

FINAL EDITION

STRATEGIC PLAN OF THE MINISTRY (2005 – 2009)

<u> January, 2005</u>

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LIST OF ABBREVIATIONS

ACUs: Aids Control Units A.I.A: Appropriations in Aid **ASALS:** Arid and Semi-Arid Lands

CAAC: Catchment Area Advisory Committee CAP: Chapter CBK: Central Bank of Kenya **CETRAD:** Centre for Training, Research and

Development

CPC: Corruption Prevention Committee

DANIDA: Danish International Development Agency

District Development Committee DDC: DFID: Department for International

Development

DPM: Directorate of Personnel Management EU: European Union GDP: Gross Domestic Product GOK: Government of Kenya

HIV/AIDS: Human Immunodeficiency Virus/ Acquired Immune Deficiency

Syndrome

IAO: Integrity Assurance Officer Information and Communication ICT:

Technology

MDGs: Millennium Development Goals IT: Information Technology MEAs: Multilateral Environment Agreements

MPERs: Ministerial Public Expenditure Reviews

MTEF: Medium Term Expenditure Framework MWI: Ministry of Water and Irrigation NACC: National Aids Control Council

NGOs: Non-Governmental Organizations NPEP: National Poverty Eradication Plan

NWCPC: National Water Conservation and Pipeline Company

Public Expenditure Review PER: Poverty Reduction Strategic Plan PRSP: PS: Permanent Secretary Public Service Integrity Programme PSIP: RDA: Regional Development Authority ROM: Results Oriented Management

SAGAs: Semi-Autonomous Government Agencies

SDS: Service Delivery Surveys SIDA: Swedish International Development

Agency

UŇ: **United Nations** UNDP: United Nations Development

Programme

USĂID: United States Agency for International Development

WITs: Work Improvement Teams

Water Resources Management Authority WRMA:

WRP: Water Reform Programme WSB: Water Services Board WSRB: Water Services Regulatory Board Water Service Providers WSP: Water Services Trust Fund WSTF:

ZIP: Zero Investment Plan

EXECUTIVE SUMMARY

1. The Strategic Plan for the Ministry of Water and Irrigation

This Strategic Plan (2005 – 2009) sets the strategic objectives that the Ministry will pursue in the next five years. These strategies are in line with the national development goals as articulated in the Economic Recovery Strategy for Wealth and Employment Creation (2003). They also seek to implement sector-wide strategies outlined in the Sessional Paper No. 1 of 1999 on National Policy on Water Resources Management and Development; and the Water Act (2002).

Government effort in the water and sanitation sub-sector has led to significant investments and to improved water supply service. It is estimated that 40 per cent and 65 per cent of urban and rural areas, respectively, have access to water. Water is closely linked to agricultural productivity. For example, irrigation directly contributes about 3 per cent to the GDP and provides about 18 per cent of the value of all agricultural produce. Drainage interventions through flood protection and water management accounts for about 0.3 per cent of total area under rainfed agricultural production.

To sustain this effort as well as redress the increasing degradation of water catchment areas, reduce unaccounted for water and increase coverage, a radical reform programme in the water and sanitation sector is in the process of being implemented. This reform is driven by the National Policy on Water Resources Management and Development (1999), National Water Resources Management Strategy of 2003 (not yet gazzetted), the draft National Water Services Strategy (2003) and the Draft Zero Investment Plan (2003). The Water Act of 2002 creates the legal framework for the implementation of these policies.

This Strategic Plan identifies the role of the Ministry in support of water, sanitation, and irrigation sector development. Priorities addressed include structural reforms to make water and sanitation services autonomous, mobilization of investment for the construction and rehabilitation of the water and sanitation network and the involvement of communities and the private sector in expanding services to the urban and rural communities. The ministry is also considering introducing pollution control mechanisms as well as constantly reviewing water abstraction and disposal licenses.

Government policy is to devolve policy implementation to communities, the private sector and sector stakeholders. This approach is detailed in the Strategy for Performance Improvement in the Public Service and the policy on the reforms and privatization of public enterprises. In this arrangement, the role of the Ministry will be directed at policy formulation, implementation, co-ordination, support in resource mobilization and sector regulation. The Strategic Plan recognizes this changed focus in the management of the public sector.

Situational Analysis

2.

Kenya is described as a water-scarce country due to limited national endowment and the needs of a growing population. This problem has been compounded by water resources degradation and low investments in infrastructure development, and maintenance and operations. The water sector has the potential to substantially improve the lives of Kenyans by ensuring access to clean water and acceptable sanitation services. Water is central to the achievement of Kenya's socio-economic development goals. The mandate of the Ministry is,

therefore, to protect, harness and develop potential of water resources to ensure availability of quality water for all as well as irrigation policy and development, and land reclamation. To achieve this, the Ministry has been proactive in water sector reforms, guided by the Water Act 2002. To promote sector development, the Ministry has identified policy priorities which envisage 100 per cent access to safe water and adequate sanitation services by all Kenyans

Strategic Objectives.

Water is central to the economic and social development of the country. It has strong linkages with key sectors of the economy such as agriculture, livestock and fisheries, manufacturing, tourism and energy. The vision of the Ministry is to ensure water resources availability and accessibility by all. The mission is to contribute to national development by promoting and supporting integrated water resource management to enhance water availability and accessibility. The Ministry will therefore implement clearly defined strategic objectives. These are accelerating the implementation of water sector reforms, improving the sustainable management of water resources, improving the provision of water and sewerage services, improving utilization of land through irrigation and land reclamation, strengthening institutions in the Ministry and in the water sector, mobilizing resources and promoting efficiency in their utilization, and improving the management and access to water resources information

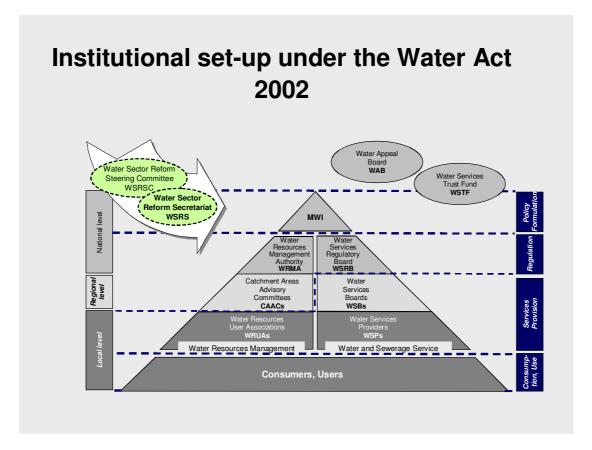
Institutional development is key to policy implementation. The Ministry will therefore be restructured for effective service delivery. Research and regulatory institutions in the Ministry will be reformed and strengthened to play their assigned mandate. An important approach will be to strengthen inter-ministerial co-ordination of sector related development roles; and to deliberately cultivate the involvement of the private sector and other stakeholder institutions in policy implementation.

