A Bucket of Water and the Struggle for Daily Bread: Women, Equity, and Participatory Water Management in Brazil

ABSTRACT: Public participation in resource management is, for excellent theoretical reasons, regarded as a central pillar of sustainable development. Water management is perhaps the foremost example, and women globally are prime users and protectors of water. Yet the effectiveness of participatory water management practices for society, for the women involved and for local environments, from a feminist political-economy standpoint, is seldom examined. This paper establishes a methodological framework for such an inquiry, drawing on ecofeminist theory and the Brazilian concept of 'feminist transformative leadership' to consider gender, race, and class aspects of participatory water management in Brazil.

KEY WORDS

Water management, Public participation, Gender inequality, Brazil, Resource management, Women and environment, Civil society, Ecofeminism, Feminist transformative leadership, Feminist politics, Democratization, Water policy, Participatory governance, Equity, Race, Class, Poverty

Lata d'água	***Bucket of Water***
(por Luís Antonio e J. Júnior)	*(by Luís Antonio and J. Júnior)*
Lata d'água na cabeça	*Bucket of water on her head*
Lá vai Maria, lá vai Maria	*There goes Maria, there goes Maria*
Sobe o morro e não se cansa	*Goes up the hill* and does not get tired,*
Pela mão leva a criança	*By the hand she takes her child*
Lá vai Maria	*There goes Maria*
Maria lava a roupa lá no alto	*Maria washes clothes high up there*
Lutando pelo pão de cada dia	*Struggling for her daily bread*
Sonhando com a vida do asfalto	*Dreaming about life on the asphalt***
Que acaba onde o morro principia	*That ends where the hill begins.*

* hill = slum on the hill, favela

** asphalt = the city (with paved streets)

This samba can be heard online at: http://www.revistadosamba.com.br/LatadAgua.WM

Introduction: a bucket of water

The samba tune above has been very popular in Brazil ever since it was released in 1952; it has become part of the national collective memory of great Carnival sambas. It depicts the image of the laundrywoman Maria, carrying water in a big can or bucket on her head up the hill to the favela where she lives, holding hands with her child. The lyrics imply that the water she carries up the hill is to be used to wash clothes for the people from the paved city (the asphalt), because this is the way she earns a living. It is also clear that she does not have access to water on the hill for cooking, washing, bathing and drinking; she has to carry it up there. The sight of women carrying water up the hills was common in the 1950s and still is evident today in many parts of the North and Northeast of Brazil, where access to water is particularly limited.

Inspired by ecofeminist philosophy (Warren, 2000) and the Brazilian concept of "feminist transformative leadership" (Viezzer, 2001) this paper aims to **call attention to and problematize the under-participation of women, and especially poor women of colour, in the new national system of water management in Brazil**. Now as in the past and as in many other countries, in Brazil water-related problems most seriously affect poor people (who are mainly women and men of colour). Water problems take several forms: first, people living in informal and irregular settlements often still do not have access to clean water and sewer services. Second, floods and rainfall-induced landslides can cause residents of informal settlements to lose their houses and belongings (and sometimes their lives). Third, poor people are those whose health is most affected by pollution in rivers and streams, since they live near and must use this water. As gendered work

and family responsibilities make poor women the main cleaners and caregivers in families and in society, poor women are the ones most affected and concerned by these interrelated water issues.

The following sections of this paper consider the potential of participatory water management to address poor women's water needs, using the situation in Brazil as an example. Section two summarizes our theoretical framework and overviews the stylized facts regarding water-related issues in Brazil. Section three provides details on Brazil's water management framework: its history and the results so far, especially regarding women's involvement. Many other countries are implementing similar participatory water management schemes, so our analysis may be relevant in other places as well.

Section four, in concluding the paper, returns to the challenges of improving poor women's access to clean water and reducing water-related risks. We note several hopeful trends and make a few policy-related suggestions.

