# TANA WATER WORKS DEVELOPMENT AGENCY

# STRATEGIC PLAN 2018 –2022

*Quality Water Works for Improved Livelihood*

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# STRATEGIC PLAN 2018 –2022

TWWDA ISO9001:2015 CERTIFIED

KENYA VISION 2030

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# Vision

An Innovative and Resourceful Institution in development of National Public Water and Sanitation Works.

# Mission

To develop sustainable National Public Water and Sanitation Works that enhances socio-economic growth for our stakeholders.

# Core Values

Our core values constitute the fundamental bedrock beliefs that drive the Agency. These values include;

- Competence
- Teamwork
- Quality
- Integrity
- Customer Focus
- Sustainable development

# Philosophy

Quality water works for improved livelihood

Embu Sewerage Treatment Works , Embu County.

# FOREWORD BY THE CHAIRMAN

**Hon. Joseph M'Eruaki M'Uthari**

Planning begins with development of clear missions or purposes before strategizing. Purpose has little value without strategy and the means to fulfill it. Given today's realities, planning must always be focused on opportunities that come tomorrow. Planning actually makes future priorities have an influence on today's activities. The long-term effects of strategic thinking and planning stay on for much longer, and will drive a firm to institutional vitality, effectiveness and fulfillment of its mission. It is for this very reason, therefore that Tana Water Works Development Agency (TWWDA) sat down to think and plan which process required identifying and taking advantage of its strengths and opportunities available rather than solving its current problems. This plan will provide us with a blue print upon which to build a legacy of success at the institution.

The TWWDA Strategy: 2018-2022 has been reviewed through collaboration with the Board members of the Agency, Staff, and key stakeholders. It articulates the Agency's mandate, strategic objectives, core values, clarifies the role and responsibilities of the many players involved in the provision of water efficiently and economically. This plan expresses the future needs and aspirations of TWWDA in line with the aspirations of the Kenyan Vision 2030 (KV2030), specifically the Third Medium Term Plan 2018-2022 (MTPIII 2018-2022) and the Water Act, 2016. It also provides a framework through which the Agency shall apply its strengths, tackle its weaknesses, exploit the available opportunities and confront threats in its operating environment. This will enable the Agency to work towards actualizing its vision which states "An Innovative and Resourceful Institution in development of National Public Water and Sanitation Works".

The Agency is driven aggressively by its philosophy: *"Quality Water Works for Improved Livelihood".* As we are aware, water is both an economic and social right as enshrined in the Constitution of Kenya, 2010. It is therefore the Agency's aim to ensure that clean and safe water is accessible to all households and communities in adequate quantities. This can only be materialized through a complete transformation of the Agency. This transformation is from supply oriented into vibrant and customer-service oriented organization. The ability to successfully implement this plan will ultimately be driven through continued hiring of competent and skilled workforce, that will work as a team, to provide quality customer focused service through the principles of sustainable access and demand driven services.

TWWDA's success will be measured by the extent to which this strategy will be implemented. It is therefore the responsibility of all of us at TWWDA to work towards effective execution of this strategy. I am confident that our mission to *develop sustainable National Public Water and Sanitation Works that enhances socio-economic growth for our stakeholders* is achievable with our dedicated staff, stakeholders and development partners.

I call upon the entire TWWDA family to embrace the reviewed TWWDA strategic plan 2018-2022 with pride and determination ready to actualize the opportunities that come with it. Let us set our eyes on *"Quality water Works for Improved Livelihood".*

**Hon. Joseph M'Eruaki M'Uthari**
**CHAIRMAN, TANA WATER WORKS DEVELOPMENT AGENCY**

# PREFACE BY THE CHIEF EXECUTIVE OFFICER

**Eng. Philip Gichuki**

The TWWDA 2018-2022 Strategic Plan is an outcome of an intensive and painstaking process which was facilitated by commendable collaboration by several stakeholders. The participatory approach was useful in enriching the process, projects and other initiatives proposed and ensuring ownership of the Plan at all levels, to subsequently facilitate effective implementation.

The Strategic Plan will be a key communication tool that forms the basis of engagement with stakeholders in the course of implementing Agency's Mandate. As such, this Strategic Plan focuses on the following Key Result Areas: Water Coverage; Sewerage and Sanitation Coverage; Partnerships and Resource Mobilization; Research and Technology; Stakeholders' Engagement; and Institutional Strengthening for Sustainability.

This Strategic Plan activities are anchored on the Kenya Vision 2030 and the third Medium Term Plan, while also taking into consideration the provisions and expectations of the Constitution of Kenya and other Government commitments, including the Government's Big Four Agenda, and Sustainable Development Goals (SDGs). The Plan shall be implemented through the Agency Annual Work Plans, departmental and Individual work plans. Additionally, the Strategic Plan will be implemented through annual performance contracts with clearly agreed and negotiated targets.

The success that the strategy planning process has attained to date would not have been possible without the unwavering support and impetus given by the Board Members. We are highly indebted to the management and entire staff who championed, walked with, nurtured and impelled the process to its current status.

We are indeed extremely grateful to all our stakeholders for their valuable input, patience, understanding and support in the process of making this document, TWWDA Strategic Plan 2018-2022.

I trust that this Strategic Plan will be actualized and that it will draw the much-desired support from development partners, County and National government and the communities within the Tana Water Works Development Agency area of jurisdiction.

**Eng. Philip Gichuki**
**CHIEF EXECUTIVE OFFICER**
**TANA WATER WORKS DEVELOPMENT AGENCY**

# Definition of Terms

| | |
|---|---|
| **Infrastructure:** | Networks, facilities, equipment, applications and assets for water production, transmission, distribution and waste water disposal facilities. |
| **Land and Environment Court:** | Land and Environment Court as established under article 162(2) of the Constitution. |
| **Storage reservoirs:** | Strategic dams |
| **Storage tanks:** | Facilities made of concrete, masonry or galvanized iron panels/sheets for purposes of retaining water. |
| **Ground water:** | Water of underground streams, channels, artesian basins, reservoirs, lakes and other bodies of water in the ground, and includes water in interstices below the water table. |
| **Regulatory Board:** | Water Services Regulatory Board (WASREB) established by Water Act 2016. |
| **Spring:** | Water emerging from beneath the surface of the ground otherwise than as a result of drilling or excavation operations. |
| **Stream:** | Water contained in a watercourse and includes a river. |
| **Supply of water in bulk:** | Supply of water to a licensee for distribution by or on behalf of the licensee taking the supply. |
| **Swamp:** | Any shallow depression on which water collects either intermittently or permanently and where there is a small depth of surface water or a shallow depth of ground water and a slight range of fluctuation either in the surface level of the water or of the ground water level so as to permit the growth of aquatic vegetation. |
| **Use of Water:** | In relation to water contained in or forming part of a water resource, means: -<br>(a) Water Act, 2016 abstraction, obstruction or diversion of the water;<br>(b) Discharge of materials or substances into the into water; or |

| | |
|---|---|
| | (c) Any activity, of a kind prescribed by rules under Water Act 2016, in relation to the water. |
| **Water Tribunal:** | Water Tribunal established by Water Act 2016. |
| **Water Right:** | The right to have access to water through a water permit. |
| **Water Resource:** | Any lake, pond, swamp, marsh, stream, watercourse, estuary, aquifer, artesian basin, other body of flowing or standing water, whether above or below ground. |
| **Water Service:** | Any service of/or incidental to the supply or storage of water and includes the provision of sewerage services. |
| **Water service provider:** | A company, non-governmental organization, other person or body providing water services under and in accordance with an agreement with the licensee within whose limits of supply the services are provided. |
| **Water Works Development Agency:** | Means the agency of the national government established under Water Act, 2016 section 65 (1). |
| **Water table:** | (a) In pervious granular or detritus material, the upper surface of the body of free water which fills all openings in material that is sufficiently pervious to permit percolation; and<br>(b) In fractured impervious rocks and in solution openings, the surface at the contact between the water body in the openings and the overlying ground air. |
| **Watercourse:** | Means any natural channel or depression in which water flows regularly or intermittently, unless declared not to be a watercourse under Water Act, 2016. |
| **Works:** | Any structure, apparatus, contrivance, device or thing for storing, recharging, treating, carrying, conducting, providing or utilizing water or liquid waste, but does not include hand utensils or such other contrivances as may be prescribed by Regulations made under Water Act, 2016. |

# Abbreviations and Acronyms

| | |
|---|---|
| **APR** | Annual Progress Report |
| **ASAL** | Arid and Semi-Arid Lands |
| **AfDB** | African Development Bank |
| **BADEA** | Arab Bank for Economic Development for Africa |
| **BM** | Board Members |
| **BP** | Business Plan |
| **CAAC** | Catchment Area Advisory Committees |
| **CoK** | Constitution of Kenya |
| **CBO** | Community Based Organization |
| **CEO** | Chief Executive Officer |
| **CSR** | Corporate Social Responsibility |
| **DMS** | Document Management System |
| **DWOs** | District Water Officers |
| **EA** | East Africa |
| **EAC** | East African Community |
| **EMCA** | Environmental Management and Coordination Act |
| **ERM** | Enterprise Risk Management |
| **ERP** | Enterprise Resource Planning |
| **EU** | European Union |
| **FMIS** | Financial Management Information System |
| **FY** | Financial Year |
| **GDP** | Gross Domestic Product |
| **GIS** | Geographical Information System |
| **GoK** | Government of Kenya |
| **GRP** | Glass Fiber Reinforced Plastic |
| **HIV/AIDS** | Human Immunodeficiency Virus/ Acquired Immune Deficiency Syndrome |
| **HDPE** | High-Density Polyethylene |
| **HoD** | Head of Department |
| **HR** | Human Resource |
| **ICT** | Information and Communication Technology |
| **IEC** | Information, Education and Communication |

| | |
|---|---|
| **IWRM** | Integrated Water Resource Management |
| **JICA** | Japan International Cooperation Agency |
| **KEWI** | Kenya Water Institute |
| **KIDDP** | Kenya-Italy Debt for Development Programme |
| **KRAs** | Key Result Areas |
| **KV2030** | Kenya Vision 2030 |
| **KWS** | Kenya Wildlife Service |
| **LATF** | Local Authority Transfer Fund |
| **M&E** | Monitoring and Evaluation |
| **MTP** | Medium Term Plan |
| **MWI** | Ministry of Water & Sanitation and Irrigation |
| **NEPAD** | New Partnership for African Development |
| **NGO** | Non-Governmental Organization |
| **NEMA** | National Environment Management Authority |
| **NMIS** | National Monitoring and Information System |
| **NRW** | Non-Revenue Water |
| **NWHSA** | National Water Harvesting & Storage Authority |
| **NWRS** | National Water Resources Strategy |
| **NWSS** | National Water Service Strategy |
| **PBOs** | Public Benefit Organisations |
| **PC** | Performance Contract |
| **PIU** | Project Implementation Unit |
| **PMU** | Project Management Unit |
| **P-PESTEL** | Policy, Political, Economic, Socio-Cultural, Technological, Environmental and Legal |
| **PPP** | Public Private Partnerships |
| **PWD** | Persons with Disability |
| **RAP** | Resettlement Action Plan |
| **RMCs** | Risk Management Champions |
| **SDGs** | Sustainable Development Goals |
| **SO** | Strategic Objectives |
| **SP** | Strategic Plan |
| **SWOT** | Strengths, Weaknesses, Opportunities and Threats |
| **TCA** | Tana Catchment Area |
| **TOWS** | Threats, Opportunities, Weaknesses and Strengths |
| **TWSB** | Tana Water Services Board |
| **TWWDA** | Tana Water Works Development Agency |
| **UCs** | Urban Centres |

| | |
|---|---|
| **UN** | United Nations |
| **UFW** | Unaccounted for Water |
| **UWSS** | Urban Water Supply System |
| **WA02** | Water Act 2002 |
| **WA16** | Water Act, 2016 |
| **WRA** | Water Resources Authority |
| **WRMS** | Water Resources Management Strategy |
| **WRUA** | Water Resources Users Association |
| **WaB** | Water Tribunal |
| **WASREB** | Water Services Regulatory Board |
| **WSIS** | Water Sector Institutions |
| **WSP** | Water Service Provider |
| **WSTF** | Water Sector Trust Fund |
| **WWDA** | Water Works Development Agency |

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# Executive Summary

Tana Water Works Development Agency strategic plan 2018-2022 takes cognizance of the Agency's responsibilities and functions under the Water Act, 2016 and focuses on the attainment of sustainable access to quality water and enhanced sewerage services for all residents within the area of its jurisdiction through development, maintenance and management of national public water works. This plan guides the Agency's efforts in contributing towards the progressive realization of the economic and social right on safe and clean water in adequate quantities, attainment of the Kenyan Vision 2030 specifically the aspirations under the Third Medium Term Plan (MTPIII) 2018-2022, the Government's Big Four Agenda. It further delivers on the aspirations of the Sustainable Development Goals (SDGs).