Cross-cutting themes addressed in the Strategic Plan include measures to combat the HIV / AIDS pandemic; the integration of anti-corruption prevention activities in the Ministry; and the mainstreaming of management and access to water resources information in the sector.

4. Organizational Structures and Human Resource Management

Effective service delivery calls for appropriate organizational structures. The water sector reforms envisage a separation of responsibilities where the public sector will determine policy, regulate and plan while the private sector and communities will carry out direct service provision. The Strategic Plan proposes a devolved structure (described in figure 1 below) where Kenya is divided into seven regions.

Figure 1: New Structural set up in the water sector



The Ministry will regulate and provide strategic leadership through seven (7) Water Service Boards. In all regions, the water service providers will provide and manage appropriate technical staff. At the national level, the Water Resources Management Authority (WRMA) and the Water Services Regulatory Board (WSRB) will be responsible for the management of water resources as well as provide regulatory guidance. Though not described in this diagram, five support departments (Administration, Personnel, Finance, Accounts, Procurement, Planning and Human Resource Management) as well as the Directorate of Irrigation, Drainage and Land Reclamation will report direct to the Permanent Secretary.

For the Water Services Department, optimal staff complement is 271 against current complement at 6,569. This means that the Ministry has an excess staff of 5,213. This excess will be taken up by the newly formed water service providers and parastatals located in the seven regions of the country. However, Irrigation and Land Reclamation Staff will continue with their duties since they are not directly affected by the water reforms. For the Irrigation, Drainage and Land Reclamation Department, total staff currently amounts to 763.

The proposed human resource strategy will address performance management, human resource planning and development, training and development and the improvement of compensation levels. Effective implementation of the scheme of service is recommended to enhance proper management of the human resource in the Ministry.

5. Resource Mobilization

In 2004/05, the budget of the Ministry of Water and Irrigation is Sh. 4.98 billion. This is less than the resources required to adequately cater to the developmental needs of the Ministry. This is in consideration of the fact that the water sector requires an estimated US\$ 1.4 billion (40 percent of Kenya's national budget) to finance the immediate rehabilitation and medium

term expansion of water supply and sanitation systems. This clearly exceeds the current funding levels.

Strategies for mobilizing extra-budgetary resources have been proposed in the Strategic Plan. These include a coordinated approach to external sourcing of funds, especially from development partners; and the development of innovative funding strategies, including promotion of enhanced investment by the private sector, sensitizing citizens on the need to pay for water and improving revenue collection.

6. Monitoring and Evaluation

Monitoring tracks efficiency in implementing strategic objectives. Evaluation is concerned with the impact of development programmes. The Ministry will develop an effective monitoring and evaluation system to ensure that the strategic objectives are effectively implemented and that they achieve the expected impact. The monitoring indicators have been developed for each strategic objective.

An effective monitoring and evaluation system requires a strong information management capability. A strategic objective of the Ministry is therefore to develop an integrated information management system supported by a system-wide ICT capability.

This Strategic Plan is organized in six chapters. The introductory chapter presents the context and rationale of the strategic plan. The situational analysis and policy priorities are presented in chapter two. The strategic objectives that the ministry will seek to achieve in the next five years are developed in chapter three. The revised organizational structures are presented in chapter four, while resources mobilization and monitoring and evaluation are presented in chapters five and six, respectively.

CHAPTER ONE: INTRODUCTION AND BACKGROUND

1.1 The Strategic Plan of the Ministry of Water

The availability of good quality and quantity water is central to Kenya's socio-economic development goals. This is so considering that water is a major resource for energy generation (hydropower generates over 70% of Kenya's domestically produced electricity), for urban and rural consumption, agricultural development (crops and livestock), tourism, and for industrial growth.

Despite this, water is a scarce resource in Kenya due to limited national endowment (the country is classified as a chronically water scarce country), needs of a growing population and serious water resources degradation. Also, lack of funds for new infrastructure investments and for operations and maintenance has negatively impacted on the ability of the government and other water sector stakeholders to increase access to water and sanitation. This has resulted in poor access to water and sanitation, which has been described as one of the major causes of poverty in Kenya.

This Strategic Plan (2005 – 2009) sets clearly the goals and objectives that the Ministry will pursue to operationalise and implement the outlined strategies. The plan is the Ministry's commitment to improved service delivery in line with the aspirations of government, as set out in Economic Recovery Strategy for Wealth and Employment Creation (2003) and the Ninth National Development Plan (2002 – 2008); as well as sector aspirations outlined in Sessional Paper No. 1 of 1999 on National Policy on Water Resources Management and Development and the Water Act (2002); ASAL Policy and Investment Plan; National Water Resources Management Strategy of 2003 (not yet gazetted), Draft National Irrigation Policyof 2004 (not yet gazetted) and the Zero Investment Plan (ZIP- draft September 2003).

More specifically, the Strategic Plan is the implementation tool for the Ministry in the wider strategy for Performance Improvement in the Public Service (2001), as elaborated in the Guidelines on Deepening Ministerial Rationalization (2002).

1.2 Historical Background of the Ministry

Prior to 1974, the Ministry of Water and Irrigation was a department in the Ministry of Agriculture. After this year, the Ministry was constituted and remained thus till 1992 when it was merged with other departments to form the Ministry of Land Reclamation and Regional Development. After 1998, the Ministry was merged to form the Ministry of Water Resources. In 2001 during a major merger of government Ministries and departments, the Ministry of Water Resources was merged with the Ministry of Environment and Natural Resources.

In January 2003 through the Presidential Circular No. 1 /2003, the Department of Irrigation and Land Reclamation and the Department of Water were brought together to form the Ministry of Water Resources Management and Management. The creation of the Ministry consolidated the responsibility for the management and development of water resources, irrigation, drainage and land reclamation in one docket. In September 2004 through Presidential circular No. 1/2004, the Ministry was renamed the Ministry of Water and Irrigation, giving recognition to the crucial role played by the irrigation sub-sector in national development.

The Policy Framework of the Ministry

1.3.1 Introduction

The recognition of the problems facing the water and irrigation sector, its importance to Kenya's economy, and the need to provide services efficiently; provides the rationale of strategic planning for the Ministry of Water and Irrigation as outlined in the Economic Recovery Strategy for Wealth and Employment Creation (2003-2007). The strategy proposes that the creation of a leaner, efficient, motivated and more productive civil service that concentrates public finance and human resources on the delivery of core government services is paramount. Such an approach would include public sector interventions, market solutions, and popular participation in the water sector as well as other sectors whose activities have a direct or indirect impact on the water sector.

Strategic planning in the water sector is also being carried out in recognition of:

- Good practices emerging in water and sanitation sector reform and modernisation.
- Increasing capacity in both the public and private sectors to improve water sector management and service delivery.
- Continuing improvement in the enabling environment and regulatory framework in the water sector.
- The linkages/dynamics in water, poverty, health and land use
- The linkages between water and sustainable management of the environment
- The centrality of irrigation, drainage and land reclamation in agricultural development
- The looming water crisis and the continuing and evolving importance of water in the domestic, regional and global economy.