Water as a problem

Brazil is in the privileged position of having the world's largest resources of renewable fresh water, equivalent to 12% of the fresh water on the planet's surface (World Water Report 2003)[1]. In early 2006, the country approved a National Water Resources Plan -- the first one in Latin America and one of the first in the world -- which 'outlines programs over the next ten years in order to secure water for millions of Brazilians while safeguarding some of the world's richest aquatic life' (WWF 2006:1). According to data from the 2000 Brazilian Census[2], 78 per cent of Brazil's people had

access to water services in 2000, although there were enormous discrepancies between the South and Southeast and the North and Northeast areas of the country. In the city of São Paulo, for instance, 98 per cent of houses had access to treated water in 2000, while in the city of Redenção in the northern state of Pará the figure was only 7 per cent (IBGE,2006)

So despite Brazil's abundant water, Marias continue to walk up the hill with their buckets, holding a child by the hand -- and probably thinking not just about laundry and daily bread, but also about how to provide for this child, keep her in school and care for her health. Many of these Marias are thinking alone, since almost one-third of Brazilian households are headed by women -- a number that has been growing (Melo 2005:18).

It is interesting that, in Brazil, homes headed by women have better access to clean water (85.9 per cent) than homes headed by men (75.3 per cent) (IBGE 2006:3). The same is true for sanitation services and public waste collection, where 82 per cent of homes headed by women have direct waste collection, whereas for households headed by men the figure is 72 per cent. The Brazilian statistical agency IBGE concludes that 'a possible explanation for why households headed by women have better sanitation conditions is the fact that women are more careful in relation to aspects that relate to conditions of health and hygiene of the family'(IBGE 2006:3).

Almost one-third of all Brazilian working women are domestic workers (Melo 2005), for whom water is an important tool, input and determinant of the working conditions. Despite having higher average levels of education than men, just as in other countries, women in Brazil receive only 70 per cent of men's salaries. It is not surprising that homes headed by women are poorer than the ones

headed by men. The situation is worse if crossed with race. In 2000, Black or Brown[3] women in Brazil received 51 per cent of the average income of White women. The 'Maria' of today is likely a Black woman who continues to struggle with water, both at work and at home. Poverty has a gender and a race in Brazil; being a woman and being Black increases one's probability of being poor and experiencing problems with water and sanitation.

Unfortunately, access to clean water is not the only water-related problem for poor women (and men). In the biggest cities of the Southeast of Brazil, where new informal settlements are constantly growing, slum houses are often built too close to streams and rivers or high on slopes and hillsides – on land which is undesirable and risky. Floods and landslides caused by rain, environmental degradation, and inadequate water infrastructure are regular events. Every year, mostly in summer when the rains are heaviest, the newspapers are full of images of poor people who have lost their houses, families, belongings. The water from heavy rains often mixes with water from open sewers or polluted rivers, bringing additional health problems and cleanup work.

The starting point for our analysis of these issues is the ecofeminist principle that 'there are important interconnections among the unjustified dominations of women, other human Others, and non-human nature; … understanding the nature of these interconnections is important to an adequate understanding of and solutions to these unjustified dominations' (Warren, 2000:43). When there is a flood in a big favela in São Paulo, a number of issues are connected: climate change, structural adjustment, global financial inequities and debt, inadequate and technocratic urban infrastructure, the fact that Maria is underpaid and lives in poverty with her children, unplanned urbanization, erosion of hillsides, channelization and enclosure of rivers, the fact that Maria's

problems are not a public priority but that society's water problems have been externalized onto her, etc.)

In order to deal with such complex and interlinked issues, we recognize the need for 'feminist transformative leadership' as described by Brazilian ecofeminist leader Moema Viezzer. 'First of all, (this) means much more than putting women in positions of power, even if it is important to have women as promoters of change in power positions. It is transformative in the sense that it challenges the existing structures of power; it is inclusive, in the sense that it takes into account the needs, interests and points of view of the majority of the marginalized and poor in society; it is integral, in the sense that it attends to all forms of social injustice…. Feminist transformative leadership can be exercised, advanced or defended by women and men, young or old' (Viezzer, 2001:11). Addressing interconnected water problems successfully requires the leadership and participation of those whose knowledge -- grounded in gender, race, and class – equips them to understand these problems in all their complexity. Does / can this happen in practice?

The Brazilian Water Management System and Women's Participation

In international sustainable development terms, the favoured current approach to water management is to establish watershed committees with substantial public involvement as well as support from various levels of government, so that water users can collectively help to decide issues of allocation, infrastructure and regulation at the watershed level (Hinchcliffe et.al., 1999; Perkins 2004). From bioregional, ecological, and political perspectives, this approach has strong

theoretical justifications and potential and it is being implemented in a growing number of countries worldwide (UNESCO 2003; Shiva 2002; Perkins 2004).