This reviewed Strategic Plan is a road map for assessing the Agency's performance and achievement of results by 2022. It provides clear strategies and objectives that TWWDA intends to pursue.

This Plan is organized into five chapters. Chapter one highlights the background and mandate of the Tana Water Works Development Agency and the global, regional and national development challenges specific to its mandate. It also focuses on the Agency's role in the national development agenda including the Kenya Vision 2030, Third Medium-Term Plan (2018-2022), the "Big Four "Agenda and Sustainable Development Goals (SDGs).

Chapter two reviews the performance of the 2013-2017 Strategic Plan highlighting milestones/ key achievements, challenges and lessons learnt. The chapter further provides analysis of external and internal environments using the Strengths, Weaknesses, Opportunities and Threats (SWOT) and Policy, Political, Economic, Socio-cultural, Technological, Environmental and Legal (P-PESTEL) analytical tools and also looks at the stakeholder analysis.

Chapter three presents the strategic model that set out the vision, mission, overall goal, core values, strategic pillars and guiding principles that guide the implementation of this strategic plan. It also outlines the six (6) Key Result Areas (KRAs) that inform the focus areas for implementation of the strategic objectives and strategies.

Chapter four on implementation and coordination framework gives an overview of the structure of the organization, the key departments and division. It presents the human resource development strategies, financial resources, resource gaps, and mobilization strategies. It also looks at the risk analysis and mitigation measures and risks monitoring system.

Chapter five concludes the plan with an overview of the Agency Monitoring, Evaluation and Reporting Framework that shall be utilized to monitor and report on implementation of the Strategic Plan. The Chapter also outlines the Institutional set up for monitoring, evaluation, learning and frequency of reporting.

# Chapter 1
# INTRODUCTION

## 1.0 Overview

This chapter highlights the background and mandate of Tana Water Works Development Agency and the global, regional and national development challenges specific to its mandate. It also focuses on the Agency's role in the national development agenda including the Kenya Vision 2030, Third Medium-Term Plan (2018-2022), the "Big Four "Agenda and Sustainable Development Goals (SDGs).

## 1.1 Background

Tana Water Works Development Agency (TWWDA) was established under section 65(1) of the Water Act, 2016 vide Legal Notice No. 27 of 26th April 2019. The Agency is one of the nine (9) Water Works Development Agency's established under the Ministry of Water, Sanitation and Irrigation. TWWDA's area of geographic jurisdiction is five (5) Counties namely; Embu, Kirinyaga, Meru, Nyeri and Tharaka-Nithi (Figure 1 and Table 1). The total area of coverage is 17,193 Km2 with a total population of **3,917,065** as per the Kenya Population and Housing Census 2019. On 3rd May 2019, Water Act 2016, Sec 152, was operationalized and Tana Water Services Board (TWSB) was dissolved and transferred its functions, assets, liabilities and staff to TWWDA.

**Figure 1 – Tana Water Works Development Agency Area of Geographical, Jurisdiction**

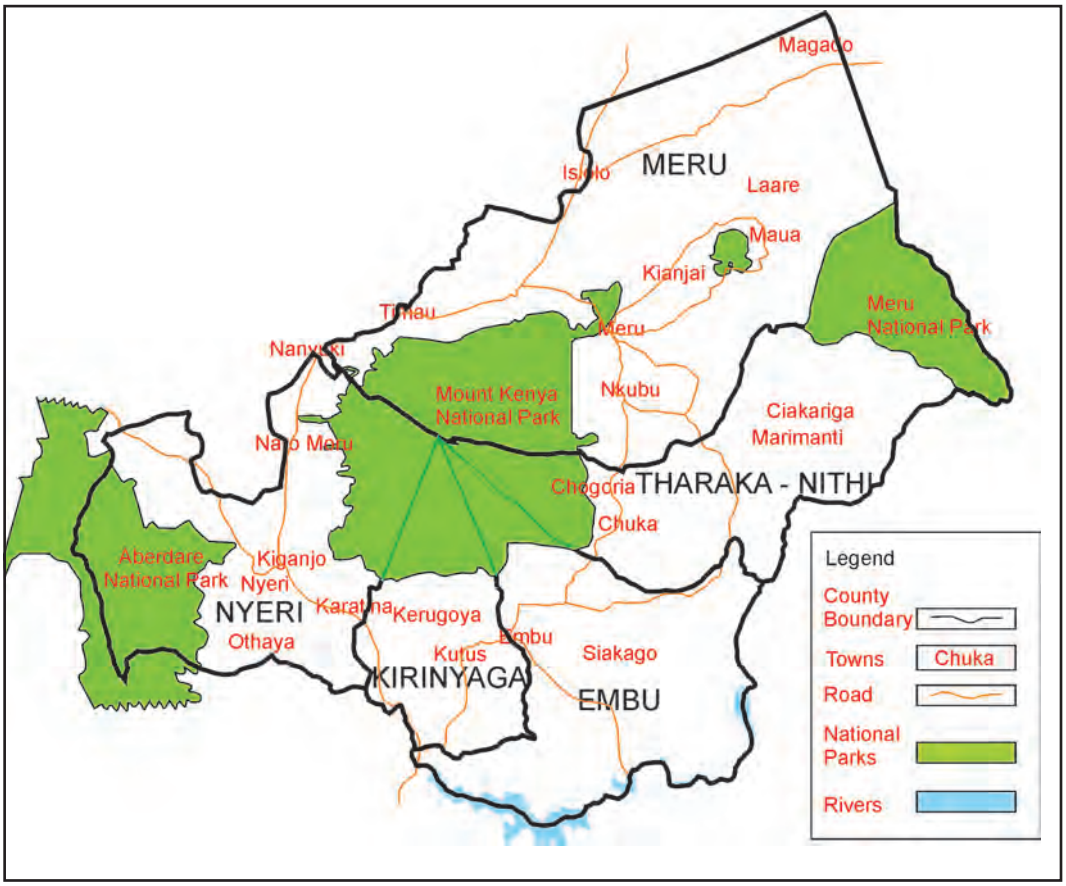



**Table 1: Counties and Sub Counties under TWWDA Area of Jurisdiction**

| Embu County | Kirinyaga County | Meru County |
|---|---|---|
| 1. Embu West | 1. Kirinyaga Central | 1. Buuri East |
| 2. Embu East | 2. Kirinyaga East | 2. Buuri West |
| 3. Embu North | 3. Kirinyaga West | 3. Meru Central |
| 4. Mbeere North | 4. Mwea East | 4. Imenti North |
| 5. Mbeere South | 5. Mwea West | 5. Imenti South |
| **Nyeri County** | **Tharaka Nithi** | 6. Tigania Central |
| 1. Nyeri Central | 1. Igambang'ombe | 7. Tigania East |
| 2. Tetu | 2. Maara | 8. Tigania West |
| 3. Nyeri South | 3. Meru South | 9. Igembe Central |
| 4. Mukurweini | 4. Tharaka North | 10. Igembe North |
| 5. Mathira East | 5. Tharaka South | 11. Igembe South |
| 6. Mathira West | | |
| 7. Kieni East | | |
| 8. Kieni West | | |

## 1.2 Mandate/Functions

Following the promulgation of the Constitution of Kenya 2010, whose central theme is the devolved system of Government, the Water Act 2002 was repealed giving way to Water Act 2016, thereby changing the institutional mandate to:

(a) Undertake the development, maintenance and management of the national public water works within its area of jurisdiction;

(b) Operate the waterworks and provide water services as a water service provider, until such a time as responsibility for the operation and management of the waterworks are handed over to a county government, joint committee, authority of county governments or water services provider within whose area of jurisdiction or supply the waterworks is located;

(c) Provide reserve capacity for purposes of providing water services where pursuant to section 103, the Regulatory Board orders the transfer of water services functions from a defaulting water services provider to another licensee;

(d) Provide technical services and capacity building to such county governments and water services providers within its area as may be requested; and

(e) Provide to the Cabinet Secretary technical support in the discharge of his or her functions under the Constitution and this Act.

## 1.3 Global, Regional and Agency Development Challenges

Kenya is facing a number of key challenges at the global, regional and national levels, which can be categorized as follows.

**A. Global Challenges**

1. **Climate Change:** Climate change affects water resources through its impacts on the quality, quantity, timing, form and intensity of precipitation leading to decreased water resources available for water supply, food production and social economic services. Climate change has led to more frequent and intense extreme weather events such as drought, floods, strong winds, hailstorms, and frosts which will exacerbate water disasters. These have led to additional constraint to development of water infrastructure and degradation of catchment areas, which has not only reduced flows and quality of water in the

rivers but also increased possibility of conflict between upstream and downstream users.

2. **E-Waste:** The rapid technological advancement increases solid and liquid waste generation leading to degradation of water resources.

**B. Regional Challenges**

1. **Ensuring sufficient clean water for all**

   As the region experience rise in its population growth, expansion of its agricultural and industrial activities, and as GDP per capita increases, water consumption per capita will increase making it impossible to avoid serious crises unless all aspects of water resources are well managed to promote efficiency, equity and sustainable development (integrated water management).

   It is worthwhile to note that the Agency has the highest number of registered and unregistered Community Water Projects nationally, which are not regulated. In addition, there is competition between other various water users leading to conflicts on abstraction of water from the source.

2. **Inadequate Mechanism for Coordination and Collaboration between National and County Government**

   This has affected planning, development and implementation of investments in cross-county water sources, and bulk water supply infrastructure. The development of water services and sewerage infrastructure as national public water and sewerage works, for subsequent operation by county governments is also faced with challenges relating to absence of a clear handing over mechanism of completed projects to WSPs within the various Counties, the management of loan obligations, and operations and maintenance for handed over assets.

3. **Cost of compensation for land required for the development of water and sewerage infrastructure**

   The rising cost of compensation for land within the Agency's area of jurisdiction is relatively high presenting a serious challenge to water and sewerage infrastructure development. Beside the escalating cost of land, there is the long timelines for acquisition of such land, which potentially results into delayed implementation of infrastructure development.

4. **Lack of Synergy from other Government Agencies**

   Delay in authorizations/easements from relevant Key State Agencies for instance Kenya Wildlife Service, Kenya Forest Services and Road Authorities leads to delay in projects implementation.

5. **Population Growth**

   The population in the Agency's area of operation was 3,459,455 people as per the 2009 Kenya Population and Housing Census. During the population and housing census conducted in 2019 the population had grown to 3,917,065 giving an inter-censal growth rate of 1.25%. Using an estimated growth rate of 1.25% this is expected to grow to about 4 million people by 2022 the end of the plan period. There is therefore, increasing demand for water due to rising population and expanding economic activities across various sectors against a slow pace in water and sewerage infrastructure development.

6. **Human Settlements**

   High population densities are evident in urbanized counties. This exerts a lot of pressure on the quantity and quality of human settlements. The densely populated settlements are often characterized with poor physical planning and low incomes that in turn has led to:

   - Increased informal settlements and low-income urban areas due to rapid rural-urban migration;
   - Declining living standards, polluted air and water resources and unsanitary living conditions; and
   - Inadequate provision of water and sanitation services.

7. **Pollution and degradation of catchment areas**

   There has been a demonstrable drop in the quality of water resources across the Agency area. This is largely due to; increasing pressures from climate change, population growth, over utilization of the water resources, poor land-use practices, degradation of water catchments and pollution of water sources.

   Contamination of water resources leads to reduced water available for use. Cleaning water of low quality requires a high amount of energy, which increases the cost of delivering water to the people. Furthermore, degradation of catchment areas has not only reduced flows and quality of water in the rivers but also increased possibility of conflict between upstream and downstream users.

8. **Wastewater Management**
   Rivers collect most of the wastes generated in the urban areas leading to pollution of the rivers by solid, liquid and organic wastes. The polluted water has a strong impact on human beings and other living organisms and the environment in general. It is estimated that in 2019 only about 10% of the urban areas within the Agency's area of operation have some form of sewerage collection.

9. **Low Investment in the Water and Sanitation Sector**
   Development of infrastructure for water and sanitation requires heavy capital investment. The funding from the government and development partners fall short of the requirements resulting in a backlog of investments in water services, water storage and sanitation infrastructural development.

### C. Agency Challenges

1. **Data and Information**
   The inadequate modern ICT-based systems are a major challenge to the Agency, which relies largely on manual and paper-based information systems. The key challenges are lack of integration of data management and inadequate technologies to collect, analyze and store data. This makes it difficult to get adequate and reliable data and information for financial and investment planning. There is therefore a need to have an integrated data management system that will be used for data collection, analysis and storage by the Agency.

2. **Human Resource Capacity**
   The Agency has an optimal staff establishment of 105 officers. The current staffing level is 65 officers. As part of Human Resources Planning, the Agency requires to recruit at least ten (10) highly skilled officers across the departments during the Strategic Plan period.

