



Full Length Research Article

POLICY OPTIONS FOR ENHANCING WOMEN'S PARTICIPATION IN MANAGING WATER RESOURCES IN KAJIADO COUNTY, KENYA

¹Teresia W. Gathagu and ²Jones F. Agwata

¹Office of the Attorney General, Nyeri, PO Box 1738, Nyeri, Kenya

²Centre for Advanced Studies in Environmental Law and Policy, University of Nairobi,
PO Box 30197-00100, Nairobi

ARTICLE INFO

Article History:

Received 03rd February, 2014
Received in revised form
29th March, 2014
Accepted 02nd April, 2014
Published online 20th May, 2014

Key words:

Policy, women,
Participation,
Water Management.

ABSTRACT

The important role that women play in the management of water resources has been recognized in various parts of the world. This is because they play a significant role in accessing water for various uses such as washing, cooking, watering of crops and livestock rearing. Their effective participation in water management is however influenced by existing policy, institutional and legal frameworks. In this study, the various policies that enhance women's participation in water resources management in Kajiado County of Kenya were evaluated from the perspective of relevance, value and limitations. This was done with a view to suggesting practical measures to ensure the women's important and critical roles are properly captured in the proposed policies on water resources management in the County and elsewhere in the country. The findings show that although the existing policies, legal and institutional frameworks are fairly comprehensive in addressing women's roles in the management of water resources, the policies do not, however, directly and adequately address women's issues and concerns in water resources management in the County.

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INTRODUCTION

The importance of involving women in the management of water resources has been recognized at the global level. In most societies, women have the primary responsibility for management of household water supply, sanitation and health. In these societies, women play the role of family care givers in providing food, proper nutrition, clean water and proper sanitation. Due to the said social roles, women depend directly on water resources and have therefore accumulated considerable knowledge about water resources, including location, quality and storage methods (Agarwal, 1998). The Kenya Government together with other development agencies has made commitments to ensure enhanced participation and involvement of women in the management of natural resources including water resources. Towards this end, policies, legal and regulatory mechanisms have been put in place to enhance their participation. However, the implementation and effectiveness of these policies and legislation has not been clearly established especially in the traditional rural contexts of Kenya and especially in Kajiado

County. In Kenya several challenges hinder women from effectively participating in water resources management. These challenges need to be looked at with a view to encouraging women to participate effectively in the management of water in their areas. This study was done between February and March, 2012. The overriding objective was to assess policy options for enhancing effective participation of women in the management of water resources in Kajiado County with a view to informing policy development to enhance effective participation of women in water resources management. Water is one of the most important resources for man's survival and it is essential to human beings and all forms of life. It is necessary for sustainable development, poverty eradication, reproductive and maternal health, and in combating diseases. Unfortunately, one third of the world's population experiences some kind of physical or economic water scarcity (Cech, 2009). Due to increasing demand for water from different sectors such as industry, agriculture, power generation, domestic use and the environment, it is increasingly difficult for poor people to access the resource for productive, consumptive and social use. In areas facing water scarcity, access to water resources is a serious challenge due to competition for the resource. Where there is competition, it is the poor and the vulnerable who

**Corresponding author: Jones F. Agwata, Centre for Advanced Studies in Environmental Law and Policy, University of Nairobi, PO Box 30197-00100, Nairobi*

suffer. In most societies, women are usually considered poor and vulnerable. According to UNDP (2006), water availability is linked to poverty, food security, health, gender equality and gender equity. Inadequate and unequal access to water is both a result and cause of poverty and can be termed as a denial of human rights, good health, adequate nutrition, literacy and employment. Access to adequate amounts of clean water is essential for maintaining good health, and access to water for agriculture is essential for food production. When it is scarce, competition for it will lead to the vulnerable groups being deprived. Women, children, the sick and the elderly people will suffer the most (Angula, 2010). Although the links between water and poverty may be easy to grasp, the issue of how to organize our societies and our water resources so that the poor are able to access water for consumption and production has not been given necessary attention. According to IFAD (2007), water is essential for food production and food security and an estimated 70 per cent of available freshwater resources are used for irrigation. In most sub-Saharan Africa and Latin America there is considerable untapped potential for bringing more land under irrigation.

