



**INTEGRATING GENDER PERSPECTIVES:**  
**REALISING NEW OPTIONS FOR IMPROVED WATER MANAGEMENT**

**Gender Implications**

**AUTHORS:** Jennifer Francis  
Executive Secretary, Gender and Water Alliance  
Sybille Jahn  
Senior Consultant, Scientific Unit for Development Policy,  
Institute for Economics, Technical University Darmstadt

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## **0. EXECUTIVE SUMMARY**

Women constitute half of the world's population. They are the caretakers of children, the guardians of family health and well-being, and frequently, the managers of household resources.

In the developing world, where millions of families still lack clean water and adequate sanitation, women are the ones who ensure that their families have water. Yet, despite their number, and their roles and responsibilities, women often have no voice and -so no choice- in decisions about the kind of services they receive in relation to water supply, sanitation and health.

Since the experiences of the Water Decade (1982-1990), and the preparations for the 1992 Earth Summit in Rio de Janeiro, a set of principles have emerged that are creating dramatic changes in water-sector development. Water has now been designated an economic good, an input in income-creation activities, for which users should pay. However, if users must pay, providers must respond to demand, i.e, to what users want and are willing to pay for. Questions have arisen as to how water systems, once installed, will be managed and financed.

At international level, it is now widely accepted that women's involvement in the water sector should be promoted. But this is not enough. Experiences have shown that the use of a gender analysis framework is now necessary to understand how, in the operationalisation of policies and programmes, work, influence, decisions and benefits become divided between women and men of different classes and economic backgrounds.

We now understand that gender-balanced approaches converge with demand-responsive approaches. The challenge before us is to use these principles, and our understanding of them, in designing policies, programmes and projects that promote sustainable development, poverty alleviation and biodiversity preservation at all levels.

## **1. INTRODUCTION**

Many countries have recognised the benefits of involving women in all aspects of their water and sanitation programmes. Most government guidelines, project designs and program policies now incorporate a gender dimension: this is regarded as crucial to the sustainability of any program or project. It has been accepted that water development and management policies and programmes that exclude women as actors, and as an interest group, bypass half the population and are lower in efficiency and effectiveness.

However, at the implementation level, the promotion of a gender balance is often lacking.

This reveals that it is not enough to accord women paper rights through policy, law or institutional reform. Instead, the overall goal of any gender strategy for the water sector should be: to develop a framework which ensures that both women's and men's concerns and experiences are an integral dimension of the design, implementation, monitoring and evaluation of water projects --as well as of legislation, policies and programmes.

## **2. GENDER AND THE WATER SECTOR**

Both men and women shoulder responsibilities relating to water. But the gender division of labour within societies determine who has control over its use in a wide range of activities: agriculture, domestic water supply and waste disposal, industrial use, aquaculture, transport, energy and ecosystem maintenance. Balanced attention to the gender-dimension optimises social and economic development, and reduces competition and conflicts over water.

However, women are not a homogenous social group. Class, age, religion and ethnicity create important variations in the conditions under which women live, influencing the needs they express, as well as their priorities and demand for water. In general, women comprise an above-average percentage of those designated as poor, but the physical and social realities governing rural, peri-urban and urban water supply are often markedly different. The problems connected with women's roles can therefore vary radically because of geographical context.

Diversified responses have to be sought to meet the challenges posed by the variable institutional and organisational structures, as well as differences in the status of women.

## **2.1. Access and Affordability of Water Supply and Sanitation**

Two concepts influence decision-making on water access and affordability. The concept of water as an economic good implies that those who get water delivered to them, or who discharge waste into a watercourse, should pay for the service they get, or the damage they cause. Yet water is also conceptualised as a fundamental human need, which has to remain accessible to everyone.

Water delivered to fulfil basic needs --for drinking, cooking, hygiene and production of subsistence food-- should remain a priority, affordable to households with the lowest income levels, many of which are female headed. A reliable water supply ensures that poor households have more time to engage in income-producing activities, better hygiene and lower health-care costs.

