



REPUBLIC OF KENYA

**MINISTRY OF WATER, SANITATION AND
IRRIGATION**

STATE DEPARTMENT FOR IRRIGATION

STRATEGIC PLAN 2023 - 2027

NOVEMBER, 2024

Irrigation for Food Security



Vision: An efficient, modern, commercially-oriented and climate resilient irrigation sector.

Mission

To guide and facilitate the development and management of irrigation in Kenya through sustainable exploitation of land and water resources for food security and socio-economic development.

Core Values

1. Sustainability
2. Inclusivity
3. Effectiveness and Efficiency
4. Equity
5. Transparency and Accountability
6. Integrity

FOREWORD

The Strategic Plan 2023-2027 defines the State Department's strategic direction, prioritizes the strategic choices and interventions, and forms the basis for identifying development priorities. Further, the Plan outline strategies to achieve the irrigation's sector objectives within the context of the Policy and Legal framework, guide resource allocation over the plan period, and establishes deliverables for performance management.

The Strategic Plan 2023-2027 builds on the achievements realized and lessons learnt during the implementation of the previous plan and is anchored on the Bottom-up Economic Transformative Agenda (BETA) of the Government particularly the Agriculture pillar, the Fourth Medium Term Plan (2023 - 2027) of Kenya Vision 2030 and other sectoral policy, legal and strategy documents.

Implementation of this Plan will contribute to guaranteeing the “Right to food” as enshrined in the Bill of Rights, Constitution of Kenya, 2010 (CoK 2010) by enhancing food security through increased irrigated production. It will also contribute to realization of Sustainable Development Goals (SDGs) One (1) on Ending Poverty through irrigation value chain; Goal Two (2) on Zero hunger through irrigated production; and Goal Fifteen (15) on Life on Land by halting and reversing land degradation. Further, the Plan will contribute to the attainment of Aspiration 1 of the African Union Agenda 2063 by supporting agricultural modernization for food security as well as East African Community Vision 2050 through promotion of sustainable agricultural production and productivity through irrigation.

The Plan will be implemented through a participatory and demand responsive approach which leads to accelerated irrigation infrastructure development, effective management of irrigation systems, improve productivity per unit volume of water. This approach is expected to result in people centered all-inclusive growth manifested through increased contribution to Gross Domestic Product (GDP), increased the supply of food and agro-industry raw materials, foreign exchange earnings from export of agricultural produce, employment opportunities and improved livelihoods at the lower spectrum of the society.

I would like to appreciate CPA. Ephantus Kimotho, CBS, Principal Secretary, State Department for Irrigation, for the coordination and overall leadership in the development of this Plan. I will endeavor to spearhead the State Department's policy and legislative agenda to improve governance and service delivery, strengthen inter-government relations and mobilize resources to ensure efficient and effective implementation and attainment of desired objectives and goals.

Eng. Eric Murithi Mugaa
Cabinet Secretary, Ministry of Water, Sanitation and Irrigation

PREFACE AND ACKNOWLEDGEMENT

Through this Strategic Plan, the State Department seeks to achieve its vision and goals in the medium term by integrating sectoral policies, strategies and plans. The Plan contains Key Result Areas and corresponding strategic interventions aligned to BETA and MTP IV that addresses the identified strategic issues. The Plan focus on development of irrigation infrastructure, expansion of irrigation schemes, improving schemes management and productivity, water harvesting and storage capacity, flood control, land reclamation, and enhancing governance and delivery of irrigation, drainage and reclamation services.

The Strategic Planning process was guided by the Revised Guidelines for Preparation of the Fifth-Generation Strategic Plans issued by the National Treasury and Economic Planning. The Plan has been developed through a consultative and participatory process involving both our internal and external stakeholders for valuable feedback and validation.

I would like to express my utmost appreciation to the Heads of Directorates, Departments and divisions/sections, Strategic Plan Technical Committee, staff, and all our stakeholders for their dedication and immense contribution.

Special thanks to the Cabinet Secretary Eng. Eric Murithi Mugaa, for the overall policy guidance and leadership in setting the State Department's Strategic direction. Lastly, I affirm the State departments commitment in ensuring participatory implementation of this strategic plan towards attainment of the set goals and objectives.

CPA Ephantus Kimotho, CBS
Principal Secretary
State Department for Irrigation

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Acronyms and Abbreviations

AEI	:	Area Equipped with Irrigation
ASAL	:	Arid and Semi-arid Lands
ASDS	:	Agriculture Sector Development Strategy
AWM	:	Agricultural Water Management
BCM	:	Billion Cubic Meters
CAADP	:	Comprehensive Africa Agriculture Development Programme
CBOs	:	Community Based Organizations
CIDU	:	County Irrigation Development Units
CPPMD	:	Central Planning and Project Monitoring Department
CSG	:	Civil Service Grade
EAC	:	East African Community
EBK	:	Engineers Board of Kenya
FAO	:	Food and Agriculture Organization
FLID	:	Farmer Led Irrigation on Development
GDP	:	Gross Domestic Product
GW4R	:	Ground Water for Resilience
HRM&D	:	Human Resource Management and Development Division
ICT	:	Information Communication Technology
IDB	:	Irrigation and Drainage Branch
IEK	:	Institution of Engineers of Kenya
IFPRI	:	International Food Policy Research Institute
IGAD	:	Intergovernmental Authority on Development
IMT	:	Irrigation Management Transfer
IWM	:	Irrigation Water Management
IWUA	:	Irrigation Water Users Association
KeSEBAE	:	Kenya Society of Environmental Biological and Agricultural Engineers
KRA	:	Key Results Area
LADAs	:	Land Degradation Assessments
LR	:	Land Reclamation
MCM	:	Million Cubic Meters
MDAs	:	Ministries Departments and Agencies
NIA	:	National Irrigation Authority
NEMA	:	National Environmental Management Authority

NGOs	:	Non-Governmental Organizations
NISS	:	National Irrigations Services Strategy
PESTEL	:	Political, Economic, Social, Technological, Ecological and Legal
PPP	:	Public Private Partnership
SAGA	:	Semi-Autonomous Government Agencies
SDI	:	State Department for Irrigation
SFA	:	Strategic Focus Area
SSIU	:	Small-Scale Irrigation Unit
SWOT	:	Strengths, Weaknesses Opportunities and Threats
ToT	:	Training of Trainers
WRA	:	Water Resources Authority

EXECUTIVE SUMMARY

The State Department for Irrigation was established through Executive Order No. 2 of 2023 on Organization of the Government of the Republic of Kenya with the overall mandate of providing leadership in the country's irrigation infrastructure development, water harvesting and storage for irrigation, management and regulation of irrigation schemes, and land reclamation. The State Department provides policy guidance, coordinate and oversight National Irrigation Authority (NIA) and National Water Harvesting and Storage Authority (NWH&SA).

The Strategic Plan 2023-2027 provides a roadmap for the implementation of the State Department's policies reform agenda, programmes/projects aligned to the Bottom - Up Economic Transformation Agenda (BETA), and the national development priorities outlined in the Fourth Medium Term Plan (MTP IV) 2023-2027 of the Kenya Vision 2030. All these are geared towards attainment of the State Department's Vision ***“An efficient, modern, commercially-oriented and climate resilient irrigation sector”*** and the mission ***“to guide and facilitate the development and management of irrigation in Kenya through sustainable exploitation of land and water resources for food security and socio-economic development”*** and anchored on the stated key core values.

The Plan builds on the State Department's in-depth analysis of its achievements, challenges faced and the lessons learnt during implementation of the previous plan period. Key milestones realized include: area under irrigation increased from 484,000 acres in 2018 to 664,000 acres in 2022; 170,000 tonnes of rice produced annually; Ksh. 151 billion generated through production of irrigated horticultural produce for export; enactment of the irrigation legal framework and policy instruments: draft land reclamation policy and bill; seven Irrigation Water Users Associations (IWUAs) Trainers Manuals; completion of 15.5 million M³ Thiba Dam to support expansion and double cropping in Mwea irrigation scheme; 141 small pans/dams constructed with storage capacity of 14.3 million M³; 28,732 household water pans in 31 counties with a combined potential volume of 39.9 Million M³; 81 boreholes drilled and equipped with 20,000 litres raised tanks benefitting 120 public schools; 63 pilot greenhouses constructed in these schools; Lake Magadi Catchment, Upper Kerio River and Upper Ewaso Nyiro North land degradation assessments (LADAs) done; and 22,000 Hectares of swampy and waterlogged prone land reclaimed.

Several emerging issues and challenges were encountered during implementation of the previous plan. They range from Inter-communal land disputes and disagreements, lengthy and costly way leave acquisition/compensation for large irrigation projects, COVID – 19 after-effects which disrupted financing and implementation of planned irrigation projects, and global instabilities resulting in high capital and operational costs. Lesson learnt while addressing these emerging issues and challenges have been taken into account in formulating the State department's strategic direction.

An environmental scanning using Political, Economic, Social, Technological, Ecological and Legal (PESTEL) model and analytical tools highlighted the Strengths, Weaknesses, Opportunities and Threats that may bolster or affect the attainment of stated goals and priorities. Further, a scan of internal operating environment based on governance and administrative structures, internal business processes, and resources and capabilities reveal the State Department's internal strengths and possible areas of improvement.

Arising from the performance review and environmental scanning, the following strategic issues have been identified to be addressed within the plan period. These are: Sub-optimal Exploitation and Development of Irrigation Potential; Inadequate Water Harvesting and Storage Infrastructure; Poor Management of Irrigation Schemes; Sub-Optimal Land Reclamation; and Weak Governance Framework. These strategic issues have informed the development of strategic goals prioritized by the State department namely: (1) Improved water harvesting and storage capacity for irrigation; (2) Optimal and sustainable exploitation and development of irrigation potential; (3) Improved productivity of irrigation schemes; (4) Land Degradation Neutrality (LDN) achieved; and (5) Strengthened governance of irrigation and land reclamation.

Consequently, this strategic plan identifies five (5) Key Results Areas (KRAs) critical for realization of the State Department's stated vision and mission. These KRAs are: (1) **Water for Irrigation** to address the challenges/issues emanating from inadequate water harvesting and storage capacity; (2) **Area under Irrigation** –to eradicate hunger and make Kenya a food-secure nation through increasing irrigated produce; (3) **Irrigation Management and Quality Assurance** to address adequacy and quality of water for irrigation; efficiency of water conveyance and use, management of public irrigation schemes, and promote compliance and enforcement of irrigation policies, legal instruments, standards and Regulations; (4) **Land Reclamation and Flood Control** focusing on attaining Land Degradation Neutrality (LDN) through rehabilitation and restoration of degraded land; and (5) **Policy, Legal, institutional Framework and Governance** to enhance governance and service delivery within the State Department. The KRAs provided the basis for formulating strategic objectives, strategies choices, corresponding activities, output targets and budget as outlined in the implementation matrix.

Lastly, the Strategic plan, provides the implementation and coordination framework by indicating the staffing establishment, organization structure, leadership systems and procedures and a risk management matrix. The plan highlights the financial resource requirements amounting to **KSh 277.04 Billion** (of which **KShs 105.7 Billion** is **PPP**), Resource Gap of **KSh.146.3 Billion**, Resource Mobilization and Management Strategies, and the monitoring, evaluation and reporting framework to measure progress towards planned outputs and outcomes of strategies in the key results areas.

CHAPTER 1. INTRODUCTION

Overview

This chapter emphasizes the centrality of strategic planning in achieving the State Department for Irrigation's success. The chapter also demonstrates how the State Department contributes to the achievement of the national, regional and international priorities and commitments. The Chapter finally provides a brief history of the State Department and the methodology adopted in developing this strategic plan.

1.1. Strategy as an Imperative for Organizational Success

The State Department's mandate and functions revolves around Irrigation Development, Water Harvesting & Storage, schemes governance and productivity and Land reclamation. These functions resonate with the identified sector's key strategic issues.

This Strategic Plan provides the platform through which the State Department will address the strategic issues in pursuit of her set goals and objectives. The Plan consolidates all the State Department's identified priorities and interventions articulated in various sectoral policies, legal framework, strategies, Fourth Medium Term Plan (2023-2027), and guidelines geared towards actualizing her stated vision. The Plan outlines strategic choices on development of irrigation infrastructure, expansion and management of irrigation schemes, water harvesting and storage, and land reclamation.

Execution of the strategic choices espoused in the Strategic Plan will enable the State Department achieve her goals/objectives of increasing the area under irrigation, increase capacity for water harvesting and storage for irrigation, increasing volume of irrigated production, reclaim and restore more degraded land, enhance compliance with existing policy and regulatory framework; and strengthen governance and service delivery.

Further, this plan will be the primary tool for monitoring and evaluating State Department performance as well as for bidding resources internally and externally for development of irrigation in Kenya.

1.2. The Context of Strategic Planning

This section presents how this strategic plan will contribute to the attainment of development aspirations contained in various international and regional development frameworks as well as in national development priorities.

1.2.1. United Nations 2030 Agenda for Sustainable Development

The Government of the Republic of Kenya is committed to contribute to the achievement of all the seventeen Sustainable Development Goals (SDGs). The State Department for Irrigation contributes to the attainment of: Goal One (1) on ending poverty in all its forms everywhere; Goal Two (2) on ending hunger, achieving food security and improved nutrition and promotion of sustainable agriculture; and Goal Fifteen (15) on protection, restoring and promotion of sustainable use of terrestrial ecosystems, sustainably managing forests, combating desertification and halting and reversing land degradation and halting biodiversity loss.

Specifically, the State Department contributes to the attainment of these goals by: promoting sustainable and resilient irrigated-food production systems and practices that are geared towards eradicating food poverty in the country; and strengthening capacity for adaptation to climate change, extreme weather, drought, and flooding; and undertaking land degradation assessments as well as rehabilitating, reclaiming and restoring degraded areas.

1.2.2. African Union Agenda 2063

The State Department contributes to Aspiration 1 of African Union Agenda 2063 on a prosperous Africa based on inclusive growth and sustainable development. Specifically, the aspiration seeks to modernize agriculture for food security. Further, the Call for Action for African Countries include the call to: completely eliminate hunger and food insecurity; reduce the imports of food and raise intra-Africa trade in agriculture and food to 50% of total formal food and agricultural trade. The State Department interventions seek to ensure equitable and sustainable use and management of water resources for socio-economic development and adoption of modern agriculture for increased production and food security.

The African Union's "*Framework for Irrigation Development and Agricultural Water Management in Africa of 2020*" acknowledges that future agricultural water development will have to respond to widely varying opportunities, involving different target groups and using varied strategies. It is cognizant of the fact that water for agricultural development will involve small and large-scale, formal and informal, modernization of old and construction of new, and conventional irrigation alongside water harvesting in rain-fed agriculture.

1.2.3. East African Community Vision 2050

The East African Community Vision 2050 emphasizes on promotion of sustainable agricultural production and productivity in the region through Pillar 3.2: Agriculture, Food Security and Rural Development. The pillar's goal is: *investment and enhanced agricultural productivity for food security and a transformation of the rural economy*. To implement this goal; the State Department for Irrigation is contributing to transformation of agriculture through irrigation, integrating actions to combat land degradation and drought, including restoring degraded lands, improving soil quality and water management, as required in Sub-pillars 3.2.1 and 3.2.6.

1.2.4. Constitution of Kenya

Some of the economic and social rights granted to the people by Chapter 4 (Part 2 (43) of the Constitution of Kenya, 2010, is the right to be free from hunger to have adequate food of acceptable quality and safe water in adequate quantities. The State Department for Irrigation in conjunction with other stakeholders plays a critical role in fulfilling this right by developing and managing irrigation infrastructure throughout the country. Chapter 5 Article (60) on principles of land policy, land in Kenya shall be held, used and managed in a manner that is equitable, efficient, productive and sustainable, and in accordance with the principle of sustainable and productive management of land resources. The State Department for Irrigation plays a critical role in upholding this by undertaking land degradation assessments to inform proper land use and appropriate land reclamation interventions.

1.2.5. Kenya Vision 2030, Bottom-Up Economic Transformation Agenda and Fourth Medium Term Plan

Irrigation sub-sector is a key enabler in the transformation and growth of the agriculture sector, promoting economic growth and improving livelihoods. The sub-sector provides enormous potential in increasing production in a country where 84% of its landmass is arid and semi-arid lands (ASAL) and rain fed agricultural production is vulnerable to the vagaries of weather. Irrigation is estimated to account for 1.7 percent of total land area under agriculture, contributes 3.0 percent to the GDP and provides 18 percent of the value of all agricultural produce. The National Irrigation Policy estimates that irrigation has the potential to increase agricultural production by up to 400 percent, generate jobs for 15 persons per hectare (directly and indirectly) and guarantee supply of raw materials for agro-industries.

The State Department for Irrigation seeks to contribute to the Agriculture Pillar of the Bottom-Up Economic Transformative Agenda through increased irrigated production of rice and maize to bridge the food deficit. This will be achieved by increasing area under irrigation and through the seed (rice) intensification system to ensure sustainable increase in agricultural output. This is in line with the Kenya Vision 2030 goal of expanding irrigated agriculture by developing 40,000 hectares (100,000 Acres) per year and the Fourth Medium Term Plan 2023-27 target of increasing area under irrigation to approximately 1.2 million acres (National Water Master Plan 2030) by 2027/2028 respectively.

1.2.6. Sector Policies and Laws

The irrigation function has previously been highlighted in the following national and sectoral policies and strategies; Sessional Paper No.4 of 1981 on National Food Policy, Sessional Paper No. 1 of 1986 on Economic Management for Renewed Growth, Sessional Paper No. 2 of 1994 on National Food Policy, The Economic Recovery Strategy (2003 - 2007), Strategy for Revitalizing Agriculture (2004- 2014), Agriculture Sector Development Strategy (ASDS 2010- 2020), Kenya Vision 2030, National Irrigation Services Strategy (NISS) 2022-2026. Further, the functions of the State Department are elaborated in the National Irrigation Policy 2017 which seeks to accelerate

and improve irrigation development by adding 40,000 ha per year with the requisite investments in support infrastructure and establishing of mechanisms for sustainable irrigation development.

