



# The Marsabit County Water and Sewerage Services Sector Policy, 2016

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## Foreword

The Marsabit County Department of Water, Environment and Natural Resources department seeks to create equitable access to safe water and sanitation services for sustainable development. It aims to achieve these by effectively managing the County's natural resources for provision of safe water and sanitation services through accountability and transparency; professionalism; equity; Innovation and partnership. The Department also aims to realize this vision by providing sufficient safe water for all the citizen of Marsabit county for domestic and other uses, ensure that the county's Natural resources, water and environment are protected, managed, exploited, developed, conserved, and controlled for Socio-Economic development of Marsabit County.

In developing the first ever County Water and sewerage services sector policy, the Department takes cognizance the fact that safe, potable and affordable water plays a key role in advancing the Marsabit County's social and economic agenda on economic recovery and poverty reduction. The policy helps us fill the critical gaps that have over time, reduced the benefits of better water services provision that include a weak policy; legal and institutional frameworks and inadequate community and stakeholder participation in the management and provision of water and sewerage services. This policy provides the basis upon which we as a county will correct these failings and ensure the promise of devolution of water and sewerage service delivery accrues to all county residents.

Under the overall county vision - ***To be a cohesive and prosperous county of choice***, the choice of the water sector, ***A county with sustainable, adequate and potable water for economic development*** neatly fits within the parameters set out in the County CIDP to ensure the improvement in livelihoods of the people of Marsabit County. The Mission of the water sector - ***to effectively and efficiently develop and manage the county's water resources for sustainable, socio economic development***, clearly underlies this relationship. It is our sincere hope and prayer that we will all strive to realize these commitments as a team.

Lastly, we thank specifically the efforts and roles played by the Development Partners and Stakeholders in diverse areas of Water, Environment and Natural Resources for making the development of this policy a reality. The challenge now is to translate it from intent to action. A challenge we are now more than ever before ready to undertake.

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The development of this policy was coordinated by the staff from Marsabit County Department of Water, Environment and Natural Resources with a lot of support from all other related sectors - The Office of the Governor, Livestock, Agriculture, Health, Education, Trade and Industry. I would like to thank all members of the Technical Committee during the development of this policy as well as representatives from other departments for their wonderful stewardship, support and cooperation which enhanced this policy document.

We also wish to acknowledge and thank all persons and institutions whose ideas and materials have been used in compiling this policy document. Much thanks go to Mr Jason Oyugi, the Lead Consultant for this policy development process.

Special thanks go to the Governor of Marsabit County, H.E. Amb. Ukur Yattani Kanacho, for taking a personal interest in the entire process of supporting the sector planning process and for encouraging the department to deliver a framework to improve the lives of the people of Marsabit County through better water service delivery.

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## **Executive Summary**

This sector focuses on building a resilient sector based on a unified approach for a comprehensive social, economic and environmentally viable water sector development. While it recognizes the main sector stakeholders, their efforts and achievements so far, it proposes a policy-driven implementation approach that ensures coordination and integration of their efforts, based on individual and collective accountability and efficiency in their respective roles and responsibilities. Linking water scarcity with water security - and perhaps human development, puts a heavy responsibility for all in the County.

This policy is organized in three main parts. In the first part, the policy outlines the broad background of the county's development. It recognizes that most parts of the county are arid with the exception of a few high potential areas that experience tropical climatic conditions with extreme temperatures ranging from a minimum of 150 C to a maximum of 260 C, with an annual average of 20.50 C.

The rainfall ranges between 200mm and 1,000mm per annum and its duration, amount and reliability increases with increase in altitude. In the context, the policy also highlights the demographic challenges in the county noting that from the 2009 National Population and Housing Census, the county's projected population was 316,206 people in 2012. This population is projected to increase to 343,399 persons by 2015 and further to 372,931 persons by 2017 with a growing urban population.

In the second part, the policy underscores the overall national and governance context as well county planning frameworks and how these are interlinked. This includes the realization that the challenges of water governance including problems of water shortage and subsequent effects on pastoral livelihood in Marsabit County like in many other Counties of Northern Kenya is a critical development challenge in the context of Kenya's new found constitutional environment - with a strong focus on addressing inequalities, marginalization and citizen empowerment.

The policy also highlight the links between this sector policy and other national and county policy instruments including Sessional Paper Number 10 of 2012 on Kenya Vision 2030, the National Draft Water Policy and the County's CIDP.

In the third and final section, the policy covers in great detail the strategic direction of the County Policy for water and sewerage services highlighting the overall sector vision, mission, and strategic goals and principles that include;

The Vision; ***A county with sustainable, adequate and potable water for economic development.***

The Mission of the water sector is; ***To effectively and efficiently develop and manage the county's water resources for sustainable, socio economic development***

In defining the strategic direction of the sector, the policy outlines the Strategic Goals of this policy which are articulated in eight interrelated sectors as follows;

- ***Water resources:*** To integrate environment conservation measures for better water resources management.
- ***Water Supply:*** To enhance provision of adequate, accessible, affordable and potable water, and sanitation services in rural and urban areas.
- ***Livestock water:*** To provide adequate, safe, affordable and accessible water for the livestock.
- ***Water for Irrigation:*** To provide adequate and quality water for efficient use in irrigation.
- ***Water, Sanitation and Hygiene:*** To promote good hygiene practices and improve sanitation coverage.
- ***Water for Public Institutions:*** To improve the provision and access to safe water and proper sanitation services in public institutions.
- ***Water for trade, industry and tourism:*** To provide adequate and quality water to facilitate trade, tourism and industry in the County.
- ***Water Sector Governance:*** To improve planning, coordination and management of the water sector.

In sector governance in particular, the policy highlights the need for a revamped governance strategy and institutional framework that rationalizes, consolidates and reorganizes the core governance functions for: (i) county policy and planning; (ii) management of operations and quality assurance; (iii) delivery of sustainable sector services; (iv) regulatory and normative functions; (v) adequate financing and (vi) sector coordination and public interface. This in turn will be realized through a robust organizational structure and a comprehensive water law that factors in these new realities facing the sector.

## **Abbreviations and Acronyms**

ASAL	Arid and Semi-Arid Lands
CLTS	Community-led Total Sanitation
DRR	Disaster Risk Reduction
EIA	Environmental Impact Assessment
FBO	Faith Based Organizations
GoK	Government of Kenya
IWRM	Integrated Water Resource Management
KAP	Knowledge Attitude and Practice
MICS	Multiple Indicator Cluster Survey
MoWI	Ministry of Water and Irrigation
NWSB	Northern Water and Services Board
PADR	Participatory Assessment for Disaster Risk
PHAST	Participatory Hygiene and Sanitation Transformation
PICD	Participatory Integrated Community Development
PPOM	Public-Private Operation & Maintenance
RBA	Rights Based Approach
SIA	Social Impact Assessment
WASH	Water, Sanitation and Hygiene
WESCOORD	Water and Environmental Sanitation Coordination
WSP	Water Service Provider
WSTF	Water Services Trust Fund
WRMA	Water Resources Management Authority
WRUA	Water Resource Users Association

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## **1.0 Introduction**

The County of Marsabit is located in the extreme part of Northern Kenya and has a total area of 70,961.2Km<sup>2</sup> (County Fact Sheet CRA 2013). It has an international boundary with Ethiopia to the North, borders Lake Turkana to the West, Samburu County to the South and Wajir and Isiolo Counties to the East. It lies between latitude 02° 45° North and 04° 27° North and longitude 37° 57° East and 39° 21° East. The map in Figure 1 shows the location of Marsabit County within the map of Kenya.

**Figure 1: Location of Marsabit County in Kenya**



**Source:** Kenya National Bureau of Statistics

## 1.1 Physiographic and Natural Conditions

### 1.1.1 Physical and Topographic Features

Most of the county constitutes an extensive plain lying between 300m and 900m above the sea level, sloping gently towards the south east. The plain is bordered to the west and north by hills and mountain ranges and is broken by volcanic cones and calderas. The most notable topographical features of the county are: Oldonyo Ranges (2066m above sea level) in the South West, Mt. Marsabit (1865m above sea level) in the Central part of the county, Hurri Hills (1685m above sea level) in the North Eastern part of the county, Mt. Kulal (2235m above sea level) in North West and the

mountains around Sololo-Moyale escarpment (up to 1400m above sea level) in the North East.

The main physical feature is the Chalbi Desert which forms a large depression covering an area of 948 Km<sup>2</sup> lying between 435m and 500m elevation. The depression is within the Great Rift Valley and is separated from Lake Turkana, which is 65-100m lower in elevation, by a ridge that rises to 700m.

There are no permanent rivers in the county, but four drainage systems exist, covering an area of 948 Km<sup>2</sup>. Chalbi Desert is the largest of these drainage systems. The depression receives run-off from the surrounding lava and basement surfaces of Mt. Marsabit, Hurri Hills, Mt. Kulal and the Ethiopian plateau. The seasonal rivers of Milgis and Merille to the extreme south flow eastward and drain into the SoriAdio Swamp. Other drainage systems include the Dida Galgallo plains which receive run-off from the eastern slopes of Hurri hills, and Lake Turkana into which drain seasonal rivers from Kulal and Nyiru Mountains.

### **1.1.2 Ecological Conditions**

Marsabit County lies in four main ecological zones namely: Ecological Zone 11, Ecological zone IV, Ecological zone V, Ecological zone VI.

- **Ecological Zone II- Forest Zones (Sub-Humid)**

The zone is characterized by high rainfall amounts of up to 1000mm per annum, low evapo-transpiration and high suitability for agricultural activities. The soils are suitable for agricultural production. The zone includes parts of Mt. Marsabit above 1500m and Mt. Kulal above 1700m which supports dense evergreen forests. It's an important water catchment area covering an area of just about one percent of the county.

- **Ecological Zone IV- Woodland Zone (Semi-Arid Area)**

It is semi-arid with medium potential. The zone has become an area of sedentarized agro-pastoral activities. It constitutes the lower slopes of Mt Marsabit, the middle slopes of Mt Kulal and the top of Hurri hills. Also included are areas of Sololo and Moyale.

