



ATHI WATER WORKS DEVELOPMENT AGENCY

STRATEGIC PLAN

2018 - 2022



OUR VISION

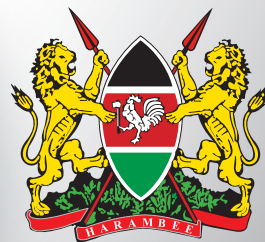
Access to clean, sustainable water services for all.

OUR MISSION

Increase access to water services through innovative development, maintenance and management of water services infrastructure for socio-economic growth.

OUR CORE VALUES

Professionalism and Hardwork
Respect
Integrity
Fairness
Transparency
Teamwork



MINISTRY OF WATER &
SANITATION AND IRRIGATION

Message from the Chairperson

The effective delivery of water and sewerage services as well as accelerated development begins with a sound strategic direction. The 2018-2022 Strategic plan comes at the most critical time when the water sector is undergoing tremendous changes brought about by the water Act 2016, the Medium Term Plan III of the Vision 2030 and the provisions of the Sustainable Development Goals which put emphasis on access to water and sanitation. Water and sewerage infrastructure development also play a key role in achieving the “Big four” agenda of the Government. This strategic plan is therefore a product of extensive collaboration and comprehensive feedback from our internal and external stakeholders, guided by policies and legislations laid down to facilitate the attainment of the right to water. The plan establishes the strategic framework for the development, maintenance and management of water and sewerage infrastructure. It is 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.

This strategic plan succeeds the 2012-2017 strategic plan which guided the Agency to new heights in delivery of water and sanitation services. During that period, the Agency not only managed to increased production of bulk water, but also re-established itself as a leading organization in transforming lives of the people through delivery of bulk water and sewerage infrastructure.

The strategic plan reaffirms our commitment to our stakeholders. It lays out our corporate strate-

gic focus. These include;

1. Water Coverage within the Agency's area
2. Sewerage and Sanitation Coverage
3. Investment resources for water and sanitation infrastructure development
4. Bulk Water Operation
5. Research and Development
6. Leadership and Governance
7. Institutional Sustainability

The implementation of this strategic plan is the responsibility of not only the Agency, Management and Staff, but also our stakeholders and partners involved in the delivery of water and sewerage services. I therefore expect closer collaboration, consultation and communication among our stakeholders and partners.

I thank the Board of Directors and Management of Athi Water Works Development Agency for their dedication and teamwork in coming up with this plan. I also extend my gratitude to the Ministry of Water and Sanitation for offering the Agency timely policy guidance and support in formulation of this plan. I beseech our staff, stakeholders and Kenyans to join us in the effort of actualizing this



Eng. John Kiragu Chege
Chairperson Board of Directors
Athi Water Works Development Agency



Message from the C.E.O

The Constitution of Kenya (CoK) 2010 encapsulates the right of every Kenyan to clean and safe water in adequate quantities and the right to reasonable standards of sanitation. To this end, the Water Act 2016 has moved on to create a framework for the implementation of these constitutional requirement. This has resulted into considerable changes in our operating environment. The Act provides a clear transition plan for the existing water sector institutions. These developments present an opportunity for us to repackage ourselves as that institution which is well managed and can be trusted within the sector to provide guidance and lead in the developing national public water works for water and sanitation services delivery.

The development of water sources and waste water infrastructure to satisfy the right to water as outlined in the Constitution and the Water Act 2016 in the face of a rapidly growing population, increasing economic activities, climate change among others will require us to mobilize enormous resources in order to respond effectively. The development of this strategic plan is therefore aimed at redefining the future outlook of Athi Water Works Development Agency and re-engineering it to efficiently mobilize the necessary resources.

A lot of dedicated effort and commitment has gone into the development of this Strategic Plan. The plan is both futuristic, transformative and ambitious, taking cognizance of the dynamic scenario created by the constitution 2010 and the Water Act 2016 among



others. Therefore, I am immensely pleased to acknowledge and most sincerely express my gratitude to everyone who has contributed to the development of this plan. Their unwavering commitment and teamwork is duly acknowledged. This plan is evidence of the Agency's long term commitment and ambition in ensuring that the Agency is repositioned in a strategic manner to continue to play a key role in the sector as an enabler for the successful achievement of the "big four" initiatives.

I wish to thank staff and management of the Agency who tirelessly worked to deliver on the strategic plan. Lots of hours were spent on research, critiques, consultations and evaluation of feedback before those ideas could be concretized into this plan which captures the vision of the Agency. I therefore single out the strategic planning team for their dedication and selfless drive towards delivering a great document that truly reflects on the GREAT ATHI TEAM. It is my conviction that on the basis of this strategic plan, Athi Water is on a firm footing to play its role and keep to its value proposition of "Accelerating Access to clean water and improved sanitation".

Eng. Michael Thuita Mwangi
Chief Executive Officer
Athi Water Works Development Agency



A photograph of a group of children in a community setting. A green horizontal bar is at the top. A large blue circle is in the bottom left corner, containing text. The main title is in white, bold, uppercase letters.

WORKING TOWARDS WITH NO THIRST

*“Accelerating Access to
Water and Sanitation”*

S A FUTURE



**ATHI WATER
WORKS**

Accelerating Access to Water and Sanitation

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Acronyms and Abbreviations

AFD	Agence Francaise De Developpement
AfDB	African Development Bank
AGM	Annual General Meeting
AMER	Annual Monitoring and Evaluation Report
AWWDA	Athi Water Works Development Agency
BADEA	Arab Bank for Economic Development in Africa
BoD	Board of Directors
CEO	Chief Executive Office
CIDP	County Investment Development Plan
CoK	Constitution of Kenya
EACC	Ethics and anti-corruption Commission
EPC	Engineering, Procurement, and Construction
FY	Financial Year
GoK	Government of Kenya
HIV	Human immunodeficiency virus
HOD	Head of Department
HQ	Headquarters
ICT	Information and Communication technology
IDA	International Development Association
KENAO	Kenyan National Audit Office
KfW	German Development Bank
LAN	Local Area Network
M&E	Monitoring and Evaluation
M3/d	Cubic Meter/Day
MTEF	Medium Term Expenditure Framework
MTP	Medium Term Plan
MWI	Ministry of Water and Irrigation
NCT	Northern Collector Tunnel
PFM Act	Public Finance Management Act
PPP	Public Private Partnerships
PPRA	Public Procurement Regulatory Authority
SDGs	Sustainable Development Goals
SWOT	Strength, Weakness, Opportunity, Threat
ToR	Terms of Reference
VAT	Value Added Tax
WAN	Wide Area Network
WASREB	Water Services Regulatory Board
WSBs	Water Services Boards
WSP	Water Services Provider
WWWD	Water Works Development Agency

EXECUTIVE SUMMARY






Executive Summary


Kenya has in place a new water Act 2016 which seeks to fulfill the constitutional reforms requirements of 2010. Article 43 of the Constitution entrenches water as a constitutional right by establishing a right to “reasonable standards of sanitation” and “clean and safe water in adequate quantities” and Article 21 places an obligation on the government to take steps towards progressively realize this right. Articles 6, 174, 175 and 176 create a system of devolved government with a two-tier system of government comprising of the national and county government. The responsibility of developing, managing and maintaining water and sewerage infrastructure remains a national government function, but the responsibility of provision of water and sanitation services is vested on county governments.

Athi Water Works Development Agency (AWWDA) is one of the eight (8) Water Works Development Agencies (WWDA) established under the Ministry of Water and Sanitation. It was established under the Water Act 2016 vide Legal Notice No. 28 of 26th April 2019. The Agency is responsible for the development, maintenance and management of water and sewerage infrastructure in the counties of Nairobi, Kiambu and Muranga covering 5,800.4Km² with a total population of 8,012,390 people. People with access to water in AWWDA area stands at 72.1% while those with access to sewerage sanitation services remain below 40%. Currently, the Agency has a bulk water production capacity of 664,337m³/day and a wastewater treatment capacity of 210,500 m³/day.

In recent years since its establishment, AWWDA has had in place three 5-year strategic plans for the periods 2003-2007, 2008-2012 and 2012-2017. The overall goal of the 2012-17 strategic plan was to develop bulk water and waste infrastructure and provide technical advice to the devolved structures based on best practices. This goal was to be achieved through four strategic objectives. Key among them were to; ensure institutional sustainability, increase access to bulk water and sewerage services, enhance stakeholders communication and engagement and mainstream the cross cutting issues. The major achievements during the 2012-2017 strategic plan period included mobilization of KShs.74 billion which enabled the Agency to increase its total water production from 559,871 m³/day in 2012 to 664,337 M³/day in 2017. The Agency was also able to increase the capacity of the sewerage treatment plants by 50,000m³/day. Preparation of national water and sewerage development plans was also undertaken during the planned period. It is worth noting that because of the concerted efforts of the Agency, customers’ satisfactions as measured by the satisfaction index improved to 81.2% from 80.2% in 2014.

The main challenges encountered during the implementation for the previous strategic plan included: - lack of land or wayleaves for development, inadequate funds (this was caused by lack of a framework to enforce collection of lease fees from Water Service Providers); inadequate allocation of counterpart funds from the national government, competing financial priorities at the Agency and






failure to identify alternative sources of revenues. Other challenges included dilapidated infrastructure due to delays in investment in water and sewerage infrastructure; lack of continuous replacement and improvement of water and sewerage infrastructure; and poor maintenance of installed infrastructure. Against this backdrop, cases of litigation rose over the period. This was majorly due to delayed compensations; disagreement on valuation of property to be compensated and disputes in ownership of land during land acquisition. Finally, transitional challenges especially with the WSPs continued to affect operations of the Agency.

AWWDA has adopted a broad-based participatory process while developing this strategic plan. The following key focus areas will be pursued during the planned period; increased access to water; increased access to sewerage and sanitation; investment, research and strategy; leadership and governance and finally institutional sustainability. The key strategic objectives will be to;

1. To increase the percentage of the population with access to safe water within the area of jurisdiction from 72.1 percent to 80 percent by 2022.
2. To increase percentage of the population with access to sewerage within the area of jurisdiction from 35.4% to 60% by 2022
3. To initiate resource mobilization strategies to generate Kshs. 242.03 billion for financing water and sanitation infrastructure development by 2022.
4. To establish operational offices for Northern Collector System, Ruiru II Dam and Karimenu II dam by 2022
5. To promote research, development and adoption of appropriate technology.
6. To strengthen leadership and governance for efficiency and productivity.
7. To pursue water and sanitation infrastructure development while ensuring human resources, financial and environmental sustainability.

The resources required to implement this strategic plan is approximated at Kshs. 242.03 Billion. In monitoring the progress of the implementation of this plan, M&E systems will be established and existing ones strengthened. This will be followed by period performance reviews and reporting. The Agency will also undertake mid-term and end-term reviews of the projects under implementation. It is anticipated that the implementation of this plan will enable AWWDA live up to its promise of “Accelerating Access to clean water and improved sanitation”.





NDAKAINI/THIKA DAM WHICH WILL
RECEIVE WATER FROM THE NCT 1



NCT 1 MAKOMBOKI OUTFALL - END OF THE
TUNNEL



CHAPTER ONE

Introduction

CHAPTER ONE

INTRODUCTION

1.0 Overview

This chapter provides a brief background of Athi Water Works Development Agency (AWWDA) and its mandate as provided for under the Water Act 2016. The chapter also gives highlights of Kenyan development challenges in relation to water and sanitation infrastructure development, and how they affect the achievement of the vision 2030, the Medium Term Plan III, Sustainable Development Goals, and the Big four initiatives. Finally, the chapter outlines the rationale for developing the strategic plan for 2018-2022.

1.1 Background

AWWDA is one of the eight (8) Water Works Development Agencies (WWDAs) established under the Ministry of Water and Sanitation. It was established under the Water Act 2016 vide Legal Notice No. 28 of 26th April 2019. AWWDA area of jurisdiction includes the counties of Nairobi, Kiambu and Muranga covering 5,800.4Km² (figure 1) with a total population of 8,012,390 people. People with access to water in AWWDA area stands at 72.1%. Access to sewerage services remain below 40%. Currently, the Agency has a bulk water production capacity of 639,683 m³/day and a wastewater treatment capacity of 210,500 m³/day.

Since its establishment in 2003, the Agency has had three five-year strategic plan cycles with clear objectives and results. The first strategic plan for 2003-2007 focused on operationalization of the former Athi Water Services Board (AWSB) established under the Water Act of 2002. The second strategic plan for 2008-2012 focused on institutional strengthening of AWSB and the nine (9) Water Services Providers (WSPs) at that time which led to enhanced operational efficiency and sustainability of both the Board and the WSPs. Following the successful implementation of various interventions meant to establish and strengthen WSPs operational efficiency, the third strategic plan 2012-2017 focused on investments. AWWDA embarked on rehabilitation, expansion and development of various water and sewerage infrastructure. This increased total production of safe water by 33% from 482,755 m³/day in the year 2007 to 639,683 m³/day in 2017. The Agency's capacity to mobilized funds also increased dramatically over the years from Kshs.5 Billion in 2007 to Kshs.30 Billion in 2012 and Kshs.74 Billion in 2017. Most of these funds were mobilized from the Government and development partners for water and sewerage infrastructure development.

Figure 1.1: Map of AWWDA's area of jurisdiction.

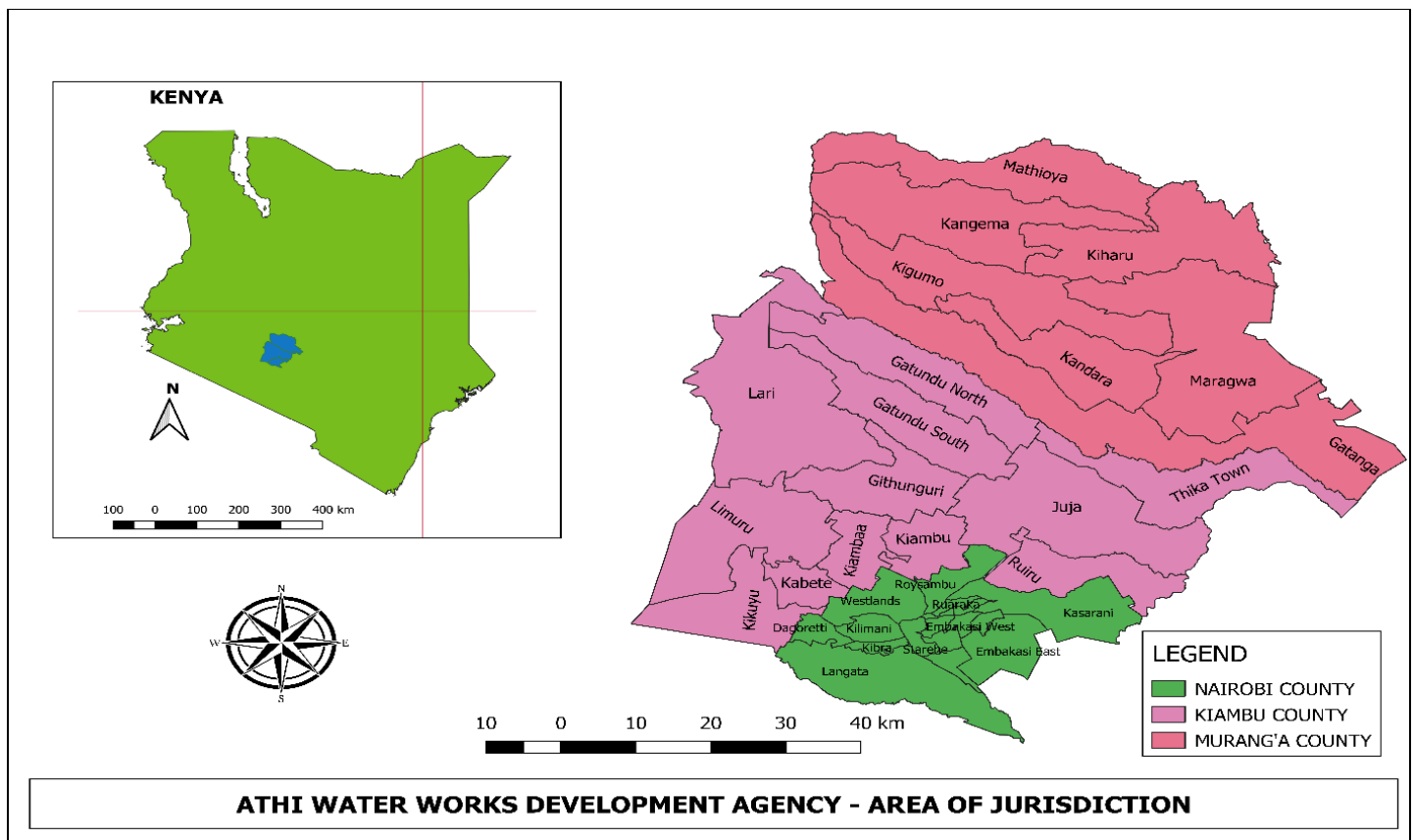


Table 1.1: Summarized Factsheet of the Area of Jurisdiction

	Indicator	Nairobi	Kiambu	Muranga
1.	Land area (Km ²)	696.1	2,543.5	2,558.9
2.	Population (2018)	4,941,708	1,942,505	1,128,177
3.	Population Density(persons/Km ²)	7099.1	763.7	440.9
4.	Water Coverage (%)	80	59	60
5.	Sanitation Coverage (%)	93.6	93	99.78
6.	Sewered Sanitation Coverage ¹ (%)	50	16	5

