2013-12


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International Journal of Disaster Management and Risk Reduction

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Abstract

The water Act 2002 provides for Integrated Water Resources Management along the River Basin that is the best practice worldwide and in accordance with Dublin Principles. Prior to reforms in the water sector, water supply and sanitation and water resources management in Kenya faced huge challenges among them being institutional weaknesses, inadequate funding, conflicts due to overlapping roles and responsibilities of key public sectors in the water Act. The constitution of Kenya 2010 recognizes water and sanitation services as a basic right. Before the enactment of the new constitution, the old constitution did not provide for water provision as basic right. This paper presents an analysis of the water Act in relation to the new constitution of Kenya and the challenges facing its implementation. Ways of harmonizing the water Act with the new constitution are explored. It is imperative to note that the Water Act does not recognize water as a basic right and therefore some sections of the Act have to be amended to conform to the constitution which enshrines it in the Bill of Rights.

Key words: Water Act 2002, Constitution of Kenya 2010, water provision and management, coherence and conflicts

INTRODUCTION

Kenya is classified as a water scarce country with her per capita water availability being below the global benchmark of 1000 m³. The present situation of 647m³ per capita is far below similar countries in the region, and is expected to get worse by the year 2025 when water per capita is projected to be about 235 m³ (WRMA, 2009). This therefore calls for holistic management of water resources. The water Act 2002 provides for Integrated Water Resources Management (IWRM) along the River Basin that is the best practice worldwide and in accordance with the Dublin Principles. The four Dublin principles (GWP, 2000) are;

1. Fresh water is a finite and vulnerable resource, essential to sustain life, development and the environment; i.e. one resource, to be holistically managed.
2. Water development and management should be based on a participatory approach, involving users, planners and policymakers at all levels; i.e. manage water with people - and close to people.
3. Women play a central part in the provision, management and safeguarding of water; i.e. involve women all the way
4. Water has an economic value in all its competing uses and should be recognized as an economic good; i.e. having ensured basic human needs, allocate water to its highest value and move towards full cost pricing to encourage rational use and recover costs.

Prior to reforms in the water sector, water supply and sanitation and water resources management in Kenya faced huge challenges among them being institutional weaknesses, inadequate funding, conflicts due to overlapping roles and responsibilities of key public institutions in the water sector, etc. The reforms in the water sector as outlined in the Water Act revolve around the following four themes: the separation of the management of water resources from the provision of water services; the separation of policy making from day to day administration and regulation; decentralization of functions to lower level state organs; and the involvement of non-government entities in the management of water resources and in the provision of water services.

Kenya enacted one of the most progressive constitutions in the world in terms of human rights. Water and sanitation services is provided for in Chapter Four (Bill of Rights) of the Constitution of Kenya 2010. This makes the country one of the few in Africa to do so, the most notable being the Republic of South Africa. Section 43 (1d) of the constitution of Kenya states that “every person has the right to clean and safe water in adequate quantities”. In addition, section 22 gives provision to individual(s) to institute legal proceedings if the right is denied, infringed, violated or threatened. In July, 2010, the United Nations (UN) declared the right to safe and clean drinking water and sanitation as a human right that is essential for the full enjoyment of life and all human rights. However, section 5 of the water Act vests the right to the use of water in the minister in charge of water affairs.

METHODOLOGY

This study was accomplished through the analysis of the various Acts which form the legal framework in the water and sanitation sector. The primary reference was the Water Act 2002, and the Constitution of Kenya 2010. Both these documents were analysed with respect to water resources management and water services provisions. The Environmental Management and Co-ordination Act, EMCA, (1999) was also analyzed viz- a-viz the Water 2002 in relation to water pollution control. The roles of institutions established by the various Acts to aid in water resources management and water service provision is also analyzed to ascertain the possibility of duplication of roles and sector co-ordination.

RESULTS AND DISCUSSION

Institutional set-up in the Water Act: coherence and integration of institutional roles
An essential aspect of the reform in the water sector outlined in the Water Act 2002 is the separation and decentralization of roles and responsibilities of water services and water resources management, creation of new institutions and stakeholder participation. The new governance structure was meant to remove bottlenecks in the national water administration and improve efficiency in service delivery which was inherent in the old state-centred water sector administration. The separate institutions under the water act are, Ministry of Water and Irrigation (MWI), Water service Trust Fund (WSTF), Water Services Regulatory Board (WASREB), Water Services Boards (WSB), Water Resources Management Authority (WRMA) and the Water Appeals Board (WAB). Others are Water Service Providers (WSPs), Catchment Area Advisory Committees (CAACs) and Water Resource Users Association (WRUAs). Figure 1 indicates the current pyramid structure of the water governance in Kenya.

