11-30-2014

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Human Geographies – Journal of Studies and Research in Human Geography
Vol. 8, No. 2, November 2014 | www.humangeographies.org.ro
ISSN-print: 1843–6587 | ISSN-online: 2067–2284

Perceptions of Nongovernmental Organization (NGO) Staff about Water Privatization in Developing Countries

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Almost a billion people globally lack access to potable water. In the early 1990's, attempts to improve potable water access in the global south included a massive push for water services privatization, often involving the transfer of public water services to private companies. Critics of water privatization claim it rarely improves access to water, and in most cases, unfairly affect poor people. Proponents on the other hand argue that it is necessary for efficient management and capital investment in the water sector. Although development NGOs play an important role in developing country water provision, hardly any studies have sought to understand their perceptions about the potential role of water privatization towards improving access to potable water in developing countries. We interviewed the key staff among 28 international and national NGO staff about water privatization, its opportunities and constraints. Their perceptions were mixed. While most criticized water privatization as increasing water costs to the poor, some noted that privatization is necessary for improving water access through increased capital investment. We present the findings and discuss larger implications for water policies and reforms in developing countries.

Key Words*: Water privatization, NGOs, Development, Water policy, Water and sanitation, Neoliberalization.*

Article Info: Received: *June 20, 2014;* Revised: *November 2, 2014;* Accepted: *November 14, 2014;* Online: *November 30, 2014.*

Introduction

One of the most pressing 21st Century problems is the lack of access to clean and affordable drinking water (Gleick, Wolff, Chalecki, & Reyes, 2002). According to the World Health Organization (WHO), close to billion people worldwide lack

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 DOI:10.5719/hgeo.2014.82.35

access to sufficient, clean, affordable water while about two billion lack adequate improved sanitation facilities (WHO, 2010). Inadequate drinking water treatment, combined with poor human wastewater management, leads to high incidence of waterborne diseases and mortality, especially of children under age 5, throughout the developing world (Ashbolt, 2004; UNICEF, 2010). The situation is worst in rural areas in developing countries where close to 84% of the residents lack access to sufficient clean water and proper sanitation facilities (WHO, 2010).

Climate change and rapid population growth continue to worsen access to potable water through dwindling freshwater supplies coupled with increased demand from multiple sectors–agriculture, industry, and domestic and municipal water use (Ashton, 2002). Proposed solutions to lack of potable water include water recycling and reuse (Pereira, Oweis, & Zairi, 2002), and increased irrigation efficiency (Postel, 1998). Others have suggested neoliberal, market-based, and demand-driven policies such as privatization (Fuest & Haffner, 2007; Lobina & Hall, 2007). This paper focuses on the neoliberal water policies that seeks solutions in the market ideology, and privatizes the supply of potable water at different scales. For the purposes of this paper, we define water privatization as the transfer of part or all of the production, distribution, and management of water services from public to private multinational companies (Gleick *et al.*, 2002). Water privatization proponents argue that developing world public water services are plagued with a wide array of problems, from corruption, inadequate investments and budgets, poor governance, to weak institutions which ultimately lead to inefficient systems. They further posit that these inefficiencies can only be corrected by private sector management. International financial institutions such as the World Bank and International Monetary Fund (IMF) have encouraged growth in private water management through mechanisms such as making privatization a condition for loans or grants to developing countries (Barlow and Clark, 2002). Water privatization policies take different forms depending largely on contract duration and asset ownership. Table 1 presents different water privatization types.

The question of whether water privatization improves water access remains controversial among academic and policy circles. Whiles some maintain that it can help address the global water crisis and advance the achievement of the water-related Millenium Development Goals, others argue that with adequate governmental support, the public sector can manage water better than private multinational companies (Lobina and Hall 2007). With the growing gap between water demand and supply, different forms of water privatization, especially in the developing world, is expected to grow.