The policy, the Irrigation Act 2019 and the subsequent Irrigation (General) Regulations 2021 provide for the development, management and regulation of irrigation to support sustainable food security and socio-economic development. The Act assigns the State Department the sole responsibility of accounting for results in the irrigation sub-sector and provides a platform for coordinating all irrigation development initiatives by diverse government agencies and departments, County Governments as well as non-state actors and individual irrigation practitioners. In compliance with the Irrigation Act 2019, the sub-sector developed the Five (5) year NISS 2022-2026 whose overarching goal is “Investing in Irrigation for sustainable food security and socio-economic development ”.

1.3. History of the State Department for Irrigation

Irrigation function began as a Small-Scale Irrigation Unit (SSIU) in 1977 under the Ministry of Agriculture. In 1978, the Unit was renamed Irrigation and Drainage Branch (IDB) under the same Ministry of Agriculture. In 2003, the irrigation function was moved to the then Ministry of Water and established as a directorate of irrigation. The directorate was elevated to a State Department for Irrigation through Executive Order No. 2 of May 2016 and placed under the Ministry of Water and Irrigation with a mandate to undertake irrigation development, water storage for irrigation and land reclamation. In 2018, the State Department for Irrigation was moved to the Ministry of Agriculture, Livestock, Fisheries and Irrigation and a year later it was moved back to the Ministry of Water, Sanitation and Irrigation as a directorate under the Ministry. The State Department for Irrigation has been re-established under the Ministry of Water, Sanitation and Irrigation through the Executive Order No. 2 of 2023 on Organization of Government.

1.4. Methodology of Developing the Strategic Plan

The State Department’s Top Leadership initiated the development of the Strategic Plan 2023 - 2027 in January 2023 following the creation of the State Department for Irrigation through Executive Order No. 2 of 2023 on Organization of the Government of the Republic of Kenya. A Technical Committee was established with clear Terms of Reference (ToR) to spearhead the Strategic Planning process.

Subsequently, and in reference to the Guidelines for Preparation of Fifth-Generation Strategic Plans and other State Department’s policy documents (such as the Ministry’s Strategic Plan 2018 - 2022, National Irrigation Policy 2017, Irrigation Act, 2019, Irrigation (General) Regulations, 2021 and National Irrigation Services Strategy 2022 - 2026 among others), the Committee held various boardroom meetings and two retreats which culminated into production of a Draft Strategic Plan 2023 - 2027.

The Draft was then presented to internal and external stakeholders for validation and feedback. The Technical Committee later incorporated the stakeholder’s inputs, finalized and published the

Strategic Plan 2023 - 2027. To sensitize and create awareness as well as to enhance ownership of the Plan for smooth implementation, the Strategic Plan has been publicized and uploaded into the Ministry's website.

CHAPTER 2. STRATEGIC DIRECTION

Overview

This chapter presents the State Department's Mandate, Vision and Mission Statements, Strategic Goals and its Core Values. It finally presents the State Department's Quality Policy Statement that indicates the commitment towards inculcating quality in all what the State Department does.

2.1. Mandate

The overall mandate of the State Department for Irrigation is to undertake irrigation development, water harvesting and storage for irrigation and land reclamation. The specific functions assigned to the State Department through the Executive Order No. 2 of 2023 are:

1. National Irrigation Policy and Management;
2. Water Harvesting and Storage for Irrigation;
3. Management of Irrigation Schemes;
4. Water Storage and Flood Control Management;
5. Mapping, Designating and Developing Areas ideal for Irrigation Schemes;
6. Development of Irrigation infrastructure; and
7. Land Reclamation.

2.2. Vision Statement

An efficient, modern, commercially-oriented and climate resilient irrigation sector.

2.3. Mission Statement

To guide and facilitate the development and management of irrigation in Kenya through sustainable exploitation of land and water resources for food security and socio-economic development.

2.4. Strategic Goals

The strategic goals being pursued by the State Department are:

1. Improved water harvesting and storage capacity for irrigation;
2. Optimal and sustainable exploitation and development of irrigation potential;
3. Improved productivity of irrigation schemes;
4. Land degradation neutrality achieved; and
5. Strengthened governance of irrigation and land reclamation.

2.5. Core Values

- (i) **Sustainability:** - The State Department continuously seeks to ensure that its current irrigation development interventions serve the needs of both the current and future

generations while ensuring balance in economic growth, environmental care and social well-being.

- (ii) **Inclusivity:** The State Department shall ensure an all-inclusive approach by enabling equal access to irrigation services and participation to all its stakeholders.
- (iii) **Effectiveness and Efficiency:** - The State Department shall seek to achieve intended goals and objectives in the way that results in the least waste of time, effort and resources.
- (iv) **Equity:** The State Department shall ensure fairness and impartiality in distribution of irrigation infrastructure across the country.
- (v) **Transparency and Accountability:** - The State Department shall execute its mandate with utmost openness, clarity and bear responsibility on its undertakings.
- (vi) **Integrity** - The State Department staff shall uphold honesty and strong moral principles in the execution of their duties.

2.6. Quality Policy Statement

As the State Department for Irrigation;

We commit to provide efficient, effective, and sustainable irrigation development and management of services for a food secure nation through application of high quality and modern technology and strive to uphold quality standards while undertaking our mandate. We remain dedicated to our core values of inclusivity, sustainability, effectiveness and efficiency, equity, transparency and accountability and integrity in improving service delivery.

CHAPTER 3. SITUATIONAL AND STAKEHOLDER ANALYSES

This chapter provides a snapshot of the environment in which the State Department operates by undertaking both situational and stakeholder analyses. The situational analysis reviews the implications of the external and internal environment on the functioning of the State Department. Further, the chapter presents an evaluation of the past performance in regards to achievement of set objectives and analysis of the various stakeholders in terms of their roles as well as the expectations.

3.1. Situational Analysis

3.1.1. External Environment

This entails the environment outside the State Department for Irrigation that has an influence on the set strategies and objectives.

The irrigation sub-sector's macro-environment is analyzed from the Political, Economic, Social, Technological, Environmental or Ecological and Legal (PESTEL) perspective. Through this tool, the State Department has identified key factors that will have a direct or indirect effect on the development, management and regulation of irrigation. These factors have been categorized as political, technical, socio-economic, and institutional factors. Political factors range from political transitions and ideologies. Technical factors range from inadequate water infrastructure, water scarcity and quality water for irrigation. Socio-economic challenges include the high cost of modern irrigation systems, inadequate credit facilities, market inaccessibility, cattle rustling, insecurity, resource-based conflicts, among others. The institutional challenges include legal issues, inadequate participation by farmers, including female farmers and weak Irrigation Water User Associations.

3.1.2. Summary of Opportunities and Threats

Table 3.1 presents a summary of opportunities and threats in the external environment and their potential impacts to the State Department for Irrigation in carrying out its mandate. T

Table 3.1 Summary of Opportunities and Threats

Environmental Factor	Opportunities	Threats
Political	<ul style="list-style-type: none"> (i) Policies and other support instruments to promote irrigation development (ii) Relevant policies and strategies that can be integrated (iii) Good working rapport with the National Assembly 	<ul style="list-style-type: none"> (i) Changing government policies and priorities slowing down implementation of projects. (ii) Uncertainty in political support at both National and County level (iii) Politically instigated insecurity in some areas where irrigation is

Environmental Factor	Opportunities	Threats
	<ul style="list-style-type: none"> (iv) Opportunity to operationalize coordination framework between National and County Governments. (v) Irrigation initiatives are anchored on long term national policies and plans 	<p>done interfering with their operations.</p>
Economic	<ul style="list-style-type: none"> (i) Expanding markets due to increasing national and global demand for food (ii) Pool of stakeholders who have the goodwill to support irrigation agenda (iii) Potential for diversification and intensification of irrigated enterprises 	<ul style="list-style-type: none"> (i) Inadequate public sector funding for the Irrigation Sector (ii) High cost of irrigation infrastructure and equipment (iii) Stringent global safety requirements and standards for agricultural produce (iv) Unreliable flow of data from irrigation stakeholders
Social	<ul style="list-style-type: none"> (i) Rapid population growth that require equivalent increase in food production (ii) Increasing youth population venturing into agriculture (iii) Mainstreaming of social inclusion in irrigation development to enhance participation of men, women, youth and people with disabilities (iv) Multi-sectoral approach to irrigation development 	<ul style="list-style-type: none"> (i) Increasing water demands due to competing uses (ii) Conflicts arising from sharing of resources (iii) Prevalence of water related and other diseases in the irrigation schemes (iv) Gender disparities affecting the irrigation sector
Technological	<ul style="list-style-type: none"> (i) Growing adoption of efficient technologies and innovations (ii) Enhanced research, innovation and training through establishment and operationalization of the Irrigation Research, Innovation and Training Institute (iii) Modernization and transformation of irrigation systems (iv) Existence of technologies for data and information management, and untapped information from global sources 	<ul style="list-style-type: none"> (i) Resistance to take up new technology by irrigation stakeholders

Environmental Factor	Opportunities	Threats
Legal	<ul style="list-style-type: none"> (i) Existence of supporting policies and legal frameworks/instruments at national, regional and international levels (ii) Continuous review of irrigation policies to integrate emerging trends 	<ul style="list-style-type: none"> (i) Delays in implementation of irrigation development processes due to delayed enactment of policy and legal frameworks
Ecological	<ul style="list-style-type: none"> (i) Unexploited irrigation potential especially in ASALs (land and water) (ii) Mainstreaming of Climate change and environmental concerns in irrigation development (iii) Promotion of water catchment conservation and protection for sustainable water resources (iv) Opportunities for Climate Financing into the irrigation sector from Developed countries under the Carbon Credit trading arrangement. 	<ul style="list-style-type: none"> (i) Adverse climate change may also lead into altered hydrological cycle changes in river flows and cause irregular and unpredictable river flows thus disrupting irrigation schedules and water supply management. (ii) Land Degradation which affects quality and quantity of water for irrigation (iii) Unsustainable exploitation of resources in water catchment areas. (iv) Increased environmental degradation

3.1.3. Internal Environment

The State Department has assessed its internal environment and has identified key actors and factors that affect its operations. At the Micro Level, the State Department in the execution of her mandate relies on suppliers and contractors in provision of a wide range of irrigation services whose availability, reliability, and costs can directly impact the efficiency and effectiveness of irrigation projects.

Privately owned irrigation schemes complement the State Department’s goal of sustainable and optimal exploitation of irrigation potential. Farmers being the main beneficiaries of the State Department services needs to be capacity built on IWUAs and schemes governance, regulatory frameworks, irrigated enterprise intensification, and governance to maximize schemes productivity. Further, support and cooperation of local communities is essential for the successful implementation and maintenance of irrigation projects.

The State Department will work with land users to build their capacity on land reclamation and adoption of new technologies in water harvesting and reversing land degradation trends.

3.1.3.1. Governance and Administrative Structure

The State Department for Irrigation functions are anchored on the National Irrigation Policy 2017, Irrigation Act 2019, and the Irrigation (General) Regulations 2021. It is structured into two (2) Technical Departments (each headed by a Secretary and having three directorates) and a Shared Services Directorate.

The State Department executes its mandate through the technical department supported by the shared services directorate or through its two Semi-Autonomous Government Agencies (SAGAs) at the national level namely– National Irrigation Authority (NIA) and National Water Harvesting and Storage Authority (NWH&SA)- and in collaboration with County Irrigation Development Units (CIDUs) at county levels. NIA undertakes development and improvement of irrigation infrastructure for national or public schemes; provision of irrigation support services to private medium and smallholder schemes, in consultation/collaboration with county governments through CIDUs and other stakeholders; and provide advisory services to irrigation. NWH&SA undertakes development and Management of national public water works for water resources storage and flood control.

3.1.3.2. Internal Business Processes

A licensing unit is under formation in line with the provisions of the Irrigation Act of 2019 and Irrigation (General) Regulations of 2021. The unit will be tasked with regulation of irrigation schemes to ensure conformity to set standards and compliance to statutory requirements.

The State Department will also ensure adherence to the Public Procurement and Assets Disposal Act of 2015 and strict implementation of annual performance targets in conformity with the Performance Management Regulations 2021.

All staff set annual targets drawn from the Principal Secretary’s Annual Performance Contract and are appraised on a quarterly/annual basis through the Government Human Resource Information System (GHRIS) to assess the achievement of set performance targets.

3.1.3.3. Resources and Capabilities

For the State Department to achieve its identified strategies, there is need to identify and fully mobilize all its tangible and intangible resources and capabilities. The tangible resources available in the SDI include financial and human resources while the intangible include the technology, organizational and innovation aspects. The SDI’s activities are funded through budgetary allocations by the Government’s Exchequer and loans and grants from development partners. However, the funding has over the recent times proved inadequate to facilitate achievement of the set targets.

There is a skilled workforce with clear training and constant provision to career progression programmes that will enable them to undertake their tasks efficiently. The available human resources are however inadequate for the SDI to fully and effectively undertake its mandate forcing the department to outsource services from contractors resulting in higher costs of projects. The

SDI has equipment to undertake tasks and meet set targets, but they are inadequate while some are outdated and this leads to outsourcing which is costly.

3.1.4. Summary of Strengths and Weaknesses

Table 3.2 presents a summary of strengths and weaknesses faced by the State Department for Irrigation in carrying out its mandate;

Table 3. 2: Summary of Strengths and Weaknesses

Factor	Strengths	Weaknesses
Governance and Administrative Structures	<ul style="list-style-type: none"> ● Irrigation Policy, Legal and Regulatory Framework, Strategy and published reports ● National Irrigation Authority and National Water Harvesting & Storage Authority as SAGAs ● Framework to operationalize the County Irrigation Development Units (CIDUs) ● National Water Master Plan 2030 ● Existence of registered farmer organizations (IWUAs) and well managed private irrigation schemes ● Provision for establishment of Research, Innovation and Training Institute ● Provision for Irrigation Management Transfer (IMT) in public schemes in the irrigation Act 2019. ● Existence of institutions that can support irrigation research and training such as universities and international research centers ● Existence of relevant institutions and guidelines to support mainstreaming of cross cutting issues in irrigation planning development and management 	<ul style="list-style-type: none"> ● Weak coordination, collaboration and partnerships among irrigation sector institutions ● Weak water catchment management systems ● Weak management of irrigation schemes ● Inadequate enforcement of regulatory frameworks governing irrigation ● Inadequate legal, policy and institutional frameworks for implementation of projects ● Inadequate support infrastructure for irrigation development

Factor	Strengths	Weaknesses
Internal Business Processes	<ul style="list-style-type: none"> ● There is in existence a Public Procurement and Asset Disposal Act 2015 and PFM Act 2012. ● Existence of reliable automated systems such as payroll management system GHRIS, GPCIS, IFMIS, e-NIMES. ● More services are now onboarded on the e-Citizen platform. 	<ul style="list-style-type: none"> ● Lengthy land acquisition and compensation processes ● Over dependence on government support for operation and maintenance in public irrigation schemes ● Slow adoption of modern technology ● Lack of standard operating procedures
Resources and Capabilities	<ul style="list-style-type: none"> ● Skilled public and private technical agricultural and irrigation personnel at national & county levels ● Availability of irrigation service providers ● Availability of data on irrigation at national, county levels, and private sector ● A pool of competent professionals to provide technical, advisory, research and training services. ● A pool of public and private enterprises that can provide irrigation services 	<ul style="list-style-type: none"> ● Inadequate resources for irrigation infrastructure development ● Inadequate use of existing irrigation profiles ● Lack of comprehensive mapping of irrigation potential ● Inadequate conceptualization, formulation and implementation of projects ● Inequitable water allocation and unfavorable water tariff regimes for irrigation ● Limited exploitation of groundwater, storm water, and multipurpose dams, wastewater for irrigation ● Inadequate irrigation technical personnel in public service ● Limited research and low uptake of technologies and innovations in the irrigation sector ● Lack of a centralized data and information management system ● Uncompetitive irrigated produce due to inefficiencies along the value chains ● Limited capacity for irrigation service provision within the sector ● Limited inclusivity in irrigation planning, development and management

3.1.5. Analysis of Past Performance

3.1.5.1. Key Achievements

This section presents the key achievements realized under each Key Results Area (KRA) during the plan period under review.

Key Result Area one: Policy, Legal and Institutional Framework

To enhance sector governance and leadership through policy, legal and institutional frameworks, the following were realized:

- (i) Continued implementation of the National Irrigation Policy 2017 to transform the irrigation sector through accelerated development, modernization and commercialization of sustainable irrigation systems and water storage for attainment of food security, employment creation and socio-economic growth.
- (ii) Irrigation Act, 2019 passed into law on 29th July, 2019 to provide for the development, management and regulation of irrigation and to support sustainable food security and socioeconomic development in Kenya. To operationalize the Act, the following were realized:
 - (iii) Gazettement of the developed Irrigation (General) Regulations, 2021
 - (iv) Published Guidelines for Promotion, Development and Management of Irrigation in Kenya
 - (v) Published the National Irrigation Services Strategy 2022 – 2026 aimed at providing strategic guidelines for realization of the aspirations of the Irrigation Policy 2017
 - (vi) Developed and gazetted the Water Harvesting and Storage Regulations, 2021
 - (vii) Undertook stakeholder sensitization on the National Water Harvesting and Storage Strategy 2020 - 2025.
 - (viii) Developed the Framework for Establishment of County Irrigation Development Units (CIDU) to spearhead development and management of irrigation at the county level.
 - (ix) Draft Procedure and Instrument for Handing Over Completed Irrigation, Drainage and Land Reclamation Projects approved by the Attorney General for Gazettement.
 - (x) Draft Land Reclamation Policy and Land Reclamation Bill ready for stakeholder/public participation.
 - (xi) Developed the framework for establishment of an Irrigation Research Institution
 - (xii) Seven (7) Trainers Manuals developed, finalized, published and disseminated.

Key Result Area Two: Water Harvesting, and Storage, Flood Control and land Reclamation

- (i) The water storage capacity for irrigation increased from 39.9 MCM to 128.6 MCM following completion of Thiba Dam
- (ii) 141 small pans/dams constructed having storage capacity of 14.3 million cubic meters of surface water.

