

WATER AND GENDER: THE UNEXPECTED CONNECTION THAT REALLY MATTERS

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Since the mid-1990s, worldwide focus on water scarcity has exploded. Attention has moved beyond the technical dimensions of water provision to the political and social contexts in which water management occurs. In many places, especially where water is scarce, control over water confers power. The political analysis of water is then an analysis of power relations. As social scientists have entered the water world, and more and more case studies are carried out in Latin America, Africa and Asia, another facet of the politics of water that has been brought to light is gender differentiation in water usage and water management. In our 2005 book, *Opposing Currents: The Politics of Water and Gender in Latin America*, we provided a framework for understanding the connection between water and gender and a review of the development of global water policy and gender policy since the early 1990s, using case studies from six Latin American countries to highlight the role of women in water management. We found that substantial change is still needed to overcome pernicious gender bias and imbalances that distort water management and lead to ineffective planning in the water sector.

The distortions that we depicted in the book are the legacy of the past century during which the water world was structured as a masculine domain: the domain of engineers, ditch diggers, ditch riders and farmers in the countryside and urban planners in the cities. Changing the conceptualization of water in practice is an exceedingly slow process. Thus, the world depicted in our book remains the reality three years later. The urgent need to address the gender dimensions of water management is evidenced by the decision of the United Nations to name the decade of 2005 to 2015 as The International Decade for Action: Water for Life. The description of the decade includes the following statement in its introduction:

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As women play a central role in water provision and management, a special emphasis will be placed on ensuring the participation and involvement of women in these development efforts... Among the themes that are central for the “Water for Life” Decade are: scarcity... water and gender...¹

When Secretary General Kofi Annan launched the decade on 22 March 2005, he ended his speech by saying, “This is an urgent matter of human development and human dignity.”² This essay provides a framework for understanding the connection between water and gender with examples from Latin America that illuminate the urgency of these issues.

The UN International Covenant on Economic, Social and Cultural Rights, which was signed in 1966, established the right to water as a human right in Articles 11 and 12. This led to the conceptualization of water as a collective good, laying the grounds for future international accords on water. The Dublin Conference on Water and the Environment in 1999 was a watershed event in the world of water policy because of the adoption of the four Dublin Principles that have guided decision-making ever since. The principles state:

1. Fresh water is a finite and vulnerable resource, essential to sustain life, development and the environment.
2. Water development and management should be based on a participatory approach, involving users, planners and policy makers at all levels.
3. Women play a central role in the provision, management and safeguarding of water.
4. Water has an economic value in all its competing uses and should be recognized as an economic good.

After the Dublin Conference, most multinational sectoral gatherings (e.g., on housing, health care, natural resources, women, etc.) included water on their agendas and endorsed what are known today as the Dublin-Rio Principles.⁴ As a result, there have been tangible changes stemming from principles one, two and four. The first principle has focused worldwide attention on the importance of sustainable development, the second on mainstreaming a participatory approach in water development projects and the fourth has led to a conceptual shift from water as a basic right to water as a commodity. These three principles have shaped a revolution in water policy over the past fifteen years. What about the third principle? It is a concept that should have been as revolutionary for water policy as the concepts embodied in the other three principles. However, despite variations on its theme

that appear in every global policy statement on water, with rare exception, it is not spelled out, mainstreamed or implemented.⁵

Translating the third principle into action would be quite straightforward as it recognizes an important reality: not that women should become central to water management, but that they already are. What are the implications of this reality? Women already know about water management. Why is this powerful? If women already know about water management, then their knowledge, experiences and priorities will enrich policy and planning in the water sector. Bringing in women's knowledge, experiences and priorities regarding water use alongside men's is to implement a gendered perspective in water management. Failing to do so is to lose valuable knowledge that could have led to more effective water management. This article explains the connection between water and gender for household use as well as in the context of irrigation, focusing on poor urban women, peasants and indigenous women. It then examines the failures of water policy, including privatization, to embrace a gendered perspective and the failures of gender policy in addressing water issues. Throughout, we provide stories that show how women in Latin America have overcome or circumvented these failures to improve water management in ways that improve their daily lives.

WATER AND GENDER: WHAT'S THE CONNECTION?

In the world of water policies, although lip service is sometimes paid to gender, it is generally without depth or consequences for water management practices. In the world of gender policies, water is almost never mentioned.⁶ Yet important connections exist between water and gender, and when these relationships are made explicit, more effective and equitable water resource management results. Water and gender are linked both in the contexts of household and domestic water use and irrigation.

This article is based on the assumption that there is an inherent social right of all human beings: the right to water, as per the International Covenant on Economic, Social and Cultural Rights. Social rights can be defined as the right to a minimum standard of living and well-being according to the prevailing values of one's society.⁷ A key element in all societies is easy access to a consistently sufficient supply of water of adequate quality to sustain the health, hygiene and productivity of all members of a community. However, in reality, the right to water is not recognized. Important gender divisions that allocate many water responsibilities to women, but vest most powers and rights in men, characterize most water worlds. The precise nature and form of these divisions is markedly different between the domestic water sector and the irrigation sector.