## 1.4 TWWDA's Role in National Development

Aligning the strategic plan to national and international Acts, policies and plans is fundamental in presenting a united front in addressing various development challenges. The following heavily influence development of water and sanitation infrastructure;

### 1.4.1 The Constitution 2010

Articles 43 of the Kenyan Constitution 2010 entrenches water as a constitutional right by establishing a right to "reasonable standards of sanitation" and "clean and safe water in adequate quantities". The constitution under Article 21 further places an obligation on the government to take steps to progressively realize this right. It is the mandate of the Agency to develop national public water and sewerage infrastructure that will facilitate access to water and sanitation for all.

### 1.4.2 Kenya's Vision 2030 and MTP III

Under the social pillar of the Kenya Vision 2030, economic and social development as envisioned requires plenty of high-quality water supplies. The vision for water and sanitation is to ensure that improved water and sanitation is available and accessible to all. The goal of the Third Medium Term Plan is to improve access to water and sanitation, have an innovative self-financing mechanism for the sector and adequate investment planning to move the water sector into the path of Vision 2030. The economic, social and political pillars of the vision 2030 are further anchored on infrastructure as one of the key foundations for the Vision 2030. Therefore, water and sanitation facilities are a critical impetus to achieving the development initiative of the country. In this respect, about 350,000 new water connections are required annually for universal access to water to be realized by the year 2030 as illustrated in the MTP III. Likewise, about 300,000 new sewer connections for urban population (about 3.2 million people) are required annually for universal sanitation access to be reached. In the next few years, the Agency will contribute to the achievement of the Vision 2030 and its MTP III through investment in development of water and sewerage infrastructure and support to the WSPs to effectively provide last mile connections. The Agency will further target investment in informal settlements and rural areas under its jurisdiction to ensure that ***no one is left behind.*** The target will be to increase access to water in the urban areas from the 76% to 85% by the end of the planned period. In the rural and peri-urban areas, the Agency targets to increase access from 54% to 70% during the same period. The Agency will equally work to increase access to sewerage services from 8.2% to 12.5% during the planned period.

### 1.4.3 Sustainable Development Goals

The critical role of water and sanitation is further given emphasis in the Sustainable Development Goals Specifically Goal 6 *"Ensure access*

*to water and sanitation to all"*. Under the eight targets outlined in Table 2 below, universal access to safe and affordable drinking water and management of water resources among other is fundamental to achieving sustainable development. The role of the Agency will be to ensure progressive achievement of these goals through implementation of the various projects.

**Table 2: Sustainable Development Goals**

| SDG TARGET | Sustainable Development Goal 6: Ensure access to water and sanitation to all |
|---|---|
| Target: 6.1 | By 2030, achieve universal and equitable access to safe and affordable drinking water for all |
| Target: 6.2 | By 2030, achieve access to adequate and equitable sanitation and hygiene for all and end open defecation, paying special attention to the needs of women and girls and those in vulnerable situations |
| Target: 6.3 | By 2030, improve water quality by reducing pollution, eliminating dumping and minimizing release of hazardous chemicals and materials, halving the proportion of untreated wastewater and substantially increasing recycling and safe reuse globally |
| Target: 6.4 | By 2030, substantially increase water-use efficiency across all sectors and ensure sustainable withdrawals and supply of freshwater to address water scarcity and substantially reduce the number of people suffering from water scarcity |
| Target: 6.5 | By 2030, implement integrated water resources management at all levels, including through transboundary cooperation as appropriate |
| Target: 6.6 | By 2020, protect and restore water-related ecosystems, including mountains, forests, wetlands, rivers, aquifers and lakes |
| Target: 6.7 | By 2030, expand international cooperation and capacity-building support to developing countries in water and sanitation-related activities and programmes, including water harvesting, desalination, water efficiency, wastewater treatment, recycling and reuse technologies |
| Target: 6.8 | Support and strengthen the participation of local communities in improving water and sanitation management |

Universal access to water and sanitation will progressively be achieved during the period of the SDGs by facilitating development of infrastructure and ensuring that new water and sewer connections are done as part of last mile connections. Last mile connectivity will be undertaken in peri-urban and rural areas to ensure all new projects have water connections to households with a collection time of not more than 30mins (roundtrip).

### 1.4.4 The "Big Four" Agenda

Anchoring the mandate of the Agency to the "Big Four" Agenda is another critical linkage in progressive achievement of the right to water. The government has highlighted the need to fast track economic recovery by identifying four key priorities of manufacturing, affordable housing, affordable healthcare and food security. As an important enabler, investment in water and sanitation infrastructure will significantly contribute towards achieving these big four agenda as outlined in the strategy. The Agency envisages its role in supporting the achievement of the Big Four Agenda as depicted below:

- **Affordable Housing:** In order to support the government agenda of 500,000 affordable homes, the Agency will develop sustainable water and sewerage infrastructure. In the informal settlements, the Agency targets to develop dependable sanitation infrastructure to improve levels of sanitation in these areas
- **Affordable health care:** Access to improved water and sanitation services will reduce exposure and minimize cases of water borne diseases and ensure a healthy population
- **Manufacturing:** The government plans to create 1.3 million manufacturing jobs by 2022. Access to safe water and improved sanitation will lead to a healthy and strong labor force for manufacturing industries. Reliable water will also reduce the cost of doing businesses and enhance firms' profitability especially the water intensive firms.
- **Food Security:** Construction of multipurpose dams will provide the requisite water for irrigation for food security. It is expected that this will be able to contribute to increased production of maize and potatoes as envisaged.

In order to address the national development agenda such as the constitutional requirement, the Vision 2030, MTP III, the "Big Four" Agenda, SDGs, Agenda 2063 as well as other national and international agenda, TWWDA will institutionalize its new roles and accelerate the development, maintenance and management of the National Public Water Works in line with national and international priorities. The strategic intent is to build a strong institution, capable of discharging its mandate effectively. This requires focus on leadership and governance, human and financial resource development and mobilization; technological resources and operational systems.

Kianjagi Storage Tank (1000m3): Casting of 2nd lift of external wall in progress.

# Chapter 2
# SITUATIONAL ANALYSIS

## 2.0 Overview

This chapter reviews the performance of the 2013-2017 Strategic Plan highlighting milestones/key achievements, challenges and lessons learnt. The chapter further provides analysis of external and internal environments using the Strengths, Weaknesses, Opportunities and Threats (SWOT) and Policy, Political, Economic, Socio-cultural, Technological, Environmental and Legal (P-PESTEL) analytical tools and also looks at the stakeholder analysis.

## 2.1 Review of Previous Strategic Plan Implementation

Planning for the future depends on a realistic understanding of existing situation. The 2013-2017 Strategic Plan had identified and prioritized for attention the following strategic issues:

1. Low access and coverage to safe water and sewerage
2. Inadequate Institutional Strengthening for Sustainability
3. Poor financial sustainability
4. Inadequate mainstreaming of cross cutting issues
5. Lack of adequate and reliable data

### 2.1.1 Milestones/Key Achievements

A review of the strategic plan 2013-2017 was done and Table 3 presents the findings on extent of results achieved during the Plan period.

**Table 3: Summary of Key achievements /Milestones**

| Key Result Area | Key Target | Achievement |
|---|---|---|
| Water and Sanitation Coverage | 1. Increase the proportion of urban population accessing safe water from 73% to 90%<br>2. Increase the proportion of rural population accessing safe water from 46% to 70%<br>3. Improve waste water collection system from 150km to 200km<br>4. Increase waste water treatment capacity from 11,700m3/day to 40,300 m3/day in designated urban areas | 1. The proportion of urban population accessing safe water increased by 3%.<br>2. The proportion of Rural population accessing safe water increased by 8%.<br>3. Waste water collection system increased from 150km to 160km through construction of Othaya Sewerage project<br>4. Waste water treatment capacity increased from 11,700m3/day to 12,800 m3/day through construction of Othaya Sewerage project |
| Institutional Strengthening for Sustainability | 1. Strengthen information management systems from 70% to 90%<br>2. Enhance staff capacity by 60% for TWSB<br>3. Enhance TWSB governance, management and administration<br>4. Reform and fully improve the TWSB's Organizational Structure | 1. Improved Automation level which enhanced ICT Institutional Strengthening for Sustainability from 70% to 81.9%<br>2. Staff capacity enhanced from 60% to 65% leading to development of over 20No in-house designs thus saving a lot on consultancy fees.<br>3. 7 No. of workshops conducted<br>4. The mandate changed as a result of promulgation of the Constitution of Kenya and the enactment of the Water Act, 2016 |
| Institutional Strengthening for Sustainability Poor Financial Sustainability | Enhance TWSB's financial sustainability by 50% over the plan period | Investment growth budget increased from Kshs 1.034 billion in FY 2013/2014 to Kshs 5.502 billion in 2017/2018. |

| Key Result Area | Key Target | Achievement |
|---|---|---|
| Inadequate mainstreaming of cross cutting issues | Develop and operationalize policies in addressing cross cutting issues in compliance with the relevant Acts during the plan period | The following were developed and operationalised<br>1. Gender mainstreaming policy,<br>2. Workplace policy on drug and substance abuse,<br>3. HR Policies and manuals, Disability mainstreaming policy,<br>4. Workplace policy on HIV/ AIDS management<br>5. Anti-corruption policy |
| Lack of adequate and reliable data | Develop a database of reliable data for planning | Database was not developed |

### 2.1.2 Challenges Faced during the implementation of the previous plan

While implementing projects and programmes during the last five (5) years, the following challenges were encountered:

**1. Financial Challenges**

i. Inadequate funding of the planned Projects. During the previous Strategic Plan period a total of Ksh 5.502 billion was received against the projected amount of Ksh 20.836 billion which resulted to a shortfall of Ksh15.334 billion;
ii. Delay in disbursement of allocated funds; and
iii. Inadequate investment in research and development of new technologies and processes in managing, developing and maintaining data for water works.

**2. Human capital challenge**

The Agency had not developed Human Resource Instruments.

**3. Legal challenges**

i. These included litigation issues where more than 20 No. cases were still pending in courts;
ii. Gaps in the Water Act, 2016 in regard to transitional issues such as the transfer of Assets and liabilities to WSPs, involvement of WSPs in planning and implementation of projects and lack of a well-structured engagement framework.

iii. Asset Management-The development of water services and sanitation infrastructure as national public water and sanitation works, for subsequent operation by county Governments faces challenges relating to absence of a clear handing –over mechanism, Management of loan obligation and operations and maintenance for handed-over Assets.

iv. Over abstraction of water- The Agency had the highest number of registered and unregistered Community Water Projects, which were not regulated. In addition, there was competition between other various water users leading to over abstraction of water from the source.

**4. Political Challenges**

There had been rampant political interference and lack of goodwill from the political class with regard to the implementation of water and sewerage projects.

**5. Environmental challenges**

i. Environmental degradation in the catchment areas negatively affecting water sources;

ii. Unpredictable weather patterns hindered timely implementation of projects e.g. heavy rains.

**6. Inter-Organizational Challenges**

Lack of inter-ministerial collaboration framework e.g. The National Treasury and Planning Kenya Wildlife Service, Kenya Forest Services, Water Resources Authority, Road Authorities and Kenya Power.

**7. National Challenges**

Changes in Government reform policies towards addressing priority areas and emerging issues.

### 2.1.3 Lessons Learnt

The Agency is a non-commercial State Corporation wholly owned by the Government and therefore the financing is from the exchequer.

- Identify, develop and pursue alternative funding sources e.g. Public Private Partnership arrangements;
- Promote use of research, development and innovation in order for the Agency to improve on service delivery;
- Establish an effective framework to enhance collaboration between

the National Government and County Governments;

- Develop and implement Human Resource Instruments;
- Incorporate Corporate Social Responsibility and catchment areas conservation activities during projects` planning and design such as tree planting, providing water harvesting and storage support services;
- Commence stakeholder's engagement, project approvals, land acquisition and Resettlement Action Plan (RAP) early prior to projects` implementation;
- For project impact to be realised incorporate last mile connectivity in projects design;
- Maintain good Development Partners` Relations as it leads to additional funding;
- Continuous Institutional Strengthening for Sustainability building to keep abreast with emerging technological issues; and
- Develop an Environmental Sustainability Plan.

### 2.1.4 Way forward

Despite the challenges facing TWWDA in particular and the Water sector in general, we are committed to ensure that the population within the TWWDA area shall progressively receive the required water and sanitation services as required by the CoK 2010 (the right to water) and Vision 2030 (universal access to water and sanitation). Nevertheless, the demand for water and sanitation is increasing rapidly and need a higher level of water and sanitation infrastructure development. The alignment of this Strategic Plan to the CoK 2010 is a unique opportunity to move the Agency to the next level of development by incorporating the lessons learnt in order to enhance the provision of adequate water and sanitation infrastructure for sustainable development.