- **Ecological Zone V- Bush land Zone (Arid),**

This zone includes the lower slopes of volcanic and basement piles lying between 700 and 1000m. The soils are shallow and stony with rock outcrops as well as clay loams. The flatter areas are covered by grass. The zone consists of the plains of Dida Galgallo, Bure Dera, Milgis and parts of the slope of Mt Marsabit and Hurri hills. These areas are characterized by steeper slopes which may favour greater surface runoff and hence may experience greater sheet wash erosion.

- **Ecological Zone VI- Dwarf Scrubland Zone (Very Arid)**

This is the most extensive zone in the county. The typical vegetation is dwarf-shrub grassland or a very dry form of bushed grassland. In the very dry areas it may be properly termed as "bushed stoneland". It includes all the hills and plains below 700m. Grazing season in these areas is extremely short, lasting not more than two months after the rains. When the rain fails, the only vegetation available in this area is dwarf-shrub which supports goats and camel but not cattle.

### 1.1.3 Climatic Conditions

Most parts of the county are arid with the exception of high potential areas around Mt. Marsabit, Mt. Kulal, Hurri Hills and the Moyale-Sololo escarpment. The county experiences tropical climatic conditions with extreme temperatures ranging from a minimum of 15° C to a maximum of 26° C, with an annual average of 20.5° C. (world weather and climate information 2015). Rainfall ranges between 200mm and 1,000mm per annum and its duration, amount and reliability increases with increase in altitude. North Horr (550m) has a mean annual rainfall of 150mm; Mt. Marsabit and Mt. Kulal 800mm while Moyale receives a mean annual rainfall of 700mm.

## 1.2 Administrative and Political Units

### 1.2.1 Administrative Sub-Divisions

Administratively, the county is divided into four sub counties namely: Saku, Laisamis, North Horr, and Moyale. The sub counties also serve as constituencies and are further divided into 20 wards and administrative villages. Table 1 shows the area of the county as per each sub-county.

**Table 1: Area of the County by Sub County**

Sub County	Area Km <sup>2</sup>	No. of Wards	No. of Locations	No. of Sub-Locations
Saku	2052	3	11	22
Laisamis	20290.5	5	11	30
North Horr	39248	5	13	18
Moyale	9370.7	7	23	42
Total	70,961.2	20	58	112

**Source:** Marsabit County Development Profile 2013

### Political Units

The county has four constituencies namely Saku, Laisamis, North Horr and Moyale. The County has 20 assembly wards as shown in Table 2.

**Table 2: County's Electoral Wards per Constituency**

Constituencies	County Assembly Wards	Area Km <sup>2</sup>
Laisamis	Loiyangalani	4,202.5
	Kargi/South Horr	7,528.0
	Korr/Ngurunit	2,780.9

<b>Constituencies</b>	<b>County Assembly Wards</b>	<b>Area Km<sup>2</sup></b>
	Logologo	1,893.9
	Laisamis	3,885.2
Saku	Sagante/Jeldesa	624.7
	Karare	877.3
	Marsabit Central	549.9
North Horr	Dukana	6,798.0
	Maikona	9,868.4
	Turbi	10,820.8
	North Horr	7,722.8
	Illeret	4,041.5
Moyale	Butiye	341.7
	Sololo	341.7
	Heillu	126.6
	Golbo	50.7
	Moyale Township	2,374.0
	Urain	3,226.9
	Obbu	3,247.1
<b>Total</b>		<b>71,302.6</b>

**Source:** Independent Electoral and Boundaries Commission

### **1.3 Demographic Features**

#### **1.3.1 Population Size and Composition**

From the 2009 National Population and Housing Census, the county's projected population was 316,206 people in 2012. This comprised of 164,105 males and 152,101 females. The projections are based on annual growth rate of 2.75 per cent. The population is projected to increase to 343,399 persons comprising of 178,218 males and 165,181 females by 2015 and further to 372,931 persons comprising of 193,544 males and 179,387 females by 2017. The county has a sex ratio of 100:93. The majority of the population in the county is confined between 0-24 years; this translates to 67.8 per cent. This is an indicator of a growing population and the county therefore expects greater pressure on resources in future if the trend continues. Table 3.2 shows population projections for the selected special age groups by sex. These include: under one, under five, Primary School Age, secondary school going age (14-17 years) the Youth, Females of Reproductive Age, Labour Force and aged population.

#### **1.3.2 Population Density and Distribution**

The vastness of the county makes population density relatively small. The county had an average population density of four persons per Km<sup>2</sup> in 2012 as shown in Table 3.

**Table 3: Population distribution and Density by Constituency**

Constituency	2009 (Census)		2012 (Projections)		2015 (Projections)		2017 (Projections)	
	Population	Density (Per Km <sup>2</sup> )	Population	Density (Per Km <sup>2</sup> )	Population	Density (Per Km <sup>2</sup> )	Population	Density (Per Km <sup>2</sup> )
North Horr	75,196	2	81,663	2	88,731	2	96,250	2
Laisamis	65,669	3	71,317	4	77,489	4	84,056	4
Moyale	103,799	11	112,726	12	122,482	13	132,862	14
Saku	46,502	23	50,501	25	54,822	27	59,522	29
<b>Total</b>	<b>291,166</b>	<b>4</b>	<b>316,206</b>	<b>4</b>	<b>343,399</b>	<b>5</b>	<b>372,931</b>	<b>5</b>

**Source:** Kenya National Bureau of Statistics, 2013

Saku Constituency has the highest population density at 25 people per Km<sup>2</sup>. This is expected to increase to 27 and 29 people per Km<sup>2</sup> in 2015 and 2017 respectively. North Horr is the least densely populated constituency in the county with a population density of two persons per Km<sup>2</sup> which is expected to remain the same by 2015 and 2017.

**Table 4: Population Projections by Constituency**

Constituency	2009 (Census)			2012 (Projections)			2015 (Projections)			2017 (Projections)		
	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total
North Horr	41,318	33,878	75,196	44,871	36,791	81,662	48,730	39,955	88,685	52,921	43,391	96,312
Laisamis	32,198	33,471	65,669	34,967	36,350	71,317	37,974	39,476	77,450	41,240	42,871	84,111
Moyale	54,291	49,508	103,799	58,960	53,766	112,726	64,030	58,390	122,420	69,537	63,411	132,948
Saku	23,305	23,197	46,502	25,309	25,192	50,501	27,486	27,358	54,844	29,849	29,711	59,560
Totals	151,112	140,054	291,166	164,107	152,099	316,206	178,220	165,220	343,399	193,547	179,384	372,931

**Source:** Kenya National Bureau of Statistics, 2013

The most populous constituency is Moyale with a population of 112,726 in 2012. This represents 35.6 per cent of the county population while Saku Constituency has the lowest population of 50,501 representing 16 per cent of the total population.

### Urban Population

There are two major towns and many urban centres in the county. The towns are Moyale and Marsabit while the major urban centres are Sololo, Loiyangalani and Laisamis with a total projected population of 70,868 as at 2012 (urban Areas and Cities Act No. 13 2011). This represents 22.4 per cent of the county population. The urban population is expected to increase to 77,078 and 83,833 in 2015 and 2017 respectively as shown in Table 5.

**Table 5: Population Projections by Urban Centre**

Urban centre	2009 (Census)			2012 (Projections)			2015 (Projections)			2017 (Projections)		
	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total
Moyale	18,916	18,471	37,387	20,574	20,090	40,663	22,376	21,850	44,226	24,337	23,765	48,102
Marsabit	7,525	7,382	14,907	8,184	8,029	16,213	8,902	8,732	17,634	9,682	9,498	19,179
Sololo	2,543	2,561	5,104	2,766	2,785	5,551	3,008	3,030	6,038	3,272	3,295	6,567
Loiyangalani	2,272	2,845	5,117	2,471	3,094	5,565	2,688	3,365	6,053	2,923	3,660	6,584
Laisamis	1,370	1,273	2,643	1,490	1,385	2,875	1,621	1,506	3,127	1,763	1,638	3,400
<b>Total</b>	<b>13,728,916</b>	<b>32,532,538</b>	<b>65,158,855</b>	<b>35,485,853</b>	<b>35,383,836</b>	<b>70,867,955</b>	<b>38,595,837</b>	<b>38,483,781</b>	<b>77,078,778</b>	<b>41,977,777</b>	<b>41,856,567</b>	<b>83,832,322</b>

**Source:** Kenya National Bureau of Statistics, 2013

## 2.0 The National and County Water Governance and Policy Context

### 2.1 The Constitution of Kenya

Chapter 11 of The constitution of Kenya 2010 provides for a devolved system of governance aimed at promoting democratic and accountable exercise of power, the equitable sharing of resources and responsive and effective delivery of services, while empowering citizen’s participation through the process. The system created a two-tier level of government leading to creation of 47 counties led by elected county governments. Each level has its own set of functions which though distinct require co-operative inter-relationships in the exercise of their functions. The provision of water and sanitation services and the implementation of national polices in natural environment are two such key roles and responsibilities bestowed on the County Government in Schedule of The CoK 2010.

The Constitution further recognizes that access to safe and sufficient water is a basic human right. Under the economic and social rights in the Bill of Rights, Article 43 of The Constitution of Kenya provides that every person has the right to reasonable standards of sanitation as well as to clean and safe water in adequate quantities. In assigning the responsibility for water supply and sanitation provision to 47 newly established counties, The Constitution had anticipated that transfer of these functions would take place over the three year period of transition following the first county government elections in March 2013.