- (iii) 28,732 household water pans in 31 counties constructed with a combined potential volume of 39.9 MCM in arid areas to irrigate about 38,904 acres and benefitted 28,732 households.
- (iv) 81 boreholes drilled and equipped with 20,000 liters raised tanks benefitting 120 public schools under the micro irrigation for schools programme. In addition, 63 pilot greenhouses for vegetable growing and tree/fruit seedlings production were constructed.
- (v) Three (3) region-based land degradation assessments (LADAs) were done - Lake Magadi Catchment, Upper Kerio River and Upper Ewaso Nyiro North LADAs.
- (vi) A total of 22,000 Hectares of swampy, waterlogged and other forms of degraded lands have been reclaimed

Key Result Area Three: Irrigation Development and Management

- (i) Total area under irrigation increased from 484,000 acres in 2018 to 664,000 acres in 2022.
- (ii) A total of 44 irrigation projects were completed, increasing area under production by 32,104 acres and benefitting 27,403 farmers.
- (iii) Constructed 240 irrigation projects through National Expanded Irrigation Programme and Community Based Smallholder irrigation across all the 47 counties with a cumulative area of 236,866 acres directly benefiting over 267,426 farmers.
- (iv) 63,342 acres of land developed under public schemes contributing to an average of 170,000 tonnes of rice and Ksh. 151 billion in value of horticultural produce for export.
- (v) 19,000 acres of land were developed in Turkana to benefit 9,080 households and provide a stable food supply at an average of 38,000 tonnes of maize and millet.
- (vi) Training of Trainers (TOT) sessions on Irrigation Development and Management undertaken for staff from 45 Counties and Phase I modules of the Irrigation Water Users Association (IWUA).
- (vii) Capacity built IWUAs in the Kanini, Kaigunji, Gacharaigu and Kanyenyaini Irrigation schemes.
- (viii) Training Needs Assessment carried out in Anyiko and Waga Machame Irrigation schemes.

Key Result Area Four: Human Resource Capacity, Partnerships and Resource Mobilization

To build human resource and financial capacity, the following achievements were realized:

- (i) Recruited 5 Land Reclamation (LR) Officers, 5 Irrigation Water Management Officers, 8 Irrigation and Drainage Engineers, 5 Irrigation Water Harvesting and Storage Engineers and engaged 9 interns;
- (ii) Trained staff on various courses such as five (5) LR Officers undertook Senior Management Course while One (1) LR Officer is currently undertaking PhD studies;
- (iii) 12 Dams advertised for Expression of Interest for PPP to support irrigation sector programmes.
- (iv) Ksh 100M mobilized through leveraging on commercial financing for development of the irrigation sector.

- (v) Ksh 1,049,274,000 Mobilized through the Equalization Fund.
- (vi) The Council of Governors (CoG) considered and approved the proposed framework for establishment and operationalization of the County Irrigation Development Units (CIDUs). Sensitization of counties on the regulations and framework to ensure implementation is underway.

3.1.5.2. Challenges

The following are the key factors that hindered achievement of set targets during implementation of the Ministry of Water, Sanitation and Irrigation’s Strategic Plan 2018 – 2022.

- i. Inter-communal disputes and disagreements thus delaying programme and project completion.
- ii. Increase in the intensity and frequency of extreme weather events affecting water available for irrigation.
- iii. Balancing between the need for rapid development and greenhouse gas emission reduction, for instance, pump fed irrigation development.
- iv. Inadequate integrated wetlands management leading to underutilization of projects.
- v. Lengthy process and cost for way leave acquisition / compensation for large irrigation projects leading to delays in implementation of projects.
- vi. Inadequate mechanisms to address trans-boundary water management and development for irrigation purposes.
- vii. Lack of adequate data management systems resulting in delays in execution of tasks;
- viii. Transfer of functions (such as land reclamation) from one ministry to another leading to interruption of ongoing projects, reallocation of resources etc;
- ix. Loss of biodiversity in fragile ecosystems as a result of mega infrastructural developments without matching compensatory frameworks across the sectors.
- x. Inadequate human, financial resources and skills gap essential to SDI mandate leading to ineffective execution, management, monitoring and evaluation of projects.
- xi. The COVID – 19 pandemic caused disruption in financing and implementation of planned irrigation projects.
- xii. The global instabilities that have resulted in high capital and operational costs.
- xiii. Low uptake of new technologies by Irrigation Stakeholders

3.1.5.3. Lessons Learnt

The lessons learnt include the following;

- i. Financing of irrigation development through cost sharing model with project beneficiaries improves the rate of irrigation development, ownership and sustainability.
- ii. Adoption of climate smart irrigated agriculture, collection and timely dissemination of climate related data as well as capacity building of farmers and technical officers, are adaptation and mitigation measures that largely helps in reducing the effects of climate change and needs to be mainstreamed in projects.

- iii. Multi-agency approach with relevant stakeholders on security of critical irrigation infrastructure is essential.
- iv. Covid-19 pandemic affected the implementation of programmes and projects hence there is need for emergency fund kitty to cater for unseen circumstances.
- v. Focus and financing of research and innovation in the sector to improve on absorption and utilization of new technologies
- vi. Water harvesting and storage for irrigation at household level to be given priority at national and county legislation to enhance mitigation of effects/impacts of climate change (floods and drought).
- vii. Incorporating capacity building in all projects and programmes targeting all stakeholders from decision makers to subsidiary implementers results in sustainability and resilience.
- viii. Collaboration between the National and County governments is essential for sustainable environment, basin-based development, water resource, land reclamation and irrigation management.
- ix. Early land acquisition and land use planning for project sites/wayleaves for large infrastructures reduces compensation claims and timely inception of projects.
- x. The National Government’s approach towards PPP based investments in irrigation water harvesting and storage offers an opportunity to scale up irrigation development
- xi. Climate Financing to mainstream environment and climate change mitigation in multilateral and bilateral trade agreements/negotiations is critical for irrigation development.
- xii. Transitioning from brown to green economic growth that ensures environmental health and addresses the challenges of climate change is a resource-intensive transition, and should include many initiatives such as the Green Growth Programme.

3.2. Stakeholder Analysis

Table 3.3: Stakeholder Analysis

S/ No.	Stakeholder	Role	Expectation of the Stakeholder	Expectation of the State Department
1.	Farmers / Farmer Groups	<ul style="list-style-type: none"> ● Engage in agricultural production activities ● Participation in policy development ● Participation in institutional governance 	<ul style="list-style-type: none"> ● Enabling policy environment ● Efficient service delivery ● Involvement in SDI’s irrigation development 	<ul style="list-style-type: none"> ● Regular feedback on sector services, policies and regulations ● Compliance with laws and regulations ● Ownership and sustainability of projects ● Adoption of irrigation technology

S/ No.	Stakeholder	Role	Expectation of the Stakeholder	Expectation of the State Department
2.	Public citizenry /	<ul style="list-style-type: none"> • Participation in policy development • Public oversight 	<ul style="list-style-type: none"> • Active participation in irrigation related issues • Efficient and effective irrigation services • Transparency and accountability in the service delivery 	<ul style="list-style-type: none"> • Regular feedback on services • Responsive citizenry • Compliance with laws and regulations • Ownership and sustainability of projects • Enhanced awareness on the irrigation sector issues • Goodwill • Consumers of irrigated produce
3.	Irrigation professionals	<ul style="list-style-type: none"> • Participate in development and implementation of irrigation projects and program • Capacity building, technical support and advisory services to the citizens and stakeholders • Participate in policy development 	<ul style="list-style-type: none"> • Recognition • Capacity development • Reward for professional inputs • Conducive work environment 	<ul style="list-style-type: none"> • Improved productivity • Provision of necessary skills and manpower • Portray good professional image • Efficient and timely services to clients • Adherence to professional codes of conduct and practices • Efficient utilization of resources • Transparency and accountability • Mentorship of young professionals
4.	Professional bodies (e.g EBK, IEK, KeSEBAE, ICPAK)	<ul style="list-style-type: none"> • Registering and regulating professionals • Training the professionals • Approve curriculums in training institutions 	<ul style="list-style-type: none"> • Compliance by professionals through registration and renewal of membership • Uphold professional ethics • Provide opportunities or continuous professional development. 	<ul style="list-style-type: none"> • Improved standards of technical expertise and professional management in the sector • Enforce professional ethics • Partner in the implementation of irrigation development

S/ No.	Stakeholder	Role	Expectation of the Stakeholder	Expectation of the State Department
			<ul style="list-style-type: none"> ● Involvement in initiatives within irrigation sector 	<ul style="list-style-type: none"> ● projects and programmes ● Improved innovation
5.	Research and academic institutions	<ul style="list-style-type: none"> ● Technology development and transfer ● Training of manpower ● Participate in policy development ● Participate in project development and implementation ● Generation of knowledge 	<ul style="list-style-type: none"> ● Creation of an enabling environment for irrigation research and innovation ● Financing for research ● Partnership and collaboration in research and policy formulation ● Provide internship and employment to their graduates ● Share generated data and information ● Feedback on technology and innovation ● Feedback on sector human resource requirement ● Dissemination and commercialization of technologies and innovations 	<ul style="list-style-type: none"> ● Training of manpower to meet irrigation sector requirements ● Generation of irrigation technologies and innovations ● Share generated data and information ● Participation in formulation of irrigation policies and legislations ● Improved irrigation research and innovation ● Policy analysis ● Review, develop and approve curriculum by universities ● Mentoring of young professional on irrigation by universities ● Provision of scholarships in irrigation matters
6.	NEMA	<ul style="list-style-type: none"> ● Develop policies that govern environmental management. ● Oversight and enforcement of laws and regulations ● Resource mobilization ● Set national standards for utilization of 	<ul style="list-style-type: none"> ● Compliance with the set standards and regulations ● Collaboration during planning and implementation ● Budgetary allocation 	<ul style="list-style-type: none"> ● Implementation of Environmental Management and Coordination Act ● Regulate and approve environmental and social impact assessments ● Regulate and approve environmental audits ● Ensure compliance to water quality standards

S/ No.	Stakeholder	Role	Expectation of the Stakeholder	Expectation of the State Department
		environmental goods and services		<ul style="list-style-type: none"> ● Ensure adherence to environmental health matters
7.	Water Resources Authority (WRA)	<ul style="list-style-type: none"> ● Formulate and enforce standards, procedures and regulations for the management and use of water resources and flood mitigation; ● Regulate the management and use of water resources; ● Enforce Regulations made under the Water Act of 2016 ● Issue permits for water abstraction, water use and recharge ● Advise the Cabinet Secretary on national water resource management, water storage and flood control strategies; ● Coordinate with other regional, national and international bodies for the better regulation of the management and use of water resources; 	<ul style="list-style-type: none"> ● Formulate and enforce standards, procedures and regulations for the management and use of water resources and flood mitigation ● Regulate the management and use of water resources ● Receive water permit applications, determine, issue, vary and enforce permit conditions for water abstraction, water use and recharge ● Collect water permit fees and water use charges ● Determine and set permit and water use fees ● Provide information for formulation of policy on national water resource management, water storage and flood control strategies ● Coordinate with other regional, national and international bodies for the better regulation of the management and use of water resources ● Collect, analyze and disseminate information on water resources ● Monitor compliance by water users with the conditions of permits 	<ul style="list-style-type: none"> ● Involvement in project activities ● Compliance with the set standards and regulations ● Collaboration during planning and implementation ● Budgetary allocation

S/ No.	Stakeholder	Role	Expectation of the Stakeholder	Expectation of the State Department
			<ul style="list-style-type: none"> ● Issue permits for inter-basin water transfer ● Conservation of ground water for the protection of public water or water supplies used for industry, agriculture or other private purposes ● The conservation of surface water resources and ground water resources for ecological reasons 	
8.	Ministries Departments and Agencies (MDAs)	<ul style="list-style-type: none"> ● Resource mobilization and allocation ● Policy guidance and enforcement of laws and regulations ● Oversight and regulation ● Set national standards ● Monitor, evaluate and report on projects and programmes 	<ul style="list-style-type: none"> ● Promote inter-ministerial/agency coordination and collaboration ● Enabling policy and regulatory environment ● Involvement in irrigation sector activities ● Compliance and enforcement with the set standards and regulations ● Collaboration during planning and implementation ● Budgetary allocation ● Prudent utilization of resources and funds 	<ul style="list-style-type: none"> ● Support and collaboration during planning and implementation ● Devolution and decentralization of opportunities ● Compliance and enforcement of set standards and regulations ● Technical support on standards ● Prudent management of resources ● Efficient service delivery ● Participation in irrigation development ● Enabling policy and regulatory environment ● Support and collaboration in resource allocation
9.	Non-State Actors such as NGOs, Civil Societies,	<ul style="list-style-type: none"> ● Advocacy and lobbying 	<ul style="list-style-type: none"> ● Conducive environment for operation ● Involvement in development of sector 	<ul style="list-style-type: none"> ● Compliance with set laws and regulations ● Active participation and collaboration.

S/ No.	Stakeholder	Role	Expectation of the Stakeholder	Expectation of the State Department
	CBOs, Other Private Sector Actors, Development Partners and International Organisations	<ul style="list-style-type: none"> ● Develop and implement projects and programmes ● Resource mobilization ● Participate in policy formulation ● Capacity development 	<ul style="list-style-type: none"> ● policies, programmes and projects ● Provision of quality services ● Incentives for private sector investment ● Collaboration in irrigation development and management initiatives ● Accountable, transparent and efficient use of resources ● Effective implementation of projects and programmes ● Involvement in stakeholder consultations during planning. ● Timely payment of subscription fees. ● Good governance 	<ul style="list-style-type: none"> ● Positive engagement ● Support specific programmes and projects of the Irrigation sector. ● Disbursement of committed resources ● Technical assistance ● Compliance to laws and host country agreements ● Alignment to country's development priorities
10.	Parliament	<ul style="list-style-type: none"> ● Legislation ● Oversight ● Appropriate resources 	<ul style="list-style-type: none"> ● Timely submission of draft bills for legislation. ● Reporting on the state of and the needs of the irrigation sector ● Timely response to parliamentary questions ● Efficient utilization of allocated resources ● Public involvement 	<ul style="list-style-type: none"> ● Timely enactment of legislation and adjudication of motions ● Oversight of the irrigation sector activities ● Appropriation of sufficient financial resources ● Provide oversight of resource utilization
11.	Media	<ul style="list-style-type: none"> ● Gathering and packaging information ● Informing and educating the public ● Advocacy 	<ul style="list-style-type: none"> ● Timely, accurate and reliable information ● Feedback ● Partnership 	<ul style="list-style-type: none"> ● Enhanced awareness creation, information documentation and effective communication

S/ No.	Stakeholder	Role	Expectation of the Stakeholder	Expectation of the State Department
				<ul style="list-style-type: none"> ● Fair, current, accurate and responsible coverage ● Partnership
12.	County Governments and CIDUs	<ul style="list-style-type: none"> ● Formulate and implement county irrigation frameworks in line with national policies and strategies ● Develop and maintain irrigation database ● Service provision ● Development and implementation of programmes and projects ● Monitoring, evaluation and reporting ● Mainstream irrigation related statutory obligations such as those related to the environment, water and health ● Resource mobilization ● Infrastructure development 	<ul style="list-style-type: none"> ● Policy guidance on irrigation ● Partnership in implementation of devolved functions in irrigation ● Capacity building on irrigation ● Technical advice and support ● Resource appropriation ● Involvement in policy formulation ● Collaboration during planning and implementation of projects and programmes ● Involvement in irrigation development activities ● Budgetary allocation ● Enforcement of set standards and regulations 	<ul style="list-style-type: none"> ● Adoption of policies, legislation and regulations ● Partnership in development and implementation of programmes and projects ● Availability of county staff and institutional structures to effect irrigation programmes ● Share data, information and training to achieve irrigation development ● Cooperation in the irrigation sector coordination mechanism ● Efficient service delivery ● Prudent management of resources ● Technical support ● Capacity building ● Participation in irrigation development ● Compliance with the set standards and regulations ● Collaboration during planning and implementation
13.	Staff	<ul style="list-style-type: none"> ● Policy guidance and enforcement of laws and regulations 	<ul style="list-style-type: none"> ● Efficient and effective HR services 	<ul style="list-style-type: none"> ● Improved productivity ● Provision of necessary skills and manpower

S/ No.	Stakeholder	Role	Expectation of the Stakeholder	Expectation of the State Department
		<ul style="list-style-type: none"> ● Oversight and regulation ● Formulation and implementation of projects and programmes ● Resource mobilization ● Set, implement and enforce standards ● Monitor compliance with standards ● Mentoring interns ● To monitor, evaluate and report on projects and programmes 	<ul style="list-style-type: none"> ● Skills/ capacity development and career progression ● Reward of excellent performance ● Favorable terms and conditions of service and good working environment 	<ul style="list-style-type: none"> ● Efficient and timely services to the citizens and stakeholders

CHAPTER 4. STRATEGIC ISSUES, GOALS AND KEY RESULT AREAS

Overview

This chapter presents the Strategic Issues that emanate from the situational and stakeholder analyses as well as the Strategic Goals in form of general and broad statements outlining the strategic direction which the State Department plans to take in the next 5 years. The chapter finally presents the Key Results Areas that the State Department will focus on to achieve the Strategic Goals.

4.1. Strategic Issues

The fundamental issues which the State Department has identified and will expeditiously and effectively deal with and forms the basis for formulation of strategic goals are:

4.1.1. Sub-optimal Exploitation and Development of Irrigation Potential

The National Water Masterplan 2030 estimates the country's irrigation potential at 3,354,750 acres. However, as of June 2022, only 664,000 acres (20% of the irrigation potential) has been put under irrigation. This sub-optimal development of irrigation potential is attributed to huge capital requirements for irrigation infrastructure due to its capital-intensive nature, low investment in irrigation infrastructure, limited surface water, inadequate coordination of stakeholders, inadequate support infrastructure, inadequate institutional capacity, poor public investment management practices, high cost of land compensation and uncertain tenancy and associated user rights.