## 2.2 Environmental Scan

The environment scans herein conducted generates the required focus to inform the development of TWWDA's strategic direction for the next few years. The TWWDA's current and future situation in relation to its mandate has been conditioned by its resources and capabilities. Stakeholders' functional relationships and roles as well as the governing policies, political, economic, social, technological, and legal (P-PESTEL) factors in its operating environment.

Further analysis on the Threat, Opportunities, Weakness and Strengths (TOWS) gives a detailed review on the major parameters that will impact on TWWDA performance. The formative analysis conducted is detailed below.

### 2.2.1 Strengths, Weaknesses, Opportunities and Threats (SWOT) Analysis

The purpose of the strength, weakness, opportunity and threat (SWOT) analysis is to enable the Agency achieve a strategic fit between the organizational internal skills, capabilities and resources with the external opportunities, so as to minimize the threats to the organization as we maximize on the opportunities. This analysis is presented in table 4 below.

**Table 4: SWOT Analysis Matrix**

| STRENGTHS | WEAKNESSES | OPPORTUNITIES | THREATS |
|---|---|---|---|
| 1. Good working relationships with Development Partners.<br>2. TWWDA is endowed with two national water towers Mt. Kenya and Aberdares and Nyambene hills, which is local.<br>3. Available Water sources at high altitude that permit gravity water systems.<br>4. Experienced personnel.<br>5. Teamwork among staff that can be built upon.<br>6. Positive Corporate image.<br>7. Sound internal control procedures and policies. | 1. The Agency is understaffed in the Technical Department (under the proposed scope).<br>2. Low sewerage coverage.<br>3. Dilapidated water infrastructure.<br>4. Incomplete transfer plan (Assets, Liabilities and Staff).<br>5. Insufficient resources (Financial, human, knowledge management, infrastructural).<br>6. Ageing workforce.<br>7. Low automation levels. | 1. High Demand for water and sanitation services.<br>2. Possibility of Hydropower generation from the gravity water systems.<br>3. Goodwill from stakeholders.<br>4. Enabling legislative framework (CoK 2010 and Water Act, 2016)<br>5. Use of solar energy to drive water pumps for boreholes<br>6. Availability of alternative financing for infrastructure e.g. credit financing and devolved funds.<br>7. Availability of the required skills or services through outsourcing therefore reduce on staff overhead by maintaining lean staff. | 1. Issuance of water abstraction permits based on unreliable data.<br>2. Poor management of water catchment areas.<br>3. Climate change.<br>4. Poor urban planning and high cost of land for infrastructure development.<br>5. Encroachment of catchments areas and wetlands.<br>6. Lack of policy on water storage.<br>7. Political / Community interference.<br>8. Over reliance on development partners for financing.<br>9. Inadequate mechanism for coordination and collaboration between National and County Government on planning, development and maintenance of water and sanitation infrastructure. |

### 2.2.2 TOWS Analysis

This analysis uses the results of the SWOT Analysis to develop strategic solutions for capitalizing on opportunities, minimizing weaknesses and avoiding threats to the operating environment as shown 5 below.

**Table 5: Threats, Opportunities, Weaknesses and Strengths (TOWS) Analysis Matrix**

| SO (Max – Max) Strategies and tactics to use internal strengths to capitalize on external opportunities | WO (Min – Max) Strategies and tactics that improves internal weaknesses by using external opportunities | ST (Max–Min) Strategies and tactics that utilize internal strengths to minimize any external threats | WT (Min – Min) Strategies and tactics to minimize weaknesses and help avoid threats |
|---|---|---|---|
| • Intensify collaboration with relevant stakeholders<br>• Resource mobilization for development, expansion and rehabilitation of infrastructure<br>• Establish processes for outsourcing service providers who will service field equipment and motor vehicles.<br>• Develop and implement a staff retention strategy<br>• Establish continuous team building and motivational programs<br>• Preparation of investment proposals for water works development | • Outsource the required skills or services required<br>• Mobilize funds from GOK and Development Partners to rehabilitate the infrastructure<br>• Utilize available alternative financing for infrastructure.<br>• Introduce cost reduction strategy by utilizing internal staff capacity<br>• Develop and implement succession plans<br>• Develop clear procedures for staff management and career progression | • Enhance advocacy with WRA and NWHSA<br>• Build collaboration with relevant state actors<br>• Enhancing CSR<br>• Creating awareness/ Organizing public sensitization for economical Water Use.<br>• Intensify political lobbying for favorable legislation<br>• Formulate Marketing strategy of Agency`s activities for fundraising | • Stepping up efforts for addressing high NRW (Non-Revenue Water)<br>• Implementing risk-management Policy<br>• Enhancing Institutional Strengthening for Sustainability<br>• Formulating knowledge management framework<br>• Organizational realignment to the new mandate under the Water Act 2016 |

### 2.2.3 P-PESTEL Analysis

This P-PESTEL Analysis looks at the factors within the operating external environment that are policy, political, economic, social, technological, environmental or legal in nature and their implications to the work of the Agency.

Table 6 below; presents Policy, Political, Economic, Social, Technological, Environmental and Legal (P-PESTEL) Analysis for the Agency.

**Table 6: P-PESTEL Analysis Matrix**

| Item | Benefits | Hindrance |
|---|---|---|
| Policy | • **National Water Policy 2020** - To guide the achievement of sustainable management, development and use of water resources in Kenya water sector<br>• **Water Act 2016** It provides the legal framework for the operations of TWWDA.<br>• **Kenya Vision 2030 (MTP III – 2018-2022)** It sets the benchmarks to be achieved by the sector<br>• **Government Policy Co-ordination** | The finalization of review of the policy has taken long.<br><br>The Water Act, 2016 is undergoing a comprehensive amendment.<br>The benchmarks are ambitious given the limited financial and human resources as well as technical capacity<br><br>The TWWDA should advocate for more funding.<br>Lack of inter-ministerial Co-ordination on key projects implementation |
| Political | • COK 2010 Article 43 (1) (d) Provision of Water is an economic and social right (Clean and safe water in adequate quantities)<br>• Political good will for development of water sector<br>Water has been declared a human right under UN Declaration – It is now easier to get funding from development partners | • Due to public awareness there are risks of being sued e.g. when there is a tariff increase or on way leaves<br>• Regional Balkanization – regions are often hostile or non-cooperative with each other<br>• Resistance to water reforms<br>• Interference with orderly and coordinated service provision and equitable provision of water resources<br>• Lack of political will to address sanitation denying millions of men, women and children health and dignity.<br>• Political encouragement to settle in water catchment areas leading to depletion of water resources.<br>• The lack of enforcement of the water rules. |

| Item | Benefits | Hindrance |
|---|---|---|
| Economic | • Ability for community to form self-help groups to mobilize resources for development of water facilities. | • Increased human population resulting to internal migration to urban centres<br>• Failure to pay for water/hostility to regulation of services<br>• Increase in water related diseases<br>• Disputed ownership of water resources<br>• Resistance to give way leaves for construction of water facilities<br>• Increased poverty levels<br>• Cultural attitudes and believes that water is free.<br>• Lack of sense of ownership by the beneficiaries for water facilities resulting to vandalism of pipe fittings<br>• Perception that water is a social good that should be distributed freely<br>• Perception that untreated water is not harmful to users |
| Technol-ogy | • Use modern technology to improve the efficiency of the water services (Leak detection, Use of Smart phones, GIS, SMS Billing, Pre-paid meters, Use of HDPE pipes, GRP pipe (Glass fiber Reinforced Plastic)<br>• Water harvesting technology<br>• Water conservation installations like the cisterns to lower the water demand<br>• Diversification of water delivery<br>• The generation of bio-gas from sewerage treatment plants<br>• Use of ultra-violet rays for water treatment<br>• Use of solar energy for water production<br>• Developing units for treating water at household level | • High initial Capital outlay for most of ICT facilities and installation<br>• The dynamism in the ICT sector<br>• Low level of funding for research and development in the sector |

| Item | Benefits | Hindrance |
|---|---|---|
| Environment/ Ecological | • The formation of WRUA for protection of water bodies<br>• The enactment of EMCA that has enabled establishment of NEMA<br>• There is more concerted effort by the international community to address the global warming | • Threats from the Climate change<br>• Environmental degradation due to human activities like cultivation of catchment areas resulting to high silt load in the water that will require a lot of treatment before it can be used for drinking<br>• The Pollution of water resources from the discharge of hazardous waste materials by industries<br>• Reduction of water resources<br>• High costs of water treatment, environmental degradation (pollution)<br>• Encroachment of Water Towers (Mt. Kenya, Aberdares, Nyambene Hills)<br>• Lack of environmental awareness/ education |
| Legal | • Legislation of EMCA Protecting environment<br>• Water Act 2016 – which provides the legal framework for the operations of the TWWDA.<br>• Water Act 2016 empowers the Agency's to acquire bulk water facilities and pay the loan (Section 69 (2 &3))<br>• Zero rating of Water Services | • Delay of transfer of land where water facilities has been constructed.<br>• Increased cost of compliance due to over legislation e.g. NEMA<br>• Multiple Fees payments (WRA, Forest leases of water Reservoirs, KWS )<br>• Lack of awareness of existence of water appeal Agency leading to many complainants taking cases to courts<br>• Destruction of water pipelines by roads authority<br>• Unnecessary delays in approval of projects due to legislation that does not encourage construction of dams.<br>• Derails project implementation<br>• Conflicting Legal framework<br>• Limited involvement of stakeholders in making laws |

### 2.2.4 Stakeholders Analysis

Stakeholders have certain expectations which should be fulfilled by the Agency in the execution of its mandate. The table 7 below present the outcome of the Agency's stakeholder analysis.

**Table 7: Stakeholders Analysis Matrix**

| Stakeholder | Stakeholder Expectation | TWWDA Expectation | Collaboration |
|---|---|---|---|
| **The Board Members** | • Effective delivery of the Board`s mandate | • Good corporate governance | • Operationalization of the Board`s Mandate |
| **Management and staff** | • A stable and progressive Organization<br>• Competitive terms and conditions of service<br>• Transparency and Accountability<br>• Efficiency and Effectiveness in service delivery | • Meet performance targets<br>• Quality Delivery of Services; | • Implementation of performance Contract;<br>• Continuous improvement in service delivery |
| **Ministry of Water, Sanitation and Irrigation** | • Compliance with the principle of subsidiarity<br>• To deliver on our mandate | • Provide enabling environment<br>• Provide sector policy direction<br>• Stewardship | • Implementation of the water sector reforms<br>• Funds Mobilization for Infrastructure Development |
| **WASREB** | • Compliance with the principle of subsidiary<br>• Comply with the regulatory rules and guidelines<br>• Feedback. | • Provision of regulation guidelines<br>• Feedback<br>• Timely response<br>• Stewardship | • Making of water rules and guidelines<br>• Enforcement of rules and guidelines |
| **Water Tribunal (WaT)** | • Support in timely resolution of conflicts<br>• Pre-empt conflicts and resolve if and when they occur<br>• Support them in creating awareness of their existence to the public<br>• Comply with statutory obligations | • Timely resolution of conflict<br>• Create adequate awareness of their existence to the public | • Disputes resolution in the area of assets development |

| Stakeholder | Stakeholder Expectation | TWWDA Expectation | Collaboration |
|---|---|---|---|
| **WRA** | • Compliance with water permits rules<br>• Support in their conservation efforts | • Conservation of water resources<br>• Manage water resources prudently | • Efficient use of available resources<br>• Advocacy for conservation of Water resources |
| **County Governments** | • To adhere to Policy and Regulation<br>• To facilitate technical assistance<br>• To finance and implement bulk water works. | • County Governments to supply water demand data<br>• Need to know the technical capacity deficiency | • Projects implementation<br>• Sensitization and campaign to communities and consumers<br>• Policy documents formulation<br>• Conflict prevention and management<br>• Project proposal writing |
| **Water Service Providers** | • To facilitate Technical Support and Capacity Building | • Provision of quality water service delivery | • Projects implementation<br>• Sensitization and campaign to communities and consumers<br>• Policy documents formulation<br>• Conflict prevention and management<br>• Project proposal writing |
| **Development Partners** | • Accountability of resources provided<br>• Provide planning data<br>• Provide areas of interventions<br>• Carry out M& E<br>• Provide Information about TWWDA<br>• Accountability<br>• Harmonize our projects, programmes and policies with theirs | • Communicate the windows of opportunities<br>• Capacity building<br>• Funding<br>• Respect our policies and plans | • Funding<br>• Capacity building |