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Gender Divisions in the Domestic Water Sector

Domestic water issues are framed in contexts of social rights and welfare, health and hygiene, and basic needs and in the context of women's responsibilities for social reproduction. This includes the unpaid work within the household that is carried out almost exclusively by women and that is central to the development of families, communities and, ultimately, nations.⁸ In contrast, irrigation is framed in terms of production and economic efficiency. These differences shape the possibilities for recognizing and addressing gender concerns. The "basic needs/social welfare" approach to domestic water recognizes women's needs for water, which in itself does not guarantee that they will have the right to a voice in water management, but it at least establishes that women have a legitimate place on drinking water and sanitation policy agendas. This is in contrast to irrigation policy, which focuses on production and other areas where women are invisible. In much of Latin America, farming and irrigation are strongly associated with masculinity and identified as male jobs. Though most rural women farm and irrigate, they are seldom seen as farmers by water management agency staff, or even by their own communities, and, as a consequence, they are seldom endowed with the associated rights and resources.⁹

Within Latin American households and elsewhere, women are generally responsible for all tasks involving water: cooking, cleaning, laundry, bathing children and caring for sick family members. Water scarcity and poor water quality complicate these tasks. Residents in poor urban neighborhoods often get their water either from community faucets that function a few hours each day, and service as many as one to two hundred families each, or from trucks that deliver water once or twice a week.¹⁰ In rural areas, poor households get their household water from community wells, nearby rivers or irrigation ditches, often involving arduous collection efforts. Water is also an input for many traditional productive activities that women in Latin America carry out in their homes or on their land, both in rural and urban settings, including preparing food, baking bread, doing laundry for third parties, managing household vegetable gardens and raising animals.¹¹ These activities, rooted in the gender-based division of labor, and thus in women's historical roles in the household and shaped by the prevailing gender system, represent a fundamental part of family income. This is especially true in female-headed households, and unless women's roles change will continue to be essential for family nutrition, health and subsistence. Hence, women use water for both household and productive purposes.

Given the central role that water plays in daily household life, the lack of home water connections and the lack of round-the-clock water service create hardships. Someone must be available to collect water whenever it appears at the community faucet or whenever the water truck shows up. Someone must carry home multiple heavy pails of water from the community faucet or the village well and store it in

large barrels or tubs. Someone must do all the water-related household tasks by transferring water from the large barrels and tubs to smaller receptacles. Someone must ration the household's water to hedge against the community faucet or village well having dry periods, or the water truck failing to show up. Someone must heat water—often on open fires or propane stovetops—for laundry, bathing and cooking. That someone is almost always a woman or a child.

Thus, water development policies and projects, which are always presented as gender neutral, in practice, almost always have gender-differentiated outcomes.¹² Based on their different roles and responsibilities, women have different criteria for evaluating proposals on water services.¹³ Improving water supply and quality for poor urban neighborhoods benefits women most directly. Such projects free women and children's time and energy so that they can more actively and successfully engage in school and/or work.¹⁴ Family income can rise as a result. Better household water supply often results in improved family health, and good health is a primary asset of the poor.¹⁵ In contrast, water rationing has an immediate detrimental effect on women and children because it affects their household labor as described above, while men remain comparatively unaffected.¹⁶

Gender Divisions in the Irrigation Sector

In rural areas, investments for improved irrigation systems are usually gender biased, benefiting men and leaving out women irrigators. Gender bias refers both to unequal access to resources (land, water, credit, knowledge, new technologies, etc.) and to gender-differentiated access to the process of making and implementing decisions. Not only are gender divisions important, but so is the exclusiveness of role distribution and its implications for resource allocation and the distribution of power. Women may be prohibited from certain roles, including some that are critical for survival. In the rural water world, this situation is most evident in the effects of male migration. When men migrate, as is more and more often the case, they leave behind their wives, mothers and children to manage the land.¹⁷ In communities where only men may attend water user assemblies and the men of a household have migrated, then that household has just lost its voice in communal water decisions, and household survival may become precarious. Similar problems arise with credit, which is more easily available to men than to women. With irrigation, schedules that work for men do not always work for women who must juggle childcare and housework. This is true even with driving, since more men drive than women. A gender division of labor that defines agriculture as a male occupation and women primarily as housewives, irrespective of their contribution to family agriculture, characterizes many Latin American countries, and has led to great distortions in water management planning because women's knowledge, experience, wisdom and needs with regards

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to water are left out of the planning process.¹⁸ Bastidas demonstrates that in Carchis province in the northern Ecuadorian Andes, women considered themselves merely helpers until asked specifically about their participation in irrigation. Then it emerged that they spent half their days working in the fields and the other half was spent in laborious household chores carried out without any running water.¹⁹

