCL survey is a preferred citizen’s engagement option in water governance because the survey questions are simple and less time-consuming. Adding to this, respondents suggested that this participation mechanism creates platforms where residents can provide feedback on the services offered to them by the GWCL. To many respondents, unlike meetings, the nature of the mail surveys adopted by the GWCL breaks the traditional one-way communication by the simple means of offering residents opportunity to share pressing water concerns, encourages suggestion making, as well as serving as checks on the operation of the GWCL.

“In 2011 I had the opportunity to participate in one of GWCL surveys. I found the question much more straightforward and concise. Such surveys provide us with the opportunity to offer feedback and opinions on service delivery in our communities” [C3R36].

“I took part in the GWCL survey in 2011, and I loved the simplicity of the questions that were asked. Also, the whole survey took less than 10 min to finish” [FGD1P5].

Despite the potential benefits that mail survey participation strategy stands to offer, prevailing conditions undermine this approach. To many respondents, although this participation ‘formula’ weighs more in terms of its abilities and potentials to promote citizen involvement in pressing water decisions, its application is faced with challenges within the region. For example, the current poor street and housing address system within the KMA pose an enormous challenge to the effective use of the survey as an engagement mechanism for assessing and evaluating water-related programs. Many respondents indicated that they are
usually sidelined in such surveys given that their areas are hardly located in the radar of the postal service providers. In addition, the low literacy levels, as well as a limited number of people with mailboxes, also impede public participation through a mail survey. Many respondents further indicated that their views during surveys are hardly incorporated into GWCL policies and programs, which discourages them from participating in future exercises.

“I have taken part in two GWCL surveys and by observation, the survey results have not had any impacts on water supply in the metropolis. Because of this, I have decided not to take part in such surveys again” [C1R3].

“At the moment, many of us in the region do not have mailboxes where survey instruments can be sent through…and this makes surveys of less interest to us” [C3R41].

“Our customers’ interest in taking part in the survey has dwindled significantly and that GWCL has resorted to other mechanisms for engaging citizens in water governance” [Manager at North “B”]

5.1.4. Citizens participation through telephone

It emerged from the study that 25% of the respondents prefer to participate in water governance issues through the telephone. According to respondents, through the telephone customers lodge complaints and provide feedback on service delivery and water projects through the telephone. The telephone is the second preferred mechanism for participating in water-related programs because the conversation saves customers travel time. Similarly, the study showed that engaging citizens through telephone dialogue are one of the easiest and effective mechanisms to solicit views of citizens in decision-making on water-related issues. Company representatives further confirmed that they do receive many calls on their telephone lines from the citizens on water-related issues in their districts on a daily basis. According to such officials, most of these calls are to do with service interruptions, broken pipelines, faulty meters, and billing problems.

“I usually use the telephone to reach the GWCL about my concerns. I think it is much easier and also saves me time” [C2R17]

“It is easier to contact the GWCL on the telephone about pressing issues such as bill confirmation, correction of bill mistakes, or even unexpected hazards like broken pipes” [C1R11].

Though the telephone mechanism was the second preferred choice, still it is characterised by some flaws. The study unveiled that the public did not know the telephone contact of GWCL off the head and this inhibits them from directly contacting the company over emergencies and other related complaints.

“Although GWCL has call centres, many of us (customers) are not aware of such existing facilities in the districts. This undermines our interest to fully participate in water-related issues within the region” [GWCLR3].

“Also, the contact number of GWCL is not known by many of the customers and this hinders the timely reporting of water issues that need immediate attention” [GWCLR1]. “I usually call GWCL especially if this community has water supply issues. In some cases, the network becomes very poor for me to articulate the issue succinctly” [C1R9].