1.3.2 Past Efforts

1.3

Government planning (and thereby reform) began when Kenya gained her independence in 1963 and is outlined in the Sessional Paper No. 10 of 1965 on African Socialism and Its Application to Planning in Kenya. In it, the government stated that it would invest in

deficient areas and in people, education, health, water and infrastructure; so that income redistribution, equity and welfare to all citizens would be enhanced. As the needs of the country changed over time, various government policy pronouncements such as *Sessional Paper No. 1 of 1986 – Economic Management for Renewed Growth*, Sessional *Paper No. 1 of 1994 – Recovery and Sustainable Development* or various National Development Plans.

1.3.3 Current Efforts

Taking into account the damage that occurred during the El - Nino phenomenon of 1998-1999, and realising the huge loss of runoff water which could have helped over come the severe lack of water during the following La-Nina phenomenon (2000), the government decided to re-examine the water sector and developed the National Policy on Water Resources Management and Development (Sessional Paper No1 of 1999).

During the same period, the Sessional Paper No. 3 of 1999 on National Poverty Eradication was adopted. It highlighted policies and strategies to tackle poverty in Kenya over the period 1999-2015, which were outlined in the National Poverty Eradication Plan (NPEP). The paper also set a framework for institutionalising poverty eradication so that the incidence of poverty (currently at 56% in 2003) could be reduced to less than 30% by 2015 of those earning less than a dollar per day.

This is critical considering that during the preparation of the Poverty Reduction Strategy Paper (PRSP) of 2001 to 2004, 50 out of the 64 districts visited during the PRSP consultation process linked poverty reduction with increased access to water. The PRSP also lays the groundwork for strategic planning in the government as it promotes the development of a pro-poor and pro-growth Medium Term Expenditure Framework (MTEF) budget which the government has adopted for use by all government ministries in resource planning and allocation. The MTEF process requires explicit linkages between resource availability, development objectives and budget allocations. The PRSP has adopted the International Development Goals (IDGs), one of which aims at reducing global poverty by half.

This is supported by the National Development Plan (2002-2008) which states that access to safe drinking water by urban and rural populations is 75% and 50% respectively. The Government plans to stimulate development and management in the water sector by:

- (a) Reviewing the Water Act (CAP 372) and harmonizing it with other relevant Acts,
- (b) Finalising the Strategy Paper on Water Supply and Sanitation Services,
- (c) Developing sound and sustainable financing mechanism for the water sector,
- (d) Establishing an efficient and effective institutional framework for the systematic development and management of the of the water sector,
- (e) Ensuring safe disposal of waste water and environmental protection,
- (f) Preserving, conserving and protecting available water resources and its allocation in a sustainable, rational and economical way, and
- (g) Implementing the Sessional Paper on water resource management.
- (h) Finalising the National Irrigation Policy, institutional and legal framework and repealing the Irrigation Act (CAP 347) to create a conducive policy environment for the growth of the irrigation sector.
- (i) Finalising the ASAL development policy and investment plan

This is supported by the Economic Recovery Strategy for Wealth and Employment Creation (2003-2007), which recognizes that Kenya is a water deficient nation and that water resources are diminishing due to mismanagement and destruction of water catchment areas, among other reasons. The strategy also recognizes the Water Act 2002 and the Integrated Water Resources Management Strategy which advocates for the separation of

- (a) The management of water
- (b) The water supply and delivery functions

To operationalise the preceding, the strategy proposes the establishment of Water Services Regulatory Board, Water Services Trust and involvement of the private sector in financing and management of the water sector. It also advocates for the revival of the irrigation subsector to provide water for agriculture as well as developing strategies for flood control and preparation of an early warning system.

For the irrigation and drainage sector, the draft National Irrigation and Drainage Policy (2004), which is under preparation, outlines various methods that will address the deficiencies which have hampered the development of irrigation in Kenya.

1.3.4 Other Public Sector Reforms

Other public sector reforms currently being undertaken which have an impact on the Operations of the Ministry of Water Resources Development and Management include Public Financial Management which introduces and deepens the Medium Term Expenditure Framework (MTEF) as a key component to instil discipline in fiscal management. Other reforms are accounting, audit, procurement, parastatal reform and privatisation, Local Government reforms, and Legal Sector Reforms.

1.4 Achievements of the Ministry

The Ministry has been consistent in implementing reforms in the water sector sector as detailed in the 1999 Sessional Paper on Water and the Water Act 2002 and is therefore perceived to be a model of Government Ministry and Departmental reforms. This began with the establishment of a Water Sector Reform Secretariat (WSRS) to oversee the reform process. The Secretariat has a three-year operational plan for the implementation of the Water Act and is harmonizing the current water resources and the water and sanitation services strategies with the Water Act. The Ministry has moved further to establish water supply bodies, water users associations as well as water regulatory bodies to take up services that the Ministry was previously providing.

The Ministry has also been implementing reforms which reflect current global trends in the management of water such as recognition of the importance of political will, developing partnerships with the private sector, ensuring sustainability in the development and management of water resources, capacity building of the institutions and individuals tasked with water resources management and development, development of policy and legislation, and institutional rationalization.

The ministry has adopted an integrated management approach (whose basic elements such as interaction, water system approach, integration and sustainability are in line with several global trends) and is pursuing and encouraging the collaboration of all water sector actors in the country, and ensuring both public and private participation in managing and developing water resources.

To carry out this mandate, the ministry has trained professionally focused manpower who include engineers, land and water management specialist, irrigation technicians and surveyors. Additionally, the ministry has decentralized its services to the provincial and district levels to bring its services closer to the citizens.

1.5 Challenges Facing the Water Sector

There are various challenges facing the water sector. These include capacity building in the commercialised public sector institutions, and the need to sensitise communities in all areas to pay for water to ensure sustainability of current and new water supply and sanitation services. There is need to address the excess demand over supply occasioned by population growth and economic development as well as poor access to clean water. This has also been

attributed to degradation of environment and aquatic systems causing flooding, reduced ground water recharge, and reduced stream baseflow. Poor cultivation, deforestation, and overgrazing have also had similar effects.

There are many institutions involved in irrigation, drainage and land reclamation and research. These include: Irrigation, Drainage and Land Reclamation Department (IDD), National Irrigation Board (NIB), Regional Authorities, Private Sector and NGO's. Although this diversity is desirable, there is no mechanism for coordination of their activities to ensure efficient utilisation of development resources and orderly development of the sector. Investment in the sector by government, development partners, Communities and the private sector has been low and continue to decline. This is in spite of the potential benefits that would accrue from the development of the sector.

Water has been identified as critical in the process of tackling the poverty, health, and food security nexus. In many areas of Kenya, water fluctuations are high due to variable and unpredictable precipitation, worsened by the fact that most runoff is not trapped. There is need to make households water and food secure by easing access to water. This could be achieved through investments in exploiting new water supplies as well as new infrastructure-irrigation systems, domestic water supply systems, and hydropower. Yet the cost of such investments has been high, making Kenya dependent on external financing to develop the water sector while the cost of buying water is subsidized. Since cost recovery remains low, this increases the financial burden on the government to provide capital for maintaining existing systems and developing new infrastructure.