Mandate of the AWWDA

AWWDA draws its mandate from the Water Act of 2016. As per the Act, the Agency's mandate include;

- Undertaking the development, maintenance and management of National Public Waterworks;
- Operate the waterworks and provide water services as a water service provider, until such a time as responsibility for the operation and management of waterworks are handed over

¹ Source: Water Services Regulatory Board (WASREB)-Impact Report No.11 of 2019.

to a county government, joint committee, authority of county government or water services provider,

- c. Provide reserve capacity for purposes of providing water services where 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 government and water providers,
- e. Provide to the cabinet secretary technical support in discharge of his or her functions under the constitution the Water Act 2016.

AWWDA is expected to contribute to accelerated delivery of water and sanitation services aimed at progressive realization of the right to water and reasonable standards of sanitation as provided for under Article 43 of the Constitution which states that, “*every person has the right to reasonable standards of sanitation and to clean and safe water in adequate quantities*”.

1.2 Water and Sanitation Infrastructure Development Challenges

Water sector (especially water and sewerage infrastructure development) faces various challenges that have resulted into low access to improved water and sanitation services. Some of the challenges include;

- **Population increase:** there is 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.
- **Low investment in water and sanitation infrastructure development:** Investment and financing requirements for water and sewerage infrastructure have continued to outstrip available resources. Development of infrastructure for water and sewerage 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 and sewerage infrastructural development. Investment in the development and maintenance of infrastructure is also low largely due to low attractiveness of the sector for private sector investment as a result of high operating costs of water utilities, limited creditworthiness of water institutions, low level of diversification of sources of funding, among other constraints.
- **Cost of compensation for land required for the development of water and sewerage infrastructure:** The rising cost of compensation for land presents 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.
- **Non-Revenue Water (NRW):** The current levels of Non-Revenue Water stands at 42% with the largest water losses being through illegal connections, leaks due to dilapidated infrastructure and commercial losses (flat rate supply). NRW pose a challenge as it erodes gains made in water services provision.
- **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 completed projects to WSPs within the various Counties, the management of loan obligations, and operations and maintenance for handed over assets.

- **Climate change:** Climate change pose additional constraint to development of water infrastructure. 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.
- **Aging sewerage network and low sewerage coverage:** The current National Sewerage coverage is 16%. The sewerage coverage in the Agency's area of jurisdiction stands 50% for Nairobi County, 16% and 5% for Kiambu and Muranga Counties respectively. With a huge backlog in maintenance, rehabilitation, upgrading and expansion, the Agency will have to prioritize expansion of sewerage and adoption of alternative technology for waste management.

These challenges will fundamentally influence the water and sanitation infrastructure development trajectory during the planned period.

1.3 The linkage to National and International Development Plans and Policies

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

1.3.1 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 realise this right. It is the mandate of the Agency to develop bulk water and sewerage infrastructure that will facilitate access to water and sanitation for all.

1.3.2 Kenya's Vision 2030 and MTP III

Under the social pillar of the Vision 2030, economic and social development as envisioned requires plenty of high quality water supplies. The Vision 2030 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 mechanisms 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 foundation 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 is 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) is required annually for universal sanitation access to be reached. In the next five 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 72%-82% by the end of the planned period. In the rural and peri-urban areas, the Agency targets to increase access from 54%-62% during the same period. The Agency will equally work to increase access to sewerage services from 47%-60% during the planned period.

1.3.3 Sustainable Development Goals

The critical role of water and sanitation is further given emphasis in the Sustainable Development Goals especial Goal 6 of “*Ensure availability and sustainable management of water and sanitation for all*”. Under the eight targets outlined in table 1.2, 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 1.2: Sustainable Development Goals

SDG TARGET	Sustainable Development Goal 6: Ensure availability and sustainable management of water and sanitation for 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 trans-boundary 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).

1.3.4 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 outline in the strategy. The Agency’s 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, AWWDA will institutionalize its new roles and accelerate the development, maintenance and management of the National Public Waterworks in line with national and international priorities. The intention of the Agency 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.

CHAPTER TWO

SITUATION ANALYSIS

2.0 Overview

This chapter presents a review of the performance of AWWDA under the previous strategic plan 2012-2017. The chapter also presents achievements, challenges and lessons learnt. It also gives the analysis of Strength, Weakness, Opportunities and Threats (SWOT) besides the political, economic, social, technological, environment and legal (PESTEL) and Stakeholder analyses.

2.1 A Review of the 2012 – 2017 Strategic Plan Implementation

Planning for the future depends on a realistic understanding of existing situation. The 2012-2017 Strategic Plan had four strategic pillars, namely:

1. Increase access to safe water and sewerage services
2. Ensure institutional sustainability
3. Enhance Stakeholder communication and engagement
4. Mainstream cross-cutting Issues.

A summary of the review of the previous strategic plan is given in table 2.1:

Table 2.1: Summary of 2012-2017 Performance by Key Result Areas (KRAs)

S/No	Key Result Area	Achievements
1.	Increase access to safe water and sewerage services	<ol style="list-style-type: none"> a) Constructed water treatment plants of total capacity of 70,000 m³/d in Ruiru, Kiambu, Karimenu, Thiririka, Ndarugu, Gatanga, Theta, Karure and Muranga. b) Increased water supply from Ground water sources by 6,000m³/d by developing 91 boreholes in Nairobi, Kiambu, Kajiado, Kitui, Machakos, Makueni, Nyeri and Meru counties. c) Developed 20 water pans in Kajiado and Narok counties contributing to additional 4,000m³/d of water supply. d) Constructed 350km of water transmission and distribution pipelines in Nairobi, Kiambu, Kirinyaga and Muranga counties. e) Relocated 45km of water pipelines along the Thika Super Highway in Nairobi f) Constructed 165km of Trunk and Reticulation sewers in Nairobi and Kiambu Counties g) Increased sewerage treatment capacity by 50,000m³/d in Nairobi and Kiambu counties. h) Rehabilitated Kariobangi waste water treatment plant in Nairobi and restored it to its original capacity of 32,000m³/d from 11,000m³/d.

S/No	Key Result Area	Achievements
2.	Ensure institutional sustainability	<ul style="list-style-type: none"> a) Capacity building and sustained institutional support to WSPs enabled the Agency to increase water production by 12% from 194,899m³/d in 2012 to 217,369m³/d in 2017 b) The annual revenues for the WSPs increased from 6,841M in 2012 to Kshs. 11,099M in 2017, a growth of 62%. This is attributed to increased connections. c) The Agency was able to mobilize Kshs. 74 billion against a target of Kshs. 72 billion for water and sewerage infrastructure development.
3.	Enhance Stakeholder communication and engagement	<ul style="list-style-type: none"> a) Customers' satisfaction index increased to 81.2 percent from 75 percent in the previous years.
4.	Mainstream cross-cutting Issues.	<ul style="list-style-type: none"> a) Formulated and developed Occupational Health and Safety Policy b) Formulated and developed Assets Management Policy c) Formulated and developed HIV/AIDs Policy d) Revised Human Resource and Procedures manual e) Trained all staff annually on various needs f) Revised the organization structure g) Attained ISO/IEC 90001:2015 h) Complied with gender mainstreaming requirement of 40:60 for female and male employees respectively i) Carried out skills audit and addressed the gaps over the strategic period j) Digitized projects' files with Procurement and contract related documents k) Registered and transferred motor vehicle assets and updated the inventory

2.1.1 Analysis of AWWDA's Resource Mobilization and utilization for the Period 2012-2017

In the last 5-year, AWWDA was able to mobilize Kshs. 74 billion against a target of Kshs. 72 billion for water and sewerage infrastructure development. The changes in revenue mobilization over the 5 years are captured in figure 2.1. Figure 2.2 provides a comparison between changes in revenues and expenditure for AWWDA over the period under review. Generally AWWDA has experienced surplus returns over the last five years, though there was a dip in profits in the FY 2014.

Figure 2.1: Resource Mobilization for the period 2012-2017

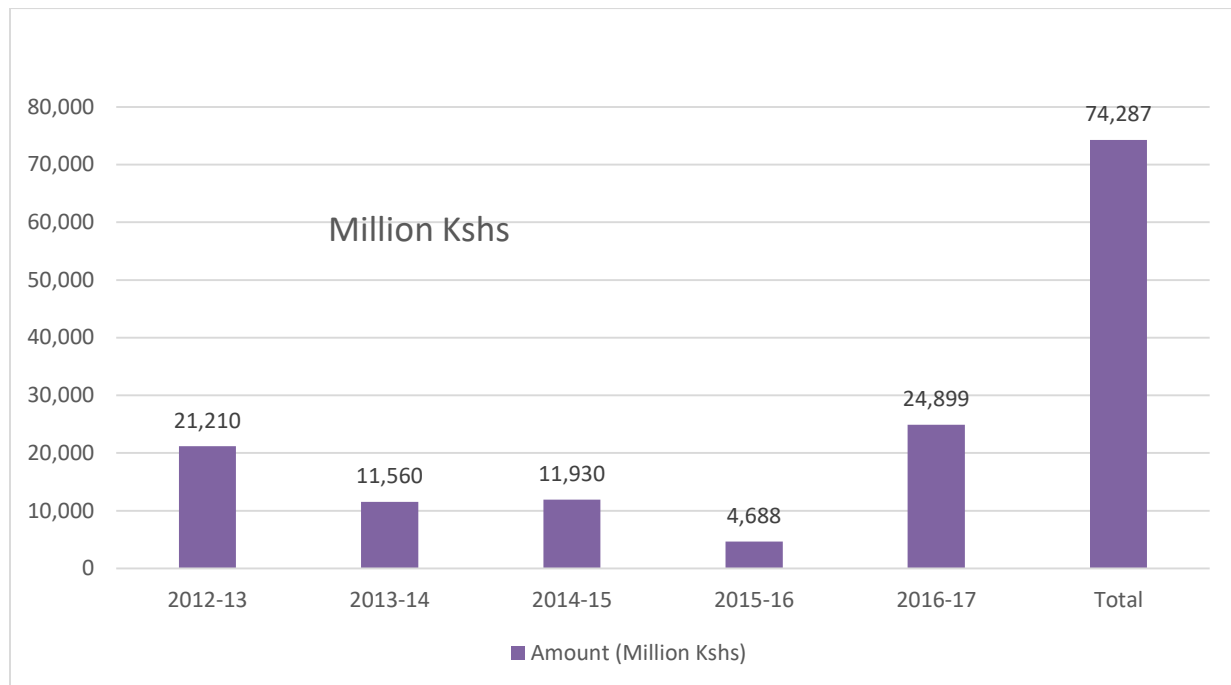
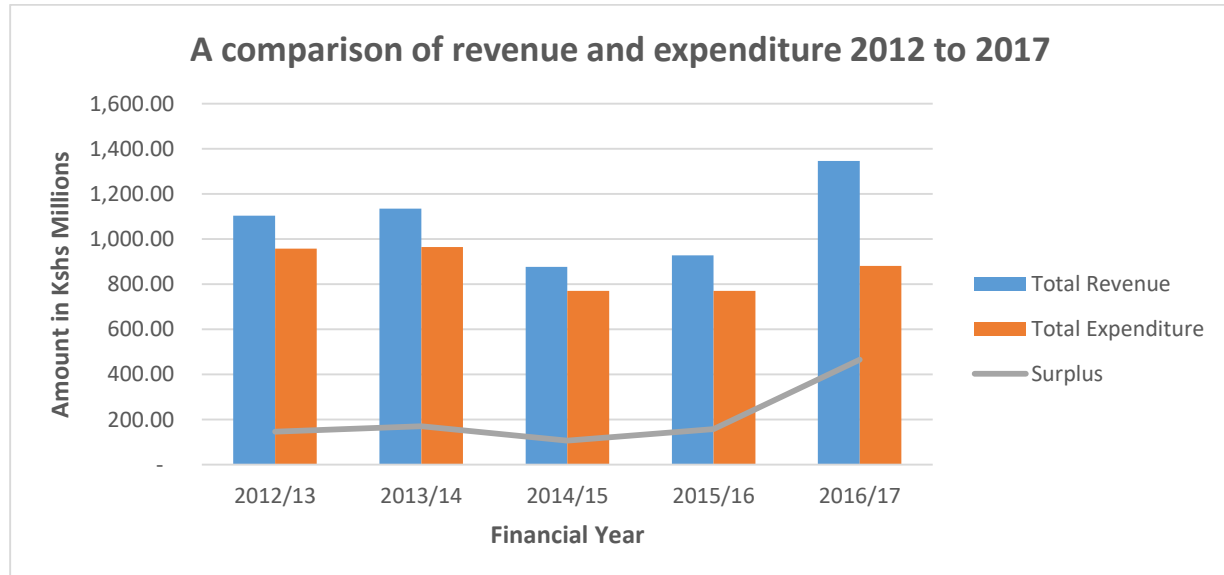


Figure 2.2: Revenue and Expenditure of AWWDA 2012-2017 (Million Kshs)



2.2 Key Challenges Encountered during implementation of 2012-2017 Strategic Plan

While implementing projects and programmes during the last 5 years, the following challenges were encountered;

1. **Lack of land or wayleaves for development.** This was due to land grabbing or untimely engagement with land owners, inadequate allocation of funds for resettlement. In certain cases

there was lack of inter-agencies coordination. These problems resulted into delays in project implementation or high project costs due to land acquisitions. In some instances, there were lengthy litigations and termination of projects.