**Table 6: Summary of the allocation of roles in the Constitution of Kenya on Water, Environment and Natural resources in Schedule Four**

Sector	National Government	County Government
Water, Sanitation and Hygiene	<ul style="list-style-type: none"> <li>Water protection, securing sufficient residual water;</li> <li>Hydraulic engineering and the safety of dams;</li> <li>Use of international waters and water resources</li> <li>Capacity Building and technical assistance to counties</li> </ul>	<ul style="list-style-type: none"> <li>Storm water management systems in built-up areas; and</li> <li>Water and sanitation services.</li> </ul>
Environment and Natural Resources	<ul style="list-style-type: none"> <li>Fishing, hunting and gathering;</li> <li>Protection of animals and wildlife;</li> </ul>	<ul style="list-style-type: none"> <li>Agriculture including disease control</li> <li>Pollution control</li> <li>Implementation of specific national government policies on natural resources and environmental conservation</li> </ul>
Energy	<ul style="list-style-type: none"> <li>Energy policy</li> </ul>	<ul style="list-style-type: none"> <li>Electricity and gas reticulation and energy regulation</li> </ul>
Public Investment	<ul style="list-style-type: none"> <li>Disaster management</li> <li>National Public</li> </ul>	<ul style="list-style-type: none"> <li>County public works</li> <li>Public participation in</li> </ul>

The main challenges in such an asymmetric process include: (i) avoiding an overly complex transition

process; (ii) ensuring counties really are capable of carrying functions out; and, (iii) managing continuity of public service delivery without disruption. In an attempt to respond to these challenges, The Constitution provides in Article 21(2) under the implementation of rights and fundamental freedoms that the State shall take legislative, policy and other measures, including the setting of standards, to achieve the progressive realization of the rights guaranteed under Article 43.

The challenges of water governance including problems of water shortage and subsequent effects on pastoral livelihood in Marsabit County like in many other Counties of Northern Kenya is a critical development challenge in the context of Kenya's new found constitutional environment - with a strong focus on addressing inequalities, marginalization and citizen empowerment.

## **2.2 Vision 2030 and other National Policy Goals**

Sessional Paper Number 10 of 2012 on Kenya Vision 2030 is the National Policy Economic Blueprint that entrenches Kenya Vision 2030 as the long term development strategy for Kenya. The Kenya Vision 2030 aims to transform Kenya into a modern, globally competitive, middle income country providing a high quality of life to all its citizens. Kenya Vision 2030 is a product of a highly participatory, consultative and inclusive stakeholder's process conducted throughout the country and in all sectors of the economy.

The broad key priority areas of the Second MTP of Vision 2030 include: employment creation; development of human resource through expansion and improvement in quality education, health and other social services; reducing the dependence of the economy on rain fed agriculture through expansion of irrigation; higher investment in alternative and green sources of energy; improving the economy's competitiveness through increased investment and modernization of infrastructure; increasing the ratio of saving, investment and exports to GDP; implementation of key Kenya Vision 2030 Flagship projects including development of the LAPSSET Corridor of which Marsabit County is a key development player. This policy recognizes this opportunity as a major determinants of some of the priorities that the water sector has to respond to both in the medium and short term.

## **2.3 The Draft National Water Policy**

The Draft National Water Policy of 2012 (NWP 2012) which was developed in response to the mandate, vision and mission of the ministry responsible for Water and Irrigation in Kenya was informed by the gains made during the past decade of implementation of reforms in the water sector anchored on the National Water Policy of 1999 (NWP 1999) also referred to as Sessional Paper No. 1 on National Policy on Water Resources Management and Development, the Water Act 2002, existing related policy documents, and the globally recognized Integrated Water Resources Management (IWRM) approach. These reforms culminated into the development of the WSSP 2010 - 2015, which was designed to institutionalize a stakeholder and participatory approach to the management of water affairs in the country.

The draft policy takes into account requirements of the Constitution of Kenya 2010 with regard to (1) consideration of water as a natural resource, and (2) the right to water by all; the Kenya Vision 2030; the Sustainable Development Goals (SDGs), and other national policies and strategies. In this regard it will inform the development of the Water Bill 2014 which will replace the Water Act 2002. The policy therefore consolidates the highlights of previous Water Sector reforms and the key elements of the good governance initiatives in the sector over the past 10 years which include;

- Subsidiarity and decentralization – In line with the government’s overall decentralization policy, decisions in the water sector are made at the lowest appropriate level, making sector institutions more autonomous. For example, water utilities have been transformed into autonomous, registered and regulated shareholder companies, owned by the counties.
- Separation of service delivery, policy formulation and regulation to achieve higher efficiency and transparency.
- Increased equity achieved by aligning the sector with the human right to water and sanitation and by adopting a pro-poor approach in sector policies and strategies.
- Transparency and accountability measures include efforts by sector institutions reporting regularly to the public and by stronger enforcement of regulations and complaint mechanisms.
- The participation and empowerment of water users and consumers through more than 400 WRUAs, WAGs and mechanisms such as public hearings at community level.

## **2.4 The National Hygiene and Sanitation Strategy**

The National Hygiene and Sanitation Strategy recognizes that sanitation is now a constitutional right in Kenya. To rapidly increase sanitation hygiene coverage and attain the sanitation for all people by 2015, the stakeholders in sanitation and hygiene led by The Ministry of Public Health and Sanitation (MoPHS) developed the strategy document to implement the National Environmental Sanitation Hygiene Policy (2007) and also to guide strategic thinking towards the afore mentioned goal. In addition, the strategy recognizes that sanitation services have now been devolved to County level necessitating a reconfiguration of the operational aspects.

The national sanitation and hygiene strategy has the overall goal of;

### ***Sanitation for all by 2020***

This is pursued through 6 key objectives developed towards attaining the goal;

- To eradicate open defecation (OD) in Kenya by 2015.
- To significantly improve hand washing practice to over 90% by 2015
- To significantly improve the safe at point of use for all households in Kenya by 2015

- To ensure that all solid and liquid waste is properly managed by 2020.
- To have an effective emergency preparedness and response mechanism for sanitation by 2015
- To strengthen coordination of sanitation hygiene systems and enabling framework on a ongoing basis

## **2.5 Guiding Sector Principles**

The Draft NWP 2012 is based on the following key guiding sector principles:

- Right to water with a pro-poor orientation
- Autonomy of service providers
- Sustainability of water and sewerage service delivery
- Stakeholder participation
- Gender provisions in the management of WSIs and safeguarding of water
- Socially responsive commercialization for service delivery
- Professionalizing the sector
- Autonomy of WSIs
- Good governance practices on all levels
- Ring fencing of income as long as universal access to rights are not achieved
- Participatory approach
- Public Private Partnership (PPP)
- “User pays and polluter pays” principles.

## **2.6 The Marsabit County Integrated Development Plan (CIDP)**

The Marsabit County Integrated Development Plan (CIDP) outlines the process through which efforts at national and devolved levels of government and other relevant public institutions are coordinated at local level, and through which economic, social, environmental, legal and spatial aspects of development are brought together to meet the needs and targets set for the benefit of local communities.

The County identifies Water scarcity as its top most development challenge. Water scarcity in the County hinders both subsistence and commercial agriculture, industrialization, health facilities and other socio-economic sectors. The most affected areas are those along the mountain areas and the plain areas. This is due to the drying up of the water sources such as Aite wells and Karantina and reduction of water level at Bakuli. The county depends on few surface water and underground sources. Most of the boreholes drilled during the drought emergency programme have dried up. The upper regions of the county, including Sololo and Moyale, depend on boreholes at Odda, Walda and Dabel which are few and over stretched. Other parts of the county however rely on water boozers which are facilitated by the government and Non-Governmental Organizations.

The County also identifies drought and floods as the main disasters facing the county. The county has been experiencing prolonged drought which has resulted in shortage of food, loss of livestock and shortage of water. The pattern of drought has changed drastically with more frequent occurrence resulting in scarcity of water leading to reduced livestock fodder and less crop production. This at times leads to over 50 per cent of the population depending on relief food. Due to persistent drought, livestock and human diseases are frequent and development resources are diverted to take care of emergencies arising from these disaster occurrences. Floods make roads such as those crossing the Chalbi Desert impassable, thus disconnecting transport.

The County has set out two main targets in its CIDP over the medium term for the water sector. These include;

- To increase water availability and access to 80% by 2017.
- To reduce water shortage by 50% by year 2015

These objectives are anticipated to be achieved through the following key interventions;

- Development and protection of shallow wells/springs;
- Construction and de-silting dams;
- Drilling and equipping more boreholes; Capacity building on water harvesting, storage and conservation measures.
- Development of private-public partnership for economic development
- Increased revenue collection for water usage and county government to develop adequate bi-laws to ensure water management

## **2.7 Building on success and progress of the County Government in the Water Sector**

Since the inception of the County government there has been significant improvement in terms of access, coverage, availability, sustainability, and quality of water supply and and response time in emergency situations. Through public participation and CIDP the citizenry of Marsabit county have come up with home grown approaches, priorities that are appropriate to their needs. The county government has thus ensured that water supply management programs addresses the seasonal availability of pasture and water, the nomadic lifestyle of the population, the risks and needs of exploiting strategic water resources, strong traditional management systems and improved water governance.

The department of water in a move to improve services and attain sustainability and other aspirations envisaged in vision 2030 has put in place plans to achieve its vision and mission. As part of the effort to illustrate commitment to the achievement of equitable and sustainable access, the county government has directly invested Ksh.269 million in water sector infrastructure development in 2013

Financial year.

Despite inadequate and unreliable water sources, the department has been able to make notable achievements by investing in infrastructure and supporting the communities to manage water resources under an improved governance structure, professional asset management, maintenance of water supply, fuel subsidy and drought contingency support;

During the 2014/15 financial year for example, the county injected a total of 269 million shillings in improvement of infrastructure . These included successful drilling and equipping of 16 new boreholes and rehabilitation of pans to enhance harvesting of surface water and piping extension of over 15kms in an effort to achieving equitable and sustainable access in addition to improved storage from rock catchment, roof catchment and springs improvement.

The department also single handily responded to the drought emergency, which is still ravaging some parts of the county and delivered water for domestic and livestock in distant villages and saved lives and livelihood. Besides the existing Moyale Water Company the department is in the process of establishing a county-wide water service provider to be known as Marsabit County Water and Sewerage Company Ltd to improve the management of urban and rural water schemes sustainably through Water Service Providers.

During the same FY, the department also embraced the use of innovative technology in a twin system that combines diesel systems with solar empowered pumping systems as is the case of Laisamis water supply to better serve the needs of our people by reducing operation cost and improving pumping hours which resulted in improved access to clean and safe water. Servicing and replacement of old gensets and pumps was also undertaken by installation new ones in newly drilled and rehabilitated boreholes.

