REPUBLIC OF KENYA



**COUNTY GOVERNMENT OF NYAMIRA** 

# STRATEGIC PLAN 2013 - 2017

# DEPARTMENT OF WATER, SANITATION AND IRRIGATION



NYAMIRA COUNTY 2013

# **VISION AND MISSION**

#### **VISION**

A county with equitable and sustainable management and use for water resources for social economic development.

#### Mission

To provide sustainable, reliable, efficient and cost effective water supply systems that deliver adequate quantity and quality of water to satisfy domestic, agricultural, industrial and commercial purposes for improved quality of life for all.

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#### **ACRONYMS AND ABBREVIATIONS**

ADB: African Development Bank AIA: Appropriation-in Aid

AIDS: Acquired Immune Deficiency Syndrome

ART: Anti- Retroviral Therapy

BOQ: Bill of Quantity

CATS Community Action for Total Sanitation

CBO: Community Based Organization CDF: Community Development Fund

CDFT: Constituency Development Funds Committee

CLTS Community Led Total Sanitation

CO: Chief Officer

CSO: Civil Society Organization ECM: Executive Committee Member

EMCA: Environmental Management and Coordination Act

EU: European Union

FAO: Food Agricultural Organization
FBO: Faith Based Organization
GDP: Growth Development Produce
GIZ: German International Cooperation

GOK: Government of Kenya

GPS: Geographical Positioning System
HIV: Human Immune-Deficiency Virus
HRM: Human Resource Management

ICT: Information and Communication Technologies
IFAD: International Funds for Agricultural Development

IWUA: Irrigation Water Users Association
 JICA: Japan International Cooperation Agency
 KARI: Kenya Agricultural Research Institute
 KEFRI: Kenya Forest Research Institute

KEWI: Kenya Water Institute

KIBHS: Kenya Integrated Based Household Survey

KIRDI: Kenya Industrial Research and Development Institute

KP: Kenya Power

KPI: Key Performance Indicator LPO: Local Purchase Order LSO: Local Service Order

LVEMP: Lake Victoria Environmental Management Programme

M&E: Monitoring and Evaluation MVI: Means of Verification

NASCOP: National Aids and STI Coordination Programme NCST: National Council of Science and Technology NEMA: National Environment Management Authority

NGO: Non -Governmental Organization
NIB: National and Irrigation Board
OSHA: Occupational Safety Health Act
OVI: Objectively Verifiable Indicators

SCIDC: Sub County Information and Documentation Centre

TNA: Training Needs Assessment

UN: United Nations

UNEP: United Nation Environmental Programme

USAID: United States Agency for International Development

VCT: Voluntary Counselling and Testing
WRMA: Water Resource Management Authority
WRUA: Water Resource Users Association

WUA: Water Users Association

#### FORWARD.

Water resources are essential for satisfying basic human needs, health and food production, energy, the restoration and maintenance of ecosystems and for social and economic development in general. According to estimations by the UN, more people die presently due to insufficient access to safe water and basic sanitation.

The growing demands for water against the limited natural endowment and its increasing scarcity could result in water conflicts and pandemics if infrastructure and management of water is not improved. Consequently, it is urged that water and sanitation must rise higher on the county agenda. Funds invested in water services will generate huge social profit and economic benefits depending on the technology and specific conditions on the ground. No access to basic sanitation means that people use water contaminated by the excreta of human and livestock. The development, management, protection and use of water so as to contribute to the eradication of poverty and the promotion of food security are an exceptionally important goal. The role of ground water, rivers, streams, springs and wetlands, forests and other vegetation and other parts of their ecosystems in the water cycle and their importance to water quality and quantity should be acknowledged and protected.

Nyamira County faces serious challenges with regard to water services (water and sanitation). Despite the efforts of investments provided in the past years by the National Government and development partners, existing water facilities have continued to deteriorate and fail to meet the demand of the increasing population. Safe water and basic sanitation must be regarded as a basic human right and should therefore be accessible and affordable to all. This is important in order to achieve the Millennium Development Goals (MDGs) and the National targets in our country's economic blueprint, the **Kenya Vision 2030**.

Irrigation is currently facing many constraint and challenges. Past irrigation development strategies and approaches are articulated in the Sessional Paper No.4 of 1981 on National Food Policy, Sessional Paper No. 1 on Economic Management for Renewed Growth, Sessional Paper No.2 of 1994 on National Food Policy, the Economic Recovery Strategy (2003 - 2007), Strategy for Revitalizing Agriculture (2004-2014), the Water Act (2002), the Irrigation Act (cap 347) and Vision 2030. Past development approaches in irrigation schemes aimed to provide employment and settlement for the landless. The county's irrigation potential based on surface / sub-surface water availability and the drainage potential have not been fully developed. The current irrigation potential could be increased through Surface / Sub-surface water abstraction and supply, water harvesting, storage and exploitation of ground water resources and Improvement in water use efficiency.

The Strategic Plan for the department of Water, Irrigation and Sanitation Services in Nyamira County has been derived from the water sector policy contained in Sessional Paper No. 1 of 1999 on National Policy on Water Resources Management and Development and the National Irrigation Policy 2011, (Draft Sessional Paper Harmonized with the New Constitution, (April, 2011).

The National Irrigation policy is in line with the functions of the National Government and County Governments as detailed in the Fourth Schedule (Part 1 and 2) of the New Constitution

and the government's developmental agenda. The Strategic Plan will facilitate coordinated development of the sector. This will enable and encourage accelerated development of water and irrigation infrastructure, increased productivity per unit volume of water, increased water harvesting and storage, improved scheme management, enhanced stakeholder participation and improved business orientation in the sector.

This Strategic Plan underscores the urgent need for a more comprehensive approach to water resources management to meet efficiently and equitably the current water needs without compromising the ability of future generations to manage their water needs.

I wish to thank all those who have put their time and energy into this important work.



Hon. F. Andrew Ombati Marita, Executive Committee Member, Department of Water, Sanitation & Irrigation Services.

#### PREFACE AND ACKNOWLEDGEMENTS

The development of this strategic plan was achieved through an elaborate and consultative process involving key departmental stakeholders, Economists from the department of Finance & Planning and Consultants. The development process coordinated by the Sub-County Irrigation Officer, Nyamira / Nyamira North, Mr. Oliver O. Ogado involved a team of core technical experts from the department's three divisions of water, sanitation and irrigation who included Eng.Peterson Orenge, Mr. Lawrence Mokaya, Mr.Aloice Machuka, Mr. John Onkundi, Mr.Japheth.B.Ondieki and Mr. Joseph Obaga Their unwavering commitment and teamwork is duly acknowledged. Similarly, I also express my appreciation to all the department staff for their dedication and contributions towards the development of this plan.

Special thanks go to the Executive Committee Member (ECM) in charge of Water, Sanitation and Irrigation, Hon. Andrew Ombati for his leadership and guidance in the development of this plan. We in the department acknowledge his visionary direction in mapping out the strategic direction that he wanted the department to take in order to effectively execute its mission of providing sustainable, reliable, efficient and cost effective water supply systems that deliver adequate quantity and quality of water to satisfy domestic, agricultural, industrial and commercial purposes for improved quality of life for all in Nyamira County.

I also take this opportunity to thank all our partners for their invaluable contribution, either through direct or indirect support especially our sister departments for their logistical support.

Lastly but not least, I acknowledge Dr. Vincent Machuka of University of Nairobi and Economists from the department of Finance and Planning, Mr. Paul Onyango, Mr. Simon Mungai and Ms. Grace Kerubo for their facilitative role and expert services provided during the preparation of this plan.

It is my strong conviction that the successful implementation of this strategic plan will improve the performance of the department and, in particular, contribute greatly towards the achievements of our County's development agenda.



Alice Manoti, (Mrs) Chief Officer

Department of Water, Sanitation & Irrigation Services.

#### **EXECUTIVE SUMMARY**

#### **Background**

This strategic Plan is organized around six chapters. The first chapter covers basic introductory and background issues that are considered pertinent to the implementation of this strategic plan. It also covers issues to do with sectoral development challenges, development agenda, sectoral resources and their contribution to the economy, sectoral Vision, Mission and Core values and the general organization of this strategic plan. Chapter two provides the situational analysis and in particular focuses on the current staff establishment PESTEL, SWOT and stakeholders analysis. The chapter also discusses the performance and achievement of the sector. Chapter three analyses the department's Strategic issues, objectives and strategies to be deployed in delivering the plan. The chapter also discusses the cross cutting issues and indicates the proposed organizational structure. Chapter four outlines strategies for raising revenue and their projections for the planned period, cost cutting measures, implementation matrix and a summary of the departments' activities. Chapter five is devoted to the crucial issue of Monitoring, Evaluation and Reporting indicating the guiding principles that will be employed to manage and monitor the implementation of the activities envisaged under this plan. The last chapter of this plan deals with the logical framework.

Water is a critical resource whose availability and proper use is a key factor for the County's sustainable social and economic development. Consequently it is critical for the county to ensure that the resource is available at all times and equitably distributed among the users in homes and institutions, industry, agriculture, irrigation and livestock.. Secondly, it is imperative that the water to be used and disposed of efficiently and its sources be protected and sustainably managed as one of the strategies of ensuring that the available supplies meet the county's growing demands.

Globally, few issues over the past two decades have brought with them as many challenges as that of climate change. From shifting weather patterns that threaten food production, to rising sea levels that increase the risk of catastrophic flooding, the impacts of climate change are global in scope and unprecedented in scale. While climate change is global, its negative impacts are more severely felt by poor people and poor countries. As all these negative impacts take place, the water resources (quality and quality) are greatly affected. Without drastic action today, adapting to these impacts in the future will be more difficult and costly, undermine national development efforts and hinder progress towards the Millennium Development Goals. There is need for greater awareness about the unfolding impact of climate change on our country and communities which should include finding ways of adapting and mitigating the effects of climate change.

Nyamira County, being part of the country, region and globe, is equally faced with a number of development challenges related to the water sector and some of them are as a result of climate change, technology as well as different Conventions and Treaties that affect the way we access and utilize available water resources. Regionally, issues arising from the Shared Water Resources are paramount as they affect the way we access and utilize trans-county waters.

At the County level, the need to extend water coverage to the majority poor remains a priority as issues regarding equity, affordability and service sustainability come into play. Other challenges include inadequate skills and staff shortages, financial constraints, high unaccounted for water as well as continued degradation of the water catchment areas. The department intends to implement programmes to cover more irrigable land as well as to reclaim more waste and degraded sections of land. The irrigated and/or reclaimed lands will be fully put to economic use in efforts to help reduce poverty and therefore enhance food security for people.

#### **County Integrated Development Plan**

This strategic plan has been developed and anchored against the background of the Nyamira (2013-2017) CIDP. Through the stipulated initiatives and activities detailed in this plan, it is hoped that the department will be able to meet the challenges while ensuring the achievements of the Nyamira CIDP as well as fulfilling the aspirations of the national development blueprint, the **Kenya Vision 2030.** 

#### **Vision, Mission and Core Values**

In the process of preparing this strategic plan, the department formulated its Vision, Mission and Core Values. These are;

#### Vision statement.

A county with equitable and sustainable management and use for water resources for social economic development.

#### Mission statement.

To provide sustainable, reliable, efficient and cost effective water supply systems that deliver adequate quantity and quality of water to satisfy domestic, agricultural, industrial and commercial purposes for improved quality of life for all.

#### Core values of the sector.

- ❖ *Integrity*: All staff shall uphold the highest standards of professional integrity.
- \* Transparency and Accountability: The department shall conduct its business in a transparent and accountable manner.
- ❖ *Innovativeness and creativity*: The department is committed to innovative and creative service delivery.
- **Equitable:** The department is committed to ensuring equitable distribution of resources.
- ❖ *Team spirit*: The department is committed to teamwork, networking and collaboration in achieving results.

- \* Concern for the environmental consciousness: The department shall promote environmental consciousness while conducting its activities.
- Customer focused: The department is committed to uphold customer driven and customer focused service delivery.

#### Strategic Direction- Strategic Issues and Objectives

The department has identified five (5) strategic issues and fifteen (15) strategic objectives. These strategic issues include the following; Organizational Resource Base, Organizational Structure, Projects and Programmes Implementation, Community participation, Partnership Establishment and Development.

Strategic objectives that have been proposed to deal with these issues include; to attain optimal staff levels, to achieve adequacy in facilities and equipment for field operations, to source for adequate financial resources for projects / programmes implementation, build and enhance skills and competences of staff at all levels, divisionalize the department for operation and administrative efficiency, build and develop Capacity in each division, ensure completion of ongoing projects by 2017, undertake Design and Survey of new projects, inventorize and evaluate viability of stalled projects for possible rehabilitation, Flagship projects, Institutional strengthening of the community groups, Capacity building of the community groups, Community sensitization and Resource mobilization.

#### Implementation, Monitoring and Evaluation

Monitoring and Evaluation (M&E) will form a critical component for the successful implementation of this strategic plan. It is through M&E that the management will be assisted in making evidence based decisions. Monitoring and evaluation will form an integral part of this Strategic Plan. A comprehensive monitoring and evaluation plan will be prepared to track annual progress in tandem with the annual plans that will be derived from this strategic plan. The primary purpose is to track progress, identify departures, if any, in the achievement of the set targets, assessing the efficiency and effectiveness of completed projects and ensuring continual improvement. It is expected that the Sub-County and Ward Administrators will assist in monitoring the implementation of the projects under their areas of jurisdiction. It is also encouraged that that the local communities also participate in the projects' monitoring to promote acceptance and ownership of developed water facilities.

# **CHAPTER ONE**

#### 1.0 INTRODUCTION AND BACKGROUND INFORMATION

# 1.1 OVERVIEW OF THE DEPARTMENT OF WATER, SANITATION AND IRRIGATION

This is the first Sectoral Strategic Plan developed by the Department of Water, Irrigation and Sanitation in the County to fast track the implementation of the County Integrated Development Plan 2013-2017. This strategic plan will also form the basis of guiding the department's activities for the subsequent years as well as being reference frame for other water sectors.

The sectoral plan is part of the broader Kenya's development agenda of transforming the country into a globally competitive and prosperous nation. The department has a contribution to make towards **Vision 2030** and it is in this regard that the department is committed to facilitating sustained availability and accessibility to water for all uses, including sanitation services through appropriate laws, regulations and policies.

The 2009 Population and Housing Census indicate that about 4,403 households (3.4 %) in the county had access to piped water in 2009 through a house or yard connection. About 59 % have access to portable water. With regard to rainwater harvesting it is estimated that 2.2 % of household have made provision for roof catchment systems. Further, estimates for 2009 indicate that 72 % of the residents practiced improved sanitation standards.

#### 1.2 SECTORAL BACKGROUND INFORMATION.

Nyamira County is endowed with natural water resources, namely, rivers, shallow wells, springs, dams, pans and boreholes. The water resources availability varies significantly between seasons as well as across regions. The resources are plenty during the rainy season and scarce during the dry periods. Most parts of the county have two rainy seasons. The long rains are typically from March to May while short rains are typically from October to November without distinct dry spell.