2. **Inadequate funds:** this was caused by lack of a framework to enforce collection of lease fees from WSPs; inadequate allocation of donor and counterpart funds from the national government, competing financial priorities at the Agency and failure to identify alternative sources of revenues.
3. **Dilapidated infrastructure:** Delays in investment in water and sewerage infrastructure; lack of continuous replacement and improvement of water and sewerage infrastructure; and poor maintenance of installed infrastructure have been the major causes of dilapidation in our infrastructure. Consequently, the Agency is faced with high non-revenue water, high costs of rehabilitation, Pollution and environmental degradation, and financial losses.
4. **Transitional challenges especially with the WSPs:** This had been caused by devolution of water services to the county government, lack of regulations under the Water Act 2016, lack of involvement of WSPs in planning and implementation of projects and lack of a well-structured engagement framework. This has led to lack of support and ownership of projects, non-payment of lease fees and fear about sustainability of projects handed over to WSPs.
5. **Increased litigations:** the numbers of litigations have shot up over the last 5 years majorly due to delayed compensations; disagreement on valuation of property to be compensated; disputes in ownership of land during land acquisition and failure to follow the laid down procedures. In some cases, this has led to stoppage of projects; loss of finances and a negative institutional image.
6. **Asset management:** The development of water services and sewerage infrastructure as national public water and sewerage works, for subsequent operation by county governments faces challenges relating to absence of a clear handing over mechanism, the management of loan obligations, and operations and maintenance for handed over assets. A framework to guide engagement of private entities, by county governments, to operate the handed-over assets that are still subject to loan repayment, should be put in place.
7. Other challenges which affected implementation of programmes/projects included;
 - 7.1. Delay in granting VAT Exemption for the Projects
 - 7.2. Vandalism of completed projects
 - 7.3. Slow progress of implementation of projects due to challenges with the contractors
 - 7.4. Growing effects of Environmental degradation and Climate change.
 - 7.5. Encroachment by people on water infrastructure due to failure to secure boundaries.
 - 7.6. Lack of a comprehensive monitoring and evaluation framework and therefore inability to track and effective report on progress of projects/programmes under implementation.

- 7.7. Inadequate investment in research and development of new technologies and processes of managing and developing water works.
 - 7.8. Inter boundary water transfer conflicts.
 - 7.9. Weak interagency relationship e.g. counties are yet to undertake their roles largely due to lack of interagency framework for engagement.
 - 7.10. High levels of non-revenue water within the area of jurisdiction.
8. Inadequate staffing levels: AWWDA experienced staff turnover which could not be replaced due to Government freeze on recruitment or replacement of staff.

2.2.1 Lessons learnt to be carried to the implementation

- a) There is need to identify, develop or pursue alternative revenue sources beyond the traditional sources such as government and donors financing. It will also be important to explore sale of bulk water as an alternative avenue to revenue generation.
- b) It is necessary that AWWDA liaise with Ministry of Water and Sanitation and the National treasury on Exchequer disbursements.
- c) It is important that issues of RAP commences early prior to project implementation. The communities and National Land Commission should therefore be engaged early.
- d) All public land where water and sewerage installations exist or are being implemented need to be registered.
- e) There is need to incorporate catchment areas conservation activities into project planning and design,
- f) Promote the use of appropriate research and innovation in order for the Agency to address critical challenges, with emphasis on strengthening the linkages between research, development and innovation.
- g) Establish a mechanism to enhance collaboration between National Government and County Government.
- h) Undertake an assessment of human capacity needs of the Agency, and review and/or develop relevant curriculum for professional and technical training, and professional certification.
- i) Scale up the application of appropriate information, communication and technology, and implement a system to support and enhance accountability, decision making, efficiency and effectiveness.
- j) There is need to include last mile connections in project designs. The water and sewerage infrastructure needs to project last mile connection,
- k) It is important to link county integrated development plans to the strategic plan.
- l) It is also important that security is provided to water and sewerage facilities to avoid vandalism and other possible acts of sabotage.
- m) Promote public participation and stakeholders' engagement in programming

2.3 Environmental Scan

Organizational environment consists of both external and internal factors. Environment must be scanned so as to have an understanding of factors that are likely to influence or impede organizational success. Environmental scanning helps the management to decide the future path

of the organization. The operating environment for AWWDA has changed rapidly and significantly over the last few years. The key drivers of this change are:

- a. The Constitution of Kenya (2010)
- b. The Kenya Vision 2030
- c. Medium Development Plan III (2018-2022)
- d. The “Big four” Agenda
- e. The National Spatial Plan (2015-2045)
- f. The Sustainable Development Goals (SDGs-2015-2030)
- g. African Union- Agenda 2063
- h. The County Governments Act (2012)
- i. The Public Finance Management Act (2012)
- j. The Cities and Urban Areas Act (2011)
- k. The Water Act (2016)
- l. State corporation Act

These changes necessitate that Athi Water undergoes fundamental re-orientation and re-positioning to effectively discharge its current mandate and the revised mandate under the Water Act. It is therefore important that analysis of the operating environment is undertaken in order to gain a good understanding of the elements that need to inform future development.

2.3.1 Strengths, Weaknesses, Opportunities and Threats (SWOT) Analysis

The purpose of the strength, weakness, opportunity and threat (SWOT) analysis is to enable Athi Water 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 2.2;

Table 2.2: SWOT Matrix

STRENGTHS	WEAKNESSES	OPPORTUNITIES	THREATS
<ol style="list-style-type: none"> 1. Highly qualified staff 2. Highly experience staff 3. Long term Development Plans up to 2035 for – Water and sewerage works (up to 2046). 4. Sound internal control procedures& policies 5. Youthful and energetic staff 6. Experience in Project Management 7. Cordial relationship between Agency and management and MWS 	<ol style="list-style-type: none"> 1. Dilapidated water infrastructure 2. AWWDA branding still not adequately visible 3. Outdated scheme of service 4. Inadequate Knowledge management framework 5. Weak regulatory framework governing relationships between WSPs and County Government 6. Weak engagement with some stakeholders. 7. Weak framework for staff motivation and retention 8. Understaffing (given the new scope) 	<ol style="list-style-type: none"> 1. Donor confidence 2. Enabling legislation- Water Act, 2016,Sustainable, Development Goals, 2030, Vision 2030, MTP 2018-2022, National Spatial Plan 2015-2045, Agenda 2063 3. Increased demand for water and sewerage services, 4. Nairobi Metropolitan 5. Goodwill from stakeholders 6. Enabling legal framework for PPP and EPC-F 	<ol style="list-style-type: none"> 1. Pending debt with WSPs and lack of a clear framework to collect from WSPs 2. Over reliance on development partners for financing, 3. Conflict with counties, 4. Increasing cases of litigations, 5. Poor urban planning and high cost of land for infrastructure development 6. Encroachment on way leaves 7. Acquisition of private land for development 8. Climate change 9. Acts of Terrorism

TOWS Analysis

This analysis uses the results of SWOT to develop strategic solutions for capitalizing on opportunities, minimizing weaknesses and avoiding threats to the operating environment. This is shown in the table 2.3;

Table 2.3: TOWS Matrix

SO (Max-Max) Uses internal strengths to capitalize on external opportunities.	WO (Min-Max) Improves internal weaknesses by using external opportunities.	ST (Max-Min) Uses internal strengths to avoid external threats.	WT (Min-Min) The strategies created here will help avoid threats and minimize weaknesses.
<ul style="list-style-type: none"> • Implement the development Master plan • Creating opportunities for technical 	<ul style="list-style-type: none"> • Plan for water storage structures • Prepare investment plans and use M&E tools 	<ul style="list-style-type: none"> • Leadership and governance framework • Mobilize resources to implement the master plan to 	<ul style="list-style-type: none"> • Lobbying • Demand unpaid for services • Managing debt levels

SO (Max-Max) Uses internal strengths to capitalize on external opportunities.	WO (Min-Max) Improves internal weaknesses by using external opportunities.	ST (Max-Min) Uses internal strengths to avoid external threats.	WT (Min-Min) The strategies created here will help avoid threats and minimize weaknesses.
<p>assistance to county governments</p> <ul style="list-style-type: none"> • Ensure that WSPs are operationally sustainable • Preparation of investment proposals for bulk water and waste water infrastructure • Exploit willingness by financiers to finance investment; • Utilize the personnel and improved infrastructure 	<ul style="list-style-type: none"> • Develop clear procedures for staff management, career progression, succession planning, motivation and retention. • Diversify revenue generation for AWWDA • Create opportunities for technical assistance to county Governments to supervise WSPs 	<p>manage stretching of scarce resources.</p> <ul style="list-style-type: none"> • Lobbying of other agencies to secure financing for bulk water and waste water infrastructure development • Good systems of financial management to minimize debt levels • Utilize the legal framework and stakeholder goodwill to secure strategic water points and way leaves 	<ul style="list-style-type: none"> • Secure strategic water points, way leaves and sources

Table 2.4: Issues in the internal environment matrix

No	Issue	Summary
1	Leadership and Governance	Athi Water comprises of a good mix of experienced and highly trained professionals and has instituted appropriate leadership and governance structures. The Agency has guided the management appropriately and this has created a good working relationship.
2	Technical Services and Development	Existing water and sanitation infrastructure coverage is low, old and dilapidated. On the positive side, water and sanitation infrastructure investment plan is in place and implementation on course. However, in order to make the WSPs sustainable and cost effective there is need to develop infrastructure that optimizes the returns of our current treatment plants. We will provide capacity for Asset management and reserve capacity for managing water services.
3	Human Resource Management and Development	Athi Water has a highly trained, experienced, qualified and skilled staff. Development and training opportunities have been made available to all staff. The Agency is keen to keep the staff well motivated and has extended a generous budget to staff welfare. There is need to increase the staffing to support project implementation and management.
4	Financial Resources and Management	Athi Water has development partners' goodwill and in turn received funding for its projects. However, the Agency has inadequate working capital, due to its reliance on fees from a single WSP. The Agency has also not been able to source for adequate resources to adequately fund the investment plan. On the positive side, the Agency has put in place a good ICT and Financial management and control systems. There is need to identify alternative revenue sources to enhance AWWDA sustainability.
5	ICT and Communications	Athi Water offices are networked with both Local Area Network (LAN) and Wide Area Network (WAN). A website is in place and Bomba magazine, a quarterly publication, is issued regularly. Annual reports and Stakeholders AGMs are held regularly. There is need however, to operationalize an integrated ICT system and regularly update the website.

2.3.2 Political, Economic, Social, Technological, Environmental and Legal (PESTEL)

It is a framework used to analyze and monitor the environmental (External) factors that have an impact on an organization.

Table 2.5: Summary of AWWDA's PESTEL

NO	Category	Issue(S)	Description
1	Political and Legal Perspectives	Constitutional Provision of the right to Water (Article 43), Devolution of Water Services, water infrastructure development (Schedule 4).	The Constitution of Kenya (CoK) 2010 encapsulates the right of every Kenyan to clean and safe water in adequate quantities and the right to reasonable standards of sanitation. Satisfying these rights require additional and enormous resources to develop the necessary and enabling infrastructure.

NO	Category	Issue(S)	Description
		Vision 2030 and the political establishment of the “Big Four” Agenda	<p>The constitution also creates a system of devolved government which consists of 47 counties. The Water Act 2016 also moves on to create a framework for the implementation of the constitutional requirement. A two-tier government is created – national government and county government. The responsibility to manage water resources is retained by national government, but the responsibility to provide water and sanitation services is vested with the county governments. The function of public investment is the responsibility of the national government but, at the same time, the county government has the responsibility for public works. It is anticipated that this framework will lead to enhanced accountability.</p> <p>The Kenya’s Vision 2030 which is the government’s blueprint recognizes infrastructure development and water supply as key important ingredient to the achievement of social and economic development.</p> <p>“The Big Four” Agenda focuses on Manufacturing, Food and Nutrition security, Health and Housing. In all these components provision of water services is an enabler.</p>
2	Economic Perspectives	Demand and supply especial the expanding economic activities requiring increased resource requirement for the implementation of water and sewerage infrastructure.	The development of water sources and waste water infrastructure to satisfy the right to water as capsulated in the constitution, in the face of a rapidly growing population, will require a lot of resources that the public sector may not be able to provide. It is expected that a number of water and waste water infrastructure development investments will be undertaken in conjunction with the private sector through Public Private Partnerships (PPPs) frameworks and or adoption of new financing approaches such as Equity partnerships, Asset monetization of existing plants and through the Capital Markets.

NO	Category	Issue(S)	Description
3	Social Perspectives	Increasing population and the need to address access to water and sanitation services in the informal and rural areas	As the population increases and education opportunities expand, the need and urge to migrate to the urban areas for jobs and better opportunities (especially the appeal of the new metropolis being development as county headquarters), will build pressure on all services, including water and waste water services. This will further reinforce the need for increased investments in infrastructure and supply of water and sewerage services to meet this growing demand. There is need for Intergovernmental engagement to secure wayleaves for infrastructure development.
4	Technological Perspectives	Trends in technical development in Water and sewerage infrastructure development, maintenance and management	This decade has seen phenomenal global development, demand and usage of technology easing access and cost of many products and services. The usage has permeated all sectors and aspects of human endeavors, including water and waste water infrastructure development.
5	Environmental (Ecological) Perspectives	Emerging threats of climate change especially the dwindling catchment areas	In order to sustainably maintain water resource for harnessing, the protection and improvement of catchment areas will require concerted efforts of the Agency and other agencies, both public and private together with the citizens.

2.3.3 The Stakeholders Analysis

The table below analyses the expectations of Athi Water Works Development Agency by categorizing them into primary and secondary stakeholders.

Table 2.6: Stakeholders Analysis

STAKEHOLDERS	STAKEHOLDERS' EXPECTATIONS	IMPACT OF NON-COMPLIANCE
1. High Importance & High Influence		
MINISTRY OF WATER AND SANITATION	<ul style="list-style-type: none"> • Implementation of the policies, plans and programmes • Compliance with set budgets • Provide technical advice on priority investments 	<ul style="list-style-type: none"> • Withdrawal or reduction of budget allocations • Loss of confidence on the Agency • Strained relationship with the Parent Ministry • Failure to achieve the sector mandate
THE NATIONAL TREASURY	<ul style="list-style-type: none"> • Compliance with PFM Act • Financial probity • Adherence to donor conditions • Accountability 	<ul style="list-style-type: none"> • Redirection of resources to other agencies • Withdrawal of funding • Reduction of financial thresholds

STAKEHOLDERS	STAKEHOLDERS' EXPECTATIONS	IMPACT OF NON-COMPLIANCE
	<ul style="list-style-type: none"> • Prudence in budgeting 	<ul style="list-style-type: none"> • Penalties and Sanctions
DEVELOPMENT PARTNERS	<ul style="list-style-type: none"> • Transparency and Accountability • Compliance with financing agreements • Meet project objectives and timelines • Public awareness of projects • Fiduciary discipline and compliance • Communicating Project's progress 	<ul style="list-style-type: none"> • Cancellation of funding • Loss of donor confidence • Reimbursement of funds committed to ineligible expenditure
WASREB	<ul style="list-style-type: none"> • Compliance with service standards & set conditions. 	<ul style="list-style-type: none"> • Withdrawal of operating license • Penalties and Fines
COUNTY GOVERNMENTS	<ul style="list-style-type: none"> • Capacity building and technical assistance • Consultation- planning, budgeting and project implementation. 	<ul style="list-style-type: none"> • Duplication of efforts • Resistance of planned or implemented projects
WSPs	<ul style="list-style-type: none"> • Development of infrastructure. • Capacity Building and Technical Support 	<ul style="list-style-type: none"> • Reduction in revenue • Reduced customer satisfaction • Resistance in the implementation and operating of projects.
AWWDA STAFF	<ul style="list-style-type: none"> • Conducive work environment. • Career development, growth and retention. • Sense of belonging. • Recognition and motivation. • Teamwork. • Coaching and mentorship. • Objective appraisal. • Equal opportunity in employment. 	<ul style="list-style-type: none"> • Reduced productivity • Lack of proper succession plans • High staff turnover • Low employee satisfaction • Negative organizational image
BOD	<ul style="list-style-type: none"> • Agency Charter • Agency Facilitations • Compliance with Mwongozo • Agency Performance Appraisal • Agency Induction and Training • Policy compliance and implementation • Communication and feedback from management • Financial probity • Delivery of organizational mandate 	<ul style="list-style-type: none"> • Non- functional organization • Lack of a strategic direction • Negative institutional image
2. High Importance & Low Influence		
REGULATORY AUTHORITIES	<ul style="list-style-type: none"> • Compliance with the set standards and regulations. 	<ul style="list-style-type: none"> • Penalties and Fines • Withdrawal of licenses and permits • Delays in project implementation