In collaboration with with concern worldwide the department achieved mapping of all water points in the county in an effort to improve data capture for effective planning . There is also improved record of data on underground water reserves and potential through mapping by WRMA. There has also been improved coordination of development partners in water sector, improved stakeholder coordination among WESCORD, WASH, KFS, KWS, NEMA, WRMA, NWSB, WUAs, WSP, NGOs and improved efficiency in services delivery leading to sustainability and increased coverage.

Deliberate effort was also made to professionalize water resources management in rural water schemes including consideration for models that integrate public-private partnerships (PPP) e.g. Moyale Water Company. Human resources capacity improvement through training of WUAs and department staff was also undertaken while better governance and enhanced environmental conservation has seen tree cover improve resulting in enhanced conservation of Marsabit forest.

## **2.8 Methodology for the development of this Water Policy**

Kenya's National Water Policy and Draft Water Bill are currently under development. However, The Constitution of Kenya 2010, The County Government's Act, The Public Finance Management Act 2012 and other legislation provided a strong basis and impetus for the development of this policy. An essential aspect of the policy development process has been the recognition of the multiple sectoral interests and players in the sector, inter-governmental collaboration taking into account the various roles and responsibilities of different players in water services delivery, water resources management and stakeholder participation.

This policy was drafted over the period of April to October 2016. Figure 1 shows the organizational setup for preparing the plan which consists of a multi stakeholder Technical Committee (TC) under the leadership of the CEC Water, Environment and Energy, an Outreach Team who supported the stakeholder engagement process and a core team of Technical Experts who supported the Technical Team in the preparation of the policy on an 'as and when required basis'. Table 7 below presents an overview of the main activities and time frames of the policy preparation.

**Table 7: Main activities and Time Frames of the Policy preparation**

<b>Activity</b>	<b>Time frame</b>
County Department of Water initiation of consultative processes for policy development	April 2016
Establishing the Multi Stakeholder Technical team	June 2016
Formulation of Work-plan	June 2016
Situation Analysis Workshop	June 2016
Literature review	June-July 2016
Policy Design Workshop	June 2016
Draft 1 of Policy and Policy Validation Workshop by Technical Team	July 2016
Public Consultations	July-August 2016
Draft 2 and finalization of Sector Policy	August 2016
Adoption of Policy	Sept/October 2016

It should be noted that the Policy Planning process was dynamic and developed from a thorough and iterative process of stakeholder consultations and lessons learnt from other counties. In view of the close inter-linkages between water, health, land and environment, there was active participation of stakeholders from the:

- Public sector institutions represented by National and County Government ministries and institutions
- Private sector;
- Civil society Organizations;
- Community based organizations and water users associations;
- International organizations and development partners;
- Water services providers; and
- Regional Organizations dealing with shared water resources

### **3.0 Vision, Mission and Strategic Goals of the Water Sector Policy**

The vision of the water sector in Marsabit County is derived from the overall County vision and other development challenges.

The Vision;

***A county with sustainable, adequate and potable water for economic development.***

The Mission of the water sector is;

***To effectively and efficiently develop and manage the county's water resources for sustainable, socio economic development***

#### **3.1 Strategic Goals**

The Strategic Goals of this policy will be;

1. To integrate environment conservation measures for better water resources management.
2. To enhance provision of adequate, accessible, affordable and potable water, and sanitation services in rural and urban areas.
3. To provide adequate, safe, affordable and accessible water for the livestock.
4. To provide adequate and quality water for efficient use in irrigation.
5. To promote good hygiene practices and improve sanitation coverage.
6. To improve the provision and access to safe water and proper sanitation services in public institutions.
7. To provide adequate and quality water to facilitate trade, tourism and industry in the County.
8. To improve planning, coordination and management of the water sector.

#### **3.2 Guiding Principles**

The implementation of this policy will be guided by the following principles enshrined in the National Water Policy that include,

- The Right to water with a pro-poor orientation
- Autonomy of service providers
- Sustainability of water and sewerage service delivery
- Stakeholder participation
- Gender provisions in the management of WSIs and safeguarding of water
- Socially responsive commercialization for service delivery
- Professionalizing the sector
- Autonomy of WSIs
- Good governance practices on all levels
- Ring fencing of income as long as universal access to rights are not achieved
- Participatory approach
- Public Private Partnership (PPP)
- "User pays and polluter pays" principles.

## **4.0 Water Resources**

### **4.1 Situation Analysis**

The people and livestock in Marsabit County rely on surface or ground water as there are no permanent rivers. There are three principal water horizons in the County i.e. the upper horizon of Mountains and hills, over 1,500m to the summits of Mt Marsabit and Mt Kulal where there are a number of springs; the second horizon 1,200m to 1,500m still on mount Marsabit are springs like Badassa, Songa and Balesa-Bongole. The rest of the County which generally lies between 400m-460m depends mostly on underground water (i.e. boreholes and Shallow wells). In these areas, the ground water table varies greatly.

The overall hydrological status in the County indicates that ground water is adequate in the low lands but quality is low in many places. In certain locations like Kargi, the concentration of salts like sodium is above the level permissible for human and livestock consumption. The water of Lake Turkana is highly alkaline and communities who depend on lake waters suffer numerous health complications. The water yield in the existing boreholes is also very low and the salinity levels are high making it difficult to harvest water for use. It is expensive to exploit ground water (boreholes) but the cost of maintenance is high. Currently, there are 110 boreholes in the county; the surface water is also seasonal which necessitates the need for alternatives.

In respect to the protection of water resources, the County has made great effort in order to control further degradation of the environment. Several programmes have been undertaken which include rehabilitation of degraded areas such as Mt. Marsabit forest and Hurri Hills through planting of trees and grass; mobilization and sensitization of the community on the need for environmental conservation, formation of Community Environmental Committees to coordinate the activities at the grass root levels, protection of water points to avoid contamination leading to disease outbreaks and conducting research and feasibility studies on the indigenous ways of re-forestation of the degraded areas.

### **4.2 Climate Change and Variability**

In recent times, there has been increased concern and discussion on the changing world climate and its consequences. In the county, many old people say that there has been tremendous change in climate since their childhood days especially on and around Mt. Marsabit. Many scientists concur that the world climate has been changing. This has been attributed to the increased

gases in the atmosphere especially carbon dioxide, methane, nitrous oxides, chlorofluorocarbons among many other gases. These gases commonly known as green-house gases (GHGs) are largely the products of human activities arising from burning of fuels (oils, gas, coal) and destruction of forests, while methane come from waste landfills & wet rice cultivation.

Climate change has affected the county's bimodal rainfall pattern. It's now difficult to predict the onset of the short and the long rains. This has affected farmers timing in regard to land preparation hence affecting agricultural productivity. Water resources have also been affected with many springs flowing from the forest drying up due to effects of climate change. Prolonged and recurrent drought has led to reduced forage availability, degradation of the environment and an increase in destitution. The 2006 to 2009 drought caused devastation to the livestock sector.

### **4.3 Strategic Policy Goal and Objectives**

***To integrate environment conservation measures for better water resources management.***

In order to realize this goal, the county will pursue the following policy objectives;

1. To improve the restoration and protection of ecological systems and biodiversity in water catchments
2. To protect catchment and riparian areas
3. To establish and develop water conservation structures and systems
4. Enhance planning to ensure that drainage is sufficient to prevent flooding, and in taking remedial action in collecting run off.
5. Promote rain water harvesting to increase household water security

### **4.4 Policy Measures**

The above policy objectives will be achieved through the following policy measures;

- Increase tree cover, particularly in water catchments and promote agro-forestry and social forestry
- Promote use of renewable energy
- Promote low maintenance water technologies with an emphasis on water harvesting, which can deal with both abundance and scarcity under climate change
- Development of buffer areas of crop and forage production for use during crises

- Ensure sound environmental management in line with regard the management of community land
- Develop the potential for payments to communities for environmental services, including ecosystem services
- Educate and train on environmental conservation and management;
- Support Water Resources Users Association in catchment and riparian areas protection activities;
- Develop/harmonize regulations governing riparian areas delineation/markings
- Establish a planning, design and construction unit for water conservation structures and systems;
- Develop guidelines for rainwater harvesting and storm-water conveyance systems in built-up areas;

## 5.0 Water Supply and Sewerage services

### 5.1 Situation Analysis

In general, the water supply in Marsabit Town can be described as inadequate due to limited water sources and hence everybody depends on Marsabit Urban Water Supply which is the only public piped water supply system. The source of the public water system is Bakuli spring whose discharge is not constant and is on the decline due to interference from wildlife in the dry season and climate change and variability. During drought, the flow reduces by over 80%. During rainy season it ranges from 9 to 11 litres per second while dry season it is 3.1 to 2 litres per second. The ultimate water demand for Marsabit town resident is 7,350m<sup>3</sup>/day at year 2032 to serve a projected population of 81,135. (Source: *www.Ministry of Water and Irrigation.go.ke, 2016*)

Currently, the water coverage is estimated at about 15% since the average water produced is 600m<sup>3</sup>/day against a water demand of about 3,795m<sup>3</sup>/day. This situation is expected to worsen with time if no immediate action is taken. In order to find alternative source, efforts has been directed in harvesting flood flows. Bakuli 3 Concrete Dam with a capacity about 60,000m<sup>3</sup> constructed in years 2008 to 2011 under GOK and Japan funding is operational and has brought some relief to Marsabit Town. This Dam has capacity to supply 543m<sup>3</sup>/day for the next four months before the situation deteriorates. Further, Badassa/Songa Dam a Vision 2030 flagship project is under construction. The Dam has an estimated capacity of about 6 million m<sup>3</sup> and yield about 7,000m<sup>3</sup>/day is about 50% constructed and is expected to be completed and operational as soon as funds are availed. (Source: *www.Ministry of Water and Irrigation.go.ke, 2016*)

### Rural Water Supply Schemes

The table below gives an inventory of water facilities by type of technology in Marsabit County.