| Stakeholder | Stakeholder Expectation | TWWDA Expectation | Collaboration |
|---|---|---|---|
| **Local PBOs'** | • Provide Information about TWWDA<br>• Accountability | • Capacity building<br>• Funding<br>• Respect our policies and plans | • Funding<br>• Capacity building |
| **Financial Institutions** | • Approach them for partnerships<br>• Meet their funding criteria | • Offer favorable terms | • Funding<br>• Capacity building |
| **Collaborating Ministries e.g. The National Treasury and Planning, Health, Transport and Infrastructure and Ministry of Environment and Forestry** | • Respond to queries<br>• Create awareness of their policies<br>• Meet their obligations in time<br>• Respect the rule of law | • Communicate to them on our undertakings that touch on them in time | • Funding<br>• Capacity building |
| **Consumer Organizations (KAM, Hoteliers, Chambers of Commerce)** | • Offer quality service<br>• Involve them in planning<br>• Consult them of their needs | • Advisory roles on industry needs<br>• Communicate to their members on our products and services | • Funding<br>• Capacity building |
| **External Providers** | • Conduct our businesses transparently<br>• Pay them in time | • Offer high quality products and services<br>• Deliver goods and services in time | • Joint inspection of goods and services supplied<br>• Design of projects<br>• Supervision of works |
| **Communities** | • Offer quality services<br>• Communicate our plans and policies to them<br>• Sensitization and creation of awareness | • Respect the rules of law<br>• Conserve resources | • Conserving catchment areas |

| Stakeholder | Stakeholder Expectation | TWWDA Expectation | Collaboration |
|---|---|---|---|
| **KEWI** | • Our staff train with them regularly<br>• Internship opportunities for their students | • Communicate in time the opportunities for training | • Sensitization of training opportunities<br>• Internship programme |
| **Media** | • Partner with them<br>• Timely communication of upcoming events | • Create positive image of TWWDA<br>• Cover our events for publicity<br>• Sell us to potential Investors/Donors | • CSR<br>• Creating awareness of services<br>• Organization of investment conferences |
| **Political Leaders** | • Involve them in planning for projects<br>• Recognize their input and authority<br>• Engage the leaders in Public Participation forums | • Respect the plans and policies in place<br>• Lobbying and Advocacy<br>• Channel some of the resource in their kitty (NGCDF, Devolved funds) to water projects<br>• Educate their populace | • Resource Mobilization<br>• Advocacy for Marginalized and disadvantaged lots |
| **NEMA, Kenya Forest Service, NCA** | • Involve them in planning for projects | • Provide necessary licenses and authorization | • Joint inspection |

# Chapter 3

# STRATEGIC MODEL

## 3.0 Overview

This chapter presents the strategic model that set out the vision, mission, overall goal, core values, strategic pillars and guiding principles that guide the implementation of this strategic plan. It also outlines the Key Result Areas (KRAs) that inform the focus areas for implementation of the strategic objectives and strategies.

## 3.1 Vision, Mission, Overall goal, Core Values, Strategic Pillars, Philosophy and Guiding Principles

The Agency will be guided by the following strategic foundations over the planning period:

### 3.1.1 Vision

### 3.1.2 Mission

### 3.1.3 Overall Goal

### 3.1.4. Core Values

TWWDA core values constitute the fundamental bedrock beliefs that drive the Agency. These beliefs are essential and must be upheld because they shape the Agency's culture as it seeks to achieve leadership in quality service delivery. TWWDA therefore upholds the following core values:

### 3.1.5 Philosophy

Quality water works for improved livelihood.

### 3.1.6 Guiding Principles

Governance and management of the water sector will be guided by the national values and principles set out in articles 10, 43, 60, 69 and 232 of the Constitution. More specifically, the following principles shall apply:

a. **Institutional collaborative effort:** TWWDA and County governments in its area of jurisdiction shall work in a consultative and collaborative manner with a clear coordination framework to promote the objectives of the sector, taking into account the distinct mandates of each.

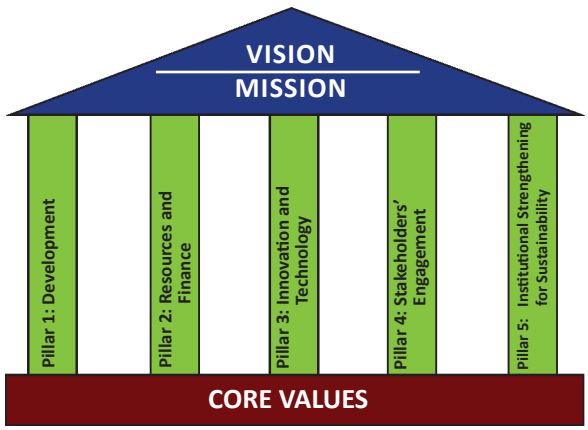
b. **Respect for human rights:** Every sector player shall act in a manner that protects respects and fulfills the human right to water and sanitation. Every Kenyan has a right to clean and safe water in adequate quantities, and to reasonable standards of sanitation.

c. **Equity and inclusivity:** The Agency will strive to promote fairness in development of water works in all its area of operation

d. **Efficiency and value for money:** Every effort should be made in maximizing output per unit of public resource, and in maximizing the expected outcome(s) across the value chain.

### 3.1.7 Strategic Pillars

The Strategic Pillars provide strength and support and in the case of strategy formulation, they hold up the vision and mission. By removing a pillar, the vision is at risk of collapse. Strategic pillars are also known as strategic planks.



TWWDA has five (5) strategic pillars and objectives within its Strategic Plan for the FY 2018- 2022. These strategic pillars are as follows:

**Pillar 1: Development**

The Agency is continuously working to improve efficiency and effectiveness throughout the area of its jurisdiction by developing National public water and sanitation works.

**Pillar 2: Resources and Finance**

Seek and implement new and diverse sustainable sources of operating funds to avoid over-reliance on a particular source, as well as unreliable traditional sources.

**Pillar 3: Innovation and Technology**

Innovation is needed to address the challenges of a changing world. At the same time, innovation is a key factor for value creation. Through focused research and development, the Agency seeks to maintain and expand its position in the national competitive arena. Our activities are aimed at enhancing the performance of existing infrastructure and developing new ones.

**Pillar 4: Stakeholders' Engagement**

Stakeholders engagement offers those who will affect or be affected by the outcomes a chance to voice their opinion. It helps build involvement and a sense of continuation to a new future. This pillar will ensure that the Agency has greater clarity and a shared vision amongst its key influencers.

**Pillar 5: Institutional Strengthening for Sustainability**

Institutional Strengthening for Sustainability is a central pillar of the Agency strategy. It helps in strengthening of the capacity of the Agency to effectively deliver on its Mandate. This will be achieved through enhancement of human capital, ICT infrastructure and work environment.

## 3.2 Key Result Areas/Strategic Focus Areas (KRAs/SFAs)

The strategies are developed around six (6) KRAs, which are in line with the current Agency's mandate, projected scenario and the influence from our operating environment. The strategic objectives are aligned to the Vision

2030 and linked to the Medium-Term Plan III, Sustainable Development Goals, Agenda 2063, and the "Big Four" Agenda. The five (5) key result areas include;

1. Water Coverage
2. Sewerage and Sanitation Coverage
3. Partnerships and Resource Mobilization
4. Research and Technology
5. Stakeholders Engagement
6. Institutional Strengthening for Sustainability

### 3.2.1 KRA 1: Water Coverage

The development of infrastructure and mechanisms for water supply, including bulk water supply systems, remains a challenge especially where inter-basin water transfer is required. This is due to water resources not being equitably distributed across the Country. The escalating costs and long timelines for infrastructure development, related with compensation for land, remain a challenge. There is need to integrate ecosystem services in the design of water systems in order to protect catchments and ground water sources. The planning, development and implementation of investments in cross-county water sources, and water supply infrastructure is impeded by the lack of mechanisms for coordination and collaboration between the national, and concerned county governments.

Access to improved water supply in the Agency's area of jurisdiction has improved over the period 2014/15 to 2018/19 from 48% to 57.5%. Although the coverage has registered an improvement a lot more needs to be done in order to reach the government's development blue print, Vision 2030 target of universal access by 2030.

During the plan period of 2018-2022, the Agency intends to increase access to water in the urban areas from 76% to 85% while in rural areas it will increase from 54% to 70% by pursuing various strategic objectives and strategies outlined in Table 8.

### 3.2.2 KRA 2: Sewerage and Sanitation Coverage

Access to sewerage system in urban areas stands at 8.2% in the Agency's jurisdiction in 2017/2018. Sanitation coverage in the Agency's area stands at 90% in 2017/2018. During the plan period, the Agency

intends to increase the access to urban sewerage system from 8.2% to 12.5% and sanitation coverage from 90% to 95%. The Agency will do this by addressing the dilapidated networks, upgrading and expanding the sewerage systems. In addition, the Agency will collaborate with County Governments on last mile connectivity Investment planning and resource mobilization will be enhanced for sewerage development.

### 3.2.3 KRA 3: Partnerships and Resource Mobilization

The Agency will focus on mobilizing adequate resources to facilitate the Investment to effectively deliver on its core mandate. The Agency will build a strong framework to guide investment planning, entrench sustainable resource mobilization and promote effective and efficient financing in delivering the institutional mandate. The objective of the Agency is to initiate resource mobilization strategies to generate Kshs 20.908 Billion for financing water and sanitation infrastructure development by 2022. In order to ensure prudent use of resource mobilized, the Agency will develop measures to institutionalize and strengthen financial prudence and quality assurance.

### 3.2.4 KRA 4: Research and Technology

Research in water and sanitation infrastructure development, management and maintenance will play an integral role in achieving the Agency's vision. Identifying sources of desirable technology in other utilities both locally and international and facilitating its transfer to the Agency will significantly contribute to enhancement of best practices. TWWDA desires to make corporate research a leading element in strategy by fully integrating at the corporate level. This will ensure that the Agency promotes research, development and adoption of appropriate technology, i.e. Solid waste and wastewater management, climate change adaption measures and water source mapping in the Agency area of jurisdiction.

### 3.2.5 KRA 5: Stakeholders' Engagement

The Agency will focus on creating a framework for engagement with its key stakeholders. Stakeholder goodwill in development of National public water and sanitation works is greatly influenced by the level of engagement with the stakeholders. Subsequently, the stakeholder engagement framework will seek to create facilitative platforms for collaborations; improve complaint handling mechanisms; and avail of information necessary for collaborations.

### 3.2.6 KRA 6: Institutional Strengthening for Sustainability

The KRA entails enhancing the Agency's capacity to effectively deliver on its mandate. To strengthen the Institutional Strengthening for Sustainability and maintain a performance excellence path, the Agency will adopt effective information management system; continually build its human capital; maintain its Quality Management Systems; and ensure safe and conducive work environment. In addition, the agency will strengthen its financial management systems.

## 3.3 Strategic Objectives and Strategies

In order to address the Key Result Areas/Strategic Focus Area identified above, the following strategic objectives, strategies and activities were formulated. The implementation plan which provides the operational framework with activities, performance indicators, timelines, responsible parties and budgets, is provided in Annex I.

1. To increase percentage of urban population with access to safe water from 76% to 85%.
2. To increase Percentage of rural population with access to safe water from 54% to 70%.
3. To increase Percentage of urban population with access to sewerage from 8.2% to 12.5%.
4. To increase Percentage of population with access to improved sanitation from 90% to 95%.
5. To initiate resource mobilization strategies to generate Kshs. 20.908 Billion for financing water and sanitation infrastructure development by 2022.
6. To promotes research, development and adoption of appropriate technology.
7. To enhance stakeholders' confidence
8. To pursue water and sanitation infrastructure development while ensuring human resources, financial and environment sustainability.