Communities in different parts of the county have formed groups and established vibrant water schemes in order to counter the problem of inadequate supply of clean drinking water. The schemes are funded through members' contribution and through sourcing of funds from government and donors. The water from the various sources has many uses including irrigation, domestic use by both human and animals as well as for use in industries.

The county has 1,945 shallow wells, 2,521 protected springs, 694 dams as well as over 3,301 unprotected springs and 7 permanent rivers. The distance to the nearest water point in the county is from zero to four kilometres. On average 7.8 % of the population take 1-4 minutes to fetch water, 2.4 % of the population take 5 - 14 minutes to fetch water, while 49.3 %t take 15 - 29 minutes and 30.5 %take 30 - 59 minutes. Only 13.4 % take more than 60 minutes to fetch water while 4,403 households, which represent 3.4 % of the total households, are connected to piped water. Majority of the poor, in particular women and girls, spend a significant amount of time fetching water in both rural and urban areas thus denying them time to engage in other economic activities. Improving and protection of the County water sources will be highly critical in enhancing progress across other sectors. The irrigation sub-sector seeks to reduce the over-reliance on rain-fed agriculture through harnessing water and increasing land under irrigation. The County economy primarily depends on the natural resource base. Increasing access to sustainable water is a priority of the county government within the existing policy framework.

#### 1.3. SECTORAL DEVELOPMENT CHALLENGES.

The main challenges facing improvement of access to water resources include inadequate funds, lack of local ownership for the projects, and the planting of blue gum trees at river / stream banks, water catchments and springs. These challenges lie mainly within the area of policy, technologies and management. According to FAO projections, 70% of food production in developing countries, in Africa in particular, is from small scale farmers yet it is deficient. The deficiency is as a result of inefficient production system, total dependence on unreliable weather conditions and inappropriate technologies. Producers are also resource poor due to inadequate capital to invest and adopt new technologies as well as low adoption rates. The FAO concept of food security is challenging to Kenya in the sense that malnutrition is still rampant.

The existing water supplies systems are overstretched and cannot supply enough water for the increasing population. Although the county is well endowed with water resource, supply of piped water is limited to few market centres. These sources are also threatened by the blue gum trees planted in the catchments areas. The county will put in place strategies focusing on protecting and rehabilitating the existing water sources as well as starting new ones in order to reduce the distance to the nearest water point.

The low involvement of local communities in the management of water resources through formulation of Water Resource Users Association (WRUAs) has resulted to illegal abstraction and resource catchment encroachment. The secondment of officers from the National government to the County government under the Transfer Plan has not been completed. This has created uncertainty among staff thereby hindering staff performance and effective service delivery. Inadequate baseline data and information on KPI, has led to ineffective planning including rates of access to water resources. There are also inadequate support services such as research and Irrigation extension services as well as marketing thereby limiting irrigated agricultural production due to low water storage capacity and water distribution inefficiencies as a result of high cost of investment on appropriate irrigation infrastructure.

#### 1.4. SECTORAL DEVELOPMENT AGENDA.

The department's mission is to provide sustainable, reliable, efficient and cost effective water supply systems that deliver adequate, quantity and quality of water to satisfy domestic, agricultural, industrial and commercial purposes for improved quality of life for all. This will be achieved through improved physical infrastructure and good management and supervision services, collaborative efforts with other stakeholders, harnessing unexploited irrigation and drainage potential, comprehensive capacity building of the community, adoption of modern technologies in water, irrigation and waste management.

This will also be achieved through policy interventions and measures that safe guards the environment such as protection and management of water catchment areas and putting in place a strict and effective regulatory framework and enforcement regime. Other key intervention will include targeted poverty reduction measures, improved funding of irrigation activities, encouraging use of renewable sources of energy and general change of attitude by the community.

In the course of this financial year, the Department of Water, Sanitation and Irrigation Services plans to conduct a thorough baseline survey in the whole County to establish the current coverage on access to safe water, sanitation services, types of water sources and their potential for exploitation for domestic, agricultural, industrial and commercial purposes.

The report that will emanate from the exercise will, among other aspects, recommend the types of appropriate technologies that will be adopted in order to effectively and efficiently exploit the water resources. The report will also recommend areas that the Department will prioritize under its goals and objectives of improving water supply and sanitation services to the communities in the rural and urban settings within the County.

#### 1.5. SECTORAL RESOURCES AND THEIR CONTRIBUTION TO THE ECONOMY.

Nyamira County is endowed with several natural resources and favourable climatic conditions for socio economic development. The permanent rivers and streams found in the county ( Sondu, Eyaka, Kijauri, Kemera, Charachani, Gucha (Kuja), Bisembe, Mogonga, Chirichiro, Ramacha and Egesagane) drain their water into Lake Victoria. River Eyaka is of importance toNyamira town as it is the main water source. On the other hand river Sondu - Miriu has a lot of potential for irrigation development and hydro-electric power generation which if harnessed can greatly contribute towards the county's economic development and poverty reduction efforts. The levels of these rivers have been declining over years due to environmental degradation especially improper farming methods and planting of blue gum trees in the riparian areas. The department of water, irrigation and sanitation therefore intends to exploit these opportunities to attain its vision and mission by harnessing, supplying, distributing, conserving and effectively managing the water resources and their catchments for sustainability.

The demand for clean, safe, piped water for both commercial and domestic use in the three major towns (Nyamira, Keroka, Nyansiongo) is relatively high and outstrips the current supply. However, if the current supply is improved, properly harnessed and prudently managed, it will attract and retain more investors, business people and the general populace for socio-economic

development through increased income from house rents, levies, rates and provision of ready market for locally produced goods and services.

#### 1.6. SECTORAL VISION, MISSION AND CORE VALUES.

#### 1.6.1. Vision statement.

A county with equitable and sustainable management and use for water resources for social economic development.

#### 1.6.2. Sectoral mission.

To provide sustainable, reliable, efficient and cost effective water supply systems that deliver adequate quantity and quality of water to satisfy domestic, agricultural, industrial and commercial purposes for improved quality of life for all.

#### 1.6.3. Core values of the sector.

- ❖ *Integrity*: All staff shall uphold the highest standards of professional integrity.
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- ❖ Concern for the environmental consciousness: The department shall promote environmental consciousness while conducting its activities.
- ❖ Customer focused: The department is committed to uphold customer driven and customer focused service delivery.

While the clarion, 'Water for All' remains relevant and important as it was several years as a slogan for promoting, improving and sustaining access to water services to all, the Department has found it necessary to incorporate the other aspect that captures the role of rights holders to play a role to help realize this right – hence the motto:

#### 'All for Water - Water for All'

#### 1.7. THE ORGANIZATION OF THIS STRATEGIC PLAN

This Sectoral Plan is organized in six chapters.

Chapter One covers basic introductory and background issues that are pertinent to the Sectoral Plan, the departments' vision, mission and core values.

Chapter Two provides the situational analysis with particular focus on the current staff establishment, PESTEL, SWOT and stakeholders' analysis. It also discusses the performance and achievement of the sector.

Chapter Three analyses the department's Strategic issues, objectives and strategies to be deployed in delivering the plan. It also discusses the cross cutting issues and indicates the proposed organizational structure.

Chapter Four outlines strategies for raising revenue and their projections for the planned period. The cost cutting measures, implementation plan and a summary of the departments' activities.

Chapter Five is devoted to the crucial issue of Monitoring, Evaluation and Reporting indicating the guiding principles that will be employed to manage and monitor the implementation of the activities envisaged under this plan.

Chapter Six of deals with the logical framework.

#### **CHAPTER TWO**

#### 2.0 SITUATIONAL ANALYSIS

#### 2.1INTRODUCTION

This chapter describes the current situation of the department both internally and externally. In particular it focuses on the organization of the department and its current staff establishment. The chapter identifies the key stakeholders in the department and the complimentary roles that they play in assisting the department achieve its objectives. The chapter also looks at the PESTEL and SWOT analysis of the department and identifies some of the major challenges in carrying out its functions. The performance and achievements of the department are also discussed in this chapter. It concludes by highlighting the on-going and proposed projects and programmes.

Nyamira County has an estimated irrigation potential of over 5,000Ha along the major rivers / streams and a drainage potential of approximately 2,425 Ha¹ of Agricultural wetlands of varying soil characteristics. This is about1.2% irrigable land and 0.6% drainage land respectively of total arable land (411000 Ha), of this 7.2Ha under surface irrigation technology and 0.72Ha under micro — irrigation (Greenhouse drip system), 1610 Ha drainage land has been developed haphazardly by local farmers. There is so much pressure on land due to the high population densities hence production can be achieved through controlled Drainage and / or Irrigation development.

Drainage development has mostly been in the high rainfall and hence high potential and densely populated parts of the district which are in the highlands, hence high pressure on land. This has forced people into these poorly drained and waterlogged swamps.

There is need for technical intervention for the rehabilitation, conservation and agricultural use of the poorly laid drainage infrastructure to avoid negative bio-diversity effect of oxidized peat soil and widely eroded gullies. For comprehensive irrigation and drainage development / water resources, farmer mobilization, scheme investigations, engineering surveys and designs, IWUA formation, civil works implementation, operation and maintenance must be fully done to detail.

### 2.2 SECTORAL ORGANISATION



### 2.3 SECTORAL CURRENT STAFF ESTABLISHMENT

| Staff Situation        | Number |
|------------------------|--------|
| Technical = All cadres | 29     |
| Administrative         |        |
| Clerical               | 2      |
| Drivers                | 3      |
| > SS                   | 20     |
| Secretary              | 1      |
|                        |        |

# 2.4. PESTEL ANALYSIS

| Political     | • noliticione interference and competing interest   |
|---------------|---|
| Aspects       | politicians interference and competing interest   |
| Aspects       | • Sabotage of projects,   |
|               | • political prioritization of projects,   |
|               | • Constrained relationships between national / county and county/county –   |
|               | scramble for trans-boundary resources and assets ownership  |
|               | • Fairly good relationship with national government with regards to project   |
|               | implementation support  |
| Economic      | • The GDP is projected to grow at a rate of rate 6.3% implying increased  |
|               | budgetary allocation to development projects.   |
|               | • Relatively high poverty levels making affordability of water services out of  |
|               | reach to many.  |
|               | High taxation rates for both National & County governments implying low   |
|               | disposable income and hence reduced purchasing power.   |
|               | • Inflation affecting cost of project and materials for the infrastructure e.g.   |
|               | fluctuating global oil prices.  |
| Socio –       | <ul> <li>High incidences of crime targeting vandalism of infrastructure</li> </ul>  |
| Cultural      | <ul> <li>Over expectation / over reliance from the government</li> </ul>  |
|               | <ul> <li>Poor farmers/ community participation in project implementation</li> </ul>   |
|               | HIV/Aids pandemic   |
|               | • Low literacy level implying less participation in community initiated   |
|               | projects.   |
|               | High Apathy levels from the community   |
|               | Land Tenure / Ownership   |
|               | • Poor utilisation and management of water resources leading to their   |
|               | pollution.  |
|               | • Encroachment of water sources for economic gains.   |
| Technological | low adoption rates of the modern and appropriate technology,  |
|               | • limited technological knowhow on the farmers part,  |
|               | limited exposure to irrigated agriculture,  |
|               | <ul> <li>high investment cost of the developments in irrigation and water technology</li> </ul>   |
|               | e.g. micro-irrigation and water pumping technology - (Sources of energy)  |
|               | <ul> <li>Inadequate technology in sewerage disposal</li> </ul>  |
|               | <ul> <li>Lack of waste water recycling technology</li> </ul>  |
|               | <ul> <li>lack of waste water recycling technology</li> <li>lack of commitment to invest in modern technology,</li> </ul>  |
| Ecological    |   |
| Leological    | Hilly terrain leading to high investment cost of infrastructure.  Unforcement a conditional leading to delege and difficulties during the delege and difficulties during the delege and difficulties. |
|               | Unfavourable climatic conditions leading to delays and difficulties during  project implementation  |
|               | project implementation.   |
|               | • Erratic weather conditions especially the rainfall pattern influences the   |
| T a ma 1      | seasonality of shallow wells, springs, streams and rivers.  |
| Legal         | • Rules and regulation safeguarding water use are controlled by various Acts  |
|               | e.g EMCA (1999), OSHA (Occupational Safety and Health Act)  |
|               | (2007), Water ACT (2002 Draft 2012), NIB ACT, acquisition of water  |
|               | permits,  |

# 2.5 STRENGTHS, WEAKNESSES, OPPORTUNITIES, AND THREATS (SWOT) ANALYSIS.

#### STRENGTHS:

- Qualified Technical Staff
- Reinforcement of water by-laws
- ➤ Reliable Irrigation and Drainage data base
- Good Management and Supervision services
- > Transparency and Accountability
- ➤ Good service delivery and resource management
- Improved funding of irrigation activities as per budget work-plan
- > Existence of organizational structure
- > Committed staff of high integrity
- ➤ Article 47 of the constitution on rights of people to water

#### **OPPORTUNITIES:**

- Appropriate legal and regulatory framework
- ➤ Collaborative Efforts with other stakeholders.- CBO.CSO
- Unexploited Irrigation and drainage potential
- ➤ Comprehensive Farmers Technical Training
- Adoption of water saving technologies water harvesting
- ➤ Potential for ICT in waste management
- ➤ Use of most advanced technology in irrigation ,drainage and water storage
- ➤ Gender mainstreaming in leadership for better management of irrigation and water projects.
- > Improved physical infrastructure
- ➤ Promotion of adaptive on-farm research on irrigation and drainage
- ➤ Increased Fish-farming in wetlands to reduce over reliance on cereals production thereby enhancing water conservation and purification
- ➤ The projected GDP of 6.3% will increase the per capita income and hence the free more money for development projects.
- Readily available cheap labour: semi skilled and unskilled
- Presence of technology that can be exploited for water bill payments e.g. Mpesa
- > Presence of perennial water sources
- Opportunity to use solar, wind and hydram power for pumping
- ➤ High demand for water services
- Presence of devolved funds

#### **WEAKNESSESS:**

- ➤ Departments dependence on grants from donors for infrastructure development, operation and maintenance
- ➤ Inadequate resources

#### THREATS:

- Competing Political interests which lead to interference
- ➤ Socio-Cultural Beliefs over dependence on rain fed agriculture, over dependence on

