



STRATEGIC PLAN 2018 - 2022

Vision

Water security for all within the Upper Ewaso Ng'iro North Catchment Area.

Mission

To provide an effective platform for coordinated stakeholder engagement to address the challenges of managing water as a resource within Upper Ewaso Ng'iro North Catchment Area.

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Disclaimer

The views and conclusions expressed in this report do not necessarily reflect the views of the World Bank.

The Mount Kenya Ewaso Water Partnership is hosted by the Laikipia Wildlife Forum. The Partnership is an LWF member, is represented on the LWF Board, and is one of several associations in the greater Laikipia landscape supported by the LWF secretariat.



Foreword

Proper water resources management is critical to the achievement of the 2030 Vision for socio-economic development in Kenya. The water sector has been implementing a water sector reform program which is anchored in the Integrated Water Resources Management approach. The IWRM approach recognises the importance of effective stakeholder participation and coordination to address the complex challenges faced by the water sector.

The Upper Ewaso Ng'iro North catchment area experiences very high water demand for irrigation in the dry season when surface water resources are low. The result is that the environmental flow requirement is at risk, water use conflicts arise and future expansion of irrigated farming is constrained. The solution must include infrastructure for additional flood water storage and an improvement in the efficiency of how water is used.. However the solution requires greater compliance with water regulations, systems to assist the financing of investment, the sustainable use and conservation of the catchment areas, and firm commitment to this initiative by the many stakeholders in the catchment area. The public, private and civil society organisations active in the water sector each have an important contribution to make to achieve the 2030 Vision through sustainable water use and conservation. The Mount Kenya Ewaso Water Partnership (MKEWP) has an important role to play by encouraging stakeholder participation and supporting the coordination of their activities. These stakeholders need to establish synergies that enhance the efficiency and delivery of water services, increase transparency and accountability regarding water allocation and ensure sustainable use and conservation of the catchment areas.

As the lead agency in water resource management and regulation, we want to encourage stakeholders to support the implementation of the MKEWP Strategic Plan. We firmly believe that the strategies captured within the Plan will lead towards water security for all within the Upper Ewaso Ng'iro North catchment area.

Regional Manager – Ewaso Ng'iro North Catchment Area
Water Resources Authority

Acknowledgements

The Mount Kenya Ewaso Water Partnership (MKEWP) captures the concern of many stakeholders regarding the current and future status of the shared water resources in the area. MKEWP aims through collective efforts to bring about a brighter future in which the water resources are shared, used and conserved in a manner that supports economic and social development while ensuring the integrity of the environment.

The members and stakeholders of MKEWP have contributed opinions, time and effort during the consultation process to develop this Strategic Plan.

MKEWP wishes to thank the 2030 Water Resources Group for the technical and financial support given to establish MKEWP. The 2030 WRG has additionally provided case studies and experiences from similar partnerships in other countries.

MKEWP wishes to thank Imarisha Naivasha and particularly Mbogo Kamau, the CEO, for his insight and contribution towards the establishment of MKEWP and the development of the Strategic Plan.

Despite being launched about one year ago, MKEWP has been able to engage immediately in activities thanks to the capacity provided by the Laikipia Wildlife Forum who were engaged as the Secretariat for MKEWP. MKEWP is grateful to LWF for the strong institutional capacity it has provided towards the establishment and development of MKEWP.

MKEWP wishes to thank Rural Focus Ltd, the consultants, who were engaged to develop the plan through a process of stakeholder consultation.

Eng. Maina,
Chairman MKEWP and
Ag. Chief Officer, Water and Sanitation Services, Laikipia County

Preface

The Mount Kenya-Ewaso Water Partnership (MKEWP) was launched on 14th October 2016 following a commitment from various private, public and civil society partners to collectively address water-related risks in the Upper Ewaso Ng'iro North Catchment. Driven by its motto, "Maji yetu, Jukumu letu," ("Our water, Our responsibility"). MKEWP provides a platform to address challenges regarding: water allocation and use management, water resource infrastructure development and institutional capacity in the catchment.

The Upper Ewaso Ng'iro North catchment area boasts a wide variety of activity in the area. Such activity includes world renowned national parks and forests, a strong commercial and small-holder agricultural sector providing flowers and vegetables for export and local markets, exceptional wildlife conservancies, productive livestock ranches and communities with rich cultural traditions. The river systems originate in the water towers of Mount Kenya and the Aberdares, but climate changes and increasing population and settlement have led to the intensive use of, competition for, and conflict over existing water resources. In addition, the limited water storage capacity within the catchment is insufficient to meet the demand for water while maintaining the natural river levels, particularly during extended dry periods when irrigation water demand is at its highest. Although a variety of institutions have been established to address many of these challenges, weak institutional linkages, conflicting mandates and financial constraints have limited the effective implementation of water resource management and conservation in the area.

In recognition of the complex water resource management challenges and the common interest in socio-economic development and environmental conservation, water users, WRUAs, national and county government agencies and departments, civil society, water service providers, conservancies, financing institutions and research organisations formed the MKEWP. MKEWP 's task is to provide a platform for dialogue, information sharing, collective action, advocacy and capacity development in order to address the identified challenges.

Water resource management is a shared responsibility and is central to many national and regional strategies to sustain livelihoods, economic development and environmental systems, including Vision 2030. The Mount Kenya-Ewaso Water Partnership provides a mechanism by which all stakeholders can take part in finding solutions to create a water-smart and water secure future.

MKEWP members have pledged to work together to address the water resource challenges which pose a serious risk and constraint to livelihoods, businesses and social cohesion. MKEWP strives to provide a mechanism that fosters transparency and accountability, good governance, wise resource use and inclusivity in decision making. The ability of MKEWP to deliver on its goals will be a reflection of the commitment and cooperation of all of its members.

Executive Summary

This Strategic Plan is developed in compliance with the principles and goals of Integrated Water Resource Management (IWRM) by The Mount Kenya Ewaso Water Partnership (MKEWP). The Strategic Plan is a statement of purpose for the MKEWP partners setting out how they will utilise, manage and conserve the water and related resources of the Upper Ewaso Ng'iro North Basin in line with the MKEWP Charter and Terms of Reference 2016.

The challenges in water resource management include: weak water governance, a weak framework for disseminating best practice and lessons in IWRM, constant conflict involving sectors and upstream and downstream communities regarding water allocation and management, weak institutional capacity for mainstreaming IWRM principles and implementing water sector reforms.

Vision: MKEWP envisions a “Water Security for All” in the basin

Motto: Maji Yetu, Jukumu Letu (Our water, our responsibility)

Mission: To provide an effective platform for coordinated stakeholder engagement to address the challenges of managing water as a resource within Upper Ewaso Ng'iro North Catchment Area.

MKEWP approach and operations is guided by the following principles:

1. **Open and Transparent:** Water institutions shall work in an open and transparent manner, using language understandable to the general public; decisions shall be transparent, particularly regarding financial transactions.
2. **Inclusive and communicative:** wide participation shall be ensured throughout the decision making chain, from conception to implementation and evaluation; governance institutions shall communicate among water stakeholders both horizontally at the same levels and vertically between levels.
3. **Coherent and integrative:** water resource management shall be coherent, with political leadership and a strong responsibility taken by institutions at different levels; water institutions shall consider all potential water users and sectors and their linkages with, and impacts on, the traditional water sector.
4. **Equitable and ethical:** equity between and among various water interest groups, stakeholders and consumers shall be carefully monitored throughout the strategy implementation process.

Five basin-wide strategic priorities are identified as a framework to address the longer term water-related needs, trade-offs, challenges, and risks for basin development and management in the Upper Ewaso Ng'iro North Water Basin. They also contribute to ensuring that identified development opportunities are effectively realised and sustainable.

Their identification has taken into account also the goals, objectives and principles of the MKEWP Charter and Terms of reference, and principles of IWRM.



Overall, the strategic priorities and actions are directed at building a secure foundation for stakeholder participation and coordination during 2018-2022 with the aim of increasing sustainable investments in water resource use and conservation in the subsequent period. Strategic assessments and studies will enhance the already considerable knowledge of the basin, laying a solid foundation to develop and finalize basin wide cross-cutting and sector strategies. The foundation of these strategic priorities is expected to lead to the achievement of the following:

- Equitable and socially acceptable water distribution
- Efficient and economically sustainable water use
- Delegation, decentralisation and devolution of authority
- Participation of stakeholders
- Integrated planning
- Private sector participation
- Environmental conservation

The strategic objectives are:

Strategic Priority 1: Strengthening Institutional Capacity, Participation, and Coordination for IWRM

This strategic objective recognises that successful IWRM approaches are dependent on strong institutions able to deliver services and interact efficiently with other institutions and stakeholders. This strategic objective aims to strengthen WRUA governance, financing and service delivery, strengthen relationships between different stakeholders principally WRA, WRUAs, WSPs, CWP and county governments, and deepen the coordination and cooperation between MKEWP partners.

Strategic Objectives

1. To improve the enabling environment for the implementation, monitoring and evaluation of IWRM principles in the basin
2. To enhance the systems for decision making in water resources management
3. To strengthen the human resource capacity of water sectors players in the implementation of IWRM and provision of sustainable water resources in the basin
4. To establish and strengthen the institutional frameworks for coordination of water resource management
5. To strengthen the mechanisms for effective stakeholder participation and involvement in water resources management
6. To improve the organisational, financial, and resource mobilisation frameworks for basin management
7. To establish and strengthen mechanisms for conflict management and resolution in the water sector

5 Year Outputs

1. The institutional capacity of MKEWP is assessed
2. A comprehensive institutional capacity development plan for the members of MKEWP is developed and implemented
3. A strategy to promote coordination amongst the stakeholders of MKEWP is developed and implemented to harmonise CIDP and SCMPs in order to further the successful implementation of strategy
4. Pilot models of sustainable finance for WRUAs and community water projects are developed and implemented

Strategic Priority 2: Improve Water Demand Management and Sustainability

Water resources are finite and inadequate to meet all the demands. Efforts are required to boost food security while improving water use efficiency. This requires the application of efficient water use technology with farmers and water service providers, including community based water projects, which must be encouraged to adopt efficient water use systems.

Strategic Objectives:

1. To improve the mechanisms for water allocation
2. To increase efficiency of water use
3. To improve water use accountability
4. To promote the social, economic and environmental value of water in the basin
5. To enhance investments in water conservation and management measures

5 Year Outputs:

1. Information materials developed and disseminated for a public and school orientated education campaign on the technology and use of such systems to promote the efficient use of water.
2. Systems developed for the financial and technical support of smallholder farmers and community water projects in order to promote access to hardware and software for the efficient use of water.
3. Ways to ensure the accountability of water use developed so that all types of users can access data from source to point of use.
4. A program to track the management of sustainable community water projects focusing on their efficiency and economic viability developed.
5. A comprehensive review of water allocation and pricing systems.

Strategic Priority 3: Improve Water Security and Governance

This strategic objective recognises that the failure to secure the supply of water causes conflict and reduces the security of livelihoods and agricultural production. Water security is improved with the use of technological innovation and the use of institutional solutions.

Strategic Objectives:

1. To ensure that the systems and infrastructure for irrigation and domestic water supply are developed and managed in an environmentally, socially, and economically sustainable manner
2. To enhance access to affordable financing for the systems and infrastructure related to water conservation.
3. To enhance the integration of water resource provision and the wastewater treatment systems in the catchment area
4. To strengthen systems developed for the abstraction of water, to monitor the use of water and to regulate its use.
5. To promote sustainable utilisation and conservation of the catchment areas
6. To enhance the protection and the sustainable development and use of wetlands
7. To strengthen adaptation and coping mechanisms to allow for climate change
8. To support the coordination of basin, regional and county drought management systems

5 Year Outputs:

1. Dam site identification and feasibility studies for water infrastructure undertaken and disseminated to stakeholders
2. Groundwater potential maps and sustainable aquifer management plans developed for strategic aquifers in the catchment area
3. Innovative systems developed and tested in order to monitor and regulate the abstraction of water.
4. Models for the sustainable conservation and use of water developed and tested.
5. A framework to manage the challenges of climate change and the risk of drought developed and implemented.

Strategic Priority 4: Enhancing Knowledge Management and Communication

This strategic objective recognises that IWRM approaches have a better chance of success when stakeholders are better informed and are able to communicate on issues of concern. This requires the development of tools and products that support the MKEWP partners to share information, to discuss issues and to raise awareness of good water governance.

Strategic Objectives:

1. To build awareness, understanding and support of IWRM approach in the basin among defined target groups and increase the effectiveness of its implementation as an approach that contributes to MKEWP vision of Water Security for All and the general poverty eradication in the basin
2. To promote a knowledge management and communications culture and information sharing amongst MKEWP members and partners;
3. To ensure harmonization of corporate image of MKEWP and partners

5 Year Outputs:

1. MKEWP Information Portal developed and activated.
2. Communication strategy developed and serving the strategy effectively;
3. Corporate identity and branding strategy developed and used to support MKEWP performance.
4. Basin-Wide Water Monitoring and Evaluation System established;
5. Dissemination of information through MKEWP partner networks.

Strategic Priority 5: Enhancing MKEWP Capacity for IWRM

The essence of this strategic objective is to enhance MKEWP's capacity its stakeholders and to promote the coordination of activities amongst supporting partners. The objective is to collectively deliver an effective IWRM approach to address the challenges that arise in the management of water as a resource. MKEWP should be able to support partners on strategic issues that constrain effective water resource management.

Strategic Objectives:

1. Strengthen the capacity and functioning of the MKEWP Council and Secretariat to ensure sustainable management of and effective service delivery by the organisation
2. To establish and promote compliance with the systems of governance within MKEWP
3. Establish systems to expand MKEWP membership through targeted consultations and information products
4. Enhance the value of MKEWP to its members through effective coordination, communication, advocacy and consultation
5. Develop and implement monitoring and evaluation systems within MKEWP to track its effectiveness
6. Develop systems for the sustainable financing of the core activities of MKEWP
7. Establish a plan for the legal registration of MKEWP



5 Year Outputs:

1. Code of Conduct for MKEWP partners established and implemented;
2. M&E system for MKEWP established and implemented;
3. MKEWP membership and quality of membership participation increased;
4. Sustainable financing models for MKEWP core costs established;
5. Capacity development needs of MKEWP secretariat identified and documented;
6. Key positions at the MKEWP Secretariat are filled with qualified staff;
7. Report on legal registration options conducted and shared.

Implementation Plan

The MKEWP structure as defined in the MKEWP Charter and Terms of Reference is appropriate for an organisation which aims to coordinate efforts across a set of public, private and civil society organisations with diverse interests. The organisation aims to make an impact on the management of water resources through collective effort. Various standing committees are proposed to strengthen the functioning of the Partnership.

MKEWP is not currently legally registered but uses the legal status of the appointed Secretariat to handle aspects that would normally require legal registration (e.g. holding bank accounts, recruiting staff, etc.). The lack of legal registration does not pose an immediate challenge but options for legal registration should be explored as MKEWP may need legal registration in future.

A staff complement of four full time staff plus part time staff will suffice to handle the MKEWP core functions. Additional capacity as may be needed perhaps for specific project implementation would be recruited under project funds. The aim has been to identify a lean staff that is affordable through potential local financing streams.

An annual budget for normal operations (\$199,900) has been estimated and scaled by 10% per annum to allow for inflation totalling with capex to \$1,275,111 across 5 years. The core operations budget for MKEWP corresponds to the minimum inputs and activities required to keep MKEWP operational and fulfilling its basic mandate. The budget is dominated by overheads (83%), which comprise personnel (53%), administration or office-related costs (16%) and logistics (15%).

An investment budget has been estimated for the projects within the Strategic Plan totalling \$5,160,010. It should be recognised that a number of the items in the Strategic Plan can be expected to be financed and implemented by member organisations (e.g. WSTF support to WRUAs or County Government support to community water projects).

A companion report to the Strategic Plan is the Financial Sustainability Plan which explores various financing options. In the long term MKEWP needs to cover its normal operational costs from local resources. A number of revenue sources are explored including membership fees, fund raising events, service charges, and voluntary water use charges that could raise sufficient funds to cover normal MKEWP operations. The latter option is based on the notion that commercial water users have a vested interest in the effective management of the resources. At present the value of the water resources is not currently reflected in the water use charges levied by WRA. Furthermore, water resource management in UENNCA requires an elevated level of effort given the scarcity and competition for the resource and vulnerability of downstream users and ecosystems. A tentative financing plan is offered that could potentially cover 78% of the annual operating costs. The financing gap is greater when cap-ex is factored in and one recognises that the revenue system must be developed.

Resources to cover project and investments costs could be raised through a combination of local and external sources. The Strategic Plan anticipates that MKEWP will develop project



proposals for financing that address expectations by external donors for co-financing which may be anchored around 'output based' models.

An indicative work plan has been developed that emphasizes the strengthening of MKEWP as a coordinating platform during the first 18 months while the remaining period focuses on developing and testing particular IWRM approaches.

A log frame is provided that sets out the targets and indicators to monitor progress for the Strategic Plan implementation.

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ABBREVIATIONS

CETRAD	Centre for Training and Integrated Research in ASAL Development
CFA	Community Forest Association
CIDPs	County Integrated Development Plans
CWP	Community Water Project
GIG	Common Interest Group
EMCA	Environment Management Coordination Act
ENNCA	Ewaso Ng'iro North Catchment Area
ENNDA	Ewaso Ng'iro North Development Authority
FFI	Flora and Fauna International
GIS	Geographical Information System
GWP	Global Water Partnership
ICWE	International Conference on Water and Environment
IFAD	International Fund for Agricultural Development
IMS	Information Management Systems
IWRM	Integrated Water Resources Management
KFS	Kenya Forest Services
KII	Key Informant Interviews
KWS	Kenya Wildlife Services
LWF	Laikipia Wildlife Forum
MKEWP	Mount Kenya Ewaso Water Partnership
MSP	Multi-Stakeholder Platform
NDMA	National Drought Management Authority
NEMA	National Environment Management Authority
NWRMS	National Water Resources Management Strategy
PPP	Public Private Partnership
RFL	Rural Focus Limited
SDG	Sustainable Development Goals
SIP	Strategic Investment Plan
SNV	Netherlands Development Organisation
TOR	Terms of Reference
UENNCA	Upper Ewaso Ng'iro North Catchment Area
USAID	United States Agency for International Development
WAP	Water Allocation Plan
WASREB	Water Services Regulatory Board
WDM	Water Demand Management
WRA	Water Resources Authority
WRG	Water Resources Group
WRUA	Water Resource Users Association
WSPs	Water Service Provider
WSTF	Water Services Trust Fund

Glossary

- **Community Water Project (CWP)** refers to the community based organisations that provide water for domestic and/or irrigation purposes to their members through infrastructure that has been developed by the CWP, usually with assistance from the Government and/or external partners. Most of the CWPs in UENNCA are gravity piped systems. The CWPs are typically not registered as a Water Service Providers under the Water Act 2016.
- **Illegal abstraction** is defined as abstraction without WRA authorisation where authorisation is legally required (i.e. for any abstraction involving works and/or pumps).
- **Information management systems (IMS)**: is the term for a range of electronic systems that arrange, store and exchange data and information. These electronic systems replace more traditional printed catalogues.
- **Integrated Water Resources Management: IWRM** involves activities that promote the coordinated development and management of water, land and related resources in order to maximise economic and social welfare in an equitable manner without compromising the sustainability of vital ecosystems.
- **Over abstraction**; can be considered as abstraction beyond the allocated amounts for a particular flow condition.
- **Stakeholder**: Any person, group or organisation that has an interest (either directly or indirectly) in a programme, plan or project and its implementation and management.
- **Water Security**: The capacity of a population to safeguard sustainable access to adequate quantities and acceptable quality of water for sustaining livelihoods, human well-being, and socio-economic development, for ensuring protection against water-borne pollution and water-related disasters, and for preserving ecosystems in a climate of peace and political stability (UN-Water, 2011).
- **Water Service Provider (WSP)** refers to the organisation that provides domestic water services under license from the Water Services Regulatory Board (WASREB) as proscribed under the Water Act 2016.

1. INTRODUCTION

1.1 The Upper Ewaso Ng'iro Catchment Area

The Upper Ewaso Ng'iro North catchment area stretches from the humid slopes of Mount Kenya (Alt 5200m asl) and the Aberdares where numerous pristine mountain streams flow across the moorlands and forests down through the semi-humid farming area and onto the semi-arid rangelands of Archer's Post (Alt 300m asl) which has an arid climate. Below Archer's Post the river flows towards the Lorian Swamps which is a very flat area that is seasonally flooded when the river rises out of its channel. This lower part of the Ewaso Ng'iro north catchment area is an extensive semi-arid pastoral rangeland.

The 14,373 km² of the upper catchment area supports approximately 1.8 million people in Isiolo, Laikipia, Meru, Nyeri, and Samburu counties who make their living in a variety of different ways.. Smallholder farming under both rainfed and irrigated conditions supplies cereals, fruit and vegetables for the rural and emerging urban markets of Nanyuki, Isiolo, Naro Moru, Rumuruti, Timau, and Nyahururu. There is a thriving and expanding commercial horticultural and floricultural sector that produces vegetables and flowers for local and export markets. The tourism and recreational sector is based on the scenic and environmental resources within the national parks and reserves, forests, wildlife conservancies and pastoral rangelands. The vibrant livestock sector is active on the commercial cattle ranches and pastoral rangelands. All of these different livelihoods depend on the availability of water. The rainfall and water resources are unevenly distributed putting livelihoods and enterprises at risk. The management and utilisation of the water resources is therefore a limiting factor in the socio-economic development of the catchment area. Competition for the water resources in the dry season has triggered water use conflicts, degraded environmental conditions and restricted economic development. Despite efforts by numerous actors to address a myriad of water resource challenges, the situation has continued to deteriorate. Stakeholders gathered together in December 2015 and resolved to form a partnership to seek effective solutions to the challenges of managing water as a resource.

1.2 Establishment of MKEWP

MKEWP was launched in October 2016 as a Public-Private Partnership (3P) Framework, with membership covering the public, private, civil society, academic and research institutions, and local communities. The MKEWP Charter and Terms of Reference 2016 (Annexure 1) establishes the goals, purpose, underlying principles, membership and modalities for the Partners. It recognises the critical importance of IWRM in improving the practice of water resource management, cooperation and the delivery of water-related services around the Upper Ewaso Ng'iro North catchment area in an efficient, socially equitable, and environmentally sustainable manner. The Strategic Plan responds (Principle 4.8) to these goals and the plan is summarised below:

1. To cooperate in all fields of sustainable development, utilisation, management and conservation of the water and related resources of the Upper Ewaso Ng'iro North Basin,

in a manner to optimise multiple uses and mutual benefits in the water and related resources of the Upper Ewaso Ng'iro North Basin including, but not limited to domestic use, irrigation, hydro-power, flood control, fisheries, forest, recreation and tourism (Goal 2.1);

2. To promote the development of the full potential of sustainable benefits and to prevent wasteful use with an emphasis and preference on joint and/or basin-wide development projects and basin programs through the formulation of a basin development plan (Principles 4.3, 4.4, and 4.5);
3. To protect the environment, natural resources, aquatic life and ecological balance of the Upper Ewaso Ng'iro North Basin from pollution or other harmful effects (Goal 2.1 and Purpose 3.1);
4. To utilise the waters of the Upper Ewaso Ng'iro North River System in a reasonable and equitable manner (Purpose 3.1);
5. To link national and county planning to achieve the 2030 vision of an economically prosperous, socially just and environmentally sound country (Principles 4.5);
6. To ensure active community participation, institutional and capacity development, resource mobilisation, cooperation and networking among partners and stakeholders (Principle 4.9);
7. To engage in broad thematic focus areas of water allocation and use management, to develop the infrastructure managing and delivering water as a resource and institutional strengthening (See Appendix C of Annexure 1: Thematic Areas of Focus for the Partnership).

MKEWP is governed through a Council that is comprised of representatives elected from different membership categories while its operations are undertaken by a Secretariat. The partnership has initially engaged the Laikipia Wildlife Forum (LWF) to act as Secretariat for an initial three year period.

The partnership has thus far received technical and financial support for its establishment and strengthening from the 2030WRG as well as overwhelming technical support from its membership.

Since its formation, the Partnership has undertaken a number of activities with some of its key achievements including: a formal launch of the Partnership, sharing information through LWF newsletter and website, participation in the CIDP development process and input into the county water sector plans, council meetings, and project implementation and supervision of the projects listed in Table 1.