Irrigation does contribute to poverty reduction, and its development can be made more pro-poor by securing better access to water for poor farmers especially women (FAO, 2003). When there is lack of water, it is the women who spend so many hours looking for it. Children are also affected because they are forced to accompany the women in search for water, instead of going to school. Water is a basic necessity of life and when it is scarce, the hours women spend searching for water could otherwise be used in more productive work like education and agricultural production. This could contribute towards improving the general well being of the families (Denton, 2000). Lack of access to water causes gender inequality, poverty and lack of education to women. According to WHO (1997), access to safe drinking water averages of 20 liters per person per day within one kilometer walking distance from the household, while basic sanitation refers simply to a sanitary means of excreta disposal. Access to safe drinking water is also very critical to the attainment of the Millennium Development Goals. Water is essential in eradication of extreme poverty and hunger, improving maternal health, achieving universal primary education, promoting gender equality and empowerment of women, reducing child mortality.

Nevertheless, despite this undisputed importance of water, securing access to safe drinking water has only fairly recently become one of the key goals of development. Due to the importance of water as a resource, it is imperative that it be managed sustainably. This calls for integrated water resources management (IWRM) which coordinates the development and management of water related resources while seeking to maximize social and economic welfare in an equitable manner, to sustain ecosystems and to bring together the technical, ecological, social and political spheres. An essential part of an integrated approach is the participation of all stakeholders, including local communities and women (Biswas, 2004). In most societies, women have the primary responsibility for management of household water supply, sanitation and health. In these societies, women play the role of family care givers in providing food, proper nutrition, clean water and proper sanitation. Due to the said social roles, women on their daily activities depend directly on water resources. As a result,

women have accumulated considerable knowledge about water resources, including location, quality and storage methods (GWA, 2009). In this regard, it would be correct to say that women are the invisible managers of this resource. Previous studies have suggested that men and women have different interests in the management and use of water. The two genders obtain different benefits from the resources. When there is poor sanitation, water and food scarcity, girls and women become the major victims. As such they are most committed to ensuring that water resources are sustainably managed (GWA, 2009). This attests to the fact that when people influence or control decisions that affects them, they have a greater stake in the outcomes and are committed to ensuring success. Participation of women therefore would produce more efficient and more sustainable water plans, projects and programs. A study done in Kericho by Were and Roy (2004) established that committee and association membership in the existing water associations is exclusive to men. It was established that the only registered female member of Chesilot water project had recently relinquished her position to her son. During group discussions it was also revealed that it is the men who had taken lead roles in initiation and implementation of the projects. On the other hand, women were responsible for preparing meals and child care and could not participate in the meetings.

They were the ones to prepare meals when meetings are held in their homes. Another study conducted in the Upper Nyando River Basin by Were and Roy (2008) established that in one community where obstacles to organize were overcome and a successful piped water system installed, women were able to use the time saved from water collection to enhance household tea production and establish a group that has generated new income from casual labour and the production and sale of new crops. In other communities, however, it was established that men were not sensitive to how lack of access to water imposed a heavy burden on women. During the study a key informant quoted a man in a community meeting where water projects were being discussed as having said, "*When water is available at home, what will the women do? Go sleep around?*" Out of the 50 people present, only 2 were women an indication that women were not participating in decision making forums. If they were, the decision of the meeting could have been different and could have most likely resolved to commence the water project.