Buechler documents the significant changes in the gender division of irrigation that have taken place in the state of Guanajuato, Mexico, due to male migration.²⁰ The traditional division of labor that accords the lead role to men and subsidiary roles to women, or certain crops to women (i.e., flowers) and others to men (i.e., vegetables, fruits, corn and beans) has been turned on its head. Women must now take charge of the complete production cycle for all crops even without legal access to land or water, and they must do so while retaining full responsibility for all household and other productive jobs they engaged in prior to the men's migration.²¹ For some women, the obstacles presented at almost every step of the production process—obtaining water, irrigating at night, long distance from home to the fields, inability to attend water user meetings—have resulted in their transformation from being primary producers to becoming hired help for others. Some women cope by hiring male helpers or relying on their male children to do the heavier work and attend water user meetings to speak for them. Some manage the whole process successfully against all the odds. No matter what, however, the men of their villages continue to deny that the women are irrigators, and frame their work as something they do when their husbands are gone. Thus, the reality that year-in and year-out the able-bodied men are absent for months at a time, usually during the peak of the agricultural cycle, is not acknowledged openly or accepted as having created a long-term shift in women's roles.²²

When irrigation is identified as a typically male domain, then for women to claim water rights for irrigation explicitly challenges the norm and this means challenging the power and ability of their husbands to properly carry out their manly roles—and doing so comes at high social costs. Brunt, for instance, illustrates how male farmers in an irrigation system in Mexico invite canal operators and irrigation agency personnel to bars and brothels and offer them drinks, food and even women to make them more disposed to act favorably toward their needs.²³

Estimates prepared by the Food and Agricultural Organization (FAO) show that women make up 22 percent of the rural labor force in Nicaragua and Honduras and roughly 30 percent in Costa Rica, El Salvador and Paraguay. The Andean countries have by far the highest percentages of women working in agriculture, with more than 50 percent in Bolivia and Colombia and as much as 70 percent in Peru.²⁴ Most of these women work as unpaid family labor on family farms. If a pattern can be discerned from the various ways in which farming in Latin America is organized, it

is that women's involvement increases in degree and importance with a decrease in farm scale and level of commercialization. Active female involvement with farming and irrigation is much more common in poorer households with smaller farm holdings and is often driven by poverty rather than greater gender equality or emancipation. In addition, irrigation tasks are often allocated to either men or women such that women become the specialists in certain tasks that men never do (e.g., planting, weeding by hand, seed selection) and vice versa.²⁵ In some regions, certain crops are completely the domain of women and other crops completely the domain of men. Under the above circumstances, it is quite clear that including only men in water management meetings is to not only lose valuable information and experience held only by the women, but it will lead to distorted planning and distortions in water management that are detrimental to entire communities.

Gender differences are paramount in the priorities chosen by men and women for water use and water management. When only the men in a given community or region participate in water management and planning, valuable opportunities to design the most effective community water systems are lost. For example, when the leaders of a community water project in Ecuador asked about priorities, the women of the community stated that irrigation water would help them in their tasks of washing clothes and bathing children, would nurture nearby greenery and make their work of gathering firewood easier, and would serve as drinking water when purified by boiling, saving them hours of walking to distant water sources. For these reasons, the women favored an irrigation design with continuous water flows during the day, with side canals bringing water closer to their homes. The men, who did not take into account any of the household burdens the women faced, preferred a rotational scheme whereby they did not get water every day, but when it was their turn for water, the flow was heavier, and they could irrigate in a shorter period.²⁶ Taking into account both sets of preferences would lead to an irrigation system that was most effective for the community as a whole.

Even more egregious is the reality that the various and numerous irrigation activities women do are not only unseen but also tend to be defined as non-irrigation—and as irrelevant to the irrigation profession—and even as nonprofessional. When women are cleaning canals or irrigating, they are seen and said to do so on behalf of their husbands, who are considered the real irrigators and farmers. It is as if irrespective of what women do in irrigated farming, the very fact that a woman is doing the job is enough to qualify the work as “non-irrigation.” An example of an irrigation project led by a non-governmental organization (NGO) in Ecuador illustrates the persistence of the belief that irrigators are men. Staff of this NGO planned all meetings with water users on weekends because most men in the communities where the NGO worked left home during the week to work elsewhere. Women were left in charge of irrigating

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and farming. Despite the women's responsibilities for almost all the irrigation work, the staff continued to identify the men as the real farmers and the ones with whom to have meetings.²⁷

Apart from what happens in the fields, of equal importance is what happens in the meetings where irrigation management takes place. Almost everywhere in Latin America, men dominate irrigators' associations both in numbers and in influence. Because membership in such associations is typically linked to having titles to land and water, and because mostly men hold such titles, women are denied membership. Women are often not informed when meetings will occur and are not included in the distribution of information that results from irrigation meetings. When they are aware of the meetings, cultural barriers often prevent women from attending. Going to meetings may not be socially accepted practice for women, their husbands may not want them to participate, they may not have the legal rights required for attendance, or households may be registered only under the male head of household. And in regions where the above does not hold and women do attend irrigator meetings, they usually sit in the back and cultural norms prevent them from speaking in public. All of these circumstances contribute to keeping women ill-informed and/or making them ineligible for decisionmaking positions in the water user associations. In this way their voices, experience and knowledge are lost. Sometimes women perpetuate their low self-esteem as they buy into the cultural code that water management is a matter for men and that women are only helpers. However, as soon as someone asks their opinion, women generally begin to speak out and dare to make decisions. They begin to believe that, in spite of their real or apparent disadvantages, they have an important stake in the water management process.