Table 1: List of Projects Implemented by MKEWP

Project	Donor	Implementing Partner
Drought Monitoring	2030WRG, NDMA, CG, Commercial growers	WRA, 14 WRUAs
IWESK	Nordic Climate Fund	Orgut, Rural Focus Ltd
Watershed Program	Wetlands International	WRA, 16 WRUAs
Irrigation Acceleration Platform	SNV	IAP, Ministry of Agriculture Laikipia County, Farmers Groups
Water, Agriculture & Livestock	Flora Fauna International	OI Pejeta Conservancy, 2 WRUAs
Communication & Publicity Awareness (Developing a simplified version of the Water Act 2016)	IFC	Jacaranda Africa, MKEWP Technical Team

1.3 Purpose and Scope of the Strategic Plan

The purpose of this Strategic Plan is to set out the priorities and approaches that the members of the Mount Kenya Ewaso Water Partnership (MKEWP) have adopted to strengthen the Partnership, to guide operations and to provide a platform for cooperation to address key water resource management challenges that pose risks to livelihoods, businesses, environmental integrity and social cohesion within the Upper Ewaso Ng'iro North catchment area. The Strategic Plan documents the opinion and commitment of its members to strive towards common agreed goals, setting out how they will utilise, manage and conserve the water and related resources of the Upper Ewaso Ng'iro North catchment area in line with the MKEWP Charter and Terms of Reference 2016.

1.4 Rationale of the Strategic Plan for MKEWP

This strategic plan is aimed at facilitating the growth and development of MKEWP to provide a strong platform for stakeholder collaboration that delivers sustainable management and use of the catchment's water resources. The MKEWP strategic plan is expected to contribute to the following:

1. Provide a guiding framework for collaborative ways of working within the catchment
2. Provide data and evidence to underpin an evidence-based approach to sustainable catchment development
3. Enhanced service delivery and coordinated catchment planning
4. Strengthen stakeholder and community consultation and participation in planning and decision making
5. Improve effective stakeholder communication
6. Improve harmonisation of the various stakeholder activities in the catchment and

facilitate the sharing of best practices and lessons learnt among players. Such a harmonised approach to catchment management strengthens cooperation, peace and stability

7. Coordinated development offering an opportunity for different professionals to work together
8. Coordinated catchment monitoring and evaluation of water resource activities and development outcomes.

1.5 Methodology and Approach to Strategic Plan Development

This Strategic Plan was generated as a result of a participatory and consultative process which involved Key Informant Interviews, Focus Group Discussions, and workshop presentations involving key stakeholders of MKEWP. The key stakeholders who participated in the strategic planning process include the County Governments (Laikipia, Nyeri and Meru), Water Resources Authority, Private sector water resource users, Water Resource User Associations, Parastatals, Private Landowners, Water Service and Sanitation Service Providers, Research organisations, MKEWP Secretariat, Financial Institutions, and strategic partners (Appendix A: List of Stakeholders that Participated in the Strategic Planning Process). Consultations were also held with organisations in other basins, similar to MKEWP for the purposes of benchmarking. These included Imarisha Naivasha and the Upper Tana-Nairobi Water Fund.

The purpose of the consultation process was to gather the experiences, best practices and effective approaches for building an effective MKEWP, promoting its role in addressing IWRM and achieving water security in the catchment. The participatory and consultative process builds commitment, enhances the sense of belonging, ownership and responsibility among the key decision makers and partners.

The exercise also involved the review and analysis of secondary data that provided the perspectives on the best practices and benchmarks in the sustainable IWRM and MSP. Some of the documents included among others were: the MKEWP Charter, The Constitution of Kenya, 2010, Vision 2030, County Government Act 2012, National Water Resources Management Strategy 2012-2017, National Water Master Plan (NWMP) 2030, National Water Services Strategy (2007-2015), Environment, Water and Sanitation Sector – Medium Term Plan III 2018-2022 (Draft Report), ENNCA Catchment Management Strategy, Water Acts 2016, draft National Irrigation Policy and Land Reclamation policy, Wetlands Conservation and Management Policy, Trans-boundary Water Resources Policy, Environment Policy, Climate Change Act 2016, and National Climate Change Action Plan..

Additionally, the draft Strategic Plan was subjected to technical review by the MKEWP Technical Committee on 8th November 2017 and the MKEWP Council on 22nd November 2017 and further validated by the membership at an AGM held on 8th December 2017.

The Strategic Plan was developed in tandem with the Financial Sustainability Plan that explores in more detail the options for financing the core operations of MKEWP and the Strategic Plan 2018-2022.

1.6 MKEWP Strategic Framework

The strategic intent of MKEWP is the improved coordination, awareness and understanding on water issues and initiatives in the basin.

1.6.1 Vision and Mission

MKEWP vision is “Water Security for all within the Upper Ewaso Ng’iro North Catchment Area”.

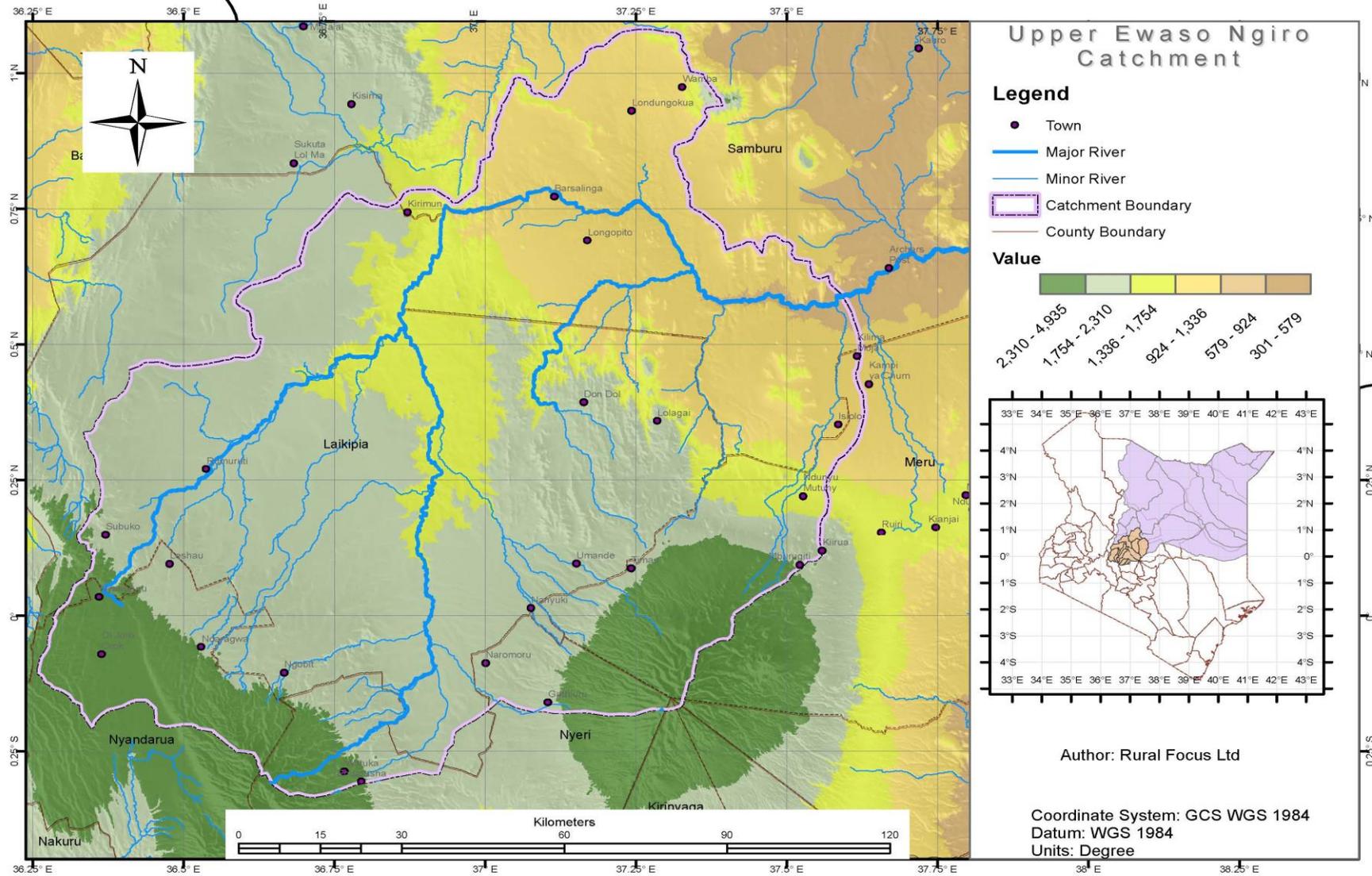
The MKEWP mission is “to provide a platform for coordinated stakeholder engagement to address water resources management challenges within the Upper Ewaso Ng’iro North catchment area”.

1.6.2 Values and Principles

The MKEWP approach and operations shall be guided by the following principles:

1. **Open and Transparent:** MKEWP and its member institutions shall work in an open and transparent manner, using language understandable to the general public. Decisions shall be transparent, particularly regarding financial transactions.
2. **Inclusive and communicative:** wide participation shall be ensured throughout the decision making chain, from conception to implementation and evaluation. Communication among water stakeholders both horizontally at the same level and vertically between levels shall be ensured.
3. **Coherent and integrative:** water resource management shall be coherent, with political leadership and a strong responsibility taken by MKEWP and its member institutions at different levels. MKEWP and its member institutions shall consider all potential water users and sectors and their linkages with, and impacts on, the traditional water sector.
4. **Equitable and ethical:** equity between and among various water interest groups, stakeholders and consumers shall be carefully monitored throughout the strategy implementation process.
5. **Performance in operations:**
 - a. **Accountable:** the rules of the game, as well as legislative roles and executive processes, shall be clear; each water-related institution shall explain and take responsibility for its actions; penalties for violating the rules and arbitration-enforcing mechanisms must exist to ensure that satisfactory solutions to water issues can be reached.
 - b. **Efficient:** concepts of political, social, and environmental efficiency related to water resources shall be balanced against simple economic efficiency.
 - c. **Responsive, effective and sustainable:** water demands, evaluation of future water impacts and past experiences shall be the basis for decisions; decisions shall be incentive-based, to ensure clear social or economic gain if the strategy is followed; long-term sustainability of water resources shall be the guiding principle.

Figure 1: Upper Ewaso Ng'iro North Catchment Area



2. SITUATION AND ENVIRONMENTAL ANALYSIS

2.1 Integrated Water Resources Management (IWRM) and Governance

A country's need for water resource management varies according to its geography, climate, size, population, political and cultural systems, level of development, and the nature of its water resource problems. Within a country or a river basin/catchment, different areas have diverse water problems and challenges. Hence, each river basin or catchment must chart its own vision and plans based on its unique situation.

2.1.1 IWRM Framework

IWRM is defined by the Global Water Partnership (GWP-2000) as “a process which promotes the coordinated development and the management of water, land and related resources, in order to maximise the resultant economic and social welfare in an equitable manner without compromising the sustainability of vital ecosystems”. It is a holistic approach that seeks to integrate the management of the physical environment within that of the broader socio-economic and political framework, and is now considered best practice in water resource management. Six basic principles of IWRM presented at the International Conference on Water and the Environment in Rio 1992, provide a good foundation for understanding IWRM:

1. The river basin is the correct administrative unit for managing water
2. Water resources and the land which forms the river basin area must be integrated, in other words, planned and managed together
3. Social, economic and environmental factors must be integrated within water resources planning and management
4. Surface water and groundwater and the ecosystems through which they flow must be integrated within water resources planning and management
5. Public participation is necessary for effective water resources decision making. It requires good public awareness and understanding so that participation is informed.. (NB This is because water is managed for the sole purpose of providing water to the people and the environment in which they live.)
6. Transparency and accountability in water management decision making are necessary aspects of sound water resource planning and management. (Transparency means the people need to be informed about the options of water management to be able to respond to decisions made about their water. Accountability means the public has the right to question and complain to responsible organisations and those organisations need to answer to their clients who are the public.)

IWRM addresses the “three E’s”: Economic efficiency, Environmental sustainability and social Equity, including poverty reduction. The three basic pillars of IWRM are the principles guiding appropriate policies, laws, and strategic planning, the institutional roles and framework and the management instruments. These same principles should guide our water institutions on a daily basis. IWRM addresses both the management of

water as a resource, and the framework for provision of water services to all categories of users. It also addresses both water quantity and quality.

A central goal of IWRM at the river basin level is to achieve water security for all purposes, as well as manage risks while responding to, and mitigating disasters. The path towards water security requires trade-offs to maintain a proper balance between meeting various sectors' needs, and establishing adaptable governance mechanisms to cope with evolving environmental, economical, and social circumstances.

2.1.2 Challenges to IWRM in the Upper Ewaso Ng'iro North Water Basin

Kenya has adopted the IWRM principles in its water resource management interventions and has already put in place water policies, legislation, strategies, and programs e.g. Kenya Vision 2030 and Sessional Paper No. 1 of 1999. The main thrust of the policy is to domesticate the principles of IWRM in the country's approach in the water sector. The policy also provides a framework for enhancing and promoting efforts towards an efficient, equitable, and optimal utilisation of water resources that would contribute to the country's sustainable socio-economic development.

Although the policy environment has been highly supportive of the IWRM, there are considerable constraints on its implementation in the Upper Ewaso Ng'iro North Basin. Some of the constraints include institutional and financial capacity, poor coordination among the various stakeholders and the approach lacks active participation regarding planning, implementation, monitoring and the evaluation of water development and management activities. Poor IWRM is not only creating serious conflict over the use of water in the catchment but also undermining the sustainability of water as a resource in the future. In addition, poor IWRM is also threatening the economic viability of livelihoods and businesses dependent on the water resources and threatens water supply services thus aggravating the poverty situation in the region. There is also intense competition and conflict over the use of water amongst and between communities and those who use irrigation and various other interests in the catchment.

The apportionment, allocation and enforcement of the use of water are weak and fundamentally at the root of the conflict in the catchment area. There is a poor information base for determining the available supply and use and the process of allocation often lacks transparency and is often undermined by powerful and vested interests. The financial base for supporting activities of the catchment is weak, and consequently, the decision making process is non-participatory, lacking transparency, slow, and often distorted. Monitoring and enforcement of the abstractions is weak. Present governance and institutional arrangement for managing water resources in the catchment is very weak hence creating a difficult situation for sustainable and effective IWRM, including weak capacity and poor performance of Water Resource User's Associations (WRUAs).

The catchment and riparian degradation is severe particularly along riparian corridors, the ASAL pastoral areas and in places with uncontrolled runoff from rural roads. This affects runoff and infiltration rates, accelerates soil erosion and increases sediment transportation and deposition. High sediment loads reduce the economic life of the infrastructure of water resources, and such sediment imposes high costs on water utilities (high treatment costs, increased operations and maintenance, and replacement

costs). In addition catchment degradation undermines the productivity of the land, and this increases poverty.

The unsustainable water sector management in the catchment has an overall net negative impact in the areas of human health and welfare, food security, industrial development and the ecosystems. Thus the imperative for regulating water resources effectively and managing them wisely in the catchment area cannot be understated.

In addition to these constraints on the implementation of IWRM in the Upper Ewaso Ng'iro North Basin there is a lack of a well-developed, sustainable, well-tested, scientifically robust, socially acceptable and economically viable approach to implement IWRM at the Upper Ewaso Ng'iro Water Catchment.

The Upper Ewaso Ng'iro North Water Basin therefore needs to implement the principles and practice of IWRM to mitigate the severe environmental, economic and financial consequences that the current fragmented and underfunded approach to water management has had on the region. The effects are especially severe within Nyeri, Laikipia, and Meru Counties. Such consequences will continue and worsen in the future if insufficient or ineffective action is taken.

2.1.3 Multi-Stakeholder Partnership and Water Governance

Since the first United Nations Conference on Environment and Development in 1992 - known as the Earth Summit - it was recognised that achieving sustainable development would require the active participation of all sectors of society and all types of people. Agenda 21, adopted at the Earth Summit, drew upon this sentiment and formalised different sectors of society as the main channels through which broad participation should be facilitated for sustainable development. The Rio+20 Conference (2012) reaffirmed that multi-sectoral participation is central to the pursuit of sustainable development.

International conferences have also recognised that the global, regional, national, and local water crisis is essentially a crisis of water governance, of how water is managed. To achieve the vision of "Water Security for All" among all stakeholders across the catchment and in particular to meet the needs of the poor, water sector governance needs to improve.

Unlike other sectors, the water sector typically has a very large number of government as well as non-government stakeholders in each water basin or catchment area. A special effort in sector coordination is therefore needed to ensure that national and county governments can exercise leadership and decision-making and move forward with developing, adopting, and sustaining effective water policies, reforms, and investments.

MKEWP therefore has a legitimate role to address this coordination challenge and to promote stakeholder participation, transparency, predictability, and accountability as pillars of good governance.

2.2 Policy, Legal, and Institutional Frameworks

The spirit of IWRM and multi-sector platforms are well captured in the Kenyan policies and legislation which have also informed the preparation of this Strategic Plan. A brief review of the key policies and legislation that demonstrate how MKEWP fits within the existing legislative and institutional framework is discussed below.

2.2.1 List of Policies and Legislations Reviewed

The following policies and legislative frameworks are relevant to water resources management and therefore impact on MKEWP in one way or another:

- Water Policy Session Paper No. 1 of 1999
- The Constitution of Kenya 2010
- The Water Act 2016
- County Water Policies and Acts
- The National Water Resources Management Strategy 2012-2017
- The Forest Act 2005
- Wildlife and Conservation and Management Act
- EMCA 2015
- Agriculture Act (Cap 318)

2.2.2 Summary of the implications of the Policy and Legislative to MKEWP

A detailed review of the policies and legislation listed above is provided in Appendix B. The key emerging implications of the policies and legislation to MKEWP are:-

a. Opportunity for enhancing Stakeholder Participation

Public participation is emphasised in most of the legislation and is critical to any planning or development process in WRM. MKEWP not only provides a platform for collective action by both public, private and community institutions but also provides an avenue through which such institutions as an organised group can participate in, as well as influence policy formulation, decision making and information sharing.

b. Promoting Cross-County Engagement on WRM

There is no specific provision in COK or the Water Act 2016 that requires two or more adjacent counties to form an inter-county structure to handle cross-county issues on water resource management and water service provision. Essentially the legislation provides an enabling framework but does not require the formation of a cross-county coordination forum. MKEWP can provide an appropriate platform for cross-county coordination and engagement on water resource management issues.

c. Linkage among WRM Sector Player

The 2016 Water Act is silent on any specific conditions that would define the relationship between a WRUA and its respective county governments. In addition the Act is silent on any formal arrangements between one county and another in relation to catchment conservation. There are therefore no legislated institutional structures to:

- Bring two or more counties together for collaboration on water issues except as may arise from the Council of Governors or the BWRC
- Integrate the WRUAs into county administrative structures

Thus MKEWP can provide a platform for cross-county engagement on water resource management, provide linkage to the BWRC and is also well placed to advance the agenda of building the WRUA – County Government and the WRA- County Government relationships. This is possible because the WRUAs, County Government and Water Resource Authority are part of the membership of MKEWP.

d. Need for a strong multi-stakeholder platform

WRM is a broad term encompassing a variety of different functions from regulations, water related investments, catchment management and water resource monitoring and planning. This complicated institutional framework reinforces the need within the UENNCA for a strong multi-stakeholder platform such as MKEWP to enhance coordination and cooperation for more effective service delivery.

e. Need to broaden MKEWP Membership

Water resource management affects and is affected by the management of other resources such as forest and land. This makes legislation on such resources, as well as the institutions that implement this legislation, relevant to water resource governance and to MKEWP. Thus, MKEWP needs to consider and bring on board any such institution (NEMA and CFAs) that is currently not included in the membership.

f. General enabling environment for MKEWP

From a review of the various policies and legislations, it can be noted that MKEWP's objectives align well with them and thus provide a platform for bringing about their implementation. Additionally, in the context of local legislation within the UENNCA, the county water acts currently in effect in the UENNCA (Meru and Nyeri) acknowledge and recognise other mandated institutions in the water resources management sector (other County Governments, WRA, BWRC and WRUAs) and their roles and have made some attempts to spell out how the county will collaborate with these institutions. This creates an enabling environment for MKEWP as well as a legal backing for its attempts to foster collaboration between these entities for better water resource management. Furthermore, there is an opportunity for MKEWP to support the final drafting and enactment of the Laikipia County Water and Sanitation Bill.

2.3 IWRM and WRUAs

In order to provide a formal structure for stakeholder participation at a sub-catchment level, the Water Act 2002 and subsequently the Water Act 2016 recognise the role of Water Resource User Associations (WRUAs) for the collaborative management of the water resources and conflict resolution. WRUAs play a key role in integrated approaches to water management that seek to establish a decentralised, participatory, multi-sectoral and multi-disciplinary governance structure.

2.3.1 WRUA Establishment, Capacity and Development

A WRUA is an association of water users and stakeholders that have formally and voluntarily associated for the purposes of cooperatively sharing, managing and conserving a common water resource. The objectives of a WRUA commonly include:

1. Conservation of water catchments
2. Sustainable water resource management
3. Increase availability of water resources
4. Increase the usage of the water for economic and social improvements
5. Development of sustainable and responsive institutions

The core activities of a WRUA are:

- a) Exchange information and ideas on water resource use
- b) Monitor water availability, quality and use
- c) Prepare a Sub-Catchment Management Plan (SCMP) through a process of stakeholder engagement
- d) Participate in water allocation by considering and commenting on water permit application;
- e) Communicate local water resource issues to WRA, WRUA members and public
- f) Manage water use conflicts which may involve implementing water rationing schedules, monitoring water use and supporting enforcement of water permit conditions
- g) Implement projects related to increasing awareness in water governance, improving catchment and riparian conditions (e.g. tree planting, erosion control) , infrastructure to assist in the allocation and monitoring of water use (e.g. common intakes), infrastructure that improves water resource availability (e.g. sand dams, pans, etc)
- h) Provide representation of stakeholder needs at higher institutions of water management

The quality of WRUA management in the catchment is a key concern to stakeholders, and this is linked to the capacity and professionalism of the WRUA committees and staff and the degree of commitment of the WRUA members to their organisation.

The UENNCA region has approximately 29 WRUAs, of which 15 are active. Among these 15 are some of the most effective WRUAs in Kenya. However, not all the WRUAs are active and many of the WRUAs suffer from the common problems that afflict many WRUAs. These include:

- Poor governance and adherence to the WRUA constitution
- Lack of transparency by the leadership
- Insufficient financial resources to maintain a minimum level of operations
- Lack of legitimacy with WRA and County Governments

Instead of becoming strong autonomous organisations, many WRUAs remain dependent on external sources of support, in terms of finance, expertise and authority. They continue to depend on project activities and financial resources particularly subsidies for capital investment costs.

Some of the ingredients of the successful WRUAs include:

- Strong, committed, accountable and transparent leadership
- Adherence to WRUA constitution
- Strong relationship between WRUA and its members, particularly key members such as community water projects and commercial growers
- Clear budgeting and financing mechanisms
- Administrative staff to undertake and follow up on WRUA activities

Figure 2 provides an illustration of the institutional relationships between WRUAs and their principle stakeholders (WRA and county governments). WRUAs have primarily been viewed as organisations existing within the WRA institutional framework. However, the roles and responsibilities described in the Water Act 2016 mean that the WRUAs need to engage with and strengthen their relationships with the county government structures in regard to catchment management activities.