For sustainable irrigation and drainage development, effective farmer participation is required. Expansion of the sub-sector will be dependent on the success of the farmers' organizations as key players in irrigation development and management. Farmers have not been able to effectively discharge their responsibilities on irrigation development, as they are not able to effectively enforce their by-laws. Although irrigation accounts for the bulk of water demand, optimal utilisation of water within the sector has been constrained by its uneven distribution both in time and space. Development of Water storage structures to store floodwater for irrigation has been low constraining the full exploitation of the irrigation potential.

The existing Irrigation Act, which only creates the National Irrigation Board, does not give clear provisions for the management and coordination of irrigation activities and does not recognize the role of stakeholders in the planning and implementation of irrigation projects.

1.6 Development Imperatives for the Ministry

From the preceding, the development imperatives for the ministry include household water security, catchment area and wetland protection by supporting environmental stewardship and providing leadership in water related issues; improving water quality and thereby human health; ensuring that water is recycled where possible; and cooperating with regional partners to enable intra-national and international conflict resolution related to water. An example of this is the ongoing Nile Rive negotiations.

Other development imperatives include the restructuring of the irrigation, drainage and land reclamation departments to align them with other water sector reforms; increasing the proportion of irrigation potential in the country by investing in water storage and irrigation infrastructure; reviewing the land tenure system to encourage investment in the sector.

1.7 Envisaged Role of the Ministry after Transformation

The ministry is currently in a transition during which most of its functions will be transferred to the newly instituted water sector institutions. The Ministry will identify and retain a core highly qualified human resource complement to enable it to support the water sector institutions as well as provide leadership in the sector. This will be done alongside strengthening the institutions which will be carrying out water service delivery, management and regulation activities. The new look ministry after the transformation will include the Directorates of Water Sector Management, and Irrigation, Drainage and Land Reclamation. The envisaged role of the ministry would be:

- a) Policy formulation and encouraging participation and consultations through, for example public debate on these policies in order to guide the strategic direction of water. The development of a communication strategy is critical in enabling the policing of both the Water Sector Institutions and stakeholders. The Ministry would also review laws, tariffs, operational plans so as to enable all stakeholders to play their role.
- b) Coordination of water activities, ensuring that each entity plays its part in the water sector and that the activities carried out meet the government's objective of enabling access to all that need water.
- c) Moving from the current planning regime of integrated water resource management towards integrated water resource development. The sustainable management of water in this process cannot be gainsaid.
- **d**) Ensuring that resources for the required facilities, infrastructure, operations and maintenance, and development needs are mobilised.
- e) Development of ASAL areas and irrigation infrastructure
- f) Policy formulation and coordination of land reclamation and irrigation.

1.8 Organisation of the Strategic Plan

The present chapter gives an overview of the Ministry's past and progress to the present. The chapter also examines the process by which this plan has developed. The chapter that follows undertakes a situational analysis of the ministry presenting an overview of the Ministry, performance review, Ministry's opportunities and challenges, core functions and policy priorities of the Ministry.

The third chapter, the core of the strategic plan, presents the vision, mission and strategic issues and options in key areas of service delivery for the Ministry, presenting these in line with the core functions. The fourth chapter shows how the strategy will be implemented, examining the institutional framework, organizational structure, and human resource management and development. Of critical importance is the financial resources requirement and mobilisation in relation to the cost of implementing the strategic plan. The last chapter outlines how the strategic plan will be monitored and evaluated. An action plan in the form of an implementation matrix showing the steps that the ministry will take to implement the various strategies is also outlined in this plan.

CHAPTER TWO: SITUATIONAL ANALYSIS

Overview of the Ministry

2.1.1 Mandate

2.1

The mandate of the Ministry it to protect, harness and sustainably manage water resources to ensure availability and accessibility to all. The Ministry is also responsible for irrigation development. This entails facilitation and co-ordination of irrigation, drainage and land reclamation for sustainable development of agriculture.

2.1.2 Core and Non-Core Functions

In fulfilling its mandate, the Ministry has a number of functions that are core to its activities and are geared to ensuring that the Ministry fulfils its mission and achieves its vision. The core functions of the Ministry are key to the country's development goals and are the basis for developing policy priorities. An important government policy is the achievement of the millennium goal of making water accessible to all users.

Therefore, the core functions of the Ministry include the conservation, control and protection of water catchment areas, which are largely found in forests and other ecosystems; the review, documentation and implementation of water resources and water apportionment policies, which are key to the ministry's policy pronouncements and are geared to enabling private sector players play their role in water services provision; and the assurance of water quality and pollution control.

Others include rural and urban water development and supply, flood control and land reclamation and construction of irrigation projects across the country, and dam control to ensure minimal or no damage to crops whose water sources are the dams. Another critical function is wastewater treatment and disposal and the drilling of boreholes in underserved areas.

The non-core functions of the Ministry include the provision of security services and running of training institutions.

2.1.3 Organisational Structure

With reference to the water sector, the Economic Recovery Strategy recognizes that Kenya is a water deficient nation and that water resources are diminishing due to mismanagement and destruction of water catchment areas, among other reasons. The strategy also recognizes the Water Act 2002 and the Integrated Water Resources Management Strategy, which advocates for the separation of the management of water (government function) from the water supply and delivery functions (private sector players); and Arid and Semi Arid Land and Irrigation policies.

Therefore the Ministry is exploring the issues involved in the transfer of services from the Ministry to the new institutions established by the Water Act 2002. Operationalisation of the Act entails the establishment of a Water Services Regulatory Board, Water Services Trust and involvement of the private sector in financing and management of the water sector. It also advocates for the revival of the irrigation sub-sector to provide water for agriculture, promote development in ASALs and degraded areas, and calls for the development of strategies and systems to control and preparation of an early warning system in order to mitigate drought and floods.

The Ministry is currently structured into three technical divisions namely water resource management, water supply and sewerage services and water conservation, irrigation and land reclamation. The support departments include general administration and planning; data documentation and information technology; and water reform programme. The parastatals under the ministry include the National Water Conservation and Pipeline Corporation, National Irrigation Board and the Kenya Water Institute.

The role of the National Water Conservation and Pipeline Corporation is the development and supply of bulk water resources. The corporation is also the reserve operator of water supply systems as part of government social obligations.

The mandate of the national irrigation board as currently constituted relates to Public Tenant-based Settlement Irrigation schemes (Irrigation Act CAP 347). All other irrigation and

drainage functions are under the Irrigation and drainage Department. In particular, the department has been instrumental in the development and technical support of over 2500 smallholder irrigation schemes which account for 45% of all irrigation development in the country. The role of the Kenya Water Institute is research and development in the water sector and provision of related training.