Policy, legal and institutional framework

Over the years, the important role that women have played in water resources management has been broadly recognized at global, continental, regional and local levels through treaties, conventions, policies and legislation. International recognition can be traced back to the 1977 United Nations Water Conference and the International Drinking Water and Sanitation Decade of 1990 (IDWSD, 1990). This was followed by the International Conference on Water and the Environment in Dublin (ICWE, 1992) which adopted various important principles. First, freshwater is a finite and valuable resource, essential to sustain life, development and the environment. Second, water development and management should be based on a participatory approach involving users, planners and policy makers at all levels. Third and of most relevance to this study, was that women play a central part in the provision, management and safeguarding of water. The

Rio declaration which was made during the United Nations Conference on Environment and Development (UNCED, 1992) proclaimed twenty seven key principles meant to guide nation states in protecting the integrity of the global environmental and developmental system. Principle number 20 notes that women have a vital role to play in environmental management and development and that their full participation is therefore essential to achieve sustainable development. Agenda 21 was adopted in 1992 to implement the principles in the Rio Declaration. Chapter 3 thereof calls on governments to give girls equal access to education, reduce the workload of girls and women, making health care responsive to women's needs, bringing women into full participation in social, cultural and public life, ensuring women's participation in controlling environmental degradation, ensuring their access to property rights and eliminating all forms of persistent negative images, stereotypes, attitudes and prejudices against women (UNCED, 1992). The United Nations Convention to Combat Desertification (UNCCD) meeting was held in Paris in 1994 with a view to assessing the role of women in areas which face desertification.

The Convention stated that there was need to ensure participation of women in the development of programmes to combat desertification and also reduce the effects which are occasioned by drought. The Convention recognized the need to be more urgent in developing countries since their populations were the ones who were mostly affected. Accordingly, the effects of drought cannot be suppressed without the sound management of water resources (Muller and Lenton, 2009). In 1995, the Beijing platform for action also imposed various obligations on the government regarding the role of women. Three strategic objectives were identified in the critical area of women and environment. These were to integrate gender concerns and perspectives in the development of policies and programs for sustainable development, to involve women actively in decision-making and to strengthen mechanisms at the national, regional and international levels to assess the impacts of development and environmental policies on women (Pavel and Fulco, 2009). In addition, the Ministerial Declaration adopted at the International Conference on Freshwater in Bonn (ICF, 2001) notes that water resources management should be based on a participatory approach and women should be involved and have an equal voice in management, sustainable use and sharing of benefits from the resource.

Indeed, the role of women in water-related areas needs to be strengthened and their participation broadened (Rogers, 2003). In 2002, the World Summit on Sustainable Development (WSSD, 2002) issued the Johannesburg Plan of Implementation which provides that the implementation of the Millennium Development Goal on safe drinking water and sanitation should be gender sensitive and that access to public information and participation of women should be facilitated. Resolution 58/217 of the General assembly, which proclaimed the years 2005 to 2015 as the International Decade for Action, 'water for life' calls for women's participation and involvement in water related development efforts. The water for life decade coincides with the time frame for meeting the Millennium Development Goals (Vijita, 1996). The African Charter on Human and Peoples' Rights in 1981 guaranteed that citizens have the right of access to information,

participation and justice. These rights were granted in addition to the rights of the citizens 'to a general satisfactory environment favorable to their development'. These provisions by extension may be interpreted to secure the participation of women in various water management practices and also in the decision making processes. Furthermore, Article 2 to the Charter eliminates all forms of discrimination against women. Since most African societies are male dominated, it means that women are poorly represented in the various decision making processes both at the local and the national level. These provisions, if implemented, will have far reaching effect on the participation of women in the management and coordination of water resources (Biswas, 2004). The East African Community Protocol on Environment and Natural Resources Management's *Article 34* provides that states shall adopt common policies, laws and programmes relating to access to information, justice and participation of the public in the environment and natural resources management. The protocol recommends that states adopt policies of promoting people's participation to make water supply and sanitation sustainable, reliable and cost effective through the mobilization of the local communities. On women's participation, the protocol states "*a number of development activities concerning water and sanitation can be initiated in this area for improvement of the livelihood of the people especially women*" (EAC, 1999).