STAKEHOLDERS	STAKEHOLDERS' EXPECTATIONS	IMPACT OF NON-COMPLIANCE
NATIONAL LAND COMMISSION	<ul style="list-style-type: none"> Information on land identified for acquisition Facilitate the land acquisition process 	<ul style="list-style-type: none"> Delayed project implementation Litigation Poor organizational image
CONTRACTORS/CONSULTANTS/SUPPLIERS	<ul style="list-style-type: none"> Prompt payment for services rendered, goods delivered and works done Fair and transparent procurement processes Clear specifications for goods and works and clear TOR's Professional and effective project management 	<ul style="list-style-type: none"> Delays in project implementation Litigation Project cost over runs Substandard goods, works and services Poor organizational image
3. Low Importance & High Influence		
MEDIA	<ul style="list-style-type: none"> Awareness of the Agency's mandate and activities Accurate information Continuous engagement 	<ul style="list-style-type: none"> Negative publicity Erroneous information released to the public
LOCAL ADMINISTRATION	<ul style="list-style-type: none"> Communicate the Agency's activities that impact their local communities Continuous engagement 	<ul style="list-style-type: none"> Resistance on project implementation Delays in project implementation
COMMUNITIES	<ul style="list-style-type: none"> Communicate the Agency's activities Create awareness on planned projects and the treatment of project affected persons Continuous community engagement and consultation 	<ul style="list-style-type: none"> Resistance on project implementation Stoppage of the project
RELIGIOUS GROUPS/ CIVIL SOCIETIES	<ul style="list-style-type: none"> Consultation and engagement 	<ul style="list-style-type: none"> Delayed project implementation Misinformation
POLITICIANS	<ul style="list-style-type: none"> Involvement in planning of projects within their areas Provision of water and sanitation services within their areas Continuous engagement during project implementation 	<ul style="list-style-type: none"> Stoppage of the project Resistance on project implementation Lack of support in budgetary allocations
CONSUMER	<ul style="list-style-type: none"> Provision of reliable and quality water and sanitation services within their areas Extend services to unserved areas Set affordable tariffs Public engagement and participation 	<ul style="list-style-type: none"> Failure to meet the constitutional right to water Litigations Nonpayment for the services Lack of project ownership and sustainability

CHAPTER THREE

STRATEGIC MODEL

3.0 Overview

This Chapter lays down the Vision, Mission and Value Statement of AWWDA. It also spells out the strategic direction to be pursued during the planning period 2018-2022 given the lessons learnt and vision priorities. The section will elaborate the Agency's strategic goals and objectives and planned outcomes in relation to AWWDA focal areas. The focal areas are linked to the Medium Term Plan and the Sustainable Development Goals discussed in Chapter one.

3.1 Vision Statement, Mission Statement and Core Values

3.1.1 Vision

Our Vision is *“Access to clean, sustainable water and sanitation for all”*.

3.1.2 Mission

Our Mission is *“To increase access to water and improved sanitation through innovative development, maintenance and management of water services infrastructure for socio-economic growth”*.

3.1.3 Value Proposition

As an Agency, we shall endeavor to transform lives by building and managing a state of the art, bulk water and waste water infrastructure that inspires our country's socio-economic transformation as a middle income economy.

Our Value Proposition is *“Accelerating Access to clean water and improved sanitation”*

3.1.4 Core Values

Core values refer to the ideals that we uphold in the discharge of our mandate. These are:

- i. **Professionalism and hard work:** We execute our mandate and engage our stakeholders with due care, skill and competence.
- ii. **Respect:** We relate with our stakeholders with dignity, equity and non-discrimination.
- iii. **Integrity:** We exercise honesty and accountability in our activities.
- iv. **Fairness:** We embrace social justice and inclusiveness in our engagements.

v. Transparency: We conduct our business in an open manner and effectively communicate with stakeholders

vi. Teamwork- We shall positively cooperate to ensure achievement of our mandate.

3.1 Strategic Objectives

1. To increase the percentage of the population with access to safe water within the area of jurisdiction from 72.1 percent to 80 percent by 2022.
2. To increase percentage of the population with access to sewerage within the area of jurisdiction from 35.4% to 60% by 2022
3. To initiate resource mobilization strategies to generate Kshs. 242,026 Billion for financing water and sanitation infrastructure development by 2022.
4. To establish operational offices for Northern Collector System, Ruiru II Dam and Karimenu II dam by 2022
5. To promote research, development and adoption of appropriate technology.
6. To strengthen leadership and governance for efficiency and productivity.
7. To pursue water and sanitation infrastructure development while ensuring human resources, financial and environment sustainability.

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

The strategies are developed around seven 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 seven key result areas include;-

1. Water Coverage
2. Sewerage and Sanitation Coverage
3. Investment resources for water and sanitation infrastructure development
4. Operationalization of Bulk Water Services Provision
5. Research and Development
6. Leadership and Governance
7. Institutional 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 development of bulk water systems and the implementation of inter-basin transfers of water, however, remains low. 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 bulk water systems in order to protect catchments and the surface and ground water sources. The planning,

development and implementation of investments in cross-county water sources, and bulk water supply infrastructure is impeded by the lack of mechanisms for coordination and collaboration between the national, and concerned county governments, and amongst the county governments.

Presently water coverage in the Agency's area of jurisdiction is approximately 72.1 percent. During the plan period of 2018-2022, the Agency intends to increase the average water coverage from 72.1 percent to 80 percent. It is expected that the Agency will increase access to water in the urban areas to 82 percent while in peri-urban areas, it will increase to 78 percent from the current 54 percent by pursuing various strategic objectives and strategies outlined in table 3.1.

Table 3.1 Strategic Objectives and Activities- Water Coverage

Key Result Area	Strategic Objective	Strategies	Activities
Water Coverage	To increase the percentage of the population with access to safe water within the area of jurisdiction from 72.1 percent to 80 percent by 2022.	Develop new water sources to increase production from 664,000m ³ /day to 1,067,400/day by 2022	Develop Northern Collector Tunnel Phase 1 system to produce 140,000m ³ /day
			Construct Karimenu II Dam to produce 70,000m ³ /d by 2022
			Construct Ruiru II Dam to produce 40,000m ³ /d by 2022
			Construct a 15M high Kamiti Earth Fill Dam to produce 10,000m ³ /d by 2022
			Construction of 1.5m high intake weir at Ndarugu river to produce 9,000m ³ /d for supply in Mwala by 2021
			Construct an Intake from Thika 3A to produce 36,000m ³ /d for supply in Thika town by 2021
			New Murang'a Town Bulk Water Supply Project
			Construct an intake from Komothai river to produce 20,000m ³ /d for supply in Githunguri town by 2021
			Construct an intake from Thiririka river to supply 15,000m ³ /d for supply in Thika town by 2022
			Construction of two intakes along the Kiama and Kimakia rivers to produce 6000m ³ /day by 2019
			Construction of I Nr intake weir along Thika river to produce 9000m ³ /day and serve Nanga, Kakuku, Ndura, Ithanga areas by 2019
			Construction of three intake weir produce 10000m ³ /day to serve Gatango (North Mathioya river), Makomboki (githika river), Ichichi and kiruri by 2019

Key Result Area	Strategic Objective	Strategies	Activities
			Drilling, Test pumping and equipping of 10 Nr boreholes within Murang'a county by 2019
			Construct an intake from Hembe river to supply 15,000m3/d for supply in Gatamathi areas by 2023
			Construct an intake across South Mathioya river to supply 15,000m3/d for supply in Kahuti area by 2023
			Drill and equip 40 boreholes within Nairobi to produce 16,000m3/d of water
			Drill and equip 50 boreholes within Kajiado areas to produce 10,000m3/d of water
			Design and Implementation of Maragua Dam through PPP/EPC-F framework to produce 140,000m3/d by 2022
			Implementation of Kiambaa water supply project to produce additional 10,000 m3/d by 2022
			Construct three intake weirs in Handege, Ngenda and Ruabora to produce total of 17,000m3/d by 2021
			Construct one intake weir at Kiamera to produce 2,000m3/d by 2021
		Increase bulk water transmission infrastructure by 206.5kms by 2022	Construct raw water transmission pipeline from Thika Dam to Kigoro of 5 Kms by 2018
			Develop a treated water transmission main from Kigoro to Gigiri of 45Kms by 2019
			Construct 67km transmission mains from Karimenu to Gigiri and to Ruiru by 2022
			Lay 9 Km transmission mains from Ngonda TWorks to Kigumo reservoir by 2022
			Lay 27Km pipelines in Ithanga Kakuzi by 2019
			laying of 91Km water pipelines in Gatango, Makomboki, Ichichii, Kiruri, Kenol and Makuyu areas by 2019
			Construction of 96km treated water transmission lines in various areas of Murang'a by 2022

Key Result Area	Strategic Objective	Strategies	Activities
			Construction of 13.5km Rwathia-Gitweku Water Supply. laying of 20km water distribution pipelines, construction of intake works within Kinyona-to Mareira and environs by 2020
			Construct 43km transmission mains from Ruiru Dam to Ndumberi WTP to Karuri and Kiambu towns by 2022
			Construct 24km transmission mains from Kiambu to Embakasi by 2019
			Construct 16km transmission mains from Kabete to Karen by 2019
			Construct 6.5 Km transmission mains from Jacaranda to Githurai by 2020
		Develop water treatments plants for the Metros with addition capacity of 385,500m ³ /day by 2022	Construct the Kigoro high-level water treatment plant of capacity 140,000m ³ /day by 2019
			Construct Karimenu II water treatment plant of capacity 70,000m ³ /d by 2022
			Construct Ruiru II-Ndumberi water treatment plant of capacity 40,000m ³ /d by 2022
			Construct Gatamathi water treatment plant of capacity 15,000m ³ /d by 2023
			Construct Kahuti water treatment plant of capacity 15,000m ³ /d by 2023
			Construction of 1 No. Treatment Works Capacity 20,000m ³ /day each from the proposed Maragau 4 Dam and serve Murang'a South by 2023
			construction of 2 No. 3000 m ³ /day water treatment plants in Rwegetha and Karangi areas to treat 6000 m ³ /day by 2018
			Construct Ithanga WTP for 9000m ³ /day by 2020
			Construction of new Treatment Works Capacity 3,500m ³ /day on Chathanda Intake to treat raw water currently served to Kangari Urban Centre by 2022.
			Construction of new Treatment Works Capacity 4,000m ³ /day on Maragua Intake to treat raw water currently served to Maragua Ridge and Kambiti Areas by 2022.
			Construction of new Treatment Works Capacity 4,000m ³ /day on Thika Intake

Key Result Area	Strategic Objective	Strategies	Activities
			to treat raw water currently serving Gatanga Area by 2022
			Construct Gatamathi water treatment plant of capacity 15,000m ³ /d by 2023
			Construct Thika water treatment plant of capacity 36,000m ³ /d by 2021
			Construct Githunguri water treatment plant of capacity 10,000m ³ /d by 2021
			Construct Pemba Water treatment plant of capacity 2,500m ³ /d by 2020
			Construct Gatango Water treatment plant of capacity 4,000m ³ /d by 2019
			Construct Ichichi and Makomboki Water treatment plant of capacity 4,000m ³ /d by 2019
			Construction of Kiriciungu and Kahuti Treatment Works each of capacity 4,000m ³ /day by 2019
			Construct Tigon Water Treatment Plant of capacity 4,000m ³ /d by 2019
			Construct Gatundu Water Treatment Plants of capacity 12,000m ³ /d by 2022
		Strengthen water distribution network in Nairobi and other towns	Construct water distribution network for utawala, Ruai, Mihango and Kamulu areas of 150km by 2020
			Construct Ongata Rongai and Kiserian distribution network of 122km by 2020
			Construct Githurai water distribution network of 120km by 2020
			Construct Githunguri water distribution network of 20km by 2022
			Construct Thika water distribution network of 20km by 2022
			Construct Kahuti and Gatamathi water distribution network of 200km by 2023
			Construct 35 Km water pipelines in Gatanga by 2019
			laying of 340km water reticulation pipelines in Kangema, Kiharu, Mathioya, Kandara, Maragwa and Gatanga constituencies by 2020
			Laying of 30km water distribution within Kairi, Kahuro Gituro, Kiiria, Kagaa areas by 2020
			laying of approximately 80km distribution water pipeline, Construction of water storage tanks,

Key Result Area	Strategic Objective	Strategies	Activities
			Supply and installation of domestic consumer water connections within gatango, Karura, Gakurwe, and ichichi areas by 2020
			Construct Kiamba water distribution network of 22km by 2020
			Construct Limuru water distribution network of 20km by 2020
			Construct Kiambu water distribution network of 20km by 2020
			Construct Kikuyu water distribution network of 20km by 2020
			Construct Gatundu water distribution network of 40km by 2020
			Construct Nairobi informal settlements distribution network of 20km by 2019
			Construct Oloitoktok town water distribution network of 20km by 2019
		Prepare water development plans	Coordinate the preparation of annual national development plans with County Governments
			Develop a water distribution Master Plan for Nairobi by 2019
			Develop a water masterplan for Kiambu County by 2022
			Develop an integrated Water and irrigation Master Plan for Muranga County by 2020

3.2.2 KRA 2: Sewerage and Sanitation Coverage

Access to sewerage sanitation facilities currently stands at 35.4 percent in the Agency's jurisdiction. Sanitation coverage in urban areas is approximately at 50 percent in Nairobi, 16 percent in Kiambu County and 5 percent in Muranga County. During the planned period, the Agency intends to increase the average sanitation coverage from 35.4 percent to 60 percent. The Agency will do this by addressing the aging networks, upgrading and expanding the sewerage systems. Investment planning and resource mobilization will be enhanced for sewerage development.