**Table 8: Number of Developed Water points (JICA 2012)**

Sub County	Type of Technology					
	Shallow wells	Boreholes	Pans	Rock-catchments	Buried tanks	Springs
Laisamis/Loiyangalani	320	27	36	7	8	3
North Horr/Chalbi	50	15	9	3	33	3
Sololo/Moyale	250	26	48	3	35	0

Saku	30	5	20	1	60	1
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From the findings of a study<sup>1</sup> carried out in Feb 2013, 70% of the facilities are functional and in use, while 63% of point sources (excluding piped systems) were found improved. However, 66% of sources have contaminated water that is recommended for treatment before use for drinking purposes. Besides quality issues, many of the facilities do not have sufficient water to satisfy demands and sources are seasonal – being adversely affected by drought. As part of coping mechanisms, water is ferried to affected communities using motorized trucks, usually supported by the government. More often and in the worst case scenarios affected communities migrate to areas closer to productive sources of water.

Many of the water supply facilities are not sustainable due to poor management by water service providers and operational inefficiencies and from time to time they depend on financial and technical support from the government, government agencies and civil society organizations, PBO's (NGOs, FBOs, individual etc). Lack of sustainability is attributed to among other issues expensive and inefficient technologies, lack of technical skills and inadequate operational efficiencies, poor governance and management practices, lack of accountabilities etc. The main reason for this is because of a weak supervision and technical support by the County Government.

There are opportunities to enhance on operational efficiencies, reduce cost of service delivery and to enhance sustainability through private sector participation and partnerships in areas of renewable energy technologies, innovations, better management and commercial practices as well as investing in infrastructure. The County Government is open to public private partnerships to increase access to water coverage and enhance service delivery but there is need for more education and dissemination of knowledge in PPP areas to all stakeholders<sup>2</sup>.

In summary, the challenges facing the water sector in Marsabit include several management, sustainability and infrastructure limitations for water and urban sanitation. Key challenges identified by the county are:

- The current schemes are dilapidated and operate at less than 50% of their design capacities
- Most of the transmission and distribution lines are either completely cut off or are only used through a water rationing programme.
- The water schemes have outlived their design period and cannot meet the current population demand, hence the need for expansion of the three major water supplies in the county to deal with the expanding population.
- Most point sources are fall into disuse or neglect and require rehabilitation, reconstruction and catchment protection to be able to serve the growing population.
- Water from many facilities is contaminated

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<sup>1</sup>Concern Worldwide (2013)

<sup>2</sup>Department of Water, Environment and Natural Resource

- Many water facilities especially in rural areas are managed by user committees that lack adequate management capacities and therefore water service provision is poor.

The mean distant to the nearest water point is 25 km. This distance is large and therefore a lot of time is wasted to fetch water which could be used for other productive activities. School children also waste time in fetching water and this compromises their education standards.

## **5.2 Strategic Policy Goal and Objectives**

***To enhance provision of adequate, accessible, affordable and potable water, and sanitation services in rural and urban areas.***

In order to realize this goal, the county will pursue the following policy objectives;

1. Provide the regular minimum, necessary quantities of potable water and minimum standards of sanitation services to all users in the county.
2. Expand the water supply in rural areas to ensure universal access.
3. Mobilize additional sources of funding and investment support to improve coverage for both rural and urban water
4. Improve the quality of urban drainage both in its initial provision and its maintenance
5. Promote the participation of private sector players in provision of water and sanitation services

## **5.3 Policy Measures**

The above policy objectives will be achieved through the following policy measures;

- Increase water storage through infrastructure development.
- Improve exploration and exploitation of ground water resources.
- Increase the availability of water points
- Increase connectivity and reticulation in urban areas.
- Improve provision of treated domestic water.
- Increase water quality surveillance and testing.
- Reduce production cost through proper design and appropriate technology.
- Set guidelines for water tariffs.
- Choice of appropriate water sources
- Mainstream latrine coverage in rural areas with water supply.
- Development of sewerage system for urban areas
- Facilitate private sector participation in service delivery especially in rural water supply

- Integrate/mainstream environmental measures in all water development.
- Enhance human resource capacity to manage water services
- Undertake regular audits of community water supply entities
- Increase the capacity of the County government to supervise and offer technical support to WSPs
- Ensure minimum standards/levels of service for the public supply of potable water. For municipal/urban households and other urban consumers, this will include potable water available 24 hours per day.
- Build the capacity of water management committees for community managed water services
- Guarantee minimum supply of domestic water for marginalized and absolute poor households

## 6.0 Water for Livestock

### 6.1 Situation Analysis

Livestock keeping is the main economic activity in the county. The main livestock bred include: cattle which are approximately 424,603, goats 1,143,480, sheep 960,004, camels 203,320, donkeys 63,861, and poultry 50,690. There are 2,691 beehives/apiaries in the entire county. The main livestock products are: milk, beef, mutton and camel meat. (Source:CIDP). In Marsabit County, there is already scarcity for the available water which is insufficient for both livestock and crop requirements and routinely, local communities have to make in the usage of the scanty water resources. In Marsabit County, 88% of the households keep livestock<sup>1</sup>, which is the main driver of the economy of the county. The table below presents the livestock population by livestock species and attempts to estimate a value for the livestock assets.

Table 9: Livestock Population by species and their estimate values

Asset category	National estimate	Marsabit County estimate	Percentage	Estimated county value (KSh mio)
Cattle	17,500,000	424,600	2.4	14,000
Sheep	17,100,000	960,000	5.6	3,168
Goats	28,000,000	1,143,500	4.1	3,774
Camels	2,700,000	203,300	7.5	8,900
Donkeys	1,800,000	63,800	3.5	1,000
Indigenous chicken	26,000,000	46,300	0.002	22,000
Commercial chicken	6,100,000	4,400	Trace	

Source: CBS 2009 Human Population and Housing Census

An estimated 95% of the land is used by pastoralists; where a great number of the households are still mobile. This is an age-tested adaptation to the variable climatic conditions in these ecologically fragile rangelands. Unlike crop production systems, pastoralists are able to move the livestock where the rain falls as long as other factors that dictate mobility allow. This way the risk of total decimation of herds during droughts is reduced. There is evidence to show that mobile pastoral systems overall achieve higher livestock productivity than sedentary herds —for the key productivity parameters like calving rates, milk yields, weight gains and calf mortality — as mobile herds are able to have timely access to more nutritive fodder and better water and minerals<sup>2</sup>.

Water is an important, but often overlooked, nutrient. Livestock water requirements are affected by many factors including, size, productivity, diet and environmental conditions. Good water quality and cleanliness can increase water intake and improve livestock production. Limited access or reduced water

consumption can result in dehydration, which can be fatal to livestock.

## **6.2 Strategic Policy Goal and Objectives**

***To provide adequate, safe, affordable and accessible water for the livestock.***

In order to realize this goal, the County will pursue the following policy objectives;

1. Promote sustainable use of water resources for livestock
2. Improve the availability and reliability of water supply for livestock
3. Establish adequate well spread watering points
4. Construct and rehabilitate livestock watering structures
5. Regularly monitor water qualities with establishment of hygiene facilities at livestock watering points.

## **6.3 Policy Measures**

The above policy objectives will be achieved through the following policy measures;

- Provide enough water through development of water sources.
- Provide and ensure that quality water is used for livestock through water analysis and treatment.
- Provision of strategic water development for proper livestock use and for distribution of livestock in rangelands.
- Developing and maintaining reliable water sources for livestock
- Protect the key livestock water catchment areas
- Enhance management capacity of livestock water committees
- Build the capacity of livestock water management committees regularly.
- Establish water harvesting structures at strategic watering points
- Strengthen community participation in development and management of strategic livestock water resources
- Minimize livestock water related conflict.
- Acquire and position water trucking facilities strategically(water bowsers)
- Establish and rehabilitate livestock water infrastructure

## **7.0 Water for Irrigation**

### **7.1 Situation Analysis**

The introduction of irrigation into a pastoral system creates new water demands. These new water demands change the water balance. Currently, crop farming in the county does not thrive well because of erratic climatic conditions. There are however some regions around Mt. Marsabit and Moyale where crop farming does well during rainy season. The population working in agriculture is estimated to be about 2 per cent. Main cash crops grown in the county include vegetables and fruits whereas food crops include maize, teff, beans and millet. Crop trees grown include: Oranges, avocados, mangoes and miraa in Moyale and parts of Saku constituency. Miraa is grown for commercial purposes while fruits trees are mainly on small scales and for domestic consumption. (Department of Agriculture)

Only two per cent of the county population practice crop farming. The total area under food and cash crop production is 5,060 Ha. However the county has great potential of crop production with an area of 1,582,750 Ha being arable. Much of the area is underutilized due to erratic climatic condition and the county will be investing more in irrigation to increase this acreage under crops. Irrigation is mainly carried out in irrigation schemes of Songa and Kalacha and small water harvesting projects. The county will certainly invest in the rehabilitation and expansion of the current irrigation at Songa and Kalacha, the Larachi irrigation scheme as well as water storage infrastructure in the sub -Surface Dams at Dukana and Hurri Hills.

In the County, the three main crops grown under irrigation are maize, tomatoes and kales but the area under irrigated maize has reduced slightly attributed to lack of seeds and reduced area under food crops in Kalacha irrigation scheme where fodder is preferred. Area under horticultural crops is however increasing as farmers are going for more high values crops.

At the same time, considering the severe water scarcity in the County, the adoption of modern irrigation techniques will be crucial for the county's development of irrigated agriculture. In fact, the related departments such as the Department of Agriculture and the Water will be actively encouraging irrigation modernization policies to increase efficiency in water use.