5.2. Discussion

Situating the study findings within the Arnstein’s Ladder of Participation, the participation level associated with the radio mechanism depicts the very least of Arnstein’s degree of tokenism – ‘informing’. Study findings indicate that pertinent issues compiled by GWCL are only documented without pragmatic steps towards resolution or any form of citizen’s feedback. The situation, therefore, renders the radio participation ‘formula’ more of a one-way communication mode rather than the dialogic mode that is strongly promoted in participatory models (see Jiménez et al., 2020). In many instances, respondents indicated that although citizens are sometimes informed about these radio sessions, these programs are usually hijacked by the thoughts of the GWCL than proper agreements with residents. Reflections on current participation ‘formula’ depict that there is the need for proper consultation with residents and timely response to residents’ demand. Taking from a practical perspective, the study foresees two key benefits to both parties – (i) Residents will be more willing to participate in any form of consultation activities by the GWCL where local ideas in terms of needs and aspirations can be properly incorporated into water strategies and policies; (ii) GWCL can restore the community trust and support for their actions and operations since residents will feel that their pertinent demands are being prioritised. Aligning this with Arnstein’s typology of participation, ensuring meaningful collaboration will not only help to strengthen ‘media’ as a reliable participation ‘formula’ but also, it can restore some level of satisfaction among residents, which Arnstein described as ‘placation’ in his level of tokenism stage of the participation ladder model (Arnstein, 1969).

With reference to Arnstein Ladder of Participation, study findings revealed that the public forum was tagged as the most preferred strategy due to the sense of partnership among respondents. In many instances, study respondents unveiled how public forum offers a much more reliable platform where residents negotiate with the GWCL to ensuring that decent service delivery is offered to them. Deducing from study findings, it is evident that the public forum ‘formula’ depicts more of a give-and-take style that symbolises what Arnstein defined as ‘partnership’ level of participation in his model. Given the high optimism expressed in this participation strategy, study findings support earlier observations by Akhmouch et al. (2020) and Ricart et al., (2019) that promoting partnership with communities in water governance processes help to enhance the capacity of local people to adapt to change in order to maintain or enhance their wellbeing. Although there are a number of weaknesses associated with this participation strategy, evidence indicates that this participation ‘formula’ requires redistribution of power-relations where citizens feel positive about their input into water-related decisions. This finding is in line with the study of Mwihaki (2018) who observed that more attention on power and role distribution in water governance can help address water issues faced by many indigenous communities. Our study reveals that such transition into a more active participation level via redistribution of power relations can help restore a sense of citizen support and ownership for water delivery decisions. However, study findings show that invitation for public forum by GWCL only offers local residents a mere voice on issue discussion than any substantial influence on major decisions. Others also shared that such public forums are organised by GWCL as a pre-requisite for meeting funding conditions, an issue well documented in Mukhtarov et al. (2018). Such identified participation style by GWCL reflects the ‘camouflage’ form of participation well described in Arnstein’s ladder of participation.

Also, it is evident that respondents held a high level of confidence in the use of the telephone by GWCL towards reaching out to water institutions taking into account time factor. In this sense, the relationship between GWCL and residents who patronise their services is evident since the majority of interactions benefit all parties and not just the service providers. For example, there is raising concerns about the need for GWCL to modify their telephone contacts into a more standardised digit as used by many service institutions like the Ghana Police, Ambulance and Fire service for easy recall during times of emergencies. To this call, GWCL confirmed the relevance of such transition and emphasised that whereas it can help save customers money and time, it stands to offer them timely information from clients during emergencies such as broken pipes in the community. Therefore, this study confirms more of a ‘placation’ style of participation – one that supports a participatory model that places the satisfaction of customer concerns at its core, whether at operational or a managerial level.

For us, the first step towards addressing the challenges of water insecurity and inequity is, therefore, to acknowledge the connection between participation and water governance systems. This is why the WHO/UNICEF (2019) report on this theme is strategically important. Some fundamental flaws and important shortcomings in existing water governance approaches is documented and acknowledged - It
completely ignores the critical link between participation and water governance, as articulated by Pahl-Wostl (2019) and Mancheva (2020). A productive next step is to acknowledge the subtle interconnections between citizen participation and water governance, many of which are indirect or occur by stealth. Recognizing such subtle and indirect interconnections is a promising step towards forging concrete links between citizen participation and water governance, or what Hoogesteger (2017) calls “grassroot water governance”—that is, what true water governance might mean among urbanites in the era of water insecurities.