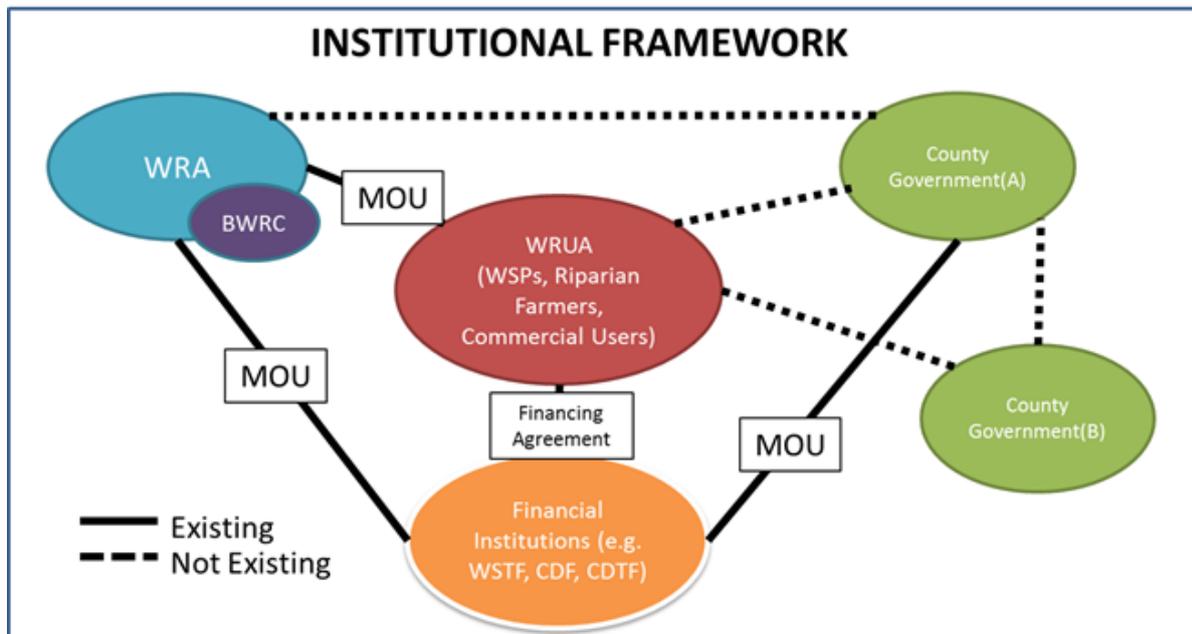


Figure 2: Institutional Relationships with WRUAs

Establishment of WRUA's in the ASAL pastoral rangelands has proved challenging for a number of complex reasons which may include stronger traditional institutions that control rangeland and water access, livelihood systems dominated by access and availability to pasture rather than water for irrigation.

2.3.2 WRUA Development Cycle (WDC)

As part of putting the Water Act 2002, into operation, WRMA and WSTF established a framework for technical and financial support to the WRUAs, termed the WRUA Development Cycle (WDC). This framework legally established that WRUA could receive funds from WSTF to develop and implement a Sub-Catchment Management Plan (SCMP). This would be under the technical oversight of WRMA. The financing framework anticipated a long term relationship between WRMA, WSTF and the WRUA in which the WRUA could repeatedly access a greater level of funding subject to proper utilisation of

the funds. The initial funding cycle (level 1) was set at Ksh 1 Million, focused on development of the SCMP, with subsequent levels going to Ksh 2, 5 and 10 Million. A WRUA may have been described as “level 2 or 3” to denote their capacity and level of activity. The WDC framework was set out in a WDC Manual to provide a set of tools for engagement with WRUAs. The WDC Manual has been updated periodically by WRMA to reflect evolving priorities and challenges of the WRUA. .

The WDC funds were not designed to support WRUA operational costs which were expected to be derived from other sources (e.g. membership fees).

2.3.3 Sub-Catchment Management Plan (SCMP)

A Sub-Catchment Management Plan (SCMP), developed by the WRUA through a process of stakeholder engagement provides an agreed plan for coordinated interventions by different stakeholders to achieve multiple WRM objectives.

While most of the WRUAs within UENNCA have developed their SCMPs the process preceded the establishment and participation of the county governments. Consequently there is no ownership of the SCMPs by the county governments and there is very poor alignment of the SCMPs with the County Integrated Development Plans (CIDPs). Essentially this means that there is very little cross-county planning in respect to cross county sub-catchment area. Additionally this makes it very difficult for the county governments to financially support the WRUAs and the implementation of the SCMPs.

One of the IWRM principles calls for water resource management planning to be done on the basis of hydrological boundaries to address upstream/downstream, catchment, pollution and water allocation issues, among others. This is at odds with the county government structures that restrict county governments to implementation of projects within their respective county boundaries. Clearly county governments need to find a mechanism to work across county boundaries for purposes of good water resource management and use.

MKEWP has an appropriate role to promote cross-county WRM planning given the capacity gaps within the WRUAs.

2.4 Strategic IWRM Issues and Challenges in the UENNCA

In order to define the MKEWP strategic response and roles in addressing IWRM issues and challenges in the UENNCA, it is important to identify these issues. The following is a brief discussion of some of the common IWRM issues and challenges in the UENNCA. Detailed discussion of these issues is presented in Appendix C.

2.4.1 Water Resource Availability and diminishing dry season river flows

Flow monitoring by WRA and visual observations attest to the diminishing dry season river flows over the past 20 years, with the situation exacerbated during extended droughts and the result that some previously perennial rivers cease to flow entirely. This situation causes water use conflicts, environmental degradation as well as disrupted domestic, livestock and irrigation water supplies, with the down users being more severely affected. Without effective systems of resource monitoring, allocation and

enforcement, coupled with wide spread acceptance of these systems, then the current trends will prevail and worsen.

2.4.2 Water Allocation, Use and Enforcement

Over-abstraction and illegal abstraction coupled with weak enforcement of water regulations is a common WRM issue within the UENNCA. Water allocation is currently done on the basis of permits for which users must apply. However, many water users appear to abstract without regard to the formal water allocation system. Additionally, compliance to water regulations and permit conditions such as; permit validity, authorised amounts for specified flow conditions, measuring devices, and storage and water use charges, is very low by many abstractors. This poor compliance to water resource management regulations and permitting requirements is attributed to a number of factors including:

- Acute dependence on river flows for irrigation
- Lack of resources to invest in storage structures
- Inefficient irrigation methods
- Tendency to avoid bureaucracy
- Lack of understanding of permit conditions
- Lack of information regarding river flow conditions
- Weak WRUAs unable to educate and control water users
- Poor enforcement by the WRA

2.4.3 Catchment and Riparian Degradation

Many river basins in the Mount Kenya ecosystem have been degraded by illegal logging, the degradation of soil cover due to deforestation and over grazing, the cultivation and drainage of natural swamps, the cultivation up to the river banks, unchecked erosion, uncontrolled road runoff along with quarrying, and construction within riparian areas. These land use changes impact negatively on the current and future ecosystem services provided by the catchment areas and therefore they alter the quantity and quality of water available as a resource, as well as the hydrological patterns.

2.4.4 Water Resource Infrastructure Development, Risk and Investment

ENNCA has limited water availability due to the small volume of existing storage capacity attributed to insufficient investment in dams, pans, farm ponds and rainwater tanks, with existing facilities being restricted mainly to small dams and water pans primarily for livestock watering and rainwater harvesting tanks at household level.

Some of the reasons behind this small volume of water storage in an otherwise largely semi-arid catchment are the lifespan of the infrastructure, socio-economic and environmental concerns, weak government commitment, the capital cost of infrastructure, the limited number of sites for dam construction and the inadequate enforcement of water permits that would otherwise at least provide a driver for investment in storage facilities.

There is need to energise new investments in water storage at household, farm, sub-catchment and catchment levels, particularly for smallholder farming.

2.4.5 Institutional Frameworks and Governance

It has been acknowledged, globally, regionally, nationally, and locally that the current water crisis is mainly a crisis of governance, rather than a crisis due to a water shortage or water pollution per se. The four institutional roles that have been identified to be fulfilled by water governance systems in order to achieve sound IWRM practices include: regulation and enforcement, water supply and sanitation services, coordination and facilitation, and capacity building.

At present in UENNCA, despite the establishment of numerous water related institutions, there are still weaknesses that need to be addressed. Weak institutional linkages, a poor framework of governance, siloed behaviour among agencies and groups and conflict over mandates and financial constraints, which limits the effective implementation of water resource management and conservation.

Financing Water Resource Management and Infrastructure

The lead agency in water resource management is WRA which is funded by the public exchequer (40%), revenue from water use or abstraction charges (50%), and data sales, permit fees and other services (10%). The water use charges were never meant as a means to raise sufficient revenue to finance water resource infrastructure development, a point that is frequently misunderstood by the public. The status quo is that revenue from water use charges is insufficient to operate WRA without adequate supplementary funding from the exchequer. This resource constraint limits WRA's ability to maintain the hydro-meteorological monitoring network and to support the WRUAs.

Operational financing for WRUAs is a severe challenge among many WRUAs that limits their capacity to engage in water resource management activities. Many WRUAs derive revenue through membership fees but this rarely provides sufficient resources to meet even the most rudimentary of budgets. A number of WRUAs have benefited from financial and in-kind support from some commercial growers in the form of staff salaries, offices and transport. The dilemma with the in-kind support is that it does not show on the WRUA books of accounts and is therefore frequently under-valued and under-utilised as a means to leverage additional support and to drive improved water resource management practices.

The "WRUA Agency Model" is a proposed WRUA financing model which describes an arrangement between WRA and a WRUA in which the WRA pays the WRUA for specific services rendered. The model is yet to be operationalised but it does provide an opportunity to redefine the WRA-WRUA relationship around specified deliverables in a way that also improves WRUA operational financing and WRA operations.

In addition to the challenges in financing water resource management, the financing of infrastructure investment for water use and conservation particularly for public service, to meet the present and future needs of the UENNCA is also a challenge. Therefore, innovative ways to finance water resource and water supply investment are needed as there are limited funds and many competing demands.

Existing options for infrastructure financing within the catchment include:

- National Government Resources through agencies such as WSTF (which has already channeled in excess of 40 million), Water Works Development Boards, Regional Development Authorities, NDMA, NIB and MWI
- County Governments
- Output based aid by donor organization such as the World Bank and IFC
- The commercial horticultural sector

2.4.6 Public Information Management and Communication

Information management is one of the most important technical issues for water use and demand, and especially for integrated water resource planning. Information is currently typically siloed in different sectors and agencies. Each stakeholder responsible for relevant information with the UENNCA thus needs to ensure proper information management systems to avoid duplication in terms of data collection and analysis, to enable synergies in data analysis, better information quality and accessibility to users.

2.4.7 Water Demand Management (WDM)

The traditional approach to WDM has been to focus on the supply side and the assessment of available water resources in the catchment. There has also been limited data on actual water use and uncertainty in establishing efficiency of water use. As a result, there is a high degree of uncertainty in current forecasts of the supply-demand balance within the catchment.

2.4.8 Water Quality Problems

Observations clearly show that the source waters on Mount Kenya and the Aberdares start as pristine mountain streams and become turbid and polluted in the lower reaches. Poor river water quality therefore affects downstream water users more than upstream water users. Water quality is therefore one area in which upstream behaviour within the UENNCA can have a direct impact on the health and livelihoods of those downstream and on the life span of storage infrastructure.

2.5 Lessons Learned and Effective Management of MSP

- **Ownership of the change:** The IWRM change process needs to support people's livelihoods. Water resources management should not be done for its own sake, rather for sustaining the livelihoods of communities. It is only when people understand that their livelihoods depend on sustainable management of water and land resources that they can own and meaningfully participate in the change process. The challenge faced by MKEWP is how to design a strategic planning process, which makes it easier and simple for the local communities to understand its linkages to their livelihoods. There seems to be a high level of expectation around a quick fix physical infrastructure that would address their practical problems.
- **Political commitment:** Government commitment to IWRM process is crucial. IWRM requires an enabling environment (policy, legal and institutional framework) at the national, county, and local levels. Existence of an enabling environment to facilitate IWRM process in the catchment is thus crucial. Practically nothing would be done without the interest, willingness and mobilising role of stakeholders and partners.

- Thus, MKEWP shall play a key role in mobilising all stakeholders for their participation in the process and in contributing expertise for the IWRM process as well as in owning the process as a whole.
- **Communication among stakeholders:** IWRM requires participation and ownership by all stakeholders at all levels and communication facilitates participation. People down the chain often do not get enough information, they do not get it in the right ways or they do not have direct lines of communication available to them. Relationship building takes time and this shall be one of the challenges that MKEWP will have to overcome. Even though it is not an easy task, facilitating communication among all stakeholders at all levels by adapting to local situations is crucial, as is the adaptation of traditional knowledge systems to spread information about IWRM in the catchment area.
- **Multi-stakeholder partnership building is time consuming:** There is a critical need to move away from the large, top-down infrastructure building mentality. It must be recognised that strong institution and process building is not immediate, but rather a long and tiring process. Participation, ownership and the building of trust is a challenge but it has to be achieved through investing efforts and energy in establishing and building a long term partnership.
- **Capacity building and awareness raising as an integral part of the IWRM change process:** IWRM is a participatory process and it requires capacity building of stakeholders' for proper participation. MKEWP's approach would combine awareness raising and capacity building on various issues regarding internalising and implementing the principles of IWRM in the management of the catchment area.
- **Promoting IWRM principles,** approaches and experiences to various stakeholders, including non-water sectors, needs to be done on a continuous basis until changes occur in the ways actors think and behave . To this end, MKEWP should promote and demonstrate the benefits of IWRM through organising training courses, awareness workshops and the provision of knowledge and advice. Local adaptations to suit local conditions, including the use of local languages are important contributions.
- **Piloting and scaling-up approach:** MKEWP should move in phases where it will be transitioning from institution building to implementation on a larger scale.
- **IWRM as an approach for managing water conflicts:** In the catchment area, water resources are scarce and there are actual and potential water conflicts. The partnership should play a facilitating role in the resolution of conflict by providing a platform for negotiation and engagement. The approach is to provide a platform where all concerned stakeholders understand the problems from both sides, and also contribute to the management of conflicts. Awareness raising and training shall also contribute to the development of a shared vision for the watershed and the building of trust among stakeholders.

2.6 SWOT analysis for MKEWP

SWOT analysis involved evaluating MKEWP internal strengths and weaknesses and its external opportunities and threats. The aim of the SWOT framework is to ensure that the strategy is based on a good fit between the MKEWP's internal capability and its external situation. The results of the MKEWP SWOT analysis are shown in Table 2.

Table 2 SWOT Analysis

STRENGTHS	WEAKNESSES/CONSTRAINTS
<ol style="list-style-type: none"> 1. Existence of Partnership Charter and Terms of Reference providing guidance on goals, principles and priority areas for cooperation among the Partnership members. 2. MKEWP has a wide and comprehensive membership base covering public, private and civil society organisations. 3. MKEWP partners or potential partners share enough common objectives and motivations to make them want to work together for the sustainability of the catchment. 4. Strong and positive willingness among the members and stakeholders to participate and contribute to the success and sustainability of the partnership (goodwill). 5. MKEWP foundation is based on the principles of IWRM as supported by UN and the Global Water Partnership to address the implementation of SDG 6 and 17.. 6. Goodwill from development partners, especially the 2030 Water Resource Group. 7. MKEWP has contributed to the improvement of knowledge of IWRM in the catchment. 8. Some MKEWP members have a long history of engagement in local water resource management issues (e.g. CETRAD, LWF.) 9. MKEWP has appointed Laikipia Wildlife Forum as its Secretariat, bringing in an established networking capacity. 10. MKEWP catchment has defined boundaries and therefore provides a guide for the operational scope and demarcation. 11. Environmentally aware and engaged members 12. Strong WRUAs able to model best practices 	<ol style="list-style-type: none"> 1. Weak information management system to manage water resources data in the catchment. 2. Reliance of MKEWP on donor funding for operational costs and programmes. 3. Significant power variance among members and stakeholders. Some members and stakeholders are perceived to wield more power and influence than others hence affecting active participation and involvement in the partnership. 4. Siloed behaviour among key government agencies and departments. 5. Limitation of technology for effective communication within the partnership. 6. Weak communication since the partnership is yet to design and implement formal processes to facilitate constant engagement of members and stakeholders. 7. Lack of management guidelines in the Secretariat to facilitate harmonisation of practices in areas of project management, advocacy, information management, M&E, etc. 8. The membership of MKEWP has not yet mainstreamed the involvement and participation of political leadership, youth and women groups in the partnership. 9.
OPPORTUNITIES	THREATS
<ol style="list-style-type: none"> 1. The existence of the Constitution 2010 and County Government Act 2012, which have laid the frameworks for transformative governance principles of transparency, accountability, participation and collaboration, and coordination. 2. Goodwill and interest shown by various stakeholders and community members in the catchment in support of participation in the MKEWP platform for enhanced sustainable water resource management in the catchment. 3. A well-developed information and communication technology network in the country and the catchment area, hence allowing MKEWP to leverage on IT to develop stakeholder network and information sharing framework. 4. Multi-stakeholder contribution brings a comprehensive picture and better solutions. 5. Bring good environment for good water governance. 6. Improve water resources management, improve water use efficiency, improve water safety across all sectors and minimise water use conflicts. 7. Helps to enhance the implementation capacities of different stakeholders, including local communities. 8. MKEWP design is compatible with The Global Water Partnership goal in advocating for the establishment of MSPs to drive the SDG targets for water resources and the agenda for sustainable development. 9. MSP model adopts a hybrid system of management in the water sector (Top-Down vs. Down-Top Systems). This is likely to have an efficient, effective, and equitable handling of members and stakeholders interests in the water sector (Win-Win Situation in conflict management). 10. The information on all activities supported by MKEWP is shared with all members and stakeholders to ensure equitable and efficient distribution of knowledge on the water resources management in the catchment. This practice avoids duplication and conflict in information gaps. This is likely to create a positive image among internal and external development partners hence attracting funding, technical support, and investments in water sector in the catchment. 	<ol style="list-style-type: none"> 1. Lack of a legal framework to support the role of a Multi-Stakeholder Partnership (MSP) within UENNCA 2. Lack of awareness of and respect for legal mandates. 3. Insufficient policy coordination and/or complex organisation, which impairs policy integration. 4. A strong supply-driven legacy, in conflict with IWRM objectives. 5. Allocation of public finance, which fails to reach strategic, long-term issues. 6. The tendency by the political players to interfere and influence sustainable water resource management. 7. Lack of recognised Multi-Stakeholder Partnership (MSP) models in Kenya within the water sector. 8. The catchment development plans and policies are advisory in nature and do not identify key actors and their roles, including coordinating mechanisms. 9. The plans and policies are not matched with budgetary provisions for implementation and coordination. 10. Frequent changes in the regulatory, policy, and strategic frameworks of the water sector hence lacking stability for sustainable growth and development of the sector. This leads to negative implications for adaptation in the sector hence leading to costly institutional capacity investment and compliance requirements. 11. Widespread challenges to the development of an integrated catchment system leading, among other things, to increased levels of water insecurity, food insecurity and the degradation of the environment. 12. The water sector lacks adequate capacity for institutional and human resources, which are needed to successfully implement the principles of IWRM in the catchment area. 13. Politicisation of water resource management issues.

2.7 Stakeholder Analysis

One of the aspects that differentiates IWRM from the more conventional water management practices is the involvement of stakeholders in the planning and implementation process. Stakeholders are the people and organisations who may impact or be impacted by the outcomes of a decision. Stakeholder participation is critical to IWRM for many reasons: fundamentally, it is ethical, water is a common or shared resource necessary for people to live and therefore those that depend on a water resource should have the right to participate in decisions regarding its management. Stakeholder participation in planning helps avoid mistakes in design that would make a project fail due to the local context and such involvement fosters ownership of a project. Additionally, effective stakeholder participation can facilitate communication and conflict resolution, and through active participation stakeholders gain an understanding and feel agency. A key step is to analyse who the stakeholders are, what their interests might be, the roles that they play and then use this to inform the process of engagement and participation. Stakeholder analysis is not an end in itself but an integral part of participation which is a core principle of IWRM.

The MKEWP Stakeholder Map on **Figure 3** below, identifies the various MKEWP stakeholders including those that form part of the membership and other relevant actors within the UENNCA environment. The roles and expectations of the stakeholders within MKEWP are presented in Appendix D.

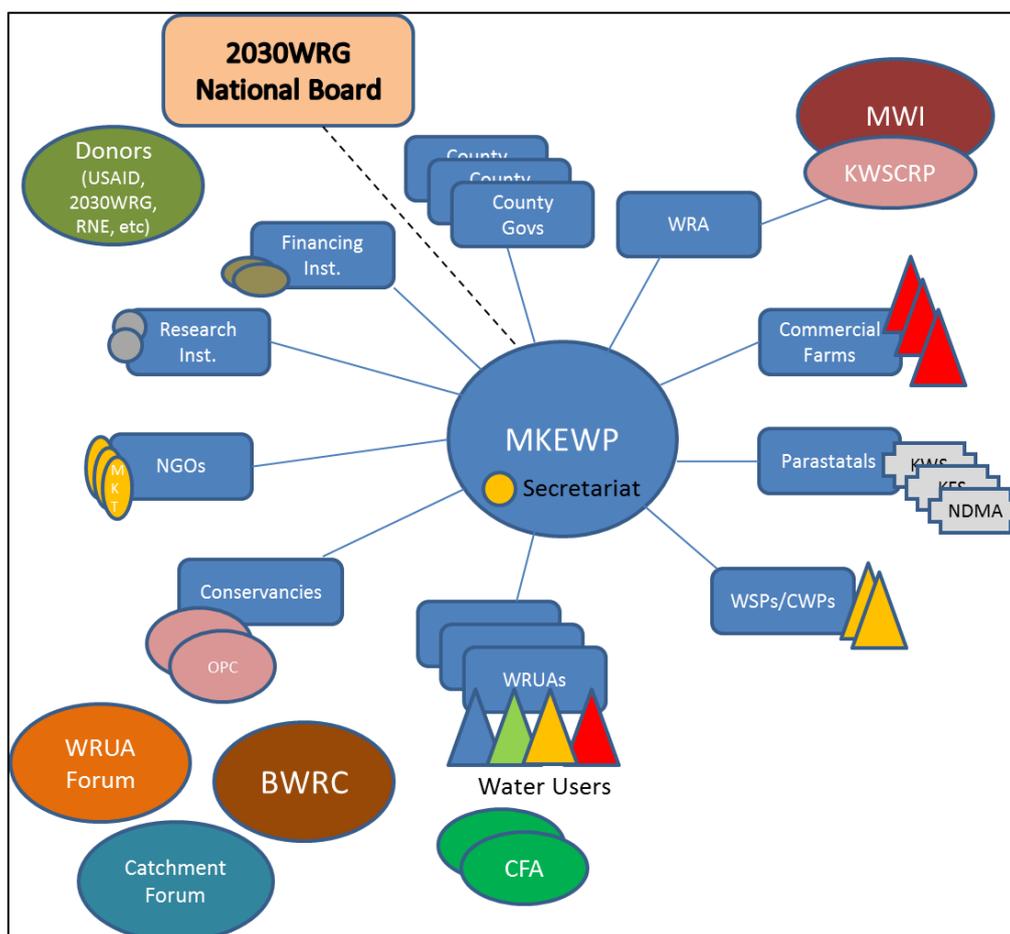


Figure 3 : MKEWP Stakeholder Map

The stakeholders identified in the MKEWP Stakeholders Map were further analysed to better understand their relevance, the perspective they offer to MKEWP and their relationship to WRM issues as well as to other stakeholders.

The following criteria were used in the analysis:

Expertise	Does the stakeholder have information, counsel or expertise that is important to MKEWP?
Interest	How willing is the stakeholder to engage with MKEWP? Is their engagement proactive or passive?
Influence	How much influence or power does the stakeholder have over MKEWP, other MKEWP stakeholders, and the success of MKEWP

Table 3 below presents the stakeholder analysis based on the above criteria. This analysis is further illustrated in the Expertise, Willingness and Value Matrix presented in

Figure 4.