Further, the sub-sector also lacks an Irrigation Master Plan to guide investments and relies on the projections of the National Water Masterplan 2030. The Irrigation (General) Regulations, 2021 also requires the Cabinet Secretary to develop and maintain an irrigation and drainage management information system (IDMIS) which shall include, among other information, all areas identified, mapped, delineated and designated as suitable for irrigation. However, only a concept and framework for establishment of the IDMIS has been achieved.

4.1.2. Inadequate Water Harvesting and Storage Infrastructure

Sections 6(2) and 15(1) of the Irrigation Act, 2019 and Section 89(1) of the Irrigation (General) Regulations, 2021 bestows responsibility on development and management of irrigation to the Cabinet Secretary to ensure availability and adequacy of water for irrigation of applicable quality standards. This has however not been realized despite Kenya receiving approximately 354 Billion Cubic Meters (BCM) rainwater annually which presents an opportunity to harness and store 20 BCM annually (NISS 2022 - 2026). The volume of water harvested and stored for irrigation as of Financial Year 2021/22 was 128.6 Million Cubic Meters (Annual Status Report on Water, Sanitation and Irrigation; June 2022) against a projected demand of 6.5 BCM for developing 1.2 million acres annually (NISS 2022 - 2026). This constrained capacity has been worsened by high costs of infrastructure for water harvesting and storage, land acquisition and

compensation, and socio-cultural hindrances. These factors have greatly hampered the State Department's efforts to achieve optimal water harvesting and storage capacity.

4.1.3. Poor Management of Irrigation Schemes

The Cabinet Secretary through Section 19(1) of the Irrigation Act, 2019 is required to oversee management of existing and new national or public schemes, except those under county governments, and particularly storage dams, intake, main and secondary systems as necessary. Further, the Irrigation (General) Regulations, 2021 through Part IV outline management principles and how irrigation management ought to be undertaken.

There however exists poor management of existing irrigation schemes due to: weak institutional setup including farmer organizations; high operational and maintenance costs on the side of farmers; over-reliance on government grants and subsidies in public schemes; low enforcement and compliance to statutory requirements due to lack of an operational Irrigation Licensing Unit; and low capacity and awareness amongst irrigation sector players.

Further, there has been inadequate support along the irrigated value chains which has led to low returns from irrigation investments. These have led to poor financial management of irrigation schemes; unavailability of adequate and quality water for irrigation purposes; and low enforcement of irrigation policies, legal instruments, Standards and Regulations thus negatively impacting on the acreage put under irrigation, sustainability of irrigation schemes and their productivity, labour productivity as well as diversion of productive labour in the irrigation schemes. There is weak capacity amongst IWUAs to enforce their bylaws thus affecting governance and management of irrigation schemes for sustainability.

4.1.4. Sub-Optimal Land Reclamation

The Government of Kenya recognizes land degradation as a serious threat to the country's economy, which causes an annual economic loss of USD 390 Million or 3% of country's GDP (MTP1 2008-2012). Over the years, there has been a rising trend in land degradation, increasing from 12% in 1990 to 28.3% of the total land in 2012, Kenya National LADA 2014. Land degradation leads to increased surface runoff due to reduced infiltration, flash floodings, soil erosion, siltation of rivers and dams and shrinking of productive land area which results to food insecurity.

Land degradation is principally addressed through Land reclamation. However, most degraded lands have not been reclaimed and the current rate of land reclamation is extremely low compared to the rate of land degradation. There also exists weak capacity among landowners and other actors on land reclamation and land degradation neutrality.

Section 15(2)(b) of the Irrigation Act, 2019 requires the Cabinet Secretary to seek advice of the Water Resources Authority on the development of new irrigation water sources, including water harvesting, flood control and storage for irrigation. However, the management of land reclamation through flood water harvesting and control has not been optimal as envisaged by the Act.

4.1.5. Weak Governance Framework

The State Department lacks a National Land Reclamation Policy and legal framework which has led to low reclamation of various categories of degraded lands, measures of controlling and preventing further land degradation and securing land degradation neutrality.

Further, the operationalization of the Irrigation Act, 2019 has been slow and this has resulted into: weak enforcement, compliance to irrigation standards and limited accessibility to quality irrigation services due to lack of an Irrigation Licensing Unit; inadequate awareness and capacity amongst irrigation stakeholders due to non-execution of Irrigation Research, Innovation and Training functions as provided for by the Act; disharmony between National and County Governments in prioritizing irrigation development due to non-establishment of County Irrigation Development Units contrary to the provisions of the Irrigation (General) Regulations, 2021; and inadequate irrigation information and knowledge due to lack of an IDMIS and a Knowledge Management System respectively.

These phenomena have been coupled by lack of Irrigation Water Pricing Framework as well as weak institutional capacity (systems, operations, human, physical and financial). As a result, the irrigation service provision as envisaged under Sections 16 and 106 of the Irrigation (General), Regulations 2021 has greatly been hampered.

4.2. Strategic Goals

In addressing the identified strategic issues, the State Department for Irrigation shall pursue the following strategic goals:

1. Improved water harvesting and storage capacity for irrigation;
2. Optimal and sustainable exploitation and development of irrigation potential;
3. Improved productivity of irrigation schemes;
4. Land Degradation Neutrality (LDN) achieved; and
5. Strengthened governance of irrigation and land reclamation

4.3. Key Result Areas (KRAs)

To achieve the strategic goals, the State Department shall focus on the following Key Result Areas during the plan period.

4.3.1. Water for Irrigation

One of the key functions for the State Department is water harvesting and storage for irrigation. Further, the Irrigation Act, 2019 requires the Cabinet Secretary to ensure the adequacy and quality of water for irrigation. This KRA will therefore seek to address the challenges / issues emanating from inadequate water harvesting and storage capacity.

4.3.2. Area under Irrigation

A key priority area under the Bottom-Up Economic Transformation Agenda (BETA) of the Government is to eradicate hunger and make Kenya a food-secure nation. The State Department plays a key role in supporting food and nutrition security through irrigation. During the plan period, the State Department shall implement priority interventions and programmes geared towards increasing the area under irrigation from 664,000 acres in 2021/2022 to 1,211,530 acres in FY 2027/28

4.3.3. Irrigation Management and Quality Assurance

This KRA shall help in enhancing management of public irrigation schemes, irrigation systems improvement, water use efficiency, and promoting compliance and enforcement of irrigation policies, legal instruments, standards and Regulations

4.3.4. Land Reclamation and Flood Control

The State Department shall address land degradation concerns which have a potential to shrink the available productive and irrigable land. This KRA endeavors to bring more land into productive use. It endeavors to achieve LDN through undertaking Land Degradation Assessments (LADAs) and concurrent actions of maintaining existing healthy land through: advocacy and capacity building of land owners; reducing existing degradation by adopting sustainable land management practices; and flush flood water/*laggha* harvesting while increasing biodiversity, soil health, and food production. The KRA will also mobilize resources for reclamation of wastelands and restoration of degraded lands.

4.3.5. Policy, Legal, institutional Framework and Governance

The State Department has developed and implemented various policy and legal frameworks and also established supporting institutions. It has however not undertaken full development, implementation and operationalization of the policy and legal reforms due to inadequate physical, human, financial capacities as well as systems and procedures. This KRA is geared towards enhancing governance and service delivery through formulation, review and implementation of policies, legal and institutional reforms within the State Department.

Table 4. 1 Strategic Issues, Goals and KRAs

Strategic Issue	Goal	KRA
Inadequate Water Harvesting and Storage Infrastructure	Improved water harvesting storage capacity	Water for Irrigation
Sub-optimal Exploitation and Development of Irrigation Potential	Optimal and sustainable exploitation and development of irrigation potential	Area under Irrigation
Poor Management of Irrigation Schemes	Improved productivity of irrigation schemes	Irrigation Management and Quality Assurance
Sub-Optimal Land Reclamation	Land Degradation Neutrality achieved.	Land Reclamation and Flood Control
Weak Governance Framework	Strengthened governance of irrigation and land reclamation	Policy, Legal, institutional Framework and Governance

CHAPTER 5. STRATEGIC OBJECTIVES AND STRATEGIES

Overview

This chapter highlights the Strategic Objectives that are aligned to the strategic goals and key results areas identified in the previous chapter. It finally presents the Strategic Choices that will be pursued by the State Department during the plan period to achieve the strategic objectives.

5.1. Strategic Objectives

Table 5.1 outlines, under each Key Results Area, the strategic objective(s), expected outcome and respective indicators and the 5-year projections.

Table 5. 1 Outcomes Annual Projections

Strategic Objective	Outcome	Outcome Indicator	Projections				
			Year 1	Year 2	Year 3	Year 4	Year 5
KRA 1: Water for Irrigation							
SO 1.1: To increase the capacity of water harvested and stored for irrigation from 128.6M M ³ in FY 2021/2022 to 648M M ³ by FY 2027/28.	Capacity of water harvested and stored for irrigation increased	Volume of water harvested and stored for irrigation (in MCM)	7.67	17.23	17.70	15.80	461.05
KRA 2: Area under Irrigation							
SO 2.1: To increase the area under irrigation from 664,000 acres in FY 2021/2022 to 1,211,530 acres in 2027/28	Area under irrigation increased	Area put under irrigation (in acres)	26,274	45,447	60,297	146,770	269,742
KRA 3: Irrigation Management and Quality Assurance							
SO 3.1: To increase irrigated rice & maize production from 192,299 tonnes	Irrigated production increased	Volume of irrigated produce (in Tonnes)	200,000	280,000	410,000	550,000	700,000

Strategic Objective	Outcome	Outcome Indicator	Projections				
			Year 1	Year 2	Year 3	Year 4	Year 5
& 195,921 (90kg) bags in FY 2021/22 to 700,000 & 3.0M (90kg bags) in FY 2027/28 respectively		Quantity of Maize produced (90Kgs Bags)	350,000	800,000	1,500,000	2,500,000	3,000,000
KRA 4: Land Reclamation							
SO 4.1: To increase area rehabilitated, reclaimed and restored from 55,000 acres in FY 2021/22 to 61,750 acres by FY 2027/28	Degraded and wastelands reclaimed and restored	Additional Acres rehabilitated, reclaimed and restored	500	800	1,200	2,000	2,250
KRA 5: Policy, Legal, Institutional Framework and Governance							
SO 5.1: To enhance governance and service delivery	Governance and service delivery enhanced	Land Reclamation Policy finalized		1			
		Land Reclamation Bill finalized			1		
		Kenya Irrigation Research, Innovation and Training Institute		1			
	Shared Support services strengthened	Customer Satisfaction Level (%)	100	100	100	100	100

5.2. Strategic Choices

Table 5.2 Strategic Choices

KRA	Strategic Objective(s)	Strategies
KRA 1: Water for Irrigation	S.O. 1.1: To increase the capacity of water harvested and stored for irrigation from 128.6M M ³ in FY 2021/2022 to 648M M ³ by FY 2027/28.	S1: Development of large and medium-sized dams.
		S2: Construction of small dams and water pans for Irrigation
		S3: Implement Drought Resilience Programme in ASAL areas
		S4: Water harvesting in 23 ASAL counties
		S5: Water harvesting from ‘Lagghas’ and exploitation of groundwater for irrigation in arid areas
KRA 2: Area under Irrigation	SO 2.1: To increase the area under irrigation from 664,000 acres in FY 2021/2022 to 1,211,530 acres in 2027/28	S1: Mapping of irrigable areas
		S2: Development of Feed lots systems
		S3: Development of Public / National Irrigation schemes.
		S4: Promote Development of Community Managed Irrigation schemes.
		S5: Development of Large-scale (Non-Dam) irrigation schemes.
		S6: Implement Micro-irrigation program for schools.
		S7: Promotion of Farmer Led Irrigation Development projects.
KRA 3: Irrigation Management and Quality Assurance	SO 3.1: To increase irrigated rice & maize production from 192,299 tonnes & 195,921 (90kg) bags in FY 2021/22 to 700,000 & 3.0M (90kg) bags in FY 2027/28 respectively	S1: Enhance management of irrigation schemes.
		S2: Promotion/enhancement of efficient utilization of water for irrigation.
		S3: Effective and efficient utilization of finance and other resources.
KRA 4: Land Reclamation & Flood Control	SO 4.1: To increase area rehabilitated, reclaimed and restored from 55,000 acres in FY 2021/22 to 61,750 acres by FY 2027/28	S1: Enhance flood control measures.
		S2: Undertake land degradation assessments, dissemination and implementation of LADA Findings.
		S3: Undertake county-specific land reclamation programmes in collaboration with counties.

KRA	Strategic Objective(s)	Strategies
KRA 5: Policy, Legal, Institutional Framework and Governance	SO 5.1: To enhance governance and service delivery by 2027/28	S1: Develop, review, finalize and operationalize Irrigation policies, legal and institutional frameworks.
	SO 5.2: Shared Support services strengthened	S1: Strengthening the shared support services

CHAPTER 6. IMPLEMENTATION & COORDINATION FRAMEWORK

Overview

This chapter presents the implementation plan that comprises the action plan, annual work plans and budget as well as performance contracting. The coordination framework highlights the institutional framework, staff establishment, skills set and competence development, leadership, systems and procedures as well as the risk management framework.

6.1. Implementation Plan

This section presents the Implementation Plan which describes how the Strategic Plan will be operationalized. It also provides an exhaustive description of the various components of the Implementation Plan. These include the Action Plan, budgeting and the Performance Contracting.

6.1.1. Action Plan

The plan provides for a mix of actions that will be undertaken in order to realize the expected strategic outcomes. It provides for the key output indicators, implementation timelines, and requisite resources.

Table 6. 1 Implementation Matrix

Strategy	Key Activities	Expected Output	Output Indicators	Target for 5 Years	Target					Budget (Millions)					Responsibility		
					Yr 1	Yr 2	Yr 3	Yr 4	Yr 5	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5	Lead	Support	
Strategic Issue 1: Inadequate Water Harvesting and Storage Infrastructure																	
Strategic Goal 1: Improve water harvesting and storage capacity																	
KRA 1: Water for Irrigation																	
Outcome 1: Capacity of water harvested and stored for irrigation increased																	
Strategic Objective 1: To increase the capacity of water harvested and stored for irrigation from 128.6MCM in FY 2021/2022 to 648 MCM by FY 2027/28.																	
Development of Large & Medium-Sized dams	Construction of multipurpose large dams	Feasibility studies and Designs for dams	Number of feasibility studies for large dams	14	1	3	4	3	3	100	200	200	400	400	Irrigation and Drainage Department,	NIA and NWH&S A	
			Number of feasibility studies for medium sized	30	0	9	5	10	6								
			Number of feasibility studies and designs for Social dams	28	-	-	-	14	14						NIA NWHS A		
		PPP project Transaction advisor engaged	TA in place	1	1		-	-	-	100	-	-	-	-	Irrigation and Drainage Department,	NIA and NWH&S A	
		Galana, HGF, Thuci, Radat, Isiolo, Lowaat, Bosto Dams Projects approved for commercial close	No. of PPP Dams Project	6	-	1	1	2	2	1.5	2	2	2	2	Irrigation and Drainage Department,	NIA and NWH&S A	
		Large & medium sized Dams constructed	No. of dams constructed	6	-	1	1	2	2	4,180	5,950	37,133	45,801	47,333	NIA NWHS A		
	Volume of water Stored (MM ³)		464	-	8.0	8.9	1.5	445.4									
		Capacity build staff on PPP	No. of Staff trained	45	15	15	15	-	-	5	5	5	-	-	Irrigation and Drainage Department,	National Treasury	
Construction of small dams and water pans for Irrigation	Construction of small dams and water pans for Irrigation	Small dams constructed	No. of small dams constructed	120	-	-	40	40	40			1,600	1,600	1,600	NWHS A		
		Household Irrigation water pans constructed	Number of water pans	-	3,217	3,753	2,670	2,870	3,300	800	940	1,200	1,300	1,500			SDI
			Volume in Cubic Meters (Millions)	-	4.67	4.63	4.0	4.3	5.0								

Strategy	Key Activities	Expected Output	Output Indicators	Target for 5 Years	Target					Budget (Millions)					Responsibility	
					Yr 1	Yr 2	Yr 3	Yr 4	Yr 5	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5	Lead	Support
Implement Drought Resilience Programme in ASAL areas	Drilling of emergency boreholes & Construction of water pans	Water Pans constructed	Number of water pans (DRPNK)	98	0	50	23	25	-	310	920	1,386	1,002		SDI	NIA, County Governm ents IDD
		Emergency boreholes drilled	Number of emergency boreholes	203	0	50	56	54	43	-	750	840	810	645	NWH&SA	
Water harvesting in 23 ASAL counties	Implement Water Security and Climate Adaptation in Mandera and Wajir clusters	Water storage capacity developed	Volume (in Million cubic meters)	7.64	0.14	-	1.25	2.5	3.75	50	-	500	1,000	1,500	NIA	
		Water storage capacity developed	Volume (in Million Cubic Meters)	8.96	0.21	-	2.5	3.75	2.5	50	-	1,000	1,500	1,000	NIA	
		Strategic water harvesting facilities desilted	Volume (in Million cubic meters)	24.41	3.01	3.4	3.6	7.2	7.2	400	400	1,000	2,000	2,000	NIA	
Water harvesting from 'Lagghas' and exploitation of groundwater for irrigation in arid areas	Undertake assessment and mapping of water harvesting potential along 18 'lagghas' in 14 counties	Laggahs Assessment and mapping undertaken	Assessment and mapping reports	14	-	9	5	-	-	70	150	300	400	500	DLR	NIA, IDD
		Construction of water harvesting structures / Water pans (100,000 to 300,000 CM) along the 'Lagghas'	Volume of water harvested for pasture irrigation	Volume (in Million cubic meters)	5.3	-	0.6	1.2	1.5	2						
Strategic Issue 2: Sub-optimal Exploitation and Development of Irrigation Potential																
Strategic Goal 2: Optimal and sustainable exploitation and development of irrigation potential																
KRA 2: Area under Irrigation																