While large scale privatization of water that often involves global multinational companies appears to have receded compared to the initial momentum around the early 1990's, other forms of market inspired and demand-based water policies are gaining roots, an example of which is the growth of cost-recovery policies embedded even in community-based water supply approaches. Thus, rather than former traditional approaches where government often supplied water, there is the emergence of market ideologies which asserts that letting communities and public water users pay for water per-bucket is a more sustainable water policy option. This market-based policies are predicated then

Table 1. Different types of water privatization

Type	Ownership	Management	Investment	Duration/ Years
Management contract	Public	Private	Public	2-5
Lease	Public	Private	Public	8-20
Concession	Public	Private	Private	20-30
Divestiture	Public	Private	Private	Fixed/open term

Adapted from (Palaniappan, Gleick, Hunt, & Srinivasan, 2004).

on the fact that infrastructural development for water supply is capital intensive, and often beyond the capacity of developing country governments to supply without a reliable source of capital, a condition that often necessitates privatization. Research on water privatization have largely focused on their failures and successes, as well as what factors influence their outcomes (Spronk, 2007; Wu & Malaluan, 2008; Barrera-Osorio, Olivera, & Ospino, 2009; Mustafa & Reeder, 2009). Most of the studies have concentrated on just a few aspects of water privatization such as operational efficiency, corruption levels, transparency, and impact of privatization on vulnerable populations (Casarin, Delfino, & Delfino, 2007; Loftus & McDonald, 2001). Moreover, scholars who studied different aspects of water privatization used interviews with the public or water users to draw their conclusions (Barrera-Osorio *et al.*, 2009; Clarke et al. 2009; Galiani et al. 2005; Mustafa and Reeder 2009; Spronk, 2007; Trawick 2003) although some have sought perspectives from water industry employees (Lobina and Hall 2007; Nissan et al. 2004), and government officials and stakeholders (Kirkpatrick et al. 2006; Wu and Malaluan 2008). Their findings have been mixed, underscoring the complex nature of private sector involvement in potable water delivery.

Water privatization benefits

A number of researchers studying water privatization have found successful cases. For instance, one study of France, England and Wales found that privatization led to increased water treatment and investment in distribution infrastructure (Lobina & Hall, 2007; Saal & Parker, 2001). For Sub-Saharan Africa, some studies found that water privatization led to improvements in financial management (Bayliss, 2003). McKenzie and Mookherjee (2003) noted that water privatization benefits often outweigh increased water costs, which is often the central reason behind water privatization criticisms. Other researchers found that privatization increased water access in urban Colombia and other parts of Latin America (Barrera-Osorio, *et al.*, 2009; Clarke, Kosec, & Wallsten, 2009) also revealed from their study in Argentina that water privatization can reduce child-related mortality from waterborne diseases through improvements in water quality.

Water privatization critiques

In spite of the benefits associated with privatization of water, mostly in the area of increased capital investment by private companies, other studies have

uncovered some problems. Some scholars are of the view that privatization is not a good policy choice for improving access to water in rural (Barrera-Osorio, *et al.*, 2009). The reason is that private multinational companies often limit water delivery to wealthy neighborhoods in urban areas because rural residents are usually poor and unable to afford the cost of water. Thus privatization is criticized for increasing the cost of water beyond what poor people can usually afford, an argument that has remained central to the debates on human right to water (Bakker, 2007; Casarin, *et al.*, 2007; Mustafa & Reeder, 2009).

In Bolivia, often cited as an iconic case of water privatization failure, market-based water policies led to declines in water quality, increased pediatric diarrhea, and a 'water war' that was spurred by sudden increases in cost of water by a private company (Tornheim, Morland, Landrigan, & Cifuentes, 2009). Other examples of failures include cases in Britain where privatization failed to improve drinking water quality although capital investment increased (Galiani, Gertler, & Schargrodsky, 2005). One major critique of water privatization is that it often leads to unfair distribution of benefits to middle and upper class neighborhoods while lower class, poor neighborhoods are left out (Spronk, 2007). In some instances, neoliberal water privatization has led to unemployment in the public sector as private companies typically come with their top-level employees and lay off public workers (Shanker & Rodman, 1996).