In rural areas, irrigators' organizations are among the most visible and strong community organizations and provide an important channel for information and resources to and from the community. These organizations are also responsible for critical decisions about water distribution and the allocation of resources for operation and maintenance. Leadership positions in water user associations are often important political positions, offering opportunities for expanding political relations and social standing at regional and state levels.²⁸ Control over water thus both depends on and accompanies control over other resources and information. Participation of women in water users' organizations for irrigation not only improves women's access to and control over irrigation but also may contribute to wider goals of women's empowerment. Exclusion of women from water users' organizations can be interpreted as denying them their economic rights and complete citizenship.²⁹

In Latin America, as in most other countries of the world, the exercise of political authority is still primarily associated with men socially and culturally, even though

change in this regard is slowly coming. Gender identity partly determines the right to speak and to have a voice, and also the ways in which one's voice is heard and interpreted. To be outspoken and to have strong opinions are positive characteristics when found in men, defining and reconfirming masculinity and male superiority. In contrast, when these characteristics are found in women, they reflect negatively on their status as women.³⁰ In a small-scale irrigation project in Ecuador, almost as many women as men participated in the users' organization. Nevertheless, observations during meetings showed that while on average, regular male members spoke about twenty-eight minutes, female members only spoke three-and-a-half minutes. The women said that they were reluctant to voice their concerns at meetings because they were afraid to make mistakes and to be ridiculed.³¹ Women in irrigation districts in Mexico explained in similar terms why they chose to remain silent at meetings.³² The one role in organizations that is often deemed compatible with a female identity is that of treasurer: Women are assumed to be more honest. The under-representation of women and their indirect participation not only destroys the democratic character of decisionmaking but also may negatively affect the responsiveness of organizations to the needs of women. It is more than just a symptom of gender inequality—it is one of the factors that perpetuate it.

Llullucha, Peru: Women Going Against the Current and Achieving Water Rights

Despite all the constraints described thus far, recent examples exist from Latin America of women developing their own mechanisms for assuring that their fields are irrigated and that they get the water they need. Vera, a Peruvian technical advisor to the Netherlands Cooperation for Development Service, provides a fascinating example with the experiences of the women in Llullucha, a small village in the Peruvian Andes.³³ Llullucha was the site of a community development project by engineers from Cusco's governmental Institute for Water Management and Environment (Instituto de Manejo de Agua y Medio Ambiente, IMA). The engineers determined on their own—without asking the local residents—that the village needed a soil conservation project. After two years, the engineers decided to ask the residents what their priorities were and were very surprised to find out it was not soil conservation but water for irrigation. At this point, however, the engineers had only spoken to and worked with the men of the village who owned communal land (*comuneros*) because they had decided that only the communal landholders would have reason to be involved in their projects. The IMA engineers responded to the request for irrigation water by designing a system to pipe water from nearby springs to the fields. However, as soon as construction began on the irrigation system, the women of Llullucha protested vehemently because the pipes were preventing springwater from

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reaching waterholes they used for the village animals. Since the engineers had not included the women in any project discussions, they were unaware of the division of labor in the village whereby women were in charge of cows and sheep while the men were in charge of farming. Their obliviousness to the gendered division of labor, and to the gendered priorities for water, meant that the engineer's irrigation project was flawed and could not proceed. Even though the men of the village obviously were aware of the women's herding duties that involved the spring water, they also did not represent the women's water needs, which, in fact, impacted household income. The women responded with active resistance. Seeing that communal land ownership was the criteria for participation, a group of women got together and requested a plot of communal land, which was granted to them. However, without water, the land was useless, so they requested water rights and they were granted. The women then approached IMA to ask for training, and since they were then *comuneras*, IMA agreed they could receive training on soil conservation and best irrigation practices. Eventually they became eligible for credit and IMA found that women were more reliable in terms of repaying loans than the men were.

Despite the multiple experiences that the IMA project team had in Llullucha showing the limitations of including only male participants, the team did not fully comprehend the situation until they worked with the SNV Netherlands Development Organization's gender assessment project. Through that project the IMA team came to recognize that their assumptions were severely flawed: They had assumed that their work was completely separate from gender relations and would have no impact on them, that technology transfer was a completely technical process, and that any benefits to the community would be equitably shared. The gender assessment highlighted that men and women had different priorities regarding water because of their different roles and responsibilities, and that a successful water project had to take into account all dimensions of water use in a given community. The outcome of the project in Llullucha strengthened the policy of the SNV Netherlands Development Organization to include a gender perspective in all stages of project work. Thus the actions of a group of poor women in a remote Andean community shaped the parameters for future regional projects as well as for projects worldwide.