2.1.4 Roles and Linkages

Over the years, dam construction, water distribution and construction and maintenance of other water-harvesting infrastructure were the role of the government. This also included the establishment of irrigation schemes. However, with the adoption of the Water Act 2002, these roles have been opened up for private sector participation.

The National Water Conservation and Pipeline Corporation has been working with Local Authorities to provide water to residents.

With the opening of services provision to private sector players, the end-to-end provision of water will enhance efficiency and effectiveness. This will in turn lead to more investment in the water provision infrastructure including treatment and waste disposal.

The Ministry also has a key linkage role to play with other Ministries, which focus on rural development to ensure that synergies are created in serving rural communities. These include the Ministries of Energy, Roads and Public Works, Lands and Housing, Local Government and Culture and Social Services.

2.2 Performance Review

The Ministry is operating largely under the Water Act 2002, on the basis of which reforms in the sector are being formulated for implementation. The functions of the Ministry have hitherto been carried out by different ministries, which have had a focus on rural development. The Ministry has largely been involved in development of irrigation and water harvesting schemes. This however is expected to change with the Ministry's intention to refocus its role to mainly providing policy guidelines and playing a regulatory role to private sector players in the water sector.

The Government in recognition of the importance of irrigation in wealth creation and food security has crated the Department of Irrigation and Drainage. As such, the Ministry is now responsible for irrigation schemes such as Bunyala, West Kano and Mwea. The Ministry is currently working on flood control mechanisms for flood prone areas such as Kano and Budalangi and support to the Turkana Rehabilitation Programme, Centre for Training Research and Development (CETRAD) and other integrated Rural/ASAL development programmes. The Ministry has been working on a multisectoral framework for flood management, which would ensure an integrated approach to flood prone areas. One key solution to this however is minimising the degradation of water catchment areas and other poor land use practices. With regard to irrigation, the statistics are as follows:

Table 1: Comparative irrigation development status

Sector	Developed Area (ha)1			Area under
	1985	1998	2003	production 2003
				(ha)
	17,500	34,650	47,000	47,000
Smallholder Schemes				
National Schemes ²	11,500	12,000	16,000	10,000 ²

² Data for 2003 includes 4,000 hectares of out grower areas in Mwea with NIB as water

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Private Schemes	23,000	40,700	42,800	42,800
TOTAL	52,000	87,350	105,800	99,800

Source: MWRMD, NIB

The above statistics show that the bulk of expansion in irrigation development in the last eighteen years has been through the smallholder and private categories.

Water harvesting has been carried out through water holes, community wells, small dams and water pans. An inventory carried out in 1992 showed that across the country there were 406 small dams and 2,254 water pans. With reference to current water storage levels, the national per capita storage is 6.1 million cubic meters. Although this is an improvement from the past, it is by no means high since it only provides a cover for three months during which, if there are rains, there would be a water deficit for domestic, livestock and irrigation use. In addition the Ministry has been working to develop guidelines and procedures for development, use and control of groundwater through the identification, development and promotion of appropriate technology on drilling. Further, the Ministry has set up drilling standards for the drilling industry and vetting of prospective private sector and NGOs for licensing.

With regard to the Water Act 2002, there still remain some inconsistencies with other Acts that govern the mandates of other Ministries. These will of necessity need to be resolved to ensure the ministry can achieve its vision of assured water resources availability and accessibility by all.

The Ministry has established a Water Sector Reform Secretariat (WSRS) to oversee the reform process. The Secretariat has in turn, developed a three-year operational plan for the implementation of the Water Act and is harmonizing the current water resources and the water and sanitation services strategies with the Water Act. This harmonisation entails the formation of Regional Water Boards and the commercialisation of water supply function, the operationalization of the Water Resources Management Authority which is already established and the review of the Water Act, 2002, to conform to the new policy shift in the management of the sector.

Other institutions that the Ministry has established include the Water Resources Management Authority, which is responsible for the management of water resources as provided in Section 8(i) of the Water Act, 2002, the Catchment Area Advisory Committee with the responsibility for the management of water resources, conservation, use and apportionment of water resources in a defined catchment area as presented in Section 16 (i) of the Water Act, 2002. The Water Services Regulatory Board whose role is to license and manage the supply of water and sewerage services in accordance with Section 47 of the Water Act, 2002.

Others are the Water Services Boards and Water Services Providers whose service delivery roles as per Section 5 of the Water Act, 2002, the Water Sector Trust Fund whose mandate is to mobilize financial resources for development and rehabilitation of water and sewerage services infrastructure and the Water Appeals Board whose mandate is conflict resolution within the sector management.

2.3 Institutional Framework

The Ministry has been very proactive in water sector reforms, guided by the Water Act 2002. Among the strengths the Ministry has include having a highly skilled technical cadre of staff with the capacity to spearhead the reforms in the water sector and continued development of the sector, the support of the multilateral and bilateral donors in providing both financial and technical assistance.

undertaker.

² The figures exclude Bura, Hola, Part of West Kano, Bunyala and Ahero, which are not operational.

The Water Act 2002 itself as a legal framework has given the Ministry the mandate to carry out reforms, by bringing together all water sector players to ensure that there is harmony and each stakeholder plays their role to ensure actualisation of the reforms.

The Ministry has also been given the mandate to oversee international water issues and further negotiate with other international bodies and countries on the use of international waters such as the Nile Treaty. In addition the Kenya Water Institute is a highly regarded institution with the capacity to carry out water-related research and training, which will go a long way to support the sector

Despite the above strengths the Ministry has continued to face a number of constraints among them being inadequacy of funds and uncertainty in the implementation of the Water Act 2002. There is also lack of succession planning, which is likely to negatively impact on service delivery by the Ministry

Lack of adequate facilities and tools of trade due to technology obsolescence, has meant that most of the Ministry's equipment is no longer useful. In addition to this is the lack of internal systems to control wastage of water thus leading to large volumes of unaccounted for water.

Poor terms of service and inadequate management capacity continue to negatively impact on the level of service delivery. This is in addition to the uncertainties brought about by formation of the water services boards and hence, staff in the provinces are unsure of their roles when the water services boards become fully operational

2.4 Opportunities and Challenges

The water sector has huge potential to substantially improve the lives of Kenyans by ensuring access to clean water. The specific opportunities that exist in the sector include the formation of regional water bodies that will facilitate private sector participation in water resource management. This will further help to achieve the government's objective of providing water to all. The full operationalisation of the Water Act will provide for the establishment of new institutions that will help the ministry to achieve its mandate

Development partners have continued to show willingness to fund the Ministry's programmes and this places the Ministry in good stead to implement most of its programmes. In addition the Ministry's research institutions are strategically positioned to undertake research for commercial consumption and hence improve revenues for the ministry

In order to realize the potential of the sector, there are a number of challenges that the Ministry will need to overcome. These include the lack of the legal mandate to co-ordinate other water sector players. This has the potential to have overlaps, which the Ministry may not be in a position to resolve. Over time water installations across the country have been under the threat of vandalism and this has impacted negatively on service provision. The Ministry has well qualified staff but has faced increased drain of this vital manpower to the private sector due to better terms of service.