Within communities, however, there are significant differences among social groups in the kind of services and facilities they require and can afford. In general, women want public water points located near their homes, preferring connections within their houses, so as to reduce the time and energy spent on the acquisition of water. Distant water facilities increase women's and girls' workloads, sometimes placing severe stress on their health and their capacity to take advantage of educational and training opportunities. Men, on the other hand, tend to be more interested in the availability of water for skilled labour activities, industrial production or agriculture.

When users are expected to pay for water-delivery, they must therefore be consulted as to their ability and willingness to pay. Feasibility studies and marketing research must be carried out on a cross-section of the population, broken down by class, sex and other characteristics. In this way, a wider range of options can be offered to match the different demand-levels of women and men.

Meeting demand does not stop at the installation of services. Creating a system for accountability is necessary. But sometimes women do not have the opportunity to hold the service provider accountable, since they are not present at the appropriate meetings. Attendance and voting in assemblies focused on domestic water or irrigation services are still often reserved for male household heads.

In addition, within households, women and men are often responsible for paying different household bills. Intra-household expenditure for water often lies within the female domain of responsibility. Though the women may be motivated to pay for water, they usually have lower financial resources than men. Water supply projects can become much more effective if women's and men's complimentary intra-household roles and perspectives are taken into account at both design and implementation stages.

Lack of water is a determinant of poverty. This has a devastating effect on millions of households throughout the rural developing world, as well as in rapidly expanding towns and cities. A high proportion of those households are headed -or primarily sustained- by women. In millions of others, lack of water and waste management -for which women are principally responsible- inhibits women's capacity to protect their families' health and to enhance their productivity. Since women are significantly over-represented among the poor, lack of water

and of a clean, safe environment, contributes to the feminisation of poverty and to the entrenchment of poverty generally. Efforts to eradicate poverty require raising the level of importance of investments in the provision of water and sanitation.

## **2.2 Protecting Ecosystems**

Water pollution refers to the contamination of water bodies and their substrates when pollution exceeds their self-purification capacity or their sink capacity for pollutants.

In every community, there are learning systems, by which local knowledge is adapted in the light of new information and transmitted through dialogue and participation. Most often, women are the controllers and purveyors in local learning systems related to water, health and sanitation - as is revealed by their use of indigenous knowledge systems on managing quantity and quality. Indigenous management of water resources is especially noticeable where water shortages necessitate careful handling, or where a highly developed water culture exists, perhaps involving religious beliefs and practices regarding water sources and water handling.

Increased watershed sustainability, rehabilitation of ecosystems and sustainable livelihoods can be made possible if women have access to the watershed. Unless women watershed user- groups initiate and manage their own resources, the situation will remain unbalanced in favour of men and vulnerable to overuse . Since poor women often have traditional technical knowledge in managing watersheds, enhancing their financial and managerial powers will offer them a role in current water management and pollution prevention. A role based on equality rather than domination, on co-operation rather than competition.

Public awareness, education and dissemination of water-culture information are also important elements in the creation of sustainable waterpollution abatement strategies. Local and regional cultural values and taboos sometimes contribute to polluting activities. But traditional values can also be powerful tools, entrenching anti-pollution practices – if the right actors are given the right, gender-sensitive training and facilities.

## **2.3 Balancing Water Uses**

Many studies in different countries have shown that, in poor regions, food security is often dependent on women's agricultural work. While men are involved in cash crop production, it is the women who grow vegetables and maintain livestock to feed their families or sell in local markets. Poor women are also involved in small-scale agro-industry as a means of subsistence for themselves and their families.

Thus women are often a vulnerable group when water is reallocated to higher-value uses. They risk losing access to water. A gender-informed strategy has to be devised to consciously take into account women's needs, so as to ensure that they receive a fair share of this development resource and its benefits. Government policies or private sector investments may change local resource management practices. Thus, it is crucial that investment planning takes into account potential effects on women's abilities to use and manage resources for subsistence and for their economic development.

Reduced irrigation facilities for household subsistence production can result in negative impacts on the nutritional status of women and their families. Women should therefore be involved in the planning, decision-making and implementation of such activities/projects.

As women are usually responsible for providing their families with water and food, the need to protect ecosystems is very much internalised: Functioning freshwater ecosystems undertake various ecological services, directly paying back on the longterm protection of living conditions: e.g. self purification of water, water storage or conservation of biodiversity etc.