Table 3.2: Strategic Objectives and Activities- Sewerage and Sanitation Coverage

Key Result Area	Strategic Objective	Strategies	Activities
Sewerage and sanitation Coverage	To increase percentage of the population with access to improved sanitation within the area of jurisdiction from 35.4% to 60% by 2022	Prepare long term sewerage development plans	Coordinate the preparation of annual National Development Plans with County Governments
			Develop integrated sanitation management plan for Nairobi and Metro areas by 2019
			Develop a sewerage design for Thika and Githunguri Town by 2020
			Develop a Sanitation Masterplan for Kiambu County by 2022
			Develop a Sanitation Masterplan for Murang'a County by 2022
			Develop a sewerage design for Kenol and Murang'a Urban by 2020
		Extension of trunk and reticulation sewers for Nairobi and other towns by 1,369 Km by 2022	Construct 270 Kms of trunk and reticulation sewers along the Nairobi Rivers basin by 2022
			Construct 130Kms of trunk and reticulation sewers for Ruiru, Thika and Juja towns by 2019
			Construct 75km of trunk and reticulation sewers for Kiambu and Ruaka town by 2020
			Construct 684km of trunk and reticulation sewers for East Nairobi by 2023
			Construct 30km of trunk and reticulation sewers for Kikuyu town by 2020

Key Result Area	Strategic Objective	Strategies	Activities
			Construct 55km of trunk and reticulation sewers for Githunguri town by 2022
			Construct 20km of trunk and reticulation sewers for Thika town by 2022
			Construct 30km of trunk and reticulation sewers for Limuru town by 2020
			Construct 30km of trunk and reticulation sewers for Gatundu town by 2020
			Construct 20km of trunk and reticulation sewers in Oloitoktok town by 2019
			Construct 15km of trunk and reticulation sewers in Kiserian town by 2018
		Increase the capacity of sewerage treatment plants for the Metros by 123,500m ³ /day by 2022	Develop sewer treatment plant of capacity 10,000m ³ /day to serve Juja town by 2019
			Develop sewer treatment plant of capacity 6,000m ³ /day for Thika by 2019
			Develop sewer treatment plant of capacity 6,000m ³ /day for Gatundu town by 2020
			Develop treatment plant sewer of capacity 90,000m ³ /day for East Nairobi by 2023
			Develop sewer treatment plant of capacity 5,500m ³ /day for Limuru town by 2020
			Develop sewer treatment plant of capacity 3,000m ³ /day for Githunguri by 2022

Key Result Area	Strategic Objective	Strategies	Activities
			Develop sewer treatment plant of capacity 6,000m ³ /day for Oloitoktok town by 2019
			Develop sewer treatment plant of capacity 6,000m ³ /day for Kiserian town by 2020

3.2.3 KRA 3: Investment and Resource Mobilization

The Agency has developed master plans for water and Sewerage infrastructure. To effectively deliver on its core mandate, the Agency will focus on mobilizing adequate resources to facilitate the Investment. 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 initiate resource mobilization strategies to generate Kshs. 242,026 Billion for financing water and sanitation infrastructure development by 2022. In order to ensure prudent use of resource mobilize, the Agency will develop measures to institutionalize and strengthen financial prudence and quality assurance of the AWWDA investments.

Table 3.3: Key Result Area, Strategic Objective and Strategies to mobilize investment resources for water and sanitation Infrastructure.

Key Result Area	Strategic Objective	Strategies	Activities
Investment and Resource Mobilization	To mobilize Kshs. 242,026 Billion for financing water and sanitation infrastructure development by 2022.	Develop and implement investment financing Strategies to generate Financial resources of Kshs. 242,026 Billion	Develop a resource mobilization policy for the Organization covering both internal (Government of Kenya) and external resources (Development partners).
			Develop, implement and monitor a long-term institutional financial plan (3-5 years).
			Adoption of innovative financing approaches to finance investments that improves access to the poor

Key Result Area	Strategic Objective	Strategies	Activities
			Package the investment plan into various financing mixes including development banks, PPPs, EPC-F, Capital Markets and Project Finance
			Coordinate the preparation of the annual water investment and financing plan with the County and national Governments.
			Preparation of the annual budgets.
			Monitor and report on the implementation of the national investment and financing plans.
		Increase AWWDA Income generating capacity by 5% annually through developing Self-sustainability funding initiatives.	Develop an inward looking financing model which is integrated with financial administrative systems and ensure it is monitored and adjusted on an ongoing basis.
			Diversification of funding sources to ensure the organization has a broad funding base consisting of at least five sources (donors)
			Generation of unrestricted Income: Unrestricted income accounts for more than 10% of the organization's total annual budget for example the provision of consultancy services

Key Result Area	Strategic Objective	Strategies	Activities
		Enhance financial prudence by 20%.	Increase absorption of internally and externally generated finances to 100%.
			Implement the Enterprise resource management system by 2019.
			Achieve a cost recovery cost recovery rate 90%.
			Enhance financial reporting through annual publication and quarterly reporting
			Develop and maintain a debt register
			Maintain positive annual cash flow exists for two consecutive years (annual income equal to or exceeds expenses).

3.2.4 Operationalization of Bulk Water Services Provision

Upon development of a bulk water infrastructure, as a bulk services provider AWWDA will be responsible for managing bulk water production and transmission to WSPs. In the short-term (2019-2022), the Agency will establish operational centers for NC system, Ruiru II dam and Karimenu II to facilitate production and transmission of up to 250,000m³/day of water. Developing and ensuring the sustainability of infrastructure of such magnitude and importance as NC system, Karimenu II and Ruiru II requires technical and financially sound operator. The following strategies will be pursued further to operationalize bulk water services delivery;

Table 3.4: Key Result Area, Strategic Objective and Strategies for Operationalizing Bulk Water Services Provision

Key Result Area	Strategic Objective	Strategies	Activities
Operationalization of Bulk Water Services Provision	To put in place a bulk water operation system by 2020.	Establish operation centers on a combination of advance technology, communication channels,	Establish operational offices in NC system, Karimenu II and Ruiru II dam
			Procure supervisory Control and Data

Key Result Area	Strategic Objective	Strategies	Activities
		hardware, software and physical infrastructure	Acquisition System (SCADA)
			Set up local control and operation systems, models & tools for analysing process
			Acquire remote meter reading system (Automatic Meter Reading)
			Procure and install nonfunctional valves and appurtenances, leak detection equipment
		Institutionalize bulk water operations	Undertake capacity assessment of the approved human resources to determine preparedness for operations
			Deployment of skilled human resources to the operational centres by 2022
			Undertake tariff setting for bulk water services
			Establish performance and financial management standards for efficiency and customer satisfaction.
			Develop operational compliance parameters
		Stakeholders engagement	Identify key stakeholders Development a stakeholders' engagement and communication plans Attain 100% stakeholders' compliance by 2022.

3.2.5 Research and Development

Research in water and sewerage 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 corporation will significantly contribute to enhancement of best practices. AWWDA desires to make corporate research a leading element in strategy by fully integrated at the corporate level. This will ensure that the Agency promotes research, development and adoption of appropriate technology.

Table 3.5: Key Result Area, Strategic Objective and Strategies for Research and Development

Key Result Area	Strategic Objective	Strategies	Activities
Research and Development	To promotes research, development and adoption of appropriate technology.	Facilitate investment in research and development that is able to increase corporate research output.	Establishing a research unit by 2020
			Establishment of the scope and outlining criteria for partnerships on relevant areas.
			Develop a research policy in line with water sector objectives relevant to the water works development
			Establish structures and infrastructure requirements to roll out the research function within the Agency
			Initiate partnerships with local and international institutions in relevant research programs in the Country.
			Monetize research findings by advising other sector players on sustainable approaches in water provision.
			Developing an innovation policy that incentivizes staff and partners who develop solutions to expand access to water and sanitation.

Key Result Area	Strategic Objective	Strategies	Activities
			Development and adoption of appropriate water and sanitation technologies
			Improve data collection and information management for effective planning and decision making
			Enhance institutional and human capacity on research and information management

3.2.6 KRA 6: Leadership and Governance

Strong leadership and governance processes are vital for the Agency to survive in a complex and rapidly changing environment. The outcome of the strategy is therefore dependent on effective leadership at the Board of Directors' and Management level. Effective leadership will also be necessary for a stronger intergovernmental relationship in the development and provision of water and sewerage infrastructure. Governance structure determine direction and achievement of optimal performance. It helps maintain accountability, reputation and integrity. The objective of the Agency is to put in place and strengthen corporate governance systems that regulate and oversee corporate conduct, consider the interest of both internal and external stakeholders, ensure responsible behavior by the corporation and achieve the maximum level of efficiency and productivity. In line with the Ethics and Anti-Corruption Commission Act No. 22 of 2011 and the Leadership and Integrity Act of 2012, the Agency will pursue the following strategies.

Table 3.6: Key Result Area, Strategic Objective and Strategies for leadership and Governance

Key Result Area	Strategic Objective	Strategies	Activities
Leadership and Governance	To strengthen leadership and governance for efficiency and productivity	Maintain statutory and regulatory compliance	Progressively reduce cases of non-compliance to statutory requirements
			Prepare compliance reports on asset development to the Water Services Regulator

Key Result Area	Strategic Objective	Strategies	Activities
			Prepare and submit annual financial statement to the Kenyan National Audit Office by 30th September every year
			Carry out a governance compliance audit
			Prepare and implement a statutory and regulatory compliance template
			Prepare quarterly performance report to the Agency of Directors and Treasury
			Prepare quarterly compliance report to PPRA, EACC, NT
		Enhance institutional integrity and anti-corruption measures	Undertake corruption risk mapping
			Promote competitive bidding in line with the PPDA 2015
			Sensitize staff on Chapter 6 of the constitution and implementation of Chapter Six of the Kenya Constitution on Leadership and Integrity
			Develop corruption reduction strategy
			Undertake a survey to determine corruption perception index of the Agency
			Review and update the Athi Water institutional anti-corruption policy every 2 years
			Undertake corruption risk management through the Corruption Prevention and Oversight Committee

Key Result Area	Strategic Objective	Strategies	Activities
			Submit quarterly reports on the adherence with the code of ethics and anti-corruption policy through the Corruption Prevention and Oversight Committee
		Review and strengthen instruments of leadership in the organization	Review and update the code of ethics for staff and Board of Directors every 2 years
			Enhance internal and external auditing processes
			Streamline internal checks and balances
			Publicize all procurement information and other information relating to implementation of projects

3.2.7 KRA 7: Institutional sustainability

The primary dimensions of organizational sustainability will be to look at ensuring product and program sustainability, personnel sustainability, financial sustainability and environment sustainability. In order to deliver on our mandate, a strong case has been made to pursue economic, social, and environmental policies and practices that will reduce the risks associated with implementation of water and sewerage infrastructure. For the Agency to remain relevant in the unforeseeable future, it will invest in the protection of the environment especially the water catchment areas, as well as actively pursuing measures to reduce Non-Revenue Water. The Agency will put in place cost cutting measures that will enable it to remain viable. This means that it will be necessary to take advantage of the new water Act to reposition the Agency as a viable institution.

Table 3.7: Key Result Area, Strategic Objective and Strategies for Institutional Sustainability

Key Result Area	Strategic Objective	Strategies	Activities
Institutional sustainability	To pursue water and sanitation infrastructure development while ensuring human	To set aside Kshs 2 million per annum for environmental protection and	Promote integrated water resources management through collaboration with other institutions in protection and restoration of water-related

Key Result Area	Strategic Objective	Strategies	Activities
	resources, financial environment sustainability.	climate change mitigation measures.	ecosystems and catchments areas.
			Promote environmental sustainability through adoption of green technology including water harvesting, water efficiency, wastewater treatment, recycling and reuse technologies.
			Improve surface water quality and reduce pollution by providing waste water treatment systems
			Mainstream climate change mitigation measures in all projects and programs.
			Ensure compliance with Environmental and social safeguards requirements
			Undertake Environmental and Social Impact Assessment for new projects
			Ensure protection of right to property of project affected persons by providing prompt payment and just compensation.
		To Reduce Non-Revenue Water to 30% by 2022	Installation of bulk meters and zonal meters when constructing transmission and distribution networks
			Technical assistance to WSPs and counties on NRW management to ensure operational sustainability

Key Result Area	Strategic Objective	Strategies	Activities
			Provision of 10,000 domestic water meters
			Replacement of 50km of old water distribution networks
		To Ensure a smooth transition to the Water Act 2016 by 2019	Engage with key stakeholder to communicate and create awareness of the transition program
			Coordinate the communication between the County Government and the Regulator on enactment of sector regulations
			Liaise with the ministry responsible for water services to support smooth transfer of functions to the devolved structures (counties)
			Liaise with the regulator in the development of water services and asset development regulations
			Undertake construction of AWWDA office
		Review AWWDA organizational structure by 2018 to support the AWWDA strategy	Develop a comprehensive manpower planning
			Undertake a work-load analysis against the existing workforce and undertake a review in 2019
			Recruit and engage the right mix of skills and experience to realize the Athi Water vision
			Prepare and implement technical assistance and capacity building for AWWDA, county

Key Result Area	Strategic Objective	Strategies	Activities
			government Water Service Providers.
			Establish mechanisms for staff motivation and retention through introduction of mortgage and car loan schemes.
			Establish the Pension Scheme for AWWDA and review employee contribution rates upwards by 2.5% and employer by 5% respectively.
			Strengthen the customer complaints handling mechanism
			Develop grievance handling mechanisms at project level
		Develop and strengthen Monitoring and Evaluation systems and promote adoption of effective information management system	Establish an M & E unit and M&E plan and framework
			Develop an ICT Strategy aligned to the Agency's strategy
			Implement an Information Security Management System
			Implement measures to protect Water Infrastructure and Systems from Cybercrime and Terrorism
		Maintain statutory and regulatory compliance	Prepare compliance reports on asset development to the Water Services Regulator
			Prepare and implement a statutory and regulatory compliance template
			Prepare and submit annual financial statement to the Kenyan National Audit

Key Result Area	Strategic Objective	Strategies	Activities
			Office by 30th September every year
			Prepare quarterly performance and compliance reports to the Board, Treasury, PPRA, EACC, CAJ

CHAPTER FOUR

IMPLEMENTATION AND COORDINATION FRAMEWORK

4.0 Overview

This chapter addresses issues on human and financial resource needs relating to the implementation of the strategic plan. The section evaluates financial and human resource constraints, sources of funds, results of capacity assessment, analysis of current organizational structure and functions, capacity development strategies, cost implications, and the organizational chart. The section also illustrates responsible teams for implementing the various aspects of the strategic plan.

4.1 Structure of the Organization

AWWDA undertook a reorganization of its functions and human resources to align itself to the Water Act 2016, the “big four agenda”, the SDGs. The restructuring process was also informed by the review of the 20012-2017 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 puts emphasis on the core mandates of the organization. The structure has the following Departments;

1. Office of the Chief Executive Officer
2. Water Works Development,
3. Sewerage and Sanitation Works Development,
4. Finance and Strategy,
5. Corporate Services.

4.1.1 The Board of Directors (BoD)

The leadership of AWWDA is entrusted on a Board of Directors headed by a chairperson. The Agency reports to the Cabinet Secretary in-charge of the Ministry of Water and Sanitation which is the appointing authority. The Board of Directors is responsible for providing strategic leadership and oversight to Management. Specifically, the Board of Directors 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 Board’s approved policy;
4. Approve organizational structures and staff complement;
5. Monitor management and corporate performance against the Strategic Plans and Budgets approved by the Board.
6. Nurture positive relationship with Stakeholders;
7. Ensure 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 of Directors. 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 set 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;

1.1) Supply Chain 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.

1.2) Internal Audit and Risk 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.

1.3) 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 institution.

4.1.3 Department of Water Works

The department is headed by a Chief Manager who reports to the CEO on matters of waterworks 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 four key division responsible for planning, design, construction, and water infrastructure management. The heads of divisions are Technical Managers and report to the Chief Manager, Water Works. 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; Water Works planning and Design, Water Infrastructure Development, Water Services and County Liaison Division and the Water Works Safeguards Division.

Their functions of the different divisions of the department include;

1. **Water Works 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 infrastructure development plans, investment proposals, feasibility studies, designs and technical standards and construction of water facilities.
2. **Water Infrastructure Development Division-** The division will be 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. **Water Services and County Liaison Division-** the overall objective of the division will be to ensure proper management of water asset. It will also develop/adopt technical standards for incorporation into service agreements with county government, joint committee, authority of county governments or water services provider. The Division will have two field stations in Kigoro and Karimenu where the water treatment plant will be developed and ran and implemented. Staff will be deployed to this stations from AWSB headquarters.
4. **Water Works Safeguards Division: -** The overall responsibility of the division will be to coordinate environmental, Health and Safety, social, resettlement, valuation and acquisition of assets for the water works.