The land tenure system has not been favourable to development of water supply infrastructure. There are parts of the country where land has not been adjudicated and this hinders the development of water supply infrastructure. Also forest excisions and destruction of water catchment areas has been a source for concern since it impacts on the very source of water, which the Ministry is expected to provide to the citizens. Also the historical international treaties such as the Nile Treaty hinder the harnessing of water resources.

Policy Priorities

2.5

The Government, through the National Water Policy (1999) and other policy and legislative initiatives, envisages 100 % access to safe water by all Kenyans. In order to achieve this, both the Economic Recovery Strategy for Wealth and Employment Creation and the Poverty Reduction Strategy Paper call for the implementation of structural reforms to make water and sewerage services autonomous (including introducing commercial and private sector principles), mobilize investment for construction and rehabilitation, and enter into partnerships with community based organizations to expand services to the urban poor and rural communities.

Also by enforcing the Water Act 2002, the Ministry expects to constantly review the water abstraction and disposal licenses and will introduce effluent discharge charges as instruments for pollution control. It is expected that the levies obtained through polluter pay and polluter approved principles will be used to cover the cost of polluting the environment by effluent discharges.

A key policy priority is the finalization of the ASAL development investment plan.

Other policy priorities of the ministry include:

a) Finalization of the Water and Irrigation Master Plan

As the Ministry gears itself to play a more policy direction and regulatory role, it needs to work and finalise the water and irrigation master plan, which is largely guided by the provisions of the Water Act and the Irrigation Policy yet to be adopted. Among areas that need to be covered include promotion of efficient water harvesting technologies to reduce over reliance on river resources and reduce river pollution. Another area of focus should be developing measures and promoting efficient conveyance and water saving technology to reduce unaccounted for water.

Of importance also is the sourcing of funds for the sector through the development of a Water Sector Investment Plan as part of the master plan. The master plan should also focus on developing a method for streamlined licensing of water sector actors and enforcement of penalties.

It is worth noting that the Water Reform Secretariat developed an Investment plan for the water sector.

b) Full Operationalisation of the Water Act 2002 and Review of its Deficiencies

The full operationalisation of the Water Act 2002 will assist the Ministry achieve its mandate as well as harmonize its roles with other legal and policy frameworks that impinge the Water Act. This will also improve the ability of the Ministry to coordinate the activities of all water actors and acquire legal basis for effective delivery of this function. This may involve the development of a decentralized decision making institutions.

The Ministry will also prepare a cabinet paper on the provisions of the Act that require to be improved especially with regard to granting the Ministry the mandate to have an oversight role over all private sector players in all areas of water services provision.

Of importance as well is the improvement in the water sector by encouraging sound water management practices, resources mobilization and promoting research and technology.

c) Renegotiate all International Waters Treaties

The Ministry has been spearheading negotiations with other countries on historical international water treaties. The Ministry will continue to play this role to ensure that the country harnesses and improves its access and use of international waters.

d) Protection of Water Catchment Areas

The water catchment areas have continued to come under threat from communities living around them as well as illegal loggers. It is part of the Ministry's mandate to prevent these areas. Therefore as part of playing this role the Ministry will develop a policy framework on participatory protection of these areas with communities and other stakeholders especially the regional water bodies and Catchment Protection Advisory Boards.

Coupled with this is the sensitisation of customers on the need to conserve water and pay bills promptly.

e) Policy on Management Information Systems (MIS)

The Ministry is currently hampered in terms of quality of information it provides. Therefore the Ministry will develop an MIS policy that will guide the adoption of the appropriate technology to automate the collection, storage, retrieval and manipulation of information pertinent to the water sector. Such technology will enhance enhancement and access to market intelligence and information on marketing related activities.

The policy will also focus on consolidation of information within the Ministry to provide a 'one-stop-shop' for the water sector information. There will also be focus on strengthening of technology transfer and information flow for the sector so as to provide strong linkage with the private sector.

CHAPTER THREE: STRATEGIC OBJECTIVES OF THE MINISTRY

3.1 Water and National Development

The centrality of water in economic and social development of the country is acknowledged in the Economic Recovery Strategy for Wealth and Employment Creation (2003); and the Poverty Reduction Strategy Paper PRSP (2002). The performance of key sectors in agriculture, livestock and fisheries, manufacturing and tourism depends on the availability and reliability of water resources. Energy is a vital resource in economic development. Over 70 per cent of domestic energy needs are met from hydropower.

The availability of water directly impacts the quality of life of the people. Water problems and environmental degradation are associated with water-borne diseases, human wildlife conflict and unsustainable human settlements. The sustainable management of water resources is, therefore, a pre-condition for Kenya's economic and social development. It is also an essential pillar in the poverty alleviation strategies. Important objectives addressed in

this strategic plan will therefore address the continuation of reforms in the water sector; sustainable management of water resources; improvement in water supply and sanitation systems; and improved utilization of water resources for irrigation and land reclamation.

3.2 The Vision of the Ministry of Water and Irrigation

In developing this Strategic Plan, the Ministry is guided by its vision, which is: "to ensure water resources availability and accessibility by all."

3.3 The Mission

The mission is the underlying purpose of the Ministry; the reason why it exists. The mission is: "to contribute to national development by promoting and supporting integrated water resource management to enhance water availability and accessibility."

3.4 Strategic Objectives

In pursuit of the vision, and in line with the mission, the Ministry will implement clearly defined objectives in the next five years. These are discussed hereunder and will focus on the following:

- (a) Accelerating the implementation of water sector reforms;
- (b) Improving the sustainable management of water resources;
- (c) Improving the provision of water and sewerage services;
- (d) Improving utilization of land through irrigation and land reclamation;
- (e) Strengthening institutions in the Ministry and the water sector;
- (f) Mobilizing resources and promoting efficiency in their utilization;
- (g) Improving the management and access to water resources information

3.5 Accelerating the Implementation of Water Sector Reforms

Arising from the adoption by Government in 1999 of the Sessional Paper No. 1 of 1999 (*The National Policy on Water Resource Management and Development*) and the subsequent enactment of the Water Act 2002 (in replacement of Water Act, Cap 372), the Ministry has designed and implemented fundamental reforms in the water sector. The major change is the delineation in the roles of major stakeholders. The Ministry will be responsible for policy formulation, co-ordination and monitoring and evaluation. In the medium term, the Ministry will drive the sector reform programme. The apex regulator for water resource management is the Water Resource Management Authority; while the apex regulator for water and sewerage service is the Water Services Regulatory Board. While the policy and legal framework for these reforms are in place, the implementation of the related changes are ongoing. These will be accelerated.

Accelerating the water sector reform will entail the following:

(a) Harmonizing Policy and Legislation in the Water Sector

The water sector is impacted by many laws including: the Water Act, 2002; the Environmental Management and Co-ordination Act, 1999; and the Local Authorities Act, Cap 265. These laws assign responsibility for different players in the water sector. This has potential for conflict in execution of relevant mandate, with potential negative effect on the management and development of water resources. The Ministry will address this challenge as part of the reform process in the water sector.