Table 3 : MKEWP Stakeholder Analysis

Stakeholder Group	Stakeholder	Expertise	Interest	Influence
Government Entities	County Governments (S1)	High	Medium	High
	WRA (S2)	High	Medium	High
	Parastatals (S3)	Medium	Low	Medium
Water Users	Commercial Growers (S4)	Medium	Low	Medium
	WSPs (S5)	Medium	Medium	Low
	CWPs (S6)	Low	High	Low
	WRUAs (S7)	Low	High	Medium
	Conservancies (S8)	Medium	Medium	Low
	Small Holder Farmers (S9)	Low	Low	Low
Other Players/Context Setters	NGOs (S10)	Medium	High	Medium
	Research Institutions (S11)	High	Medium	Medium
	Financial Institutions (S12)	Medium	Low	High
	Donors (S13)	Medium	Medium	High
	BWRC, WRUA Forum (S14)	Medium	Low	Low
	CFAs (S15)	Medium	Low	Low

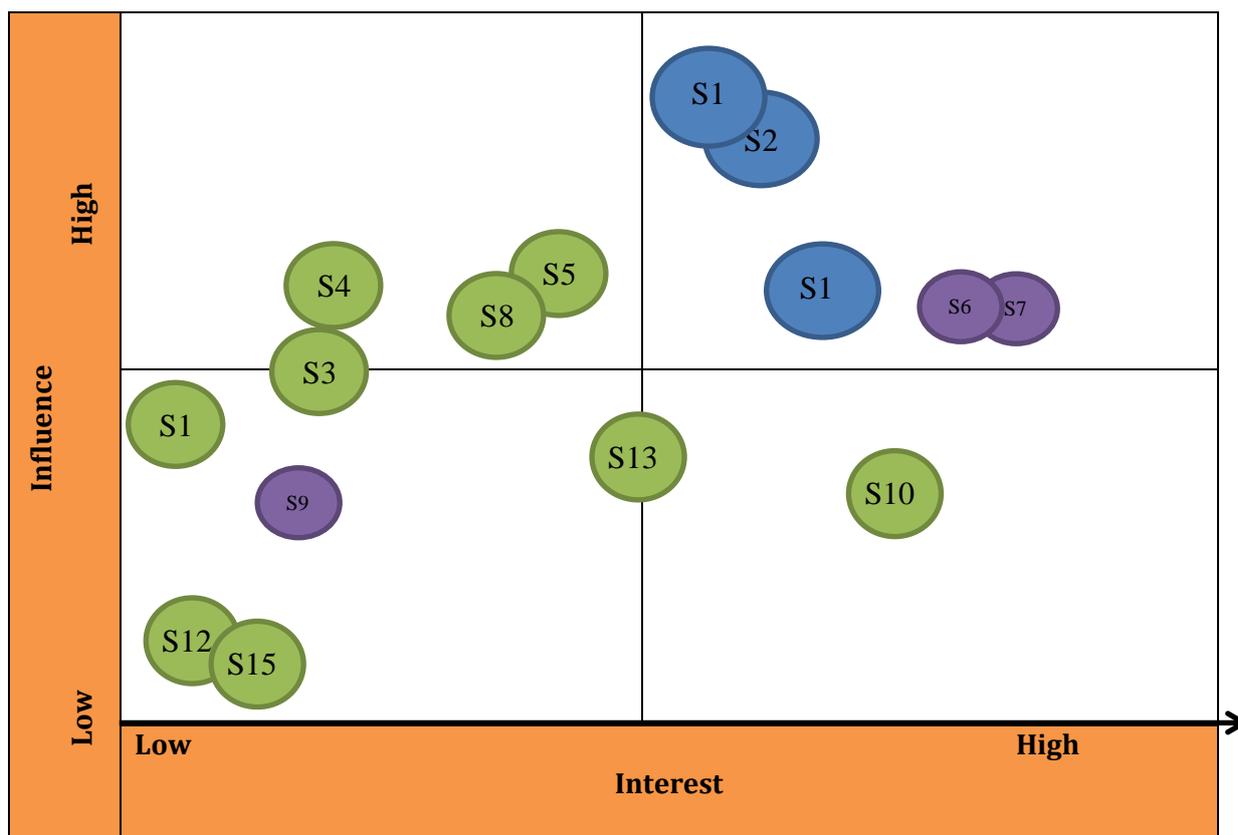


Figure 4 : Interest, Influence and Expertise

2.8 Summary of Strategic Issues in IWRM in the Catchment

Water governance in the Upper Ewaso Ng'iro North Water Catchment area is still evolving. The management of the catchment area crosses multiple county government and institutional jurisdictions and the government agencies, catchment communities, civil society organisations, the private sector, funding agencies and development institutions. Water resources are not yet fully governed in a holistic or effectively decentralised manner in the catchment area, notwithstanding the introduction of IWRM in water policy, strategy and management plans in Kenya. During the process of stakeholder consultations, the participants raised concerns about existing water governance arrangements hence calling on the need for:

1. **Water Governance:** More effective stakeholder participation in water resource management, the enhancement of transparency and accountability in water allocation, the increased efficiency of demand management, and coordination among county, public sector departments and institutions and to provide inter-disciplinary expertise from different sectors, the harmonisation and integration of policies in the water sector and clearly defined roles for the different players and stakeholders in the water related sectors.
2. **Disseminating best practices and lessons in IWRM:** A key point of leverage for the partnership lies in different local, national, regional, and the global initiatives and perspectives that the partnership can bring to IWRM within UENNCA. Disseminating

the lessons from these initiatives could serve as a catalyst for the development of approaches that are effective even in the most difficult locations. As a result, activities

that support collecting and disseminating examples of adaptive water resource management, the actual experience of water resource management, or the lack of it, needs to be charted if real responses are to be effective. More effective communication and decision-making processes between agencies is needed at the same time as conducting timely monitoring of IWRM practices in the basin.

3. **The necessity of dispute resolution:** Assist in conflict-resolution and building a common understanding among stakeholders across counties and sectors about IWRM, including effective WRUAs to handle upstream/downstream dialogue.
4. **The importance of understanding economics and financing:** Provide a forum and approaches for resource mobilisation for sustainable implementation of IWRM interventions in the catchment area, more emphasis should be put on water demand management (economic use of water) rather than supply side of water management (engineering aspect of water management), long term support funds and investment in infrastructure, including the maintenance and operation of schemes.
5. **Support for MKEWP Secretariat:** MKEWP needs a strong secretariat to be effective. This requires funds and MKEWP to provide adequate support for operational and administrative tasks undertaken by the MKEWP Secretariat.
6. **The political will:** Need for strong political drive and support at the highest levels of national and county governments. This is required to promote essential strategic frameworks for coordinated action, and lasting monitored commitments.
7. **Support for, and building of, institutions (from local to national scales):** Capacity development and training for the different IWRM sectors and stakeholders on the principles of IWRM and decision support areas for implementation requirements. Greater emphasis on capacity building and technical expertise to support decision - making on water allocation, enforcement and monitoring.

3.0 STRATEGIC APPROACH AND PRIORITIES

3.1 Introduction

Four basin-wide strategic priorities provide the framework to address the water resource challenges within the UENNCA. The strategic priorities and actions aim to strengthen the partnership and prove its value as a multi-stakeholder platform during the period 2018-2022 to deliver impacts on the main water resource challenges within the catchment.

Appendix D provides a high level Logical Framework.

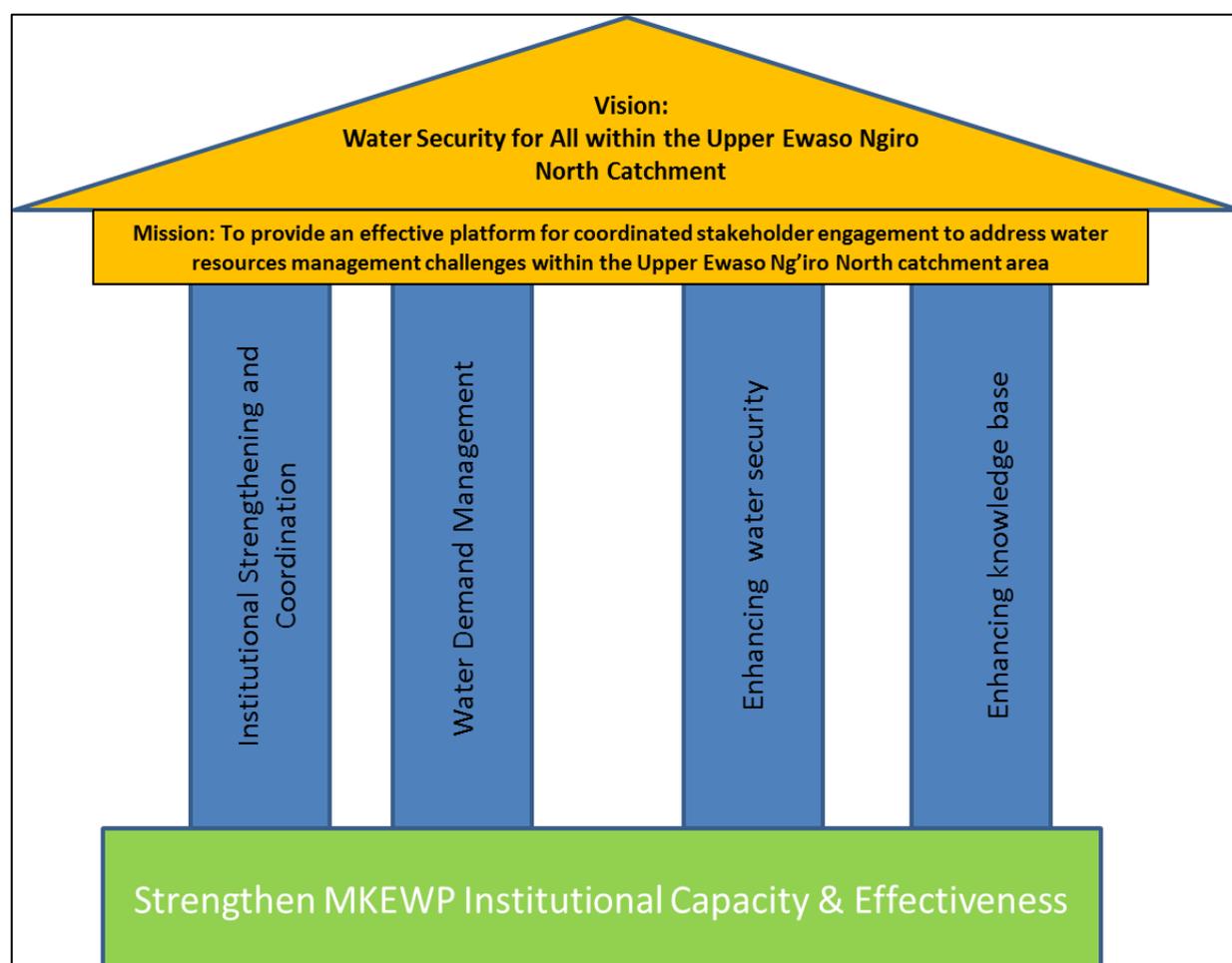


Figure 5: MKEWP Strategic House

3.2 Strategic Priority 1: Strengthening Institutional Capacity, Participation, and Coordination for IWRM

3.2.1 Strategic Context

The IWRM approach promotes the more coordinated development and management of land and water, surface water and groundwater, the river basin conservation and environment, and upstream and downstream interests. It is also about reforming human systems to enable people to obtain sustainable and equitable benefits from those resources. For policy-making and planning, taking an IWRM approach requires that: water development and management takes into account the various uses of water and the range of people's water needs, stakeholders are given a voice in water planning and management and policies and priorities consider water resource implications, including the two-way relationship between macroeconomic policies and water development, management, and use. IWRM is a cross-sectoral policy approach, designed to replace the traditional, fragmented sectoral approach to water resources and management that has led to poor services and unsustainable resource use. IWRM is based on the understanding that water resources are an integral component of the ecosystem, a natural resource, and a social and economic good.

The notion that stakeholders should have a say in the management of the water resources on which they depend is one of the building blocks of the concept of IWRM, which has found its way into the national water policies and water laws in Kenya. Why do we need stakeholder participation? The main reason is that in reality only with stakeholder interest in and acceptance of, the water resource management system can it be possible to implement a system that has a chance of success. . Several benefits from stakeholder participation can be found:

- It leads to informed decision-making as stakeholders often possess a wealth of information which can benefit water resource management
- Stakeholders are the most affected by lack of water resources or poor management decisions of water resources and they are therefore able to prioritise actions in the basin
- Consensus at early stages of development projects can reduce the likelihood of conflicts which can harm the implementation and success of such projects
- Stakeholder participation can reduce costs and improve effectiveness of water resource management
- The involvement of stakeholders can build trust between the government and civil society, which can possibly lead to long-term collaborative relationships

Some of the guidelines to keep in mind for promoting active stakeholder participation include:

- a) **Information dissemination** – Information is enormously important to keep up the stakeholders' interest for water resources management and to create a sense of local ownership of the process. A variety of information tools are needed to keep stakeholders informed of the status of water resource management in the basin through regular reports on key indicators.

- b) **Capacity building of the stakeholders** –Stakeholder participation is often hampered because the capacity of the stakeholders is too low or some stakeholders know much more than others. It is important to recognise that there are stakeholders in every basin that are knowledgeable people but others may need to be brought to a similar level for effective participation. MKEWP shall have an active capacity building programme for new members to be sure that they have the exposure and support to enable them to perform the responsibilities they are tasked with
- c) **Giving responsibility and clear roles** – Without responsibility and clear roles it is likely that no one will continue to attend meetings
- d) **Parallel development of the water resources** – Concrete development of the water resources to address problems in the basin is key for promoting participation. Water resource management basically aims at improving the accessibility to water which gives socio-economic development and better living conditions for the stakeholders. Water resource development creates opportunities for socio-economic growth. It is therefore important for MKEWP members and stakeholders to coordinate development projects with the participatory process.
- e) **Providing services** – The individual MKEWP members and stakeholders often sit on a large knowledge and information base that is valuable for the stakeholders. Examples may be river flow statistics for design of small dams or water outtakes, rainfall statistics and soil type information for agriculture planning, groundwater aquifer characteristics, etc. In situations where the service provider needs the stakeholders’ participation for monitoring it is especially essential to offer valuable data in return.

An effective public information programme that creates public awareness, builds effective public outreach, develops regional, sectoral, and national public relations programmes, and produces necessary communication materials, is an essential basis for Upper Ewaso Ng’iro North Basin cooperation. This should go beyond one-off events but should permeate into local media and local discussions.

Summary of Strategic Issues

1. Lack of capacity development framework for the implementation of IWRM principles among stakeholders
2. Weak structures for overall leadership and guidance of water resource management in the basin
3. Weak coordination framework for capacity building among stakeholders
4. Limited understanding and appreciation on the roles and responsibilities of the various stakeholders in water resources management
5. Weak and uncoordinated frameworks monitoring, evaluating and reporting on water resource management
6. Limited financing and resources for sustainable development of water resources
7. High prevalence and incidences of water-based conflict
8. Weak enforcement of water policies, laws, and regulations
9. Inability to initiate and implement genuine and coordinated water sector reforms
10. Downstream communities lack adequate representation and engagement on water resource management issues

3.2.2 Strategic Objectives

1. To improve the enabling environment for the implementation, monitoring and evaluation of IWRM principles in the basin
2. To enhance the systems for decision making in water resources management
3. To strengthen the human resource capacity of water sectors players in the implementation of IWRM and provision of sustainable water resources in the basin
4. To establish and strengthen the institutional frameworks for coordination of water resource management
5. To strengthen the mechanisms for effective stakeholder participation and involvement in water resources management
6. To improve the organisational, financial, and resource mobilisation frameworks for basin management
7. To adapt WRUA model for better application in pastoral ASAL areas
8. To establish and strengthen mechanisms for conflict management and resolution in the water sector

3.2.3 5-Year Strategic Activities

1. Coordinate institutional capacity needs assessment and development for MKEWP members in the sustainable water resource management of the basin
2. Coordinate the development and implementation of a Code of Conduct in water governance in the basin
3. Coordinate the development and implementation of a Memorandum of Understanding (MOUs) among MKEWP members in the development of water resources;
4. Coordinate the development and piloting of financial sustainability models for WRUAs
5. Undertake stakeholder mapping, including various water resource management in the catchment area in order to enhance building synergies and to allow lessons to be learnt from past experience.
6. Develop a stakeholder coordination strategy
7. Adapt the WRUA model for better application in pastoral ASAL areas

3.2.4 Output Indicators

1. Institutional capacity needs assessed for the members of MKEWP
2. The initiation and development of a comprehensive institutional capacity development plan for MKEWP members
3. MKEWP Stakeholder coordination strategy developed including linkages to BWRC, WRUA forum, catchment forum and CFAs
4. CIDP and SCMPs harmonised for clearer implementation
5. Sustainable financing models developed and piloted for WRUAs
6. Comprehensive review of WRUA model application in pastoral ASAL areas

3.3 Strategic Priority 2: Improve Water Demand Management and Sustainability

3.3.1 Strategic Context

The future economic, social, and environmental costs of meeting the water demand for socio-economic development and environmental sustainability will depend on the ability of the stakeholders to understand and manage water demands. Water Demand Management (WDM) seeks to encourage better use of existing water supplies through economical and efficient management before further increasing the supply. WDM is a set of interventions and organisational systems intended to increase technical, social, economic, environmental, and institutional efficiencies of the various uses of water. The traditional approach by hydrologists and water resource engineers has been to focus on the supply side and the assessment of available water resources. It is increasingly recognised that supply and demand can only be balanced if water supply engineers address both sides of the balance. Water demand management is a key component of integrated water resource planning, which is in turn the pre-requisite for sustainable water management.

The 4th guiding principle of the 1992 Dublin states that “Water has an economic value in all its competing uses and should be recognised as an economic good.” The Dublin Statement goes on to say that the role of water as an economic and life sustaining good should be reflected in demand management policies, implemented through water conservation, efficient use, recycling and reuse, resource assessment and financial instruments. There is a current realisation and greater appreciation for demand-side management, rather than increasing supply by building new and expensive infrastructure in the basin. WDM has been identified as an alternative or complement to the conventional approach of increasing supply by expanding infrastructure. It thus reduces loss and misuse, optimises water use, adds more value per unit of water mobilised, facilitates major financial and infrastructure savings and helps ease the pressure on water resources. This strategic priority is aimed at improving management of water resources and water demand to cope with crises and shortages and coordinating the introduction of reforms to curb undesirable trends.

The strategic objective is to adopt and streamline Water Demand Management (WDM) strategies in the practice of water resource management for the basin. This involves developing and aligning the policies, technical, economic, and regulatory tools; and institutional capacity through awareness-raising and training for effective WDM.

Summary of Strategic Issues

1. High levels of water leaks and unaccounted for water
2. Limited information on water demand by various users
3. Lack of transparency in water allocation, abstraction and use
4. Increased water-based conflict in the basin
5. Poor management practices of water resources, including non-metering in most households and overuse of water
6. Lack of proper frameworks/approaches for pricing water resources
7. Limited investments in water conservation and efficiency use

3.3.2 Strategic Objectives

1. To reduce water losses
2. To improve the mechanisms for water allocation
3. To increase water use efficiency
4. To improve water use accountability
5. To promote the social, economic and environmental value of water in the basin
6. To enhance investments in water conservation and management measures

3.3.3 5-Year Strategic Actions

1. Coordination of public education and dissemination of information about the need to conserve water and about the best conservation practices from respective water users and sectors
2. Coordinate the review, adoption, and dissemination of water management laws and policies
3. Coordinate system to strengthen water allocation and pricing across all water users
4. Coordinate the development and adoption of water audit and accountability frameworks amongst the various water users
5. Coordinate impact and value assessment of water use in the basin

3.3.4 Output Indicators

1. WDM materials for public and school orientated education campaigns developed and disseminated
2. System developed for financial and technical support for smallholder farmers and community water projects to access water conservation hardware
3. Water use accountability system developed with data from source to point of use for all type of users
4. Capacity development program for sustainable management of community water projects focused on efficient and economic service delivery
5. Comprehensive review of water allocation and pricing systems, across both water resource and water supply sectors

3.4 Strategic Priority 3: Improve Water Security and Governance

3.4.1 Strategic Context

Fragmented policies and uncoordinated governance leads to poor services and inefficient resource use, which are major challenges in the development of water infrastructure in the Basin. Adopting an integrated water resource management approach in designing and managing water infrastructure helps to overcome such problems. The main objectives of integrated management of water resources in the catchment area are to overcome sector-based policy fragmentation and inefficient governance structures and thus achieve a more compact water infrastructure in an ecologically and economically efficient manner.

Water crisis is already a reality, threatening the economic growth and the livelihoods of many within the catchment area. While multiple agencies are currently operating in the basin to address various water sector based development issues, the driving forces are strong: population growth and urbanisation, tourism and industrialisation; globalisation, and climate variability and change. Driven by these challenges and consistent with a worldwide movement towards a more integrated water resource management programme, the basin needs to embark on reforming its approach to management and development of the water sector. A change in thinking and action in water management is slowly taking place. The experience suggests that meeting the challenge of water scarcity requires both a supply management strategy, involving a highly selective development programme and the exploitation of new water supplies (conventional and non-conventional) coupled with a vigorous demand management system involving comprehensive reforms and actions to optimise the use of existing supplies.

This strategic priority works on the assumption that water resources and water supply deficits can be reduced through a combination of institutional, technological and infrastructure solutions that address water security and governance. Sustainable water governance leads to sound management of the environment, conservation, and ecosystem integrity and further reduces upstream-downstream conflicts in water resource management.

Summary of Strategic Issues

1. High level of diminishing dry season river flow;
2. Over-abstraction and illegal abstraction coupled with weak mechanisms for enforcement of water regulations
3. High levels of catchment degradation
4. Inadequate water storage
5. Lack of information on groundwater resources to support sustainable management and utilisation
6. High levels of water pollution and weak mechanisms for controlling water pollution;
7. Unreliable rural water supplies
8. Weak mechanisms for adaptation and mainstreaming climate change issues in development
9. Lack of effective harmonization of CIDP and SCMP for the integrated development of the basin

3.4.2 Strategic Objectives

1. To ensure that the systems and infrastructure for irrigation and domestic water use are developed and managed in an environmentally, socially, and economically sustainable manner
2. To enhance access to affordable financing for systems and infrastructure related to water conservation and efficient use
3. To enhance the integration of water resource provision and the wastewater treatment system in the catchment area
4. Strengthen systems for water resource abstraction, monitoring, and enforcement
5. To promote the sustainable utilisation and conservation of the catchment areas
6. To enhance the protection and sustainable development and use of wetlands
7. To strengthen the adaptation and coping mechanisms for climate change
8. To support the coordination of basin, regional and county drought management systems

3.4.3 5-Year Strategic Actions

1. Coordinate the undertaking of feasibility studies and site identification for water infrastructure development in the catchment
2. Strengthen information on groundwater availability and management to support conjunctive use of ground and surface water resources
3. Support the development and testing of new ways to improve water abstraction monitoring and enforcement across all water user categories
4. Coordinate the adequate management of the ecological and economic functions of wetlands and sustain their viability in the basin
5. Coordinate the development and implementation of innovative financial models that enhance access to affordable financing for water use and conservation measures
6. Develop a sustainable livelihood program that focuses on sustainable utilisation of natural resources to enhance catchment and riparian conservation
7. Coordinate the development of county/basin capacity to adapt to climate change and drought risk management
8. Support the implementation of CIDP and SCMP measures for water and catchment conservation

3.4.4 Output Indicators

1. Dam site identification and feasibility studies for water infrastructure undertaken and disseminated to stakeholders
2. Groundwater potential maps and sustainable aquifer management plan (Ngusishi-Buuri area) developed for strategic aquifers in the catchment area
3. Innovative systems for water resource abstraction monitoring and enforcement developed and tested;
4. Sustainable financing models for water conservation and use developed and tested;
5. Sustainable livelihood program initiated that strengthens the linkages between natural resource management and utilisation within the catchment area.

3.5 Strategic Priority 4: Enhancing Knowledge Management and Communication

3.5.1 Strategic Context

Information is a prerequisite for sustainable basin development, water security, poverty eradication and socioeconomic development. To effectively deliver its goals, MKEWP is committed to improving the availability of information to the people of the basin. Information has for a long time already been regarded as an all-important resource in the planning process and a basic input in development programmes, including water resource development. The role and importance of this resource in future development has grown drastically, so much so, that management guru, Paul Drucker, speaks about a required shift from the command-and-control organisation, the organisation of departments and divisions, to the information-based organisation, the organisation of knowledge specialists.

The growing role of information is emphasised in the new democracy of Kenya, starting with the Bill of Rights of the Constitution 2010, followed by regulation through the Access to Information Act (Act no.31 of 2016). In the water resources field, information underpins future water resources management in Kenya in general, and the basin in particular.

With increasing water stress and water scarcity, information requirements and data collection needs will increase dramatically. The comprehensive resource management required in terms of coordinated information on water resource management in the basin, will have to move well beyond the traditional hydrological monitoring required to assess the quantity, quality and use of various water resources. Resource management must move to 'resource quality'¹ monitoring, including the new field of aquatic ecosystem health, as well as the monitoring of compliance against resource quality and resource remediation objectives. This implies that multiple actors have a role in gathering, analysing and interpreting the information required for effective IWRM, although the public duty of WRA and KMD with regard to climate and water resource information collection is recognised.

This strategic objective recognises that IWRM approaches have a better chance of success where stakeholders are better informed and are able to communicate on issues of concern. This requires the development of tools and products that support the MKEWP partners to share information, to discuss issues and to raise awareness of good water governance.