The Agency will pursue the strategies enumerated in Table 8 Below in order to achieve the above strategic objectives:

**Table 8: Key Result Areas, Objectives and Strategies**

| Key Result Area/Strategic Focus Area (KRA) | Strategic Objectives | Strategies | Activities |
|---|---|---|---|
| Water Coverage | 1. Increase percentage of urban population with access to safe water from 76% to 85%<br>2. Increase Percentage of rural population with access to safe water from 54% to 70% | Develop water infrastructure. | 1. Construction of:<br>• Chuka Water Supply Infrastructure<br>• Chogoria Water Supply Infrastructure<br>• Kerugoya Kutus Water Supply Infrastructure<br>2. Last Mile Connectivity – Murang'a Urban and Murang'a South<br>3. Construction of small and medium sized dams (e.g Muhoya, Thambo, Kianjogu etc).<br>4. Augmentation of Mathira , Tetu Thegenge and Aguthi Water Project<br>5. Rehabilitation of Community Water Supplies<br>6. Expansion of water supplies in towns of Meru, Kathwana, Runyenjes, Timau, Nkubu, Naromoru, Karatina, Embu, Wanguru and Laare.<br>7. Last Mile Connectivity – Chuka Water Supply Project, Chogoria Water Supply Project and Kerugoya Kutus Water Supply Project. |

| Key Result Area/Strategic Focus Area (KRA) | Strategic Objectives | Strategies | Activities |
|---|---|---|---|
| Sewerage and Sanitation Coverage | 1. To increase Percentage of urban population with access to sewerage from 8.2% to 12.5%<br>2. To increase Percentage of population with access to improved sanitation from 90% to 95% | Develop sewerage and sanitation infrastructure. | 1. Construction of:<br>• Meru Sewerage Infrastructure<br>• Chuka Sewerage Infrastructure<br>• Chogoria Sewerage Infrastructure<br>• Kerugoya/Kutus Sewerage Infrastructure<br>2. Last Mile Connectivity- Othaya Sewerage Project.<br>3. Nyeri Sewerage extension project<br>4. Embu Sewerage extension project<br>5. Planned Sewerage Projects in the towns of Karatina, Naromoru, Dedan Kimathi University of Technology, Runyenjes, Wang'uru, Nkubu and Sagana<br>6. Last Mile Connectivity – Meru Sewerage Project, Chuka Sewerage Project, Chogoria Sewerage Project and Kerugoya/ Kutus Sewerage Project<br>7. Providing exhausters to WSPs |

| Key Result Area/Strategic Focus Area (KRA) | Strategic Objectives | Strategies | Activities |
|---|---|---|---|
| Partnerships and Resource Mobilization | To initiate resource mobilization strategies to generate Kshs 20.908 Billion for financing water and sanitation infrastructure development by 2022. | 1. Develop and implement investment financing Framework<br>2. Diversify funding sources to ensure the Agency has a broad funding base.<br>3. Partner and collaborate with County Government on Last Mile connectivity. | 1. Develop a Resource Mobilization Policy for the Agency covering both internal (Government of Kenya) and external resources (Development Partners).<br>2. Develop viable project financing proposals.<br>3. Coordinate the preparation of the water investment and financing plan with the County Governments. |
| Research and Technology | To promote research, development and adoption of appropriate technology. | Investment in research and development that is able to increase corporate research output. | 1. Establishing a research unit by 2021<br>2. Develop a research policy in line with water sector objectives relevant to the water works development<br>3. Develop and adopt appropriate water and sanitation technologies<br>4. Improve data collection and information and knowledge management for effective planning and decision making through acquisition of appropriate software<br>5. Enhance institutional and human capacity on research and information management through training.<br>6. Initiate collaboration initiatives with institutions of higher learning on areas of water and environment |

| Key Result Area/Strategic Focus Area (KRA) | Strategic Objectives | Strategies | Activities |
|---|---|---|---|
| Stakeholders' Engagement | To enhance stakeholders' confidence | 1. To increase customer satisfactions<br>2. To improve complaint resolutions<br>3. To enhance citizen participations<br>4. To create facilitative collaborations with county governments and institutions to enhance knowledge of the sector.<br>5. Stakeholder Mapping | 1. Conduct customer satisfaction surveys and implement the recommendations<br>2. Provide platforms for advice and support (seminars, shows etc)<br>3. Operationalise complaint resolution system<br>4. Identify county specific issues<br>5. To carry our engagement forums with top county leadership<br>6. Conduct county meetings to address counties issues<br>7. Provide technical support to WSPs on request.<br>8. Identify and update stakeholders' list<br>9. Analyze and prioritize the interest of stakeholders in each project |
| Institutional Strengthening for Sustainability | To pursue water and sanitation infrastructure development while ensuring human resources, financial and environment sustainability. | 1. Develop and Implement investment financing framework<br>2. Promote adoption of effective Information Management System<br>3. Smooth transition to the Water Act 2016 by 2021<br>4. Review TWWDA Organizational structure by 2019. | 1. Develop a resource mobilization policy<br>2. Develop an ICT Strategy aligned to the Agency's strategy<br>3. Implementation of the ERP<br>4. Develop and operationalize Human Resource Instruments<br>5. Implement the Agency's risk management policy |

Mukangu Treatment Works, Embu County.

# Chapter 4

# IMPLEMENTATION AND COORDINATION FRAMEWORK

## 4.0 Overview

This chapter gives an overview of the structure of the organization, the key departments and division. It presents the human capital development strategies, financial resources, resource gaps, and mobilization strategies. It also looks at the risk analysis and mitigation measures and risks monitoring system.

## 4.1 Structure of the Organization

The Agency has undertaken reorganization of its functions and human capital to align itself to the Key Result Areas. The restructuring process was informed by the review of the 2013-2017 Strategic Plan where it emerged that for effectiveness and efficiency in service delivery, it was necessary that a restructuring process be undertaken. The new structure put emphasis on the core mandates of the Agency and have the following Departments:

1. Office of the Chief Executive Officer
2. Technical Services Department
3. Finance & Resource Mobilization Department
4. Corporate Services Department
5. Research, Strategy and Compliance Department

### 4.1.1 The Board Members (BM)

The leadership of the Agency is entrusted to the Board Members headed by a Chairperson. The BMs report to the Cabinet Secretary in-charge of the Ministry of Water & Sanitation and Irrigation who is the appointing authority. The Board Members are responsible for providing strategic leadership and oversight to Management. Specifically, the Board Members are mandated to undertake the following:

1. Provide leadership in the management of the organization and in particular articulating the goals of the organization and planning how these goals are achieved;
2. Ensure that good corporate governance is integrated at all levels of the organization;
3. Provide guidance to management in the development of policy in key result areas of the organization; approving policy and ensuring management compliance with the Agency approved policy;
4. Monitor management and corporate performance against the Strategic Plans and Budgets approved by the Board.
5. Nurture positive relationship with Stakeholders;
6. Oversee compliance with statutory and regulatory framework for the organization.

### 4.1.2 The Office of Chief Executive Officer

The day-to-day operation of the Agency is delegated to management headed by the Chief Executive Officer who is responsible for providing leadership in formulation, promotion and implementation of strategies and policies of the Agency in line with its mandate. The Chief Executive Officer is supported by departmental heads, senior managers and officers. The Chief Executive officer on behalf of management reports to the Board Members. The management has the responsibility of implementing the strategic plan and reporting to the Board on the progress towards the achievement of the planned activities. Management sets the strategic goals of the organization and make decisions on how the overall organization will operate.

Under the Chief Executive Office, administratively, the following three divisions report to the Chief Executive Officer;

**1. Internal Audit Division**

The department is responsible for the provision of independent

and objective assurance by bringing a systematic, disciplined approach to evaluation and improvement of the effectiveness of risk management, control and governance process.

2. **Supply Chain Management Division**

   The division is charged with the responsibility of overseeing the overall management of the Procurement function, offering technical advice on procurement issues and ensuring compliance with procurement policies, rules and regulations.

3. **Corporation Secretary and Legal Services Division**

   The mandate of this division is to provide both Board's Secretariat as per Clause 1.21 of Mwongozo Code of Governance for State Corporations and Legal Services to the Agency.

### 4.1.3 Technical Services Department

The Department is headed by a Chief Manager who reports to the CEO on matters of water and sanitation development. The Department exists pursuant to the provisions of section 68(a,b),(c),(d) and (e) of the Water Act 2016 to plan, develop, operate & maintain water & sanitation infrastructure The Department has three (3) key divisions responsible for planning, design and construction of water & sanitation infrastructure. The heads of divisions are Managers and report to the Chief Manager, Technical Services. The department also ensures that safeguard standards are adhered to including environment, social, economic, resettlement and Health and safety requirements. Equally, the Department oversees prudent allocation of available resources for equitable distribution between the counties and also maintains Geographical Information Systems for planning of resource utilization and water services networks. The divisions under this department include; Technical, Planning and Design ,Water and Sanitation Infrastructure and Asset Management, Liaison & Capacity Development.

The functions of these divisions include;

1. **Technical, Planning and Design Division**

   The overall responsibility of the division is to direct the planning and design of construction works. The division is also responsible for carrying out effective consultation with all key stakeholders at the conceptual and planning stages. It oversees the preparation of water and sanitation infrastructure development plans, investment

proposals, feasibility studies, designs and technical standards of water and sanitation facilities.

2. **Water and Sanitation Infrastructure Division**
   The division is responsible for directing, coordinating, control and management of the Agency's technical operations and ensure good development and maintenance of infrastructure for quality water services.
3. **Asset Management, Liaison & Capacity Development Division**
   The overall objective of the division is to ensure proper management of water and sanitation assets. It also develop/adopt technical standards for incorporation into service agreements with county government, joint committee, authority of county governments or water services provider.

### 4.1.4 Department of Finance and Resource Mobilization

The Department is headed by the Chief Manager who reports to the Chief Executive Officer. The department is responsible for coordinating the preparation of the Agency's financial planning, analysis, budgeting, debt management and reporting on the Agency's financial performance. The department is also responsible for spearheading resource mobilization. The department has two (2) divisions namely Finance & Accounts and Resource Mobilization Divisions.

Their functions are:-

1. **Finance and Accounts Division**
   The Division is charged with ensuring prudent management of financial resources and the reporting thereof within the existing legal framework.
2. **Resource Mobilization and Investment Division**
   The division is charged with developing new business, securing new and additional resources for the Agency.

### 4.1.5 Department of Corporate Service

The department is responsible for providing strategic leadership and direction in the provision of the Corporate Services by coordination and management of all activities in the department to ensure efficient and effective execution of the Agency's objective in line with the Agency's Strategic Plan. The Department is headed by the Chief Manager who

reports to the Chief Executive Officer. The overall responsibility is managing the, Human Capital & Administration function, ICT function and Communication & Public Relations functions of the Agency, and coordinating office processes and procedures to ensure organizational and operational effectiveness and efficiency. The department has three divisions namely;

1. **Human Resource and Administration Division**
   The division is responsible for Developing, reviewing and implementing human resource and administration systems, policies and procedures that support realization of goals and objectives of the organization.
2. **Corporate Communications and Public Relations Division:** The division will be responsible for the management of the corporate communication, public relations and the Agency's branding to enhance quality service delivery.
3. **Information and Communication Technology Division:** The division is responsible for overseeing all ICT operations of the organization and advising the management and the Agency on the formulation, development and implementation of ICT policies and procedures. It is also responsible for preparation and maintaining a comprehensive information management system for posterity. It also ensures linkage of the Information system with the developed infrastructure.

### 4.1.6 Research, Strategy and Compliance

The Department is headed by the Chief Manager who reports to the Chief Executive Officer. The department is responsible for spearheading corporate research, strategy quality assurance and risk management. The department has two (2) divisions namely Research & Strategy Division and Quality Assurance & Risk Management Division.

Their functions are:-

1. **Research and Strategy Division**
   The division is responsible for coordinating research and innovation in the Agency. The division is also responsible for the development of strategic policy initiatives in line with the MTPF guidelines and

also to coordinate the implementation of both the performance contract and realization of the Agency's strategic objectives.

2. **Quality Assurance & Risk Management Division**

   The Division is responsible for Risk management coordination and Quality Assurance in the Agency.

## 4.2 Staff Establishment

The staff establishment is organized on the premise of an inverted pyramid where the first line of Service is the four (4) core departments of **Technical Services, Finance & Resource Mobilization, Research, Strategy & Compliance** followed by the Support department of **Corporate Services** and finally the overseer, which is the office of the Chief Executive Officer. It is proposed that recruitment will be done in, phases to take care of the expanded mandate and succession management. The proposed staff establishment is summarized in table 9 below;

**Table 9: Approved Staff Establishment**

| Department | Authorized | In post | Variance |
|---|---|---|---|
| **Chief Executive Officer's Office** | 5 | 4 | 1 |
| (i) Internal Audit Division | 3 | 3 | 0 |
| (ii) Corporation Secretary & Legal Division | 3 | 1 | 2 |
| (iii) Supplies Chain Management Division | 3 | 3 | 0 |
| **Technical Services department - Chief Manager, Technical Services' Office** | 5 | 4 | 1 |
| (i) Technical Planning & Design Division. | 10 | 6 | 4 |
| (ii) Water and Sanitation Infrastructure Division | 18 | 9 | 9 |
| (iii) Asset Management Liaison & Capacity Development Division | 15 | 9 | 6 |
| **Finance & Resource Mobilization department - Chief Manager, Finance & Resource Mobilization's Office** | 2 | 1 | 1 |
| (i) Finance & Accounts Division | 4 | 6 | -2 |
| (ii) Resource Mobilization Division | 2 | 0 | 2 |
| **Corporate Services department - Chief Manager Corporate Services' Office** | 2 | 0 | 2 |
| (i) HR & Administration Division | 17 | 16 | 1 |
| ii) ICT Division | 3 | 3 | 0 |

| Department | Authorized | In post | Variance |
|---|---|---|---|
| iii) Corporate Communications and Public Relations Division | 2 | 2 | 0 |
| **Research strategy and compliance - Chief Manager, Research Strategy and Compliance's Office** | 2 | 0 | 2 |
| (i) Research & Strategy Division | 9 | 3 | 6 |
| **Total** | **105** | **70** | **35** |

### 4.2.1 Human Capital Development Strategies

The Agency will put in place human capital strategies to develop its staff so as to effectively deliver on its mandate. This will entail; enhancing staff competencies, improving working environment, enhancing performance management, succession management and enhancing knowledge management.