(b) Building Capacity in Water Sector Institutions

The sector reforms envisage progressive uptake of the responsibility for water and sanitation services by water service boards, established in various areas of the country. Public institutions will provide these services as a last resort. The regulatory agencies in the sector will need capacity enhancement to discharge their new responsibility. The Ministry will therefore mobilize both technical and financial resources to build capacity in the institutions in the water sector. A gradual transfer of responsibility from the Ministry to other institutions is envisaged. "The Draft Plan for the Transfer of Management and Operations of Water Service to Water Systems Board (March 2005)" proposes a transition period of 3 – 4 years, to year 2007. An important aspect of the transition plan is capacity building in the sector institutions.

(c) Mobilizing Stakeholders in the Water Sector

The fundamental changes taking place in the water sector are unprecedented in public sector management. They represent a change in paradigm, the effective decentralization of water and sanitation service to stakeholders (communities, NGOs and the private sector). The success of these reforms is hinged on the collaboration between all players in the sector. A change strategy, involving intensive communication with all stakeholders, is therefore necessary. The Ministry will develop and implement a stakeholder mobilization strategy that will seek to generate consensus on the sector reform agenda and the implementation approach. This strategy will aim to build a strong partnership with all stakeholders in transforming the water sector. The National Water Strategies, now under development, will be the rallying point around which stakeholder mobilization will take place. The ownership of these strategies is key to the success of the sector reform policy.

3.6 Improving Sustainable Management of Water Resources

The country has limited water resources. The water endowment at approximately 647 m³ per capita per year of freshwater places the country under the "water-scarce" category. Per capita availability is projected to fall to 235m³ or less by 2025 as Kenya's population increases and the resource base continues to be depleted. The production capacity of existing water supplies is well below current demand, and continues to decline. The estimated water demand for the country in 1995 was 2,186.6 m³ and in 2010, water demand in Kenya is projected to rise to 4,183.2m³. The variability of water availability and the limited sources of the major rivers in Kenya make a compelling case for developing and implementing effective strategies of sustainable management of water resources. In the event, the Ministry will address the following specific objectives in the next five years.

(a) Improved Water Storage Infrastructure

Kenya has not invested adequately in water storage. The maximum per capita storage of surface water has declined from 11.4 m³ in 1969 to 4.3 m³ in 1991.³ Existing water resource infrastructure has not been adequately maintained. Examples are Mwea and Hola irrigation schemes infrastructure. It is estimated that 80 per cent of water pans and dams in ASALs areas are poorly maintained.

(b) Water Conservation and Catchment Protection

Weak water allocation and monitoring system and over-abstraction in parts of the country has led to degradation in quality and quantity of water resources. Increased and improved human and unplanned human settlement has led to inappropriate land use causing soil erosion in catchment areas with detrimental effects on water resources and storage. An integrated sectoral approach to the management of water catchment areas will be implemented. In particular, the Ministry will collaborate with the Ministries of Environment and Natural Resources; Agriculture; and Livestock and Fisheries Development, to create an effective

³ Water Resources Sector Memorandum(Feb., 2004)

mechanism for the management of the water catchment areas. In addition, the communities and other stakeholders will be incorporated in the management of water resources. Decentralization of water resource management institutions will entrust the management of water resources to communities and the private sector. Water Catchment Advisory Committees will be formed in each water catchment area to oversee the management of the water resources. The institutional framework for the water sector is discussed in a later section as an important goal in water resources management

(c) Participatory Management of Water Resources

Sustainable management of water resources is the responsibility of all. The involvement of communities, the private sector and development partners is underpinned by the reforms being implemented in the sector. Stakeholder participation in water resource management will be actively sought. Potential exists in innovative development and utilization of water resources. These include rainwater harvesting; inter-basin and intra-basin water transfer; and utilization of surface and groundwater through community based water resource management practices. Increasing water conservation awareness among communities; and encouraging private sector investment in water service delivery infrastructure, will conserve water and reduce unaccounted for water.

(d) Transboundary Water Management Issues

It is estimated that 54 per cent of Kenya's water resources are shared with other countries. 45 per cent of surface water inflows to Lake Victoria originate from Kenya. This has water resources implications for the Upper Nile. Kenya shares surface and ground water resources with Ethiopia, Sudan, Tanzania and Uganda.

Effective utilization of transboundary water resources for investment in energy, food, security and consumption require intra-regional co-operation. Kenya is an active participant in regional initiatives on sustainable management of transboundary water resources. These initiatives are: The Nile Basin Initiative; the Nile Equatorial Lakes Subsidiary Action Programme of the Nile Basin Initiative; Lake Victoria Development Project of East Africa Community; and the Lake Victoria Environment Management Programme. The Ministry will continue to engage in these regional initiatives to ensure that Kenya's interests are safeguarded in transboundary water resource management issues.

3.7 Improving the Provision of Water and Sewerage Services

Reliable water supply is important for economic and social development. Major economic sectors are dependent on a reliable supply of quality water. Agriculture, for example, is estimated to use 76 per cent of total water consumption; while industry consumes about 4 per cent. Domestic and institutional demand accounts for the balance of water consumed in the country. While access to safe water supply and sanitation facilities are central to public health, only 46 per cent of rural population and 70 per cent of urban population have access to safe water.

A key goal of the Ministry is therefore to develop and provide safe water and sewerage services. In addressing this goal, three specific objectives will be achieved in the plan period. These are discussed hereunder:

(a) Improved Access to Sustainable and Safe Water.

In addressing this objective, the ministry will assess the condition of existing water supply projects and infrastructure and will source funds for the rehabilitation of the essential infrastructure. The participation of the private sector in the development of the water systems and infrastructure will be sought where possible. Construction of dams and new water

supply sources will add to the existing supply of safe water. During the plan period, the Ministry will sponsor the construction of major dams and boreholes every year.

(b) Improved Access to Sewerage Services

It is estimated that only 2 million people have access to sewerage services. These are mostly in the urban areas. The objective is to connect 38 per cent of Kenya's urban population to sewers and provide all of Kenya's rural population with access to pit latrines by the year 2010, a net increase of 250 per cent. Access to sewerage services is linked to the supply of water. The strategies for achieving these objectives include the rehabilitation of existing sewer infrastructure and development of new sewerage facilities in tandem with development of new water facilities; and developing partnership with the Ministry of Health, local authorities and private sector and community operators in the water supply systems to incorporate sewerage services in the water systems. The Ministry will facilitate and support relevant players in securing lands, funds and technical facilities for this purpose.

3.8 Improving Utilization of Land through Irrigation, Drainage and Land Reclamation

Kenya's irrigation and drainage potential is estimated at 540,000 ha and 600,000 ha, respectively. Of this, only 105,000 ha and 30,000 ha of the irrigation and drainage potential has been developed. The enhancement of land utilization will be achieved through increased investment in land reclamation, irrigation and flood management. The Department of Irrigation, Drainage and Land Reclamation will implement participatory irrigation management targeted at irrigation farmers, registered holders of irrigated plots, users of plots, relevant agro-based industries and other direct beneficiaries.