- Poor access to water resources
- ➤ Low adoption rates of irrigation & drainage technology
- > Inadequate Engineering Equipment
- ➤ Inadequate resources both human and non-human
- the government for support/funding, land tenure system (resistance to development), Individualistic Nature of the community members
- Organizational and Operational problems in schemes and WUAs (Water Users Association)
- Negative group dynamics within irrigation projects
- ➤ Limited financial resources for capital investment
- ➤ Lack of co-ordination and Integration by other agencies on swamp activities, utilization and conservation
- ➤ Ignorance of farmers on technical aspects of irrigation & drainage
- ➤ Environmental Issues of stream yield affected by swamps
- > Group formation with hidden agenda
- ➤ Loss of Bio-diversity and aquatic life
- ➤ HIV/AIDS pandemic
- ➤ Poor management and destruction of water resources by the community members.
- ➤ Limited credit facilities for irrigation and water resources development
- ➤ Population pressure on land leading to encroachment on the valley bottoms, hill tops and forests
- ➤ High cost of water treatment chemicals, energy(pumping)
- lack of public land for sewerage and dams construction

# 2.6 STAKEHOLDERS ANALYSIS.

| Name of stakeholder   | Role                     | Expectation           | Competitive          |
|-----------------------|--------------------------|-----------------------|----------------------|
|                       |                          |                       | Advantage            |
| National government   | Provision of technical   | Improved service      | Quality service      |
| bodies - Environment, | support and policy       | delivery              | provision            |
| Water and natural     | guidelines,              | Financial support     | Technical Capacity   |
| resources, LVEMP,     | Financial resources,     | Policy Framework      | Policy regulations   |
| NETFUND, CDTF,        | Sector service provision |                       |                      |
| water boards, WRMA,   | (water services,         |                       |                      |
| National Water and    | irrigation),             |                       |                      |
| Pipeline Corporation) | Capacity Building        |                       |                      |
| County government     | Provision of technical   | Improved service      | Quality service      |
|                       | support and policy       | delivery              | provision            |
|                       | guidelines,              | Financial support     | Technical Capacity   |
|                       | Financial resources,     | Policy Framework      | Policy regulations   |
|                       | Sector service provision | ·                     |                      |
|                       | (water services,         |                       |                      |
|                       | irrigation),             |                       |                      |
|                       | Capacity Building        |                       |                      |
| County assembly       | Legislate for County     | Implementation &      | Legislation capacity |
|                       | government               | Compliance of the     | and oversight        |
|                       | Provide oversight        | laws                  | _                    |
| National Assembly     | Legislate for National   | Implementation &      | Legislation capacity |
|                       | government               | Compliance of the     | and oversight        |
|                       | Provide oversight        | laws                  |                      |
| The Senate            | Legislate for County     | Implementation &      | Legislation capacity |
|                       | Government               | Compliance of the     | and oversight        |
|                       | Provide Oversight        | laws                  |                      |
|                       | Links National to        |                       |                      |
|                       | County                   |                       |                      |
| Development Partners  | Financing schemes,       | Efficient utilization | Increased Irrigation |
| (UNEP, UN Habitat,    | Technical support,       | of project funds      | and water resources  |
| JICA, KFW. GIZ,       | Policy guiding's and     | Participatory M &     | development          |
| IFAD, World Bank,     |                          | Е                     | Effective M & E      |
| EU,ADB,USAID)         |                          | Provide               | Enhanced Policy      |
| ,                     |                          | Consultancy on        | Framework            |
|                       |                          | Policy Framework      | Partnership for      |
|                       |                          | Enhanced &            | sustainable          |
|                       |                          | sustainable service   | development          |
|                       |                          | delivery              | _                    |

| Private sector           | Provision of credit      | _                 | Increased Irrigation  |
|--------------------------|--------------------------|-------------------|-----------------------|
|                          | through financial and    | Projects          | and water resources   |
|                          | non-financial            | Participatory M & | development           |
|                          | institutions,            | E                 | Effective M & E       |
|                          | Supply of inputs         | Provide           | Enhanced Policy       |
|                          | Partnership and          | Consultancy on    | Framework             |
|                          | investment.              | Policy Framework  |                       |
| Devolved funds           | Funding construction of  | Improved service  | Quality service       |
| management committees    | water and irrigation     | delivery          | provision             |
| – CDF, Uwezo Fund,       | infrastructure,          | Financial support | Technical Capacity    |
| Youth Fund, Women        | environmental            |                   |                       |
| Enterprise Development   | conservation.            |                   |                       |
| Fund                     |                          |                   |                       |
| Research                 | Development and          | Competent         | Increased outputs     |
| institutions(e.g. KIRDI, | promotion of new         | personnel         | from irrigation       |
| KEFRI, KARI, NCST,       | technologies and         | Irrigation        | schemes               |
| UNIVERSITIES,            | research                 | enterprises       | Technology Transfer   |
| KEWI)                    |                          | Research findings | Improved              |
| ,                        |                          | & dissemination   | technology            |
|                          |                          | Increased output  | 2,7                   |
| CSOs - (NGOs, FBOs,      | Advocacy,                | Strong cohesive   | Increased production  |
| CBOs)                    | Capacity building,       | Irrigation and    | in irrigation schemes |
|                          | Resource provision and   | water groups,     | and water points      |
|                          | Promotion of             | Efficient use of  | 1                     |
|                          | appropriate technologies | resources,        |                       |
| Community Members        | Actual participation in  | Value for money   | Customer              |
| -                        | project activities : –   |                   | satisfaction          |
|                          | planning,                |                   |                       |
|                          | implementation,          |                   |                       |
|                          | monitoring and           |                   |                       |
|                          | Resource provision.      |                   |                       |
|                          | Consumer of services at  |                   |                       |
|                          | a fee.                   |                   |                       |
| Employees                | Service provision        | Remuneration      | Quality services      |

#### 2.7. PERFORMANCE AND ACHIEVEMENTS OF THE SECTOR.

Although the department is relatively young, it has made strides in the following areas: budget preparation, increased water coverage

#### 2.8 ON-GOING AND PROPOSED PROJECTS AND PROGRAMMES.

#### 2.8.1 On-going projects and programmes

#### Nyamira South

- \* Kebirigio water project
- ❖ Nyamira water project
- ❖ Nyamira sewerage System
- ❖ Nyansabakwa water project

#### Nvamira North

- Nyansiongo water project
- ❖ Maji Mazuri water project
- ❖ Ikonge water project

#### Manga

- ❖ Nyambaria water supply
- Kemera gravity water supply project

#### Masaba North

- Miriri borehole
- Keroka Water Supply and Sewerage System
- ❖ Bonyunyu Dam (Water Supply Project) [LVSWSB Project}

#### Borabu:

❖ Mekenene water project

#### Countywide:

- ❖ Baseline survey on water supply and sanitation in the County.
- ❖ Water and Sanitation (Sewerage Infrastructure)

#### Nyamira South

- Nyabomite Irrigation and Drainage project
- ❖ Nyamage Irrigation and Drainage project

#### Nyamira North

- ❖ Kea Irrigation and Drainage project
- Ekerubo-Gietai Micro -Irrigation and Drainage project

#### Manga

- Nyabioto-Tombe Irrigation and Drainage project
- ❖ Ekerubo-Kemera Micro -Irrigation and Drainage project

#### Masaba North

- Karantini Irrigation and Drainage
- Nyamakoroto Irrigation and Drainage project
- Mochenwa Irrigation and Drainage project

#### **Borabu**

- \* Kahawa Dam Water Harvesting and Storage for Irrigation purposes
- ❖ Micro Irrigation projects countywide

#### 2.8.2. Proposed projects and programmes

#### 2.8.2.1 Water and Sewerage Development / Services Programmes:

#### **Rural Water Supply Schemes (Mainly springs and dams):**

#### **Nyamira South Sub County:**

**Water projects**: (Project Cost estimate per water project =  $Ksh\ 25m$ )

1. Rirami-Nyageita, 2. Bonyamatuta, 3. Mosobeti, 4. Kionyamo, 5. Mwongorisi,

**Protection and Development of Springs:** Protection of springs Sub County-wide.

#### Boreholes (stalled, partly completed or new projects):

 $(Project\ Cost\ estimate\ per\ Borehole\ project\ =\ Ksh\ 10m)$ 

1.Nyasore, 2.Nyangena, 3.Bosiango, 4.Bundo, 5. Igena -.Itambe 6.Engoto ,7. Ikurucha,8.Marindi, 9.Nyangena, 10.Bosiango, 11. Enchoro, 12 Bomorito 13. Geseneno,14 Nyairicha,15 Nyangoso,16. Gesore,17.Etono,18.Otanyore pri.

constructed: 1. Kianungu, 2. Tente, Bomondo Water Line

#### **Nyamira North Sub County:**

**Water projects**: 1.Nyamusi, 2.Kiomara, 3.Gesigoro, 4.Engoto, 5.Omobiro, 6.Bomwagamo, 7.Gekonge, 8.Ikonge, 9.Ekerenyo, 10.Obwari, 11. Bonyunyu, 12.Matongo

**Protection and Development of Springs:** Protection of springs Sub County-wide.

#### **Boreholes** (stalled partly completed or new projects):

1.Magwagwa borehole gravity water to magwagwa health center 2. Kiomachingi, 3.Mageri,4 Kiabiraa, 5.Ntana, 6.Nyabweri, 7.Ekinda, 8.Omokirondo,9. Bonyunyu, 10.Ikonge Boys sec, 11.Nyamusi market borehole, 12.Isinta borehole to distribute water to – Nyosio;Omokoracho;nyamaaro;isinta, 13.Orwaki, 14.Matongo Polytechnic,15. Misambi, 16.Nyakenyomisia,17.Riasoya,18.Ikamu sec ,19.Ekemunchugu

#### **Manga Sub County:**

**Water projects**: 1. Tombe Water Project 2. Itetema, 3. Amaiga Dispensary water tank, 4. Kemera, 5. Ogango, 6.. Biticha, 7. Nyambaria, 8. Nyaboina, 9. Mokorogoinwa

**Protection and Development of Springs:** Protection of springs Sub County-wide.

#### **Boreholes** (stalled, partly completed or new projects):

1.Nyaisa, 2.Kenyamware, 3.Bogwendo, 4. Nyaguku,5.Nyagechenche,6.Kiabiraa,7.Bigogo, 8.Nyakegogi,9.Mokwerero,10.Motembe,

#### **Masaba North Sub County:**

**Water projects**: 1.Machuririati Water project, 2.Nyanchonori-Keroka hope well, 3.Miriri, 4.Nyatieno, 5. Nyamakoroto, 6. Biticha

Water Pans: 1. Nyagechenche 2. Nyangena 3. Kerongeta 4. Riakabwori

 $(Project\ Cost\ estimate\ per\ Water\ pan\ =\ Ksh\ 15m)$ 

Protection and Development of Springs: Protection of springs Sub County-wide.

#### Boreholes (stalled, partly completed or new projects):

1.Rigoma, 2.Bocharia, 3.Mong'oni, 4.Nyariacho, 5.Nyabogoye, 6.Mochenwa, 7. Mokomoni, 8.Kerongeta, 9. Rikenye, 10 Nyabiemba, 11. Nyariacho, 12.Nyakongo sec,

#### **Borabu Sub County:**

**Water projects**: 1.RiOndoro-Chebilat-Mogusi, 2.Kitaru-Emboye, 3.Nyandoche-Ibere, 4. Manga-Ensoko farmers, 5.Tinderet, 6.Nyamiranga, 7.Egentubi, 8.Nyageita, 9.Biego-Nyaramba,

Water Pans: 1. Endemu dam, 2. Magombo dam, 3. Raitigo dam, 4. Kahawa dam reservoir

**Protection and Development of Springs:** Protection of springs Sub County-wide.

#### **Boreholes** (stalled partly completed or new projects):

- 1. Getare, 2. Nyabikomu, 3. Nyankongo Getare, 4. Kerende 5. Nyagware, 6. Amakura,
- 7. Eturungi, 8.Kegogi Market borehole (Proposed), 9.Manga girls' 10.Itumbe primary, 11. Biego,, 12 Kerema. 13. Kiabonyoru, 14. Ibara-Isicha 15. Nyamiranga Sec, 16. St Pauls Omonayo Sec, 17. Riensune, 18.Tinderet, 19.Eronge, 20.Mongorisi, 21.Nyaronge, 22.Kiong'ongi,23. Matunwa, 24.Endeba, 25.Nyaramba, 26.Isoge, 27.Itumbe

#### Undesignated projects:

Water Projects:

1.Riamechana Gravity Scheme 2. Riobiero 3. Monsore 4 Riamongare. 5.Riamarisera dam reservoir for development,6.Mlimani.7.Nyanguru., 8 Riamechana gravity

#### Boreholes:

1. Mlimani 2. Chitangi 3. Riogoro 4 Riamachana 5. Nyairwa 6. Eturubo

Irrigation projects: 1. Charachani 150 Ha, 2.Nyabomite 237 Ha, 3.Kemera 80 Ha, in ,Manga, 4.Bombo -Bokimori, 150 Ha, 5.Magwagwa clustergroups17.6Ha

# 2.8.2.2 Rainwater Harvesting technologies for Schools and Health Facilities

The aim is to promote rainwater harvesting for schools, health facilities and household to enhance clean, safe water availability for domestic use. This will be achieved by households / schools / health facilities embracing rainwater harvesting technology through the installation of rainwater harvesting structures / infrastructures. The schools / households / health facilities technical knowhow and skills will be developed through capacity building.

# 2.8.2.3 Sanitation and Hygienic Initiatives (infrastructure) for Schools and Health Facilities.

The aim is to promote s sanitation and hygienic conditions within and around schools, health facilities and household to ensure a clean, safe disease free environment. This will be achieved by households / schools / health facilities embracing WASH facilities initiatives through the installation WASH structures / infrastructures. The schools / households / health facilities

technical knowhow and skills will be developed through capacity building in WASH Knowledge and skills.

#### 2.8.2.4. Groundwater Exploitation and Development

The aim is to develop groundwater resources for improved water supply to enhance clean, safe water availability for domestic / irrigation / commercial use. This will be achieved through the drilling of boreholes, installation of submersible pumps and accessories, pipe works and construction of water kiosks structures / infrastructures. The community technical knowhow and skills will be developed through capacity building.

### 2.8.2.5. Surface Water Harnessing and Development

The aim is to develop surface water resources and harness water for improved water supply to enhance clean, safe water availability for domestic / irrigation / commercial use. This will be achieved through the harnessing of the rivers / streams and high yielding springs to develop gravity water supply schemes, pipe works and construction of water kiosks structures / infrastructures. The community technical knowhow and skills will be developed through capacity building

#### 2.8.3 Irrigation, Drainage and Water Harvesting and Storage Programme.

Irrigation Development and Services.