## **7.2 Strategic Policy Goal and Objectives**

***To provide adequate and quality water for efficient use in irrigation.***

In order to realize this goal, the county will pursue the following policy objectives;

1. Improve the productivity of the County's water resources for irrigation
2. Improve irrigation water storage infrastructure
3. Strengthen the involvement of local community stakeholders in operation and maintenance of irrigation systems.
4. Promote pro-poor intervention strategies for irrigated agriculture
5. Improve on utilization of modern irrigation technology
6. Promote adoption of water efficiency crops

## **7.3 Policy Measures**

The above policy objectives will be achieved through the following policy measures;

- Protect irrigation water sources against pollution which degrades water quality, is hazardous to the environmental integrity of soils, or can endanger animal health, particularly livestock.
- Enhance on-farm irrigation efficiencies and maximizing the agricultural output of a unit of land area per unit flow of irrigation water.
- Construct, develop and rehabilitate water infrastructure
- Develop rules and regulations to demarcate irrigation areas
- Encourage maximum use of rainfall for crop production, and use of supplementary irrigation to maximize production including increasing cropping intensities.
- Train farmers on advanced water management techniques
- Monitor irrigation water quality through sampling at the sources and from the conveyance and distribution network.
- Pilot irrigation areas to test the workability of Participatory Irrigation Management (PIM), where farmers will assume the responsibility of water delivery to their farms.
- Development of water resources, including groundwater for irrigation
- Develop and implement incentives to encourage low water consumption and high-value crops.

## **8.0 Sanitation and Hygiene**

### **8.1 Situation Analysis**

Over the years, attention to rural sanitation and hygiene has generally been low with, access to improved sanitation in the County being extremely low - 35.4% of households in Marsabit are reported to have access to improved sanitation compared to a national average of 55% in urban areas<sup>3</sup>. Among the toilets used include: pit latrine which account for 25.8 per cent, uncovered pit latrines (13.5 per cent), covered pit latrine (12.3 per cent), bucket (12.3 per cent), VIP (6.5 per cent) and 0.2 per cent flush toilets. Waste/garbage disposal is done by public garbage heap burning which account for 19.7 per cent, garbage pit (12.1 per cent), farm garden (8.9 per cent), public garbage heap (1.9 per cent) and 0.4 per cent disposed by the County Government. In rural areas, sanitation coverage is only between 5-10%.

Currently, the county has been implementation of CLTS through the department and partners with at least 10 villages have been declared ODF while upto 40 villages have been triggered for ODF. The county is also strengthening community health services by opening of more community units and also training of level one work force.

In Marsabit Town, there are some households with flushable toilets, for the most part, static households either use pit latrines - usually shared, or open defecation, while nomadic communities rely principally on open defecation in the surrounding bush/fields. Some work has been done to support communities to develop sanitation options, either through constructing latrines or providing inputs like slabs and material for super structures<sup>4</sup>. There also appears to be some work being initiated to support Community-led Total Sanitation (CLTS), a demand led approach that aims to motivate communities to stop open defecation and develop their own latrines.

Such inadequate and improper disposal of human excreta poses a significant risk to the contamination of drinking water sources as fecal matter may either seep in to the ground water extracted through shallow wells or run in to open sources, particularly during heavy rains and flooding. This coupled with poor personal hygiene practices and improper handling and treating of household water can easily become an issue of significant concern and result in negative health impacts particularly in terms of diseases like diarrhea.

Due to widespread drinking of unclean water, the water related disease burden in the county is high with diarrhea among the three most prevalent diseases in the County. This burden of disease not only has a negative impact on the health and life expectancy of the community, but also on their productivity and quality of life, substantially contributing to the situation of poverty. During dry seasons and drought, the health impact of drinking

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<sup>3</sup>Kenya Country Fact Sheets, Commission on Revenue Allocation, 2010

<sup>4</sup> WASH Strategy CCSMKE Marsabit, Clair Simmons, Tearfund, 2011

unclean could be exacerbated leaving already vulnerable populations at increased risk of disease outbreak.

Recognizing this risk, some efforts have been made to promote household water treatment (HWT) and improved hygiene practice at a household level. In terms of HWT, principle approaches promoted by the NGOs and Government partners appear to be the use of pur sachet and aqua tabs and of ceramic/clay filters – all of which are distributed under their programmes. Additional HWT methods used include boiling of water (principally water used in consumption of tea) and/or straining water through cloth prior to use<sup>5</sup>. The adoption of these HWT approaches does however appear to be limited – according to the MICS (2008) only approximately 19% of households in Marsabit drink appropriately treated water<sup>6</sup>.

In urban sanitation, the issue of solid waste management is also one of potential concern. There is currently no urban sewerage system and inadequate waste disposal practices are rampant. This results in the random dumping of solid waste which, given the high winds experienced in the area, tends to get scattered around, posing a potential threat to animal life in particular as well being an environmental concern in an already fragile environment.

## **8.2 Strategic Policy Goal and Objectives**

### ***To promote good hygiene practices and improve sanitation coverage.***

In order to realize this goal, the county will pursue the following policy objectives;

1. Increase access to sustainable, safe water and environmental sanitation in the county and especially among vulnerable groups
2. Reduce the prevalence of WASH-related diseases through the promotion of personal hygiene and environmental practices
3. To support the health sector in effectively addressing water- and waste-related disease burdens and in engaging others in its reduction.
4. Improve and maintain infrastructure for proper waste management
5. Promote the reduction of water- and waste-related disease and the optimization of the health benefits of sustainable water and waste management.
6. To assist non-health sectors in understanding and acting on the health impacts of their actions in sanitation and hygiene.
7. Strengthen local community private sector value chains in water, sanitation and hygiene

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5 WASH Strategy CCSMKE Marsabit, Clair Simmons, Tearfund, 2011

6 Multiple Indicator Cluster Survey (MICS), Kenya Eastern Province, Marsabit District, UNICEF, 2008

### **8.3 Policy Measures**

The above policy objectives will be achieved through the following policy measures;

#### **8.3.1 Urban Sanitation**

- Minimize the rate of waste generation through education and source reduction
- Encourage and facilitate the recovery, reuse and recycling of materials within waste streams
- Disposal and storage sites protection
- Establish & improve safe waste management infrastructures
- Strengthen inter-sectoral collaboration and private sector participation in WASH value chains
- Enhance efficiency of garbage collection
- Improve street cleaning
- Improve on zoning and proper design of sanitary infrastructures
- Develop and enforce rules and regulations pertaining to urban waste management
- Regulation and licensing of waste management service providers
- Setting up of regulations pertaining to indiscriminate waste disposal
- Initiate health-care waste management pilot projects.

#### **8.3.2 Rural Sanitation and hygiene**

- Integrate health and hygiene promotion activities and programs with all water supply projects
- Promote proper hygiene practices in water handling from source, collection, transportation, storage and use.
- Undertake regular surveys to gain an understanding of the comprehension of drivers of WASH behaviour change
- Invest in demonstrations such as drinking water quality testing, training and distributions of HWT options.
- Build partnerships with stakeholders to promote safe hygiene and promotion practices. Support communities to develop their own water safety plans.
- Promote Community Led Total Sanitation (CLTS)
- Provision of treatment tablets.
- Promotion of low cost water treatment methods.

## **9.0 Water for Schools and Health Institutions**

### **9.1 Situation Analysis**

Marsabit County has a total of 320 pre schools, over 270 primary schools, five (5) colleges, 51 health centres and several market centres. A good number of markets, schools and health centres in Marsabit Country lack adequate and safe water sources on their premises, which places significant limitations on education opportunities and health outcomes on the students and patients. Where insufficient sources exist, school children have to carry water with them for drinking and cooking, which results in a significant wastage of learning time considering the time spent to collect the water and taken from morning schooling sessions to check that students have carried adequate water. There is also the risk that water is from unclean sources and the associated health impacts result in increased absenteeism of school children. In health centres, the lack of clean and sufficient water sources for use by patients – particularly women and children –limits the effectiveness of treatment provided.

For school going children, limited knowledge of good personal hygiene and poor hygiene practice (such as hand washing with soap) also contribute to ill health, and increased absenteeism. Lack of sufficient and private, appropriate, gender separated sanitation facilities also has significant impact on attendance and retention rates of female students in particular, who are constrained from going to school during their menstrual period, and may ultimately drop out completely as a result.

A number of NGOs have been working to better ensure adequate and appropriate provision of WASH facilities and hygiene promotion activities in schools. Particular attention is being given to supporting the development of latrines and hand washing facilities ensuring they are separated for boys and girls. Hygiene promotion through talking walls and the development of school health clubs has also been undertaken. Such activities represent a key means to ensure that the sanitation and privacy needs of school going children, girls in particular, are met – a key factor to ensure their continued enrolment in school.

Where WASH facilities have been provided in schools, the management have reported an improvement in enrolment, retention rates and performance. In some schools, the availability of a water source has also proved an asset to the surrounding community giving them increased access to proximal and reliable water sources and opening the school up to the community. This has also impacted on attendance and enrolment. Additional spin off effects have included the potential for schools to generate income as the availability of water and sanitation facilities makes them attractive for workshops, meetings and seminars over the holiday season. Revenues are re-invested in the maintenance of the facilities.

## **9.2 Strategic Policy Goal and Objectives**

### ***To improve the provision and access to safe water and proper sanitation services in public institutions.***

In order to realize this goal, the county will pursue the following policy objectives;

1. To strengthen the provision of safe water and sanitation services in public institutions especially schools and health facilities
2. To improve and maintain infrastructure for proper waste management in public facilities
3. To influence communities to participate in planning, construction, use and maintenance of user friendly water, sanitation and hygiene facilities for schools and communities
4. To improve hygiene practices among school children, their families and communities
5. To improve water, sanitation and hygiene facilities for better health and well-being for school children.
6. Increase safe water storage in schools and health centres

## **9.3 Policy Measures**

The above policy objectives will be achieved through the following policy measures;

- Increase investment in WASH facilities in public institutions to increase the impact of health and nutrition interventions in the county.
- Invest in a database on water and sanitation hygiene in schools and other public institutions
- Improve the development of roof rainwater harvesting facilities and connection to proximal boreholes.
- Invest in solar pump or hand pumps for schools and health centres.
- Integrate hygiene promotion activities within routine health and nutrition activities in schools and health centres.
- Promote School Led Total Sanitation (SLTS) approach to support progressive steps towards behavioural transformation and latrine promotion in communities,
- Promote personal hygiene including hand washing with soap, protection of food and water etc.
- Strengthen programs aimed at environmental Sanitation which would include activities related to cleaning of school compounds, public spaces etc
- Promotion of open defecation free communities within school catchments.