In many countries, small-scale fishery is a women's field of economic activity. Local communities usually operate within a set of informal rules that regulate sustainable use of resources. When export-oriented processing factories enter the fishing scene, local women and men often lose opportunities. Fish prices rise beyond the means of local consumers. Women then lose both their sources of income and their sources of food. International capital invested in export-oriented activities should therefore also be invested in developing local capacity and infrastructure, particularly building on the local knowledge and expertise of the women.

## **2.4 Transboundary Waters**

In principle, water resource development for multiple uses should prevent conflicts. However, shortages of water and subsequent demand management have fuelled competition. Taking the natural boundaries of the watershed or river basin for integrated water resources development and management is becoming an accepted norm today. However, from the local to the basin-level, interactions are dominated by large-scale water-users, and the administrative, political or economic elite. This excludes the weaker segments of society -- poor men and especially women, whose multiple water needs for the welfare of their families and household economy are often blatantly overlooked.

Current efforts to create new legal frameworks and new water management institutions at the basin level call for genuine representation of all water users' interests. Community-based integrated water management institutions and local water tenure arrangements should be linked to new basin-level institutions. Informing women in particular about new water-management initiatives from the local to the basin level and effectively including them in the design of these new institutions, will be crucial. Devising appropriate strategies to guarantee women's participation, strategies that take into account cultural and social traditions, will be vital in ensuring genuine community commitment.

## **2.5 Floods and Droughts**

Water related disasters affect the poor to an overwhelming extent. It is the poor who usually experience the loss of life, property, livestock, livelihoods, crops, as well as the diseases, that often result, most of all.

For disaster management and mitigation to succeed and to decrease human vulnerability, it is crucial to take into account the different needs of women and men. Among the poor, women and children are the most vulnerable; in fact they are 14 times more likely to die in a disaster than men.

Disaster management and mitigation programmes are more effective when women are viewed, not just as victims, but also as individuals who can actively participate in response strategies. Women play a key role in household livelihood systems. Effective flood and drought protection-and-mitigation strategies cannot be formulated without an understanding of their roles and responsibilities. Settlement plans need to incorporate women into discussions and negotiation with local communities. Here, it is important to understand how land-use and land-tenure systems affect settlement patterns, and where changes in these could be used to encourage women and men to move to safer areas.

Educating women in disaster management and mitigation contributes to the comprehensive well-being of the community. Oftentimes, men are not even present when disasters strike. Thus, training in disaster preparedness, response and recovery needs to be geared towards women at community level, as well as towards men.

### **3. IMPLICATIONS FOR GENDER-INFORMED WATER POLICIES**

#### **3.1. Governance, Management and Participation of all Stakeholders**

Past experience in water resources management has demonstrated that even a people-centred approach does not automatically ensure that women's and men's needs and priorities are reflected in programming (SIDA 1998). Thus, emphasis on mainstreaming gender perspectives should be systematically incorporated into all international, regional and national policies and programmes.

A user-oriented and demand-driven water supply system can only meet the needs of its customers when these customers are capable of expressing their needs to water authorities. Women and men at different socio-economic levels need relevant information, so they can make informed decisions regarding their choices and the costs they are undertaking. Women have a particular need for information on possibilities for participation in negotiations with suppliers, and on their legal rights, in order to enhance their bargaining power.

If the principle is accepted that water is an economic and social good that should be managed at the lowest appropriate level, services must be planned on the basis of demand from future users. Gender-disaggregated data must be used to determine effective demand within different social strata. Projections on the effects and efficiency of water-related services and programmes should be based on analysis that takes into account the activities of both women and men: as consumers, service managers, employees of public and private utilities, engineering and health professionals, and village-level water-managers.

Organisations concerned with the water sector at all levels (from bilateral and multilateral to district and local) should mainstream gender within their water management strategies. This requires conscious attention to gender aspects in all policies, programmes, administrative and financial activities, and in all organisational procedures.

Water sector policies have to reflect women's needs, priorities and representation-rights in relation to all possible water-use options. A gender strategy with clear goals, objectives and targets, aimed at access for all, should aim at balancing different water uses through integrated watershed management. Where there are conflicting needs, those of the women have to be recognised and respected. Policies have to explicitly aim at preventing the reduction or denial of access to water, land, credit etc. on the basis of gender or ethnicity.