Strategy	Key Activities	Expected Output	Output Indicators	Target for 5 Years	Target					Budget (Millions)					Responsibility	
					Yr 1	Yr 2	Yr 3	Yr 4	Yr 5	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5	Lead	Support
Outcome 2: Area under irrigation increased																
Strategic Objective 2: To increase the area under irrigation from 664,000 acres in FY 2021/2022 to 1,211,530 acres in FY 2027/28																
Mapping of irrigable areas	Development of a 30-Year National Irrigation Master Plan	30-Year National Irrigation Master Plan developed	Number of Irrigation Master Plans	1	-	-	-	1	-	10	40	40	10	-	Irrigation Water Management	IDD, NIA, NWH&S A, LR
	Establishment of an Irrigation and Drainage Management Information System (IDMIS)	IDMIS established	System	1	-	-	-	1	-	-	50	40	10	-	Irrigation Water Management	IDD, NIA, NWH&S A, LR
Development of feed lots system	Construction of feed lots along the laggahs	Additional Area under irrigated feedlot system	Total No. of Acres	3,000	-	-	600	1,000	1,400			150	250	350	SDI	
		Pasture harvested	Tons of pasture harvested	-	-	-	4,500	13,500	17,500						SDI	
Development of Public / National Irrigation schemes.	Rehabilitation and expansion of Bura Irrigation Scheme	Bura Scheme area rehabilitated	Total Area (Acreage) rehabilitated	6,000	4,300	4,492	5,300	5,700	6,000	690	690	500	-	-	NIA	
		Bura Scheme area expanded (Lot II & III)	Total Area (Acreage) expanded	13,000	-	-	5,000	6,000	7,000				-	-	NIA	
	Implementation of Mwea Irrigation Development Project	Mwea Irrigation area developed	Total acres developed	35,000	30,600	35,000	-	-	-	2,039	789	1,609	166	-	NIA	
	Lining of canals - Mwea	Concrete lined Canals	No of KMs lined	150	1	18	31.54	17.36	-	27	400	650	800	-	NIA	
	Upgrading of Ahero Irrigation Development Project	Ahero Irrigation Development Project upgraded	% completion	100	1	50	100			50	400	320		-	NIA	
			Additional Acreage put under irrigation	1,000		500	500			-	-	-	-	-		
	Implement Lower Kuja Irrigation scheme	Irrigation area developed	No. of acres developed	12,010	1,330	1,145	3,975	2,900	2,660	150	300	500	400	200	NIA	

Strategy	Key Activities	Expected Output	Output Indicators	Target for 5 Years	Target					Budget (Millions)					Responsibility		
					Yr 1	Yr 2	Yr 3	Yr 4	Yr 5	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5	Lead	Support	
	Complete Hola Irrigation Development project	Hola Irrigation Development project - Phase 2 completed	Additional area (acres) under irrigation	1,000	-	-	-	300	700	30	-	100	200	400	NIA		
Promote Development of Community-Managed Irrigation schemes.	Implementation of small-holder irrigation projects	Additional irrigation area developed	Number of acres developed	1,313	-	1,313	-	-	-	120	489	278	48	-	Irrigation and Drainage		
	Community-Based Irrigation Projects constructed	Irrigation area developed	No. of acres developed	14,587	750	3,037	3,300	3,500	4,000	1,050	1,030	1,000	1,500	2,000	Irrigation and Drainage	NIA	
	Implementation of National Expanded Irrigation Programme	Irrigation Area developed	Number of acres developed	103,434	7,294	15,540	20,000	22,000	38,600	2,530	1,949	5,724	6,224	10,724	NIA		
	Supplemental Irrigation – (Community Water Pans)	Area under irrigation	No. of acres developed	20,939	6,672	2,267	2,400	4,800	4,800								
	Implementation of Mwache Dam Irrigation component	Irrigation Area developed	Number of acres developed	3,600	-	-	600	1500	1500	-	-	150	375	375			
Development of Large-scale (Non Dam) irrigation schemes	Implementation of Rwabura Irrigation Development Project	Irrigation area developed	No. of acres developed	1,500	200	1,300	-	-	-	753	208	-	-	-	NIA		
	Greater Bura Expansion	Bura PPP Production	Area (acres) under irrigation	80,000	-	-	-	40,000	40,000	-	-	100	100	-	NIA		
	Complete Lower Nzoia Irrigation Infrastructure	Lower Nzoia Irrigation Infrastructure completed	Area (acres) under irrigation	10,000	3,000	7,000	-	-	-	3,346	3,350	1,400	-	-	KWSCR - I		
	Galana Kulalu Food Security Project implemented under PPP	Galana Kulalu Food Security Project	Area (in acres) under production	20,000	538	6,300	13,162				444	1,000	250			NIA	IDD, PPP, IWM
		Galana Kulalu PPP	Additional Acres put Irrigation	200,000				50,000	150,000				500	1,000			

Strategy	Key Activities	Expected Output	Output Indicators	Target for 5 Years	Target					Budget (Millions)					Responsibility	
					Yr 1	Yr 2	Yr 3	Yr 4	Yr 5	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5	Lead	Support
	Implement Turkana Irrigation Programme	Turkana Irrigation Programme implemented	Additional area (acres) put under irrigation	17,435	390	1,145	3,600	4,350	7,950	200	120	1,225	1,525	2,225	NIA	PPP, IDD, County Governments
	Turkwell Dam Flow Irrigation	Feasibility Studies and Designs for 63,000 acres	Reports	2			1	1				126	126			
	Lake Baringo Irrigation Scheme	Feasibility Studies and Designs for 100,000 acres	Reports	2			1	1				200	200			
	Implement Suba Clusters Irrigation Development Project	Area under irrigation	No. of acres developed	3,600	-	-	1,080	1,440	1,080	-	-	300	400	300	NIA	
	Implement Lumi Irrigation Development Project	Area under irrigation	No. of acres developed	972	-	-	360	612	-	-	-	100	170	-	NIA	
	Drought Mitigation projects	Boreholes drilled and equipped	No. of boreholes	400	96	31	137	137	-	2,100	680	3,000	3,000	-	NIA	
	Implement Bondo Clusters Irrigation Development Project	Area under irrigation	No. of acres developed	5,400	-	-	1,080	1,800	1,800	-	-	300	500	500	NIA	
Implement Micro-irrigation programmes for schools	Drill and equip boreholes, installation of greenhouses and drip irrigation equipment to schools	Boreholes drilled, greenhouses installed with drip irrigation equipment	Number of schools	100	10	15	20	25	30	90	150	200	250	300	Land Reclamation	NWH&S A
Promotion of Farmer Led Irrigation Development (FLID) projects.	Farmer Led Irrigation Development (FLID) projects.	Additional area (acres) put under irrigation	Additional area (acres)	21,500	-	1,500	5,000	7,000	8,000	-	375	1,250	1,750	2,000	Irrigation Water management	IDD, NIA

Strategy	Key Activities	Expected Output	Output Indicators	Target for 5 Years	Target					Budget (Millions)					Responsibility		
					Yr 1	Yr 2	Yr 3	Yr 4	Yr 5	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5	Lead	Support	
	Establishment of an Irrigation Derisking Fund	Irrigation de-risking fund established	Irrigation Derisking Fund	1	-	-	1	-	-	-	1,125	1,125	1,125	625			
Strategic Issue 3: Poor Management of Irrigation Schemes																	
Strategic Goal 3: Improved productivity of irrigation schemes																	
KRA 3: Irrigation Management and Quality Assurance																	
Outcome 3: Irrigated rice production increased																	
Strategic Objective 3: To increase irrigated rice production from 192,299 tonnes in FY 2021/22 to 700,000 tonnes in FY 2027/28																	
Enhance management of irrigation schemes.	Irrigation Sector reform	Irrigation Licensing Unit operationalized	Irrigation scheme licensing unit	1		1				10	120	150	200	250			
		Irrigation schemes Licensed	No. of licensed irrigation schemes	340		50	70	100	150								
		Irrigation service providers Registered	No. of irrigation service providers registered	170		20	30	40	50								
	Programme for enhancement of water productivity, production and sustainability of Irrigation Schemes (PEW _a PPSIS)	IWUAS formed and capacity built	Number of IWUAs		6	20	12	15	18	0	10	30	20	25	Irrigation Water Management	NIA	
		IWUAs Capacity Needs Assessment established	Number of TNA Reports	61	6	10	12	15	18	1.8	3	3.6	4.5	5.4	Irrigation Water Management	NIA	
		IWUAs Training Manual developed	Number of Manuals	7		7		-	-	-	2	-	-	-	Irrigation Water Management	IDD, NIA	
		IWUAs registered and trained	No. of IWUAs registered and trained	240	20	30	50	60	80	3.6	7.2	9	10.8	12			
Technical support to Counties on formation and operationalization of CIDUs	CIDUs formed and operationalized	No. of CIDUs operationalized	45	-	12	16	17	-		12	14	15					

Strategy	Key Activities	Expected Output	Output Indicators	Target for 5 Years	Target					Budget (Millions)					Responsibility	
					Yr 1	Yr 2	Yr 3	Yr 4	Yr 5	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5	Lead	Support
Promotion / enhancement of efficient utilization of water for irrigation.	Undertake surveys on best yield standards and management practices in irrigation schemes	Surveys on best yield standards and management practices in irrigation schemes undertaken	Number of surveys	60		10	12	14	24	1.7	3	5	12	15	Irrigation Water Management	IDD, NIA, LR
	Development of Handbooks on Best Irrigation Agronomic Practices	Handbooks on Best Irrigation Agronomy Developed	Handbooks on Best Irrigation Agronomy	3	1	1	1	0	0	2	2	2	0	0	Irrigation Water Management	IDD, NIA, NWH&S A, KWSCR P
	Undertake schemes performance audit assessment	Schemes Performance audit assessment undertaken	Number of performance audit assessments	66	6	10	12	14	24	1.7	3	5	12	15	Irrigation Water Management	IDD, NIA
	Undertake countrywide mapping of schemes per county	Irrigation schemes mapped	No. of schemes mapped	45	-	10	12	12	11		12	15	15	13	Irrigation Water Management	IDD, NIA
	Procure and install scheme master meters in prioritized schemes	Scheme master meters installed	No of schemes master meters installed	160	-	10	45	90	110		200	450	900	1,100	Irrigation Water Management	IDD, NIA
	Procure and install block meters /water gauges in individual farms	Individual farms /blocks meters installed.	No. of Individual farms /blocks meters installed.	7,800	-	1,500	1,800	2,000	2,500							
Effective and efficient utilization of finance and other resources	Development of National Irrigation Investment Plan	National Irrigation Sector Investment Plan developed	National Irrigation Sector Investment Plan	1	-	1	-	-	-	-	20	-	-	-	Irrigation Water management	KWSCR P, NIA, LR, NWH&S A
Strategic Issue 4: Sub-optimal Land Reclamation																
Strategic Goal 4: Land Degradation Neutrality achieved.																
KRA 4: Land Reclamation and Flood Control																
Outcome 4: Degraded and wastelands rehabilitated, reclaimed and restored																

Strategy	Key Activities	Expected Output	Output Indicators	Target for 5 Years	Target					Budget (Millions)					Responsibility	
					Yr 1	Yr 2	Yr 3	Yr 4	Yr 5	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5	Lead	Support
Strategic Objective 4: To increase area of degraded and wastelands rehabilitated, reclaimed and restored from 55,000 acres in FY 2021/22 to 61,750 acres by FY 2027/28																
Enhance flood control measures.	Construction of dykes	Dykes constructed	Number of Kms	35.6	13	4.55	5.0	6.5	6.5	530	254	250	350	355	NWH&SA	DLR
	Construction of check dams	Check dams constructed	Number of check dams	7	1	2	1	2	1							
	Maintaining of flood control infrastructure	Flood control infrastructure maintained	Number of flood control structures maintained	92	-	1	13	39	39							
Undertake land degradation assessments, dissemination and implementation of LADA Findings.	Undertake LADAs	Land Degradation Assessment undertaken	Number of LADA Reports	35	2	4	5	12	12	10	20	30	40	50	DLR	IDD, IWM
	Disseminate and implement LADA findings	LADA reports disseminated and implemented	Number of dissemination reports	35	2	4	5	12	12							
Undertake county-specific land reclamation programmes.	Implement land reclamation program	Land rehabilitated and restored	Acres of land rehabilitated/ restored	6,750	-	1,687	1,688	1,688	1,687	-	-	2,094	2,094	2,094	DLR	IDD, IWM, County Governm ents
Strategic Issue 5: Weak Governance Framework																
Strategic Goal 5: Strengthened governance of irrigation and land reclamation																
KRA 5: Policy, Legal, Institutional Framework and Governance																
Outcome 5: Governance and service delivery enhanced																
Strategic Objective 5.1: To enhance governance and service delivery by FY 2027/28																
Develop, review, finalize and operationalize Irrigation policies, legal and institutional frameworks	Finalize, publish and disseminate the National Land Reclamation Policy	National Land Reclamation Policy finalized, Published and disseminated	Number of policies	1		1	-	-	-	-	50	-	-	-	Land Reclamation Department	Legal Unit, IDD, IWM, CPPMD
	Develop Land Reclamation Bill	Land Reclamation Bill developed	Number of Bills	1		1	-	-	-	-	30	-	-	-		
	Develop Land Reclamation Strategy	Land Reclamation Strategy developed	Number of Strategies	1		-	-	1	-	-	-	-	20	-	-	DLR

Strategy	Key Activities	Expected Output	Output Indicators	Target for 5 Years	Target					Budget (Millions)					Responsibility			
					Yr 1	Yr 2	Yr 3	Yr 4	Yr 5	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5	Lead	Support		
	Establish Kenya Irrigation Research, Innovation and Training Institute	Irrigation Research, Innovation and Training Institute established	Number of Institutes	1	-	1	-	-	-	1	25	1,000	100	100	Irrigation Water Management Department	IDD, DLR, Legal Unit, CPPMD, HRM&D		
Outcome 5.2: Shared Support services strengthened																		
Strategic Objective 5.2 : To strengthen shared support services																		
Strengthening the shared support services	Coordinate monitoring and evaluation of Programmes and Projects	Bi monthly Monitoring Reports	Number of reports	30	6	6	6	6	6	60	150	200	250	250	Central Planning and Project Monitoring Department			
		Project Evaluation Reports for all completed projects	% of Completed projects Evaluated	100	80	80	80	80	100									
	Coordinate the preparation of the Strategic Plan 2023-2027	Ministry's Strategic Plan 2023-2027 Developed	Strategic Plan 2023-2027	1	1	-	-	-	-	4.7	-	-	-	-				
	Coordinate implementation and review of the Strategic Plan	Mid Term Review Report	Number of Mid-term Report	1	-	-	1	-	-	-	1.5	-	-	-				
	Coordinate preparation of Annual Work Plans and Performance Contracts	Performance Contracts prepared	Number of Performance Contracts	30	6	6	6	6	6	0.2	1.8	1.8	2	2.2				
		Annual Work Plans prepared	Number of Annual Work Plans	5	1	1	1	1	1	0.2	2.2	2.2	2.5	2.5				
	Review/Develop Scheme of Service for technical staff	Scheme of Service for Technical Staff reviewed/developed	Number of Schemes	3	-	3	-	-	-	-	10	-	-	-			Human Resource Management and Development Department	
	Promote staff due for promotion	Staff promoted	% of staff due for promotion promoted	100	100	100	100	100	100	-	-	-	-	-				
Undertake Staff	Mid-term and Annual Staff appraisals done	% of staff appraised	100	100	100	100	100	100	-	-	-	-	-					

Strategy	Key Activities	Expected Output	Output Indicators	Target for 5 Years	Target					Budget (Millions)					Responsibility	
					Yr 1	Yr 2	Yr 3	Yr 4	Yr 5	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5	Lead	Support
	Performance Appraisal															
	Automate human resource records	Human resource records automated	% of records	100	100	100	100	100	100	-	-	-	-	-		
	Processing and payment of salaries & statutory/ third party deductions	Statutory and third-party deductions complied with	% of compliance	100	100	100	100	100	100	195	206	212	218	600		
	Process pension papers 9 months before retirement	Pension papers processed	% of pension papers processed 9 months before retirement	100	100	100	100	100	100	-	-	-	-	-		
	Undertake and implement Training Needs Assessment	Training Needs Assessment (TNA) undertaken and implemented	Number of Assessments reports	2	1	-	1	-	-	0.2	-	0.5	-	-		
		Officers trained on assorted courses as per approved training projections	Number of officers trained	150	30	30	30	30	30	15	30	40	45	50		
	Establish Employee Performance Management Committee (EPMC)	EPMC established	Number of committees	5	1	1	1	1	1	-	-	-	-	-		
	Establish Audit Committee	Audit committee established	Number of committees	2	-	1	-	1	-	-	-	-	-	-	Internal Audit	
	Conduct Value for Money (VFM) /Performance on selected Irrigation Projects	VFM Audit Reports issued	Number of VFM Reports	20	4	4	4	4	4	1.82	2	2.2	2.5	2.8		

Strategy	Key Activities	Expected Output	Output Indicators	Target for 5 Years	Target					Budget (Millions)					Responsibility	
					Yr 1	Yr 2	Yr 3	Yr 4	Yr 5	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5	Lead	Support
	Assess governance structures and systems to identify areas of improvement	Assessment Report on structures and systems	Number of report	20	4	4	4	4	4	-	-	-	-	-		
	Prepare and review Risk Management Policy	Risk Management Policy prepared	Number of Policies	1	1	-	-	-	-	2	-	-	-	-		
		Risk Management Policy reviewed	Number of reviews	4	-	1	1	1	1	-	-	-	-	-		
	Review the effectiveness of internal controls, systems to ensure compliance	Report on Reviews	Number of reports	20	4	4	4	4	4	-	-	-	-	-		
	Coordinate preparation of the State Department's Communications Policy	Communication strategy	Communication strategy	1	1	-	-	-	-	1.7	-	-	-	-	Public Communications Unit	
	Undertake publicity and branding	Exhibitions undertaken	Number of Exhibitions	17	1	4	4	4	4	-	0.5	1	1			
	Build the image of the State Department through media relations	Trainings and workshops undertaken	Number of training workshops	5	1	1	1	1	1	-	1	1.5	2	2.2		
	Digitalization of government services	Constitute and operationalize digitization committee	Committee constituted	1	1	-	-	-		0.2	0.5	0.5	0.7	1	ICT Unit	
		Government services and processes re-engineered and digitalized	No. of processes services identified and re-engineered	30	23	4	3			0.5	2					
			% of Business services and processes digitalized	100%	50	60	75	100		3	5	10	10			