Summary of Strategic Issues

1. Lack of awareness and appreciation on how MKEWP members are implementing and contributing to sustainable water management in the basin
2. Lack of a culture of information sharing among MKEWP members and stakeholders in the basin
3. Lack of clear information management and communication guidelines on issues related to IWRM in the basin

¹ Water resource quality refers to the characteristics of quantity, timing, quality and pattern of a water body

4. Weak mechanisms for communicating the impact of various water sector interventions and their contribution to water security in the basin
5. Weak communication models for engaging local communities in sustainable water management
6. Lack of a basin-wide monitoring, evaluation, and reporting system on water resource availability, allocation, management and use

3.5.2 Strategic Objectives

1. To build awareness, understanding and support of the IWRM approach in the basin among defined target groups and increase the effectiveness of its implementation as an approach that contributes to the MKEWP vision of Water Security for All and the general aim to eradicate poverty in the basin
2. To promote a culture to manage knowledge, communicate and share information amongst MKEWP members and partners
3. To ensure the harmonisation of the corporate image of MKEWP and its partners

3.5.3 5-Year Strategic Actions

1. Identify, develop and strengthen strategic partnerships for effective knowledge management and communication programmes for the partnership
2. Develop and implement relevant and necessary knowledge management and communication capacity building plans to support integration and harmonisation of information management among MKEWP members
3. Facilitate knowledge and information flows among MKEWP partners
4. Coordinate the development and dissemination of information products by MKEWP partners
5. Develop and implement a monitoring and evaluation system to track progress on the Strategic Plan
6. Ensure timely dissemination and exchange of information on the programme to key audiences, including partners, donors, media, relevant organisations and institutions, governments, etc
7. Undertake corporate branding of MKEWP and its activities
8. Coordinate research activities on water resources management in the basin

3.5.4 Output Indicators

1. MKEWP Information Portal developed and active
2. Communication strategy developed and working in support of MKEWP strategy;
3. Corporate identity and branding strategy developed and used to support MKEWP programming
4. Basin-Wide Water Monitoring and Evaluation System established
5. Dissemination of information through MKEWP partner networks

3.6 Strategic Priority 5: Enhancing MKEWP Capacity for IWRM

3.6.1 Strategic Context

Capacity means the ability of people, organisations and society as a whole to successfully manage their affairs, and 'capacity building' means a process whereby people organisations and society as a whole unleash, strengthen, create, adapt and successfully maintain the management of their affairs over time. Capacity building (development) implies that "people instead of plans or structures are drivers for change and performance". Capacity development is a long term process that includes training, dialogue, networking and advisory services. It requires a flexible approach, adapted and customised to meet organisational and individual needs.

MKEWP, as distinct from its members, is still in its infancy and needs to develop the internal systems and resources to enable it to effectively and efficiently undertake its mandate as described in its Charter. The principle function of MKEWP, as a multi-stakeholder platform, is to coordinate priorities, strategies and investments across different stakeholders and to support the capacity development of MKEWP partners. MKEWP is not a substitute for capacity weaknesses in member organisations but can support its members to address organisational issues such as excessive bureaucracy, lack of financial resources, human resource limitations, technical rather than strategic programming, opaque decision making and conflicting priorities.

The MKEWP Secretariat is an important component in terms of the internal capacity of MKEWP to deliver on its mandate and to support the implementation of this Strategic Plan.

Capacity development, in the context of the MKEWP Secretariat, requires the following core components:

- **Professional knowledge:** Managerial aspects of water, including the financial, strategic and business planning
- **Methodological competence:** Human resources development and organisational performance improvement (i.e. training-the-trainers and coaching)
- **Stakeholder collaboration and cooperation:** Networking between water sector institutions and stakeholders within and outside the basin
- **Training-needs assessment, monitoring, and evaluation:** Feedback loop to address new capacity development requirements
- **Public relations and awareness:** Creating awareness and goodwill among political leaders, water users and the general public in order to promote understanding of pressing issues regarding water management and utilisation.
- **Communities of practice:** Sharing best practices and lessons learned to revise future programs.

Therefore, training is an important component of the development of a qualified and motivated staff in an organisation. The skills of individuals occupying leadership positions at the MKEWP Council and Secretariat are important in the success and sustainability of the Partnership. The leadership of MKEWP requires an understanding of the technical disciplines related to stakeholder cooperation, coordination with water users, the operation and management of water and irrigation systems and should be knowledgeable about economics, ecology, the legal-social aspects of each situation and

analysis. Equally, the leadership must be an influential one, with the ability to resolve the existing problem of coordination.. The leadership needs to enhance the cooperation between key players and convince the MKEWP members and stakeholders of solutions and decisions that need to be taken.

Some of the recommended training programmes that could be considered, though detailed assessment of training needs shall be required, include, but are not limited to, the following areas:

- Leadership and Management of Partnerships
- Conflict Resolution and Negotiation Skills
- Team Building and Group Dynamics
- Principles and Practices of Integrated Water Resource Management
- Strategic Planning and Management
- Communication Skills and Advocacy
- Participatory Community Planning and Development
- Project Management

MKEWP will be short-lived if it cannot develop and implement a financing model that ensures sufficient and relatively smooth financial resources for its core functions. In principle, the core functions should be covered by its members as any dependence on external and time bound funding will undermine the capacity of MKEWP. Options for revenue sources include membership fees, fund raising events, and possibly payment for services. The willingness and ability of members to agree and pay membership fees is partly contingent on goodwill and commitment by members to overcome expected challenges (e.g. bureaucracy) and the ability of MKEWP to demonstrate value for money to its members.

One concern has been whether the unregistered status of MKEWP is a constraint to its development. Consultations for the preparation of this Strategic Plan indicated that while in the long term it may be desirable for the Partnership to have its own legal identity there is no pressing need as long as the Secretariat can, in the short term, provide the legal framework for MKEWP (holding and disbursing funds, recruiting staff, holding assets) and members and external partners are comfortable with this arrangement. Appropriate legal models can be explored to identify the most suitable arrangement for the long term.

3.6.2 Strategic Objectives

1. Strengthen the capacity and functioning of the MKEWP Council and Secretariat to ensure sustainable management of and effective service delivery by the organisation
2. To establish and comply with systems of governance within MKEWP
3. Establish systems to expand MKEWP membership through targeted consultations and information products
4. Enhance the value of MKEWP to its members through effective coordination, communication, advocacy and consultation systems
5. Develop and implement monitoring and evaluation systems within MKEWP to track its effectiveness
6. Develop systems for sustainable financing of MKEWP core activities
7. Establish a plan for legal registration of MKEWP

3.6.3 5-Year Strategic Activities

1. Develop and implement a system of monitoring and evaluation to track MKEWP governance, efficiency and effectiveness
2. Based on stakeholder mapping, develop and implement a targeted membership recruitment approach with supporting material;
3. Develop and establish sustainable financing models for the core functions of MKEWP
4. Undertake recruitment/deployment of qualified staff in the key positions at the Secretariat
5. Undertake an assessment of the training needs of MKEWP staff and council members
6. Conduct training targeting MKEWP staff and council members
7. Review legal registration options appropriate to MKEWP

3.6.4 5-Year Outputs

1. Code of Conduct for MKEWP partners established and implemented;
2. M&E system for MKEWP established and implemented;
3. Sustainable financing models for MKEWP core costs established;
4. Capacity development needs of MKEWP secretariat identified and documented;
5. Key positions at the MKEWP Secretariat are filled with qualified staff;
6. Report on legal registration options completed and shared with Council members.

4.0 IMPLEMENTATION OF STRATEGIC PLAN

4.1 Context of the Strategic Plan Implementation

The MKEWP is a multi-stakeholder partnership in which the members themselves have different priorities, strengths, weaknesses, relationships and resources. MKEWP therefore needs to have a clear and robust framework for the implementation of the Strategic Plan. This implementation framework requires:

- Operating policies that enhance transparency and the accountability of MKEWP towards its members
- Clear understanding of the roles and responsibilities
- Leadership (strategic, organizational and political)
- Organisational capacity
- Legal status;
- Resources
- Communication to facilitate information sharing and dialogue between members and MKEWP
- Mechanisms for dealing with specific issues
- Monitoring and evaluation of MKEWP's performance in light of the Strategic Plan

4.2 Organisational Structure

The MKEWP Charter and TOR sets out the organisational structure of MKEWP as illustrated in

Figure 6 with the minor addition of proposed sub-committees to support the efficient operation of the MKEWP. The role and responsibility of the key parts of the organisational structure are outlined below.

4.2.1 Members and the Annual General Meeting

The Annual General Meeting (AGM) is made up of the members who are identified as belonging to different membership categories. The importance of the categories is that members within a category will appoint their representative to the MKEWP Council. The AGM is expected to be held once per year but special general meetings can be held as and when the need arises.

The members are expected to undertake, participate in and benefit from MKEWP events and projects, to benefit from and contribute towards the exchange of information, and to channel issues of concern towards the Council. The members are also expected to appoint representatives to the Council.

MKEWP is principally a coordination platform so the members are expected to undertake activities, as per their mandates and own organisational capacities, that are part of the MKEWP Strategic Plan.

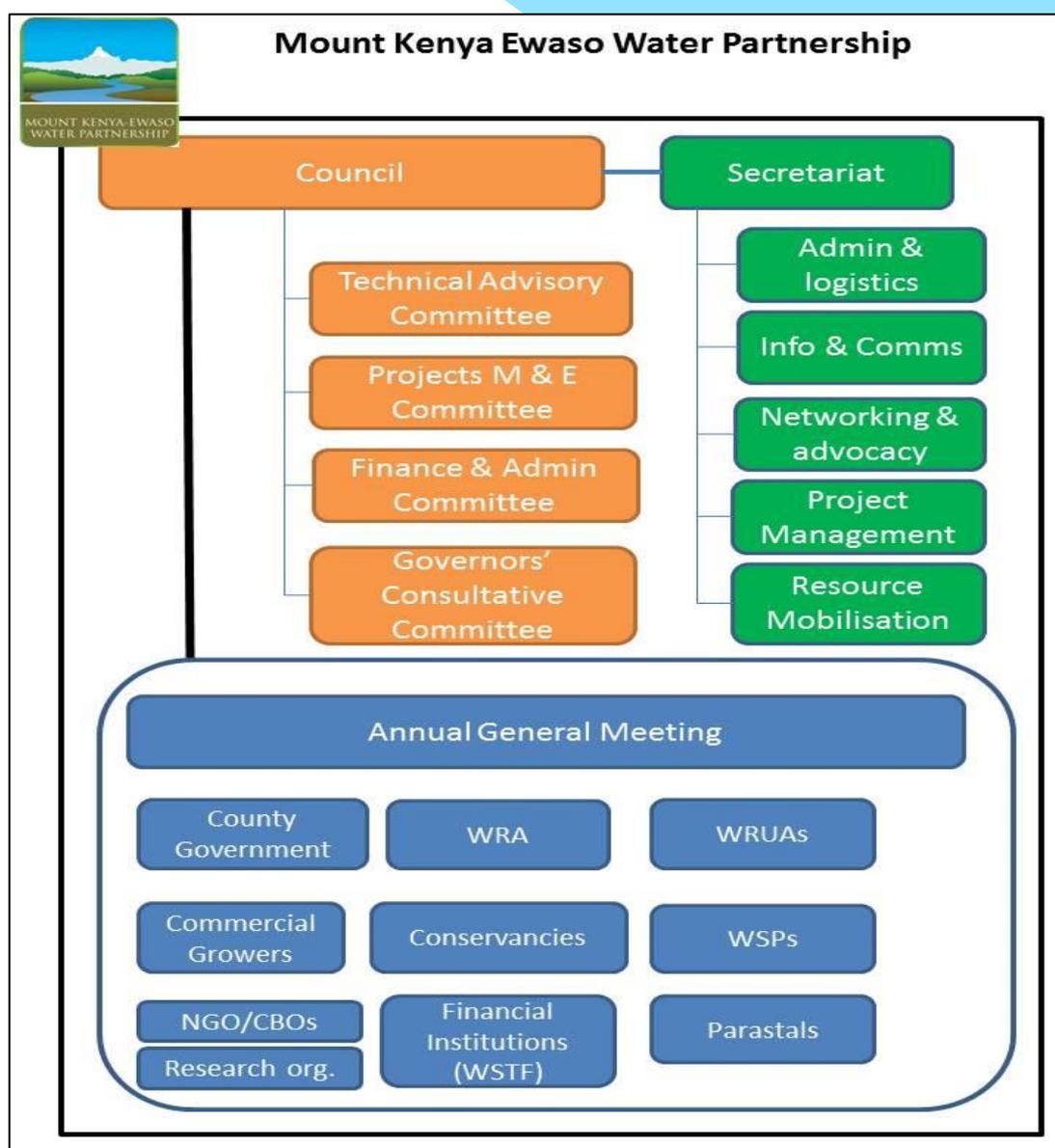


Figure 6: Proposed Organisation Structure for MKEWP

4.2.2 The Council

The Council consists of representatives from the different membership categories and is expected to meet tri-annually or as and when needed.

The role and functions of the Council are:

1. Govern the actions of the Partnership
2. Approve and support Partnership communication and sustainability strategies
3. Prioritise water resource issues for attention, advocacy and action
4. Mobilise resources to act on these issues of priority
5. Approve proposals to implement projects and activities
6. Approve MKEWP and project budgets and work plans
7. Task partners to report on issues and to specify scope, scale, duration, and nature of the feedback
8. Determine the parameters of which water resource information and actions need to be shared regularly and with whom

9. Constitute specific committees or task forces to investigate particular issues or to supervise particular projects
10. Supervise the work of the Secretariat

The Council is expected to elect a Chairman and Vice-Chairman to provide leadership of Council meetings. It is anticipated that the Chairman and Vice-Chairman will be drawn from different membership categories.

4.2.3 Committees and Task-Forces

The Council has the mandate to establish committees and task forces to enhance the efficiency and quality of the Council's decisions. It is anticipated that the Council will require a number of standing committees to handle the affairs of the Council and various task forces to deal with specific issues as and when these arise.

Figure 6 illustrates the organisational structure and proposes four standing committees, namely:

1. **Technical Advisory Committee.** This committee may be tasked to deal with any specific issues that require research or investigation in order to enable MKEWP to take a position on a particular issue or to enhance information for the MKEWP members. This committee could meet on an "as-needed" basis.
2. **Projects Management Committee.** It is anticipated that MKEWP will develop proposals, mobilise resources and implement projects through its partners or through contracted parties. This committee would therefore provide coordination and oversight on project implementation. This committee would be expected to meet quarterly.
3. **Finance and Administration.** This committee would be expected to review work plans, budgets and financial statements developed by the Secretariat for subsequent Council approval. This committee would also support resource mobilisation initiatives. This committee would be expected to meet once every six months.
4. **Governors' Consultative Committee.** This committee would be expected to handle cross-county issues that affect county governments, e.g. SCMP/CIDP harmonisation, conflict management. This committee could meet on an "as-needed" basis.

MKEWP needs to maintain a lean bureaucracy and many council and committee meetings may strain members' commitment and participation in MKEWP. It is therefore proposed that the establishment of the committees can be staggered in line with growing activity level within MKEWP. In addition, MKEWP should make a provision to reimburse members for reasonable costs incurred in getting to council and committee meetings.

4.2.4 The Secretariat

The role and functions of the Secretariat are:

1. To serve as an information clearing house, and assist the Membership with access to information and resources that help inform the goal and purpose of the Partnership
2. Provide networking services between members and between other water resource management and conservation networks

3. Assist the Council in fundraising for specific activities and projects
4. Handle donor relations
5. Provide monitoring, auditing and evaluation services for Partnership projects
6. Advocate and lobby on behalf of the Membership
7. Coordinate with other partnerships and programmes active in the Upper Ewaso Ng'iro North Basin landscape;
8. Host Council meetings
 - a. Issue notices and agenda for meetings with at least 2 weeks' notice
 - b. Issues meeting minutes within 1 week of their occurrence
 - c. Prepare and circulate water resource partnership reports
 - d. Handle finances and produce financial report to the Council
9. Report on activity and project implementation as required
10. Hold assets on behalf of the partnership unless otherwise stated by the Council
11. Maintain a membership database to assist the collaboration function of the partnership
12. Perform any other function that may be required by the Council and within the bounds of the Secretariat
13. To foster a successful working partnership at every level

The Partnership has initially out-sourced the task of Secretariat to the Laikipia Wildlife Forum (LWF). LWF was selected because of its history, credibility and networking capacity in the Upper Ewaso Ng'iro Basin for almost 25 years. The engagement of LWF was for an initial period of three years officially running from October 2016 to October 2019.

The MKEWP Secretariat largely acts as the Partnership implementation arm, carrying out the day to day activities of the Partnership and as such, plays a pivotal role in contributing towards the success of MKEWP. An adequately resourced Secretariat in terms of human capacity, financial resources, internal operating policies and systems, facilities and equipment, and organisational culture and skills is crucial to the success of any institution.

MKEWP will therefore need to identify options regarding the Secretariat and, if deemed appropriate, to plan for a transition in a manner that ensure that its services and activities are not disrupted. This decision regarding Secretariat options will be guided by the following factors:

- The views of members
- Operational costs of the Secretariat
- Best option for ensuring continuity of services
- Legal and financial implication versus the viability for and capability of MKEWP

During the stakeholder consultations two possible options were discussed, namely-

1. MKEWP to have its own independent Secretariat
2. MKEWP to extend LWF engagement until MKEWP had gained sufficient institutional stability

As MKEWP is still in its infancy and a transition of Secretariat would be considered disruptive to operations at this early stage, it was therefore proposed that a study be undertaken in Year 4 to establish the legal registration options with a view to determining the best course of action at the end of the Year 5. In the meantime, the recommendation is to retain LWF as the Secretariat for the 5 year period of the Strategic Plan, subject to satisfactory performance.

4.3 Legal Registration

MKEWP has not registered as a legal entity but has adopted an approach whereby the Secretariat, being a legal entity, can represent the MKEWP on contractual matters. MKEWP members and stakeholders indicated that this arrangement can prevail as long as the legal registration status does not become an impediment to the MKEWP achieving its objectives. There are a number of different models that may be appropriate for the legal registration of the MKEWP. The challenge is finding a model in which all the stakeholders, including the national government agencies and county governments, can be members on an equal basis with other private or civil society organisations.

4.4 Staffing and Logistics

MKEWP draws its organisation capacity from the Secretariat who is expected to provide the capacity to handle the functions expected of MKEWP.

Additional capacity can be obtained on an ad-hoc arrangement to handle workload peaks or particular specialisations.

In terms of logistics, the Secretariat will require:

1. Office space sufficient for 5 - 6 staff
2. Meeting room
3. ICT equipment sufficient for equip all staff to function effectively
4. Transport (2No. 4WD, 1No. motorbike)

Table 4 : MKEWP Staffing Requirements

Function	Staff	Time Allocation	Responsibilities	Skill set required
Administration	Director	25%	Overall responsibility for Secretariat Coordination of staff & logistics Ensure overall compliance with contracts, grants, donors, Kenyan law Strategic engagements especially with political leadership Resource mobilisation and partner liaison	Office management, administration and coordination Good understanding of IWRM approach Strategic analysis Linkages to external donors
	Accountant	50%	Maintaining books of accounts Financial statements and reports	Financial management and accounting
Networking and Advocacy	MKEWP Coordinator	100%	Coordinate MKEWP meetings Coordinate partner activities; Partner relations	Application of participatory methods Workshop facilitation Report & proposal writing Institutional linkages & systems Resource mobilisation
Technical Support	Water resource specialist	100%	Project development and implementation Technical support to partners Resource mobilisation	Water resource management Catchment conservation Water supply management Irrigation technologies
Information and Communications.	ICT Officer	100%	MKEWP information materials Manage information portal Linkages with media & public education programs Linkages with MKEWP partner ICT systems	Preparation of media materials Report writing Media linkages Website management Social media management
Resource Mobilisation	Finance & Business Specialist	100%	Support to partners in resource mobilisation Support development of business plans Development of sustainable financing models Linkages to external donors	Proposal development Business management Financing models Linkages with external funding agencies
Project Supervision	M&E Officer	50%	Monitor MKEWP projects & performance Evaluation of approaches Reporting	Application of IWRM approach Project cycle management Report writing Participatory methodologies

4.5 Budget

The budget is broken down into costs associated with MKEWP normal operations and those described as project costs that are part of the implementation of the Strategic Plan.

4.5.1 MKEWP Operations

The aim is that the core costs should be affordable within the proposed financing framework for the core costs. Effectively this means that core costs should be kept to a minimum so that MKEWP has a reasonable likelihood of achieving sustainable financing to cover normal operations. Without this MKEWP will struggle to be effective.

The core operations budget for MKEWP (\$199,900 in Year 1) corresponds to the minimum inputs and activities required to keep MKEWP operational and fulfilling its basic mandate. The budget is dominated by overheads (83%), which comprise personnel (53%), administration or office-related costs (16%) and logistics (15%). The budget for the core MKEWP activities is presented in Appendix F.

A basic cap-ex budget for office equipment, facilities and transport is also presented in Appendix F.

4.5.2 Project Costs

The project costs associated with the implementation of the Strategic Plan are those costs associated with a particular output which are not covered by the normal MKEWP operations. These costs may include additional staffing, specialists, materials, administration and logistics required to deliver a particular output.

It should be noted that some of these costs may be covered under budgets of existing MKEWP partner institutions who are expected to implement these components within their own work plans. To emphasise this point, many of the outputs identified in the MKEWP Strategic Plan may be achieved by respective MKEWP partners.

The 5 year budget for the project costs is USD 5,160,000 with a breakdown by strategic objective and activity presented in Appendix F.

4.6 Financing

MKEWP members are drawn from the public, private and civil society sectors, all who have different bureaucracy, interests and financial strength. MKEWP needs to work within the confines of these sectors while leveraging the opportunities presented by the diverse sectors.

4.6.1 MKEWP Operations

The financing for the MKEWP core activities can be achieved through a number of different ways, as described in the MKEWP Financial Sustainability Study (2017). These options are briefly summarised below:

1. Membership fees

MKEWP members can define a membership fee structure. Factors to consider include:

- a. Need for and recognition of MKEWP support and coordination function
- b. Impact on the water resources
- c. Ability to pay

It should be noted that some MKEWP members (particularly public institutions) may struggle because of bureaucratic reasons to pay a membership fee. These members should be able to contribute in kind (e.g. office, meeting or venue space, staff time, event function costs). The option of in-kind support enables certain members to contribute to MKEWP thus reinforcing the MKEWP approach that collective and coordinated efforts can deliver results.

2. Fund Raising Events

Fund raising events that attract participants to the Mount Kenya-Ewaso area to participate in a recreational or socially beneficial activity can be organised in a way that the surplus revenue contributes to the MKEWP core costs. This approach has been used successfully by various conservancies (e.g. Lewa) and NGOs (e.g. Mount Kenya Trust) in the area. Caution is required to ensure that MKEWP does not undermine these existing activities for its members.

3. Voluntary Water Use Levies

The concept is that the value of the water resources in the UENNCA area for commercial enterprises is higher than currently reflected in the 75 cents per cubic meter charged by WRA for commercial water use. The management of the resource requires substantial resources as the water scarcity and competition between different users requires an elevated level of management effort. Additionally, the value and viability of land and businesses is closely associated with the availability of a water resource. Finally, the utilisation of the catchment area requires management and investments to ensure the long term ecosystem services. Consequently, water users who are committed to sustainable water resource utilisation can be expected to invest in the management of the resource, regardless of whether they are required by law. While the commercial growers have invested in their own water security, the broader state of water resource use and management can have a beneficial or negative impact on the business. Businesses therefore have a vested interest in mechanisms that deliver effective water resource management. However, like any business, MKEWP must deliver value for money if this model is to attract contributors. This argument applies equally for domestic water service providers.

4. Service Charges

MKEWP can provide administrative, logistical and technical services for its members or to external partners. MKEWP is not providing consultancy services but rather offering its capacity to help achieve certain strategic objectives. An external donor or member who requests MKEWP support should be expected to cover the costs associated with that support. For example, if a WRUA lacks sufficient financial management capacity to handle funds, then MKEWP could provide these services at a fee to help cover its core costs. An external partner implementing a project with MKEWP support should anticipate covering a portion of the core costs.

5. Endowment Fund

MKEWP needs financial stability for the long term. MKEWP could work towards building up an endowment fund whose interest earnings are sufficient to support or contribute towards MKEWP operational costs. The endowment fund can be developed through specific fund raising initiatives and investing surpluses. A clear policy on the management of the fund would be required. This option should be explored over the 5 year period of the Strategic Plan.