The aim is to develop surface water resources and harness water for improved water supply to surface closed irrigation projects and micro – irrigation projects. This will be achieved through the harnessing of the rivers / streams and high yielding springs to develop gravity water supply schemes, pipe works and construction of irrigation structures / infrastructures. The community technical knowhow and skills will be developed through capacity building

#### 2.8.3.1 Drainage Development and Rehabilitation.

Drainage development and rehabilitation will be through surface water resources harnessing (high yielding springs at the valley bottom slope interface, surface runoff into the areas and *insitu* rain) for enhanced and controlled water evacuation from the waterlogged areas especially the valley bottoms which have been invaded by the farmers for crop production and haphazardly developed by them leading to poorly drained areas with rampant water stagnation due to lack of drain canals. The 'Controlled" Agricultural drainage will improve the water regime and open up more land for agricultural production, enhance water purification and reduce soil oxidation associated with blue-gum tree menace and poor soil management and use

#### 2.8.3.2. Water Harvesting and Storage.

The aim is to promote water harvesting and storage for community, groups and individuals to improve water storage for irrigation groups. This will be achieved by community, groups and individuals embracing water harvesting and storage technology and developing the water harvesting and storage structures / infrastructures.

# **CHAPTER THREE**

# 3.0 STRATEGIC MODEL

#### 3.1. INTRODUCTION.

This chapter discusses the key strategic issues that the department has identified and which it needs to address in order to effectively achieve its mission while also providing the leadership required to implement the County Integrated Development Plan. The strategic objectives and the strategies to be pursued in addressing the issues are also presented.

# 3.2. SUMMARY OF STRATEGIC ISSUES, OBJECTIVES AND STRATEGIES.

| Strategic Issue                 | Strategic Objectives   | Strategies   |
|---------------------------------|--|--|
| Organizational<br>Resource Base | To attain optimal staff levels   | <ul> <li>Undertake Staff establishment analysis</li> <li>Determine optimal staff levels</li> <li>Undertake job analysis - job description, specification and standard of performance.</li> <li>Carry out staff recruitment.</li> </ul> |
|                                 | To achieve adequacy in facilities and equipment for field operations  To source for adequate | <ul> <li>Job placement.</li> <li>Undertake Assets inventory</li> <li>Determine optimal levels</li> <li>Procure facilities and equipment</li> <li>Allocate resources for use</li> <li>Mobilize financial resources through:</li> </ul>  |
|                                 | To source for adequate financial resources for projects / programmes implementation          | <ul> <li>Proposal development for funding</li> <li>Lobbying for financial resources</li> <li>Public Private Partnership</li> <li>Levies, tariffs</li> </ul>  |
|                                 | Build and enhance skills and competences of staff at all levels                              | <ul> <li>Undertake Training Needs         Assessment</li> <li>Develop Training master plan</li> <li>Undertake Staff Training - Skills         improvement for staff of all cadres</li> </ul>   |
| Organizational<br>Structure     | Divisionalize the department for operation and administrative efficiency                     | <ul> <li>Create division from the departments</li> <li>Operationalize the divisions</li> </ul>   |
|                                 | Build and develop Capacity in each division  | <ul> <li>Develop Training Master Plan</li> <li>Undertake Staff Training - Skills improvement for staff of all cadres</li> </ul>  |
| Projects and Programmes         | Ensure Completion of Ongoing projects by 2017  | • Resources mobilization for completion of the projects  |

| Implementation                            |  | Community mobilization & participation   |
|---|--|--|
|   | Undertake Design and Survey of new projects  | <ul> <li>Undertake Engineering investigation, survey and design of projects</li> <li>Provision of equipment for survey and designs</li> <li>Provision of software's for survey and design</li> <li>Implementation of the designed project</li> </ul> |
|   | Inventorize and evaluate viability of Stalled projects for possible rehabilitation | <ul> <li>Undertake feasibility studies</li> <li>Revive the projects</li> </ul>   |
|   | Flagship projects  | <ul> <li>Prioritization of the projects</li> </ul>   |
| Community participation                   | Institutional strengthening of the community groups                                | <ul> <li>Training of the groups: group<br/>dynamics, Leadership and<br/>management trainings</li> </ul>  |
|   | Capacity building of the community groups  | Technical training on irrigation / drainage / water harvesting / PHAST, Community – Led Total Sanitation (CLTS) and Community Action for Total Sanitation (CATS) initiatives as well as school sanitation and hygiene etc.                           |
|   | Community sensitization  | <ul> <li>Conduct group meetings and exchange visits / tours</li> </ul>   |
| Partnership Establishment and Development | Resource Mobilization  | <ul> <li>Develop capacity for negotiation and cooperation</li> <li>Improve human resource development</li> </ul>   |

#### 3.3 CROSS CUTTING ISSUES.

#### **3.3.1.** Poverty

The poor persons or households are described as those with inability to access basic needs such as food, shelter, clothing, health, water and education due to geographical, economic and social factors. According to the KIBHS 2005/2006, the county was estimated to have 46.3% of its population living below the poverty line. About 21.8% were food poor and 1.9% was hardcore poor meaning that they could not meet the basic minimum food requirements even after spending all their income on food alone. The major causes of poverty in the county include:-poor roads network, limited electricity connection, small land sizes, poor crop and animal husbandry practices, inadequate safe and clean drinking water, low educational standards and high prevalence of human diseases.

Urban poverty in the county stands at 13% while rural poverty stands at 46.3% same as the county poverty. This is because the county is predominantly rural, thus majority of the population live in the rural area. Poverty in the urban areas is mainly caused by rural -urban migration. There is need for proper planning of these towns as well as developing appropriate programmes in the rural areas to reduce pressure on land which has led to subdivision of land into small uneconomical units. The focus should be on intensive farming, value addition, improvement of infrastructure-electricity and maintenance of roads as well as cottage industries for processing agriculture produce for value addition. There is also need for development of market structures and Jua Kali sheds to address urban poverty.

#### **3.3.2.** HIV/AIDS

HIV/AIDS continues to pose a major challenge to all sectors of the economy and is affecting the development programmes in the county. HIV/AIDS prevalence rate in Nyamira County is 6.9% (NASCOP, County HIV Profiles 2012). The main cause of the spread of HIV/AIDS in the county is unsafe sexual behaviour and transmission of mother to child (PMCT). There are approximately 900 new infections annually. Adult ART coverage is 84% as at 2011 and child ART coverage is 21% (NASCOP, HIV County Profiles 2012). Low uptake of HTC services, infrastructure inadequacies, stigma, human resource and commodities constraints remain as key challenges in the fight against HIV/AIDS in the county. According to NASCOP reports, in 2011 estimated 17, 028 people of whom 15% are children live with HIV/AIDS in Nyamira County. The county is expected to face various socio-economic impacts of HIV/AIDS if interventions are not enhanced. Household expenditure on health care will increase, reducing savings and investments. Pressure on health services will increase, reducing the quality of service offered; households will spend more time in caring for the sick, further affecting productive activities at the household and community levels. An increase in orphans is expected to raise dependency ratios at the household levels. There is need therefore to upscale interventions to mitigate the socio-economic impacts of the pandemic in the county development agenda.

#### **3.3.3.** Gender Inequality.

Women constitute to 52 percent of the county's population. Although the majority, they are generally left out of development decision making processes owing to inadequate or lack of representation. Policies, plans and strategies rarely take into consideration gender roles and responsibilities. Considering that in 2009 only 41,539 out of the 131,039 households (37%) in Nyamira county were female headed, they were certainly more disadvantaged and more likely to be poor compared to other households if this trend continues.

Factors exacerbating gender disparities in the county are rooted in socio-cultural practices such as ownership of production resources (land, capital); participation in decision making and early / child marriages. Other factors include consequences of poor health which are greater in women

than in men due to their role in child bearing and lack of skills due to low education standards. Thus, gender equality has to be exercised in ownership of assets and decision making, with full exercise of affirmative action.

#### **3.3.4.** Youth Issues.

The youth population in the county stood at 178,918 in 2012 representing 28% of the total population. Some of the challenges facing the youths include: lack of representation in various development forums, risk of engaging in anti-social behaviour such as engagement in premarital sex, drug and substance abuse as well as inadequate representation in decision making process.

Representation of the youth in some development committees in the county have been attempted with encouraging results. Other interventions include disbursement of the Youth Enterprise and Kazi- Kwa -Vijana (KKV) Funds. The Funds have had an impact in the county with 3,318 groups having benefited.

#### **3.3.5.** Information and Communication Technology (ICT)

The county's mobile phone services coverage is 92%. Internet services for the public in the county are offered by 45 cyber cafes concentrated only in the three major towns, i.e. Nyamira, Keroka and Nyansiongo. There are also very few bureaus offering computer services to the public. This makes communication in the county difficult thus hindering development. Digital villages and cyber cafes would be ideal investment opportunities in the county.

Radio transmission is accessible to all areas in the county. However, for television transmission only few broadcasters are available while others can only be accessed through satellite dishes that are expensive and therefore beyond the reach of the population.

Courier services are offered by private firms, Telkom Kenya post offices and public service vehicles.

The county does not have a well-developed information technology, equipment's and machinery. Apart from the SCIDCs, the county does not have a public library. The SCIDCs are not equipped with, fax, computer and internet

#### **3.3.6.** Disaster Risk Management:

The disasters/calamities in the county are mainly caused by lightning and thunderstorms mainly during the rainy season. However, their impact has gone down as a result of installation of lightning arrestors in most learning and health institutions, government buildings and community awareness. Others include road accidents affecting the busy roads like Kisii-Sotik and Kisii-Ngoina including potential industrial areas. The causes of disaster and factors that exacerbate them include climatic conditions, poor environmental management; road accidents; fires and

epidemics due to poor sanitation and hygiene practices. The county is generally unprepared to handle and manage most of these disasters due to limited information and preparedness. The county now needs to develop strategies that will reduce the vulnerability of her populace and the magnitude of the effect of such emergencies.

#### **3.3.7.** Environmental and climate change.

As the population continues to increase, more pressure will be exerted on the natural resources leading to deterioration in the ecosystem balance. Topography, climatic conditions, combined with human activities will determine the kind of adverse effects on the environment and the corrective actions required. For instance, where the industries are located and commercial areas, adverse impact will include air and dust pollution, surface water and underground water contamination and litter pollution. This will have a negative effect on the human health as well as economic assets.

Water catchments areas have been encroached and wetlands destroyed. Water levels in most permanent rivers in the county have been steadily reducing - a situation which, if not controlled, may lead to deficiency in water supply in the county.

Pollution of water resources resulting from construction of homesteads in water catchments, tea and coffee factories draining effluents into the rivers and streams, lack of proper disposal sites in Nyamira Town and other markets and the use of fungicides and other farm chemicals, among others, have worsened the situation. There is need therefore for concerted efforts in environmental conservation and management NEMA should enforce the environmental laws to safeguard the declining water resources and pollution of the environment. The community should also be incorporated in the management and conservation efforts through environmental education and awareness creation among others.

#### **3.3.8.** The Physically Challenged:

The physically challenged in the county are estimated to be 10,104 which is 1.6% of the total population. Although this proportion of the population is discriminated against and seen as dependants, they have a lot of potential and indeed a role to play towards contributing to various aspects of development. The county faces a number of challenges towards integrating the physically challenged in the development agenda - among them being the lack of rehabilitation centres, as well as discrimination by other community members. With the available data for the physically challenged, there is need for proper planning for the disabled to be mainstreamed in the development programmes, providing windows of opportunities through avenues such as devolved funds-CDF, Women Enterprise Fund, Youth Development Fund among others as well as sensitizing the communities about the challenges facing these group.

#### **3.3.9.** National Diversity:

As already alluded to, the Gusii Community predominantly occupies the county, however, the northern parts as well as the major towns have a significant number of other ethnic communities. Most of these communities are engaged in farming or business activities. High in-migration has been noted especially in the three major towns' centres due to those searching for employment opportunities. The cultural diversity of the various communities has seen a significant degree of intermarriages between the different groups that has led to very peaceful co-existence.

#### 3.4.PROPOSED ORGANIZATION STRUCTURE

#### **Mandates**

The Department's mandates and functions are specified as below:

- i. Management of water resources,
- ii. Provision of water services
- iii. Provision of irrigation, drainage, and water storage services
- iv. Land reclamation services.
- v. Capacity building for the water institutions

#### Functions include:

- 1. Water Resources Management Policy
- 2. Water and Sewerage Services Policy
- 3. Water Quality and Pollution Control
- 4. Dam Construction Schemes
- 5. Flood Control and Land Reclamation
- 6. Waste Water Treatment and Disposal Policy
- 7. Water Services Boards
- 8. Public Water Schemes and Community Water Projects

Analysis of the functions of the department give an insight into the creation of the directorates to help in effective execution of the Departments' functions at the county level.

The proposed structure would fall into two directorates namely:

- Directorate of Infrastructure Development
- Directorate of Governance and Services

The directorate of Infrastructure development would fall into three divisions namely:

- Division of Irrigation, Drainage and Water Storage
- Division of Water Services and Development
- Division of Sanitation Services

The directorate of Governance and Services would fall into four divisions namely:

- Division of Governance and Services Management
- Division of Irrigation Water Management and Capacity Strengthening
- Division of Water Services and Management
- Division of Sanitation and Hygiene Management

The different functions of the department will be carried out fewer than three directorates namely Administration and Support Services, Infrastructure Development and Governance & Services.

# **Directorates Functions**

| Directorate                         | Functions  |  |  |
|-------------------------------------|--|--|--|
| Administration and Support Services | Provision of support and other cross cutting services in Administration; Planning;  Figure 2. Provision of Support Administration; Planning;  Provision of Support Administration; Planning;  Provision of Support and Other Cross Cutting Services in Administration; Planning; |  |  |
|                                     | Finance, Procurement; Accounts; Internal Audit, Human Resources Management and Development; Information and Communication, ICT, Risk management  |  |  |
| Infrastructure                      | Water and Sewerage Development / Services:   |  |  |
| Development:                        | Coordination and guidance of the water services division   |  |  |
|                                     | Monitoring and evaluation of water activities  |  |  |
|                                     | Maintaining a centre for water and sewerage technical information, data and documentation  |  |  |
|                                     | Mobilising of resources for water and sewerage development   |  |  |
|                                     | Quality assurance and safety of hydraulic structures in water and sewerage infrastructure development  |  |  |
|                                     | Monitoring and supervision of water services boards.   |  |  |
|                                     | Water Resources will ensure that water resources are conserved, preserved, protected and availed in such quality and quantity to sustain the various national demands.   |  |  |
|                                     | To ensure Rational and equitable allocation of water resources   |  |  |
|                                     | Enforcement of Water Act 2002 and Water Resources Management Rules   |  |  |
|                                     | Policy formulation and giving Policy direction from time to time   |  |  |
|                                     | Mapping and publishing of key water catchment areas, groundwater resources and flood prone areas   |  |  |
|                                     | Mitigation against natural disasters floods and droughts   |  |  |
|                                     | Water quality testing and Surveillance to ensure compliance with drinking water standards  |  |  |
|                                     | <ul> <li>Resource mobilization for the management, preservation, conservation,<br/>protection and allocation</li> </ul>  |  |  |
|                                     | Harmonization of sectoral laws that touches on the use and development of the water resources  |  |  |
|                                     | Water Resources Database Organization and dissemination  |  |  |
|                                     | Groundwater recharge   |  |  |
|                                     | <ul> <li>Water quality monitoring, testing and surveillance to ensure compliance with<br/>drinking water standards and other standards for various water uses and effluent<br/>discharges in to public sewers and the environment.</li> </ul>                                    |  |  |
|                                     | Land Reclamation:  |  |  |
|                                     | Development of appropriate policies, guidelines and legislation.   |  |  |
|                                     | <ul> <li>Promotion of rain water harvesting, water storage and environmental<br/>conservation in the waste lands.</li> </ul>   |  |  |
|                                     | Development of appropriate tools for the effective management and  |  |  |
|                                     | utilization of degraded lands, wastelands, wetlands and fragile ecosystems   |  |  |

|                | Resource mobilization, coordination and supervision in order to achieve this mandate.  |
|----------------|--|
|                | Irrigation, Drainage and Water Storage   |
|                | Development of Irrigation, Drainage, Water harvesting and Storage<br>Infrastructure,   |
|                | Regulation of agriculture water management and   |
|                | Irrigation technology transfer.  |
|                | Sanitation Services  |
|                | <ul> <li>Coordination and guidance of the sanitation services division</li> <li>Monitoring and evaluation of sanitation activities</li> <li>Sanitation and Hygiene promotion</li> </ul>                    |
|                | Resource mobilization. coordination and supervision in order to achieve this mandate   |
|                | Development of appropriate tools for the effective management and  |
|                | utilization of sanitation facilities and fragile ecosystems  |
|                | Monitoring and supervision of sanitation services  |
| Governance and | Governance and Services:   |
| Services       | <ul> <li>Coordination and guidance of the governance and services division</li> <li>Monitoring and evaluation of governance and services activities</li> <li>Governance and Service's promotion</li> </ul> |
|                | Resource mobilization. coordination and supervision in order to achieve this mandate   |
|                | Development of appropriate tools for the effective management of the governance and services division  |
|                | Monitoring and supervision of the governance and services division   |

## **3.4.1** Function and Organization of the Directorate of Irrigation, Drainage and Sater storage

The proposed Division of Irrigation, Drainage and Water Storage will fall under the Department of Water, Sanitation and Irrigation.