Strategy	Key Activities	Expected Output	Output Indicators	Target for 5 Years	Target					Budget (Millions)					Responsibility	
					Yr 1	Yr 2	Yr 3	Yr 4	Yr 5	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5	Lead	Support
			% of Digitalized services onboarded	100	100	100	100	100	100	-	-	-	-	-		
	Institute measures for cyber security and data protection	Measures for cyber security and data protection instituted	No of Data Backups maintained							1.6	1.6	1.6	1.6	1.6		
No of ICT equipment's installed with antivirus			200	200	200	200	200	200	0.5	0.5	0.5	0.5	0.5			
Secure Socket layer (SSL) Certificate		No. of systems hosted by the government. clouds	10	1	3	3	3	-	0.025	0.08	0.08	0.08	0.08			
Acquisition and maintenance of ICT hardware, software & infrastructure	ICT equipment's and software acquired	No. of ICT equipment's and software acquired	19	19	20	20	20	20	9	20	23	25	28			
		ICT equipment/software maintained	% of ICT equipment/software maintained	80%	80%	80%	80%	80%	80%	1	3	3.2	3.4	3.5		
Design, develop and host state department website	State Department's Website	Functional www.irrigation.go.ke		1						1.5						
Management of Government email system	Active Users of Government email systems	% of active users	80%	80%	80%	80%	80%	80%	-	-	-	-	-		ICT Unit	
Preparation of Financial Statements	Financial Statements prepared	Number of quarterly financial statements	20	4	4	4	4	4	-	-	-	-	-		Accounts Unit	
		Number of Annual Financial Statements	5	1	1	1	1	1	1.5	1.5	1.5	1.5	1.5			
Prepare reconciliation statements	Reconciliation Statements prepared	Number of Statements	60	12	12	12	12	12	-	-	-	-	-			
Respond to Audit Queries	Audit queries responded	% of audit query responded	100	100	100	100	100	100	1.2	1.2	1.5	1.5	1.5			

Strategy	Key Activities	Expected Output	Output Indicators	Target for 5 Years	Target					Budget (Millions)					Responsibility	
					Yr 1	Yr 2	Yr 3	Yr 4	Yr 5	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5	Lead	Support
	Coordinate preparation of Annual Budget Proposals	Annual MTEF Budget Proposals prepared	Number of MTEF budget Proposals	5	1	1	1	1	1	3.5	3.5	4.2	4.5	4.5	Finance Unit	
	Preparation of quarterly budget performance reports	Quarterly Budget Performance reports	Number of Budget Performance reports	20	4	4	4	4	4	-	-	-	-	-		
	Coordinate preparation of Annual Procurement Plans	Annual Procurement Plans Prepared	Number of Plans	5	1	1	1	1	1	1.5	0.5	0.5	0.5	0.5	Supply Chain Management Unit	
	Coordinate Prequalification of suppliers	Prequalification List prepared	Number of Lists	5	1	1	1	1	1	1.5	1.5	1.5	1.5	1.5		
	Monitoring implementation of Annual Procurement Plans	Report on Implementation of Annual Procurement Plans monitored	Number of reports	20	4	4	4	4	4	-	-	-	-	-		
	Purchase of general office merchandise, equipments, services and works	General office merchandise and equipments purchased	Absorption rate of annual procurement budget	100	100	100	100	100	100	52.61	60	65	70	70		
GRAND TOTAL										20,615.76	23,662.58	70,108.88	79,861.08	82,791.28		

6.1.2. Annual Workplan and Budget

The Strategic Plan will provide a reference point for the State Department to derive Annual Work Plans (AWPs) aligned to the allocated budget for each Financial Year in the Plan period. The AWP provides an elaboration of the Strategic Plan activities to be executed within a financial year. Work Plans also present Key Performance Indicators, delivery timelines and the Directorates/Departments/Units responsible for delivery. Further, WPs will be cascaded to individual work plans to facilitate setting of targets through the Performance appraisal System. (FY 2023/24 Work Plan annexed).

6.1.3. Performance Contracting

The State Department will generate annual Performance Contracts for the Cabinet Secretary, Principal Secretary, heads of departments and C.E.Os derived from the annual work plan in the Plan Period. This process is aimed at ensuring accountability and efficiency in service delivery.

6.2. Coordination Framework

This entails a description of how the State Department will coordinate the activities and programmes that are key in the implementation of this Strategic Plan through Institutional Framework; Staff Establishment, Skills Set and Competence Development; Leadership and Systems and Procedures.

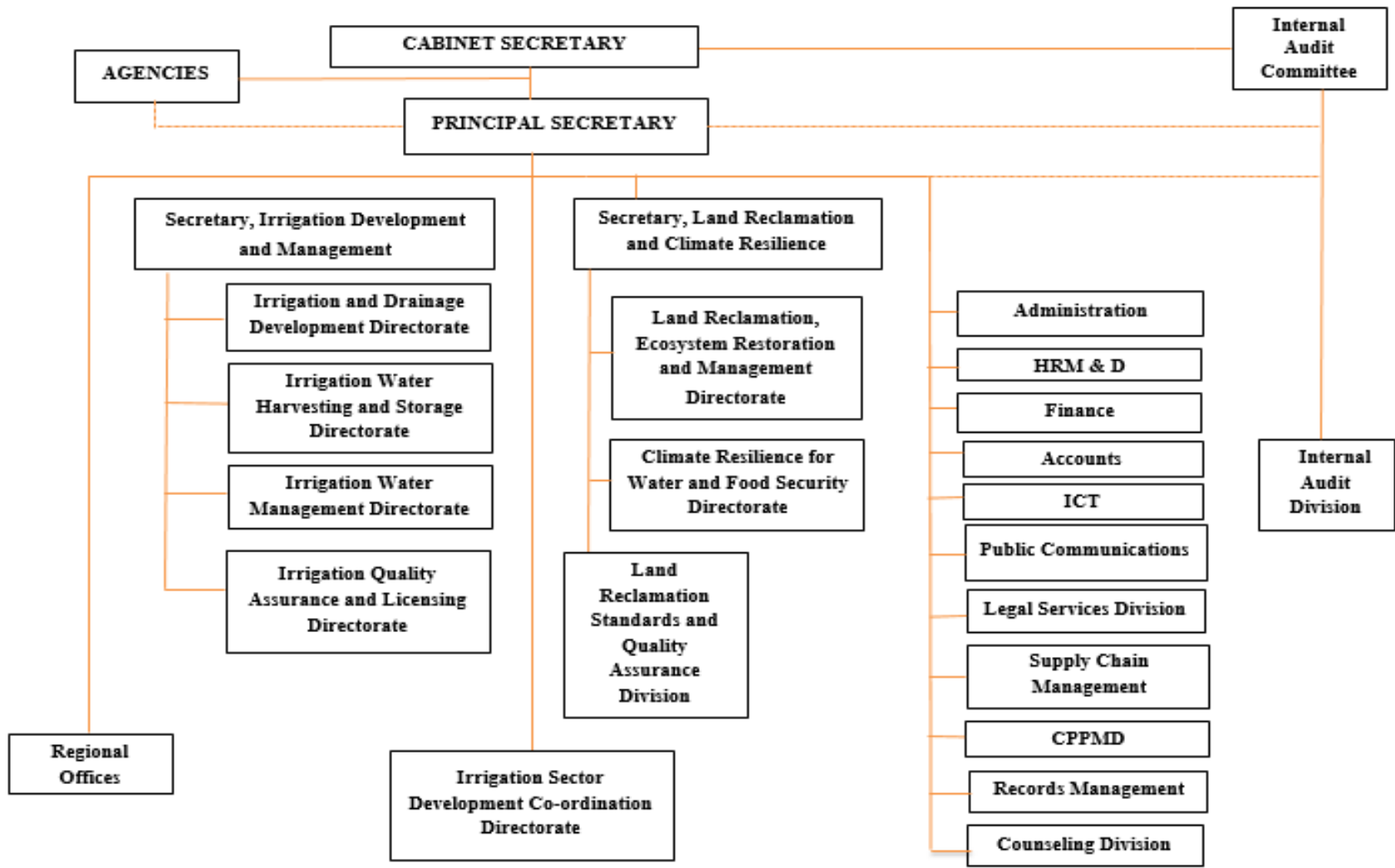
6.2.1. Institutional Framework

This section presents the description of the required organizational structure, as policies, rules and regulations to support implementation of the strategic initiatives. This is through evaluation of the existing structure, policies, rules and regulations for appropriateness and adequacy.

An analysis of the functions as stipulated in the Executive Order have necessitated the State Department to develop an appropriate organizational structure and recommended an optimal staffing level that will enable the State Department to effectively achieve its mandate and objectives. The proposed organization structure depicts the technical configuration of roles and responsibilities and will bring order in the functioning of the State Department as it clearly demarcates activities and roles of each unit/staff for internal harmony, stability and efficiency.

The Current and the required organization structures are presented below

6.2.1.1. Proposed Organizational Structure



6.2.1.2. Policies, Rules and Regulations

The SP envisages strengthening of Policy, Legal and Institutional framework to create a favorable environment for delivery of the organizational mandate in subsequent strategic planning. The following existing policies, rules and regulations will guide implementation of the Strategic Plan in the current plan period.

- (i) Irrigation Act, 2019;
- (ii) National Irrigation Policy, 2017
- (iii) The Irrigation (Amendment) Act, 2022;
- (iv) National Irrigation Services Strategy 2022-2026;
- (v) National Water MasterPlan 2030;
- (vi) Irrigation (General) regulations, 2021; and
- (vii) Guidelines for Promotion, Development and Management of irrigation in Kenya.

The proposed policies and legal frameworks to support implementation of this strategic plan include:-

- (i) National Land reclamation Policy;
- (ii) National Land Reclamation Bill;
- (iii) National Land Reclamation Strategy;
- (iv) National Irrigation Sector Investment Plan; and
- (v) National Irrigation Master Plan.

6.2.2. Staff Establishment, Skills Set and Competence Development

6.2.2.1. Staff Establishment

The State Department for Irrigation has an authorized establishment of 501 comprising of 340 Technical staff and 161 support services staff. The in-post stands at 160 of which 57 are technical staff. This translates to 36% for technical and 64% for Support services against the ideal ratio of 70:30 for technical staff and support services staff respectively. This is summarized in Table 6.2.

Table 6. 2 Staff Establishment

Table 6. 2 Staff Establishment

Cadre	CSG	Approved establishment (A)	Optimal Staff Level (B)	In-Post (C)	Variance D=C - B
Office of the Principal Secretary					
Principal Secretary	2	1	1	1	0
Assistant Director, Office Administrative Services	7	1	1	1	0
Principal Assistant Office Administrator	8	1	1	1	0
Principal Driver	11	1	1	1	0
Senior Driver	13	1	1	1	0
Cleaning Supervisor II/I	15/14	2	2	2	0
Sub-total		7	7	7	0
Office of the Secretary, Irrigation Development and Management					
Secretary, Irrigation Development and Management	4	1	1	1	0
Principal Assistant Office Administrator	8	1	1	1	0
Senior Driver	13	1	1	0	-1
Cleaning Supervisor II/I	15/14	1	1	1	0
Sub-Total		4	4	3	-1
Irrigation and Drainage Development Directorate					
Chief Engineer, Irrigation and Drainage Development Directorate	5	1	1	1	0
Senior Principal Superintending Engineer, Irrigation	6	3	3	4	1
Chief Superintending Engineer-Irrigation	7	8	8	2	-6
Principal Superintending Engineer-Irrigation	8	3	3	0	-3
Principal Superintendent (Irrigation)	8	8	8	1	-7
Senior Engineer Irrigation	8	6	6	0	-6
Engineer II/I, Irrigation	10/9	12	12	15	3
Superintendent Engineer, Irrigation	10	4	4	0	-4
Senior Assistant Office Administrator	9	1	1	1	0
Sub-Total		46	46	24	-22

Cadre	CSG	Approved establishment (A)	Optimal Staff Level (B)	In-Post (C)	Variance D=C - B
Irrigation Sector Development Coordination Directorate					
Director, Irrigation Development Coordination	5	1	1	0	-1
Deputy Director, Irrigation Development Coordination	6	4	4	0	-4
Assistant Director, Irrigation Development Coordination	7	7	7	0	-7
Principal Irrigation Development Coordination	8	7	7	0	-7
Senior Irrigation Development Coordination Officer	9	7	7	0	-7
Irrigation Development Coordination Officer 1/11	10/11	8	8	0	-8
Senior Assistant Office Administrator	9	1	1	0	-1
Sub-total		35	35	0	-35
Irrigation Quality Assurance and Licensing Directorate					
Chief Engineer, Irrigation Quality Assurance and Licensing	5	1	1	1	0
Deputy Director, Irrigation Quality Assurance and Licensing	6	3	3	0	-3
Assistant Director, Irrigation Quality Assurance and Licensing	7	3	3	0	-3
Principal Irrigation Quality Assurance and Licensing	8	6	6	0	-6
Senior Assistant Irrigation Quality Assurance and Licensing	9	8	8	0	-8
Assistant Irrigation Quality Assurance and Licensing Officer 1	10	6	6	0	-6
Irrigation Quality Assurance and Licensing Officer 11/1	10/11	6	6	0	-6
Assistant Irrigation Quality Assurance and Licensing Officer 111/11	11/12	8	8	0	-8
Engineer 11/1, Irrigation	9/10	6	6	0	-6
Senior Assistant Office Administrator	9	1	1	0	-1
		48	48	1	-47
Office of the Secretary, Land Reclamation Climate Resilience and Irrigation Water Management					

Cadre	CSG	Approved establishment (A)	Optimal Staff Level (B)	In-Post (C)	Variance D=C - B
Secretary, Land Reclamation, Climate Resilience and Irrigation Water Management	4	1	1	1	0
Principal Assistant Office Administrator	8	1	1	0	-1
Senior Driver	13	1	1	0	-1
Cleaning Supervisor II/I	15/14	1	1	0	-1
Sub-Total		4	4	0	3
Land Reclamation, Ecosystem Restoration and Management Directorate					
Director, Land Reclamation and Ecosystem Restoration	5	1	1	1	0
Deputy Director, Land Reclamation and Ecosystem Restoration	6	3	3	3	0
Assistant Director, Land Reclamation and Ecosystem Restoration	7	3	3	2	-1
Principal Land Reclamation Officer	8	8	8	2	-6
Senior Land Reclamation Officer	9	8	8	6	-2
Land Reclamation Officer II/I	11/10/	8	8	2	-6
Principal Assistant Land Reclamation Officer	8	8	8	0	-8
Senior Assistant Land Reclamation Officer	9	8	8	0	-8
Assistant Land Reclamation Officer I	10	6	6	0	-6
Assistant Land Reclamation Officer III/II	12/11	6	6	0	-6
Senior Assistant Office Administrator	9	1	1	2	1
Total		60	60	18	-42
Climate Resilience for Water and Food Security Directorate					
Director Climate Resilience for Water and Food Security	5	1	1	1	0
Deputy Director, Climate Resilience for Water and Food Security	6	3	3	0	-3
Assistant Director Climate Resilience for Water and Food Security	7	4	4	0	-4

Cadre	CSG	Approved establishment (A)	Optimal Staff Level (B)	In-Post (C)	Variance D=C - B
Principal Land Reclamation Officer, Climate Resilience for Water and Food Security	8	6	6	0	-6
Senior Land Reclamation Officer	9	6	6	0	-6
Land Reclamation Officer I/II	10/11	6	6	0	-6
Principal Assistant Land Reclamation Officer	8	4	4	0	-4
Senior Assistant Land Reclamation Officer	9	6	6	0	-6
Assistant Land Reclamation Officer III/II/I	12/11/10	6	6	0	-6
Senior Assistant Office Administrator	9	1	1	0	-1
Sub-Total		43	43	1	-42
Irrigation Water Management, Harvesting and Storage Directorate					
Director, Irrigation Water Management, Harvesting	5	1	1	1	0
Senior Assistant Office Administrator	9	1	1	0	-1
Subtotal		2	2	1	-1
Irrigation Water Management Division					
Deputy Director, Irrigation Water Management	6	1	1	2	+1
Assistant Director, Irrigation Water Management	7	3	3	3	0
Principal Irrigation Water Management Officer	8	8	8	2	-6
Senior Irrigation Water Management Officer	9	8	8	7	-1
Irrigation Water Management Officer 11/1	11/10	10	10	0	-10
Sub-total		30	30	14	-17
Water Harvesting and Storage Division					
Senior Principal Superintending Engineer, Irrigation Water Harvesting and Storage	6	2	2	0	-2
Chief Superintending Engineer, Irrigation Water Harvesting and Storage	7	10	10	0	-10