Impressively, since 1997 Brazil has had one of the most participatory water management laws in the world. It establishes watershed committees composed of representatives from government agencies and civil society which are responsible for all water-related issues (Keck and Abers 2004; Agência Nacional das Águas 2006; Ministério do Meio Ambiente 2005). This means in legal terms that a poor woman like Maria could be a civil society representative on the watershed committee for the river close to her house. As a member of the watershed committee she could help to decide 'how to manage water and its allocation, new development projects, pollution abatement and control restrictions, indeed all subjects dealing with water use' (Porto 1998:177). She could use her knowledge of the seriousness and interlinked nature of water-related problems to try to find solutions, working with government officials and other water users.

As shown in Table 1, to some degree women are present at all levels of the Brazilian water management system. The National Council of Water Resources[4], for instance, has federal Environment Minister Marina da Silva as its president and includes a seat for the Special Secretary for Women's Policies.[5] The council's January 2006 National Water Plan mentioned in several places in its implementation guidelines the importance of gender perspectives (National Water Resources Plan 2006:102,104; WWF 2006).

However, the under-representation of women outlined in Table 1 reveals that the current system, while intended to be 'participatory,' is not inclusive. Water management committees are more

specialized in focus than other government bodies, and thus even harder for women to enter. Water in Brazil has historically been linked with hydroelectric dams and energy, and therefore it has traditionally been a subject area for engineers -- a profession which is still dominated by men. Although the new Water Law emphasizes water as a multidisciplinary issue, changing the culture of water management will take some time.

University of São Paulo professor Monica Porto, an expert on Brazilian water management, maintains that women's participation as professionals in the water sector is growing very fast and, in consequence, gender distribution is not the main issue to be discussed; in her view the need for a sufficient number of trained and competent professionals is an issue that prevails over gender *per se* (Porto 2000: 91). Porto believes that the successful implementation of the water law in Brazil depends on the ability of the watershed committees to: (a) use a transdisciplinary approach, (b) raise awareness about water issues among the public and policy makers, (c) educate the population, (d) prepare communities to participate, and (e) build technical capacity (Porto 2000).

While women's presence and participation as members of water management bodies is a first step, the real point is their active involvement in terms of contributions, proposals, and changes in the water management culture. Such involvement is where economic issues and the social class of women members can be expected to show the biggest impact. Since Brazil's water management structure now has a ten-year history, it is time to begin documenting the nature and

direction of women's involvement and their contributions to water policy. A preliminary study of the participation of all civil society representatives on watershed committees (both women and men) notes asymmetries between the ability of government and civil society representatives to follow the technical aspects of the committees' work, resulting in some dominance by government members, but points to real advances in education for both committee members and the general public about watershed issues (Chandra, 2004). The study indicates that issues such as committee meeting times and locations, the need for transportation subsidies and administrative backup for civil society representatives just as government representatives have, and the diverse interests of civil society groups, all complicate the ability of civil society representatives to participate equally with government officials (Chandra, 2004). Documenting these gaps allows them to be addressed, which is part of the implementation process for the participatory management structures; feminist research and feminist transformative leadership have important roles to play in this process.

A number of commentators have remarked on women's extensive involvement and leadership in Brazilian NGOs and neighbourhood associations, despite their relatively low participation at high levels in Brazilian politics (Alvarez 1999; Silva 2000). The less-formal and less-traditional processes of NGOs, compared to government bodies, make it easier and more attractive for women of all classes to become publicly-engaged (Moraes and Perkins, 2007). Working as organized civil society representatives from outside government offers women the possibility of influencing public policy while maintaining considerable personal autonomy, and this tradition in Brazil may soon spread to the quasi-governmental watershed committees if they are open to

adopting some of the characteristics of NGOs: flexible meeting times, a climate of supportive interchanges among members, transparency and opportunities for education and training of members, and creative approaches to problem-solving.

There are also many race and class-based barriers to the active participation of poor, racialized women in water management structures. From the times and location of meetings to the lack of childcare or transport subsidies, open prejudice of some committee members, internalized oppression, education and time requirements for participation, restricted ambits of action, frustrating bureaucracies, skewed priorities and the near-absence of organized constituency groups for local political representation on water issues, difficulties abound which differentially affect poor women of colour. It is too soon to say with certainty whether the changing institutional structures for water management in Brazil will be able to dismantle such barriers to the involvement of precisely those members of society who have the greatest stake and the most knowledge of complex water issues.