6. External Grants

External donors can be asked to contribute to MKEWP core costs but MKEWP will need to show how their core activities align with the objectives of the external donor. External donor support can be lumpy and time bound and so should essentially be treated as a short term measure as MKEWP develops its own sources of sustainable financing.

The Strategic Priority No. 5 that relates to MKEWP capacity anticipates that MKEWP will, through consultations with members, institute a system of membership fees as it explores the practicality of implementing one or more of the options proposed. Indicative revenues are presented in Appendix F.

4.6.2 Project Costs

Project costs should be covered by separate and sufficient funds to ensure that projects can be fully implemented. The ability of MKEWP to attract project funding will be dependent on a number of factors, including:

- Project objectives aligned with the MKEWP strategic objectives
- Alignment of the project objectives with those of MKEWP partners and external funding agencies which may be different. For example, external funding agencies may be willing to finance activities that address poverty alleviation, environmental conservation, climate change mitigation and adaptation, whereas MKEWP partners may have specific interests related to certain communities, political goals, mitigation of business or reputational risks, or institutional performance targets
- Ability to prepare persuasive project proposals
- Capacity, efficiency, effectiveness and reputation of MKEWP

External donors typically require a component of co-financing. In practice this means that project budgets cannot be met without an element of local contribution, which may be in cash and/or in-kind, depending on the external donor. MKEWP can leverage its partner network for co-financing contributions. However co-financing commitments by MKEWP partners must be honoured otherwise projects cannot be completed as planned and MKEWP's reputation will suffer.

A number of external donors utilise a payment by results or output based payment arrangement. In this case the external donor is willing to contribute to a project once the output has been achieved. The significant implication of this arrangement is that the project must be capitalised by local resources. This arrangement reduces the risk to the

external donor and requires firm commitments by local partners to achieve the outputs. To engage in this type of arrangement, MKEWP must therefore secure local funding from

within its partner network or from commercial financing sources (e.g. banks). Local partners such as the county governments and the commercial sector can play a significant role in meeting these up-front costs, knowing that the external donor will eventually offset a portion of the investments. This means that the local partner can leverage their contribution in a way that increases the overall budget available.

The emphasis within the Sustainable Development Goals is on sustainable access to water and sanitation, sustainable ecosystems, etc. In this regard, external donors are also redefining the desired outputs towards sustainable service delivery models which focus more on the management and operation component rather than the infrastructure of a given system.

MKEWP will therefore need to consider innovative financing models to attract support from MKEWP partners and external donors in order to implement the Strategic Plan.

An indicative budget is presented in Appendix F.

4.7 Work Plan

An indicative work plan is presented in Appendix G. The emphasis in the first 18 months is on establishing the MKEWP as a coordinating platform while the remaining period focuses on developing and testing particular approaches.

5 MONITORING, EVALUATION AND LEARNING

5.1 Objectives of Monitoring and Evaluation

To effectively monitor the implementation of the MKEWP programmes, projects and activities within the strategic plan period, participatory monitoring and evaluation approaches will be applied. These approaches include: provision of a feedback system on progress to members and stakeholders, awareness of impacts, transparency and accountability. An M&E framework will have the main purpose of focusing on those responsible for implementing various projects and programmes on the anticipated outcomes and or results.

5.2 Monitoring Framework at the Council Level

The implementation of the Strategic Plan will be closely monitored to ensure its accomplishment. The primary responsibility to track progress lies with the Council. This responsibility can be delegated to the Project M&E Committee for detailed analysis of progress. Systems to enable the Council to track include reports (Progress, Financial statements), meetings, and inspection visits.

It is anticipated that the Quarterly review meetings will be held between the Secretariat and the Council. During these meetings, the Council will receive and review progress reports from the Programme Coordinator indicating overall progress made on key strategic objectives. The nature and scope of reporting will include:

- i. Progress made against Plan
- ii. Causes of deviation from Plan if any
- iii. Areas of difficulties and alternative solutions to problems that may adversely affect implementation
- iv. Corrective measures

5.3 Challenges and Assumptions

The management of MKEWP recognises the fact that there are several risks to the implementation of this Strategic Plan, including the timely availability of resources and competent staff, participation and ownership by members, and stakeholders. All these must be considered and measures put in place to mitigate them. The following are some of the risks to be considered:

- (i) **Collaboration and Goodwill:** Collaboration and goodwill is necessary for the implementation of this Strategic Plan. If collaboration and goodwill, especially from the Governors, Council members, National Government agencies, donors, partners and staff is lacking, there remains the risk of failure in implementing the plan. For instance, it means that there will be continuous conflict, low level participation and erosion in the effectiveness of MKEWP.

- (ii) **Availability of resources:** Resources are essential for implementation of the Strategic Plan. Inadequate human, financial and other resources pose risks to the implementation of the planned activities. For instance, shortage and/or a high staff turnover in the MKEWP Secretariat and in membership organisations, especially the top management level, may result in disruptions or failure of the implementation of the coordinated strategic plan and the overall strategic direction of MKEWP.
- (iii) **Information flow:** The absence of an effective and well-embraced Communication Strategy may result in poor information flow and thereby delay decision making and result in apathy among members and partners. This could cause a delay in the implementation of the Strategic Plan and threaten the sustainability of the Partnership.
- (iv) **Ownership:** The lack of ownership by the stakeholders, especially MKEWP members and staff may lead to failure in the implementation of the Strategic Plan.
- (v) **Resistance to change:** Usually, staff in any organisation resist change because of 'fear of the unknown' or due to the comfort zones associated with an existing status quo. Resistance to change may itself result in failure or delay in the implementation of the Strategic Plan, given that IWRM principles demand a paradigm shift in the way water resources are managed and how institutions should be structured and strategically led.

5.4 Indicators

Indicators have been proposed for each of the strategic objectives. Appendix E sets out the logical framework matrix that details the indicators and means of verification.

5.4 Conclusion

The essence of this Strategic Plan is to enhance MKEWP's capacity for strategic management to improve service delivery and effectively manage change through committed leadership and management at all levels and collaboration with all other key members and stakeholders. In this regard, the formulation of the Strategic Plan will invigorate the application of the IWRM principles, members' participation, institutional building and accountability. The framework of governance and institutional development are expected to enhance service delivery over and above members' interest in the MKEWP affairs.

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APPENDIX A: LIST OF STAKEHOLDERS INVOLVED IN THE STRATEGIC PLANNING PROCESS

List of Stakeholder consulted in the MKEWP Strategic Planning Process

Stakeholder	Persons Consulted	Date, Time & Venue
County Government		
Laikipia	Eng. J. M Maina - Director Water Services	Monday 11 th September 2017 9.00 am Nanyuki CG Offices
Meru	George Kobia - Director Environment & Natural Resources	Wednesday 27 th September 2017 8.30 am Meru County Water Offices
Nyeri	Eng. Esther Mbugua - Director Environment & Natural Resources	Thursday 28 th September 2017 9.00 am Nyeri CG Offices
Water Resources Authority		
ENNCA Regional Office	Incoming Regional Manager Eng. Karanja Munyua - Outgoing Ag. Regional Manager	Monday 11 th September 2017 WRA Regional Office, Nanyuki
HQ	Eng. Boniface Mwaniki - Technical Coordination Manager (TCM) Elizabeth Diego - Deputy TCM, Community Development	Friday 13 th October 2017 11.00 am WRA HQ, NHIF Building
Water Service Provider		
NAWASCO	Eng. Kennedy Gitonga - Director Margaret Kinyanjui - Technical Manager	Monday 11 th September 2017 11.00 am NAWASCO Offices, Nanyuki
Community Water Projects		
Kabun'ga A Treasure Kabendera Water Project Nturukuma Water Project Huku Water Project Jamii Water Project	Naomi Makena Charles Kiama Stanley K Mbobua Sammy J. Gichobi John B. Mwangi	Wednesday 13 th September 2017 10.30 am Rural Focus Ltd. Office, Nanyuki
WRUAs		
Ngusishi WRUA Nanyuki WRUA Narumoru WRUA Liiki WRUA	Muruthi Muthuri Robert Nyail Julius Mwaniki James M. Ngatia	Tuesday 12 th September 2017 10.30 am WRA Regional Office, Nanyuki
Stakeholder	Persons Consulted	Date, Time & Venue
MKEWP Secretariat		
	James Mwangi Water Specialist	Monday 11 th September 2017 4.00 pm LWF Offices, Nanyuki
	Stanley Kirimi Coordinator	Wednesday 27 th September 2017 4.30 pm LWF Offices, Nanyuki

Private Sector		
Tambuzi Bondet	Kelvin Peterson - Farm Manager	Tuesday 12 th September 2017 2.30 pm Nanyuki Sports Club
Conservancies		
Ol Pejeta	Moses Muthoki – Head Community Development Programs	Wednesday 27 th September 2017 11.00 am Olpejeta
Parastatals		
NDMA	Mustafa Parkolwa- CDC Laikipia County James Kariuki – CDRO	Tuesday 12 th September 2017 4.00 pm NDMA Offices, Nanyuki
KFS	Margaret Mwangi KFS Forestor	28 th September 2017 3.00 pm NEMA offices, Nanyuki
KWS	Simon Gitau Mount Kenya Region	29 th September 2017 8.00 am Nanyuki Airstrip
Research Institutions		
CETRAD	Emma Odera	Wednesday 27 th September 2017 3.00 pm CETRAD Offices, Nanyuki
NGOs		
Mt. Kenya Trust	Susie Weeks	Tuesday 12 th September 2017 9.00 am NAREDA Offices, Nanyuki
CFAs		
Mt. Kenya Gathiuru CFA	Moses Githiria – Chairman Sgt. Elija – KFS Security	Friday 29 th September 2017 10.00 am Gathiuru Forest Station
Stakeholder	Persons Consulted	Date, Time & Venue
Donors		
WSTF	Priscilla – Manager Rural Programs Isika – M & E	Tuesday 3 rd October 2017 9.00 am WSTF HQ, CIC Plaza
2030WRG	Joy Busolo – Partneship Operations Manager	Friday 13 th October 2017 9.00 am Rural Focus Ltd, Nairobi
Sidian Bank	Zakayo Ngetich	19 th September 2017 9.00 am Sidian HQ, Wood Avenue
World Bank	Xiaokai Li – Lead Water Resource Specialist	Tuesday 7 th November 2017 2.30 pm IFC Office, Delta Center
Similar Organizations		
Imarisha Naivasha	Kamau Mbogo – CEO	21 st August 2017
Nature Conservancy	Jane Kioko	31 st August 2017
	Fred Kihara	19 th September 2017 7.00 am Rural Focus Ltd. Office, Nairobi

APPENDIX B

POLICY AND LEGISLATIVE FRAMEWORK

A. Water Policy Session Paper No. 1 1999

The Sessional Paper No. 1 1999 captured the key features of the Dublin principles into the Kenyan policy on water resource management namely:

- Separation of functions in which water resource management and water and sanitation services are separated and handled by independent institutions
- Stakeholder participation is a critical ingredient to any planning and development process
- Environmental conservation was critical to sustain ecosystem services from our catchments
- The economic value of water would be realised through the application of socially sensitive commercial approaches to water service provision

The sessional paper was followed by the Water Act 2002 which redefined the institutional landscape in the water sector in line with the Policy of 1999.

B. The Constitution of Kenya 2010

The Constitution of Kenya 2010 has placed certain key requirements to be met, as regards water resource management, by the national and county governments. In particular, Article 35 confers to every person the right to: access information (Water Resources Management Information) held by the State and the state shall publish and publicise this information as it affects the Nation. Article 42 confers to every person the right to a clean and healthy environment. Clean and safe water is central to this environment; Article 43(d) confers to every person the right to clean and safe water in adequate quantities. The management of water resources in this country must therefore be geared towards achieving these constitutional requirements.

The COK [Section 62. (1) (g) and (i)] classifies among other issues that government forests, water catchment areas, specially protected areas and all rivers, lakes and other water bodies as defined by an Act of Parliament as public land, vest in and are held in trust for the people of Kenya by the national government [Section 62 (3)].

COK (Fourth Schedule: Part 2) specifically assigns among others the following functions and powers to the county governments:

- County public works and services, including storm water management systems in built-up areas and water and sanitation services

- Implementation of specific national government policies on natural resources and environmental conservation, including soil and water conservation; and forestry
- Ensuring and coordinating the participation of communities in governance at the local level and assisting communities to develop the administrative capacity for the effective exercise of the functions and powers and participation in governance at the local level.

COK [Section 189 (1) (c)] provides that the National and County Governments shall liaise for the purpose of exchanging information, coordinating policies and administration and enhancing capacity. Subsection (2) further provides for National and County Government and County to County co-operation in the performance of functions and exercise of powers and, for that purpose, the setting up joint committees and joint authorities.

In line with the aforesaid provision, the National Assembly has enacted legislation including the Inter-Governmental Relations Act no. 2 of 2012, to give effect to the spirit of consultation and cooperation. The Act sets out the principles of intergovernmental relations, which apply to the national and county governments. It spells out the structures of inter-governmental relations while setting mechanisms for dispute resolution. The intergovernmental relation structures established by the Act include:

- a) National and County Government Coordinating Summit (sec 7)
- b) Intergovernmental relations Technical Committee (sec 11)
- c) Council of County Governors

Some of the functions of the Council of County Governors include:

- Enable consultation between counties
- Resolve disputes
- Consider matters of common interest

The Council of Governors has established various technical committees, one of which deals with water and the environment. However, there is no specific provision in COK (or the Water Act 2016) that requires two or more adjacent counties to form an inter-county structure to handle cross-county issues on water resource management and water service provision. Essentially the legislation provides an enabling framework but does not require the formation of a cross-county coordination forum. MKEWP can provide an appropriate platform for cross cross-county coordination and engagement on water resource management issues.

C. The Water Act 2016

The passage of Kenya's 2010 Constitution has had a wide set of implications for the water sector. Primarily, the Constitution acknowledges access to clean and safe water as a basic human right and assigns the responsibility for water supply and sanitation service provision to 47 newly established counties. The purpose of the 2016 Water Act is to align the water sector with the Constitution's primary objective of devolution. The Act recognizes that water related functions are a shared responsibility between the national government and the county government. It also gives priority to use of abstracted water

for domestic purposes over irrigation and other uses. Other key provisions in the Constitution that touch upon water include: affirmative action programs to ensure water for marginalised groups; the responsibility of the national government for management of the use of international waters and water resources and definition of national versus county public works. Hence, the Act redefined roles and responsibilities for the management, development and regulation of water resources and water services in the country.

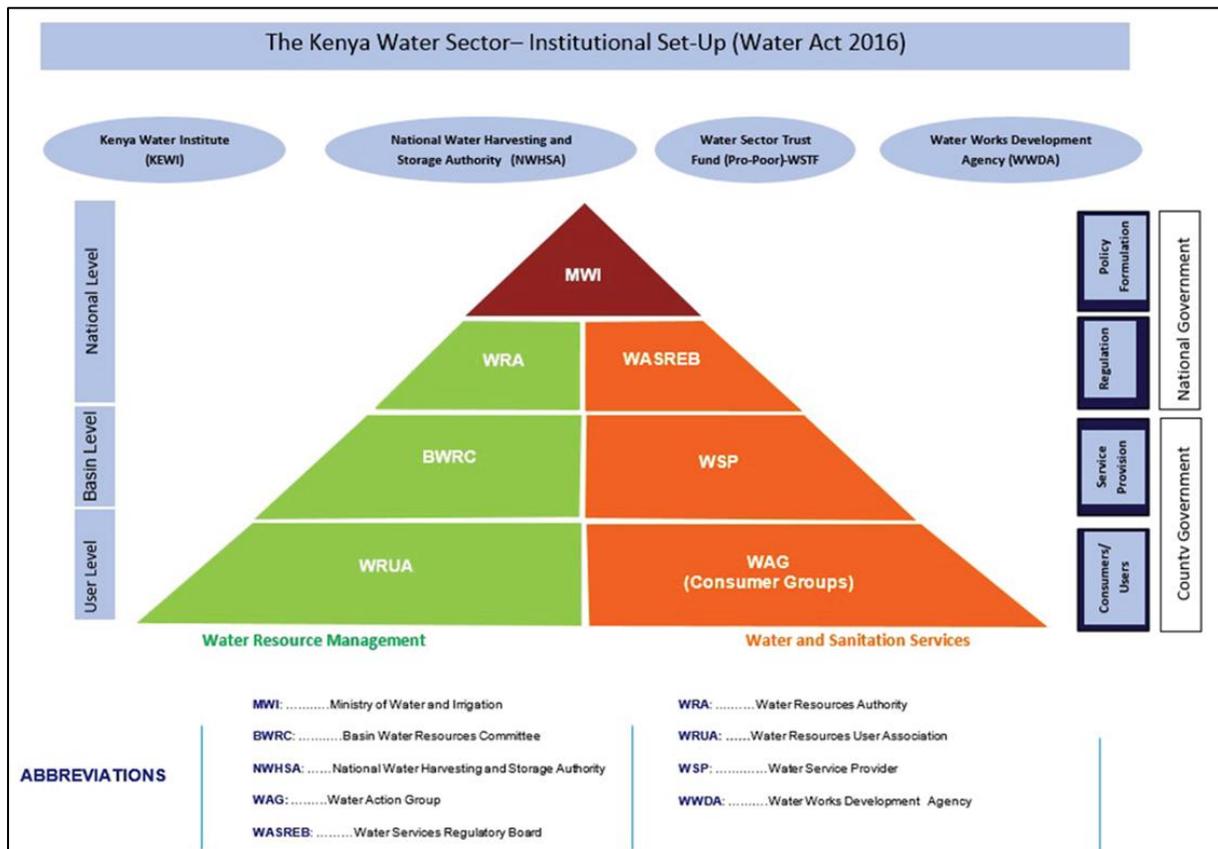


Figure 7: Water Sector Institutions as set out in the Water Act 2016

Key features of the Water Act 2016 include:

1. Water resources are a national resource vested in and held by the national government in trust for the people of Kenya (Section 5.) and is to be regulated by a national body (Water Resources Authority (WRA)) (Section 6.);
2. Water resources will be managed on the basis of hydrological catchment/basins (Section 24 to 29);
3. WRA will have the following functions:
 - 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 as well as enforce the regulations
 - Issue water permits for water abstraction, water use and recharge, enforce the conditions of those permits
 - determine and set permit and water use fees and collect water permit fees and water use charges

- provide information and advice for formulation of policy on national water resource management, water storage and flood control strategies
- 4. Each county government whose area falls within a particular basin will have membership on that Basin's Water Resource Committees (BWRC) with responsibilities to advise WRA on the management of the water resources within a basin
- 5. The BWRC will be responsible for formulating a Basin Area Water Resources Management Strategy for each basin area. The Strategy will among others include systems and guidelines for stakeholder participation in water resource management and a strategy to finance water resource management within the basin area
- 6. WRA has a mandate to define and collect water use charges but nothing in the legislation states that this revenue should be spent on catchment conservation activities
- 7. WRA is obliged to facilitate basin and catchment level structures (e.g. BWRC and WRUAs) for better water resources management
- 8. Other than the basin level committees, there is no institutional structure specified in the Water Act 2016 that brings two neighbouring counties together to collaborate on water services or water resource issues. The relevant legislation for this type of collaboration or collective initiative is Section 189 in the COK
- 9. Water Resource Users Associations (WRUAs) have a role in the local management of the water resources and water use conflicts (Section 29 (2))
- 10. Section 40 (4) requires that a water permit is subjected to public consultation and where applicable to Environmental Impact Assessment in accordance with EMCA 2015
- 11. Sections 22 and 23 give the WRA authority to declare by way of order published in the Gazette an area to be a Protected Catchment or a Groundwater Conservation Area and to impose restrictions on land and water use for purposes of conserving the water resources
- 12. Section 29 (4) allows a BWRC to engage contractually with a WRUA. Section 26(6) stipulates that WRA will provide the logistic and administrative support to the BWRC
- 13. The Water Harvesting and Storage Authority has the function to develop and manage large scale state infrastructure
- 14. The Water Works Development Agencies have the function to develop state financed water service and sanitation infrastructure

A notable change between the Water Act 2002 and that of 2016 is the change in the functions of WRMA, now WRA, with respect to catchment management. Whilst the Water Act 2002 gave WRMA the function to 'conserve water catchments', the Water Act 2016 does not give WRA this mandate as this function now resides with the county governments. The caveat to this would be if WRA, in delivering on its mandate, defines regulations that may impose requirements on how catchment management is executed by the county governments.

The 2016 Water Act is silent on any specific conditions that would define the relationship between a WRUA and its respective county governments. In addition, the Act is silent on

any formal arrangements between one county and another in relation to catchment conservation. There are therefore no legislated institutional structures to:

- Bring two or more counties together for collaboration on water issues except as may arise from the Council of Governors or the BWRC
- Integrate the WRUAs into county administrative structures

Thus, besides providing a platform for cross-county engagement on water resource management MKEWP can also provide linkage to the BWRC and furthermore it is well placed to advance the agenda of building the WRUA – County Government and the WRA-County Government relationships, since WRUAs, County Government and Water Resource Authority are all part of its membership.

In order to distinguish the roles and responsibilities of national and county level structures with respect to water resource management it is helpful to unpack the functions that fall under the term ‘water resource management’. WRM is a broad term encompassing a variety of different functions from regulations, water related investments, catchment management and water resource monitoring and planning. Figure 8 provides an illustration of the distinction between the three board areas, namely regulatory, management and cross cutting functions. The Water Act 2016 provides a more specific regulatory role to the Water Resources Authority (WRA) with cross-cutting functions of water resource planning and monitoring. The Constitution mandates the Counties with functions in environmental conservation and development planning which can also be considered as part of water resource management. This complicated institutional framework reinforces the need within the UENNCA for a strong multi-stakeholder platform such as MKEWP to enhance coordination and cooperation for more effective service delivery.

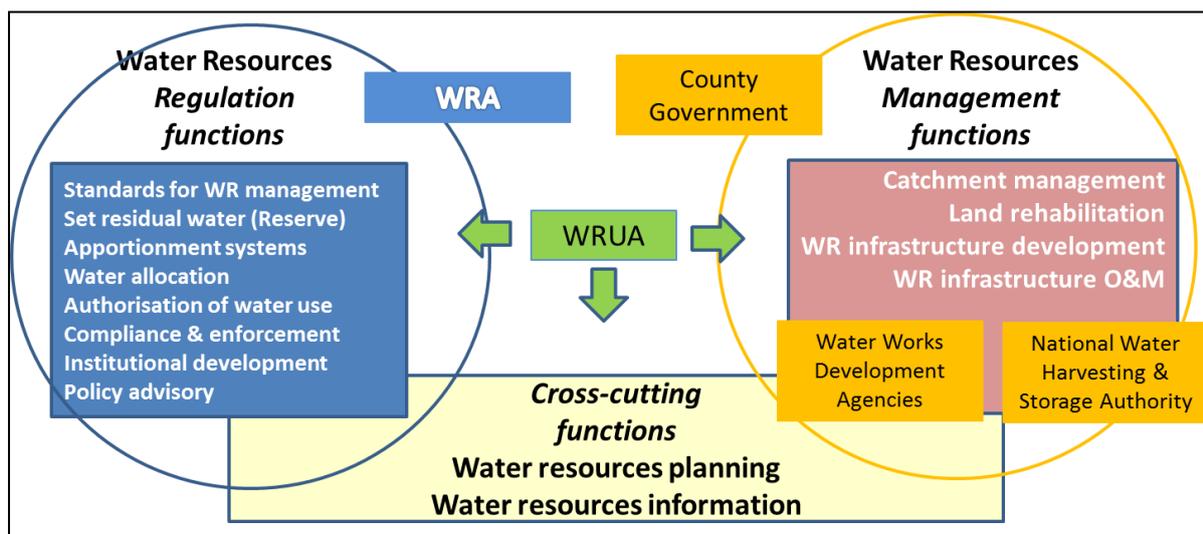


Figure 8: Regulatory and Management Functions in Water Resource Management

D. County Water Policies and Acts

County governments are expected to develop their own policies and legislation consistent with national policies and legislation to establish county based institutions and procedures to enhance delivery of services in regard to water and sanitation services, storm water drainage, soil and water conservation and environmental conservation.

The Meru County Water and Sanitation Act (2014) and the Nyeri County Water and Sewerage Services Act (2017) are in effect. Laikipia County on the other hand is yet to finalise drafting and passing its Water and Sanitation Bill.