Cadre	CSG	Approved establishment (A)	Optimal Staff Level (B)	In-Post (C)	Variance D=C - B
Principal Superintending Engineer, Irrigation Water and Storage	8	12	12	0	-12
Principal Superintendent Engineer, Irrigation Water Harvesting and Storage	8	12	12	0	-12
Senior Superintendent Engineer, Irrigation Water Harvesting and Storage	9	12	12	0	-12
Engineer 11/1 Irrigation Water Harvesting and Storage	10/9	13	13	0	-13
subtotal		61	61	0	-61
Total Technical Services		340	340	68	-275
Directorate of Administrative Support Services					
Secretary Administration	4	1	1	1	0
Senior Assistant Secretary	6	0	0	1	1
Under Secretary/Deputy Secretary	7	1	1	0	-1
Assistant County Commissioner	L	0	0	1	1
Assistant Secretary Cadet/111	J/K	1	1	0	-1
Senior Assistant Secretary	8	0	0	1	1
Assistant Director, Office Administrative Services	7	0	0	0	0
Principal Assistant office Administrator	8	0	0	1	1
Senior Administrative Assistant	10	0	0	1	1
Sub-total		3	3	6	3
Library Services					
Chief Librarian Assistant/Librarian	8	0	0	0	0
Library Assistant 11/1	J/K	1	1	0	-1
Sub-Total		1	1	0	-1
General Support Services					
Principal Clerical Officer	10	2	2	2	0
Security Officer 11	11	1	1	0	-1
Chief Clerical Officer	11	5	5	1	-4
Principal Driver (1)	10	0	0	3	3
Principal Driver 11	11	4	4	2	-2
Senior Security Warden	12	2	2	0	-2
Senior Clerical Officer	12	6	6	3	-3
Chief Driver	12	4	4	1	-3

Cadre	CSG	Approved establishment (A)	Optimal Staff Level (B)	In-Post (C)	Variance D=C - B
Security Warden 1	13	2	2	0	-2
Senior Driver	13	8	8	0	-8
Clerical Officer 11/1	14/13	12	12	2	-10
Office Assistant (1)	14	8	8	2	-6
Security Warden 111/11	15/14	2	2	0	-2
Driver 11/1	15/14	10	10	3	-7
Senior Office Assistant (2)	13	0	0	1	1
Office Assistant (2)	15	4	4	1	-3
Office Assistant (3)	16	4	4	2	-2
Support Staff	17	4	4	0	-4
Sub Total		78	78	23	55
Office Administrative Services					
Assistant Director, Office Administrative Services	7	1	1	0	-1
Principal Assistant Office Administrator	8	4	4	4	0
Senior Assistant Office Administrator	9	3	3	1	-2
Assistant Office Administrator 1	10	6	6	1	-5
Senior Administrative Assistant	10	0	0	1	1
Office Administrative Assistant 1	11	7	7	0	-7
Assistant Office Administrator 111/11	11/12	5	5	0	-5
Office Administrative Assistant 111/11	14/13	7	7	0	-7
Sub Total		33	33	7	-26
Records Management Unit					
Deputy Director, Records Management	6	0	0	0	0
Assistant Director, Records Management	7	1	1	0	-1
Principal Record Management Officer	8	0	0	0	0
Senior Record Management Officer	9	2	2	1	-1
Records Management Officer 11/1	10/11	2	2	1	-1
Sub-Total		5	5	2	-3
Human Resource Management and Development Division					
Director, HRM&D	5	1	1	1	0
Assistant Director, HRM&D	7	1	1	1	0

Cadre	CSG	Approved establishment (A)	Optimal Staff Level (B)	In-Post (C)	Variance D=C - B
Principal HRM&D Officer	8	2	2	2	0
Principal HRM&D Assistant	8	2	2	0	-2
Senior HRM&D Officer	9	1	1	1	0
Senior HRM&D Assistant	9	1	1	2	1
Human Resource Mng. Officer 11/1	10/11	1	1	3	2
Sub-Total		9	9	10	1
Finance Division					
Senior Chief Finance Officer	5	0	0	1	1
Chief Finance Officer	6	1	1	0	-1
Senior Principal Finance Officer	7	0	0	0	0
Principal Finance Officer	8	1	1	1	0
Senior Finance Officer 1	9	1	1	0	-1
Finance Officer 11/1	10/11	1	1	3	2
Sub-Total		4	4	5	1
Accounts Division					
Deputy Accountant General	6	1	1	1	0
Assistant Accountant General	7	1	1	1	0
Principal Accountant	8	2	2	1	-1
Senior Accountant	9	2	2	2	0
Accountant 11/1	10	1	1	6	5
Sub-Total		7	7	11	4
Information Communication Technology Division					
Director, Information Communication Technology	5	1	1	0	-1
Assistant Director, Information Communication Technology	7	1	1	1	0
Principal Information Communication Officer	8	0	0	0	0
Senior Information Communication Technology Officer	9	1	1	2	1
Information Communication Technology Officer 11/1	10/11	1	1	0	-1
Sub-Total		4	4	3	-1
Central Planning and Projects Monitoring Department					
Director, Planning	5	1	1	1	0
Chief Economist/Statistician	6	0	0	1	1
Principal Economist/Statistician	7	2	2	1	-1
Senior Economist Statistician	8	0	0	0	0

Cadre	CSG	Approved establishment (A)	Optimal Staff Level (B)	In-Post (C)	Variance D=C - B
Economist/Statistician II/I	10/9	1	1	1	0
Sub-total		4	4	4	0
Supply Chain Management Division					
Senior Deputy Director - Supply Chain Management	5	0	1	1	0
Deputy Director Supply Chain Management	6	1	1	0	-1
Assistant Director Supply Chain Management	7	1	1	2	1
Principal Supply Chain Management	8	0	0	2	2
Senior Supply Chain Management Officer	9	1	1	3	2
Supply Chain Management Assistant 1	10	1	1	2	1
Supply Chain Management Officer II/I	10/11	1	1	2	1
Supply Chain Management Assistant 111/11	11/12	1	1	4	3
Sub-Totals		6	7	15	9
Public Communications Unit					
Deputy Director, Public Communications	6	1	1	0	0
Assistant Director, Public Communications	7	0	0	1	1
Principal Public Communication Officer	8	1	1	0	-1
Senior Public Communication Officer	9	0	0	0	0
Public Communication Officer 1	10	0	0	0	0
Public Communication Officer 111/11	11/12	0	0	1	1
Technical Officer/Cameraman/Photographer/ 111/11	11/12	1	1	0	-1
Sub-Total		3	3	3	0
Legal Services Unit					
Chief State Counsel	5	1	1	0	-1
Deputy Chief State Counsel	6	0	0	0	0
Principal State Counsel	7	1	1	1	0
State Counsel/Senior	8/9	0	0	0	0

Cadre	CSG	Approved establishment (A)	Optimal Staff Level (B)	In-Post (C)	Variance D=C - B
Sub-Total		2	2	1	-1
Internal Audit					
Deputy Internal Auditor General	5	0	0	0	0
Senior Assistant Internal Audit General	6	0	0	0	0
Assistant Internal Auditor General	7	0	0	0	0
Sub-Total (Staffed from the NTEP)		0	0	0	0
Counseling Services Division					
Deputy Director, Counselling Service	6	1	1	0	-1
Assistant Director Counselling Service	7	0	0	0	0
Principal Counselling Officer	8	1	1	0	-1
Sub-Total		2	2	0	-2
Total Support Services		161	166	92	53
Grand Total for State Department for Irrigation		501	506	160	-338

Source: Human Resource Management & Development Division

6.2.2.2. Skills Set and Competence Development

This section deals with the staff range of Skills and abilities, the difference between the skills that the Department needs and the skills that the staff currently have. It also looks at the combination of knowledge, skills and attitudes to develop workplace behavior and improve performance. The State Department will provide Staff with opportunities to advance and sharpen their skills set and competencies based on respective cadre skills gaps. This will facilitate implementation of the State Department's Strategic plan and improve on service delivery.

Table 6. 3 Skills Set and Competence Development

S/N	Cadre	Skills Set	Skills Gap	Competence Development
1	Irrigation infrastructure Development and Management	<ul style="list-style-type: none"> Msc/Bsc. In the following fields; Agricultural Engineering, Civil Engineering, Soil and water Engineering, Biomechanical & Processing Engineering, 	<ul style="list-style-type: none"> Project management Negotiation Skills Management Skills Performance Management Skills Report Writing Skills PPP management Risk Management Contract Management for Engineers 	<ul style="list-style-type: none"> Project Management course Performance Management course PPP Management Course Report Writing Negotiation skills course Management Course Risk management Contract Management for Engineers

S/N o	Cadre	Skills Set	Skills Gap	Competence Development
		<ul style="list-style-type: none"> • Biosystem Engineering • SLDP • SMC • Certificate in computer application 	<ul style="list-style-type: none"> • Computer aided design • Project design and costing • Resource Mobilization 	<ul style="list-style-type: none"> • Computer aided design • Project design and costing • Resource Mobilization
2	Irrigation management and quality assurance	<ul style="list-style-type: none"> • Msc/Bsc in the following fields; Agriculture, Soil Science, Agricultural Economics, Agronomy, • SLDP • SMC • Certificate in Computer application 	<ul style="list-style-type: none"> • Performance Management Skills • Management Skills • Project Management • Dispute/Conflict resolution • PPP management • Risk Management • Contract Management 	<ul style="list-style-type: none"> • Performance Management course • Management Course • Project Management Course • PPP Management Course • Conflict/Dispute Management Course • Contract Management • Risk Management
3	Land Reclamation and Climate Resilience	<ul style="list-style-type: none"> • Msc/Bsc in Geographical Information System (GIS), Agronomy, Agricultural Economics, Biosystem Engineering, Agriculture, Hydrology, Chemical Engineering, Forestry, Marine science, Civil Engineering, Economics. Project Planning and Management, Water Engineering, Pest Management, Statistics • SLDP • SMC • Certificate in Computer application 	<ul style="list-style-type: none"> • Project Management Skills • PPP management • Dispute/Conflict resolution • Performance Management skills • Report writing • Negotiation skills • Monitoring and Evaluation • Contract Management • Resource Mobilization • Risk Management • GIS and Remote Sensing 	<ul style="list-style-type: none"> • Project Management course • PPP Management course • Dispute/Conflict Management course • Report Writing Course • Monitoring and Evaluation course • Negotiation Skills course • Performance Management course • Contract Management • Risk Management • Resource Mobilization • GIS and Remote Sensing
4	Administration Officers	<ul style="list-style-type: none"> • MA, MBA, • B.A, BBA, • Paramilitary • SLDP • SMC • Induction 	<ul style="list-style-type: none"> • Management skills • Performance Management skills • ICT skills • Negotiation skills • Report writing 	<ul style="list-style-type: none"> • Management course • Performance Management course • ICT course • Negotiation skills course

S/N o	Cadre	Skills Set	Skills Gap	Competence Development
		<ul style="list-style-type: none"> ● Certificate in Computer application 	<ul style="list-style-type: none"> ● E-Records Management ● PPP management ● Risk Management ● Contract Management 	<ul style="list-style-type: none"> ● E. Records Management course ● PPP Management course ● Report Writing Course ● Risk Management ● Contract Management
5	Human Resource Management and Development	<ul style="list-style-type: none"> ● MA, MBA, ● B.A, BBA, BCOM ● Diploma in HRM ● SLDP ● SMC ● Certificate in computer application 	<ul style="list-style-type: none"> ● Management skills ● ICT skills ● Report writing ● E-Records Management ● Guidance & Counseling Skills ● Dispute Resolution Skills ● Performance Management skills ● PPP Management skills ● Supervisory Management Skills ● Contract Management ● Risk Management 	<ul style="list-style-type: none"> ● Management course ● ICT course ● Report Writing Course ● E. Records Management course ● Dispute/Conflict management course ● Performance management course ● Guidance & Counseling course ● PPP Management course ● Supervisory Management course ● Contract management ● Risk Management
6	Accountants	<ul style="list-style-type: none"> ● MBA, ● BA, BBA, BCOM ● CPA (K) ● SLDP ● SMC 	<ul style="list-style-type: none"> ● Financial Management skills ● ICT skills ● Report writing ● E-Records ● PPP management 	<ul style="list-style-type: none"> ● Financial Management course ● ICT course ● Report Writing course ● E. Records Management course ● PPP Management course
7	Finance Officers	<ul style="list-style-type: none"> ● MBA, BCOM, BBM ● CPA (K) ● SLDP ● SMC 	<ul style="list-style-type: none"> ● Financial Management skills ● ICT skills ● Negotiation skills ● Report writing ● E-Records Management ● PPP management ● Budget planning ● Risk Management 	<ul style="list-style-type: none"> ● Financial Management course ● ICT course ● Negotiation Skills course ● Report Writing Course ● E. Records Management course ● Budget Planning course ● Risk Management
8	Supply Chain Management	<ul style="list-style-type: none"> ● MBA, MCIPS ● BA, BCOM, BBA, BBM ● Diploma in SCM ● SLDP ● SMC 	<ul style="list-style-type: none"> ● Management skills ● ICT skills ● Negotiation- skills ● Report writing ● E-Records ● Management ● PPP management ● Risk Management ● Contract Management 	<ul style="list-style-type: none"> ● Management Course ● ICT course ● Negotiation Skills course ● Report Writing course ● E. Records Management Course ● PPP Management course ● Risk Management ● Contract Management

S/N o	Cadre	Skills Set	Skills Gap	Competence Development
9	Economist/ statisticians	<ul style="list-style-type: none"> ● Economics ● Statistics ● Programme and Project Management ● Monitoring and Evaluation ● Project Appraisal ● Public Investment Management 	<ul style="list-style-type: none"> ● Project Management skills ● Negotiation- skills ● Monitoring and Evaluation skills ● PPP management 	Training on: <ul style="list-style-type: none"> ● Project Management ● Negotiation skills ● Monitoring and Evaluation ● PPP Management
10	Records Management	<ul style="list-style-type: none"> ● MA, Msc ● BA, Bsc ● Diploma in Records Management ● SLDP ● SMC 	<ul style="list-style-type: none"> ● Management skills ● ICT skills ● Supervisory skills ● Report writing ● E-Records Management 	<ul style="list-style-type: none"> ● Management course ● ICT course ● Supervisory Skills Course ● Report Writing course ● E. Records Management course
11	ICT	<ul style="list-style-type: none"> ● Msc ● Bsc. IT, BTEC, Computer Science, IS ● Diploma in IT, BTEC, Computer Science, IS ● SLDP ● SMC 	<ul style="list-style-type: none"> ● SLDP ● SMC ● Project Management ● Performance Management course ● Report writing course ● Certifications (Cyber Security, Database Administration, Network Administration & Management, Software Development) 	<ul style="list-style-type: none"> ● SLDP ● SMC ● Project Management ● Performance Management course ● Report writing course ● Certifications (Cyber Security, Database Administration, Network Administration & Management, Software Development)
12	Legal	<ul style="list-style-type: none"> ● LLM ● LLB ● Diploma in Laws ● SLDP ● SMC 	<ul style="list-style-type: none"> ● Management skills ● ICT skills ● Negotiation skills ● Report writing ● E-Records Management ● PPP management ● Dispute/Conflict resolution 	<ul style="list-style-type: none"> ● Management course ● ICT course ● Negotiation skills course ● Report Writing course ● E. Records Management course ● Dispute/Conflict Management course
13	Public communicati on	<ul style="list-style-type: none"> ● MA ● BA, BBA ● Diploma in Mass Communication ● SLDP ● SMC 	<ul style="list-style-type: none"> ● Management skills ● ICT skills ● Negotiation- skills ● Report writing ● E-Records Management 	<ul style="list-style-type: none"> ● Management course ● ICT course ● Negotiation skills course ● Report Writing course ● E. Records Management course

S/N o	Cadre	Skills Set	Skills Gap	Competence Development
14	Clerical	<ul style="list-style-type: none"> ● KCSE, KACE, KCE ● Certificate in Computer ● Proficiency Certificate for Clerical Officers ● Supervisory Skills 	<ul style="list-style-type: none"> ● ICT skills ● Supervisory skills ● Counseling skills ● E-Records Management Skills ● Report writing- Skills ● Customer Care 	<ul style="list-style-type: none"> ● ICT course ● Supervisory Skills course ● Counseling skills course ● E. Records Management course ● Report Writing course ● Customer care course ● Skills Improvement course
15	Office Administrators	<ul style="list-style-type: none"> ● MBA, MA ● BA, BBA, BBM ● Diploma in Secretarial Management ● Certificate in Secretarial Management ● SMC ● SLDP 	<ul style="list-style-type: none"> ● Management Skills ● ICT Skills ● E-Records Management ● Report Writing ● Customer Care 	<ul style="list-style-type: none"> ● Management course ● ICT course ● E. Records management course ● Report Writing course ● Customer care course
16	Support Staff	<ul style="list-style-type: none"> ● KCPE, KCSE ● Certificate in Computer 	<ul style="list-style-type: none"> ● Customer Care ● ICT Skills 	<ul style="list-style-type: none"> ● Skills Improvement Course ● Customer Care course ● ICT course
17	Drivers	<ul style="list-style-type: none"> ● KCSE ● Trade Tests ● First Aid Certificate ● Valid Driving License 	<ul style="list-style-type: none"> ● Defensive Driving Skills ● Customer Care ● ICT Skills 	<ul style="list-style-type: none"> ● Defensive Driving course ● Customer care course ● ICT course
18	Security Warden	<ul style="list-style-type: none"> ● KCSE ● Computer certificate 	<ul style="list-style-type: none"> ● Paramilitary Skills ● ICT Skills 	<ul style="list-style-type: none"> ● Paramilitary training ● ICT course ● Skills improvement Course
19	Internal Auditors	<ul style="list-style-type: none"> ● MA, MBA, Msc ● BA, BBA, BCOM ● CPA (K) ● SLDP ● SMC 	<ul style="list-style-type: none"> ● Financial Management Skills ● Management Skills ● Report Writing Skills ● ICT Skills 	<ul style="list-style-type: none"> ● Financial management Course ● Management Course ● Report writing Course ● ICT course

6.2.3. Leadership

The State Department's Leadership will be intentional in their role to drive successful implementation of the Strategic Plan through formation of the Strategic Theme Teams with a clear mandate in line with the following Strategic Issues; Sub-optimal exploitation and Development of Irrigation Potential, Inadequate Water Harvesting and Storage Infrastructure, Poor Management of Irrigation Schemes, Sub-Optimal Land Reclamation and Weak Governance Framework.

The Strategic Theme Teams are as follows: -

1. Irrigation Water Delivery Team;
2. Irrigation Productivity Team;
3. Irrigation Schemes management Team;
4. Land reclamation Team; and
5. Policy, Legal and Institutional framework governance Team.