![Figure 1: Institutional set-up under the Water Act](image)

WRMA is responsible for regulation of water resources issues such as water allocation, source protection and conservation, water quality management and pollution control and international waters. WASREB is responsible for the regulation of water and sewerage services provision including, issuing licenses, getting service standards and guidelines for tariffs and prices, providing mechanisms for handling complaints etc. it supervises and licenses the Water Services Boards. WSB is responsible for the efficient and economical provision of water and sewerage services within its area of jurisdiction. Under the Act, WSBs cannot provide services directly, so they have to enter contract with WSPs through signing Service Provision Agreements (SPAs). WAB is responsible for the determination of appeals
and disputes. The Ministry of Water and Irrigation deal with policy formulation and direction, sector coordination, planning and financing and Supervision of public institutions under MWI such as the National Water Conservation and Pipeline Corporation (NWCPC) and National Irrigation Board (NIB).

The Establishment of the WSBs, with delineated areas of supply, ensures that water services are availed to all parts of the country. It ensures that in every part of the country there is a capable WSP as an agent of the Service Board to provide water services. Also the autonomy of the WSPs ensures ring fencing of management. Apart from the institutions established under the Water Act, other related institutions which regulate water resources management like National Environment Management Authority (NEMA) also perform their functions in isolation. NEMA and WRMA operate under different legislations though both dealing with pollution. Coordination between these two institutions could reduce duplication and overlaps. Environmental Management and Coordination Act, EMCA, (1999) harmonized the previous legislations dealing with pollution control such as Public Health Act, Forestry Act, Agriculture Act, Local Authorities Act, and Fisheries Act among others. However, EMCA (1999), need to be harmonized with the Water Act (2002) to remove areas of conflict. Another serious problem is the existence of parallel structures at the local level. For instance, the role of District Water Officers and the WSBs and WRMA operating in the same district is a potential area of conflict. District Water Officers formally report to WSBs but continue to receive funding from MWI for asset development despite WSBs doing the same function. There is also a challenge in staff transfer where most WSPs have staff from different employers such as MWI, Local authority, WSP. All these employees have different terms of services making staff management difficult. There is need for delinking the MWI and NWCPC staff to the new institutions.

**Equitable Access to water**

The right to water is defined by the UN (which has declared the right to safe and clean drinking water as a human right) as the right to equal and non-discriminatory access to sufficient amounts of safe water for personal and domestic uses (WASREB, 2011). The Kenya Vision 2030 is in line with the Millennium Development Goals (MDGs) which advocates for lowering by half the number of people lacking access to safe and clean water by 2015. Kenya vision 2030 strives to ensure the availability and access to water and improved sanitation for all. The government of Kenya (in line with the Dublin principles, GWP, 2000) recognizes that water is a social and economic good. Water service provision to the poor and marginalized communities is supported by the WSTF. As per section 83 (2) of the Water Act, the purpose of WSTF is to assist in financing the provision of water services to areas of Kenya which are without adequate water services. Therefore, WSTF is a pro-poor arm of the water Act (2002) which ensures that water service provision reaches the rural and other under-served areas.
Kenya’s water tariff structure does not discriminate on social and economic status and thus the rich and the poor pay same amount for same volume consumed. Under the Act, setting and regulation of tariffs is done by WASREB. It applies an increasing block tariff structure, which seeks to reconcile the economic needs of providers with the social needs and the ability to pay for poorer consumers. This means for the first 6m$^3$ of water consumed – the lifeline block – consumer pay a social rate which is cross-subsidized through the higher rates in the other tariff blocks. The non-discrimination in the water pricing structure limits the access of water services by the poor. The poor pay 5-10 times more for water and sanitation services than the rich (MWI, 2008).

Table 1: Water tariffs of selected towns (source: WASREB, 2011)