Since women comprise a large segment of the users of water facilities, an adequate proportion of the membership of all decision-making bodies and water-management committees should be female. Generally, a one-third proportion is regarded as creating the requisite critical mass for the interests of a group to be effectively represented. Where representation is unbalanced, affirmative action is needed over an agreed period, governed by clearly established criteria. To ensure quality representation of women's interests in decision-making bodies and management structures, careful analysis is required to ensure equality in the distribution of work, paid opportunities, skills-development and capacity-building initiatives, as well in as the benefits of any planned action.

Adequate women's participation in decision-making bodies in the water sector has to be ensured at all levels:

##### **- at the international level**

Existing gender-informing water networks and professionals should be consulted and a sufficient number of women delegates should participate in international decision-making bodies.

### **- at the national level**

National water sector policies have to consciously reflect women's needs, priorities and representation-rights related to all possible water-use options. A gender strategy aimed at inclusion for all stakeholders has to aim at balancing different water uses through integrated watershed management. Where there is competition for water resources, respect for women's needs must be guaranteed. Access to water can be impeded or denied, so social exclusion on the basis of gender or ethnicity has to be prevented. Equitable access to water must be ensured when water is reallocated to higher-valued uses, since, in those cases, the women are the ones who are most likely to lose access.

Some countries operate pluralistic legal systems. In these, customary law may grant women different water rights from formal legislation. Care has to be taken that women-friendly provisions in customary law are integrated into legal frameworks being designed to govern the water sector.

### **- at the district level**

Drinking water is a strategic resource that can become a major factor within local power struggles. Women are often unaware of their rights to participate in decision-making bodies. They must be made aware of these rights for demand-driven supply systems to be effective.

### **- at the local level**

Women are important users of the water infrastructure and should therefore be included in local decision-making bodies in the water sector. However, cost and benefits of participation in water management institutions are often different for men and women. Recognition of these differences and their accommodation through adaptations of the rules and procedures of institutions is crucial to ensure that women have a voice.

Conditions affecting female participation in water committees and management structures differ between rural and urban areas. In rural areas, high female illiteracy rates are a major constraint to women's participation and this is often used as a justification for exclusion. In urban areas, women are less organised and often uninformed about their legal rights. Recognition of these differences and their accommodation through adaptations of institutional rules and procedures, is crucial for ensuring women's participation.

## **3.2. Mobilising Financial Resources**

Water services cost money. In many countries, it has been accepted that water is an economic good. But water is also a public and social good, essential to society at large and vital to a healthy environment and human dignity. Cost recovery for water supply is a new idea in some countries and water-user rights are not well known. Beyond that, religious and customary laws persist in some regions, declaring free water for immediate drinking purposes as a basic human right. Water for the poor is regarded as a basic human need that has to be met, since water is essential for the survival of every human being.

Among the poor, women, children, widows, and orphans generally form the majority. If these groups cannot pay water tariffs, they may be forced to continue using water from polluted sources, thus thwarting efforts to eliminate water-borne diseases (cholera, typhus etc.).

Cross-subsidising or life-band-respecting water tariffs should be integrated into demand-oriented water management, thus ensuring access to affordable water by the poor. Governments, which carry out essential water management functions, can use available tools, such as legal prescriptions, economic and other incentives, and higher tariffs, for those who use water for commercial purposes and can therefore contribute more to optimal management of water.

Water management systems that include participation at the lowest appropriate levels can support efforts to make safe water affordable to low-income groups. The community has to



understand its options and needs to be willing to take responsibility for the system. Men and women, belonging to all social groups, have to be involved in selecting the type and level of service, as well as the financing, maintenance and management systems which enable them to participate. The system of co-financing chosen must also ensure that contributions in cash and kind are fairly distributed.

Service provision must be based on what people want and are willing to contribute to. At the community level, institutional capacity to manage the development, operation and maintenance of the system must be enhanced. Governments should examine their budgets for water provision and assess what proportion should be spent on social aspects – such as strengthening the management capabilities of both women and men through training to fulfill old and new roles.