6.2.4. Systems and Procedures

Digitalization and automation of the State Department's processes and standard operating procedures will help staff focus on more value-adding tasks. The following are key systems and processes for effective and efficient implementation of the State Department's Strategic Plan:-

- i. Supervision of Consultancy Services & Standards)
- ii. Feasibility studies of Land Reclamation
- iii. Feasibility studies of Water Harvesting and Storage Infrastructure
- iv. Feasibility studies for Irrigation Schemes
- v. Registration of Irrigation Service Providers
- vi. Licensing of Irrigation Schemes (Licensing of Irrigation Schemes and Renewal of License of Irrigation Schemes)
- vii. Irrigation Training Matters (County Irrigation Development Unit and Irrigation Water Users Association)
- viii. Irrigation Payment Processing for Contracted Services (Contractors & Consultants)
- ix. Provision of Irrigation Technical Advisory Services (Development and review of Irrigation policies and Laws, Supervision of Consultancy services & Standards)
- x. Provision of Irrigation Data and Information (Irrigation Data and Land Reclamation data)
- xi. Land Degradation mapping and Assessment
- xii. Implementation of Water Harvesting & Storage Infrastructure and Irrigation Schemes Infrastructure
- xiii. Irrigation projects requests (Community-based irrigation development, Household Water Storage, Community water pans & small dams and Micro-irrigation for schools)
- xiv. Land Degradation Assessment (LADA) Process;
- xv. Payment Processing for Contractors/ Consultants;
- xvi. Licensing of Irrigation Service Provider
- xvii. Irrigation Database Management Information System (IDMIS)
- xviii. Asset Management System
- xix. Electronic Document Management System
 - a. Staff Management System
 - b. File Tracking System
 - c. Confidential Registry
- xx. Knowledge Management System
- xxi. Customer Care Management System
- xxii. Stores Management and Stock Control System
- xxiii. ICT Support Application (Helpdesk) System

6.3. Risk Management Framework

This section presents the various risks, their likelihood, severity, overall risk level and respective mitigation measures as shown in Table 6.4

Table 6.4 Risk Management Framework

S/No.	Category	Risks	Risk Likelihood	Severity (L/M/H)	Overall Risk Level (L/M/H)	Mitigation Measure(s)
	Strategic	Stakeholder/community resistance to Programmes/projects	High	High	High	Effective stakeholder/community engagement. Enhance Public participation
		Low staff morale, High staff turnover leading to Poor service delivery	medium	high	medium	Staff training and development, improve work environment and rewarding
		Misconceptions due to inadequate access to information	Medium	Medium	Medium	Timely and effective information-sharing and dissemination
		Resistance by Project affected Persons	medium	high	medium	Development and implementation of Resettlement Actions Plan & livelihood support
		The state department may fail to achieve its strategic objective	Low	High	Medium	Align performance contracts and work plans to strategic objectives while utilizing existing human capital
	Policy/Legal Changes	Change of use of land under irrigation	Medium	Medium	Medium	- Designation and gazettelement of irrigation land - Collaborate with lead agencies in land-use planning
		Inadequately regulated land reclamation operations	High			Finalization of the land reclamation Bill
	Operational	Failure or Deficiencies related to employees	medium	High	Medium	Hiring adequate and competent staff, training
		Weak internal controls	Medium	High	medium	Conduct regular audits for assurance and strengthening of internal controls.

S/No.	Category	Risks	Risk Likelihood	Severity (L/M/H)	Overall Risk Level (L/M/H)	Mitigation Measure(s)
		Inadequate outdated and malfunctioning systems.	Medium	Medium	Medium	Appraise systems regularly and ensure they are up to date and effective
		Inadequate Irrigation professionals and technical officers in public sector	High	High	Medium	<ul style="list-style-type: none"> • Out-sourcing of services • Recruitment • Succession and talent management
	Financial	Inadequate budget allocation	High	High	High	<ul style="list-style-type: none"> -Effective engagement with the Legislature -Mobilize alternative funding
		Uncertain Commercial/ Financial Viability of PPP	Medium	High	Medium	Structuring of PPP projects to identify, allocate and translate risks into Contract Structure.
		Delayed funds disbursement	High	High	High	-Mobilize alternative funding
	Political	Political influence in resource distribution	Medium	High	High	Clear criteria for Mapping, selection of sites and prioritization of programmes
		Changes in political landscape	Medium	Medium	Medium	Effective engagement with the Executive
	Technological	Rapid technological advancements in hardware and software infrastructure	High	Medium	Medium	<ul style="list-style-type: none"> -Investment in technological advancement - Carrying out continuous research and training
		Inadequate disaster recovery planning for data	High	Medium	Medium	Development and implementation of a disaster recovery plan
		Cyber Security	High	High	High	<ul style="list-style-type: none"> -Development of user-rights for confidential data -Firewalls to prevent intrusions -Anti-phishing software Ethical hacking
	Environmental	Soil Salinization, Waterlogging, erosion, and depletion of groundwater resources	High	High	High	<ul style="list-style-type: none"> • Carrying out Environmental and Social Impact Assessment • Developing and implementing an Environmental Management plan • Capacity building

S/No.	Category	Risks	Risk Likelihood	Severity (L/M/H)	Overall Risk Level (L/M/H)	Mitigation Measure(s)
						<ul style="list-style-type: none"> • Enforcement of regulations and standards
	Climate Change	Extreme weather conditions such as floods, droughts and rising temperatures	High	High	High	Building climate resilience into design models for water harvesting, storage and reservoirs.
		Inadequacy of water resources	High	High	High	<ul style="list-style-type: none"> • Harvesting and storage of water for irrigation • Inter-basin transfer • Effective water allocation and permitting
	Social	Social and cultural conflicts	High	High	High	<ul style="list-style-type: none"> • Developing and implementing conflict Resolution mechanisms • Sensitization of stakeholders
		Resource conflicts	High	High	High	<ul style="list-style-type: none"> • Equitable distribution of resources • Securing social benefits for affected communities during planning

CHAPTER 7. RESOURCE REQUIREMENTS AND MOBILIZATION STRATEGIES

Overview

This chapter highlights the financial Resource Requirements, Resource Gaps, Resource Mobilization Strategies and the Resource Management Strategies for the Strategic Plan period.

7.1. Financial Requirements

The estimated cost of implementing this strategic plan is Kenya Shillings **277.04 Billion** as shown in Table 7.1.

Table 7. 1 Strategic Plan Financial Requirements

	Cost Item	Projected Resource Requirement (Ksh Mn)					
		Year 1	Year 2	Year 3	Year 4	Year 5	Total
1.	Water for Irrigation	6,066.5	9,317.0	45,166	55,815	56,408	172,773
2.	Area under Irrigation	13,629	13,145	20,311	19,629	21,325	88,039
3.	Irrigation Management and Quality Assurance	20.80	394.20	683.60	1,189.30	1,435.40	3,723
4.	Land Reclamation	540.00	274.00	2,374.00	2,484.00	2,499.00	8,171
5.	Policy, Legal, Institutional Framework and Governance	359.46	532.38	1,574.28	743.78	1,123.88	4,334
	Total	20,615.76	23,662.58	70,108.88	79,861.08	82,791.28	277,040

The resource requirement is **Kshs. 277.04 Billion** while the resource allocation is **Kshs. 130.75 Billion** thereby having a resource gap of **Kshs. 146.29 Billion** for the Plan as shown in Table 7.2

Table 7. 2 Resource Gaps

Financial Year	Estimated Financial Requirements	Estimated Allocations (Ksh Mn)	Gap
2023/2024	20,616	22,039	1,423
2024/2025	23,663	21,407	-2,256
2025/2026	70,109	22,608	-47,501

2026/2027	79,861.08	33,300	-46,561
2027/2028	82,791.28	31,400	-51,391
Total	277,040	130,754	-146,286

7.2. Resource Mobilization Strategies

To facilitate the implementation of the programmes and projects, the State Department will draw funding mainly from the GoK through exchequer releases, development partners, and PPPs:

- i. **Government Financing:** The State Department will effectively bid for allocation of more resources through MTEF budgets focusing on priority programs in line with the Bottom-Up Economic Transformation Agenda (BETA), the Kenya Vision 2030 and its MTP 2023-2027. In addition, it will explore opportunities for generating Appropriation in Aid (A-I-A) from the existing programs which may include pricing of irrigation water.
- ii. **Development Partners:** The State Department has a resource mobilization mechanism for marketing of project proposals on socio economic development and investment opportunities for donor funding. This is done in collaboration with the Kenya Investment Authority (KIA) and other government agencies. The key development partners are World Bank/IMF, German Development Bank (KfW), African Development Bank (AfDB)/ADF, Denmark, Netherlands, Sweden, Finland, Belgium, Italy, Spain, Germany (Kfw), AFD-France, Kuwait, Saudi Arabia, South Korea, China, European Development Fund/EEC, Japan International Cooperation Agency (JICA), Arab Bank for Economic Development in Africa (BADEA), Organization of the petroleum Exporting Countries (OPEC), International Fund for Agricultural Development (IFAD) ,Hungarian Aid, World Food Programme, FAO, Israel Government, Government of Egypt, USAID among others.
- iii. **Public Private Partnerships (PPPs):** The State Department will explore funding through PPPs models; Engineering, Procurement and Construction (EPC), Design Build and Finance (DB&F).
- iv. **Other Financial Sources:** The available resource opportunity for the State Department to explore includes partnerships with other government departments, private sector, NGOs, CBOs and local communities.
- v. **National Irrigation Sector Investment and Financing Plan (NISIP):** The State Department will develop NISIP that will guide priority investments and define the financing modalities to support irrigation development.

7.3. Resource Management

The State Department will exercise prudence in resource utilization in line with the PFM Act 2012 and other government guidelines on rationalization of government expenditure. This is aimed at

spurring economic growth and development devoid of resource wastage. The following approaches to resource management will be applied over the plan period:

- (i) **Exercising Prudence in budgetary application;** The State Department will continue to rationalize its activities to match the expected exchequer releases and continuously engage the National Treasury with a view to enhance allocation for the projects, ensure prompt release of exchequer and provide funds for implementation of resettlement action plans in time.
- (ii) **Prioritization of Programs and Projects;** focus will be on priority programs and projects to ensure efficient utilization of available resources.
- (iii) **Completion of ongoing and stalled projects;** available resources will be geared towards completion of ongoing and stalled projects to ensure value for money and timely benefits accruing from budgetary allocation to the projects.
- (iv) **Cost sharing model;** Financing of irrigation development through cost sharing model with project beneficiaries will improve the rate of irrigation development, ownership and sustainability.
- (v) **Work Plan and Procurement plans;** the State Department will adhere to annual workplan and procurement plans aligned to approved resources.
- (vi) **Ring fencing of budgets supporting BETA;** Budgets will be allocated and ring fenced to facilitate the implementation of the BETA projects.
- (vii) **Resettlement Action Plan (RAP) Budget;** Undertake early Securing/ Acquisition of Project sites/ wayleaves for large infrastructures to reduce compensation claims which arise during project commencement. Further there is need to improve collaboration with the National Treasury, National Land Commission, the implementing Agency and also the Project Affected Persons (PAPs).
- (viii) **Promote research and innovative technologies;** For the adoption of a circular economy through maximizing the utilization of resources and minimizing waste thereby reducing pressure on natural resources.
- (ix) **Value for money audit:** State Department will continuously conduct audits to ascertain whether the intended objectives are realized and are commensurate with the allocated resources.

Other Resource management measures will include: -

- (i) Advertising of contracts and other issues in the State Department's website instead of using local daily newspapers which are costly;
- (ii) Use of fuel cards to curb misuse of fuel. This will ensure effective monitoring of fuel utilization;
- (iii) Use of fleet management system to manage the State department's motor vehicles;
- (iv) Where possible the State Department will use its staff to undertake pre feasibility, feasibility and project designs instead of outsourcing through consultants;
- (v) Conducting some trainings and other office activities in-house instead of undertaking retreats and conferences in hotels;

- (vi) Using centralized printing model especially for bulk documents and therefore saving on acquisition of multiple printers;
- (vii) Printing documents on back to back mode to save on printing papers;
- (viii) Capitalizing on the macro and micro local economy through “Buy Kenya build Kenya” (items made in Kenya i.e. from prisons) thus promoting the local industry through procurement of locally made goods/services/merchandise comprising not less than 40% of the procurement budget; and
- (ix) Use of digitalized Procurement services through the IFMIS System.

CHAPTER 8. MONITORING, EVALUATION AND REPORTING FRAMEWORK

Overview

This Chapter presents a description of “the how” and frequency with which monitoring, evaluation and reporting on implementation of the strategic plan will be undertaken. It also highlights how best practices identified during the implementation of the plan will be documented for learning purposes.

8.1. Monitoring Framework

The State Department will adopt a monitoring framework to determine whether the strategic plan implementation is on course to achieve stated objectives. This will be done through undertaking continuous tracking of outputs in the action plan implementation matrix. In cases where interventions are not yielding the anticipated results, recommendations/remedies will be made to the top leadership and Strategic Theme teams.

The M&E committee of the State department will take the lead role supported by CPPMD in undertaking monitoring of programmes, projects and activities. Monitoring exercises will be undertaken on quarterly and sometimes on a need basis involving desk reviews and field visits to the project sites, engaging project stakeholders. Both field and desk review reports will be validated by various stakeholders to ensure they meet the set requirements.

8.2. Performance Standards

In order to successfully implement the strategic plan, Key Result Areas and Strategic Objectives have been identified whose performance will be assessed through globally accepted sub-sector’s performance standards namely: Area under Irrigation, volume of water harvested and stored for irrigation, and irrigated productions. Further, the action plan provides additional performance indicators, targets, timelines, resources as well as implementing agencies for effective delivery of the objectives of the strategic plan. The Sector’s Performance Standards will be the key performance indicators to guide implementation through the Annual work plans and Performance Contracts. The Strategic Theme Teams through the coordination of the CPPMD will track delivery of respective KRAs through data collection on the respective performance standards/indicators at outcome, output and efficiency levels to assess relevance, efficiency, effectiveness, success and sustainability of set interventions

8.3. Evaluation Framework

To enhance timely achievement of the strategic objectives in an efficient, effective and coherent manner and to ensure that the identified priorities are relevant, sustainable and have impact on the targeted outcomes, the State Department will subject the strategies to periodic evaluations as shown in Table 8.1.

Table 8. 1 Outcome Performance Matrix

Key Result Area	Outcome	Outcome Indicator	Baseline		Target	
			Value	Year	Mid-Term Period	End-Term Period
Water for Irrigation	Capacity of water stored for irrigation increased	Volume of water harvested and stored for irrigation (in MCM)	128.6	2022	171.2	648
Area under irrigation	Area under irrigation increased	Area under irrigation (in acres)	664,000	2022	796,018	1,211,530
Irrigation Management and Quality Assurance	Irrigated production increased	Volume of irrigated Rice (in Tonnes)	192,299	2022	410,000	700,000
		Volume of irrigated maize (90Kg- bags) ‘000’	195.9	2022	1,500	3,075
Land Reclamation	Degraded and wastelands lands reclaimed and restored	Acres rehabilitated, reclaimed and restored	55,000	2022	58,375	61,750
Policy, Legal and Institutional Framework/Gov ernance and Administration	Governance and service delivery enhanced	Land Reclamation Policy finalized	-	2022	1	1
		Land Reclamation Bill finalized	-	2022	-	1
		Kenya Irrigation Research, Innovation and Training Institute	-	2022	1	1
		Number of Irrigation Scheme Management Committees operationalized	-	2022	5	7
		Number of operational Irrigation Water Users Associations	-	2022	100	240
	Shared Support services strengthened	Customer Satisfaction Level (%)	-	2022	80	100

8.3.1. Mid-Term Evaluation

The State Department will undertake a Mid-term evaluation in the intermediate stage of the strategic plan implementation period (2025/2026) aimed at identifying bottlenecks and emerging issues that may hinder attainment of the goals and objectives. The evaluation will further determine whether the intended outcomes have been realized, as well facilitate documentation of the lessons learnt.

8.3.2. End-Term Evaluation

The State Department will undertake an end-term evaluation at the end of the strategic plan period (i.e. 2028/2029) to assess the impact of implementation of programmes, projects and activities to the citizenry. The process will involve collection and analysis of data to assess overall implementation effectiveness and draw lessons to inform preparation of the succeeding Strategic Plan.

8.3.3. Reporting Framework and Feedback Mechanism

The CPPMD in liason with the Strategic Theme Teams will play a critical role in coordinating reporting and feedback mechanisms with regard to Strategic Plan implementation.

The State Department will thus undertake:

- i. Quarterly Monitoring and reporting** which will involve monitoring and reporting of project's implementation at the end of each quarter in every financial year of the plan period using the Quarterly Progress Reporting Template outlined in Annex 2.
- ii. Annual Monitoring and Reporting which** will involve tracking of the implementation status of policies, projects and programmes and reporting at the end of each financial year of the strategic plan period using the Annual Progress Reporting Template outlined in Annex 3.
- iii. End-Term Evaluation and Reporting** which will involve tracking the progress of the planned targets and objectives and reporting at the end of the plan period.

The State Department will undertake stakeholder engagements, hold review meetings, administer feedback questionnaires, provide for feedback on both its website and other social media platforms, conduct customer satisfaction surveys among other mechanisms for purposes of getting feedback from her stakeholders. The lessons learnt will be used to inform continued adjustment and improvement of the necessary corrective interventions in the strategic plan implementation.

To facilitate continuous improvement and also act as a basis for subsequent monitoring exercises, the finalized reports will be documented and shared through various platforms such as IDMIS, PIMIS, e-NIMES, parliamentary committees, and the departments' website.

Annex 1: Strategic Themes Teams ToRs

	Strategic theme teams	Strategic Issue
1.	Irrigation Water Delivery Team	Inadequate Water Harvesting and storage for irrigation
2.	Irrigation Productivity Team	Sub-optimal exploitation and development of irrigation potential
3.	Irrigation Schemes management Team	Management of irrigation Schemes
4.	Land reclamation Team	Sub-optimal land reclamation
5.	Policy, Legal and Institutional framework governance Team	Weak governance framework