This case of technology leads to significant conclusions. First and foremost, technology transfer is much more effective when project members recognize that it is intricately linked to social organization. There is a persistent and pernicious tendency to consider technology transfer the domain of men, with an underlying and unquestioned assumption that women do not have the interest, ability, knowledge or skills to deal with new technology. The Llullucha case shows just the contrary and reveals how water sector projects intersect with gender, household and community

dynamics. To carry out projects without recognizing and exploring these intersections results in less effective outcomes. Second, a participatory approach is not in and of itself gender neutral. Gender has to be explicitly incorporated or else even participatory approaches might exclude women altogether, even in cases where there are immediate and compelling reasons to include them.

THE INTERSECTION OF WATER AND GENDER POLICIES IN LATIN AMERICA

The process of globalization in Latin America has embedded water and gender policies in the neoliberal model. At the same time, due to water scarcity and contamination, water has become a strategic resource. Based on the belief that privatization will improve water allocation and management, water policy has generally been focused on modifying water legislation to create incentives for private sector participation in service provision as well as in the creation of water markets, while also developing structures for the involvement of water users in the resource management process. These significant changes have occurred without adequate preparation in most Latin American nations, where the legal instruments regulating water sectors have not been modified for decades. Water legislation has not been updated since 1927 in Honduras, since 1942 in Costa Rica and since the 1960s or 1970s in Panama, Bolivia, Peru and other countries. Some countries have no specific legislation on water use at all, and water resources are subject to laws on land use or are classified as goods and services. This is true in Belize, Guatemala, El Salvador, Nicaragua and others. Current globalizing trends are forcing Latin American governments to modify their outdated national water laws and to look for ways to open water markets.

The implementation of the neoliberal model over the last fifteen years has led to increased participation of the private sector in infrastructure construction and maintenance, drinking water supply and sanitation management, and conservation activities. The participation of water user groups in irrigation water management and their financial participation via higher tariffs has also increased. Meanwhile, governments have generally retained control of the regulatory process, setting the conditions that encourage and protect private sector participation. However, the incorporation of a gender perspective into this process of neoliberalizing the water sector has rarely moved beyond mere words.

A recent study carried out in Chile indicates that poor women, thanks to their responsibilities for managing household and family well-being, have been the first to signal the consequences of the privatization of water delivery. These include the significantly negative impact of water tariffs on household budgets, suspension of water service as a consequence of unpaid water bills, lack of information and the

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absence of mechanisms for water consumers to use in response to the new conditions imposed by the privatized water authorities.³⁴ In August 2007, the annual report of the UN High Commissioner for Human Rights drew on explicit connections between the commercialization of water services, access to potable water and hygienic sewerage systems, and the existing framework of international human rights, stating that these relationships are currently being studied.³⁵

With regards to gender policies themselves, the interest in water as a gender-relevant issue has been limited. In the late 1970s and 1980s, activists began urging policymakers, planners, NGOs and bilateral and multilateral agencies to consider women's needs and women's roles during policymaking, planning and implementation processes. Most agencies responded by adding on "offices of women's affairs," where women's issues were then promptly marginalized and ignored.³⁶ Where governments created national offices for women, these have only partially addressed (if at all) sectoral reforms such as health care, education and public services, such as water, telephone and electricity. And, in turn, the various commissions, secretariats, ministries and other state bodies in charge of the sectoral reforms such as in the water sector do not consider the national offices for women essential partners in negotiation or policymaking processes. As a rare exception, there is the Plan for Equal Opportunity of Ecuadorian Women, which explicitly connects women and water emphasizing the hardships faced by women—especially peasant women—in obtaining and using adequate water supplies.³⁷

In the 1980s, the International Research and Training Institute for the Advancement of Women (INSTRAW) and the Senior Women's Advisory Group on Sustainable Development, part of the United Nations Environment Program (UNEP), played a crucial role by fostering debate on women and water. These early efforts affected the International Water Supply and Sanitation Decade (1981 to 1990) by calling attention to the importance of promoting women's training and their participation as water suppliers for their families. In the 1990s, the conceptual shift from "women's issues" to a "gender perspective" placed women's issues into larger contexts and helped shape the agenda of the 1992 International Conference for Water and Environment. They also created the framework for the third principle on water and gender in the Dublin Declaration. However, the third principle is the only one that has not been implemented. That gender policies and government water policies have developed independently, each with their own terminology, objectives and priorities, exacerbates the problems. The scant attention paid to water issues in gender equity policies, and the nearly nonexistent attention, beyond rhetoric, paid to gender equity in water programs and legislation, vividly illustrates this point.

In sum, we see an absence of gender policies that focus on integrated water resources management as distinct from other natural resources and a dearth of water

policies that have incorporated a gender equity perspective. Despite all the talk, many policymakers still do not link the dominant gender system and the inequality between men and women that prevails in the water sector. By not analyzing how policies, projects and programs have differentiated effects on women and men, gender biases in formulation and planning go undetected. Even when policymakers are aware of the inequities, they do not take steps to create the enabling environment that would shape changes. Corrective measures are not taken and preventive measures are not adopted that could avoid the differentiated effects. Most water sector decisions continue to be made either based on the false assumption or on the pretense that they are gender neutral—that the population is a homogeneous whole and that benefits reach everyone equally.