This brings us back to where we started, with Maria. According to Porto, 'What has been constantly disregarded when political decisions related to water are to be taken is the country's poor, who have no access to safe water, and who have high infant mortality rates, and a very weak and usually unheard voice in asking for change' (Porto 2000: 90).

Conclusion

In January 2005, we visited a poor neighbourhood in São Paulo where informally-built houses pushed up against a dirty watercourse carrying raw sewage from a big housing block up the hill. The stream bed was littered with plastic bags, food waste, tin cans and other garbage. Bridges over the stream, some of them quite wide, were in places topped by porches or entire rooms. When we asked the women who came out to greet us about the stream, they said they were concerned about children playing there, and that every time it rained the filthy water flooded into their houses. They asked, 'Why do we have to cover it over ourselves, and pay for the cement and beams? Why doesn't the government come to build a covered channel, as it should?' They saw the stream as an open sewer, which needed to be enclosed to protect them and their families from the dirty water.

And yet, across the street from the stream was a house with a big metal gate decorated with a lovely painted mural of an idyllic lake with a waterfall, swans swimming, green grass and trees all around. The contrast between the natural vision depicted in the mural and the reality of the polluted stream could not be starker. Clearly, people in that community imagined water as a peaceful source of pleasure and beauty, yet in their own surroundings water was nothing but a hazard, menace and problem.

Despite Brazil's progressive water governance system, there is little indication yet that poor women are moving into positions of leadership on water management issues, or that their concerns and viewpoints are well represented. However, like everywhere, women are often the local leaders, organizers and activists on water and other environmental issues, in community groups and NGOs.

Strong barriers impede women's political involvement, including gender roles and family responsibilities; the unpaid nature and time commitment required for this work; differential access to education (especially on technical issues) and public speaking training for women and men; and the constraints of a macho culture in general (Perkins 2005). Training for potential women leaders and committee members in specialized areas, and for all those involved in water governance on gender awareness, could help to address these barriers (CAP-NET 2006). General environmental education, along with education for politicians and government officials about the details and importance of watershed management, will also help bring about the changes in political will which are needed to successfully improve all aspects of water governance. Certainly the desire and interest exists in poor communities for improvements in water management, and organizing via NGOs is a well-developed political strategy in Brazil, especially for women.

History demonstrates that organizing, both through interest-based NGOs and in local communities, is a powerful force for social and political change. To the extent that participatory water governance shows its effectiveness, organized Marias will use these new structures to solve their water-related problems, implement their positive visions of water, and improve their lives.

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[1] However, 45 million Brazilians still do not have access to clean drinking water. Seventy percent of Brazil's water is located on the North region where only around 7.6 per cent of the population lives. The Southeast, which has the greatest proportion of the Brazilian population (almost 43 per cent) has just 6 per cent of the country's water resources, and the Northeast (28 per cent of the population) has only 3.3 per cent of the water resources. In sum, 30 per cent of the Brazilian water resources must supply 93 per cent of the population.

[2] The IBGE (Instituto Brasileiro de Geografia e Estatistica – Brazilian Institute of Geography and Statistics), on May 22, 2006 launched a 'National System of Information on Gender' in partnership with the National Special Secretary of Policies for Women (SEPM), which is available at www.ibge.gov.br. The data cited here is mostly from a summary called 'As mulheres como alvo das políticas públicas brasileiras' – 'Women as the target of Brazilian public policy.'

[3] The statistical agency in Portuguese uses the word "pardo," which means a light brown color used to indicate people with African, Indigenous, and/or White descendents -- mixed (like almost everybody in Brazil). On the complexities of race in Brazil, see Dos Santos, 2006; Ferreira, 2004.

[4] The National Council of Water Resources is a consultative and deliberative body representing water users, government and civil society that, among other responsibilities, coordinates federal, state, and regional planning and arbitrates conflicts.

[5] Even in the progressive Labour Party government in Brazil, there are only four women ministers, and they are in the less-powerful social and environmental areas. The four are: Nilceia Freire (Women's Policies), Matilde Ribeiro (Policy for the Promotion of Racial Equality), Dilma Roussef ('Casa Civil', or Domestic Affairs), and Marina Silva (Environment). Chile, under president Michelle Bachelet, is the only Latin American country to have 50 percent women in the cabinet.