The branch units of the irrigation, drainage and water storage division will include:

- Irrigation and Drainage Engineering
- Irrigation Water Management and Capacity Building
- Water Harvesting and storage

The section units of the irrigation and drainage engineering branch will include:

- Survey
- Planning and Design
- Infrastructure Development Planning (Construction; Operation and Maintenance)

The section units of the irrigation water management and capacity branch will include

- Institutional Strengthening of IWUAs
- Capacity Building of IWUAs
- Operation and Maintenance

#### 3.4.1.1 Mandate of the Directorate

**Vision:** - Efficient, sustainable and manageable irrigation schemes for prosperity, wealth creation and food security in Kenya.

Mission: - To guide and facilitate the development and management of irrigation in Nyamira

**Goal:** - To sustainably contribute to food security, wealth and employment creation, and poverty reduction through accelerated development and improvement of the performance of irrigation.

#### 3.4.1.2 Core Functions of the Directorate

- 1) Formulation and review of irrigation policy to establish appropriate, legal, institutional and regulatory framework for the sector.
- 2) Oversight to irrigation sector public agencies and private stakeholders through coordination and regulation to ensure alignment of the irrigation sector with the sustainable development goals of Nyamira and Kenya.
- 3) Formulation of sector regulations, standards, guidelines, principles, code of practice, quality assurance and procedures in the irrigation sector.
- 4) Establishment and maintenance of the Irrigation, Drainage Management Information System (IDMIS) and management of related databases.
- 5) Development and review of Irrigation master plan, investment and strategic plans for resource mobilization and financing to exploit the irrigation potential and production to secure and sustain the national and county food security targets and requirements.

- 6) Development of community-based / Smallholder irrigation projects by preparing work plans and budgets for the County.
- 7) Formulate irrigation water harvesting and storage strategic plans and to mobilize resources to enhance adaptation and mitigation to climate change and improvement of irrigation water use efficiency.
- 8) Facilitate formation, registration and coordination of Irrigation Water Users' Associations (IWUAs) for sustainable participatory development, operation and management of irrigation and drainage schemes.
- 9) Develop and coordinate County irrigation extension programme to promote adoption of innovations through capacity building, research and technology transfer on sustainable irrigation water management for integrated irrigation development.
- 10) Implementation of County / National Strategies, Standards and Dam Safety guidelines
- 11) Storm water management systems in built-up areas
- 12) Advice the Government at the National and County levels on all matters pertaining to irrigation development, research and training.
- 13) Monitoring, evaluation and assessment of irrigation sector performance to improve the service delivery.

#### 3.5 WATER SERVICES AND DEVELOPMENT

The Water Act of 2002 provided a legal framework that guided the creation of institutions to manage water resources and provide water services. The Act limits the Ministry's role to policy formulation; overseeing the implementation of the policies; and resource mobilization.

**3.5.1** Function and Organization of the Directorate of Water Services and Development.

The proposed Division of Water services and Development will fall under the Department of Water, Sanitation and Irrigation.

The branch units of the Water Services and Development division will include:

- Water Services and Development
- Water Management and Capacity Building

The section units of the Water Services and Development branch will include:

- Survey
- Planning and Design
- Infrastructure Development (Construction)

The section unit of the Water Management and Capacity Building:

- Operation and Maintenance
- Capacity Building
- Quality Control

#### **3.5.2** Mandate of the Division of Water Services and Development

**Vision: -** A county with equitable and sustainable management and use for water resources for social economic development

**Mission:** - To provide sustainable, reliable, efficient and cost effective water supply systems that deliver adequate quantity and quality of water to satisfy domestic, agricultural, industrial and commercial purposes for improved quality of life for all.

Goal: - The overall goal is to ensure sustainable access to clean, safe water to all Kenyans.

#### 3.5.2.1 Core Functions of the Directorate

- Formulation of policy, legislation and strategies for water and sewerage services
- Feasibility Studies for proposed new water supplies and augmentations including:- Water demand (recommendations on scope of project, population data, growth rate and density, livestock data, grazing and land carrying capacity, industrial development, schools, institutions, administration,) possible sources, yield and quality. initiate hydrological and or hydrogeological investigations
- Planning and Design of Water Service infrastructure and all related Water Facilities
- Construction of Water Service infrastructure and all related Water Facilities,
- Supervision of Water Service infrastructure civil works construction and drilling works
- Operation and Maintenance of the Water supplies and all related Water Facilities
- Institutional Strengthening and Capacity Building of the Water Caretakers and Water Committees
- Advice on all matters related to Water Resources and Management:- Water conservation, pollution of sources, reason and chance of improvement, advice if and when sewerage projects can be expected for a water supply area, intake site and treatment works in relation to sewerage projects
- Collecting, maintaining and managing information on water and sanitation.
- Regulating and collaborating with all other actors in the water and sanitation sector.
- Advice on all matters related to sewerage systems,
- Water Quality assurance and pollution control
- Promotion of alternative technologies for water systems,
- Advice on implementation cost of projects done by community/individuals / CBOs
- Exercise such other powers and functions as may be centered or imposed on it by or under the Water Act 2002 or any other Act.
- Monitoring and supervision of all water services boards to ensure rational and equitable allocation of water resources
- Mitigation against natural disasters, floods and drought
- Resource mobilization for the management, reservation, conservation, protection and allocation
- Water resources database, organization and dissemination
- Ground water recharge
- Provision of support to water institutions

#### 3.6 SANITATION SERVICES.

## **3.6.1** Function and Organization of the Directorate of Sanitation Services

The proposed Division of Sanitation services will fall under the Department of Water, Sanitation and Irrigation.

The branch units of the Sanitation Services division will include:

- Sanitation Services
- Sanitation Management

The section units of the Sanitation Services branch will include:

- Survey
- Planning and Design
- Infrastructure Development Planning (Construction)

The section units of the Sanitation Management branch will include

- Operation and Maintenance
- Quality Control

#### **3.6.2** Mandate of the Division of Sanitation Services

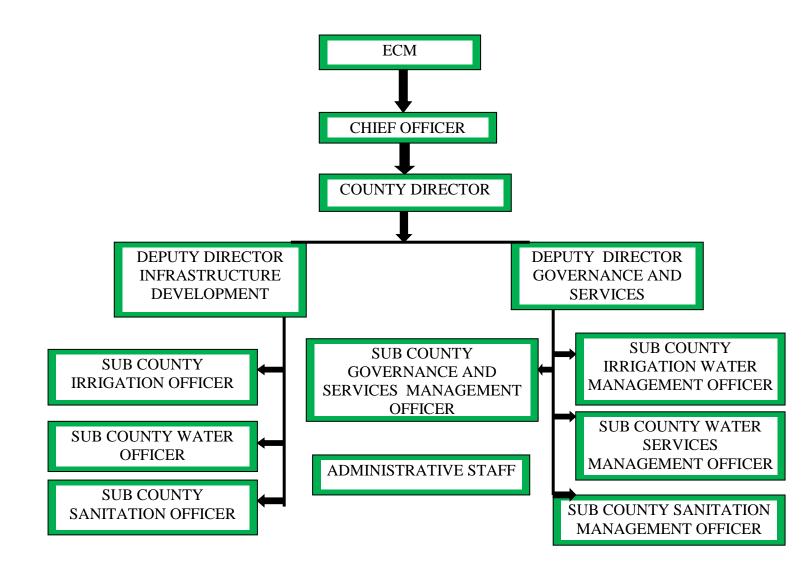
Vision: - A county with equitable and sustainable management and use for sanitation services.

Mission: - To provide a sustainable, reliable, efficient and cost effective Waste management /Sanitation system that evacuates adequate quantity of waste water and sludge to satisfy environmental sanitation standards

Goal: -The overall goal is to ensure improved sanitation and hygiene through sustainable environmental conservation and management

#### 3.6.2.1 Core Functions of the Directorate

- Formulation of policy, legislation and strategies for sewerage services.
- Feasibility Studies for proposed new Sewerage system and augmentations including:recommendations on scope of project, population data, growth rate and density, industrial development, schools, institutions, administration, possible sources, yield and quality
- Planning and Design of Sewerage Infrastructure and all related Facilities
- Construction of Sewerage Service infrastructure and all related Facilities and environmental conservation and management
- Supervision of Sewerage Service infrastructure civil works constructions
- Operation and Maintenance of the Sewerage Infrastructure and all related Facilities
- Institutional Strengthening and Capacity Building of the Sewerage Caretakers,
- Quality Control and Assurance
- Advice on all matters related to sanitation



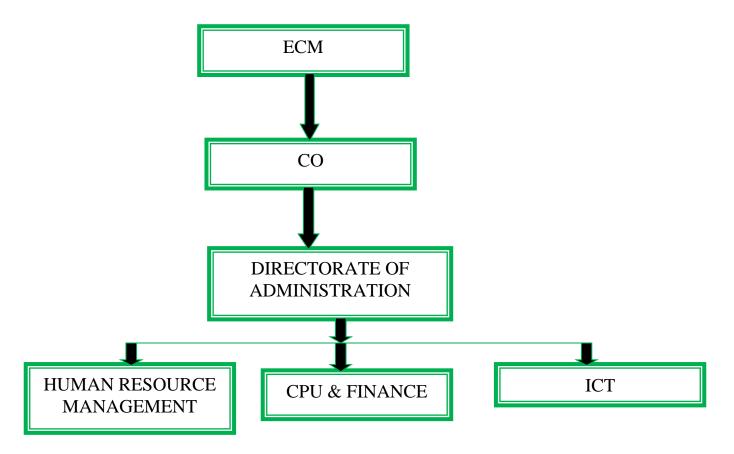
Administration and Support Services.

The department relies on the general administrative staff but the following support personnel are directly attached to the department;

## (Records Management Officer)

Key Responsibilities:

- In-charge of departmental registry
- Follow-up of departmental personnel matters
- Ensure availability of staff appraisal forms, income tax and documents when they are needed. Any other duties assigned by Director.



#### CHAPTER FOUR

## 4.0 IMPLEMENTATION OF THE SECTORAL PLAN.

#### 4.1 INTRODUCTION

The implementation of this Sectoral Plan will require the full involvement, effort, commitment and leadership from the department's staff and all stakeholders. It will require that resource mobilisation is focused on the achievement of the objectives laid out in the plan. In presenting the implementation plan, this chapter also addresses some of the challenges and concerns that relate to the very process of implementation. For its part, the department will continue to address structural issues, capacity building gaps while at the same time pursuing appropriate budgetary resources and resource mobilisation efforts in order to effectively support the implementation of the plan. The department expects to benefit immensely from the experience, achievements as well as lessons derived from the National Government under the Ministry of Water and Irrigation.

#### 4.2 RESOURCE MOBILIZATION.

#### 4.2.1 Financial resource mobilization.

The financial resources that will enable the Department realize its planned objectives will come from the following sources:

- The department expects to be financed by the County Government to a tune of Ksh. 750 Million
- The department expects to raise Ksh. 50 million from Appropriations in Aid (AIA).
- The department expects to raise KSh 4.0 billion from the private sector stakeholders, development partners / donor support agencies and civil societies