Nongovernmental organizations and water, sanitation, and health (WASH) provision

International and national nongovernmental organizations (NGOs) play an important role in WASH provision, particularly in developing countries. Common WASH NGO projects include well and bore hole construction and urban slum water provision (Bradshaw & Schafer, 2000; Cross & Morel, 2005; Mohan, 2003; Mwendera, 2006). NGOs also frequently conduct hygiene and sanitation outreach campaigns (Metwally, Saad, Ibrahim, Emam, & El-Etreby, 2007; Mukhtar, Indabawa, & Imam, 2010). International and national NGOs partner on water and sanitation service improvement projects with local NGOs while sometimes also providing financing of projects through their donors (Hanchett, Akhter, & Khan, 2003). Many NGOs have opposed water privatization. For example, in 2007 more than 138 NGOs joined forces to protest World Bank policies encouraging water privatization (TNI 2007) . A Bolivian NGO, La Coordinadora, mobilized citizens to fight water privatization because it increased water rates for the poor (Olivera, 2004). Similarly, Ghanaian NGOs formed the Ghana National Coalition against the Privatization of Water, and Integrated Social Development Center to oppose privatization in their country (McDonald & Ruiters, 2005).

Although the critical role played by NGOs in developing country water supply cannot be overemphasized, hardly any empirical study has sought to understand the perceptions of water and sanitation-based NGOs on water privatization. Even what is less well understood is whether or not their views on privatization might influence their water-related project decisions. This study attempted to address this scholarly gap by examining how NGO staff in the water and sanitation sector view water privatization as a policy choice, and whether or not their views influence their water project decision making in

developing countries. Given the important role played by NGOs, it is important to understand their views on water services privatization, and whether or not the views they express tend to influence their choice of countries, regions, and communities for water projects. The next section outlines the methods employed for our study.

Methods

The study employed a qualitative methods approach mainly through the use of telephone interviews. Prior to the phone interviews, the study was approved by the Michigan Technological University's Institutional Review Board for the Protection of Human Subjects. We conducted exploratory research using semi-structured telephone interviews because this is a new area of research. Interviewees were selected from a list of 79 WASH NGOs identified as working at national and international levels. We found them using search engines like google, news articles, Duke University's online NGO database, and telephone calls to foreign country consulate offices in the United States. NGOs were categorized as "international" if they had a US office and WASH activities in multiple developing countries and as "national" if their WASH activities were restricted to just one country. We chose to interview national NGO staff only if their organization was based in a country with at least one attempt at water privatization in order to ensure that they were familiar with the concept, and expressed views based on experience. Interviewees were all high level staff likely to be knowledgeable about water privatization, such as directors, project officers, public relations officers, field coordinators, program managers, and executive directors. We conducted five pilot interviews to pretest the questions, and based on actual responses, edited the questions into a final set of 15 questions used for all subsequent interviews (See Table 2). We conducted 28 phone interviews with WASH NGO staff from 28 different organizations. Fifteen were from international and 13 from national NGOs. The interviews covered topics ranging from WASH activities, challenges and constraints to WASH activities, donor influence on projects, evaluation of water projects, perceptions of water privatization, and decision making processes.

A typical interview lasted between 30-60 minutes on the phone. The interviews were audio recorded and fully transcribed into text for analysis. After transcription, each full interview transcripts was labeled and sorted based on the interview questions. All interviewee responses to a particular question were grouped together in one file for ease of analysis. Once responses were grouped under individual interview questions, we systematically searched for and grouped similar themes and common patterns. For example, to analyze responses to the question "Does your organization prefer to do water projects in a publicly owned, privately owned, or a public private partnership system?", we coded the responses into four patterns A: We prefer a public system, B: We prefer a private system, and C: We prefer a public-private partnerships, or D: We do not prefer any particular type of ownership. Subsequently, the patterns and themes were grouped and sorted into separate files, each covering a particular concept for analysis. Due to the limited number of our sample, we did

not employ a computer assisted qualitative analysis. This did not in any way influence our detection of patterns nor did it create any form of bias. The subsequent section outlines the results of our analysis, interpretations, conclusions, and lessons and policy implications.