The pitfalls of how the neoliberal model is being applied in the water sector, and the dynamic role of women in combating it, are seen in the dramatic situations of Tucumán, Argentina, and Cochabamba, Bolivia, where water services were completely privatized in 1995 and 1999 respectively.³⁸ In Tucumán, a French and Spanish consortium won the bid for the privatization of the province's water system.³⁹ Immediately before the bidding opened, the provincial government increased water tariffs by 104 percent in order to make the offering more appealing to private entities.⁴⁰ The winning consortium retained the increased tariffs, thus initiating its control over the water services by asking consumers to pay more while the company had done nothing to improve services. Worse yet, the privatization contract transferred to the consortium all the water and sewage infrastructure in the province, much of which had been paid for directly by the local residents, especially in the more rural areas and smaller towns.⁴¹ From June 1995 to September 1996, Tucumán province was the site of escalating protests against the privatization of the water services. While the protests began locally, within several months, residents from different towns began to work together and eventually came up with a dramatic strategy: the Stop Payment campaign, in which consumers were urged to protest the privatization by not paying their water bills. By 1996, an estimated 70 percent of users in the province had stopped paying their bills.⁴² On 1 January 2004, the Tucumán Water Authority, in a legal agreement with the Tucumán water employees union, was designated a state corporation with majority investment from the Tucumán provincial government, such that the union would administer Tucumán's water and sewerage systems. Today, Tucumán's water and sewerage systems are in the hands of Tucumanos for Tucumanos.⁴³

One of the remarkable features of the protests in Tucumán is that women constituted the majority of activists. Women's roles as managers of the household, including both the family budget and all domestic tasks, meant that they were the first to become acutely aware of the increased water tariffs and the problems with

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water services. Tucumán has a long history of social struggles in which low-income families participated in one way or another, meaning that many already had experience in organizing against social injustices. Women began talking in their villages and towns, women organized across townships, women formed the Coordinating Committee for Consumers from the Interior, women went door-to-door telling residents about the Stop Payment campaign and explaining the legality of the process, women attended protests in the provincial capital.⁴⁴ Although men were also involved, and often were the spokespersons for the protest committees, women were the majority of participants. Their actions led to the reversal of the privatization process. The networks and organizations that they formed have endured and to this day continue to work in defense of consumer rights.⁴⁵

In Cochabamba, Bolivia, a similar situation unfolded with more catastrophic consequences.⁴⁶ As in Tucumán, the city had a municipal water utility. Because the municipal service did not extend to the whole city, residents on the periphery built their own water supply networks via cooperatives or neighborhood associations, including their own wells and pipelines. In 1999, Bolivia's president, Hugo Bánzer Suárez, privatized Cochabamba's water system, awarding it as a concession to an international consortium headed by Bechtel. The contract guaranteed the company a 15 percent rate of return and allowed it to apply tariffs pegged to the U.S. consumer price index.⁴⁷ This privatization scheme meant that residents across Cochabamba's periphery immediately lost the water systems that they themselves had built and financed, and they were then charged the high tariffs by the consortium for water delivered through the very systems they had built. As city residents discovered that their water rates were increasing from 40 to 200 percent with no immediate improvement in service, they linked together with rural residents who were also affected by privatization to form the Coordinating Committee in Defense of Water and Life, and to participate in widespread protest activity including roadblocks that stalled traffic and commerce.⁴⁸ From January through April 2000, mobilizations increased and were often violently repressed by the police and the military in a real-life drama that became known as the Cochabamba Water War. During the first two weeks of April, the protests came to a head with blockades throughout the city, ongoing street rallies and marches, intense negotiations between the Coordinating Committee, government representatives and civic leaders, and continuous repression with tear gas and bullets.⁴⁹ On 9 April 2000, the departmental government announced that the contract with the consortium would be cancelled and this was approved by the national parliament on 15 April 2000, with an amendment to the original legislation that privatized Cochabamba's water system, which also met most of the demands raised by the Coordinating Committee.⁵⁰

As in Tucumán, women played a central and key role in the mobilizations from the beginning. They manned the barricades and forged links between neighborhood associations and between rural and urban sectors. And as in Tucumán, the women's participation was negligible at the higher leadership level but essential at the mass base level. After the Cochabamba Water War, when people returned to normal life, many women who had participated in the protests described profound changes in their identity as community members, especially relative to their participation in activities that would have been off-limits to them prior to the water war.⁵¹ These two experiences, as well as additional examples from other Latin American countries, demonstrate that when economic policies or legal decrees directly affect women, they take an active role and exercise leadership and develop unique strategies that have far-reaching consequences.