The department will also lay emphasis on efficient utilization of available financial resources on prioritized activities

|                               |                     |        |        | Budget KSH | Millions |        |         |
|-------------------------------|---------------------|--------|--------|------------|----------|--------|---------|
| l sut                         |                     | 2013 - | 2014 - | 2015 -     | 2016 –   | 2017 - | Total   |
| me                            | Department          | 2014   | 2015   | 2016       | 2017     | 2018   |         |
| lop                           | Irrigation,         | 1.8    | 62.55  | 62.55      | 62.55    | 62.55  | 252     |
| eve                           | Drainage and        |        |        |            |          |        |         |
| of Infrastructure Development | Water Storage       |        |        |            |          |        |         |
| ure                           | Water Services and  | 113.5  | 68.47B | 1.729B     | 1.133B   | 1.117B | 72.564B |
| uct                           | Development         |        |        |            |          |        |         |
| Str                           | Sanitation Services | 240    | 240    | 240        | 240      | 240    | 1.2B    |
|                               | Capacity Building   | 29     | 29     | 29         | 29       | 29     | 145     |
| f In                          | of Staff            |        |        |            |          |        |         |
|                               | Staff               | 6.4    | 6.4    | 6.4        | 6.4      | 6.4    | 32      |
| rati                          | Establishment       |        |        |            |          |        |         |
| Directorate                   | Water and           | 30.1   | 30.1   | 30.1       | 30.1     | 30.1   | 150.5   |
| ire                           | Irrigation          |        |        |            |          |        |         |
| Ω                             | Facilities and      |        |        |            |          |        |         |

|          | Equipment's for   |         |       |        |        |        |         |
|----------|-------------------|---------|-------|--------|--------|--------|---------|
|          | Field Operations  |         |       |        |        |        |         |
|          | Partnership       | 0.623   | 1.698 | 1.698  | 1.698  | 1.698  | 7.415   |
|          | Establishment and |         |       |        |        |        |         |
|          | Development       |         |       |        |        |        |         |
| Support  | Administration    | 30      | 30    | 30     | 30     | 30     | 150     |
| Services | Auxiliary /       | 10.2    | 10.2  | 10.2   | 10.2   | 10.2   | 51      |
|          | Outsourced        |         |       |        |        |        |         |
|          | Services          |         |       |        |        |        |         |
|          | Total Requirement | 461.623 | 68.9B | 2.138B | 1.543B | 1.526B | 74.552B |

| ė,                        |                     |        |        | Budget K | SH Million | ıs     |        |
|---------------------------|---------------------|--------|--------|----------|------------|--------|--------|
| anc                       |                     | 2013 - | 2014 - | 2015 -   | 2016 -     | 2017 - | Total  |
| of Governance<br>s        | Department          | 2014   | 2015   | 2016     | 2017       | 2018   |        |
| 000                       | Irrigation Water    | 0      | 8.54   | 8.54     | 8.54       | 8.54   | 3.416  |
| l G                       | Management and      |        |        |          |            |        |        |
|                           | Capacity Building   |        |        |          |            |        |        |
| Directorate cand Services | Water Management    |        |        |          |            |        |        |
| cto                       | Sanitation          | 2.28   | 79.6   | 71.91    | 53.19      | 12.39  | 219.4  |
| Direct and S              | Management          |        |        |          |            |        |        |
| D                         | Governance          | 5      | 5      | 5        | 5          | 5      | 25     |
| Support                   | Administration      | 30     | 30     | 30       | 30         | 30     | 150    |
| Services                  | Auxiliary /         |        |        |          |            |        |        |
|                           | Outsourced Services |        |        |          |            |        |        |
|                           | Total Requirement   | 37.28  | 123.14 | 115.45   | 96.73      | 55.93  | 428.53 |

## 4.2.2 Human resource.

# Summary of establishment

|   | Proposed /<br>Established<br>posts | Filled posts | Vacancies | %<br>Understaffing |
|---|------------------------------------|--------------|-----------|--------------------|
|   | No                                 | No           | No        | %                  |
| Executive Committee Member                            | 1                                  | 1            | 0         | 0                  |
| Chief officer   | 1                                  | 1            | 0         | 0                  |
| Director  | 1                                  | 1            | 0         | 0                  |
| Deputy Directors                                      | 2                                  | 0            | 2         | 100                |
| Assistant directors                                   | 3                                  | 0            | 3         | 100                |
| Agricultural Engineer / Irrigation Engineer           | 5                                  | 2            | 3         | 60                 |
| Assistant Agricultural Engineer / Irrigation Engineer | 5                                  | 1            | 4         | 80                 |

| Irrigation Assistant                          | 10 | 0  | 10 | 100  |
|---|----|----|----|------|
| Irrigation Water Management Officer           | 5  | 0  | 5  | 100  |
| Assistant Irrigation Water Management Officer | 10 | 0  | 10 | 100  |
| Water Engineer                                | 1  | 0  | 1  | 100  |
| Water Engineer Assistant                      | 5  | 1  | 4  | 80   |
| Water Officer                                 | 10 | 5  | 6  | 60   |
| Water Inspector                               | 25 | 2  | 23 | 92   |
| Water Supply Operator                         | 40 | 5  | 35 | 87.5 |
| Inspector - Electrical                        | 5  | 1  | 4  | 80   |
| Inspector - Mechanical                        | 2  | 1  | 1  | 50   |
| Laboratory Technician                         | 5  | 0  | 0  | 100  |
| Charge Hand – Mechanic                        | 5  | 0  | 0  | 100  |
| Charge Hand – Electrical                      | 5  | 0  | 0  | 100  |
| Charge Hand – Building                        | 5  | 0  | 0  | 100  |
| Artisan / Plumber                             | 20 | 9  | 11 | 55   |
| Water Meter Readers                           | 15 | 1  | 14 | 93   |
| Secretary                                     | 12 | 1  | 11 | 92   |
| Clerk / Storeman                              | 12 | 2  | 10 | 83   |
| Revenue Accounts Clerk - Water Supply         | 5  | 0  | 5  | 100  |
| Driver  | 12 | 3  | 9  | 75   |
| Subordinate Staff                             | 19 | 14 | 5  | 26   |
| Line Patrollers                               | 10 | 0  | 0  | 100  |
| Water Guards (Security Officer)               | 10 | 0  | 0  | 100  |
| Totals  |    |    |    |      |

# **4.2.3** Cost cutting measures.

The department has put in place the following cost cutting measures Civil works

- **.** Use of cost effective methods of implementation.
- ❖ Use of stakeholders to co-finance collaborative activities

- ❖ Involvement of beneficiary communities in project implementation in terms of labour, local materials and even cash where possible.
- ❖ Staff to do survey work and designs instead of contracting out where possible

#### Procurement

- Prepare Sub County Procurement Plan
- ❖ Liaise with the Sub County Procurement Officer to ensure timely implementation of procurement plans
- Efficient shopping and buying of office and project materials from reputable and cheapest sources

#### **Corruption Eradication**

- \* Awareness creation on upholding integrity.
- ❖ Ensure integrity in analysis of tender documents on value for money.
- **Ensure** transparency and sound financial management practices are observed.
- **Solution** Ensure involvement of beneficiaries during budgeting and acquiring of materials.
- Observe zero tolerance to corruption.
- ❖ Ensure standards are observed in all activities to ensure sustainability.
- ❖ Ensure that communities are involved in the project identification, planning and implementation for purposes of ownership and sustainability.

#### Communication

❖ Introduction of pre-paid cards

## Electricity

- ❖ Switch off lights when not in use
- ❖ Discourage room heating (heaters) where possible
- Control use of electric kettles, electrical appliances

#### Safety measures.

- \* Ensure implemented infrastructure is fenced off for protection of both life and the scheme
- Awareness creation on possible dangers and their sources both in the office and project sites
- Ensure protection of vehicles and office equipment as well as ensuring proper use of all electrical appliances

- ❖ Ensure standards are maintained for safety and sustainability
- Ensure all farmers undergo training on operations and maintenance of developed water resources.

### Repairs and maintenance

- ❖ Assessment of the repairs and maintenance required for assets within the station
- ❖ Implementation of the repairs for identified assets e.g. vehicles, equipment, chlorination tanks, water pumps, booster pumps, electrical motors, furniture, building etc.
- ❖ Timely operation and maintenance of water facilities, plants, equipment's and machineries.

## HIV/AIDS behaviour change

- ❖ Encourage departmental staff to visit VCT centres.
- ❖ Implement HIV/AIDs GOK policy guidelines in consultation with the AIDS Unit

## Training

- Professional group tours
- ❖ Undertake professional and management training of staff in their respective disciplines for effective service delivery

## 4.3 IMPLEMENTATION MATRIX

| Strategy   | Activity                              | Output                                      | Key                    | Reporting | Target      | Tar   | get  |    |    |    | Budget | Responsibil                             |
|--|---------------------------------------|---|------------------------|-----------|-------------|-------|------|----|----|----|--------|---|
|  |                                       |   | Indicator              | Schedule  | for 5       | Y1    | Y2   | Y3 | Y4 | Y5 | KSH    | ity                                     |
|  | L                                     | _   |                        |           | years       |       |      |    |    |    |        |   |
| Strategy Issue 1: Or   |                                       |   |                        |           |             |       |      |    |    |    |        |   |
| Strategic Objective 1  | .1: To attain o                       | ptimal staff lev                            | els                    |           |             |       |      |    |    |    |        |   |
| Undertake Staff  | Staff and                             | Number of                                   | Report                 | Annually  | 5           | 1     | 1    | 1  | 1  | 1  | 1.25M  |   |
| establishment<br>analysis  | skills<br>Inventory                   | Staff Category of Skills                    |                        |           |             |       |      |    |    |    |        |   |
| Determine optimal staff levels   | Staff and<br>skills<br>Inventory      | Number of<br>Staff<br>Category of<br>Skills | Report                 | Annually  | 5           | 1     | 1    | 1  | 1  | 1  | 0.75M  | D . Wal                                 |
| Undertake job<br>analysis - job<br>description,<br>specification<br>,standard of<br>performance, | Staff and<br>skills<br>Inventory      | Number of<br>Staff<br>Category of<br>Skills | Report                 | Annually  | 5           | 1     | 1    | 1  | 1  | 1  | 20M    | Dept. WSI Director Sub County Heads HRM |
| Carry out staff recruitment  | Advertiseme nt, screening, interviews | Advertisemen<br>t<br>Applications           | List of<br>Shortlisted | Annually  | 5           | 1     | 1    | 1  | 1  | 1  | 10M    |   |
| Job placement  | Employment                            | Staff                                       | Appointm ent Letters   | Annually  | 5           | 1     | 1    | 1  | 1  | 1  |        |   |
| Strategic Objective 1  | .2. To achieve                        | e adequacy in                               | facilities and         | equipment | for field o | perat | ions |    |    |    |        |   |
| Undertake Assets inventory   | Physical<br>Assets<br>inventory       | Number, Type and Locality                   | Assets<br>Register     | Annually  | 5           | 1     | 1    | 1  | 1  | 1  | 0.5M   | Dept. WSI Director Sub County           |

| Determine optimal levels                              | Stock<br>Taking   | Assets<br>Report   | Assets<br>Register   | Annually      | 5           | 1    | 1      | 1     | 1      | 1  |         | Heads<br>HRM  |
|---|---|--|--|---------------|-------------|------|--------|-------|--------|----|---------|---|
| Procure facilities and equipment                      | Procurement of Assets   | Quotations.<br>LPO,LSO   | Assets<br>Register   | Annually      | 5           | 1    | 1      | 1     | 1      | 1  | - 150M  |   |
| Allocate for use                                      | Allocation of Assets  | Stores Ledger  | Assets<br>Register   | Quarterly     | 20          | 4    | 4      | 4     | 4      | 4  | 130101  |   |
| Strategic Objective 1.                                | 3. To source  | for adequate fin   | nancial resou  | irces for pro | jects / pro | gram | mes ir | nplem | entati | on |         |   |
| Proposal<br>development for<br>funding of KSH<br>3.9B | Proposal<br>writing   | Proposal<br>Report<br>Developed  | Proposal<br>Report   | Annually      | 5           | 1    | 1      | 1     | 1      | 1  | 6.185M  |   |
| Lobbying for financial resources to fund KSH 3.9B     | Host Forums, seminars, Promote Donor / County Government Activities | County<br>Missions,<br>Briefs<br>,conference<br>attended and<br>Hosted | Number of Missions in and Out of the country, Number of conferences attended | Annually      | 5           | 1    | 1      | 1     | 1      | 1  | 7.3125M | Dept. WSI Director Sub County Heads Developme nt Partners |
| Public Private Partnership Towards funding KSH 3.9B   | Host Forums, seminars, Promote Donor / County Government Activities | County Missions, Briefs ,conference attended and Hosted                | Number of Missions in and Out of the country, Number of conferences          | Annually      | 5           | 1    | 1      | 1     | 1      | 1  | 7.3125M | nt Partners   |

|   |   |   | attended  |                      |                   |         |       |    |    |    |      |   |
|---|---|---|---|----------------------|-------------------|---------|-------|----|----|----|------|---|
| Levies, tariffs   | Setting<br>Tariffs<br>Revenue<br>collection   | Tariff regime<br>Funds<br>collected               | Funds<br>Financial<br>Records                         | Monthly              | 60                | 12      | 12    | 12 | 12 | 12 | 30M  | Dept. WSI Director Sub County Heads County Assembly |
| Strategic Objective 1.4   |   | enhance skills a                                  |   | 1                    |                   | els     |       | 1  |    | 1  | T    | T   |
| Undertake Training<br>Needs Assessment                                | Training Needs Assessment   | TNA Report  | TNA<br>Report   | Annually             | 5                 | 1       | 1     | 1  | 1  | 1  | 5M   |   |
| Develop Training master plan  | Consultation<br>forums with<br>stakeholders<br>Developing<br>Training<br>curriculum | Stakeholders<br>report<br>Training<br>Curriculum  | Stakehold<br>ers report<br>Training<br>Master<br>plan | Annually             | 5                 | 1       | 1     | 1  | 1  | 1  | 10M  | Dept. WSI Director Sub County Heads HRM             |
| Undertake Staff Training - Skills improvement for staff of all cadres | Training  | Trained staff                                     | 30<br>Number<br>Trained<br>Training<br>Report         | Quarterly            | 20                | 4       | 4     | 4  | 4  | 4  | 100M | Consultants   |
| Strategy Issue 2: Or  |   |   |   |                      |                   |         |       |    |    |    |      |   |
| Strategic Objective 2.  |   |   |   |                      | <u>inistrativ</u> | e effic | iency |    |    | ,  |      |   |
| Creation of divisions   | Create division within department   | Three divisions (water, irrigation and sanitation | Divisions<br>Created                                  | 1 <sup>st</sup> Year |                   |         |       |    |    |    |      | Dept. WSI<br>Director<br>County<br>Assembly         |
| Strategic Objective 2.  | 2: Build and d  | levelop Capacit                                   | y in each div   | vision               |                   |         |       |    |    |    |      |   |
| Develop Training master plan  | Consultation forums with stakeholders   | Stakeholders<br>report<br>Training                | Stakehold<br>ers report<br>Training                   | Annually             | 5                 | 1       | 1     | 1  | 1  | 1  | 10M  | Director<br>Staff<br>HRM                            |

|   | Developing Training curriculum  | Curriculum  | Master<br>plan   |           |          |     |      |         |     |         |                | Consultants   |
|---|---|---|--|-----------|----------|-----|------|---------|-----|---------|----------------|---|
| Undertake Staff Training - Skills improvement for staff of all cadres   | Train staff   | Trained personnel   | Number<br>of trained<br>personnel<br>Training<br>reports<br>Certificate<br>awarded           | Annually  | 5        | 1   | 1    | 1       | 1   | 1       | 20M            | Director<br>Staff<br>HRM<br>Consultants                     |
| Strategic Issue 3: Pro  | <u> </u>  |   |  |           |          |     |      |         |     |         |                |   |
| Strategic Objective 3.  | 1: Completion   |   |  |           |          |     | 1    | 1       | 1   | T       | 1              | 1   |
| Resources mobilization for completion of the On-going projects: Irrigation Projects Water Projects  Sanitation Projects | Assess Project status Allocate resources Implementati on of the project | 8 projects implemented  11Projects implemented 5 Projects implemented | Project status Report Completio n certificate Handing over Certificate Photograp hs, Minutes | 5 years   | 11<br>5  | 2   | 3    | 2 2 1   | 2 1 | 2 1     | 187.8M<br>1.2B | Dept. WSI Director Sub County Heads, Community Procuremen t |
| Community mobilization & participation for the On-going Projects :Irrigation projects Water Projects                    | Sensitization<br>Awareness<br>creation<br>General<br>Meetings           | Sensitized<br>Community<br>Meetings<br>Held                           | Attendanc<br>e list<br>Number of<br>meetings<br>held   | Quarterly | 32<br>44 | 0 0 | 8 11 | 8<br>11 | 8   | 8<br>11 | 5.76M<br>7.92M | Director<br>Sub County<br>Heads,<br>Community               |
| Sub County Water<br>management<br>Committee   | Hold<br>quarterly<br>meetings   | 100 meetings<br>held  | Minutes<br>Number of<br>meetings   | Quarterly | 100      | 20  | 20   | 20      | 20  | 20      | 1.5M           | Director<br>Sub County<br>Heads,                            |