## **10.0 Water for Trade, Tourism and Industry**

### **10.1 Situation Analysis**

The county has no manufacturing or agro-processing industries despite its abundant and high potential for livestock products. However, the county has undertaken a major investment in meat processing, to construct an abattoir at Segel, targeting the regional and international markets. There are also plans to put up a fish processing industry in Loiyangalani to harness the untapped potential of Lake Turkana.

There are two registered Jua kali Associations, one in Marsabit and another one in Moyale. Plans are underway to register two Jua kali associations at Korr and North Horr. The county has partnered with MSEA and KIE to equip Jua kali sheds and business incubation services. The county realises the importance of industrialization in job creation and alleviation of poverty. On a small scale, there are cottage industries involved in light manufacturing and the county has linked them up with Export Promotion Council for product value addition to make them competitive in the local and regional markets. These industries include Khandere Farmers' Cooperative, who manufacture detergents/shampoos, based in Moyale; Magayole in Maikona specializing in basketries; and Umma in Sololo who process yoghurt.

The County Government has plans to come up with policies that will incentives new investors to undertake industrial developments by offering tax incentives to investors and land for investors who wish to exploit these opportunities. The County Government has currently embarked on capacity building programmes especially in the areas of product development, marketing, record keeping and entrepreneurial skills for MSMEs to make them compete with other business actors in the region.

Marsabit County is in the process of positioning itself to reap big from its diverse cultural heritage and abundant historical and geographical attributes through investment in tourism. The county has a great cultural diversity hosting at least 14 indigenous ethnic groups. Having a huge potential in diverse and rich cultures and heritage, historical and geographical sites and the biggest virgin landmass in a single geographical boundary, the county has huge tourism potential. The county is also proud to be the 'Cradle of Mankind' as home to Koobi Fora, a renowned region of archaeological sites. This is where the largest ever collection of well-preserved hominid fossils dating from between 2.1 and 1.3 million years ago were discovered by archaeologists.

One of the major points of attraction is Lake Turkana, which is the largest desert lake in the world, measuring about 5,000 square kilometres. The Lake with an estimated 500 kilometre-long open shoreline with pristine beaches presents an

enormous and unexploited tourism potential besides being a critical source of livelihood for the region's communities for centuries. Other unique tourist attractions include the Chalbi Desert, Lake Paradise, Central and Southern islands, the petrified forests, Marsabit National Park and Mount Marsabit tropical rainforest. Importantly, the county is the home to world famous elephant, "Ahmed" - the largest elephant ever found on African soil. In addition the county is also home to the grey Zebra, one of the rarest Zebra species in the world. The county also boasts of harbouring the only desert Museum in East Africa.

## **10.2 Strategic Policy Goal and Objectives**

### ***To provide adequate and quality water to facilitate trade, tourism and industry in the County.***

In order to realize this goal, the county will pursue the following policy objectives;

- Improve the provision of adequate, affordable and quality water supplies for industry and trade to support the county economy.
- Develop reliable water and sewerage infrastructure for trade, tourism and industry both in rural and urban areas.
- Strengthen the involvement of trade, tourism and industry stakeholders in decision making on water service delivery in the county.
- Promote the utilization of efficient modern technologies in water use for trade, tourism and industry.

## **10.3 Policy measures**

- Invest in development of new and upgrading of existing infrastructure to meet water demands for trade and tourism and industry.
- Develop and ensure adherence to regulations that prohibit water resources from being wasted
- Encourage water recycling, reuse and treatment of wastewater for industrial processes wherever possible
- Promote the adoption of technologies that can accomplish the same production output with less water.
- Allocate resources for awareness programs that target workers and employees on efficient water use
- Develop and implement water efficiency standards for hotels
- Develop and implement incentives to encourage low water consumption

## **11.0 Water Sector Governance and Coordination**

### **11.1 Situation Analysis**

For the water sector and the Department of Water and Irrigation in Marsabit County, there is a growing need for a more consolidated, harmonized and coordinated water management institution/s, backed by a strong legal/regulatory framework especially within the IWRM approach. These institutions need to be supported by key management instruments that can be reinforced to optimize water resources management and services delivery. Harmonized countywide structures and institutions will be established and empowered to implement operational plans for water resourcing, distribution and delivery systems; mobilize public/private capital for expansion and improvement of infrastructure; sustainably recover operating and maintenance costs; protect the quality of water resources and water-dependent ecosystems; and protect the rights of citizens.

The county water sector will require a revised governance strategy and institutional framework that rationalizes, consolidates and reorganizes the core governance functions for: (i) county policy and planning; (ii) management of operations and quality assurance; (iii) delivery of sustainable sector services; (iv) regulatory and normative functions; and (v) sector coordination and public interface. This in turn requires a revised organizational structure and a comprehensive water law that factors in these new realities facing the sector.

There is a locally established WESCOORD group at Marsabit level, co-chaired by the Ministry of Water and Irrigation and Ministry of Public Health and Sanitation which is supposed to hold and be responsible for coordination of WASH actors and interventions. The structure does not however appear to function optimally and meetings appear to be under attended and/or subject to cancel due to lack of quorum. This gap in co-ordination is critical for both emergency as well as regular programming and places a number of challenges on effective WASH programming by prohibiting the development of joint action plans, co-ordination of inputs, standardisation of approaches and equipment, lesson learning among partners etc. Effective co-ordination is critical to ensure a coherent approach to WASH development, and better support the development of sustainable resources in the pastoral areas. It therefore needs to improve a lot and quickly.

The table below gives a summary of the main national and county level institutions responsible for water resources and services delivery in Kenya and in Marsabit County.

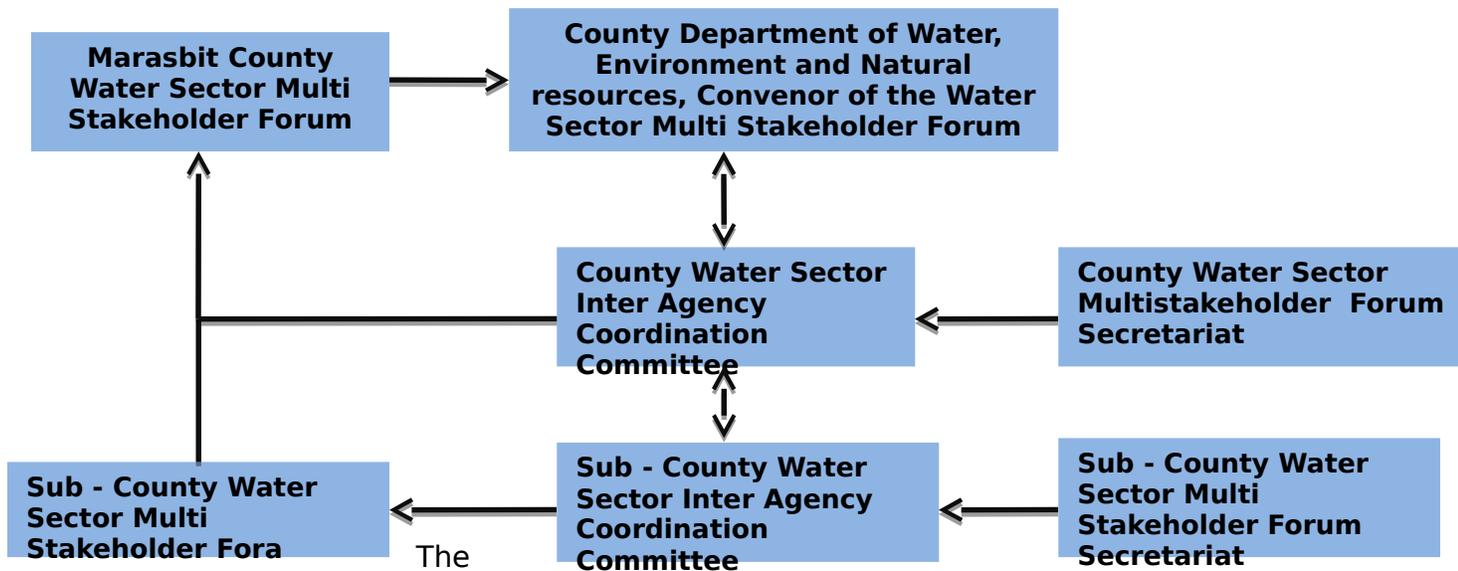
**Table 10: Main National and County Water resources and Services Delivery Institutions**

<b>Sector</b>	<b>Name of institution/platform inc NSAs</b>	<b>Current roles and function</b>
Water Resource Management	Water resource management authority (WRMA)	<ul style="list-style-type: none"> <li>• Management and regulation e.g. to avoid over abstraction upstream</li> <li>• Issuance of permits</li> <li>• Capacity building of WRUAS</li> </ul>
	Water Resources User Association (WRUA)	<ul style="list-style-type: none"> <li>• Protection of catchment areas</li> <li>• Capacity building of water users</li> <li>• Provision of water and sewerage in rural areas</li> <li>• Management and maintenance of water and sewerage systems in rural area</li> <li>• Sensitization and awareness to users</li> </ul>
County Government	County Department of Water	<ul style="list-style-type: none"> <li>• Policy development</li> <li>• Oversight of water service delivery</li> <li>• Sector leadership</li> <li>• Financing</li> <li>• Provision &amp; maintenance of water &amp; sewerage services in urban centres</li> <li>• Infrastructural development</li> <li>• Capacity building WSPs</li> </ul>
Non State Actors	Civil society organizations e.g. KRC	<ul style="list-style-type: none"> <li>• Awareness creation;</li> <li>• Financing</li> <li>• Infrastructural development</li> <li>• Capacity building WSPs Advocacy</li> <li>• Community mobilization</li> </ul>
Cross sectoral platforms	CSG	Planning and coordination stakeholders; identification tasks; forum for resource mobilisation; information sharing; technical working groups, regulation, supervision and monitoring, internal audits
	WESCOORD	Coordination of WASH programmes in county
	Food security groups	Coordination and information sharing
Financing	Marsabit County Gov't	Coordination & planning; setting priorities; CIDP; resource mobilization; (co)financing; regulations; capacity building of partners; supervision; M&E; internal audits
	NSA's / CBO's / Donors / Private individuals / Private sector	Resource mobilization; capacity building at grassroots level; direct implementation; support
	National Government -WSTF	Cash transfer program to pro poor
	National Drought Management Authority (NDMA)	Contingency planning and interventions
Capacity	WESCOORD	Train their members; forum for joint learning &

building, monitoring & evaluation & learning		coordination
	CSG	Information sharing among stakeholders
	Academia e.g. Drylands Training Institute and University of Nairobi	Capacity building of students; academic research
	WRMA	Training of Water Resources Users Associations
	Northern Water Service Board	Training water service providers
	Kenya Meteorological Department	Early warning
	Kenya Food Security Steering Group	Early warning
	Controller and Auditor General	Capacity building; resource mobilization