4.1.4 Department of Sewerage and Sanitation Works

The Department is charged with the responsibility of overseeing the planning, design and construction of sewerage and sanitation services facilities and to ensure that the technical sewerage and sanitation assets of the Agency are acquired, maintained and operated according to standard specifications while ensuring that environmental, social impact assessments as well as Health and safety requirements are met. The department is headed by a Chief Manager who reports to the CEO. The Department has three division with the following specific functions;

Their functions are indicated as follows:-

1. **Sewerage and Sanitation Works Planning and Design Division-** The overall responsibility will be to direct the planning and design of construction works for sewerage and sanitation facilities. The division will also carry out effective consultation with all key stakeholders at the conceptual and planning stages of sewerage projects. It will oversee the preparation of sewerage infrastructure

development plans, investment proposals, feasibility studies, designs and technical standards and construction of water facilities.

2. **Sewerage and Sanitation Works Infrastructure Development Division:** The division will be responsible for directing, coordinating, control and management of the Agency's technical operations and ensure good development and maintenance of infrastructure for quality Sewerage Infrastructure services.
3. **Sewerage Services, Sanitation & County Liaison Division-** The division is responsible for ensuring proper management of Sewerage asset and development/adoption of technical standards for incorporation into service agreements with county governments, joint committees, authority of county governments or water services providers.

4.1.5 Department of Finance and Strategy

The Department is headed by the Chief Manager who reports to the Chief Executive Officer. The department is responsible for coordinating the preparation of AWWDA strategy, monitoring its implementation, financial planning, analysis, budgeting, maintenance of an asset register, debt management and reporting on AWWDA corporate performance. The department is also responsible for spearheading corporate research and quality assurance. The department has five divisions namely Finance and Accounts, Resource Mobilization and investment, Corporate Research and Innovation, Strategy and Performance Management and Quality Assurance and Risk Management Divisions.

Their functions are indicated as follows:-

1. **Corporate Research & Innovation Division-** the division is responsible for coordinating research and innovation in the Agency.
2. **Strategy & Performance Management Division-** the division is responsible for coordinating the development of strategic policy initiatives, in line with the MTPF guidelines and coordinate the implementation of both the performance contract and realization of the Agency's strategic objectives.
3. **Quality Assurance & Risk Management Division-** the Division is responsible for Risk management coordination and Quality Assurance in the Agency.
4. **Finance and Accounts Division-** the Division is charged with ensuring prudent management of financial resources and the reporting thereof within the existing legal framework.
5. **Resource Mobilization and Investment Division-** The division is charged with developing new business, securing new and additional resources for the Agency.

Making better use of, and maximizing existing resources, reporting thereof within the existing legal framework.

4.1.6 Department of Corporate Services

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, Communication and 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 Capital and Administration Division:** The division is headed by a Manager who reports to the Chief Manager Corporate Services. 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 Communication Division:** The division is headed by a Manager who reports to the Chief Manager Corporate Services. The division will be responsible for the management of the corporate communication, public relations and the AWWDA branding to enhance service delivery.
3. **Information and Communication Technology Division:** The division is headed by a Manager who reports to the Chief Manager Corporate Services. 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.

4.2 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 Water Works, Sewerage and Sanitation Works, Finance and Strategy 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.

4.3 Financial Resources

The total amount of financial resources required to effectively implement this strategic plan is Ksh. 231.53 Billion as summarized in the table below:

Table 4.1: Financial Resources Requirement

No	Key Result Area	Resource Requirements						
		Baseline (Kshs)- 2017	Total (Kshs)	Projected estimates (Million)				
				2018/19	2019/20	2020/21	2021/2 2	2022/2 3
1	Access and Coverage- Water	61,192	190,845	12,808	25,178	48,295	58,935	45,629
2	Access and Coverage-Sewerage and Sanitation	6,625	45,281	668	14,154	10,631	10,222	9,606
3	Investments and Resource Mobilization	520	700	75	175	150	150	150
4	Research and Development	100	200	25	25	50	50	50
5	Leadership and Governance	310	930	93	186	279	186	186
6	Institutional Sustainability	3,175	4,070	814	814	814	814	814
Total		71,922	242,026	14,483	40,532	60,219	70,357	56,435

4.3.1 Mobilization Strategies

The Agency will mobilize resources from different sources including Internally Generated Funds, Exchequers Funds from GoK, Development partners, Capital Markets, PPPs and EPC-F 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 and EPC-Fs). 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 the table 4.2:

Table 4.2: 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 and Sanitation is committed to progressive attainment of the right to water. AWWDA commits to continue working in collaboration with the Ministry in the implementation of public water works in order to reach underserved and unserved areas and to renew aging infrastructure.
2.	Mutual funds	AWWDA will collaborate with county governments to develop joint financing proposals for the development of Public water works within the various counties in our area of jurisdiction
3.	Consultancy services	AWWDA will create a consultancy function responsible for capacity building within the counties and to the various WSPs across the country.
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. AWWDA 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.	Revenue from water sales	The Agency plans to operate the bulk water systems and sell water in bulk to WSPs
6.	Development Partners	Investment requirements for water supply and sewerage infrastructure is normally very high but 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. AWWDA will seek donor support, especially for development of Water and Sewerage infrastructures in areas with no adequate water services through grants and concessional loans.
7.	Public Private Partnerships (PPP)	Athi Water will source funds from the market through Public private partnership , Issuance of infrastructure bonds , Private equity placements
8.	Engineering, Procurement and Contracting (EPC-F)	Athi water will source funds through Engineering Procurement Construction and Finance whereby a consortium of a contractor, consultant and financier is identified to undertake design and build projects.

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. The summary in the table below also indicates the offices in charge of keeping tabs on the said risks:

Table 4.3: Risk Analysis and Mitigation Measures

Risk	Consequence of Risk	Category	Impact	Mitigation Measures	Responsibility
Inadequate and delayed exchequer funding	<ul style="list-style-type: none"> i) Conflicts with PAPs ii) Delay in completion of projects iii) Low staff morale iv) Cancellation of signed agreements 	High	High	<ul style="list-style-type: none"> i) Pursue alternative financing streams ii) Sustain existing Partnerships 	CEO
Governance, leadership challenges and corruption	<ul style="list-style-type: none"> i) Low Development Partners' goodwill ii) Reduced funding iii) Low political support iv) Corporate reputation affected, image 	High	High	<ul style="list-style-type: none"> i) Entrenchment of corporate governance mechanisms, ii) Continuous staff training and implementation of the ethics and anticorruption measures 	BOD, CEO
Climate Change	<ul style="list-style-type: none"> i) Low water sources ii) Conflict with upstream users iii) High cost of water infrastructure development 	High	High	<ul style="list-style-type: none"> iii) Climate change adaptation and mitigation measures iv) Cross Counties water sharing models 	BOD, CEO
High Staff turnover	<ul style="list-style-type: none"> i) Loss of institutional memory ii) Low performance iii) Reduced staff morale 	Medium	High	<ul style="list-style-type: none"> i) Develop a career progression guideline to retain competent staff ii) Introduce various incentives to motivate and retain staff 	CEO CM-CS
Non-Compliance with Laws, Regulations and financing agreements	<ul style="list-style-type: none"> i) Costly litigation ii) Termination of financing agreements 	High	High	Regularly review contracts to ensure compliance. Carry out	Compliance with Laws & Regulations

Risk	Consequence of Risk	Category	Impact	Mitigation Measures	Responsibility
	iii) Corporate reputation affected			compliance audits	
Misalignment of the Departmental Strategies with the investment model of the Agency	Inadequate and inconsistent departmental Policies and Procedures	Medium	High	Periodic review and adjustments on SP activities and implementation of departmental policies and procedures	CEO
Noncompliance with service charter on payments to suppliers and disbursements to implementing partners	i) Unrealised fund disbursement by Development Partners and Government ii) Leads to low absorption of funds	High	High	i) Enforce the provisions of the service charter. ii) Ensure processing of suppliers payment on time	All Departments
Failure to reach targeted population with water and sewerage services	Failure to achieve mandate and objectives	High	High	Continuously carry out, progress review, resource mobilisation and financing mechanisms	CEO
Project sustainability	Funded projects may not achieve the intended objectives	High	High	i) Enhanced appraisal and implementation process ii) In-depth analysis of the results of the Operations Monitoring and learning iii) Communicate with Counties and WSPs on steps to take to operationalise non-functioning infrastructure and follow-up	CEO, CMS.CMW, CMFS
Low absorption of allocated funds	Failure to achieve the desired mandate	Medium	High	i) Engage with the Ministry and Donors on timely allocation of funds ii) Carry out	CEO, CMS.CMW, CMFS

Risk	Consequence of Risk	Category	Impact	Mitigation Measures	Responsibility
				periodic analysis of the Fund's fund absorption rate iii) Enhanced capacity technical departments	

CHAPTER FIVE

MONITORING, EVALUATION AND REPORTING

5.0 Overview

This chapter outlines the monitoring, evaluation and reporting framework for the Strategic Plan. It gives the main outputs/outcome indicators and indicators for national monitoring of the MTP III 2018-2022. The chapter provides the basis of identification of annual targets for inclusion in annual Performance Contract cycles of AWWDA. The chapter also outlines the institutional set up for monitoring, evaluation, learning and frequency of reporting.

5.1 Monitoring, Evaluation, and Reporting

The Agency is expected to strengthen its M&E unit to coordinate and provide technical support to various project implementation team and management. The monitoring and evaluation system at the Agency includes;

1. Project implementation Teams (PITs) - the 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- Reporting to the management and the Board of Directors, the committee is responsible for development, validation of data and operationalization of M&E framework, plans, and M&E policies and backstopping of PIUs. It will also coordinator 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 money.

The key documents that will provide the basis for M&E will include this strategic plan, annual performance contracts, annual work plans, annual budget and expenditure review, 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, Bomba News, mails, social media, and stakeholders' forum.

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.

5.2 Monitoring Methodologies

Monitoring of the Strategic Plan 2018-2022 implementation is meant 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 Agency will adopt various logical frameworks for the various projects against which immediate and long-term results will be reported.

Programme/ projects monitoring will be undertaken to cover the following elements:

Monitoring type	Description	Frequency
Compliance monitoring	For the various projects, monitoring will be undertaken on: <ul style="list-style-type: none"> i. Absorption of funds ii. Compliance of contract/ work plan. iii. Value for money 	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 Operation 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	<ul style="list-style-type: none"> i. Direct impacts (early on) and eventual outcomes (somewhat later) ii. Consequences direct or indirect of the results. 	Annual

Table 5.1: Summary of Monitoring and Evaluation-Impact and Performance Indicators²

Key Result Area	Performance Indicator	Baseline 2018	Mid-Term Projections 2020	End-Term Projection 2022
Water Coverage	% of Households with access to Water	72.1	75.5	80
	Production Capacity of Water (M ³ /Day)	639,684	800,000	1,067,400
Sewerage and Sanitation Coverage	% of Households with Access to Sewerage and sanitation.	35.4	53	60
	Sewerage treatment Capacity (M ³ /Day)	210,500	280,000	334,500
Investments and Resource Mobilization	Amount of money mobilized (Kshs)	74 Billion	100 Billion	242.026 Billion
Research and Development	No. of Resource outputs/Technologies adopted	N/A	3	2
Leadership and Governance	Corruption perception Index (%)	TBD	TBD	TBD
Institutional Sustainability	Customers' satisfaction index (%)	81.2	83	85

² Detailed Monitoring and Evaluation Framework is contained in Annex II

ANNEX 1: STRATEGIC PLAN IMPLEMENTATION MATRIX- PROJECTS ALIGNED TO MTP III- WATER PROJECTS

Strategic Programme/ Project Name	Objectives	County	Expected Output	Implementing Agency	Time Frame	Sources of Funds	Indicative Budget Kshs. Million					
							Total	2018/19	2019/20	2020/21	2021/22	2022/23
KRA 1: WATER COVERAGE: INCREASE ACCESS TO WATER IN AWWDA’S FROM 72.1% TO 80% BY 2022												
Water & Sanitation Services Improvement	Additional water produced to serve 2 million people	Nairobi, Kiambu and Murang’a	Additional 140,000 m³/day for Nairobi	MWS/AWWDA	2013-2019	IDA	10,999	3,500	7,499		-	-
Northern Collector-AFD	Additional water supplied 2 million people	Nairobi	Additional 140,000m³/day to Kabete Nairobi	MWS/AWWDA	2016-2021	AFD	7,700	1,900	1,585	2,301	1,914	0
Nairobi Water Distribution Network	Extension of water supply to 336,000 people in Nairobi	Nairobi	45,000 additional connections in Nairobi	MWS/AWWDA	2017-2019	KfW	4,200	1,260	840	1,680	420	0
Nairobi Satellite Towns Water and Sanitation	water and sewerage supply in Ruiru, Kiserian and Ongata Rongai to serve 338,000	Kiambu and Kajiado	Additional 338,000 people in in Ruiru, Kiserian and Ongata Rongai served	MWS/AWWDA	2017-2019	KfW	3,696	0	899.2	766	1,292	739
Ithanga Water Supply	Enhance water supply within Ithanga area of Muranga county to serve 50,000 people	Murang’a	Additional 10,000m3/day of water produced	MWS/AWWDA	2016-2019	GoK/Belgium	1,158	220	223	224	491	0
Oloitoktok Water and Sewerage Project	To increase access to water and sanitation to serve additional 40,000 people	Kajiado	Increase water capacity by 2000m3/day and sewerage Capacity of 6000m3/day	MWS/AWWDA	2016-2019	BADEA	337	101	135	67	34	0

Strategic Programme/ Project Name	Objectives	County	Expected Output	Implementing Agency	Time Frame	Sources of Funds	Indicative Budget Kshs. Million					
							Total	2018/19	2019/20	2020/21	2021/22	2022/23
Kajiado Rural Water Supply	Enhance water supply to serve 50,000 people and livestock	Kajiado	Additional 8,000m3/day produced	MWS/AWWDA	2016-2019	Belgium	1,224	432	319	473		
Kenya Towns Sustainable Water and Sanitation Project	Improve water and sewerage in Gatundu, Kikuyu, Limuru, Kiambu, Machakos, Changamwe, Pemba and Mwala to serve 800,000 people	Kiambu, Machakos, Makueni, Mombasa	Additional 25000m3/day of water produced and 26000 Sewer treated	MWS/AWWDA	2018-2022	AfDB	9,400	800	1,360	2,413	2,413	2,413
Karimenu II Dam WS Project	Additional Water produced for Ruiru, Juja and Thika areas to serve 600,000 people	Kiambu/Nairobi	Additional 47,000m3/day produced 23,000m3/day for Nairobi	MWS/AWWDA	2017-2021	EPC	24,500	4,500	5,000	5,000	5,000	5,000
Ruiru II Dam WS project	Additional Water produced for Karuri, Kiambu and Githunguri to serve 700,000 people	Kiambu/Nairobi	Additional 51,000m3/day produced	MWS/AWWDA	2018-2022	EPC	19,000	0	6,250	4,250	4,250	4,250

Strategic Programme/ Project Name	Objectives	County	Expected Output	Implementing Agency	Time Frame	Sources of Funds	Indicative Budget Kshs. Million					
							Total	2018/19	2019/20	2020/21	2021/22	2022/23
Nairobi Water and Sanitation Project	Rehabilitation of existing networks, reinforcement of the distribution system, 19 km-long one (600 mm diameter) pipeline crossing the city North to South from Kabete treatment plant,- distribution network extensions with 350 km of pipelines, as well as household connections and water meters	Nairobi	Rehabilitation of existing networks, reinforcement of the distribution system, 19 km-long one (600 mm diameter) pipeline crossing the city North to South from Kabete treatment plant,- distribution network extensions with 350 km of pipelines, as well as household connections and water meters	MWS/AWWDA	2020-2022	AFD	6,930		693	2,079	2,079	2,079
Theta Dam and Treatment Works Project	Additional Water produced to serve 50,000 people	Kiambu	Additional 4,000m ³ /day in Gatundu area	MWS/AWWDA	2017-2018	GoK	80	80	-	-	-	-
Thika and Githunguri Water and Sanitation Project	Improve water and sanitation in Githunguri and Thika to serve 500,000 people	Kiambu	Increase water capacity by 1000m ³ /day and 20km pipeline, Increase sewer Capacity by 8000m ³ /day in Githunguri.	MWS/AWWDA	2018-2022	Danida	1,500	15	375	375	375	360