Because women have accumulated knowledge about water resources, they are the most motivated to ensure that water supply and sanitation facilities are in good order and they know from experience the vital contribution that both water and sanitation make to their well being. In Kenya, significant efforts to enhance the participation of women in development of the country have been made. This includes the environment and water sector as reflected in various Government policies, development plans and programs, ratification of various international instruments as well as other gender related legal reforms. The new Constitution of Kenya (GoK, 2010) provides that every person has a right to a clean and healthy environment as well as a right to clean and safe water in adequate quantities. It is also provided that women should be given equal opportunities with men in the development of the country. In this regard no more than two thirds of the appointive or elective positions should be held by the same gender. In effect, it follows that even in water resource management; women should be given equal opportunities with men to participate. Kenya's Vision 2030 blue print recognizes that women play a critical role in the social and economic development of any nation. However in recognizing that women are underrepresented at all major decision making levels within Government, the Vision proposes that women be empowered through access to resources, education, training and health care.

The country's development agenda as expounded in the Vision is to transform Kenya into a newly industrializing middle income country providing a high quality of life to all its citizens in a clean and secure environment while, simultaneously meeting the Millennium Development Goals for Kenyans by 2015. The government established the Ministry of Gender, Children and Social Development in 2008 through a Presidential circular No. 1. In its strategic plan of 2008 – 2012, the Ministry embraced millennium development goal number 2 which commits Kenya to promote gender

equality and women empowerment as an effective way to combat poverty, hunger, and diseases in order to stimulate sustainable development (GoK, 2008). One of the national challenges stated in this strategic plan is that women are still underrepresented in strategic decision making processes although they account for slightly more than half of the total population (about 51 per cent) and comprise a large voting population in Kenya. The National Water Master Plan, launched in 1974, had the express aim of ensuring that potable water was made available, at a reasonable distance, to all households by the year 2000. Following the Water Master Plan, the Ministry of Water and Irrigation formulated Sessional Paper No. 1 of 1999, which is the National Policy on Water Resources Management and Development in Kenya. This policy paper recognized the importance of enhancing participation in the water programmes by the local communities and also the importance of incorporating gender issues as critical to sustainable water resources management (GoK, 2000). Pursuant to this Sessional Paper, the Water Act, Cap 372 was repealed and subsequently the Water Act of 2002 was enacted. The latter Act provides the current legal and institutional framework for the management of water resources.

The Water Act of 2002 has given greater emphasis to water resources conservation, management, and protection as well as to stakeholder's participation in water resources governance. It provides for a decentralized structure which involves participation of all the all stakeholders including women in sustainable water resources management. These aspects form part of the domestication of the internationally agreed principles of water resources management in the framework of Integrated Water Resources Management (IWRM, 2004). These are at the center of the mandate given to the Water Resources Management Authority (WARMA) through the water sector reforms (GoK, 2002). The Kenya Water Sector Strategic Plan (WSSP) 2010-2012 was also developed and it acknowledges that the Government of Kenya has made attempts through legislation, policies and institutions to extend access to safe drinking water to the people and also to enhance women's participation in water resource management (GoK, 2010). The National Vision and Strategy for Natural Resources Management in the ASALs acknowledges that due to their cultural and social roles, women are placed in a situation where they are likely to bear most of the burden associated with environmental degradation such as climate change, desertification, land degradation and deforestation (GoK, 2011). Any effort towards improving access to water and ensuring sustainable management of the resource should have full participation of all stakeholders including women.

However, access to clean water remains a primary challenge in the Arid and Semi Arid Lands (ASALs) of Kenya. Kajiado County the study area is situated within the ASALs. Protection of water sources and management of water points is a primary responsibility of women as they are usually expected to provide water for domestic consumption as well as for livestock. However due to various factors established by this study, men dominate water committees and the user groups. Long distances to water points (average 10 km one way) and poor workmanship in the water points also expose women to constraints and hardship (GoK, 2008). Despite the recognition of the important role played by women and the efforts that the

Government has made in enhancing women's participation in water resource management, there is an existing gap between written intentions of enhancing women's participation in water resource management and the practice in various parts of the country and especially in Kajiado County. It is against this background that this study was conducted to assess how various policies, legal and institutional mechanisms enhance or inhibit women from effectively participating in water resources management in Kajiado County.