REACHING FOR GENDER EQUITY IN THE WATER SECTOR

The examples provided in this article indicate that improving water management practices involves actions that fall into three overlapping categories: understanding the community, facilitating participation and fostering equitable water resource management. First, for water projects to be successful it is crucial that project leaders recognize the heterogeneity of communities and be explicit about the water needs, uses and priorities of all subgroups. This means identifying all social actors involved with water in the community, their roles, responsibilities and social relations, and paying close attention to gender differences. Project planners and technicians need to be open to "seeing;" in other words, they need to be open to eliciting the reality of social relationships instead of automatically imposing their predetermined understandings. The failures of the Compagnie Générale des Eaux in Tucumán and of Bechtel in Bolivia are attributable to their focus on profit margins, and their concomitant unwillingness to consider the contexts in which higher tariffs were implemented. Thus they did not pay attention to the social costs of increased tariffs on the local populations. This led to significant misunderstandings or misreadings regarding the social relations of local communities, aided and abetted by national and regional governments who turned a blind eye to the realities of their own constituents vis-à-vis water. Furthermore, investments in the water sector alter power dynamics at many levels—for example, between large investors and national governments, between national and local governments, between large investors and end users, between governments and end users, between project teams and communities, between husbands and wives, and so on. As water projects alter power dynamics, cultural and social change takes place, in turn altering the context in which the project is implemented. A one-size-fits-all water policy does not work because water management is based on a panoply of intersecting social relations.

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Second, participation cannot be mandated by decree; it is part of a profound cultural change that has to permeate all social actors. The participatory approach will never realize its full potential if governments or those in charge of programs and projects only allow it when they need to comply with a legal requirement or when they have to implement the recommendations of international agencies. True participation implies embracing a process of community empowerment and adapting institutions so they can support and maintain such strategies in the long run. It is precisely in this participation, more than in the water policies, programs and projects, where we can see the cultural change that is underway in Latin America in terms of women's identities, their roles and their exercise of citizenship. These transformations are happening in a process of multidirectional continuity, where traditional norms and customs persist alongside new forms of action that redefine gender relations and the role of women in their communities.

Third, fostering equitable water resource management requires the elimination of gender biases as a key mechanism for increasing the effectiveness and reach of water sector investments. Water sector planning, technology transfer and the participatory method are not gender neutral. They will be gender biased until the connections between gender and water are made explicit and addressed. Thus, equitable participation for men and women has to be an explicit goal, and has to be systematically enabled in all facets of water sector work. This means understanding, respecting and addressing gender differentiation in roles, responsibilities, needs and priorities. It means equitable access to resources, including land, water, credit and training. It means taking into account all uses of water by all members of a community in the design phase of water investments. This does not imply that every project must address all water needs but rather that every project's goals and ramifications are explicit and realistic.

For gender biases in the water sector to be eliminated there must be an enabling environment. It is not enough to talk about what is needed; formal structures have to be created that move the process forward. These structures include not only new laws but also governments committed to the implementation of these laws, they require not only new financing decisions but the will to respect new investment priorities at the community and national levels, and they have to be built on a foundation of gender equity. Water must be a catalyst for equitable development and steps must be taken to enable that, while the principles of gender equity and non-discrimination must be present in all policies and programs. The costs of not doing so are simply far too great, and the proven benefits of equity are too important to ignore.

Making the water world more habitable for women requires changes at many different levels and in many different arenas. It requires changing divisions of

labor that currently allocate water responsibilities to women without granting them the associated rights, and it requires changing existing routines of public decisionmaking to allow women to participate. It requires changes in laws, infrastructure and organizations. It also requires changing the terms of water policy discussions, because reducing the gender gap in control over water is not just a direct struggle over water resources but is also—and more importantly—a struggle over the ways in which water needs are defined. In both the domestic water and irrigation water sectors, albeit in very different ways, creating legitimate discursive, legal and organizational spaces for women to articulate and defend their water interests means that deeply embedded cultural and normative associations between water and masculinity need to be challenged. This is necessarily a long and often difficult process, and it may be one that is painful and risky. However, not making the attempt may well come at an even higher price: that of human misery, deprivation and poverty as a result of ineffective, inefficient and inequitable water management that will affect both men and women.

By recognizing the significance of gender inequities with regard to water in the definition of the Water for Life Decade, the United Nations mainstreamed the gender dimension and gave it utter credibility in one fell swoop. This creates momentum by calling global attention to the issues outlined in this essay and is stimulating social investments and research aimed at discovering best practices.⁵² The next step is to find willing government partners to embrace extensive regional pilot programs based on best practices, and to actively use the UN's status to help governments overcome opposition stemming from ingrained bias at all levels. The positive impacts on household and community economies that come from redressing gender inequities in water management must be lifted from the case study level to the regional level and actively publicized. As global warming changes freshwater availability across the planet and creates new zones of scarcity within important population centers, improvements in water management that can be achieved at low cost are becoming essential and urgent. Including women's knowledge and expertise in water management planning is cheap and yields immediate efficiencies. Sustaining inequity is never best practice. A critical mass of case material is already available to show the wisdom of reaching for gender equity in the water sector. 