## 4.3 Financial Resources

The financial resources will be mobilized mainly from the exchequer and development partners. Other additional avenues of resource mobilization that the Agency will utilize will be through collaborations with County Governments and commercial financing. The total amount of financial resources required to effectively implement this strategic plan is Ksh. 20.908 Billion as summarized in table 10 below:

**Table 10: Financial Resources Requirements**

| Resources Requirements | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **No** | **Key Result area** | **Baseline (Kshs m) 2017** | **Projected Estimates (Kshs' m)** | | | | | |
| | | | **2018/19** | **2019/20** | **2020/21** | **2021/22** | **2022/23** | **TOTAL (Kshs - m)** |
| 1. | Water Coverage | 753 | 1228 | 1,715 | 955 | 4755 | 3425 | **12,078.00** |
| 2. | Sewerage and Sanitation Coverage | 940 | 1241 | 2,200 | 1275 | 2050 | 1675 | **8,441.00** |
| 3. | Partnership and Development | 10 | 13 | 13 | 13 | 13 | 38 | **90.00** |
| 4. | Research and Development | 10.26 | 12.54 | 12.72 | 12.54 | 12.54 | 8.81 | **59.15** |
| 5. | Stakeholder Engagement | | | | 1.2 | 1.9 | 1.9 | **5.0** |
| 6. | Institutional Strengthening for Sustainability | 48.9 | 54.5 | 48.3 | 40 | 39.8 | 52.1 | **234.70** |
| | **TOTAL IN KSHS** | **1,762.16** | **2,550.04** | **3,990.02** | **2,296.54** | **6,871.34** | **5,199.91** | **20,907.85** |

### 4.3.1 Resource Gaps

The funding of the programs and projects will come from the Government of Kenya (GoK) through the exchequer releases, Development Partners, and Public Private Partnerships (PPPs) collaboration. The Agency requires KSh. 20.908 billion to implement the Strategic Plan over the five-year period. It is projected that Ksh. 8.599 billion will be total financial allocation by GoK and Development Partners. This leaves a funding gap of Ksh. 12.309 billion which will be mobilized through Kenya Pooled water fund, commercial financing, equalization fund and endowment fund.

### 4.3.2 Mobilization Strategies

The Agency will mobilize resources from different sources including Internally Generated Funds, Exchequers Funds from GoK, Development Partners and PPPs among other sources. In order to finance this strategic plan in the medium term, the Agency will source for funds from the Government, development partners and private investors (PPPs). In the long term the Agency plans to achieve financial sustainability by progressively innovating new inward-looking financing models for infrastructure rehabilitation and expansion. The identified sources of financing available to finance capital expenditure are indicated in table 11 below:

**Table 11: Sources of Funds**

| No | Source of Funding | Summary of how it will be realized |
|---|---|---|
| 1. | GOK | The Government of Kenya through the Ministry of Water & Sanitation and Irrigation is committed to progressive attainment of the right to water. The Agency commits to continue working in collaboration with the Ministry in the implementation of public water and sanitation works in order to reach underserved and unserved areas and to renew aging infrastructure. |
| 2. | Mutual funds | The Agency will collaborate with county governments to develop joint financing proposals for the development of Public water and sanitation works within the various counties in our area of jurisdiction. |

| No | Source of Funding | Summary of how it will be realized |
|---|---|---|
| 3. | Technical Support | The Agency will create a consultancy function responsible for capacity building within the Counties and to the various WSPs across the Counties. |
| 4. | Loan repayment Fees | There is a provision under the Water Act that other than loan repayment, no other fees shall be charged for water provision. The loan repayment amounts will continue to be charged under the tariffs. The Agency will develop a framework to guide the recovery of loan amounts from the operator before any new loans are taken and the same will be ensured at the point of transfer. |
| 5. | Development Partners | Investment requirements for water supply and sanitation infrastructure is normally very high and with low rate of return. There are a few Private organizations that are willing to invest in large WSS projects because of lack of awareness of investment opportunities in this field. The Agency will seek donor support, especially for development of Water and Sanitation infrastructures in areas with no adequate water services through grants and concessional loans. |
| 7. | Public Private Partnerships (PPP) | The Agency will source funds from the market through Public private partnership |

## 4.4 Risk Analysis and Mitigation Measures

This section analyses risks which could affect the corporate performance in terms of implementation of planned activities in the organization strategy. The risks are analysed in the context of the probability of their occurrence, likely impacts and mitigation strategies. They include risk relating to the long-term performance of the organisation as well as medium term and the responsible officer. Summary of risks identified are in table 12 below;

**Table 12: Risk Analysis and Mitigation Measures Matrix**

| Risk Category | Key areas/Risk | Level of risk | Potential impact | Mitigation strategy | Responsibility |
|---|---|---|---|---|---|
| Strategic | Failure to achieve strategic plan objectives | High | Not achieving the Agency's mandate | Continuous monitoring of project/activities.<br>Align annual work plans and Performance Contract to the strategic plan<br>Develop adequate implementation framework<br>Constitute Monitoring & Evaluation committee to track and report on strategic plan implementation on annual basis. | BM |
| | Withdrawal of Development Partner support | High | Failure to implement planned projects | Enhanced resource mobilization | CEO |
| | Failure to implement policies and procedures | Medium | Poor service delivery | Ensure adherence to the implementation of Agency's policies and procedures<br>Undertake compliance audits | CEO |
| | Lack of oversight and strategic focus | Medium | Total organizational failure | Agency that is well versed with the sector<br>Adequate induction and training | BM |
| | Biased investment planning | High | Inequality in resource allocation<br>Skewed allocation of projects within Agency's jurisdiction area | Prioritization of projects during the investment planning<br>Ensure availability of a stakeholder engagement | CEO |

| Risk Category | Key areas/Risk | Level of risk | Potential impact | Mitigation strategy | Responsibility |
|---|---|---|---|---|---|
| Operational | Inadequate procurement process | High | Incompetent contractors, consultants and service providers<br>Delay in projects implementation and poor workmanship | Adherence to provisions of procurement laws and procedures<br>Conduct due diligence<br>Appraise external service providers | Manager, Supply Chain Management |
| | Delay in obtaining approvals from parent Ministry and other government agencies | High | Budget overrun<br>Delay in project implementation | Timely preparation and processing of project approval documents/licences<br>Acquire land at project inception stage | CEO |
| | Inadequate human capacity development | Medium | High staff turnover<br>Low performance<br>Reduced staff morale | Strengthen staff capacity.<br>Align the staff establishment to the needs of the Agency<br>Introduce various incentives to motivate and retain staff<br>Provide staff with tools, equipment and conducive work environment | Manager Human Resource Management and Administration |
| | Ineffective Communication | Medium | Bad reputation<br>Poor public image | Develop and sensitize staff on communication policy<br>Good media relations | Chief Manager, Corporate Services |

| Risk Category | Key areas/Risk | Level of risk | Potential impact | Mitigation strategy | Responsibility |
|---|---|---|---|---|---|
| | Inadequate budgeting process | High | Inadequate funding<br>Misallocation of funds | Adherence to Public Finance Management Act and The National Treasury and Planning Guidelines on Budget preparation | Chief Manager, Finance and Resource Mobilization |
| Financial | Fluctuations in forex exchange, interest rates and material costs. | High | Increase in project costs | Hedging against future forex fluctuations<br>Ensure milestone based contractual engagement | Chief Manager, Finance and Resource Mobilization |
| Technological Risk | Rapid technological advancement | Medium | Obsolete and obsolescent technology. | Keep abreast with current technology advances<br>Ensure ICT budget is realistic and integrated into overall financial plan<br>Integrate ICT within Agency's activities | Manager, ICT |
| | Cyber crime Exposures occasioned by reliance on technology | Medium | Poor public image<br>Loss of data and information | Enhance system security controls<br>End user sensitization | Manager, ICT |

| Risk Category | Key areas/Risk | Level of risk | Potential impact | Mitigation strategy | Responsibility |
|---|---|---|---|---|---|
| Governance | Non-compliance with Laws, Regulations and Financing agreements | Medium | Termination of Financing Agreements<br>Adverse audit opinion<br>High litigation costs<br>Bad corporate reputation | Ensure 100% compliance.<br>Carry out regular legal/compliance audits | Chief Manager, Research, Strategy and Compliance Manager, Internal Audit and Assurance |
| | Political interference | Medium | Political actions may delay/ stall project implementation<br>Unprioritized projects<br>Community rivalry | Ensure political buy-in in project implementation.<br>Sensitize the political class on water governance.<br>Stakeholder involvement in project planning and implementation. | BM<br>CEO |
| Environmental Risk | Climate change; floods, drought, pollution, landslides | High | Environmental degradation<br>Dwindling water sources<br>High cost of water and sanitation infrastructure development | Compliance with Environmental laws<br>Develop a climate mitigation plan<br>Sensitization of the public on the environmental issues<br>Insurance against risks<br>Tree Planting | CEO<br>Chief Manager, Technical Services |

| Risk Category | Key areas/Risk | Level of risk | Potential impact | Mitigation strategy | Responsibility |
|---|---|---|---|---|---|
| Legal risks | Inconsistencies and gaps in Water Act 2016 | High | Conflict among government agencies and counties | Comprehensive review of the Water Act 2016<br>Enhanced stakeholders' engagement | Corporation Secretary and Manager Legal Services |
| | High number of litigation cases | Medium | Bad reputation<br>High Costs of litigation | Use ADR mechanism e.g. negotiation, mediation, conciliation, arbitration and negotiation on out of court | Corporation Secretary and Manager Legal Services |
| Ethical risks | Failure to adopt staff culture and code of ethics applicable to all staff working with the Agency | Medium | Wrong organizational culture and unethical behavior<br>Corruption | Develop, communicate and enforce code of ethics.<br>Tone at the top; lead by example (ethical corporate culture) | Manager, Human Resource Management and Administration |

## 4.5 Risks Monitoring System

The Agency will establish a Risk Monitoring System for mitigating the impact of risks. The components of the System are:

(i) A Risk Management Policy Framework

(ii) A Risk Management Committee composed of all Heads of Departments and Divisions to be chaired by the CEO.

(iii) A Risk Management Champions (RMCs) to harmonize and oversee the risk management activities in all Departments. These activities include risk identification; risk assessment; as well as the development and implementation of appropriate mitigation measures. Another critical activity for the RMC will be the development of early warning indicators for risks on its radar.

# Chapter 5

# MONITORING, EVALUATION AND REPORTING FRAMEWORK

## 5.0 Overview

This chapter covers the overview of the Agency Monitoring, Evaluation and Reporting Framework that shall be used to monitor and report on implementation of the Strategic Plan. The Chapter also outlines how the Plan will be reviewed.

## 5.1 Monitoring

### 5.1.1 Project Implementation and Coordination Team

The Agency will strengthen its M&E unit to coordinate and provide technical support to various project implementation teams and management. The monitoring and evaluation system at the Agency include;

1. Project Implementation Teams - PITs are responsible for technical support to the M&E committee and ensure provision of monthly progress reports and data to support the committee.
2. Monitoring and Evaluation Committee - The committee is responsible for development, validation of data and operationalization of M&E framework, plans, and M&E policies and backstopping of PITs. It will also coordinate monitoring and progress reporting to different stakeholders or agencies. It will undertake the development of

M&E tools, policies, standards and guidelines to facilitate effective implementation of M&E activities and utilization of resources. Finally, the committee will purpose to and undertake various evaluation studies to determine the projects impact or value for money.

The key documents that will provide the basis for M&E will include this Strategic Plan, annual performance contracts, annual work plans, annual budgets and expenditure reviews, staff appraisal reports and project progress reports. The reports generated from M&E exercises will be widely shared with both internal and external stakeholders through various communication channels such as management meetings, mails, social media, website and stakeholders' forum.

### 5.1.2 Monitoring Methodologies

Monitoring of the Strategic Plan 2018-2022 implementation is instituted in order to continuously and periodically check progress against set targets and to determine whether activity implementation is on course towards achievement of set objectives and goals. The Strategy will be monitored particularly the projects being implemented on compliance, process, performance, operations and impact.

**Table 13: Projects Monitoring Matrix**

| Monitoring type | Description | Frequency |
|---|---|---|
| Compliance monitoring | Compliance monitoring | Quarterly |
| Process monitoring | Monitoring progress of the project towards the intended results. This kind of monitoring will measure the inputs, activities and outputs. | Quarterly |
| Performance monitoring | Site meetings, follow ups | As scheduled |
| Annual Operations Monitoring | The Annual Joint Operations Monitoring Exercise is premised on project follow-up, which focuses upon the post-commissioning phase in order to assess and increase long-term sustainability. | Annual |
| Impact/Outcome strategic monitoring | (i) Direct impacts (early on) and eventual outcomes (somewhat later)<br>(ii) Consequences direct or indirect of the results. | Annual |

## 5.2 Evaluation Mechanism

The evaluation mechanism will involve analyzing our Strategic Plan and accessing how well the Agency performed against overall achievements of the set goals. The Agency will use the following Strategy Evaluation Assessment matrix in table 14 below.