The study area and methodology

The study was conducted in Kajiado County which is located on the extreme southern part of the Rift Valley of Kenya. The County borders Narok to the West, Nakuru, Kiambu and Nairobi to the North; Machakos to the East, Taita Taveta to the South East and the Republic of Tanzania to the South. The County covers an area of about 21,903 km² and has seven administrative divisions namely, Ngong, Isinya, Loitokitok, Magadi, Namanga, Central Kajiado and Mashuru (GoK, 2008) as indicated in Table 1.

Table 1. Distribution of Water Resources in Kajiado County

Water source	Number
Permanent rivers	3
Shallow wells	1,000
Unprotected springs	22
Water pans	400
Water dams	145
Boreholes GOK/Community	436
Boreholes Private	300
Boreholes Institutional	264

Source: GoK, 2008

The County has a varied climate, with a bimodal rainfall pattern with the long rains falling between March and May while the short rains fall between October and December. The rainfall is strongly influenced by altitude with the heaviest occurring around Ngong Hills, Chyulu Hills, Nguruman Escarpment and the slopes of Mt. Kilimanjaro. The rainfall ranges from 1250mm near Mt. Kilimanjaro to less than 500mm per annum at Lake Magadi. Temperatures vary in altitude to a mean maximum of about 34 °C at Lake Magadi to a mean minimum of 22 °C at Loitokitok and Ngong (GoK, 2008). The vegetation of Kajiado County is determined by altitude, soil type, and extent of human occupation and utilization of the land. The main vegetation types consist of grassland, scrub and semi desert bush land. The vegetation cover throughout the County varies seasonally with rainfall and grazing intensity (GoK, 1995). Semi-nomadic pastoralism has been the traditional Maasai mode of life, practicing on land that was communally owned. However, this lifestyle has undergone changes due to ongoing land adjudication and subdivision of group ranches leading to individual land tenure system. This has increased the rate of land sales thus opening to immigration especially in the relatively high agricultural potential areas of the district to farming communities from other parts of the country. These areas include Ngong, Nguruman and Magadi divisions and foot slopes of Namanga hills (GoK, 2008).

The Water Situation

As the County is arid and semi-arid, about 95% of its streams are seasonal, while about 55 are perennial. The perennial

streams are found at the foot slopes of Mt. Kilimanjaro, Ngong Hills, Ngurumani Escarpment and Namanga Hills. Other sources of water include boreholes, dams, ground catchments/pans, wells, water holes, springs, roof catchments and rock catchments. The average distance to nearest potable water point is 15 km to 10 km during the dry season and 10 to 5 km in the wet season. The water sources in the County are distributed as shown in the following table (GoK 2008). The County as shown in Figure 1 is an arid and semi-arid land (ASAL) County with livestock keeping being the predominant economic activity. Most of the land (92%) is non-arable, while only 8% is said to support subsistence farming.

Being an ASAL area, only 10,500 Ha is under food crops. Horticulture growing is being intensified through small scale irrigation schemes in Magadi Division and individual farmers using boreholes (GoK, 2008). The study was done in three out of the seven Divisions of the County. These are Central Kajiado, Namanga and Mashuru. The three Divisions were randomly picked: One third of the locations in each of the sampled divisions were then randomly picked as shown hereunder. The number of household sampled per every location was computed from the total number of household in the location. A total of 196 respondents were interviewed. According to the Maasai culture, women are not supposed to

Table 2. Total population in the selected administrative divisions of Kajiado County

Division	Location	Population per location	Female	Male	No of household
Namanga	Bissil	15355	7933	7422	3567
	Namanga	18515	9138	9377	3508
Central	Elangata WUAS	4648	2256	2392	941
	Loodokilani	5173	2528	2645	1036
	Sajiloni	7484	3825	3659	1529
	Township	14956	7372	7584	4256
Mashuru	Ilmunkush	8068	3916	4152	1639
	Nkama	11449	5795	5654	2496
	Poka	5567	2797	2770	1184
	Total	91215	45560	45655	20156

