



# Water resources management in Africa and the role of women

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A very important example of the implementation of water resources management, in terms of water scarcity, is Africa. Water is not only a critical resource for Africa, but it has also major implications for its development. As the Economic Commission for Africa recognizes, water and its prudent management is the key for reversing the downward trend of human well-being, arising from the combination of the rapid population growth, stagnation of per capita food production and the acceleration of environmental degradation across the continent. Nowhere else, as in Africa, fresh water constitutes not only a critical issue interrelated with natural resources but also a determinant of social and economic development.

The importance of water for the socio-economic development is recognized worldwide. However, with the population growth, industrialization and the increasing demand for water for various uses, water scarcity is looming in many countries of the world. In particular, in the African continent of approximately 800 millions, it is estimated that more than 300 millions live under water shortage conditions.

Furthermore, activities related to water management are often fragmented among a number of ministries and agencies at national level. The division of responsibilities between ministries and sectoral administrations intercept the coordination and the efforts for the integration of water management activities. There is a need for initiatives within the institutions both for the development of economically sustainable systems and the design of political structures, which will be able to meet the financial needs and avoid the duplication of responsibilities.

The general objectives of water management cover the utilization and development of water resources in an efficient, environmentally friendly, equitable and reasonable way in order to meet society's demand for water. In addition, through proper water management, the preservation of the ecological functions of water resources becomes possible.

At the International Conference on Water and Environment, a meeting of experts on problems associated with water, held on 31 January 1992 (ICWE), in Dublin, six indicative sectors regarding the field of freshwater were proposed and approved:

- a) Integrated development and management of water resources*
- b) Evaluation of water resources*
- c) Protection of the water resources, the quality of them and aquatic ecosystems*
- d) Supply of drinking water and sanitation*
- e) Water and sustainable urban development*
- f) Water for sustainable food production and for rural development*



Furthermore, a major event that stands out among other major international conferences and congresses on water management, in recent decades, is the Conference of the 1992 United Nations Environment and Development (UNCED) in Rio de Janeiro, the main outcome of which was the Agenda 21. The Chapter 18 emphasizes the integrated management of freshwater as a finite and vulnerable resource and the fact that the integration of sectoral water plans and programs within the national economic and social policies framework is needed to be a crucial point for action.

Africa embraced the challenge of an integrated approach to water and a proper development and management of water resources. The result was the publication *"Africa: Vision for Water 2025 (AFRICA WATER VISION 2025)"*. The above initiative was designed to provide data on the African continent for the development of a global plan for integrated water management under the World Water Council. The World Water Council was developed through a participatory process, from each region of Africa.

As it is easily understood, both for increased access to safe drinking water and for increased size of irrigated land, enough water should be available. The availability of water, on the other hand, in an area, mainly depends on two interrelated factors: rainfall and internal renewable resources. The latter, however, is fed by rainfall, and if the rains fail, the groundwater reserves are not replenished.

More specifically, in Africa, the largest consumption of water from available sources, as mentioned above, is related to agriculture and settlements. However, there is a growing trend in water use regarding the industries affecting in this way the water quality. To make the water management sustainable, consumption should be done carefully to ensure not-overconsumption. It must be ensured through proper water resources management that water is actually consumed for the needs of agriculture, water supply and industry and it is not wasted.

On the other hand, as the African Development Bank states, despite the variety of water resources on the continent, the poor management of water resources affects negatively the access to clean water by millions of Africans. In most African cities over 50% of water supply is lost, the Bank stressed in its report. Much of the water is wasted due to leakages or due to old plumbing networks or misuse.

Through a better and more efficient use of environmental and intergovernmental systems for water resources, this situation could reverse. Consequently, it will have a positive effect on the water management systems that eventually may lead to development. It is worth noting at this point that, some surveys note a positive correlation between progress and optimization of intergovernmental and institutional frameworks and progress in water management systems.

Another critical factor, which plays a crucial role in the overall situation of the water resources management in Africa, is the role of women. There are few studies that have analyzed this specific role of women in Africa. The analysis "Drawers of Water" of (White GF et al, 1972), a classic reference point to research problems of water resources in East Africa, although it deals with several social and political issues, such as the water use, health costs and the communities, it makes little reference to the special role of women in water resources management.

It is widely known that the role of women in most African societies is limited to the transfer of water. The access of women to clean drinking water is limited within the role of women in the following tasks: taking decisions related to water use at home, ensuring the health of family members, health and suitability of water and even the access to water. This limited knowledge of the role of women has led to a misconception of governments and organizations, on the primary interest of women, namely the management and safeguarding of water at household level.



Apart from the household, however, women in Africa deal with tasks that have economic benefits for themselves and for their families, such as trade of cooked food, brewing beer, and operate tea kiosks. Still it is widely considered by governments and by designers of water resources management programs that water directly related to economic production, agriculture and industry, it is more important than the household-related one, therefore, women remain excluded from agriculture and irrigation programs.

Nonetheless, as one principle of the Dublin Conference stresses "*Women play a central role in the provision, management and safeguarding of water.*" To this end, policies need to be adopted, that will allow African women to assume a more active and productive role in water resources management. It is necessary for the needs of women to be taken into consideration in order to be solved. At the same time, it is important to equip women with the proper skills and empower them to participate at all levels of water management programs, including decision-making and implementation, in ways that are determined by women. It could be said that, we need a bottom-up approach with respect both to water resources management, and the role of women. Taking up responsibilities in the decision-making process should begin from the most local level, namely the household. Taking into consideration the active and effective role of women in domestic water management, it comes naturally their contribution to decision-making and implementation at all levels of water management programs at community and at national levels.

Concluding, it is a fact that the efficient use of water is an issue that concerns the majority of the countries. The problem becomes even more evident in agriculture because of the irrigation and the high demand for water. Many parts of Africa have low economic performance, successive droughts and failures in agricultural production leading to the emergence of famine and mass migration. Water is a commodity and the cost of providing water services such as management should be 'repaid' by the beneficiary communities.

Plans to regulate the use and manage the water resources and pollution are rarely referred as "in improvement" at a rate more than 50% in African countries. Even the implementation of these programs in most of the countries is at an early stage. Several studies show that more and more work is required in order for these management programs to be developed so as to give, in this way, to the program managers an even more comprehensive range of management tools.

Africa is a complex continent with diversity in its climate, physiography, economy, society, and cultural and political characteristics. It becomes clear therefore, that the development of an effective water resource management system requires the active role of NGOs, research organizations and local communities, complementing the role of governments, aiming to specific and individual reforms, in line with the complexity and the diversity of Africa.