### 11.1.1 Coordination Structure of the Water Sector Multi Stakeholder Forums

In order to improve inter-sectoral coordination and governance, the County will establish a water sector multi stakeholder forum that will be convened by the Department of Water, Environment and Natural Resources. The structure will be as follows;



The convenor of the Marsabit County Water Sector Multi-stakeholder Forum will be the Chief Officer of the Departments of Water, Environment and Natural Resources. The multi-stakeholder forum will meet at least once a quarter and will have responsibility for;

- Providing an all inclusive platform for the coordination and harmonization of water sector interventions both implemented by the County Government and other stakeholders

- Providing a learning and sharing platform for stakeholders
- Awareness raising on different issues in the sector
- Resources mobilization
- Advocacy
- Dissemination of sector performance reports
- Collaboration and networking
- Capacity building

The membership of the County multi-stakeholder forum will be open to all stakeholders and in particular shall include;

- County Departments of Water, Environment and Natural Resources
- County Department of Health Services who shall be the Deputy Convenor
- County Department of Livestock and Pastoral Economy
- County Department of Education
- County Department of Lands and Urban Planning
- County Department of Planning and Economic Development
- County Public Administration
- All implementing Partners including NGOs, FBOs and CBOs
- County Private Sector players
- Water User Associations
- Water Service Providers
- Water Resources Users Associations
- Development Partners
- Relevant National Government ministries

The County Water Sector Inter Agency Coordination Committee will be chaired by the Director of Water Services and will serve as the technical organ of the County Multi-Stakeholder Forum. As a technical organ, the Coordination Committee will be responsible for among others;

- Organizing meetings of the County Multi Stakeholder forum
- Adoption of agenda for the County multi stakeholder forum
- Providing technical advice to the county multi stakeholder forum
- Monitoring and evaluation and reporting to the county forum.
- Proposing legal and policy changes
- Supervise the secretariat and sub-county multi-stakeholder fora
- Oversee the implementation of the decisions of the county multi-stakeholder forum.

The membership of the Inter-Agency Coordination Committee will include;

- County Director of Water Services - Chair
- County Director of Public Health
- County Director of Livestock
- Director of the County Water Service Company
- One Sub County Administrator

- One NGO representatives
- One CBO representatives
- One Representative of FBOS
- One Representative of Development Partners

The secretariat of the Coordination committee will be headed by a partner and will be nominated by the coordination committee from time to time. The secretariat will support the implementation of decisions of the coordination committee and the county multi-stakeholder forum activities. The secretariat will report directly to the Coordination committee.

At the sub county level, the various organs of the multi stakeholder forum will mirror those at the county level in membership, leadership and functions but at the sub-county level. In addition however, the sub-county organs will be expected to be involved in direct implementation of activities at the community level. The sub-county forum will however be expected to meet at least once a month.

### **11.2 Knowledge Management, Monitoring and Evaluation**

Water services cannot be properly managed by the County unless there is proper knowledge of where the resource is, in what quantity and quality, and how variable it is likely to be in the foreseeable future. Data from national government agencies such as WRMA, NDMA and other institutions have some of this information yet currently, there are no proper mechanism under which the County government can access this information for planning, designing, operating and maintaining multipurpose water management and service delivery systems. At the same time, in the County level, an area that requires a lot of information and data support is in the management of the water facilities at the communal level especially with respect to the number of water sources, status of systems of management especially among water committee, facility ownership, capacity requirements, operational reliability of water sources etc. Even the water sector itself needs to regularly keep data and information to monitor sector performance, delivery performance of partners and related information for purposes of mutual accountability. However, there is currently no system in place to support the level of decision making decisions at the county level erratic and unreliable.

### **11.3 Inadequate Human and Physical Infrastructure**

The development of human resources is at the core of sustainable development and management of water resources. Both officers of the County government and local communities need to be empowered with the necessary knowledge and skills so that they able to perform their functions effectively. Many groups and organizations need training and orientation so that they can understand and support the integrated sustainable sanitation

and water management approaches. For example, households need to understand the range and implications of the options open to them; CBOs, which undertake construction, O&M and/or management of local projects, will need training on technical matters, financial management, contract procedures and reporting; NGOs, which often have a critical role in providing training and direct support to communities and linking them with external resources, will need to develop communication, participatory training and other social as well as technical capacities; county government officers and technical personnel need to be assisted in acquiring a better understanding of the social, institutional, financial, as well as technical factors that have to be addressed; private providers can be encouraged through developing a range of skills in business management etc. However, the County currently lacks a consolidated capacity development plan that captures all these aspects of their human resource needs.

## 11.4 Financing

During FY 2014/15, the Approved Supplementary Budget for Marsabit County was Kshs.5.75 billion, with Kshs.2.74 billion (47.7 per cent) allocated to recurrent expenditure and Kshs.3.01 billion (52.3 per cent) to development expenditure. Out of this budget, the amount allocated to the Department of Water, Environment and Natural Resources was Ksh. 635.85M or 11% of the overall County Budget. In the following year, the FY 2015/16 approved budget for Marsabit County was Kshs.5.83 billion. It comprised of Kshs. 3.03 billion (51.9 per cent) allocated for recurrent expenditure, Kshs.2.81 billion (48.1 per cent) for development expenditure. Out of this, Ksh. 752.9M or 12.9% was allocated to the Water, Environment and Natural Resources which was a marginal increase from the previous years allocation.

In addition to this, the Water Environment and Natural resources department has had a fairly high budget absorption rate both for recurrent and development expenditure as shown in the table below;

**Table 11: Budget absorption rate for recurrent and development expenditure**

Select Departments	Budget Allocation (Kshs. Millions)		Exchequer Issues (Kshs. Millions)		Expenditure (Kshs. Millions)		% of Expenditure to Exchequer issues		Absorption Rate (%)	
	Rec	Dev	Rec	Dev	Rec	Dev	Rec	Dev	Rec	Dev
<b>Water, Environment and Natural Resources</b>	105.95	529.9	105.46	270.97	85.92	355.71	81.5	131.3	81.1	67.1
<b>Trade, Industry and Enterprise Development</b>	54.75	118	54.42	86.00	40.21	26.85	73.9	31.2	73.4	22.8
<b>County Health Services</b>	632.41	230	627.7	146.5	611.57	104.78	97.4	71.5	96.7	45.6
<b>Overall County Totals</b>	<b>2,742.58</b>	<b>3,011.19</b>	<b>2,645.54</b>	<b>2,476.89</b>	<b>2,468.39</b>	<b>1,919.55</b>	<b>93.3</b>	<b>77.5</b>	<b>90.0</b>	<b>63.7</b>

Source: Final Controller of Budget Report, 2014-2015

Analysis of the development expenditure in FY 2014/15 indicates that the County Treasury had the highest expenditure of Kshs.820.5 million which was spent on pending bills from FY 2013/14. The second highest expenditure of Kshs.355.71 million was incurred by the department of Water, Environment and Natural Resources, out of which Kshs.94.9 million was spent on water supplies and sewerage, Kshs.19.8 million on Bakuli IV; Kshs.16 million on

creation of new conservancies; Kshs.22 million on purchase of collapsible tanks among other projects.

In the FY 2015/16, Analysis of the development expenditure of Kshs.535.39 million in the first half of the Financial Year indicates that the Finance and Economic Planning Department had the highest expenditure at Kshs.238.34 million which was spent on development across several flagship projects that were carried forward from the previous year (pending bills). The second highest expenditure at Kshs.178.25 million was incurred by the Water Department on construction of water infrastructural works like dams, pans and piping of water to residents across the vast county. (*Source: Final Controller of Budget Report, 2014-2015*).

Currently, efforts are underway to document the contribution of sector financing by development partners through NGOs and other Non State Actors but this is a substantial contribution to the overall sector finance.

### **11.5 Strategic Policy Goal and Objectives**

#### ***To improve planning, coordination and management of the water sector.***

In order to realize this goal, the county will pursue the following policy objectives;

- Strengthen the institutional framework for better coordination and governance of the water sector
- Establish and build relevant water sector institutions to improve service delivery
- Establish and effective monitoring and evaluation system for the sector
- Strengthen community participation in governance of water service delivery, resources management
- Mobilize additional resources from the water sector

### **11.6 Policy measures**

In order to realize the above policy objectives, the County government will implement the following policy measures;

- Strengthen structures for leadership and coordination of the county water sector
- Set up an entity for all urban water supply in the county
- Establish a department to supervise and manage rural water service providers
- Invest into intensive capacity building for sector leadership and other players
- Develop and enact relevant laws and policies.

- Facilitate stakeholder involvement through an enabling the legal and regulatory framework
- Provide for a single electronic information and data management system for monitoring sector performance
- Develop and implement guidelines for rural water service providers
- Provide for the participation of private sector in service delivery in the county water law and policy
- Increase awareness through stakeholders sensitization on legal and policy framework.
- Develop M&E system for water sector.
- Increase synergy and partnership with other partners/stakeholders through collaborations
- Put in place efficient water revenue collection and management to finance gaps within water sector.
- Ring fence water revenues
- Set up a County Water Sector coordination mechanism under the leadership of the Department for Water, Environment and Natural Resources
- Hold regular quarterly multi-stakeholder review meetings
- Strengthen coordination with other departments and NSA through workplan sharing and stakeholders forums.
- Benchmarking with other counties and exposure tour for key resource personnel and community groups.
- Set up a community and public complaints system for water and sewerage service delivery
- Establish a public charter for accountability in delivery of water services