The Meru County Water and Sanitation Act (2014) has made the following provisions that relate to water resource management:

- a. Collaboration of the county with the national government and other counties in the conservation and protection of water sources and catchment of strategic importance to the county, which are located outside of the county (46 (a))
- b. The county supporting financing of water conservation and catchment protection (46 (b)) and enforcement of reserve flow maintenance (46 (c))
- c. Collaboration of the county with other agencies, in developing policies & strategies on water storage management at household, farm and industrial levels and ensuring their implementation (46 (d))
- d. Collaboration with WRUAs in the development and monitoring of implementation of sub catchment management plans (46 (e))

The Nyeri County Water and Sewerage Services Act (2016) has also made similar provisions to the ones mentioned in a.b. and d above (55 (a), (c) and (d) and (e) respectively). It has additionally made the following provisions:

- a. Collection, analysis and dissemination of data and information on water resources (55 (g)) and ensuring access to information on water resources (55 (h))
- b. Liaising with other counties, regional and national bodies for better regulation of the management and use of water resources (55 (i))
- c. Formulation of a county water resource management strategy upon designation of a catchment area by the basin authority, which shall among other purposes describe the measures to be put in place for sustainable management of the water resources of the catchment areas (56 (c)) and the strategy for financing the management of the water resources (56 (d))
- d. Establishment of WRUAs at sub-catchment level (57 (1) for catchment protection, collaborative management of water resources and conflict resolution (57, (2))
- e. Possibility of contracting of WRUAs as agents of the County Government to perform some functions in catchment area protection and water resource management (57, (3))
- f. Publishing of SCMPs currently in force in the Kenya gazette (59)
- g. Monitoring of water allocation within the basin by the County Government in collaboration with WRA, Intra County Basin Authority and the WRUAs (60)

The county water acts currently in effect in the UENNCA (Meru and Nyeri) acknowledge and recognise other mandated institutions in the water resource management sector

(Other County Governments, WRA, Basin Authority and WRUAs) and their roles and have made some attempts to spell out how the county will collaborate with these institutions. This creates an enabling environment for MKEWP as well as a legal backing for its attempts to foster collaboration between these entities for better water resource management. Further, there is a great opportunity for MKEWP to not only lobby for the drafting and enactment of the Laikipia County Water and Sanitation Bill but also participate in its drafting.

Other relevant acts in effect within the UENNCA (Meru, Nyeri and Laikipia) include the Laikipia County Wards Development Act 2014 which provides for the establishment of a fund for promoting development in the wards and sets up an institutional framework for coordinating development initiatives and projects in the wards. Environmental activities may be considered as development projects under this Act. Nyeri County has a similar bill (Nyeri County Ward Development Fund Bill 2015) in process.

E. The National Water Resources Management Strategy 2012-2017

The National Water Resources Management Strategy (NWRMS) 2012-2017 provides guidelines on how water resources will be controlled, developed and managed. The implementation of the strategy is based on eight strategic objectives formulated as follows:

- To improve water resources assessment and develop systems for information dissemination
- To strengthen roles of gender and stakeholders participation in water resource management
- To promote the functioning of integrated approaches to water resources and catchment area management and livelihood enhancement;
- To create mechanisms for the coordination of measures that enhance that availability and access to water resources of suitable quality and quantity where and when it is needed
- To strengthen the systems that will promote the sharing of data and information on water use and demand
- To create mechanisms to provide sector financing so as to improve opportunities for sustainable financing in the water resource subsector
- Develop proactive mechanisms for implementing disaster management strategies namely flood, droughts, pollution and landslides
- To promote the use of trans-boundary water resources

The objectives of MKEWP align well with the NWRMS which implies a consistency in approach across government stakeholders.

F. Other Relevant Legislation

Water resource management affects and is affected by the management of other resources such as forest and land. This makes legislation on such resources as well as the institutions that implement such legislation, relevant to water resource governance and to MKEWP. Table 5 below, summarises some of this legislation.

Table 5: Other Legislation relevant to Water Governance

Legal Framework	Relevance to Water Resource Governance
The Forest Act 2005	<ul style="list-style-type: none"> • Seeks to achieve conservation and maintenance of vegetative cover and water catchment areas • Provides for sustainable management of forests and woodlands for the purpose of conservation of water • Provides for community participation in conservation and management which forms the basis for the formation of Community Forest Associations
Wildlife Conservation and Management Act	<ul style="list-style-type: none"> • Provides for protection and management of watersheds and designates Ramsar sites as protected areas
Regional Development Acts	<ul style="list-style-type: none"> • Provides for the establishment of Regional Development Authorities (e.g. ENNDA) and implementation of rural development activities to promote social and economic development through integrated planning and infrastructure development
EMCA 2015	<ul style="list-style-type: none"> • Guides and coordinates activities related to the management of natural resources. • Provides for wetlands regulations and waste regulations which have a bearing on catchment governance.
Agriculture Act (Cap 318)	<ul style="list-style-type: none"> • Emphasises the necessity of soil conservation which has an impact on water quality.

While KWS, KFS and ENNDA are members of the MKEWP, NEMA and CFAs are not and it is important to bring them on board as the partnership is recruiting new members.

APPENDIX C

STRATEGIC IWRM ISSUES AND CHALLENGES IN THE UENNCA

A review of 15 SCMPs within the UENNCA helps to identify the commonly expressed WRM issues, which include:

- Diminishing dry season river flows
- Over-abstraction and illegal abstraction coupled with weak enforcement of water regulations
- Catchment degradation
- Inadequate water storage
- Inadequate WRA and WRUA institutional capacity with respect to financial resources, and technical and administrative capacity
- Poor governance of WRUAs
- Poor water resources monitoring
- Low water use efficiency
- Water pollution
- Water use conflicts
- Unreliable water supplies

It is instructive to briefly unpack these issues in order to define the MKEWP strategic response and role in addressing these issues.

1. Water Resource Availability and Diminishing Dry Season River Flows

The National Water Masterplan 2030 estimates a total of 2,251 MCM/yr in 2010 across the entire ENNCA (surface and groundwater). This is expected to increase to 3011 MCM/yr by 2030 but then to diminish to 1810 MCM/yr by 2050 essentially in response to climate changes.

The National Water Masterplan 2030 estimates that the 2010 water demand across the whole ENNCA is only 9% of the available water resources. However, the demand for water is expected to increase sharply to the point where it is 95% and 168% of the available water resources in 2030 and 2050. At present the water resource is sufficient to meet current demands, given sufficient infrastructure of storage and distribution. However, this situation will change and the situation will become increasingly more stressed as the demand outstrips the resource availability. This implies that at present the principle constraint is storage and distribution infrastructure whereas in future the constraint will be in the resource itself. This implies that water demand can only be met sustainably through an approach that combines infrastructure development with water demand management.

It is anticipated that climate change will exacerbate the seasonal and annual rainfall variability making the need for storage and water demand management even more important. These approaches will need to be combined with building climate change adaptation capacity and drought resilience capacity with farmers and communities.

Flow monitoring by WRA and visual observations attest to the diminishing dry season river flows over the past 20 years or so. The situation is exacerbated during extended droughts, as seen in early 2017, with the result that some previously perennial rivers cease to flow entirely. This is a violation of the concept of the “reserve” or environmental flow which should preserve a perennial river as perennial. In addition to causing water use conflicts and environmental degradation, this situation disrupts domestic, livestock and irrigation water supplies. The consequences of diminishing river flows are numerous and unwanted but are widely accepted. There is however weaker agreement on the causes and even less agreement on the solutions. The causes expressed by stakeholders range from climate change, catchment destruction, over abstraction and illegal abstraction. Depending on the cause, the solutions include catchment restoration, abstraction enforcement, groundwater utilisation, flood water storage, and systems to improve water use efficiency.

It is clear that the strategic nature of the river flows for domestic, livestock and irrigation use result in intense competition for the resource; a situation which naturally favours those located on the upper part of the catchment area to the detriment of those downstream. Without effective systems of resource monitoring, allocation and enforcement, and wide spread acceptance of and compliance to these systems, then the current trends will prevail and worsen.

2. Water Allocation, Use and Enforcement

Constraints on effective water allocation and use management in the catchment, as contained in the ENNCA Catchment Management Strategy (CMS) 2014-2022 include:

- Inadequate information on water allocation and levels of utilisation
- Low enforcement capacity (staffing, knowledge & skills, equipment, conflicting mandates, insecurity, hostility)
- Inadequate support for implementation of Water Allocation Plans (WAPs) developed by WRMA and seen by stakeholders as restrictive
- Inappropriate water use infrastructure (wasteful irrigation methods, insecure control devices, failure to accommodate environmental provisions for water flow)
- Water scarcity (competition, conflicts)
- Poor distribution of water spatially (1000mm on the higher farming areas to 305mm per year at Archer’s Post) and temporally, resulting in poor predictability
- Over abstraction and illegal abstraction
- Real value of water abstraction and management is not valued by users; and water valuation and costs are not realistic relative to the capacity to pay.

Water allocation is currently done on the basis of permits for which users must apply. In considering the quantity of water to be allocated, the user and WRA must factor in the nature and scale of the water required (domestic, agriculture, livestock, industrial, etc), the unallocated resource for the specific body of water, and the environmental flow requirements. However, many water users appear to abstract without regard to the formal water allocation system. In order to better understand the situation on the ground abstraction surveys have been undertaken by WRUAs, WRA, and CETRAD for many of the UENNCA sub-catchments. Key findings of these surveys are:

- A small percentage of abstractors (less than 15%), made up primarily of water service providers, community based water projects and commercial farmers, account for 60 – 80% of the volume abstracted
- Over 65% of abstraction points are unauthorised by WRA with the majority of these being small holder farmers with portable pumps
- As much as 80% of the abstracted water by volume is not within authorised allocations at the time of the abstraction surveys (dry season)

Compliance to water regulations and permit conditions is very low by many abstractors covering:

- Validity of permit
- Abstraction within authorised amounts for specified flow conditions
- Measuring device
- Storage
- Payment of water use charges

Poor compliance to water resource management regulations and permitting requirements is attributed to a number of factors including:

- Acute dependence on river flows for irrigation
- Lack of resources to invest in storage structures
- Inefficient irrigation methods
- Tendency to avoid bureaucracy
- Lack of understanding of permit conditions
- Lack of information regarding river flow conditions
- Weak WRUAs unable to educate and control water users
- Poor enforcement by WRA

The largest water use in the catchment is irrigation. Many different forms of irrigation have been adopted ranging from sophisticated computer controlled drip and fertigation systems in the commercial farms to sprinkler and less efficient open basin and furrow systems in the small holder farms. These methods represent significantly different levels of investment in water use efficiency.

3. Water Resource Infrastructure Development, Risk and Investment

The catchment's population is growing and water demands are changing in ways that often were not envisioned when much of the infrastructure was built. Infrastructure built decades ago often blocks rivers keeps them from providing important benefits - like habitat for animals and water filtration for people. The problem is made worse by the loss of natural areas (e.g. natural forests, swamps) that enhance the ecosystem services provided by the catchment areas. The aim of the Partnership is to increase water availability and security through promoting the construction of environmentally sensitive and economically justifiable water storage works to meet current and future demands. ENNCA has limited water availability due to the small volume of existing storage capacity attributed to insufficient investment in dams, pans, farm ponds and rainwater tanks, with existing facilities being restricted mainly to small dams and water pans primarily for livestock watering and rainwater harvesting tanks at household level. Existing storage facilities currently total to about 10MCM mainly comprised of small dams and pans averaging 17,000m³

Some of the reasons behind this small volume of water storage in an otherwise largely semi-arid catchment area are: the lifespan of the infrastructure, socio-economic and environmental concerns, weak government commitment and the capital cost of infrastructure. In addition the situation is made worse by a limited number of sites for dam construction and inadequate enforcement of water permit conditions that would otherwise provide a driver for investment in storage facilities..

The only sector that has made significant investments in water storage is the large scale commercial horticultural and floricultural farming sector which reports² an estimated 4.33 MCM of storage capacity from 28 lined lagoons and 12 dams as reported by 50% of the commercial farms. This capacity has been developed mostly over the last 20 years in response to competition over limited dry season water resources and the need for water security.

There is need to energise new investments in water storage at household, farm, sub-catchment and catchment levels, particularly for smallholder farming. Some of the strategies that can be embraced include:

- a. Create appropriate incentives for water storage including penalties for non-compliance to water permit conditions;
- b. Establish effective institutional and financing mechanisms for storage structures;
- c. Provide a coordinated approach across all government agencies (national and county);
- d. Ensure efficiency in bureaucratic and regulatory processes;
- e. Conduct site identification studies to identify suitable dam sites.

² Mount Kenya Growers Group 2017 Water Use Report.

4. Water Demand Management (WDM)

Water demand refers to the management of the quantity of water abstracted from a source of supply using measures to control waste and unnecessary consumption. The traditional approach of hydrologists and water resources engineers has been to focus on the supply side and the assessment of available water resources in the catchment. Forecasts of water demands have often been provided by other departments, ministries or consultants, with a wide range of uncertainty because of the limited data on actual water use, uncertainty in establishing efficiency of water use, with significant losses likely in irrigation, urban and industrial water use, and uncertainties in the basic economic, social and demographic assumptions required for water demand forecasts. As a result, there is a high degree of uncertainty in current forecasts of the supply-demand balance within the catchment, and there exists large variations in local availability - both in space and time.

Thus, it is increasingly being recognised that supply and demand can only be balanced if water resources and water supply engineers address *both* sides of the balance. Donor agencies, such as the World Bank, have long advocated demand side management. Water resource policy makers and professionals are now challenged to work out the practical implications of water demand management within *integrated* water resource planning, development and management. New approaches to water management are also beginning to focus on the way in which water is needed and used (efficiency, effectiveness and demand management) in each user sector, rather than simply predicting, planning and providing for all its water demands.

The Sustainable Development Goal (SDG) No. 6 on sustainable access and management of water and sanitation services and SDG Goal No. 12 on sustainable consumption and production patterns encourage adoption of efficient and effective use of water. A water demand management approach is consistent with these goals.

Reasons for promoting WDM include:

- Excessive water use leads to over capitalisation of infrastructure; additional infrastructure brings high debt and high fixed water costs
- WDM measures often have benefit to cost ratios in excess of 10:1 in urban situations; WDM measures can be introduced flexibly and incrementally
- WDM can be a vehicle for socio-political objectives such as equity and gender issues; WDM only succeeds with community participation
- Water saving technologies are not usually capital intensive or require sophisticated technology
- WDM requires measurement of all components of the water cycle and good management; realistic water charges support sustainable water services

Finally, to enable this paradigm shift towards demand management, the importance of political intervention cannot be over-emphasised. This can give major impetus to the campaign –and without this kind of open and proactive political support, the wheels of change are almost certain to grind to a halt.

WDM approaches relevant to the UENNCA area include:

- Selection of drought tolerant crops
- Conservation agriculture and in-situ soil water harvesting systems
- Sprinkler or drip irrigation systems instead of basin and furrow irrigation systems
- Monitoring unaccounted for water (UfW) in piped water supply systems coupled with competent and rapid repair services
- Soil moisture monitoring
- Switch to volumetric water tariff systems based on individual household metering

5. Information Management and Communication

Information management is one of the most important technical issues for water use and demand, and especially for integrated water resources planning, since water wastage and inefficiency are highlighted by good information management. A good information management system is an invaluable tool, succinctly upheld by the maxim: *'to measure is to know'*, and can be used to support WDM policies. Without the relevant information on current and historical water resource availability, use and demand, it is very difficult to perform detailed analysis on which to base planning, allocation and development decisions and to monitor and evaluate changes.

As IWRM requires a multi-sectoral approach, the management of information which is typically siloed in different sectors and agencies is of paramount importance. Essentially each stakeholder responsible for relevant information needs to ensure proper information management systems to avoid duplication in terms of data collection and analysis, to enable synergies in data analysis, and to enable better information quality and accessibility to the users.

The effectiveness of a water Information Management System (IMS) can be measured by:

- The number and variety of actions (e.g. farming practices, improved water management plans) which follow receipt of information
- The degree to which the agency, farming community, or other groups form a discrete entity for dialogue and information exchange
- A range of organisational performance indicators (e.g. Customer-client dialogue, reporting mechanisms and financial stability)

6. Public and Private Financing and Debt

A distinction needs to be made between the scale, issues and systems associated with financing larger investments for water use and conservation, and the activities associated with managing the water resources (monitoring, allocation, planning, etc)

Financing Water Resource Management

The lead agency in water resource management is WRA which is funded by the public exchequer (40%), revenue from water use or abstraction charges (50%), and data sales,

permit fees and other services (10%)³. Water use charges were introduced through the Water Resource Management Rules (2007) to provide WRA with three outputs important for water resource management: (i) actual abstraction data, (ii) revenue and (iii) a tool to promote water demand management. The water use charges were never meant as a means to raise sufficient revenue to finance water resource infrastructure development, a point that is frequently misunderstood by the public. The status quo is that revenue from water use charges is insufficient to operate WRA without adequate supplementary funding from the exchequer. This resource constraint limits WRA's ability to maintain the hydro-meteorological monitoring network and to support the WRUAs.

The current rate of water use charges (50 cents and 75 cents per cubic metre for domestic use irrigation use respectively) was established in the WRM Rules 2007 and has not been updated since. The values apply nationally and do not reflect a local scarcity value. It could be argued that irrigation water users within the UENNCA should expect to pay more per cubic metre to reflect the elevated resource management activities (better data, more detailed allocation models, tighter enforcement, etc) required in ASAL conditions to ensure compliance to regulations, water allocations, and to safe guard the catchment ecosystem services.

Operational financing for WRUAs is a severe challenge among many WRUAs that limits their capacity to engage in water resource management activities. Many WRUAs derive revenue through membership fees but this rarely provides sufficient resources to meet even the most rudimentary of budgets. One problem with this financing model is the inability of the community water projects to pay a higher membership fee due to the weakness of their own internal revenue systems. WRUAs have benefited from financial and in-kind support from some commercial growers in the form of staff salaries, offices and transport. The dilemma with the in-kind support is that it does not show on the WRUA books of accounts and is therefore frequently under-valued and under-utilised as a means to leverage additional support and to drive improved water resource management practices. In addition, the in-kind support means that the WRUA cannot operate independently of the in-kind support and can be seen to have been "hijacked" by the commercial grower.

The Ngusishi WRUA within UENNCA has implemented a successful financing model based on a system of self-defined water use charges whereby the commercial growers (irrigation) and community water projects (domestic and minor irrigation) pay Ksh 2/10 and Ksh 0/70 per cubic metre respectively. This model delivers revenue sufficient to enable the WRUA to operate independently and effectively with staff (managers, project officers, scouts, guards), offices and transport.

The "WRUA Agency Model" is a term used for a proposed WRUA financing model which describes an arrangement between WRA and a WRUA in which the WRA pays the WRUA for specific services rendered. These services may include stakeholder mobilisation, information dissemination, resource and abstraction monitoring, surveillance for

³ WRMA Financial Sustainability Study 2012 updated by consultations with WRA for this Strategic Plan

pollution and catchment conditions among others. The model is anchored within provisions of the Water Act 2016 and the concept that WRA can and should outsource certain activities to make it a more effective water resource regulator. Many of these activities are the same ones that the WRUAs are currently undertaking and attempting to finance from their own revenues. The model is however yet to be put into operation but it does provide an opportunity to redefine the WRA-WRUA relationship around specified deliverables in a way that also improves WRUA operational financing and WRA operations.

Infrastructure Financing

Financing investments for water resource use and conservation (storage, efficient water supply and irrigation systems, wastewater treatment and catchment conservation), particularly for public services, to meet the present and future needs of the catchment is clearly a challenge. Like water, money is a scarce and precious resource. Funding water infrastructure is an investment that pays substantial dividends to the economy, public health, and the environment, that often are not always adequately weighted in a cost/benefit analysis. There is also a distinction between “projects we need” and “projects that we would like to have.” It is important to clearly differentiate between community needs and wants, and set clear priorities. Using planning and prioritisation tools, such as capital budgeting and asset management, to help set those priorities is a good start.

National government resources are being channelled into the water sector projects within the UENNCA through agencies such as WSTF, Water Works Development Boards (formerly the Water Service Boards), Regional Development Authorities (ENNDA, TARDA), NDMA, NIB, and MWI. County Governments are channelling public funds into water and sanitation services, soil and water conservation, and environmental conservation. These funds are often complemented by community contributions or funding from external donors.

Recent efforts by the World Bank and IFC have been made to establish systems and attract commercial financing into the water sector where subsidies are typically channelled on an ‘output based aid’⁴ type arrangement to make commercial financing affordable. While these arrangements have been trialled with community based water projects⁵ commercial banks have preferred to engage with formal WSPs (e.g. NAWASCO) as the transaction costs are less as a proportion of the loan portfolio. In addition, recent interest rate caps have moved commercial banks away from smaller, more risky, borrowers such as community water projects or small holder farmers.

The commercial horticultural sector, which covers an estimated 1130 ha within ENNCA and employs at least 14,000 people, has made substantial investments in water storage within their own farms. A recent self-reported survey (2017) of 15 out of the 31 commercial farms indicates a current 3,600 m³ of storage per farmed hectare, meaning that collectively the industry can meet the nominal 90 day storage requirement specified by WRA. The survey indicates that Ksh 1.17 Billion or 90% of on-farm investments are

⁴ Sometimes referred to as ‘payment by results’

⁵ Maji ni Maisha Project under K-Rep Bank

spent on water infrastructure. Additionally, of the Ksh 40 Million spent annually on CSR programs, 28% is spent on the water sector. Clearly the private sector water users have invested heavily in their own water security and already contribute significantly to local water projects. However, investments in water security by community based water projects and individual small holder farmers remains significantly below requirements.

The WDC was established, as mentioned above, to support WRUAs to gain financial and technical support to implement the Sub-Catchment Management Plan (SCMP). Through this framework WSTF has channelled in excess of Ksh 40 Million to the WRUAs within the Upper Ewaso Ng'iro catchment area. WRUAs have also been able to attract funding from other external sources, including CDTF. Although there have been issues with the WDC pipeline for investment funds (e.g. slow and lumpy disbursement), the most significant constraint to financing capital investments through the WRUAs remains the weak governance and financial accountability within the WRUAs themselves.

Innovative ways to finance water resource and water supply investments are needed as there are limited funds and many competing demands. External grant type support is frequently focused on specific SGD targets such as poverty reduction and improving access to and management of water and sanitation services. Traditional sources of grant funding (e.g. bilateral donors) are increasingly being complemented by social investment funds and social enterprises which seek lower returns on investment than commercial financing. Accessing these types of funds however, typically requires innovation around co-financing while assuring fiscal discipline, institutional accountability and delivery of service performance targets.

Public private partnerships (PPPs) have also been suggested as a mechanism to attract private financing into public infrastructure like water storage, water supply systems, and irrigation systems. PPPs are contractual agreements between public and private entities to deliver a project or service. They are not the equivalent of privatisation. Each partnership serves a specific purpose. PPPs and alternatives to the traditional design-and-build project delivery method can shift risks away from public or private owners and toward investors, as well as sometimes make it easier to develop and finance projects. PPPs have the potential to reduce overall development risk and capital investment, improve efficiencies and cost effectiveness, and maximise the respective strengths of the public and private sectors. Some limitations exist that may present unnecessary obstacles to PPPs and alternative delivery methods for public projects. Lessons learned from using PPPs in one sector, such as transportation, are transferrable to other sectors, including water. Among other things, successful PPPs require:

- a. an appropriate balance between public and private resources
- b. established political leadership
- c. a supportive statutory and political environment
- d. an organised structure
- e. detailed business plans
- f. a guaranteed revenue stream
- g. stakeholder support
- h. the careful selection of partners

- i. an understanding of each partner's motivations. Ultimately, when it comes to either traditional public or alternative private financing, there is a need to raise "real cash to service real debt"

7. Institutional Framework and Governance

It has been acknowledged, globally, regionally, nationally, and locally that the current water crisis is mainly a crisis of governance, much more than a crisis of water shortage or water pollution per se. In the context of IWRM, governance is defined as the range of political, social, economic and administrative institutions that are in place (or need to be in place) to develop and manage water resources sustainably. The four institutional roles that have been identified to be fulfilled for water governance systems to achieve sound IWRM practices include: regulation and enforcement, water supply and sanitation services, coordination and facilitation and capacity building.