<table>
<thead>
<tr>
<th>Town</th>
<th>Cost per Cubic Metre (Ksh.)</th>
<th>Average Block</th>
<th>Lowest Block (0-6m$^3$)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nairobi *</td>
<td>45</td>
<td></td>
<td>18</td>
</tr>
<tr>
<td>Mombasa</td>
<td>98</td>
<td></td>
<td>31</td>
</tr>
<tr>
<td>Kisumu</td>
<td>90</td>
<td></td>
<td>33</td>
</tr>
<tr>
<td>Eldoret</td>
<td>70</td>
<td></td>
<td>16</td>
</tr>
<tr>
<td>Nakuru Urban</td>
<td>88</td>
<td></td>
<td>33</td>
</tr>
<tr>
<td>Nyeri *</td>
<td>84</td>
<td></td>
<td>33</td>
</tr>
<tr>
<td>Kakamega</td>
<td>67</td>
<td></td>
<td>45</td>
</tr>
<tr>
<td>Embu</td>
<td>80</td>
<td></td>
<td>33</td>
</tr>
<tr>
<td>Garissa</td>
<td>77</td>
<td></td>
<td>48</td>
</tr>
<tr>
<td>Malindi</td>
<td>103</td>
<td></td>
<td>44</td>
</tr>
<tr>
<td>Kambere Mwingi</td>
<td>117</td>
<td></td>
<td>92</td>
</tr>
</tbody>
</table>

* Lowest Block (0 - 10 m$^3$)

From Table 1, it can be deduced that large WSPs such as Nairobi and Eldoret charge less compared to small WSPs such as Kambere and Malindi because these large WSPs incur less operation cost per cubic metre (they can cross-subsidize across the various blocks due to their large customer base). Another contributory factor to high tariff costs in some WSPs, such as Kisumu, is pumping cost. The provision of water and sanitation services to all (particularly the poor) is impeded by the small WSPs which charge high tariffs to recover the cost of operation and maintenance and also for its sustainability since they have a small customer base and therefore cannot cross subsidize. Licensed water Kiosks charge water as per regulations provided by WASREB. These water kiosks currently charge tariff of between Ksh. 3 and Ksh. 5 per 20 litre container which translates to Ksh. 150 and 250 per cubic meter. According to WASREB (2011) the national per capita water consumption (domestic) for
2009/10 year was 52 litres per day which is below the 100 l/c/d in the developed countries. This therefore means that monthly water consumption in Kenya is about 1500 litres per person. The poor population access the water through these water kiosks and hence spend about Ksh. 500 per month on water services only compared to about Ksh. 350 per month for same quantity which is spent by those served by piped water connection from WSPs. In order to ensure equal access to water to all as provided by the constitution, Kenya should develop tariff structures which favour the poor. In the Republic of South Africa which has similar provisions in their constitution in terms of water and sanitation, water is provided free for the first 6 m³ per month and the remaining is charged in increasing block tariff. Kenya should develop a tariff structure based on zones and therefore social status where people in affluent areas pay more than those in the less affluent areas. This tariff discrimination should also take into consideration the water use category.

**Water governance: transparency, public participation and Accountability**

The reforms in the water sector in Kenya were meant to enhance participatory approach in decision making as per the Dublin principles (IWRM approach). The stakeholders in the water sector must participate and have control of the process and the decisions being arrived at. The constitution of Kenya, 2010, also provides for public participation in the management of resources. Section 69 (1d) states “the state shall encourage public participation in the management, protection and conservation of the environment”. However, participation by the poor and the marginalized is limited due to various reasons. Participation imposes substantial transactions costs, particularly for the poor, and may not be worthwhile for participants, not just due to problems in organizing collective action but also due to the risks of manipulated and meaningless participation, and policies that transfer responsibility without authority (Bruns, 2005). The water Act (2002) provides for participation by various stakeholders without providing adequate mechanisms for the same. The mode of participation at the local level as provided for in the Act is through Water Users Associations (WUA). However this might be challenging in the case of pastoralist communities in Kenya as argued by Robinson, et al. (2010).

Water Act (2002) vest water control and use in the minister in charge of water affairs (and therefore the Executive); section 5 of the Act states “The right to the use of water from any water resource is hereby vested in the Minister, except to the extent that it is alienated by or under this Act or any other written law”. This thus means that the Executive still enjoys enormous powers hence making it state centred. The minister in charge of water affairs appoints the board of the institutions established under the Act and as a result, political interference can occur in the management of the water resources and service provision.
Corporate governance in the WSP is a challenge. This can be due to the fact that WSP’s Board of Directors merely represents stakeholders and not shareholders and therefore there is little accountability. In addition to that there is political interference because most of them are wholly owned by local authorities which are, by their very nature, political (MWI, 2008). Most of the local authorities have converted their water and sanitation departments into WSPs and therefore inherit the bad governance associated with local authorities. According to WASREB (2010), transparency and accountability is ironically resisted by the shareholders who are the local authorities.