|   |  |  | held   |           |     |    |    |    |    |    |      | Community  |
|---|--|--|--|-----------|-----|----|----|----|----|----|------|--|
| Operations and maintenance of water supplies/facilities | Rehabilitatio<br>n of old<br>water<br>supplies       | Old water<br>supplies<br>rehabilitated                     | LSO,<br>LPO,<br>BOQs,<br>project<br>status<br>report,  | Annually  | 20  | 4  | 4  | 4  | 4  | 4  | 200M | Director Sub County Heads, Contractor Procuremen t                         |
|   | Purchase of<br>new fully<br>assembled<br>water pumps | New pumps<br>bought  | Payment<br>certificate<br>Invoice<br>/delivery<br>note,<br>Stores<br>ledger,                               | Annually  | 20  | 4  | 4  | 4  | 4  | 4  | 20M  | Director Sub County Heads, Contractor Procuremen t                         |
|   | Repair and<br>maintenance<br>of existing<br>pumps    | Repair and<br>maintenance<br>done for<br>existing<br>pumps | LSO, BOQ, inspection & repair report ,Invoice and payment voucher  | Quarterly | 160 | 32 | 32 | 32 | 32 | 32 | 32M  | Director Sub County Heads, Contractor Procuremen t                         |
|   | Connection to electricity                            | Electrical<br>power<br>connected                           | LSO,<br>KPLCs -<br>survey<br>report,<br>invoice,<br>sale<br>agreement,<br>receipts,<br>&payment<br>voucher | Annually  | 4   | 0  | 4  |    |    |    | 6M   | Director<br>Sub County<br>Heads,<br>KPLC,<br>contractor<br>Procuremen<br>t |

|  | Payment of electricity bills                           | Electricity<br>bills paid                             | KPLC/<br>agents<br>payment<br>receipts  | Quarterly    | 80      | 16 | 16   | 16   | 16   | 16   | 48M            | Director Sub County Heads, Accounts KPLC         |
|--|--|---|---|--------------|---------|----|------|------|------|------|----------------|--|
|  | Procurement<br>of water<br>treatment<br>chemicals      | Water<br>treatment<br>chemicals<br>bought             | LPO,Wate r treatment analysis report , invoice /delivery stores ledger, payment voucher, operation charts | Quarterly    | 80      | 16 | 16   | 16   | 16   | 16   | 90M            | Director Sub County Heads, Supplier Procuremen t |
| Strategic Objective 3.   | 2: Undertake   | Design and Sur  | vey of 1,857  | new projects | by 2017 |    | 1    | 1    |      | 1    | 1              |  |
| Undertake Engineering investigation, survey and design of projects: Irrigation Projects Water Projects | Investigations<br>Survey and<br>Design of<br>projects: | Projects<br>investigated,<br>surveyed and<br>designed | Structural Drawings, Design reports Tender documents  | Annually     | 20      | 0  | 5 43 | 5 34 | 5 33 | 5 33 | 7M<br>15.2M    | Director Sub County Heads, Community             |
| Sanitation Projects  |  |   | documents   |              | 5       |    | 1    | 2    | 1    | 1    | 1.2B           |  |
| Rainwater Harvesting for: Schools - 972No Health Facilities 74   | Investigations<br>,Survey and<br>Design of             | Projects investigated, surveyed and                   | Structural<br>Drawings,<br>Design<br>reports  | Annually     | 972     | 0  | 243  | 243  | 243  | 243  | 103.4M<br>7.9M | Director Sub County Heads, Community             |
| No No  | projects:  | designed  | Tender documents  |              | / -     |    | 17   | 10   |      | 10   | 7.7141         | Community  |

| Sanitation and Hygienic Initiatives for Schools and Health Facilities:  Schools 403 No – 6 door improved pit latrine (VIP)  Health facilities  74No & Secondary sch 166No – 6 door Ablution Block + Septic Tank | Investigations<br>Survey and<br>Design of<br>projects:  | Projects<br>investigated,<br>surveyed and<br>designed                               | Structural<br>Drawings,<br>Design<br>reports<br>Tender<br>documents                               | Annually           | 240         | 0     | 60              | 60           | 60         | 60         | 26M                    | Director<br>Sub County<br>Heads,<br>Community   |
|---|---|---|---|--------------------|-------------|-------|-----------------|--------------|------------|------------|------------------------|---|
| Community mobilization & participation for new projects: Irrigation Projects Water Projects Provision of equipment for survey and designs, Design Software's  | Sensitization Awareness creation General Meetings  Procurement of Survey and Design Equipment | Sensitized Community Meetings Held  Equipment's Procured Design software's procured | Attendanc e list Number of meetings held Number & type of: Equipment 's bought; Design software's | Quarterly Annually | 400<br>1160 | 0 0 0 | 100<br>350<br>1 | 100 316      | 100<br>247 | 100<br>247 | 8.2M<br>23.7M<br>10M   | Director Sub County Heads, Community  CO Director Sub County Heads, Supplier Procuremen |
| Implementation of the designed  | Contractual   |   | procured.   |                    | 20          |       |                 |              |            |            |                        | t CO Director   |
| projects: Irrigation Projects Water Projects Sanitation Projects  | Construction of civil works Supervision   | Design<br>projects<br>implemented   | Civil structures completed  | Annually           | 143         | 0 0 1 | 5<br>43         | 5<br>34<br>1 | 5<br>33    | 5<br>33    | 160M<br>2.255B<br>1.2B | Sub County<br>Heads,<br>Contractor  |
| Rainwater Harvesting for:   | of civil works  |   |   |                    | 972         | 0     | 243             | 243          | 243        | 243        | 514M                   | Procuremen<br>t   |

| Schools - 972No             |                |             |              |          |     |         |     |        |     |     |        |            |
|-----------------------------|----------------|-------------|--------------|----------|-----|---------|-----|--------|-----|-----|--------|------------|
| Health Facilities 74        |                |             |              |          | 74  |         | 19  | 18     | 19  | 18  | 40M    |            |
| No                          |                |             |              |          |     |         |     |        |     |     |        |            |
| Sanitation and              |                |             |              |          | 403 |         | 102 | 101    | 100 | 100 | 241.8M |            |
| <b>Hygienic Initiatives</b> |                |             |              |          |     |         |     |        |     |     |        |            |
| for <b>Primary</b>          |                |             |              |          |     |         |     |        |     |     |        |            |
| <b>Schools</b> 403 No – 6   |                |             |              |          |     |         |     |        |     |     |        |            |
| door improved pit           |                |             |              |          |     |         |     |        |     |     |        |            |
| latrine (VIP)               |                |             |              |          |     | 0       |     |        |     |     |        |            |
| <b>Health</b> facilities    |                |             |              |          | 240 |         | 60  | 60     | 60  | 60  | 600M   |            |
| 74No & Secondary            |                |             |              |          |     |         |     |        |     |     |        |            |
| <b>sch</b> 166No – 6 door   |                |             |              |          |     |         |     |        |     |     |        |            |
| Ablution Block +            |                |             |              |          |     |         |     |        |     |     |        |            |
| Septic Tank                 |                |             |              |          |     |         |     |        |     |     |        |            |
| Strategic Objective 3.      |                |             |              |          |     | ible re |     | tation | 1   | T   |        |            |
| Undertake feasibility       | Identification | Projects    | Identificati | Annually | 27  | 0       | 27  |        |     |     | 135M   | Director   |
| studies                     | and            | identified  | on and       |          |     |         |     |        |     |     |        | Sub County |
|                             | evaluation of  |             | Evaluation   |          |     |         |     |        |     |     |        | Heads,     |
|                             | projects       |             | reports      |          |     |         |     |        |     |     |        | Community  |
| Revive the projects         | Procure and    | Viable      | Number of    | Annually | 27  | 0       | 27  |        |     |     | 430M   | Director   |
|                             | Implement      | projects    | viable       |          |     |         |     |        |     |     |        | Sub County |
|                             | viable         | completed   | projects     |          |     |         |     |        |     |     |        | Heads,     |
|                             | projects       |             | completed    |          |     |         |     |        |     |     |        | Community  |
| Strategic Objective 3.      |                |             | 1            | , ,      |     | 1       |     |        |     | I   | ı      |            |
| Prioritization of the       | Identify, do   | U 1         | Project      | Annually | 10  | 0       | 3   | 4      | 3   |     | 50M    |            |
| projects                    | feasibility    | projects    | Document     |          |     |         |     |        |     |     |        |            |
|                             | and design     | identified  | S            |          |     |         |     |        |     |     |        | Director   |
|                             | viable         | and         |              |          |     |         |     |        |     |     |        | Sub County |
|                             | projects:      | prioritized |              |          |     |         |     |        |     |     |        | Heads,     |
|                             | Sanitation     |             |              |          |     |         |     |        |     |     |        | Community  |
|                             | Nyamira/       |             |              |          |     |         |     |        |     |     |        | Community  |
|                             | Keroka/        |             |              |          |     |         |     |        |     |     |        |            |
|                             | Nyansiongo     |             |              |          |     |         |     |        |     |     |        |            |

| Strategic Objective 3. Track progress of the implementation process, Operations and Maintenance                 | /Kebirigo/Iko nge/ Irrigation  5: Monitoring Conduct M & E visits   | 180 M & E  | of Projects M & E reports Photograp hs   | / Programn<br>Monthly | nes<br>180                           | 36 | 36        | 36        | 36        | 36        | 18M           | Director<br>Sub County<br>Heads,<br>Community |
|---|---|--|--|-----------------------|--------------------------------------|----|-----------|-----------|-----------|-----------|---------------|---|
| Strategy Issue 4; Cor   |   |  |  |                       |                                      |    |           |           |           |           |               |   |
| Strategic Objective 4.  | 1: Institutional  | strengthening  | of the comm  | nunity grou           | ps                                   | 1  |           | ı         | 1         |           | T             |   |
| Training of the groups: group dynamics, Leadership and management trainings: Irrigation Project  Water Projects | Mobilization<br>of Resources /<br>Community<br>Groups<br>Training - | Enhanced<br>Management<br>skill in group<br>dynamics | Number<br>of<br>trainings<br>held<br>Training<br>report<br>Attendanc<br>e list | Quarterly             | 80<br>trainings<br>1342<br>trainings | 0  | 20<br>420 | 20<br>378 | 20<br>272 | 20<br>272 | 12M<br>201.3M | Director<br>Sub County<br>Heads,<br>Community |
| Strategic Objective 4.  |   |  |  | _                     | ı                                    | 1  |           |           |           |           |               |   |
| Technical training on: Irrigation / Drainage/Water harvesting   | Mobilization<br>of Resources /<br>Community<br>Groups<br>Training - | Enhanced<br>Management<br>skill in group<br>dynamics | Number of trainings held Training  | Quarterly             | 80<br>trainings                      | 0  | 20        | 20        | 20        | 20        | 12M           | Director<br>Sub County<br>Heads,              |
| Water : PHAST   |   |  | report Attendanc e list  |                       | 928<br>trainings                     | -  | 280       | 252       | 188       | 188       | 139.2M        | Community                                     |

| Strategic Objective 4.  | 3; Community  | sensitization  |   |          |                                     |   |         |     |            |         |                     |  |
|---|---|--|---|----------|-------------------------------------|---|---------|-----|------------|---------|---------------------|--|
| Through Group meetings ,Exchange visits/tours : Irrigation Projects  Water Projects | Holding<br>Barazas and<br>Group<br>meetings   | Increased communicati on and collaboration with other stakeholders               | Number of barazas held Number of meetings held Minutes Photograp hs                 |          | 400<br>meetings<br>1160<br>meetings | 0 | 100 350 | 100 | 100<br>247 | 100 247 | 8.2M<br>23.774<br>M | Director Sub County Heads, Communit y                              |
| Strategy Issue 5: Pa  | artnership Estab  | l<br>Dishment and I  |   | •        | <u> </u>                            | 1 |         |     | <u> </u>   |         | 1                   | 1  |
| Strategic Objective 5.  |   |  | - C + C10 <b>P</b> 1110110  | <u> </u> |                                     |   |         |     |            |         |                     |  |
| Develop capacity for negotiation and cooperation                                    | Train on<br>Negotiation<br>skills,<br>lobbying, fund<br>raising skills.<br>Networking | Enhanced<br>negotiation<br>,fundraising<br>,networking<br>and lobbying<br>skills | Funds<br>availed<br>Number<br>of partners<br>acquired<br>Training<br>report<br>MOUs | Annually | 5<br>trainings                      | 1 | 1       | 1   | 1          | 1       | 3.115M              | Water,<br>Sanitation<br>&Irrigation<br>services<br>Consultant<br>s |
| Improve human resource development  | Training of 12 personnel  | 12 personnel trained   | Number<br>of<br>personnel<br>trained  | Annually | 12                                  | 0 | 3       | 3   | 3          | 3       | 4.3M                | Water, Sanitation & Irrigation services Consultant s               |

## CHAPTER FIVE: MONITORING, EVALUATION AND REPORTING

#### 5.1INTRODUCTION

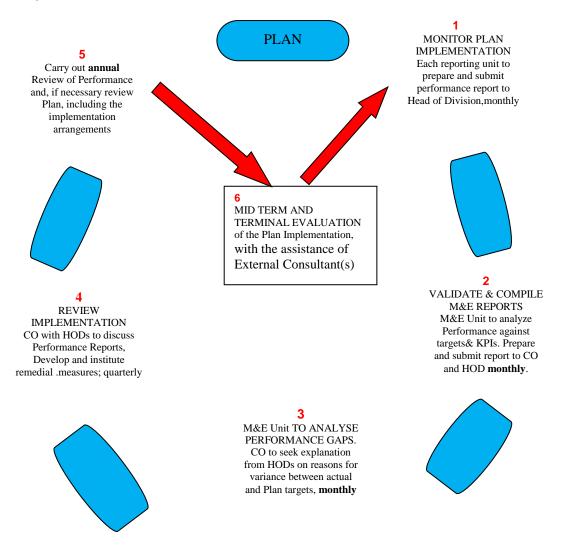
Monitoring and Evaluation (M&E) will form a critical component for the successful implementation of this strategic plan. It is through M&E that the management will be assisted in making evidence based decisions. This will form an integral part of this Strategic Plan. A comprehensive monitoring and evaluation plan will be prepared to track annual progress in tandem with the annual plans that will be derived from this strategic plan. The primary purpose is to track progress, identify departures, if any, in the achievement of the set targets, assessing the efficiency and effectiveness of completed projects and ensuring continual improvement.