NOTES

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¹ United Nations, *International Decade for Action: Water for Life*, <http://www.un.org/waterforlifedecade/background.html>.

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² Ibid.

³ United Nations, *The Dublin Statement and Report of the Conference*. International Conference on Water and the Environment: Development Issues for the 21st Century, Dublin, Ireland, 26-31 January (New York: The United Nations, 1992).

⁴ Ibid.

⁵ For exceptions, see the pioneering work of the Netherlands Development Assistance and the Swedish International Development Cooperation Agency; Global Water Partnership Technical Advisory Committee, *Integrated Water Resources Management*. Technical Advisory Committee Background Papers, no. 4 (Stockholm: Global Water Partnership, 2000); Daniel Sitarz, *Agenda 21: The Earth Summit Strategy to Save Our Planet* (Boulder, Colo.: Earthpress, 1993); Netherlands Development Assistance, *Rights of Women to the Natural Resources, Land and Water*. Women and Development Working Paper, no. 2 (The Hague: Department of Rural and Urban Development, Women and Development Division, Netherlands Development Assistance, Development Cooperation Information Department, Ministry of Foreign Affairs, 1997); Swedish International Development Cooperation Agency (SIDA), *A Gender Perspective in the Water Resources Management Sector: Handbook for Mainstreaming*, Department for Natural Resources and the Environment, Publications on Water Resources, no. 6 (Stockholm: SIDA, 2006).

⁶ This section of the paper draws heavily from Margreet Zwartveen and Vivienne Bennett, "The Connection between Gender and Water Management," Vivienne Bennett, Sonia Dávila-Poblete and María Nieves Rico, eds, *Opposing Currents: The Politics of Water and Gender in Latin America* (Pittsburgh, Pa.: University of Pittsburgh Press, 2005).

⁷ Eduardo S. Bustelo, "Expansion of Citizenship and Democratic Construction," in *The Poverty of Rights: Human Rights and the Eradication of Poverty*, ed. Willem van Genugten and Camilo Perez-Bustillo (London: Zed Books, 2001), 3-28.

⁸ Social reproduction refers to all the tasks and processes that are necessary for an individual to be fully prepared to participate in society: eating, bathing, having clean clothing, being healthy, being appropriately educated and socialized. In Western cultures, women traditionally bore the responsibility for social reproduction for the whole family, while spheres of production were a masculine domain. Now, women share responsibilities with men in the sphere of production but men do not share equally the responsibilities in the sphere of social reproduction.

⁹ Stephanie Buechler, "Women at the Helm of Irrigated Agriculture in Mexico: The Other Side of Male Migration," in *Opposing Currents*; Elena P. Bastidas, "Women and Water in the Northern Ecuadorian Andes" in *Opposing Currents*.

¹⁰ Vivienne Bennett, *The Politics of Water: Urban Protest, Gender, and Power in Monterrey, Mexico* (Pittsburgh, Pa.: University of Pittsburgh Press, 1995).

¹¹ María Nieves Rico, *Las mujeres en los procesos asociados al agua en América Latina. Estado de situación, propuestas de investigación y de políticas* (Santiago de Chile: Comisión Económica para América Latina y el Caribe [CEPAL, Naciones Unidas], LC/R.1864, October 1998).

¹² The World Bank's report, *Engendering Development*, also calls attention to the gap between gender policy and outcomes. While the World Bank's statement on this phenomenon is relatively mild, our experience in the real world is as we state it in the first sentence of this paragraph. World Bank, *Engendering Development: Through Gender Equality in Rights, Resources, and Voice* (New York: Oxford University Press and World Bank, 2001), 14.

¹³ Margreet Zwartveen, "Gender Issues, Water Issues: A Gender Perspective to Irrigation Management" (working paper no. 32, International Irrigation Management Institute, Colombo, Sri Lanka: 1994).

¹⁴ Julie Jarman, "Water Supply and Sanitation," in *A City for All: Valuing Difference and Working With Diversity*, ed. Jo Beall (London: Zed Books, 1997), 188; World Bank, 23-24.

¹⁵ As cited in Jarman, 188.

¹⁶ Vivienne Bennett, "Gender, Class, and Water: Women and the Politics of Water Service in Monterrey, Mexico," *Latin American Perspectives* 22, no. 2 (1995), 76-99.

¹⁷ Buechler (2005); Bastidas (2005).

¹⁸ Carmen Diana Deere and Magdalena León, *Rural Women and State Policy: Feminist Perspectives on Latin American Agricultural Development*. (Boulder, Colo.: Westview Press, 1987).

¹⁹ Bastidas (2005).

²⁰ Buechler (2005).

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⁴⁵ *Ibid.*, 103.

⁴⁶ Bustamante, Peredo and Udaeta (2005), 80.

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⁴⁸ *Ibid.*, 79.

⁴⁹ *Ibid.*, 79.

⁵⁰ *Ibid.*, 81.

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