Results

This section summarizes the key findings from the data analysis. In all cases, patterns are presented with the number and percentage of interviewees whose responses fit the pattern. There are minor deviations in the total number of people responding to some questions because some interviewees gave multiple answers that fit more than one category while others occasionally did not answer a particular question or declined to answer.

Water privatization perceptions

Our results reveal mixed perceptions of water privatization among the interviewees. The perceptions are summarized in Table 3. Eight (29%) interviewees held the view that water privatization can be positive and play an important role in increasing water access in developing counties. Their most common justification offered was the need for increased private water sector investment due to inadequate public sector budgets. One of them expressed this perception as follows:

> *I don't think water privatization is bad. The big water companies play an important role in water provision. The mission of the anti-corporate and anti-privatization people is not to get water to people. They are just anti-corporate organizations.* (Interview 8)

The preceding excerpt from the phone interview demonstrates that while water privatization may have its demerits, if does offer an avenue for increased investment in water infrastructure, a problem that plagues many water sectors in developing countries in particular. The response show that some water-related NGOs are in fact opposed to what they characterize as an "anti-privatization" movement where mostly activists and other NGOs often criticize the role of the private sector without offering alternative models of water governance besides management by the state. However, thirteen (46%) interviewees stated that water privatization is ineffective and never improves access to potable water. Their primary rationale was that it is risky and many times lead to increased water charges unaffordable to poor communities. For example, in support of this opinion, one of the interviewees said:

> *Well, I definitely think that it is a bad thing. Particularly, it is bad for the customers because in most situations their water rates increase and transparency disappears. There is no way to really hold private companies accountable. It is also bad for the utility workers as well. People who have municipal jobs before don't get hired when private companies come in. I think it is such a bad deal.* (Interview 7)

Table 2. Interview questions

Questions
1. What is your position in this NGO / what kind of work do you do in this NGO?
2. How long have you worked in this field? Have you been affiliated to other NGOs?
3. What are the main development issues that this NGO is concerned with?
4. What factors does your NGO consider in deciding which countries/regions/areas to undertake water projects/What you consider before investing in water projects?
5. How much influence/control do your donors have on your decision making?
6. What are some of the challenges you have faced in the implementation of water projects?
7. If you were to assess a water project and judge it as a success or failure, what would be your criteria? What indicators will you use for that assessment?
8. Can you share your experiences on how local communities respond to your projects?
9. In your opinion what constitutes water privatization
10. What is your general opinion of water privatization? Has it been helpful or not? Why?
11. Have you been involved in water projects in an area where water privatization has occurred? What has shaped your views on water privatization?
12. Do you think public private partnerships can improve water access?
13. Would your NGO prefer to do water projects in a publicly owned, privately owned, or a public private partnership water system? Why?
14. Do you think privatization can help improve water access in developing countries? Why?
15. Based on your experiences in water projects, what do you think are some of the reasons why water privatization may fail to improve water access? Or help improve water access?

The preceding notion held by an NGO staff exemplifies what has often been the basis for critiquing the privatization of water supplies in the developing world—exploitation by private multinational companies whose main interests are to maximize profits rather than genuinely improve access to potable water within their designated contract areas. While our discussion section will explore possible explanations for this perceived opposition to the idea of privatizing water supplies in developing countries, common reasons cited within both academic and policy domains revolve mostly around the resultant increased in cost of water, and lack of transparency and accountability on the part of private multinational companies.

Seven (25%) interviewees had mixed perceptions of water privatization. Some explained that whether water is publicly or privately controlled is not as important as making sure that people get sufficient access to clean and affordable water. In the quote below, one expressed such mixed beliefs:

> *Well, my philosophy personally about water privatization is that I really don't care how people get water. If they get water that is good quality, and it is a sustainable system that is locally owned, then I am for it. It does not matter how you score your points in a game, but it matters how many you score and win the game. Let me give you a good example. In Cochabamba, and I am sure you have read about that, before the problem with privatization down there, the Cochabamba people did not have safe water. During the privatization, the people still did not have safe water.*

Table 3. Interviewee perceptions of water privatization.