Source: Kajiado District Statistics Office, 2008



Figure 1. Map showing the location of Kajiado County in Kenya

give information or speak to strangers. Women also do not speak in the presence of men. To overcome this obstacle, the local administration stepped in and convinced the women to give information to the research team. It also became necessary to hold focus group discussions exclusively for women so as to enable them express themselves freely. A semi-structured questionnaire with open ended and closed questions was administered to both men and women respondents. This covered a wide range of social and economic aspects and was used to explore the individual's opinions on policy, legal and institutional issues related to management of water resources in the County. Open-ended questions gave the informants an opportunity to give their views widely. This way the informants' subjective and personal views as well as observations and perceptions concerning the role of women in the management of water resources were captured. Opportunities for substantiation and probing were provided through requesting the respondents to clarify their responses by explaining or discussing further. The study conducted discussions with a total of six focus groups, two being randomly picked from each of the sampled administrative divisions in the County. Each group consisted of six to eight members.

The participants were women who were considered to have participated in various committees of water resources management and were holding key positions of leadership in such committees and who were ready to share their ideas and knowledge on water resources and its management. Women who were taking care of their households by providing water and food were also included in the focus group discussions. The selected women were usually involved in making decisions regarding the acquisition and use of water and also due to their familiarity and better understanding, especially on their role in water resources management. Key informant interviews were conducted to collect data from those who had more information and experience regarding water resources management and in particular the various policies, legal and institutional mechanisms available to enhance the participation of women in water resources management in the study sites. Interviews were also conducted to other people mainly government institutions including the County Water Officer, County Development Officers, Chiefs and Sub Chiefs, officials from three Non-Governmental Organizations namely, World Vision, German Agro Action (GAA) and African Medical and Research Foundation (AMREF) and Community and Faith based Organizations.

Study findings

The respondents were positive that there has been an increase in the number of women in water resources management activities in the study sites. This was attributed to an increase in women's education, income levels, and awareness of women's rights among others. The participants indicated that constitutional provisions and various government policies and regulations had empowered women by ensuring that one third of the positions are reserved for women. This has made NGOs and the government funding various projects to put measures for ensuring that women are involved in every level of management. The strategies and approaches used to enhance women's participation in water resources management should also include women being appointed in senior positions in the water management committees. During focus group discussions and key informant interviews, respondents

indicated that the trend in the sampled locations has been that women are usually appointed as treasurers and secretaries. No woman has ever been appointed as chairman. Nevertheless, it was unanimously confirmed that if it were not for the laws and policies, the Masaai men would never elect a woman to a leadership or management position. Unfortunately, it was also disclosed that even where women have been appointed into the water committees, they are just but numbers for compliance purpose and they do not participate effectively. Another suggested strategy included initiation of more community based water resource management programs targeting women, gender equality promotion and affirmative action as measures for enhancing women's participation. It was strongly felt that government's intervention through policies addressing lack of education, poor access to water and the retrogressive culture would enhance women's participation. Seminars and training targeting both men and women to create public awareness were also recommended as measures to encourage equality in decision-making within the community.

Conclusions and recommendations

Despite the recognition of the important role played by women and the efforts that the Government has made in enhancing women's participation in water resource management, there is an existing gap between written intentions of enhancing women's participation in water resource management and the practice in Kenya and specifically in Kajiado County. Laws, institutions and policies on water management are not adequate to support and enhance women's participation in the management of water resources. More effort requires to be put on the ground through a multi-disciplinary approach. The following measures are recommended.