Finally, water security and equity thinking should be cognizant of the presence of trade-offs, and these should be a central element in water governance research, particularly in developing countries. It is the (often competing or conflicting) interplay between institutional systems and priorities, citizens involvement, community interests and needs, income, and culture, which makes water governance what it is and how it evolves to address water needs - who gets what water, when and how, and who has the right to water and related services, and their benefits. The fact that several recently published high-profile research works (see Kirschke et al., 2019; Romano and Akhmouch, 2019) underplay those trade-offs and instead present the solution as being a search for win-win options is possibly pushing us in the opposite direction of where we need to go. While potential synergies should be looked for and built upon, our analysis suggests that the research agenda on water governance in the developing world needs to focus on better understanding these trade-offs. Focusing on these trade-offs can help both institutions and societies to understand their entitled roles in the water governance process and navigate efficiently by adopting a workable citizen participation ‘formula’ for maximum returns.

6. Conclusion

In this contribution, we have illustrated the real, material link that exists between narratives of citizenship participation and water governance and their concrete effects on water accessibility and availability struggles. Such struggles are largely driven by long-standing and powerful policy narratives about water service delivery that are poorly documented and administered empirically. It is, therefore, critical that citizens get opportunities to engage more effectively in decision-making systems on water delivery. Thus, this paper explores the citizen participation approaches in the governance process, as well as their effectiveness in decision-making on water accessibility and availability in Kumasi Metropolis in Ghana.

The study found that the willingness of citizens to participate in decision-making on the water-related process in the study area is high, but current participation mechanisms by the Ghana Water Company suffer from internal and external challenges. The study revealed that Ghana Water Company is preoccupied with the technical aspect of water delivery (that is the physical infrastructure for water delivery) and neglect the social aspect which borders on appropriate engagement strategies that involve customers in the decision-making process. The study found that citizens primarily engage Ghana Water Company at the district level through the following mechanisms; radio programs; public meetings; surveys or polls and telephone. It emerged from the study that citizens partake more in public forums organised by Ghana Water Company in addressing water-related issues in the metropolis. Study results reveal that the public forum is the most preferred medium of engagement due to its face-to-face nature. The study again found that Ghana Water Company informed citizens about programs and activities through public meetings in the various districts in the study area. However, the study revealed that these public meetings together with all other participation mechanisms by the GWCL are undermined by some internal and external factors such as time constraints, and dominance from influential stakeholders, which negatively impact outcomes of such sessions.

From a policy perspective, the study has provided sufficient ground on the need for customers to be provided with timely information, feedbacks and also addressing service challenges of customers within reasonable timelines. The study also holds the view that good governance needs to be developed to suit local conditions – and hence incremental improvement and flexibility being key in administering water policies. Cases where new reforms are developed to help address existing water accessibility and availability challenges, it is critical to ensure that such policy changes are implemented in a more inclusive and integrative manner. In this way, water policies tend to be workable in practice and likely to generate public and institutional support. The study, therefore, recommends that the Ministry of Water Resources and Sanitation, Ghana Water Company and other relevant agencies like District Assemblies and Non-Governmental Organisations should ensure functional structures at the local level to serve as a liaison between the citizenry and Ghana Water Company.

This study suggests that policy options for promoting grassroot participation can be sustainably effective in strengthening water governance systems and can be used in place of policies that consider residents as passive beneficiaries of the water services. It is important that sustainable options for water security are used to reconcile water governance with citizen participation. As long as underlying principles of citizen participation is adhered to and carefully implemented, strategies for promoting meaningful grassroot participation represent sound policies for addressing water governance challenges.

CRediT authorship contribution statement

Michael Odei Erdiaw-Kwasie: Conceptualization, Data curation, Formal analysis, Investigation, Methodology, Project administration, Software, Supervision, Validation, Visualization, Writing - original draft, Writing - review & editing.
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