Level and type of service also influence expenditure for water supplies. Water prices directly affect household budgets, and, in many societies, it is the woman who has to pay for water from her own budget, since resource-pooling within the family is not common. In some countries, there is a tendency that men and women maintain separate income and expenditure. There is also considerable variation in the extent to which husbands and wives share the task of providing for the material needs of their households. Men often meet long term needs, while women contribute household goods and food items, including water.

When women's effective demand is properly assessed, the risk of improved facilities falling into disuse is reduced.

The choice of water-saving and low-cost options, the use and transfer of innovative technologies (such as the latest irrigation techniques which increase field efficiency) can also help to prevent the installation of unaffordable and unsustainable water infrastructure.

### **3.3. Capacity Development, Technology Transfer**

Technical and economic sustainability of water infrastructure is an important factor in water security. Involving users in management and decision-making helps to ensure that systems meet consumers' demands and that they will be used and maintained. Community-based as well as traditional methods for the management of drinking water and irrigation are often well supported. But even if community-based structures are well accepted at the lower levels of a water supply management system, they require skills from people who generally have little formal education or management experience. Female illiteracy rates are very high in many countries.

Therefore, for water systems to be sustainable, members of local organisations have to acquire the capacity to act as water managers. Time and resources are required to train management committees to run water supply systems and water resources management bodies. As women are often the most direct users of water facilities, involving them in management and decision-making helps ensure that the systems meet their needs and that they contribute to sustain them. This demands an increase in technical and scientific education offered to women.

Both men and women's views on technological options have to be considered in order to find socially appropriate technical solutions. Water-sector white elephants now litter parts of the developing world: non-functioning water pumps, dried-up wells, leaking irrigation systems. They tell tales of neglect in preventive maintenance. Due to the lack of a small spare part or the non-detection of a little damage, a whole water system may fall into disuse. Such breakdowns primarily affect women. They end up trudging great distances to get their household water. It is them who have the most motivation to keep water systems working.

If women are well integrated into the organisational and management structures of water supply systems, there is a better chance that those systems remain technically sustainable, since, in most cases, it is the female part of the population that comprises the final users of the water infrastructure. A quickly detected and repaired damage to some part of a water

supply system can prevent large-scale water losses as well as heavy destruction when there is uncontrolled flooding.

As women are often the most direct users of water facilities, involving them in management and decision-making helps to ensure that systems meet their needs and guarantees their contribution to sustaining them. They should therefore be a focus of initiatives to build capacity for performing managerial functions. These should include development of skills in financial management, decision-making, community participation, leadership, confidence-building and communications. Site management, care-taking, local administration, operation and management - all constitute opportunities to creatively use local capacities to develop sustainable community-based systems to maintain water facilities.

Time and resources are required to train personnel working in water-related regional and national bodies, NGOs and private water companies, so they can acquire skills in gender analysis and strategies for implementing a gender approach.

### **3.4. Water as a Finite and Vulnerable Resource**

Fresh water is a finite and vulnerable resource, essential for sustaining life, development and the environment. The recent perception of water as an economic and as a social good implies the conceptualisation of water as a scarce resource, requiring efficient management to guarantee long-term supplies.

Rainwater-harvesting for sustainable development is a valuable, decentralised alternative and supplemental water source for households in sparsely populated areas, especially in areas with seasonal rainfalls. Women are the group most interested in rainwater harvesting programs, since having water near the house reduces their daily workload. It allows them to store water for household purposes close to their homes, thus saving hours of work in fetching and transporting water. Women who no longer have to walk for hours to fetch water can spend more time on additional economic activities or on leisure. Having water near the house also allows them to start additional agricultural activities – such as growing vegetables, poultry farming or planting and watering fruit trees, thereby improving the income and the diet of their families.

Many water engineers responsible for technical implementation have been trained to trust in groundwater as the single source for all potential water needs throughout the year. They tend to neglect other options such as rainwater harvesting. But rainwater harvesting has proved to be a simple technology suited to household water provision. It is a real alternative for sparsely populated areas and responds to the situation of water scarcity in semi-arid regions, as many examples in Africa show. (For details see FAKT, Germany)

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