Strategic Programme/ Project Name	Objectives	County	Expected Output	Implementing Agency	Time Frame	Sources of Funds	Indicative Budget Kshs. Million					
							Total	2018/19	2019/20	2020/21	2021/22	2022/23
			Restore water capacity by 32000m3/day and 20km pipeline, Increase sewer Capacity by 30,000m3/day, Lay 70km of sewer in Thika.									
Kiambaa Water Supply project	Additional water produced for Kiambaa area of Kiambu County to serve 300,000 people.	Kiambu	Additional 7430m3/day produced	MWS/AWWDA	2018-2022	Belgium	2,000	0	0	667	667	667
Development of Maragua 4 Dam	Additional Water produced for Nairobi Metro Area to serve 1.2 million people	Murang'a/Nairobi	Additional 216,000m3/day produced	MWS/AWWDA	2019-2025	EPC-F	24,000	-	0	6,000	9,000	9,000
Development of Gate 1 Dam	Additional Water produced for Nairobi Metro Area to serve 1.2 million people	Nairobi & Athi river areas	Additional 132,000m3/day produced	MWS/AWWDA	2019-2025	PPP	16,000	-	0	4,000	6,000	6,000
Development of Kinale Dam	Additional Water produced for Nairobi Metro Area to serve Limuru, Lari and Kikuyu	Kiambu County	Additional 30,000m3/day produced	MWS/AWWDA	2021-2025	PPP	13,000	-	0	4,000	6,000	3,000
Development of Kamiti 1 Dam	Additional Water produced for Nairobi Metro Area to	Nairobi, Kiambu & Athi river areas	Additional 16,416m3/day produced	MWS/AWWDA	2021-2025	PPP	9,000	-	0	2,000	4,000	3,000

Strategic Programme/ Project Name	Objectives	County	Expected Output	Implementing Agency	Time Frame	Sources of Funds	Indicative Budget Kshs. Million					
							Total	2018/19	2019/20	2020/21	2021/22	2022/23
	serve 1.2 million people											
Development of Gatamathi and Kahuti water supply project	Additional Water produced for Muranga Area to serve 300,000 people (Mathioya, Kangema, Kiharu	Muranga	Additional 30,000m3/day produced	MWS/AWWDA	2021-2025	PPP	6,121	-	0	2,000	3,000	1,121
Thika 3A Dam	Additional Water produced for Nairobi Metro Area to serve 1.2 million people	Nairobi, Kiambu & Athi river areas	Additional 40,000m3/day produced	MWS/AWWDA	2021-2025	PPP	12,000	-	0	4,000	6,000	2,000
Northern Collector-Phase 2	Additional Water produced for Nairobi Metro Area to serve 1.2 million people	Nairobi & Athi river areas	Additional 285,120m3/day produced	MWS/AWWDA	2021-2025	PPP	18,000	-	0	6,000	6,000	6,000
Total							190,845.00	12,808	25,178	48,295	58,935	45,629

ANNEX 2: STRATEGIC PLAN IMPLEMENTATION FRAMEWORK- PROJECTS ALIGNED TO MTP III- SEWERAGE PROJECTS

Strategic Programme/ Project Name	Objectives	County	Expected Output	Implementing Agency	Time Frame	Sources of Funds	Indicative Budget Kshs. Million					
							Total	2018/19	2019/20	2020/21	2021/22	2022/23
KRA 2: SEWERAGE AND SANITATION COVERAGE												
INCREASE SANITATION COVERAGE IN THE AGENCY’S AREA OF JURISDICTION FROM 47% TO 70% BY 2022												
Kiserian Sewerage Project	Improve sanitation services for Kiserian Town to serve 90,000 people	Kajiado	Additional 6000m3/day of sewer Treated and 16 Km sewer pipeline laid.	MWS/AWW DA	2015-2020	GoK	900	120	137	498	145	0
Oloitoktok Water and Sewerage Project	To increase access to water and sanitation to serve additional 40,000 people	Kajiado	Increase water capacity by 2000m3/day and sewerage Capacity of 6000m3/day	MWS/AWW DA	2016-2019	BADEA	786	98	189.7	277.2	221.2	0
Kenya Towns Sustainable Water and Sanitation Project	Improve water and sewerage in Gatundu, Kikuyu, Limuru, Kiambu, Machakos, Changamwe, Pemba and Mwala to serve 800,000 people	Kiambu, Machakos, Makueni, Mombasa	Additional 25000m3/day of water produced and 26000 Sewer treated	MWS/AWW DA	2018-2022	AFDB	8,400	450	2,520	1,810	1,810	1,810

Strategic Programme/ Project Name	Objectives	County	Expected Output	Implementing Agency	Time Frame	Sources of Funds	Indicative Budget Kshs. Million					
							Total	2018/19	2019/20	2020/21	2021/22	2022/23
Thika and Githunguri Water and Sanitation Project	Improve water and sanitation in Githunguri and Thika to serve 500,000 people	Kiambu	Increase water capacity by 1000m3/day and 20km pipeline, Increase sewer Capacity by 8000m3/day in Githunguri. Restore water capacity by 32000m3/day and 20km pipeline, Increase sewer Capacity by 30,000m3/day , Lay 70km of sewer in Thika.	MWS/AWW DA	2018-2022	Danida	1,500	0	375	375	375	375
Nairobi Rivers Basin Restoration programme Phase 2: Sewerage improvement	Increase access to sewerage services for the Nairobi to serve 1.2 million people	Nairobi	240km sewerage network and sewerage capacity of 160,000m3/day	MWS/AWW DA	2019-2022	AfDB	12,000	-	3,600	2,800	2,800	2,800

Strategic Programme/ Project Name	Objectives	County	Expected Output	Implementing Agency	Time Frame	Sources of Funds	Indicative Budget Kshs. Million					
							Total	2018/19	2019/20	2020/21	2021/22	2022/23
Nairobi Water and Sanitation Project	laying more than 60 km of secondary networks in the Rirutta Satellite neighborhood, West of the city; laying more than 60 km of secondary networks in the Zimmerman, Karasani and Roysambu neighborhoods, North-West of the city; laying more than 100 km of secondary networks in other parts of the city where trunk sewers are already installed.	Nairobi	laying more than 60 km of secondary networks in the Rirutta Satellite neighborhood, West of the city; laying more than 60 km of secondary networks in the Zimmerman, Karasani and Roysambu neighborhoods, North-West of the city; laying more than 100 km of secondary networks in other parts of the city where trunk sewers are already installed.	MWS/AWW DA	2020-2023	AFD	4,070		407	1,221	1,221	1,221
East Nairobi Sewerage	Increase access to sewerage services for Nairobi to serve 2 million people.	Nairobi	684km sewerage network and two sewerage Treatment plants of a combined capacity 90,000m3/day	MWS/AWW DA	2019-2022	EPC-F	17,000	0	6,800	3,400	3,400	3,400
		Nairobi				TBD	625	-	125	250	250	0

Strategic Programme/ Project Name	Objectives	County	Expected Output	Implementing Agency	Time Frame	Sources of Funds	Indicative Budget Kshs. Million					
							Total	2018/19	2019/20	2020/21	2021/22	2022/23
Pilot of Omni processor technology for sanitation in selected urban centers	Enhance waste water treatment in selected urban centers		1 No. Omni processor	MWS/AWW DA	2019-2022							
TOTAL							45,281	668	14,154	10,631	10,222	9,606

ANNEX 3: STRATEGIC PLAN IMPLEMENTATION FRAMEWORK

Strategy	Immediate Objective	Key performance indicators	Timeframe	Responsible	Cost (Million Kshs)	Sources of Funds
KRA 3: INVESTMENTS, RESEARCH AND STRATEGY: MOBILIZE KSHS. 234.775 BILLION FOR WATER AND SANITATION DEVELOPMENT BY 2022						
Prepare long term investment and financing plans for water and sewerage.	Prepare water, sewerage, energy investment and financing plans	No. of investment and Financial Plans Developed	2018-2022	MWS/AWWDA	200	Internally and allocation Generated Exchequer
Identify alternative sources of financing	Package the investment plan into various financing mixes including development banks, PPPs, EPC-F, Capital Markets and Project Finance	No. of alternative investments identified	2018-2022	AWWDA	200	Internally and allocation Generated Exchequer
Develop a framework for operation of waterworks and provision of water services.	Establish and equip a unit of operation and maintenance Identify new projects and put in place infrastructure necessary for their operation	% progress in the setting up of a unit for operation and Maintenance. No. of new projects identified	2018-2022	MWS/AWWDA	2070	Internally and allocation Generated Exchequer
KRA 4: LEADERSHIP AND GOVERNANCE: INCREASE STAKEHOLDERS SATISFACTION BY 5% ANNUALLY THROUGH 2022						
Ensure adherence to internal processes and procedures	Review and update AWWDA risk management framework to incorporate emerging issues	No. of risk management framework put in place	2018-2022	MWS/AWWDA	50	Internally and allocation Generated Exchequer
Maintain statutory and regulatory compliance	Prepare and submit quarterly reports	No. of reports timely developed and feedback provided	2018-2022	MWS/AWWDA	50	Internally and allocation Generated Exchequer

Strategy	Immediate Objective	Key performance indicators	Timeframe	Responsible	Cost (Million Kshs)	Sources of Funds
Enhance institutional integrity and anti-corruption measures	Review and update the code of ethics for staff and Board of Directors Undertake corruption risk management through the Corruption Prevention and Oversight Committee	Measures undertaken to implement chapter 6 of the constitution No. of reviews and updates to the code of ethics No. of quarterly reports submitted on anti-corruption measures	2018-2022	AWWDA	-	Internally and allocation Generated Exchequer
KRA 5: INSTITUTIONAL SUSTAINABILITY-OUTCOME: ENHANCED INSTITUTIONAL PERFORMANCE						
Implement strategic asset management	Engage relevant bodies and acquire necessary documents for land and wayleaves Initiate the development of asset management policy	No. of strategic asset management Framework Developed and implemented	2017-2023	MWS/AWWDA	150	Internally and allocation Generated Exchequer
Achieve and sustain a high performance culture at Athi Water	Plan for and undertake a baseline Procure a consultant to review and update the schemes of service Develop a succession plan	No. of quality control and performance measure put in place	2018-2022	MWS/AWWDA	1200	Internally and allocation Generated Exchequer
To set aside Kshs 2 million per annum for environmental protection and climate change mitigation measures.	Implementation of climate change Mitigation measures	No of measures implemented	2018-2022	MWS/AWWDA	10	Internally Generated

Strategy	Immediate Objective	Key performance indicators	Timeframe	Responsible	Cost (Million Kshs)	Sources of Funds
To Reduce Non-Revenue Water to 30% by 2022	Undertake investment to reduce the Non-revenue water in AWWDA area.	Quantity of water made available.	2018-2022	MWS/AWWDA	500	Internally Generated and Exchequer allocation
Knowledge management and innovation	Develop an knowledge management policy	No. of new innovations and knowledge management framework developed.	2018-2022	MWS/AWWDA	150	Internally and allocation Generated Exchequer
Undertake Monitoring and Evaluation of Athi Water operations and projects	Establish a M&E unit/Committee M&E needs assessment and initiate training of staff on M&E	No. of M&E activities undertaken	2018-2022	MWS/AWWDA	200	Internally and allocation Generated Exchequer
Promote the use and adoption of effective Information management systems	Review, update and implement IMS	No. of information management systems procured or adopted	2018-2022	MWS/AWWDA	200	Internally and allocation Generated Exchequer
Establish an Athi Water HQ	Finalize procurement processes and commence construction	Building constructed and put to use	2018-2022	MWS/AWWDA	400	Internally and allocation Generated Exchequer
Increase awareness about Athi Water and its mandate	Create awareness on the mandate, activities and projects undertaken by AWWDA Implement the corporate social responsibility	No. of awareness campaigns done No. of engagement meeting with stakeholders No. of baselines undertaken to determine positive media coverage	2018-2022	AWWDA/MWS/All stakeholders	50	Internally and allocation Generated Exchequer
Stakeholder mapping	Identify and update stakeholders' list Analyze and prioritize the interest	No. of new stakeholders identified and documented No. of reports produced on the analysis and prioritization of stakeholders	2018-2022	AWWDA/MWS/All stakeholders	20	Internally and allocation Generated Exchequer

Strategy	Immediate Objective	Key performance indicators	Timeframe	Responsible	Cost (Million Kshs)	Sources of Funds
	of stakeholders in each project					
Promote stakeholder engagement	Engage key stakeholders in policy formulation, analysis, implementation and advocacy Promote collaborations with other WWDA and other Inter Agencies	No. of engagement meetings No. of collaborative meetings with WSBs and other agencies	2018-2022	AWWDA/MWS/All stakeholders	20	Internally and allocation Generated Exchequer
Enhance visibility in Athi Water activities	Brand all AWWDA installations and ongoing projects to enhance visibility of flagship projects Undertake below and above publicity of Athi Water activities i.e. print and electronic media, outdoor advertising Publish annual corporation achievement reports	No. of facilities branded No. of quarterly newsletters produced Annual corporate achievement report	2018-2022	AWWDA/MWS/All stakeholders	160	Internally and allocation Generated Exchequer

Strategy	Immediate Objective	Key performance indicators	Timeframe	Responsible	Cost (Million Kshs)	Sources of Funds
Enhance complaints and compliments management	Strengthen the customer complaints handling mechanism Review, update and implement the customer service charter	Measures undertaken to strengthen customer complaints handling mechanism	2018-2022	AWWDA/MWS/All stakeholders	20	Internally and allocation Generated Exchequer
Enhance grievance management processes	Develop grievance handling mechanisms at project level	A grievance handling mechanism put in place	2018-2022	AWWDA/MWS/All stakeholders	20	Internally and allocation Generated Exchequer
Environmental protection	Promote integrated water resources management through collaboration with other institutions in protection and restoration of water-related ecosystems and catchments areas. Ensure protection of right to property of project affected persons by providing prompt payment and just compensation.	No. of EIA/ESIA undertaken No. Compliance and safeguard measures put in place No. new green technology adopted	2018-2022	AWWDA	500	Internally and allocation Generated Exchequer
Maintain health and safety	Review health and safety policy Implements the recommendation in the annual safety	No. of reports on safety audit Annual Reports on implementation of Public Sector Workplace policy	2018-2022	AWWDA	50	Internally and allocation Generated Exchequer

Strategy	Immediate Objective	Key performance indicators	Timeframe	Responsible	Cost (Million Kshs)	Sources of Funds
	audits and work environment surveys					
Foster national cohesion and integration	Ensure the integration of gender, ethnic balance, people with disability and marginalized groups in appointive positions	Reports on activities undertaken to promote cohesion and national values	2018-2022	AWWDA	10	Internally Generated and Exchequer allocation