**Table 14: Strategy Evaluation Assessment Matrix**

| Changes occurred in internal strategic position | Changes occurred in external strategic position | Satisfactory progress towards attaining stated goals | Action to be taken |
|---|---|---|---|
| **No** | No | No | Take corrective action |
| **Yes** | Yes | Yes | Take corrective action |
| **Yes** | Yes | No | Take corrective action |
| **Yes** | No | Yes | Take corrective action |
| **Yes** | No | No | Take corrective action |
| **No** | Yes | Yes | Take corrective action |
| **No** | Yes | No | Take corrective action |
| **No** | No | Yes | Continue existing strategy |

## 5.3 Reporting and Progress Review

To streamline results reporting across the Agency, annual progress report (APR) will be presented to the Chief Executive Officer on an annual basis. This report will be produced in August every year and will include progress reports and financial performance. This report will also identify key challenges and possible time bound mitigation and resolution mechanisms that can be monitored.

## 5.4 Annual Review

The Strategic Plan will be reviewed annually to ensure that necessary changes are effected and the organization remains on track in implementation of its activities. Mid-term and end term evaluation will also be undertaken to determine effectiveness, efficiency, sustainability, relevance and equity in projects being implemented. These will inform future planning.

# ANNEX I: IMPLEMENTATION MATRIX

| KEY RESULT AREA | STRATEGIC OBJECTIVE | STRATEGY | EXPECTED OUTCOME | EXPECTED OUTPUT | OUTPUT INDICATORS | TARGET FOR 5 YEARS | TARGET 1 | | | | | BUDGET (Mn) | | | | | RESPONSIBILITY |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | 2018/2019 | 2019/2020 | 2020/2021 | 2021/2022 | 2022/2023 | 2018/2019 | 2019/2020 | 2020/2021 | 2021/2022 | 2022/2023 | |
| Water Coverage | 1. Increase percentage of urban population with access to safe water from 76% to 85% | Develop water infrastructure. | Additional 174,363 People served | 18No. Urban Water Infrastructure Constructed | % of Urban Population Served | Increase From 76% to 85% (9%) | 0.3% (5,812) | 0.3% (5,812) | 0.4% (7,749) | 3% (58,121) | 5% (96,868) | 1,228 | 1,715 | 955 | 4,755 | 3,425 | Chief Manager , Technical Services |
| | 2. Increase Percentage of rural population with access to safe water from 54% to 70% | | Additional 904,262 People served | 12 No. rural waster infrastructure constructed | % of Rural Population Served | Increase From 54% to 70% (16%) | 2% (56,516) | 3% (56,516) | 3% (113,033 | 4% (282,582) | 5% (395,615) | | | | | | Chief Manager , Technical Services |
| Sewerage and Sanitation Coverage | 1. Increase Percentage of urban population with access to sewerage from 8.2% to 12.5% | Develop sewerage and sanitation infrastructure | Additional 45,000 people have People served | 18No. Sewerage Constructed | % of Urban Population Served | Increase From 8.2% to 12.5% (4.3%) | 0.3% (3,140) | 0.3% (3,140) | 0.4% (4,185) | 1% (10,465) | 2.3% (24,070) | | | | | | Chief Manager , Technical Services |
| | 2. Increase Percentage of rural population with access to improved sanitation from 90% to 95% | | Additional 722,000 People have improved sanitation | Sanitation Infrastructure constructed | % of Population With improved sanitation | Increase From 90% to 95% (5%) | 1% (144,400) | 1% (144,400) | 1% (144,400) | 1% (144,400) | 1% (144,400) | | | | | | Chief Manager , Technical Services |

| KEY RESULT AREA | STRATEGIC OBJECTIVE | STRATEGY | EXPECTED OUTCOME | EXPECTED OUTPUT | OUTPUT INDICATORS | TARGET FOR 5 YEARS | TARGET 1 | | | | | BUDGET (Mn) | | | | | RESPONSIBILITY |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | 2018/2019 | 2019/2020 | 2020/2021 | 2021/2022 | 2022/2023 | 2018/2019 | 2019/2020 | 2020/2021 | 2021/2022 | 2022/2023 | |
| Research and Technology | To promote research, development and adoption of appropriate technology. | Investment in research and development that is able to increase corporate research output. | Improvement In efficiency and effectiveness in delivery of services | 1 Research Project Supported<br><br>1 Technology Adopted and applied | No of Research Projects Funded<br><br>No of Technologies Adopted | 2 | 0 | 7 | 9 | 9 | 7.2 | 13.54 | 13.72 | 13.54 | 13.54 | 9.8 | Chief Manager, Research, Strategy and Compliance |

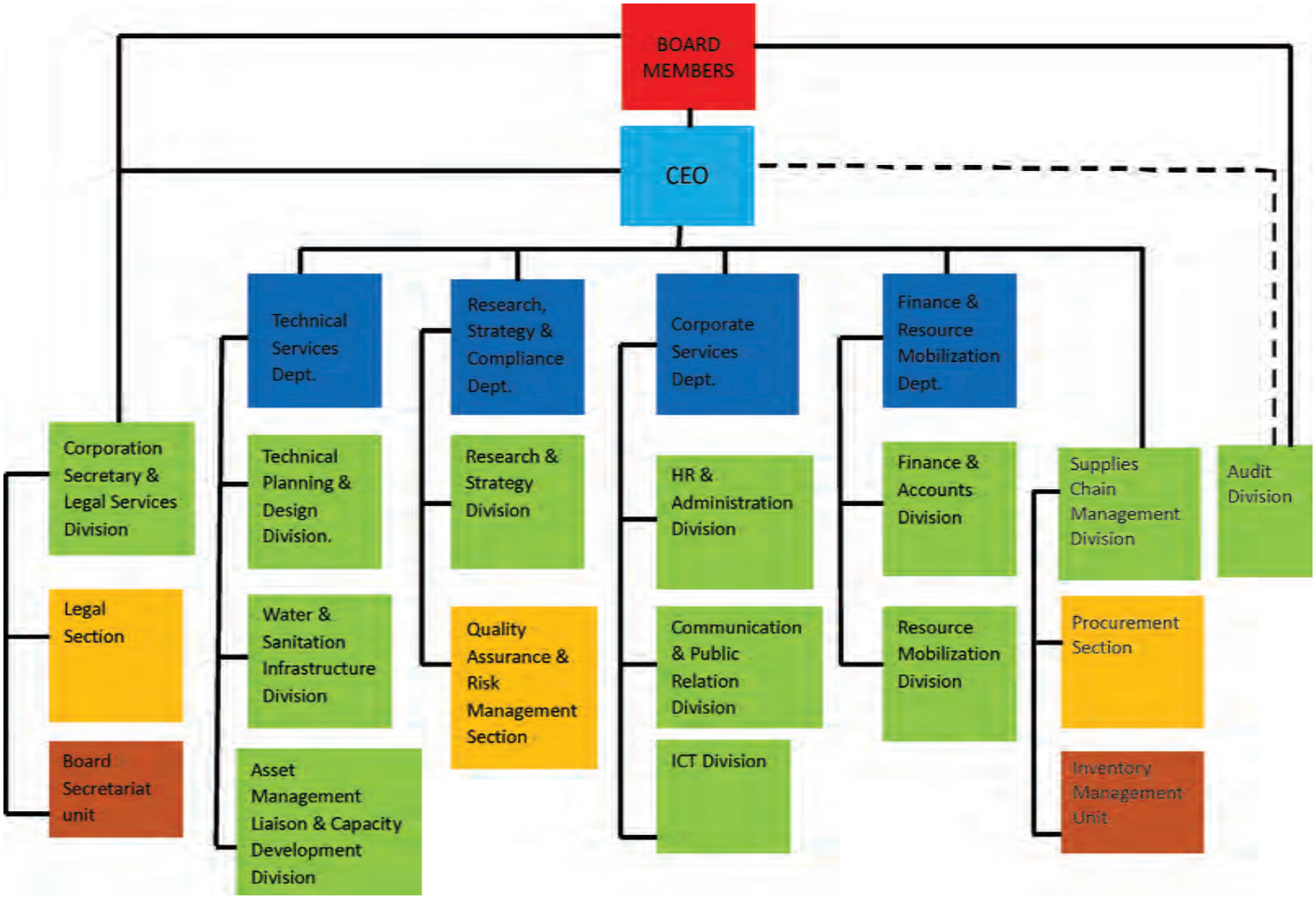
[1]This activity in collaboration with other players

| KEY RESULT AREA | STRATEGIC OBJECTIVE | STRATEGY | EXPECTED OUTCOME | EXPECTED OUTPUT | OUTPUT INDICATORS | TARGET FOR 5 YEARS | TARGET 1 | | | | | BUDGET (Mn) | | | | | RESPONSI-BILITY |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | 2018/ 2019 | 2019 /2020 | 2020/ 2021 | 2021/ 2022 | 2022/ 2023 | 2018/ 2019 | 2019 /2020 | 2020/ 2021 | 2021/ 2022 | 2022/ 2023 | |
| Stake-holders' Engage-ment | To enhance stakeholders' confidence | 7. 1. To increase customer satisfactions<br>8. 2. To improve complaint resolutions<br>9. 3. To enhance citizen partici-pations<br>10. 4. To create facilitative collaborations with county governments and institutions to enhance knowledge of the sector.<br>11. 5. Stakeholder Mapping | Customer confidence enhance<br>Complaint resolutions mechanisms in place<br><br>Participation enhanced | Customer Survey report<br><br>Complaint System<br><br>WSP Collabora-tive Meetings<br><br>Annual Stake-holder confer-ence<br><br>List of stakehold-ers | No of customer survey conducted<br><br>Complaint han-dling system<br><br>Public participa-tion forums<br><br>No of forums<br><br>No of Conf<br><br>No of County meetings<br><br>No..of Stakeholders Identified | 4<br><br>4 | | 1 | 1<br><br>1<br><br>2 | 1<br><br>1<br><br>2<br><br>1 | 1<br><br>2<br><br>2 | | | 0.8<br><br>0.2<br><br>0.2 | 0.8<br><br>0.2<br><br>0.2<br><br>0.5<br><br>0.2 | 0.8<br><br>0.2<br><br>0.2<br><br>0.5<br><br>0.2 | |
| Institu-tional Strength-ening for Sustain-ability | To pursue water and sanitation in-frastructure develop-ment while ensuring human resources, financial and environment sustain-ability. | 1. Promote adoption of effective Information Management System<br>2. Smooth transition to the Water Act 2016<br>3. Review TWWDA Organizational structure | | 1. Develop an ICT Strategy aligned to the Agency's strategy<br>2. Implementa-tion of the ERP<br>4. Develop and operational-ize Human Resource Instruments<br>5. Imple-ment the Agency's risk man-agement policy | | | | | | | | 54.5 | 48.3 | 40 | 39.8 | 52.1 | Chief Manager, Corporate Services<br>Chief Manager Finance and Resource Mobilization |

# ANNEX II: MONITORING AND EVALUATION

| Key Result Area | Outcome | Key Performance Indicator | Baseline 2017/2018 | Targets | | Responsible Dept./Division |
|---|---|---|---|---|---|---|
| | | | | Mid- Term Period Target (2020/21) | End Term Period Target (2022/23) | |
| **KRA 1: Water Coverage** | Additional 174,363 People served in urban areas | % of urban population with access to water | 76 | 77 | 85 | Technical Services |
| **KRA 2: Sewerage and Sanitation Coverage** | Additional 45,000 People served | % of urban population with access to Sewerage Services | 8.2 | 9.2 | 12.5 | Technical Services |
| | Additional 722,000 People have improved sanitation | % of rural population with access to improved sanitation | 90 | 93 | 95 | Technical Services |
| **KRA 3: Partnerships and Resource Mobilization** | Ksh.20.908 Billion Mobilized | Amount of money mobilized | 0.9 Billion | 6.1 Billion | 8.1 Billion | Finance & Re-source Mobilization |
| **KRA 4: Research and Technology** | Improvement in efficiency and effectiveness in delivery of services | No. of research outputs/ Technologies adopted | NA | 1 | 2 | Research strat-egy and compliance |
| **KRA 5: Stakeholders Engagement** | Improved stakeholder confidence | Customers' Satisfaction index | 77.9 | 81 | 83 | Corporate Services |
| **KRA 6: Institutional Strengthening for Sustainability** | Enhanced institutional performance | Work environment satisfaction index | NA | 81 | 83 | Corporate Services |

# ANNEX III: TWWDA APPROVED ORGANIZATION STRUCTURE



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