The annual plans will be cascaded to all functional units/departments, divisions and to individual levels. The individual targets will be proposed, discussed and submitted to the relevant sections or units in approved prescribed formats.

The responsibility of coordinating periodic reviews will be vested in the performance management team headed by the Planning, Human Resources and Administration departments. However, every individual and Head of Department or Unit will be responsible for their reviews. All officers in charge of Sub-Counties and lower administrative units will be responsible for the projects being implemented in their areas.

It is expected that the Sub-County and Ward Administrators will assist in monitoring the implementation of the projects under their areas of jurisdiction. It is also encouraged that that the local communities also participate in the projects' monitoring to promote acceptance and ownership of developed water facilities.

## M and E Cycle



## **Key Features of the Planning Cycle**

- 1 The diagram depicts the system for tracking and assessing performance at Department of Water, Sanitation and Irrigation Services on a continuous basis. The system covers inputs (particularly financial and human resource), outputs, as well as outcomes.
- 2. The M&E Unit will prepare reporting formats, incorporating Key Performance Indicators for each reporting unit as well as the periods to be covered in the reports.
- 3. The Data Management Unit will provide pertinent data to the M&E Unit to assist in the performance analysis
- 4. The Chief Officer, with the support of the M&E Unit, will introduce enforceable sanctions for non-compliance with reporting requirements

- 5. Each Sectional Head will report, at each subsequent Committee meeting, on actions taken on previously reported variance in performance
- 6. The Plan will be evaluated half way through the period to check on implementation effectiveness and, and if necessary, review strategies to ensure plan implementation remains on course.
- 7. A terminal Evaluation will be undertaken at the end of the Plan period to assess overall implementation effectiveness and draw lessons for preparation of the subsequent Strategic Plan.

#### 5.2 MONITORING

Monitoring of the activities of the Department of Water, Sanitation and Irrigation Services will help in ensuring that the sector remains on course in pursuit of its objectives. It is from here that the management will get the information it needs to make decisions about the project or department and the changes that are necessary in strategy or plans. Through this, the department will remain the pillar of the sectoral framework.

### **5.2.**1Guiding principles in monitoring the strategic plan

Under the monitoring system, the data collection in the department will be rationalized, with specific responsibilities for collection, aggregation and reporting to the central data management section at the departments' headquarters at the county level. The monitoring system for the water sector over the next Plan period will be guided by the following principles:

- ❖ Monitoring exercise shall be conducted by the monitoring and evaluation team.
- ❖ A standard tool shall be established for data collection and analysis.
- ❖ Data will be collected at activity level and channeled upwards in agreed formats on a continuous basis
- \* Key indicators of efficiency, effectiveness and impact shall be established.
- ❖ Accountability for production of the reports shall lie on the departmental staff.
- Responsibility for acting on reports shall lie on the Head of Department.
- ❖ The monitoring systems methods to be adopted will be through: first hand information, inspection, interim progress review, testing and auditing

#### 5.3 EVALUATION

Under evaluation, the data will be assessed against pre-selected indicators to determine the extent to which achievement has matched the set standard or target and pertinent reports prepared. Evaluation will be done periodically. After a report is made, remedial action must be taken by responsible officer in all cases where an undesirable variance between achievement and target is established. The evaluation system for the water sector over the next Plan period will be guided by the following principles:

#### **5.2.**1Guiding principles in evaluating the strategic plan

- \* Evaluation exercise shall be conducted by monitoring and evaluation team.
- ❖ A standard evaluation tool shall be established
- \* Key indicators of efficiency, effectiveness and impact shall be established.
- Evaluation will be conducted at three levels

By timing: Formative (on going) - process evaluation, Ex-Ante evaluation and project appraisal

Summative-outcome evaluation, ex-post evaluation

By agency: Internal evaluation – by staff itself

External reviews in line with donor requirements, community perception and certified management audit

By stages: During implementation

At the end of the project

After a time lag of the projects or immediately after completion

- ❖ In case of significant unexplained variation in performance especially in critical performance areas, either positive or negative, an ad hoc evaluation shall be conducted.
- ❖ The information collected shall be used to inform decision making in the area of accountability, service delivery and allocation of resources.
- ❖ Accountability for production of the reports shall lie on the departmental staff.
- Responsibility for acting on reports shall lie on the head of department.
- ❖ The exercise shall be financed through budgeted provisions of the department.

# **CHAPTER SEVEN:LOGICAL FRAMEWORK**

# **Logical Framework**

| IRRIGATION, DRAINAGE AND WAT             | ER STORAGE             |  |  |
|--|------------------------|--|--|
| Narrative Summary                        | Objectively Verifiable | Means of Verification                        | Important Assumptions                    |
|  | Indicators ( OVIs)     |  |  |
| GOAL:                                    | Increased area under   | • Topographic maps                           | • Resources available                    |
| Increase the area under irrigation and   | irrigation             | • Design report                              | • Community is supportive and            |
| promote controlled agricultural drainage |                        | Installed Irrigation                         | available                                |
| for land use.                            |                        | infrastructures                              | Conducive weather conditions             |
|  |                        |  | during implementation                    |
| PURPOSE:                                 | Policy concept paper   | <ul> <li>Policy Framework Reports</li> </ul> | <ul> <li>Funding is available</li> </ul> |
| Providing policy, facilitation and an    | 1                      | <ul> <li>Hansard reports</li> </ul>          | • Community is participative in          |
| enabling environment for the             | living                 | <ul> <li>Baseline survey reports</li> </ul>  | project implementation                   |
| Irrigation sector;                       | • Increased house hold | Area under irrigated                         | • County Assembly supportive to          |
| • Increase utilization of land through   | income                 | agriculture                                  | the Policy guidelines                    |
| Irrigation and Drainage                  |                        | <ul> <li>Number of strong and</li> </ul>     | development                              |
| Mobilize and promote efficient           |                        | effective groups trained                     | Resources available                      |
| utilization of resources;                |                        | • M & E reports                              |  |
| • Strengthen Institutional Capacity;     |                        | <ul> <li>Topographic maps</li> </ul>         |  |
| Mainstream Governance, HIV/AIDS,         |                        | <ul> <li>Design reports</li> </ul>           |  |
| and gender and                           |                        | • Number of Irrigation                       |  |
| Provide Monitoring and Evaluation.       |                        | infrastructure constructed                   |  |
| • Improve performance and                |                        | <ul> <li>Training reports</li> </ul>         |  |
| management of irrigation and             |                        | <ul> <li>Attendance lists</li> </ul>         |  |
| drainage.                                |                        | • Poverty Assessment survey                  |  |
|  |                        | reports                                      |  |
|  |                        | • Effective operating systems                |  |

| <ul> <li>OUTPUT:         <ul> <li>Policy framework</li> <li>Increased hectarage per household and increased productivity per unit area</li> <li>Increase in Yield</li> <li>Increase in incomes levels</li> <li>Employment creation at farm level</li> <li>Training for transfer of technology and sustainability.</li> <li>Increased diversity of horticultural crops grown</li> <li>Improved farmers organization and perception</li> <li>Improved technical know-how</li> </ul> </li> <li>ACTIVITY:         <ul> <li>Community mobilization,</li> <li>IWUA Formation and Strengthening</li> <li>Engineering investigations, Engineering survey and design,</li> <li>Implementation of Irrigation, Drainage and Water Storage Infrastructure</li> <li>Technical Trainings</li> <li>Capacity building and Institutional development for participatory development</li> </ul> </li> <li>WATER SERVICES</li> </ul> | <ul> <li>Policy concept paper</li> <li>Improved standard of living</li> <li>Increased house hold income</li> <li>Increased area under irrigation, drainage</li> <li>Farmers trained</li> <li>Projects implemented</li> </ul> | Design, Tender documents,  Types and Number of irrigation structures documented  Training reports  IWUA registration certificate and list of IWUA members trained | <ul> <li>County Assembly supportive to<br/>the Policy guidelines<br/>development</li> <li>Resources available</li> </ul> |
|--|--|---|--|
| Narrative Summary  | Objectively Verifiable Indicators ( OVIs)  | Means of Verification   | Important Assumptions  |
| GOAL:  | Completed water projects   | Completion certificates   | Resources available  |

| Provide a sustainable, reliable ,efficient and cost effective water supply system that deliver adequate quantity and quality of water to satisfy domestic, agricultural, and commercial purpose for improved quality of life for all  OUTPUTS: Increased water supply -quantity Increased number of water supplies Increase in area of coverage Reduced cases of water supply disruptions. Increased number of schools and health facilities harvesting rainwater for domestic use Reduced incidences of communicable | Number of consumers with access Area under coverage  Available and adequate water Improved reticulation Increased pipe network Improved provision of water in schools and health facilities | Handing over reports Customers satisfaction survey reports Customers ledger Community Score card  Progress reports Number of projects implemented Number of community members accessed Area covered by water network Number of households served Number of schools and health facilities practicing rainwater harvesting | The community cooperative and responsive Weather conditions are favourable throughout the year for implementation of the projects  Prompt payment of water bills by customers. Resources available Community cooperative and responsive Weather conditions are favourable throughout the year for implementation of the projects |
|---|---|--|--|
| diseases in the schools practicing handwashing  OUTPUTS: Increased water supply -quantity Increased number of water supplies Increase in area of coverage Reduced cases of water supply disruptions.  | Available and adequate water Improved reticulation Increased pipe network   | Progress reports Number of projects implemented Number of community members accessed Area covered by water network Number of households served   | Prompt payment of water bills by customers. Resources available Community cooperative and responsive Weather conditions are favourable throughout the year for implementation of the projects  |
| <ul> <li>ACTIVITY:</li> <li>Community mobilization,</li> <li>IWUA Formation and Strengthening</li> <li>Engineering investigations,         Engineering survey and design,</li> <li>Implementation of Irrigation,         Drainage and Water Storage</li> </ul>  | <ul> <li>Area under coverage</li> <li>Community water committee trained</li> <li>Projects implemented</li> <li>Number of Consumers covered</li> </ul>                                       | <ul> <li>Investigation Reports,         Design, Tender documents,</li> <li>Types and Number of water         structures documented</li> <li>Training reports</li> <li>WUA registration certificate         and list of WUA members</li> </ul>  | <ul> <li>Funding is available</li> <li>Community is participative in project implementation</li> <li>County Assembly supportive to the Policy guidelines development</li> <li>Resources available</li> </ul>   |

| Infrastructure                   |                              | trained                        |  |
|----------------------------------|------------------------------|--------------------------------|--|
| Technical Trainings              |                              |                                |  |
| Capacity building and Institu    | ıtional                      |                                |  |
| development for participator     |                              |                                |  |
| development                      |                              |                                |  |
| SANITATION SERVICES              | 1                            |                                |  |
| Narrative Summary                | Objectively Verifiable       | Means of Verification          | Important Assumptions                        |
|                                  | Indicators ( OVIs)           |                                |  |
| GOAL:                            | Completed Sewerage           | Completion certificates        | Resources available                          |
| Provide a sustainable; reliable, | projects                     | Handing over reports           | Community cooperative and responsive         |
| efficient and cost effective     | Number of consumers          | Customers satisfaction survey  | Weather conditions are favourable throughout |
| Waste management /Sanitation     | served                       | reports                        | the year for implementation of the projects  |
| system that evacuates adequate   | Area under coverage          | Customers ledger               |  |
| quantity of waste water and      | Land Acquired for Waste      | Community Score card           |  |
| sludge to satisfy environmental  | Water Treatment,             | Title Deed,                    |  |
| sanitation standards.            | Water Samples collected for  | Land Processing Documents      |  |
|                                  | Analysis                     | Water Sample Results           |  |
| PURPOSE:                         | Reduced incidences of water  | Customer satisfaction survey   | Resources available                          |
| Effective waste water            | borne diseases reported      | reports.                       | Community cooperative and responsive         |
| management to specific           | Improved standards of living | Number of Community            | Weather conditions are favourable throughout |
| discharge standards (EMCA        | Proper and effective         | members served by the sewer    | the year for implementation of the projects  |
| Act, Water Act ) for pollution   | sewerage system established  | system                         |  |
| control.                         | Improved sanitary            | Area of coverage by the sewer  |  |
| Evacuate liquid waste to         | environment - schools,       | system                         |  |
| maintain environmental           | health facilities, market    | Number of schools, health      |  |
| sanitation standards             | centers                      | facilities and market centres' |  |
| Reduce incidences of             |                              | with improved sanitation       |  |
| environmental pollution          |                              | facilities                     |  |
| Generate revenue from waste      |                              |                                |  |
| treatment and disposal           |                              |                                |  |
| Promote motivation through       |                              |                                |  |
| public awareness and             |                              |                                |  |
| education                        |                              |                                |  |

| Minimize adverse social and Ecosystem impacts Improve sanitation within and around schools / health facilities   |  |   |  |
|--|--|---|--|
| OUTPUT: Increase in area of coverage Increased number of community served Reduced cases of poor waste water disposal Reduced incidences of waste water borne diseases Improved sanitation in schools, health facilities and market centres''   | Available and adequate<br>sewer system<br>Improved sanitation disposal<br>system<br>Increased area of coverage<br>Improved Environmental<br>Quality                  | Progress reports Number of projects implemented Number of community members accessed Area covered by waste water network Number of households served Health diseases records                              | Prompt payment of water bills by customers. Resources are available The community members are cooperative and responsive Weather conditions are favourable throughout the year for implementation of the projects Community members served will adopt the sewer system |
| <ul> <li>ACTIVITY:</li> <li>Formulate policy framework for pollution control and waste water disposal regulations</li> <li>Community mobilization,</li> <li>Engineering investigations, Engineering survey and design,</li> <li>Implementation of the waste water management Infrastructure</li> <li>Technical Trainings</li> <li>Intensify Health education</li> <li>Capacity building and institutional development for participatory</li> </ul> | <ul> <li>Area under coverage</li> <li>Community sanitation committee trained</li> <li>Number of projects implemented</li> <li>Number of Consumers covered</li> </ul> | <ul> <li>Policy Framework paper</li> <li>Investigation Reports,<br/>Design, Tender documents,</li> <li>Types and Number of waste<br/>water structures<br/>documented</li> <li>Training reports</li> </ul> | <ul> <li>Community is participative in project implementation</li> <li>County Assembly supportive to the Policy guidelines development</li> <li>Resources available</li> </ul>   |

| development                |  |  |
|----------------------------|--|--|
| Environmental Impact       |  |  |
| assessment                 |  |  |
| Quality control assessment |  |  |
| for effluent discharges    |  |  |
| Undertake liquid waste     |  |  |
| treatment feasibility      |  |  |
| studies at the proposed    |  |  |
| sites                      |  |  |