ANNEX 4: M&E RESULTS FRAMEWORK FOR PROJECTS/ PROGRAMMES

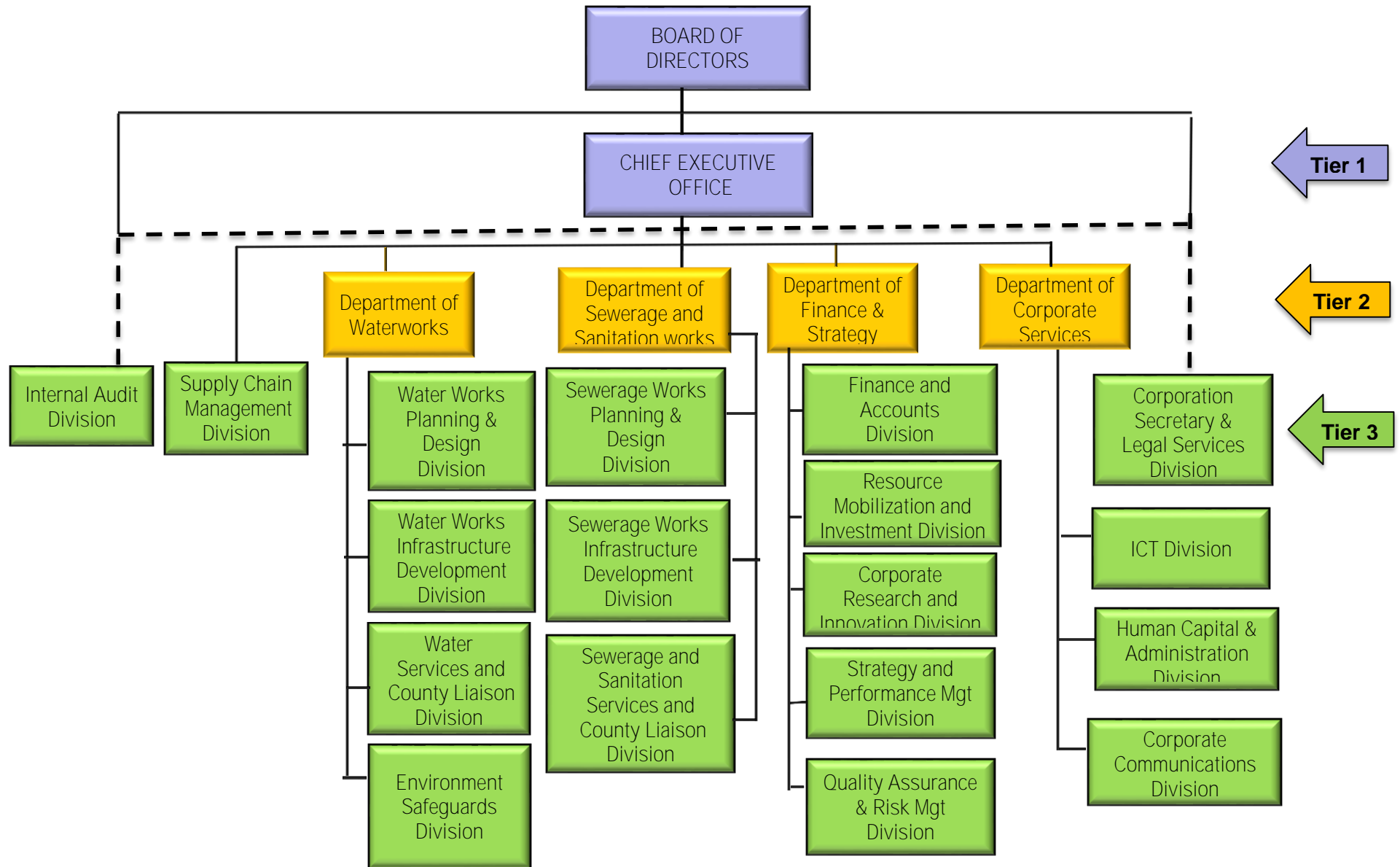
PROGRAMME/ PROJECT	TARGET/EXPECTED OUTPUT	County	KPIS/ OVI	UNIT OF MEASURE	BASELINE (2017/18)	YEARLY TARGETS					COST (Million)	RESPONSIBILITY
						YR1	YR2	YR3	YR4	YR5		
Northern Collector Water Tunnel Project	140,000m3/day Produced	Nairobi, Kiambu and Murang'a	% Completion Rate	%	55	70	100	-	-	-	6, 826	CM
Ndakaini-Kigoro-Gigiri Raw and Treated Water Pipelines	140,000m3/day transmitted	Nairobi, Kiambu and Murang'a	% Completion Rate	%	30	40	70	100	-	-	6, 992	CM
Kigoro Water Treatment Plant	140,000m3/day treated	Nairobi, Kiambu and Murang'a	% Completion Rate	%	85	100	-	-	-	-	7,700	CM
Ruiru II Dam Water Project	Gross storage capacity of 13.5Mm3	Kiambu	% Completion Rate	%	0	5	40	60	80	100	19,000	CM
Karimenu II Dam Water Project	Gross storage capacity of 26.5Mm3	Kiambu	% Completion Rate	%	5	20	60	80	100	-	30,000	CM
East Nairobi City Water Distribution Network (Kiambu-Embakasi Pipeline) Project	14,000m3/day Storage tank and Pipelines	Nairobi	% Completion Rate	%	31	75	100	-	-	-	4,200	CM
West Nairobi City Water Distribution Network (Kabete-Karen Pipeline)	5000m3 RC tank and 7km pipeline	Nairobi	% Completion Rate	%	25	100	-	-	-	-		CM
Kikuyu Water and Sanitation Project Implemented	50kms trunk and reticulation sewer, 26km water distribution network, 48m3 steel tank and 6 ablution blocks	Kiambu	% Completion Rate	%	0	30	70	100	-	-	636	CM

PROGRAMME/ PROJECT	TARGET/EXPECTED OUTPUT	County	KPIS/ OVI	UNIT OF MEASURE	BASELINE (2017/18)	YEARLY TARGETS					COST (Million)	RESPONSIBILITY
						YR1	YR2	YR3	YR4	YR5		
Kiambu and Ruaka Water Supply and Sanitation Project Implemented	108km trunk and reticulation sewer, 4000m3/day water scheme, 25km of HDPE water distribution network	Kiambu	% Completion Rate	%	0	30	70	100	-	-	1,293	CM
Gatundu Urban Water Supply and Sanitation Project Implemented	40km trunk and reticulation sewer, 17,000m3/day water treatment plants, 5 ablution block	Kiambu	% Completion Rate	%	0	30	70	100	-	-	1,751	CM
Machakos Water Supply and Sanitation Project Implemented	12,500m3/day water treatment plant and 6,000m3 storage tanks	Machakos	% Completion Rate	%	0	30	70	100	-	-	2,602	CM
Development of Maragua 4 Dam	216,000m3/day water produced	Muranga	% Completion Rate	%	0	0	0	0	5	30	24,000	CM
Mwala Water and Sanitation Project Implemented	9740m3/day water treatment plant and 1500m3/day sewerage treatment plant	Machakos	% Completion Rate	%	0	10	50	100	-	-	586.5	CM
Pemba Water Project	water treatment plant of 3,000m3/day capacity	Mombasa	% Completion Rate	%	0	25	50	100	-	-	346.6	CM
Changamwe Re-pooling Sewerage Project	Rehabilitation of 800m of trunk sewer mains and laying of 15km secondary sewer network	Mombasa	% Completion Rate	%	0	40	70	100	-	-	481	CM
Limuru Water and Sanitation Project	laying of 25km water transmission pipelines	Kiambu	% Completion Rate	%	0	30	70	100	-	-	576	CM
Oloitoktok Water and Sewerage Project	2000m3/day water ; 6000m3/day sewer treated	Kajiado	% Completion Rate	%	35	100	-	-	-	-	786	CM

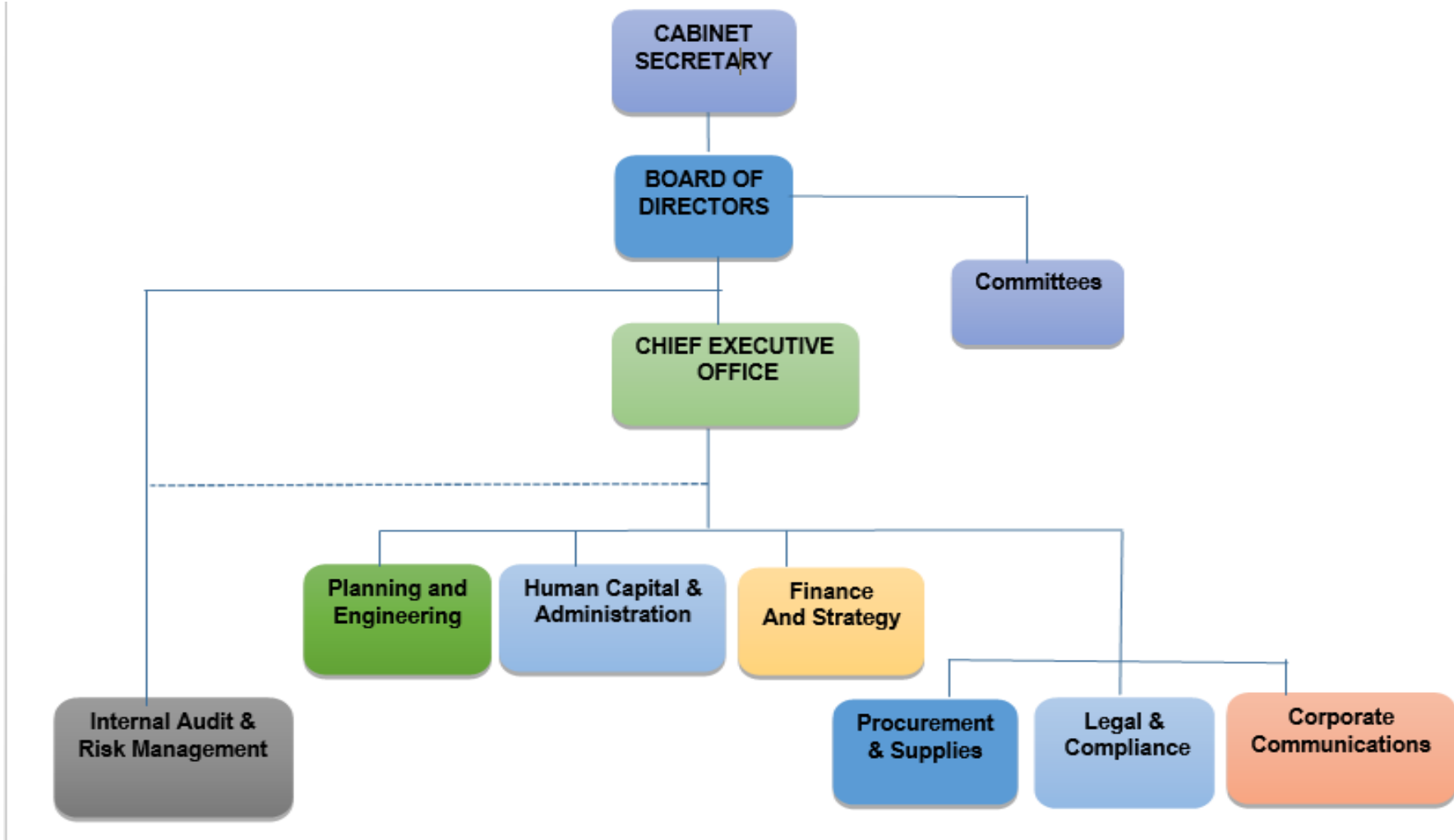
PROGRAMME/ PROJECT	TARGET/EXPECTED OUTPUT	County	KPIS/ OVI	UNIT OF MEASURE	BASELINE (2017/18)	YEARLY TARGETS					COST (Million)	RESPONSIBILITY
						YR1	YR2	YR3	YR4	YR5		
Theta Dam and Treatment Works Project	Additional 4,000m ³ /day water	Kiambu	% Completion Rate	%	50	100	-	-	-	-	80	CM
Wote Water supply project	5,000m ³ /day water; 33km pipeline	Machakos	% Completion Rate	%	85	100	-	-	-	-	96	CM
Ithanga Water Supply	Additional 10,000m ³ /day water	Murang'a	% completion Rate	%	45	60	100	-	-	-	1,158	CM
Kajiado Rural Water Supply	Additional 8,000m ³ /day water	Kajiado	% completion Rate	&	60	100	-	-	-	-	1,224	CM
Mt Kilimanjaro-Amboseli Water supply project	3,000m ³ /day; 15km pipeline	Kijiado	% Completion Rate	%	80	100	-	-	-	-	53	CM
Kiserian Sewerage Project	6000m ³ /day of sewer Treated and 16 Km sewer pipeline laid.	Kajiado	% Completion Rate	%	25	80	100	-	-	-	900	CM
Nairobi Rivers Basin Restoration programme Phase 2: Sewerage improvement	240km sewerage network and sewerage capacity of 160,000m ³ /day	Nairobi	% Completion Rate	%	0	5	30	70	100	-	12,000	CM
Nairobi City Regeneration Programme	Increased access to water	Nairobi	% completion Rate	%	20	80	100	-	-	-	895	CM
Olooloitikosh Water Supply and Sanitation Project	20,000m ³ /day of water and 10,000m ³ /day of waste water treated	Kajiado	% completion Rate	%	0	15	60	100	-	-		CM
Nairobi Satellite Towns Water and Sanitation	Additional 338,000 people served	Nairobi	% completion Rate	%	5	50	80	100	-	-	3,080	CM

PROGRAMME/ PROJECT	TARGET/EXPECTED OUTPUT	County	KPIS/ OVI	UNIT OF MEASURE	BASELINE (2017/18)	YEARLY TARGETS					COST (Million)	RESPONSIBILITY
						YR1	YR2	YR3	YR4	YR5		
Thika an Githunguri Water and Sanitation Project	Improved access to water and sewerage	Kiambu	% completion Rate	%	0	5	50	75	100	-	1,500	CM

ANNEX 5: ORGANIZATION STRUCTURE



ANNEX 6: PREVIOUS ORGANIZATION STRUCTURE



ANNEX 8: PROJECTED REVENUES BY SOURCE (2018-2022)

NO	SOURCE OF FUNDING	SUMMARY OF HOW IT WILL BE REALIZED	2018/19	2019/20	2020/21	2021/22	2022/23	TOTAL
1	GOK	The Government of Kenya through the Ministry of Water and Sanitation is committed to progressive attainment of the right to water. AWWDA commits to continue working in collaboration with the Ministry in the implementation of public water works in order to reach underserved and unserved areas and to renew aging infrastructure.	6,200	2,137	3,145	3,498	2,580	17,560
2	Consultancy services	AWWDA will create a consultancy function, responsible for capacity building within the counties and to the various WSPs across the country.		5	5	5	10	25
3	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. AWWDA 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.	794	800	800	800	800	3,994
4	Revenue from water sales	The Agency plans to operate the bulk water systems and sell water in bulk to WSPs		1,359	1,359	2,583	2,583	7,884

NO	SOURCE OF FUNDING	SUMMARY OF HOW IT WILL BE REALIZED	2018/19	2019/20	2020/21	2021/22	2022/23	TOTAL
5	Development Partners	Investment requirements for water supply and sewerage infrastructure is normally very high but 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. AWWDA will seek donor support, especially for development of Water and Sewerage infrastructures in areas with no adequate water services through grants and concessional loans.	13,941	25,365	24,529	25,361	6,870	96,066
6	Public Private Partnerships (PPP)	Athi Water will source funds from the market through Public private partnership , Issuance of infrastructure bonds , Private equity placements	-	4,000	4,000	6,400	1,600	16,000
7	EPCF	Athi water will source funds through Engineering Procurement Construction and Finance whereby a consortium of a contractor, consultant and financier is identified to undertake design and build projects.	23,350	23,350	20,000	21,600	1,700	90,000
Total			44,285	57,016	53,838	60,247	16,143	242,026

ANNEX 9- WATER DEMAND FORECAST FOR NAIROBI CITY AND ENVELOP TOWNS FULFILLED UP TO 2035