Perception	Response n (%)
Water privatization is bad.	13 (46)
Water privatization is good.	8 (29)
Water privatization is neither good nor bad.	7 (25)
Total	28 (100)

> *After the privatization problem, the people still did not have safe water. That is a problem.* (Interview 3)

Mixed beliefs and perceptions about the role of water privatization is grounded in the idea that private water management by multinational companies are without merits, nor are public water management models without demerits. On one hand, privatizing water may increase investment in the water sector at a cost that inevitably implies increased cost of water to offset the capital investment.

On the other hand, the mixed perceptions also demonstrate a divide in the support of neoliberal market-based water privatization policies. Our study also sought to move beyond only understanding perceptions of water privatization to exploring the reasons and motivations that underscore such perceptions among non-governmental organizations. In the next section, we present results on the reasons often associated with water privatization failures as explained by our interviewees.

Perceptions of problems associated with water privatization

Our interviewees were asked about what they thought were the causes of water privatization problems and failures. We found different reasons why some of them were opposed to water privatization. Table 4 summarizes the various criticisms of water privatization among our interviewees. Once again, cost of water emerged as the central reason why privatization may fail to achieve its intended goals along with the lack of transparency commonly associated with private multinational water companies.

Seventeen (61%) said the primary problem with water privatization is that it leads to high and unaffordable water charges. Seven (25%) said that most water privatization efforts lack transparency and public involvement. For example, one interviewee said:

> *It fails because people cannot afford water. That is the bottom line of water privatization failure. Most developing countries don't have a middle class and certainly in the rural areas, there is no middle class. These people cannot afford the high cost of [privatized] water.* (Interview 4)

Water privatization and NGO decision making

Our next set of questions sought to understand whether or not water privatization perceptions had the tendency to influence NGO decision making about

Table 4: Water privatization criticisms voiced by interviewees.

Type of problem	Response n (%)
High water charges	17 (61)
Lack of transparency and public involvement	7 (25)
The IMF and World Bank hegemony	2 (7)
Government failure to monitor private water projects	2 (7)
Total	28 (100)

Table 5: Water privatization and NGO decision making

Decision	Response n (%)
I do not factor it into my decisions.	16 (57)
I prefer to work with a publicly owned system.	9 (32)
I prefer to work with a public private partnership.	2 (7)
I will not invest in either private or public systems.	1(4)
Total	28 (100)

water supply projects in developing countries. To explore this question, we first asked interviewees their preferences for public, private, or public-private partnership water management. We then asked whether the presence of one type of water supply governance model versus other models affected their water project decisions. Our goal for this question was to understand if perceptions of water privatization had any influence on the water project decision making of their organizations. While it remains important to understand what NGOs within the water sector think about private sector involvement in water services delivery, it is equally critical to understand whether or not there are lessons to be learned about whether or not their perceptions have tendencies to shift them towards particular types of water governance models along the public private continuum.

Nine (32%) interviewees said that they preferred in areas with purely public water systems (See Table 5 above). They believed that there was increased risk associated with privatization, which in many instances severely compromise sustainable access to water by poor and vulnerable communities in developing countries. For example, one expressed this idea as:

> *[We prefer] public, of course because a lot of people will benefit from it compared to the private. Most of our work is community based so we prefer a public system. The thing is that not everybody can afford to pay so when it is community based, then those who can afford will help those who cannot afford. It is better than private.* (Interview 1)

On the contrary, sixteen (57%) responded that they had no preferences for one management system over another. They also said that whether a local system was publicly or privately owned did not influence their NGO's decision making. Instead, they said the factors affecting project location decisions were poverty levels of the area, NGO office locations, level of need for potable water access, and donor preferences for investment in particular areas. In support of this claim, one interviewee mentioned:

> *It does not come into our decision making at all. You know NGO is 'non-governmental organization' so we work with people that are not in the government in the developing world. As much as possible, we usually avoid working with government officials as much as possible. We have to of course adhere to governmental rules and regulations and we do that but we try to always have minimum interaction with the government.* (Interview 4)

Discussion

This study explored the perceptions of NGOs about privatization of water supplies, and whether or not their perceptions impact their water project decision making. Our objective was neither to critique water privatization reforms nor present public water systems as a panacea. Rather, based on our interviews, we sought to broadly understand the perceptions of NGO staff about neoliberal market-based water privatization as one avenue for improving access to potable water in developing countries. Our results demonstrate mixed perceptions of water privatization among the interviewed NGO staff. Most of them were of the opinion that water privatization is an ineffective way to improve potable water access given that the disadvantages of it outnumber the opportunities and advantages it offer for developing countries.

The most commonly offered rationale was that water privatization leads to unaffordable water charges in many poor and middle class households. This is consistent with prior findings from other studies that water privatization leads to high water charges and negatively impacts on poor communities (Trawick, 2003; Mustafa and Reeder, 2009). Another major concern shared by our interviewees was the fact that private companies often only focus on urban areas. This, they cited, could be due to the fact that rural areas are commonly poor areas with lower class citizens who can hardly afford high water prices. This further buttresses claims from recent studies by Spronk (2007) and Barrera-Osorio, et al. (2009) that privatization of water benefits only middle and upper class citizens. These authors suggest that private companies deliberately sideline rural and low income communities and overly focus on urban areas with more wealthy citizens because the latter are in better positions to pay, therefore helping contribute to the operations of private water companies.

There is also evidence from some empirical studies that water privatization leads to increased investment in the water sector (Bakker 2007; Dumke 2005). We found that some of our interviewees shared this opinion, underscoring that water privatization is needed to increase capital investment and efficient financial management in the water sector. In spite of the disadvantages that are associated with privatization, some researchers have concluded that it improves water access especially in urban areas (Barrera-Osorio, et al., 2009; Clarke, Kosec, & Wallsten, 2009). Our interviewees who favored water privatization on the premise of increased investment believed that increased investment is a necessary precondition for improving access to potable water in developing countries.

The majority of our interviewees said that the presence of privatized water systems did not tend to affect their organization's water project decision making.

This finding was particularly surprising since at the outset of the study, we hypothesized that most WASH based NGOs would be opposed to water privatization, and will prefer to do water projects in areas with publicly-owned water systems rather than areas where forms of privatization contracts involving multinational companies has taken place. Our analysis of the interview transcripts revealed that although most of the NGOs were opposed to water privatization, they do not think it will shift their activities away from private to publicly owned water management systems. This may be due to the fact that most of the NGOs see themselves as partners and important actors who compliment government efforts to ensure sustainable water delivery.

Our results are consistent with the divided nature of the global water privatization debate grounded in the merits and demerits of private versus public water management on grounds of efficiency and human right to water. This divide in ideologies may in fact be due to privatization's successes and failures. For example, as Prasad (2006) will argue, privatization's results are not fixed, rather, successes and failures are contingent on several conditions and circumstances that are different in different contexts. On one hand, there is a critical need for increased financial investment in the water sector of developing countries. On another hand, increasing this investment through privatization can make water charges unaffordable for poor households. Interviewees' arguments in support of water privatization were based on the urgency of water need as well as the need for more capital investment in the water sector.

Conclusion

The global water crisis has many causes. With over one billion people lacking access to clean water and over two billion lacking improved sanitation facilities, coupled with climate change, population growth, and pollution which threaten both freshwater quality and quantity, pragmatic solutions are crucial. Privatization remains one possible solution. However, results from qualitative evaluations of interviews suggest that within our non-representative sample of interviewed NGO staff, water privatization seems to remain under debate among NGO staff who work on a daily basis towards water and sanitation delivery in developing countries. Our findings also suggest that the reservations and criticisms NGO staffs have about water privatization do not influence their water project decision making choices. High cost of water charges that result from water privatization stands out as the most common reason why some NGO staff are opposed to the idea of water privatization.