Gender mainstreaming in water resources management

Mainstreaming gender is a process of assessing implications for women and men in any planned action, including legislation, policies, or programmes, in any area and at all levels. It is a strategy to include women's concerns and experiences in design, implementation, monitoring and evaluation of policies and programs in all social economic levels so that women and men benefit equally and inequality is gradually reduced. The ultimate goal of gender mainstreaming is to achieve gender equity- equal access to participation in the decision making process, resources and benefits, ultimately leading to women's empowerment. There is need to institutionalize gender mainstreaming through policy, legislation and financing. The government should provide steady and secure resources to support the necessary structures and programs. Among the key tools of gender mainstreaming is gender analysis, which seeks to determine the differences between men and women in terms of rights, responsibilities, access to resources, power and the like in a given situation. It is therefore important to carry out a gender analysis in Kajiado County to gain a clear understanding of the actual situation of both men and women. A thorough knowledge of social realities and gender power dynamics prior to projects design, planning and implementation is required for all the water projects.

Gender-disaggregated data

More gender-disaggregated data and focused research is required to assess the extent to which women have been

incorporated in water related plans, programs and projects in Kajiado County. This is important in order to design solid gender-responsive interventions to monitor implementation and to evaluate the impact of policy and legal interventions on different groups of people particularly women. Documenting and sharing of existing knowledge is also important for drawing lessons on what works and what does not work in certain situations and in specific areas such as Kajiado County. Although there are several water programmes and projects that have focused on gender issues and women's involvement in these projects, the experiences have not been adequately documented. This is particularly true regarding the process of involving women in the said project, the related achievements and the challenges faced. In some areas, reference to women's participation in a project is limited to the number of women beneficiaries and number of women trained. More needs to be done to document clearly the roles that women have played, the experiences and the lessons learned. This information will guide future undertakings.

Strict enforcement of the Constitution

Stored wealth in the form of livestock and land is in the hands of men. Many women do not control cash income and therefore cannot make financial decisions. Women tend to be left out of decision making processes mainly due to their social status as dictated by the Masaai culture. Men are the heads of households, while woman are considered as assets to the men. The community needs to be sensitized on the constitutional provisions outlawing all forms of discrimination based on sex such as in the ownership of land and in education. Both men and women need to be informed on the one third gender legal requirement which provides that no single gender should have more than two thirds representation in any elective and appointive positions. This will eventually cause a change of attitude.

Gender policy in water resources management

It is imperative to have a gender policy in Water Resources Management to guide the government, non-governmental and donor organizations involved in water provision and management in addressing gender issues in their water programs, through their policies, procedures and personnel. The gender analysis of these implementing agencies should include their organizational structure and culture; their policy formulating mechanisms; the organizations objectives and strategies; the personnel policies and human resource development; the provision of gender training; and the role of change agents in the organization. Gender balanced policies in water resources management should acknowledge the intention of improving the lives of women and enhancing their participation. Policy and Legal positions should aim to break the marginalized position of women in management of water resources.

Amendment of the Water Act of 2002

The Act vests ownership of all water resources on the state and no one can use water without a permit. Proof of land ownership through a title deed is a requirement for granting of the license. This has far reaching implications for the management of water resources and provisions of water

services to the rural poor who have limited access to state based systems. The permit privatizes water rights to a small section of the community, essentially property owners who are able to acquire the permits. It marginalizes the poor rural communities especially the women who are unable to meet the requirements for obtaining a permit, principally land ownership. Women cannot, therefore, effectively utilize water resources, in economically productive activities such as irrigation and commercial livestock rearing. The rural communities practicing communal land tenure system are also unlikely to be able to operate within the Water Act of 2002. The majority of the residents in Kajiado County fall in this category. The people without access to reliable water services often represent the poorest and most marginalized of Kenyan people. These are the people least likely to take advantage of, and benefit from the legal framework in the Water Act of 2002 for the provision of water services. They are also the ones likely to suffer most from inadequate management of water resources.

Acknowledgements

The various groups who provided insights on the policy, legal and institutional frameworks relevant to the study are appreciated. Two anonymous reviewers' comments improved the content of this paper.