**Decentralization in the Water Act (2002) and in the New Constitution**

The Act promotes participation of various stakeholders in the water management. It provides for community participation in both the management of the resources and development by allowing for the establishment of Water Resources Users Associations (WRUAs) that will serve as fora for conflict resolution as well as co-operative management of the resource in catchment areas. Decentralized decision making process to the Basin or Catchment level ensures better management of water resources as it instils sense of ownership to the people involved at that level. Also it will enhance quick response to water resources management problems and the water allocation process along the river basin equitably. However, this decentralization is not meaningful since the established CAAC as the basic unit of devolution in water management merely advises the WRMA which is not obliged to take any action. It therefore means that the Act decentralized the structure but not the functions.

According to institute of Economic affairs, IEA, (2007), whereas the Act, establishes a very elaborate and clear management structure (comprising of numerous institutions) for water supply, the oversight of the water catchment areas (or water resource in general) is left to the CAACs which have no direct authority over the WRMA regional managers who oversee the allocation and use of water.

The constitution of Kenya (2010) provides a two-tier government structure; the national and the county government with distinct functions. It also provides for inter-relationship mechanism between the two governments. As stated in the Fourth Schedule, the national government is responsible for protection of the environment and natural resources with a view to establishing a durable and sustainable system of development, including water protection, securing of sufficient residual water, hydraulic engineering and the safety of dams (this will largely be in policy and public investment) while implementation of the policies on water, soil conservation and Forestry and provision of water and sanitation services is done by the county government.

Devolution in the Constitution will provide a serious challenge to the management of water resources and provision of water and sanitation. WSBs and WRMA offices operate across
 counties and therefore the county governments and the regional offices of the institutions such as WRMA and WSB should establish beneficial relationships in the water sector.

**Box 1: illustration of potential area of conflict**

Eldoret Water and Sanitation Company (ELDOWAS), a WSP licensed by the Lake Victoria North Water Services Board derives its water from Elgeyo Marakwet County (EmC) although it supplies water to Eldoret residents in Uasin Gishu County. ELDOWAS derives its water from a River originating from Kaptagat Forest and another source is Chebara Dam from river Moiben both in EmC. This is a potential source of conflict in that the management of both catchments which are sources of water to Eldoret Town lies almost entirely on EmC who may not be direct beneficiaries of ELDOWAS services.

**CONCLUSIONS AND RECOMMENDATIONS**

Kenya has made significant progress in the water sector reforms as outlined in the Water Act (2002). All the institutions necessary for the separation of roles and decentralization in the water resources management and water service provision have been established and operational. Integrated water Resources management in Kenya has been implemented, albeit with challenges, in line with the Dublin principles through the enactment of the Water Act. There is need to improve on sector co-ordination among the various institutions established by the Water Act 2002, and the EMCA, 1999, to avoid duplication of roles since both legislations deal with water pollution control. This will ensure that water pollution control is handled coherently and in an integrated manner.

Corporate governance in WSPs is a serious problem which threatens the sustainability of water supply. Regulatory instruments employed by WASREB in water service provision should be enhanced to institute good governance in WSPs. This will make the WSPs more sustainable and therefore improve reliability in water supply.

Public participation as outlined by the constitution of Kenya, 2010 and also provided by the Water Act, 2002 should be enhanced through capacity building of WRUAs and CAACs. This will improve conflict resolution mechanisms at the local and catchment level. The Water Act
(2002) does not recognize water as a basic right and therefore some sections of the Act have to be amended to conform to the constitution which enshrines it in the Bill of Rights. Kenya, unlike South Africa, does not provide free water (at least as a Basic need) and therefore limits the access to safe drinking water to the poor. In order to achieve water as a basic need as provided for in the Bill of Rights of the Constitution, tariff structure which favours the poor should be developed. Kenya should develop a tariff structure based on zones and therefore social status where people in affluent areas pay more than those in the less affluent areas. This tariff discrimination should also take into consideration the water use category. The government can consider providing water for free for the first 3m³ which translates to consumption of 100 l/c/d which represents the domestic water consumption as in developed world (basic water need is same for the rich and the poor!).

Devolution as provided for in the constitution and the decentralized institutions established in the Act is a potential source of conflict. Therefore, there is a need to establish relationship mechanism to reduce conflicts arising in the management of water resources and water provision in cases where a WSP derives its water supply from another county outside their jurisdiction. The national government should formulate policies and guidelines which govern water resources especially in areas where various counties share a catchment.

Due to the limit of 24 ministries set by the constitution as opposed to the current 42, there is need to merge closely related ministries of Water and Irrigation, Forestry and Wildlife, and Environment. This will facilitate better co-ordination of institutions. This will in effect place WRMA, NEMA, NIB, and other related institutions under one ministry which will create harmony.

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