While governance may be seen in narrow political and administrative terms as decision-making by "the government", good governance actually requires that all institutional actors involved in managing water resources, including citizens, organisations and private entities, work in a common direction. Poor governance leads to increased political and social risks, institutional failure and lowered capacities to deliver. Therefore, good water governance requires clear legal frameworks, comprehensive water policies, enforceable regulations, institutions that work, smooth execution and citizen-based mechanisms of accountability, as well as strong interconnections between these entities.

There are several key approaches and principles that are essential foundations to establishing institutional arrangements that support good water governance:

- Institutions should be transparent and open, especially when it comes to policy decision-making and finances
- Systems of communication should foster inclusiveness to ensure stakeholder engagement is enhanced
- Water issues seem to intensify in complexity over time. Policies and strategies should therefore be anchored in evidence and seek to address underlying causal factors
- The different systems involved in water governance should also work towards equitable and ethical solutions

While operating and performing their respective functions, institutions must be **accountable, efficient, responsive, and sustainable**. To begin with, good institutional governance requires accountability; which means that each institution must be able to explain and take responsibility for actions taken. Institutions should clearly understand their mandates as defined by legislation. Without genuine recognition and backing of their legal status, institutions cannot function properly.

At present in UENNCA, despite the establishment of numerous water related institutions, there are still weak institutional linkages, weak governance framework, siloed behaviour among agencies and groups, conflict over mandates and financial constraints limiting effective implementation of water resource management and conservation.

8. Catchment and Riparian Degradation

Many river basins in the Mount Kenya ecosystem have been degraded by illegal logging, degradation of soil cover due to deforestation and over grazing, cultivation and drainage of natural swamps, cultivation up to the river banks, unchecked erosion, uncontrolled road runoff, quarrying, and construction within riparian areas. These land use changes impact negatively on the current and future ecosystem services provided by the catchment areas and therefore alter the water resource quantity, quality and hydrological patterns. While these land use changes are evident their relative impact on the water resources is difficult to isolate from other factors affecting the hydrology (e.g. abstraction) because the changes take place at dispersed points within the catchment area.

The county governments have the mandate to support soil and water conservation and agricultural production. The approach adopted for catchment restoration relies on improved land husbandry, better production systems, integrated actions with other government agencies (e.g. KFS), and attention to and investments in road surfaces and drainage.

A promising model that links better utilisation of the natural resources with grass root water resource (WRUAs) and forestry (CFA) associations is a sustainable livelihood approach as implemented by the Upper Tana Natural Resources Management Project. Funded by the World Bank, the Project provided a system of small grants for community based organisations linked to WRUAs or CFAs to access funds and technical support on a competitive basis with co-financing by community contributions, to develop natural resource based enterprises (e.g. tree nurseries, bee keeping, fodder production, etc). This approach aligns with the Ministry of Agriculture's approach of working through common interest groups (CIG) while strengthening the linkages between WRUAs and CFAs, natural resource husbandry and livelihoods.

9. Water Quality Problems

Anecdotal evidence indicates that the water quality of the rivers is deteriorating although there is very limited longitudinal data. Factors causing deterioration of river water quality include poor solid waste management, poor sewage systems, river bank erosion, road runoff from rural roads, construction, quarrying and latrines in the riparian area, livestock watering in the rivers and pesticide and fertiliser rich runoff from farms. Observations clearly show that the source waters on Mount Kenya and the Aberdares start as pristine mountain streams and become turbid and polluted in the lower reaches. Poor river water quality therefore affects downstream water users more than upstream water users. Water quality is therefore one area in which upstream behaviour can have a direct impact on the health and livelihoods of those downstream and on the life span of storage infrastructure.

APPENDIX D: ROLES AND EXPECTATIONS OF STAKEHOLDERS

Stakeholder	Stakeholder Role/Function in Partnership	Stakeholder Expectation from the Partnership
WRA	<ul style="list-style-type: none"> • Support WRUA institutional capacity building activities • Provide up to date status reports on water resources, water permits • Improved enforcement • Share annual plans to facilitate enhanced coordination 	<ul style="list-style-type: none"> • Improved knowledge on the adoption of IWRM practices at county, basin, and community levels • Improved knowledge on how to manage the development of basin-based organisations and multi-stakeholder partnerships • Enhanced understanding of demand management policies, leading to greater interest • Improved information base for decision-making.
County Governments	<ul style="list-style-type: none"> • Political Goodwill • Technical Support • Involve MKEWP in CIDP preparation process • Participate in SCMP development/Review • Support implementation of soil, water and environmental conservation in CIDP and SCMP • Advocate for MKEWP to improve its visibility • Provide Information on relevant county policy, legislations and development activities 	<ul style="list-style-type: none"> • Greater information exchange on water services, water resources and catchment management issues • Strengthens relationship with key WRM and WASH stakeholders • Strengthens relationship with key economic players • Strengthens relationship with neighbouring counties
WRUA	<ul style="list-style-type: none"> • Cooperation and willingness for capacity building • Share information on water resources and catchment management issues • Quality participation in water governance, use and management at sub-catchment level 	<ul style="list-style-type: none"> • Improved co-ordination with different stakeholder. • Improved communications among Partners and local communities. • Support for demand-driven management policies from stakeholders. • Greater information exchange on water services, water resources and catchment management issues; • Opportunity to participate in decision- making on WRM issues; • Strengthens relationship with WRUAs key stakeholders (e.g. county governments, WRA, WSTF); • More reliable water resources of better quality i.e. better water security. • Reductions in water conflicts;

		<ul style="list-style-type: none"> • Opportunities for capacity building, new technologies and system improvements
Water Service Providers (WSPs) & community water projects	<ul style="list-style-type: none"> • Cooperation and willingness to adopt metered and volumetric tariff • Share water use information • Share annual plans to facilitate enhanced coordination 	<ul style="list-style-type: none"> • Greater information exchange on water services, water resources and catchment management issues • Greater access to information on water resource availability, demand and allocation • Opportunity to participate in decision- making on issues that enable WSP to provide better services • Strengthens relationship with WSP's key stakeholders (e.g. county governments) • More reliable water resources of better quality i.e. better water security • Reductions in water conflicts • Opportunities for capacity building, new technologies and system improvements
Large Scale Commercial Farmers	<ul style="list-style-type: none"> • Provide water audit reports • More active participation in water resource management interventions 	<ul style="list-style-type: none"> • More equitable and reliable access to water via involvement in decisions on basin planning and management • May require privileged access to water • Affordable/low price for water • Assistance with water-saving farming technologies
Parastatals (NEMA, KFS, KWS, NDMA, ENNDA, NWSA)	<ul style="list-style-type: none"> • Technical support • Financial support and/or Project Implementation • Share annual plans, reports 	<ul style="list-style-type: none"> • Enhanced integrated natural resources management • Increased data-sharing • Improved co-operation and communication with environmental and conservation institutions
Civil Society Organization	<ul style="list-style-type: none"> • Advocate for MKEWP and the key issues the partnership seeks to address • Share annual plans and reports • Support partnership with project implementation where opportunities present 	<ul style="list-style-type: none"> • Enhanced possibilities for raising the needs and requirements of particular water user groups. • Increased opportunities to protect the rights of these groups through greater involvement in decision-making. • Low water prices • Benefiting from data-sharing • Improved communications between agencies.

Research Institutions	<ul style="list-style-type: none"> • Share annual work plans and report • Share relevant research findings with partnership • Support partnership with project implementation where opportunities present 	<ul style="list-style-type: none"> • Enhanced integrated natural resources management. • Increased data-sharing • Improved co-operation and communication with environmental and conservation institutions
Conservancies	<ul style="list-style-type: none"> • Share annual work plans and reports • Support partnership with project implementation where opportunities present 	<ul style="list-style-type: none"> • More equitable and reliable access to water via involvement in decisions on basin planning and management • Enhanced integrated natural resources management • Increased data-sharing • Improved co-operation and communication with other environmental and conservation institutions
CFAs	<ul style="list-style-type: none"> • Share annual work plans and reports • Share information on water resources and catchment management issues 	<ul style="list-style-type: none"> • Opportunity for improved relationship with WRUAs • Improved communications among WRM sector players and local communities
WSTF	<ul style="list-style-type: none"> • Financing for water resource management activities within the UENNCA 	<ul style="list-style-type: none"> • Empowerment of some of its key partners • Impact and benefits to communities within UENNCA
Donors	<ul style="list-style-type: none"> • Financing for water resource management projects within the UENNCA 	<ul style="list-style-type: none"> • Replicable model for introduction of IWRM in water-stressed basins, ensuring the access to water by poor people • Impact and benefits to communities within UENNCA
2030WRG	<ul style="list-style-type: none"> • Technical support in MKEWP Strengthening 	<ul style="list-style-type: none"> • Growth and stability of MKEWP
WRUA Forum	<ul style="list-style-type: none"> • Linkage and information sharing to other WRUAs within the basin 	<ul style="list-style-type: none"> • Empowerment of its members
BWRC	<ul style="list-style-type: none"> • Involve MKEWP in the Basin Area Water Resources Strategy development process • Share the Basin Area Water Resources Strategy • Share information on BWRC strategy for financing WRM 	<ul style="list-style-type: none"> • Avenue for stakeholder engagement and participation

APPENDIX E: LOGICAL FRAMEWORK MATRIX

GOAL	Build water security for all within UENCA		
Strategic Objective #1	Strengthening Institutional Capacity, Participation, and Coordination for IWRM		
Outcomes			
S01.1	Institutional capacity of MKEWP members assessed and critical weaknesses addressed;		
S01.3	MKEWP Stakeholder coordination strategy developed;		
S01.4	CIDP and SCMPs harmonised for clearer implementation;		
S01.5	Sustainable financing models for WRUAs developed and piloted;		
S01.6	Comprehensive review of WRUA model application in pastoral ASAL areas.		
Target	Indicator	Means of Verification	Assumptions
Capacity needs assessment of MKEWP members	Report	Report	Financing
Critical Institutional capacity weakness identified	Report	Report	Financing
10No WRUAs in satisfactory compliance to Code of Good Water Governance	% improvement in Scorecard with multiple indicators of governance	WRUA Records	WRUA acceptance to be evaluated
5No WRUAs implementing sustainable financing plans (e.g. WRUA Agency Model)	% change in WRUA turnover WRUA Quarterly Reports	WRUA financial statements WRUA Records	WRA, WRUA and WRUA members agree to improve WRUA financing
10 MOUs established between WRUAs, WRA & CGs	# of signed MOUs WRUA Quarterly Reports	MOUs WRUA Records	WRUAs, WRA & CGs willing to enter into MOU
Agreed SOP with WRA, BWRC, Catchment Forum & WRUA Forum	Meetings with BWRC, Catchment Forum & WRUA Forum	Minutes of meetings	\$\$ for meetings
SCMPs revised with CG & implementation aligned with CIDP	SCMP Implementation Plan agreed with CG	Minutes of meetings	
SCMP components implemented with CG support	Activities funded by CG	WRUA Quarterly Reports	CG willing to fund SCMP activities
WRUA ASAL model assessed	Report	Report	Financing

Strategic Objective #2		Improve Water Demand Management and Sustainability		
Outcomes				
S02.1	Materials for Public and school orientated education campaign on water efficient technologies and use developed			
S02.2	System developed for financial and technical support for smallholder farmers and community water projects to access water conservation hardware			
S02.3	Water use accountability system developed with data from source to point of use for all type of users			
S02.4	Capacity development program for sustainable management of community water projects focused on efficient and economic service delivery			
S02.5	Comprehensive review of water allocation and pricing systems, across both water resource and water supply sectors			
Target	Indicator	Means of Verification	Assumptions	
30No. schools accessing WDM materials	# schools engaged	Site visit	\$\$	
Water use allocation & use data	WRA Permit & water use data	WRA Report	WRA goodwill	
15No. Commercial farms comply with system of Farm Water Audits	Scorecard	Independent Water Audit Report	Commercial farms willing to submit to water audits	
5No CWP's adopt volumetric tariff system	%change in UfW	Billing System Reports	CWP's willing to install full metering system	
50No. Smallholders installed drip+pond system	# new hectares under pond+drip system	CG/MOA M & E Reports	Technology & Finance available Access to financing established	
10No. WRUAs reporting on water abstraction	# WRUAs monitoring water use	WRUA Quarterly Reports	WRUA, WRA and water users willing to disclose information	
Water allocation & pricing study	Report	Report	Information from water users	
Strategic Objective #3		Improve Water Security and Governance		
Outcome				
S03.1	Dam site identification and feasibility studies for water infrastructure undertaken and disseminated to stakeholders			
S03.2	Groundwater potential maps and sustainable aquifer management plans developed for strategic aquifers in the catchment area			
S03.3	Innovative systems for water resource abstraction monitoring and enforcement developed and tested			
S03.4	Sustainable financing models for water conservation and use developed and tested			
S03.5	Sustainable livelihood program initiated that strengthens the linkages between natural resource management and utilisation within the catchment area			

Target	Indicator	Means of Verification	Assumptions
Dam site identification study	Study Report	Study Report	\$\$
No2 Feasibility Studies for Sub-Catchment Dams	Feasibility Report	Feasibility Report	\$\$ Political goodwill
5MCM storage developed	M3 storage developed #HH benefiting from new storage	As-Constructed Reports WRUA Quarterly Report CWP Report	Site Available, \$\$ Political goodwill
GW study & aquifer management plan	Study Report	Study Report	\$\$ Political goodwill
WRA & 5No. WRUA capacity developed to regulate e-flows and dry season abstraction	E-flows % abstraction compliant with water permits	WRA & WRUA Reports	Political goodwill
System to regulate portable pumps piloted	# portable pumps under regulation	WRA & WRUA Reports	Goodwill by water users
WRA & WRUA capacity built on water use management	# trained on water use conflict management	MKEWP M & E Report WRUA Quarterly reports	\$\$
20CBOs implemented NRM livelihood projects	\$\$ disbursement	Site visits, CBO records	\$\$
Strategic Objective #4	Enhancing Knowledge Management and Communication		
Outcomes			
SO4.1	MKEWP Information Portal developed and active		
SO4.2	Communication strategy developed		
SO4.3	Corporate identity and branding strategy developed		
SO4.4	Basin-Wide Water Monitoring and Evaluation System established		
SO4.5	Dissemination of information through MKEWP partner networks		
Target	Indicator	Means of Verification	Assumptions
Communication strategy	Report	Report	
WR Status Report disseminated	# issues/yr	MKEWP M & E Report	WRA goodwill & capacity
MKEWP Website operational	# hits to website	Website tracker	\$\$
WRA newsletter circulated through email & hardcopy	# issues/yr	Newsletter issues	WRA goodwill & capacity
MKEWP Corporate branding materials	# items	Partner responses	
M&E System developed	Reports	Reports	Member goodwill & capacity

WRA mainstreams system for water permit consultation	# Notification to public	Publically accessible Water permit register WRA website	WRA goodwill & capacity
MKEWP notifies members of EIA public consultation events	# Notification to public	MKEWP FB	NEMA goodwill & capacity
Strategic Objective #5	Enhancing MKEWP Capacity for IWRM		
Outcomes			
S05.1	Code of Conduct for MKEWP partners established and implemented		
S05.2	M&E system for MKEWP established and implemented		
S05.3	Sustainable financing models for MKEWP core costs established		
S05.4	Capacity development needs of MKEWP secretariat identified and documented		
S05.5	Key positions at the MKEWP Secretariat are filled with qualified staff		
S05.6	Report on legal registration options		
S05.7	Targeted membership recruitment		
Target	Indicator	Means of Verification	Assumptions
MKEWP Code of Conduct adopted	% members adopted CoC	Report	Members goodwill
MKEWP M&E system	Qrtly Report	MKEWP M & E Reports	Member goodwill & capacity
MKEWP financing	Revenue as % of operational costs	Financial reports	Member goodwill
Staff & Council members trained	Training reports	Reports	\$\$
Secretariat fully staffed	Staff recruited	Financial records	\$\$
Legal options established	Reports	Reports	\$\$
MKEWP membership increased by 130%	# of paid up members	MKEWP financial statement	Members goodwill

BUDGET FOR MKEWP OPERATIONS OVER 5 YEARS (USD)

ITEM	Y1 2018	Y2 2019	Y3 2020	Y4 2021	Y5 2022	Total (USD)
Office Running Costs¹						
Personnel	105,000	115,500	127,050	139,755	153,731	641,036
Administration	31,200	34,320	37,752	41,527	45,680	190,479
Transport	30,600	33,660	37,026	40,729	44,801	186,816
MKEWP Activities¹						
Council, Committee & AGM	7,600	8,360	9,196	10,116	11,127	46,399
Communication materials	5,000	5,500	6,050	6,655	7,321	30,526
Representation	4,000	4,400	4,840	5,324	5,856	24,420
Council discretionary budget	5,000	5,500	6,050	6,655	7,321	30,526
Staff & Council Training	5,000	5,500	6,050	6,655	7,321	30,526
Auditor	1,500	1,650	1,815	1,997	2,196	9,158
Emergency Fund	5,000	5,500	6,050	6,655	7,321	30,526
Cap-Ex						
ICT equipment - Computers, printers, LCD ¹	6,000	500	550	7,986	666	15,702
4WD Vehicle ²	15,000					15,000
M/bike				2,500		2,500
Office furniture	1,500 ³					1,500
Office expansion ⁴			20,000			20,000
Total	222,400	220,390	262,429	276,553	293,339	1,275,111

Notes:

- 1) Annual growth factor of 10%
- 2) One 4WD vehicle to be partially funded through the sale of an existing old vehicle
- 3) Cost to cover existing furniture gaps
- 4) Price includes for furniture for new office space

POTENTIAL REVENUE TO COVER MKEWP OPERATIONS COSTS

Detail (Notes)	Long Term Annual Revenue (USD)				Revenue Projections 2018-2022 (USD)					
	Unit	Qty	Rate	Sum	2018	2019	2020	2021	2022	5 YEAR TOTALS
Annual Membership Fees¹										
County Government	PC	3	500	1,500	-	1,500	1,500	1,500	1,500	6,000
WRA	PC	1	500	500	500	500	500	500	500	2,500
WRUAs	PC	29	50	1,450	1,450	1,450	1,450	1,450	1,450	7,250
Commercial Farms	PC	50	500	25,000	12,500	25,000	25,000	25,000	25,000	112,500
Conservancies	PC	10	250	2,500	2,500	2,500	2,500	2,500	2,500	12,500
WSPs	PC	2	500	1,000		1,000	1,000	1,000	1,000	4,000
Community Water Projects	PC	158	30	4,740	1,185	2,370	3,555	4,740	4,740	16,590
Community Forest Associations	PC	5	50	250		125	188	250	250	813
Parastatals	PC	3	50	150	150	150	150	150	150	750
Research Institutions	PC	2	500	1,000	1,000	1,000	1,000	1,000	1,000	5,000
WSTF	PC	1	500	500	500	500	500	500	500	2,500
NGOs	PC	6	500	3,000	3,000	3,000	3,000	3,000	3,000	15,000
Sub-Total				41,590	22,785	39,095	40,343	41,590	41,590	185,403
Water Use Levies										
Commercial Farms ²	Ha	1129	50	56,450	14,113	28,225	42,338	56,450	56,450	197,575
WSPs ³	CM	8015000	0.001	8,015	-	40,075	40,075	40,075	40,075	160,300
Sub-Total				64,465	14,113	32,233	46,345	60,458	60,458	213,605
Events										
Fund raiser ⁴	PC	1	50,000	50,000	-	-	50,000	50,000	50,000	150,000
Sub-Total				50,000	-	-	50,000	50,000	50,000	150,000
Expected Income (Internal)				228,190	36,898	71,328	136,688	152,048	152,048	549,008

Notes:

- 1) Four Tier Membership Fee Structure proposed based on ability to pay and prominence within the water sector

Tier	Fee, US\$	Member groups
1	30	Community Water Projects
2	50	Water Resources User Associations, Community Forest Associations, Parastatals
3	250	Conservancies
4	500	County Governments, Water Resources Authority, Water Service Providers, Commercial Growers, Water Services Trust Fund, Research Organisations, Non-Governmental Organisations

- 2) Total hectares based on Mount Kenya Growers Group Water Use Survey 2017. The rate is based on hectares under production for simplicity as many growers use various sources including rainwater harvesting, river water and groundwater. The rate of \$50 per hectare per year has been proposed by the Mount Kenya Growers Group.
- 3) Annual water use is based on NAWASCO abstracting an estimated average of 11,000m³ per day with other WSPs abstracting a similar amount combined. The rate of \$0.001 per cubic metre (Ksh10 cents/m³) reflects expectations regarding ability and willingness to pay.
- 4) Assumed that a fund raising event could raise Ksh5 million.

EXPECTED BALANCE BETWEEN INCOME AND EXPENSES FOR CORE OPERATIONS

Detail	Projections 2018-2022 (USD)					
	2018	2019	2020	2021	2022	5 YEAR TOTALS
Expected Income (Internal)	36,898	71,328	136,688	152,048	152,048	549,008
Expected Income (Current grants)¹						
2030WRG/IFC ²	18,000					
Wetlands International ³	15,000	18,000	21,000			
SNV ³	5,400	5,400				
FFI ⁴	5,674	5,785	5,774			
Sub-total	44,074	29,185	26,774			
Expected income (Internal + current grants)	80,971	100,513	163,462	152,048	152,048	549,008
Expected Expenses	222,400	220,390	262,429	276,553	293,339	1,275,111
Surplus/Deficit	141,429	119,877	-98,967	124,505	141,292	-626,070
% financed	36%	46%	62%	55%	52%	

Notes:

- 1) See Financial Sustainability Study for analysis on non-restricted funding available to cover core operations costs
- 2) Proposal submitted for 2018. Response awaited.
- 3) Wetlands International and SNV have indicated an intention to increase funding going forward.
- 4) Based on GBP to KES exchange rate of 1 to 135.

INDICATIVE INVESTMENT BUDGET FOR 5 YEAR STRATEGIC PLAN (EXCLUSIVE OF OPERATING COSTS)

Strategic Priority	Output	5 YEAR BUDGET (USD)
Strategic Priority 1: Strengthening Institutional Capacity, Participation, and Coordination for IWRM	Institutional capacity needs assessment	10,000
	Institutional capacity development plan implemented	200,000
	Stakeholder coordination strategy developed	
	CIDP and SCMPs harmonised	20,000
	Sustainable financing models for WRUAs	50,000
	Review WRUA model application in pastoral ASAL	15,000
	Sub-total	295,000
Strategic Priority 2: Improve Water Demand Management and Sustainability	Public education campaign on water efficient technologies and use	20,000
	Financial and technical support for smallholder farmers & CWPs for water efficiency hardware	1,000,000
	Water use accountability system developed	50,000
	Capacity development for CWPs	50,000
	Comprehensive review of water allocation and pricing systems	30,000
	Sub-total	1,150,000
Strategic Priority 3: Improve Water Security and Governance	Dam site identification and feasibility studies for water infrastructure	200,000
	Groundwater potential maps and sustainable aquifer management plans	200,000
	Innovative systems for water resource abstraction monitoring and enforcement	200,000
	Guidelines for wetlands	10,000
	Financing models for water conservation and use developed and tested	1,500,000
	Sustainable NRM livelihood program	1,500,000
	Sub-total	3,610,000
Strategic Priority 4: Enhancing Knowledge Management and Communication	MKEWP Information Portal	10,000
	Communication strategy	
	Corporate branding strategy	10,000
	WRM Monitoring and Evaluation System	
	Dissemination of information	25,000
	Sub-total	45,000
Strategic Priority 5: Enhancing MKEWP Capacity for IWRM	Code of Conduct for MKEWP partners	
	M&E system	
	Sustainable financing models for MKEWP core costs	20,000
	Capacity development for MKEWP staff & council	30,000
	Staff recruitment	
	Legal registration options.	10,000
Sub-total	60,000	
	TOTAL	5,160,000

CONSOLIDATED BUDGET

	Year 1	Year 2	Year 3	Year 4	Year 5	Total	%
Core Ops	222,400	220,390	262,429	276,553	293,339	1,275,111	20
S01	32,500	240,000	12,500	0	0	285,000	4
S02	60,000	323,332	266,666	250,000	250,000	1,149,998	18
S03	0	561,540	1,148,080	1,133,080	767,310	3,610,010	56
S04	25,000	5,000	5,000	5,000	5,000	45,000	1
S05	16,858	21,144	4,000	14,000	4,000	60,002	1
Total	356,758	1,371,406	1,698,675	1,678,633	1,319,649	6,425,121	100

Notes:

1) Projects costs distributed according to the tentative work plan.

MOUNT KENYA EWASO WATER PARTNERSHIP