While this study focused on NGOs across the globe and the perceptions of their officials on water privatization, it would be interesting to narrow the scope to countries with widespread privatization of water such as Bolivia, the Philippines, or South Africa to understand how private sector involvement impact the activities of local NGOs. Another avenue for future study is the emerging small-scale water privatization. Water privatization researchers have largely focused on the activities of large multinational companies, for example Suez, Vivendi, and Bechtel Corporation. However, small scale local privatization is rapidly emerging in developing economies as an avenue for water supply in

urban and peri-urban areas. This is an important aspect of privatization that was not captured in the scope of our study. It is equally important to understand small scale water privatization activities in relation to large scale forms by multinational companies.

The results of this study are based on staff from 28 development NGOs. The results are not representative of all NGOs in the water sector. A related study with a larger sample of staff from selected development NGOs will be more generalizable. For example, our study generalized the idea of water privatization without overly distinguishing between the different typologies. Thus, although the findings are not exhaustive, it sheds light on broad water governance issues and debates, and set the stage for understanding the perceptions of important stakeholders in the water sector about different governance models and how their outcomes can either enhance or slow access to potable water for impoverished communities. Finally, a major limitation of our study stems from the fact that we did not distinguish between the diverse typologies of water privatization. While we are well aware of the different levels of private sector involvement, from subtle forms such as management contracts to more intensive types in the form of concessions, our interviews did not narrow privatization to one particular type. While the views expressed by interviewees focused generally on water privatization, we do acknowledge that characterizing all forms of privatization as one, in spite of the differences that often exist both in terms of capital investment and duration of contracts, may have masked some of the nuances in perspectives that would have emerged from our interviews.

Policy implications

Water is central to development. In less developed countries, issues of water and its connections with poverty and development continue to draw attention. Growing populations continue to widen the gap between water demand and supply. The problem is multidimensional. On one hand, freshwater resources are deteriorating under increasing pollution from different sources. This increases the cost of water treatment while also reducing available quantities of freshwater for sustainable supply. Sub-Saharan Africa and Asia are urbanizing at a very fast pace causing the emergence of slums and informal settlements. They regions also have the worst water access scenarios. This calls for massive investments in the water sector.

The problem is both an issue of scarcity and allocation, and undoubtedly embedded in governance, institutions, and politics. Most developing countries can boast of abundant fresh water resources. However, water supply in a treated form is still not adequate. Although historically, scholars and policy makers have tended to emphasize solutions from the viewpoint of appropriate technologies and effective management of existing freshwater resources, the paradigm has shifted towards understanding institutions and governance, and how they influence access to potable water. There is the need for a strong political will to address the problem. While privatization offers one important avenue to help address the problem of drinking water inaccessibility, issues of lack of transparency and contractual accountability on the part of private companies remain important concerns. Furthermore, the often high cost of water as a result of

privatization has affected the acceptance of private sector roles among many stakeholders as our study shows. The preceding discussion buttresses our claim that governance is central to addressing lack of water access especially in developing countries more so than technological innovation which will still fail without appropriate institutions and governance structures.

One important question that emerges from our study is: who ensures in the event of privatization that citizens are not treated only customers for the purposes of profit? It is important for governments to ensure that low income communities equally benefit from private company operations. If private companies operate solely on the principles of cost recovery, government can intervene with subsidies for low income communities who may not be able to afford water at the same price as middle and upper class communities.

As the statistics on water access get worse owing to population growth and resultant urbanization, government are under increasing pressure from multinational companies and donors to resort to neoliberal and market based policies. However, privatization of water without adequate oversight responsibility from government is inadequate, nor is public water utilities management also devoid of challenges. The solution in part lies in appropriate governance and close cooperation between governments and private companies in cases of privatization.

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