REFERENCES

- Agarwal, B. 1998: "The gender and environment debate" in Keil, R. *et al* (ed), *Political Ecology*, Global and Local. London, Routledge.
- Angula, M. 2010: Gender and Climate Change: Namibia case study <http://www/fanrpan.org/documents/doo923> (accessed on 20th April, 2011).
- Biswas, A. K. 2004: Integrated Water Resources Management: A reassessment. *Water International*, Vol 29, No.2, 248-256.
- Cech, T. V. 2009: *Principles of Water Resources: History, Development, Management, and Policy*. New York: Wiley Publishers. P 138
- Denton, D. 2000: "Climate Change; Learning from Gender Analysis and Women's Experiences of Organizing for Sustainable Development. *Gender and Development Journal* Vol 2:10-20.
- EAC, 1999: *The Treaty Establishing the East African Community*. EAC Secretariat, Arusha, Tanzania.
- GoK 2002: *The Water Act of 2002*, Government Printer, Nairobi
- GoK 1995: *Kajiado District Development Plan*, Government Printer, Nairobi
- GoK 2008: *Kajiado District Development Plan (2008-2012)*, Government Printer, Nairobi
- GoK 2010: *Water Sector Strategic Plan (WSSP 2010-2015)*, Government Printer, Nairobi
- GoK 2000: *Sessional Paper No. 1 of 1999. The National Water Policy*. Government Printer, Nairobi
- GoK 2011: *National Vision and Strategy for Natural Resources Management (2005-2015)*, Government Printer, Nairobi
- GoK 2010: *The Constitution of Kenya*, Government Printer, Nairobi
- GoK 2011: *The National Strategy for the Development of the Arid and Semi-Arid Lands*, Government Printer, Nairobi

- FAO 2003: Agriculture, Food and water Development; a contribution to the world water development Reports. <http://www.unep.org> (last accessed on 5th May, 2011)
- GWA, 2009: Study done in Kenya by a Rapid Assessment an attempt to establish the extent to which gender mainstreaming has been advanced within the framework of reforms driven by the country national Policy on Water Resources Management
- ICF 2001: International Conference of freshwater. Bonn 3-7 December 2001, *conference report Retrieved on 6th February 2011 from <http://www.water-2001.decade>*
- ICWE 1992: Development issues for the 21st century. The Dublin Statement Report. International Conference on Water and the Environment, January 1992, Dublin.
- IDWSD 1990: Report on the United Nations Water conference on the International Drinking Water and Sanitation Decade of 1990
- IWRM 2004: Integrated Water Resources Management TEC Background paper 4, GWP. http://www.undp.org/water/docs/resource_guide
- Muller, M. & Lenton, R. 2009: Integrated Water resources management in practice. Better water management for development. London: Routledge Publishers
- Pavel, K & Fulco, L. 2009: Climate Change in the Water Sector. London: Routledge publishers.
- Were, E. & Roy, J. 2004: Water Women and Local Social Organization in Upper Nyando River Basin Water. Capri Collective Action and Property Rights Working Paper No.51 of July 2006. www.worldagroforestry.org
- Were, E. & Roy, J. 2008: Local Organization and gender in water management: A case study for Kenya Highlands. *Journal of International Development Vol. 20, pp 69-81*
- Rogers, H. 2003: Role of Women in Water Resources Management: Strengthening and Broadening Participation.
- UNDP, 2003: United Nations Development Programme *Mainstreaming Gender in Water Management: A practical Journey to Sustainability*, URL: <http://www.undp>
- UNCED, 1992: The RIO Declaration Report on the United Nations Conference on Environment and Development, <http://www.undp.org> (accessed online on 16th June 2011)
- UNDP, 2006: Mainstreaming Gender in Water resources Management: A practical journey to sustainability. <http://www.unep.org> (accessed online on 5th May 2011)
- Vijita, F. 1996: Energy and Environment technology Source books; Water supply and International technology publications ltd, London.
- WHO, 1997: World Health Organization Strengthening interventions to reduce infections: an entry point for the development of health- promoting schools.
- WSSD, 2002: Report of the World Summit on Sustainable Development, Johannesburg, South Africa, 26th August 2002 (<http://www.johannesburgsummit.org>) (last accessed on 27th June 2011)