ASALs constitute over 80% of Kenya's total land area. They cover 44 districts with 28 of these with less than 30 % ASAL land, 7 have between 30 % and 85 %, while 9 districts have ASAL land of above 85 %. Over 6.5 million people which accounts for more than 22% of Kenya's total population live in these areas. ASALs also support over 50% of Kenya's livestock worth about 70 billion Kenya shillings and 3% of agricultural output. ASALs have at least 9 million ha (about 19% of Kenya's total area) that can support agriculture if modern technologies are used including better management of water resources. In view of this, the main objective is to reclaim these ASAL areas for productive purposes.

The Ministry will therefore pursue the following objectives to enhance irrigation, drainage and land reclamation:

(a) Develop Policies and Legal Framework on Sustainable Irrigation and Drainage Systems

The policy and legal framework on sustainable irrigation and drainage will focus on normalizing operations in the national irrigation schemes; promoting participatory management of irrigation solutions; and building capacity of public and community institutions. The Ministry will develop a National Irrigation and Drainage Master Plan to guide the implementation of the relevant policies and laws.

(b) Increase Area Under Irrigation

The objective is to increase irrigated area from 100,000 ha to 200,000 ha in the next five years. This will be achieved through a phased programme of capital development funded from both domestic and external resources. The National Irrigation Board will be facilitated

to mobilize the necessary financial and technical resources to identify and implement these programmes.

(c) Reclaim Poorly Drained and Degraded Land while being sensitive to the Ecosystem

The objective is to reclaim poorly drained and degraded land from the current 30,000 ha to 50,000 ha during the plan period. The Ministry will put in place strategies and programmes of achieving this objective. This will include the involvement of the private sector, communities and development partners.

(d) Flood Control Management

Flood and drought prone areas of Kenya are well documented. This objective will ensure that the construction of dykes will be accelerated to solve the challenges posed by recurrent floods. A collaborative approach, involving Ministry of Roads and Public Works, Regional Development Authorities and the National Irrigation Board, will be adopted in implementing this objective. The ministry will take the leadership role in facilitating this approach to flood control management.

3.9 Land Use and Water Resource Management

Uncontrolled land use has led to excision of forests in the traditional water catchment areas; over-grazing; soil erosion; and environmental degradation. Promotion of viable land use policy; protection and improvement of the natural environment; and promotion of soil and water management and conservation, should be seen as integral to the sustainable management of water resources. The Ministry will partner other Ministries and agencies in promoting environmentally sound land use policy and practices.

3.10 Strengthening Institutions in the Water Sector

The Ministry has taken bold measures in reforming institutions in the water sector. The institutional framework for the water sector is sanctioned by the Water Act, 2002. These reforms will strengthen the management of the sector. Details are now discussed.

(a) Reform of the Legal and Policy Framework for the Water Sector

The enactment of the Water Act 2002 provided the basis for effective management, conservation, use and control of water resources. The Act aims to decentralize responsibility for water resources management to grassroots institutions; and provides the framework for the management and regulation of the water sector. The involvement of the private sector and communities is provided in the Act. This is in line with government policy of involving stakeholders in the management and development of natural resources. The Water Act will be under continuous review to ensure that sector policies are in line with national aspirations. Policy on water resource management will be continuously updated to pro-act to sector development needs.

(b) Reform of Institutions

Policy implementation and sector development is the primary responsibility of stakeholders. These include the private sector and community based organizations. The core function of the Ministry is legal and policy development. Sector regulation is also a key function of the Ministry. The Ministry will co-ordinate sector players in the development and management of water resources. It will also facilitate and support all categories of stakeholders as they discharge their implementation mandate.

The Ministry is in the process of developing a comprehensive policy on irrigation, drainage and land reclamation. When completed, this policy will empower communities and the private sector to take responsibility in the sector.

The Ministry has established the following institutions as part of the sector reforms:

- (i) **Water Reform Programme,** whose role is to mange the implementation of the reform programmes in the Ministry. A Reform Secretariat is in place to manage the reform process. This programme will come to an end when the planned reforms in the sector are fully implemented.
- (ii) The Water Resources Management Authority, which is responsible for the management of water resources as provided in Section 8(i) of the Water act, 2002.
- (iii) **The Catchment Area Advisory Committee,** that has the responsibility for management of water resources, conservation, use and apportionment of water resources in a defined catchment area as presented in Section 16 (i) of the Water Act, 2002.
- (iv) **The Water Services Regulatory Board,** whose role is to license and manage the supply of water and sewerage services in accordance with Section 47 of the Water Act, 2002.
- (v) **Water Services Boards and Water Services Providers,** whose service delivery roles are provided in Section 5 of the Water Act, 2002.
- (vi) Water Services Trust Fund, which has the mandate to mobilize financial resources for development and rehabilitation of water and sewerage services infrastructure, especially to unserved areas.
- (vii) Water Appeals Board, whose mandate is conflict resolution within the sector management.

(c) The Role of Public Enterprises in the Ministry

The role of public enterprises (parastatals) in the Ministry will change to reflect the reforms in the water sector. These institutions will be supported to play their assigned role. Specific public enterprises in the sector are;

- (i) **National Water Conservation and Pipeline Corporation**, whose role is the development and supply of bulk water resources. The corporation is also the reserve operator of water supply systems as part of government social obligations.
- (ii) **National Irrigation Board,** which has the mandate for construction and rehabilitation of drainage and irrigation infrastructure; expansion and development of public irrigation schemes; and provision of local water supply to designated irrigation schemes.
- (iii) **Kenya Water Institute,** whose role is research and development in the water sector and provision of related training. To enhance capacity for research in the water and irrigation sector, the current research activities being carried out by the Centre for Training, Research and Development will be brought under the Kenya Water Institute.

(d) Restructuring the Ministry

The reform of institutions in the water sector will involve restructuring the Ministry itself. The role of the Ministry will be policy development, co-ordination of sector development; and monitoring and evaluating policy implementation, in addition to retaining the irrigation and land reclamation functions. The regulatory role will be delegated to public regulatory agencies. Implementation is the role of communities, private sector and voluntary sectors.

In the new structure, the Ministry will decentralize its traditional role to regional and grassroots institutions. This will lead to re-deployment of technical and support staff to the

new institutions. The new structure of the Ministry will emphasize service delivery at operational levels. The new structures and the resultant staffing levels are discussed in greater detail in Chapter 4.

(e) Co-ordination of Inter-Ministerial Agencies Roles in the Water Sector

The water resource management is impacted by roles and mandates of other ministries and agencies. The Ministry of Energy is concerned with hydropower generation. The Ministry of Agriculture has mandate over agricultural development which greatly impacts the management of water resources. The Ministry of Livestock and Fisheries Development has similar mandate. The Regional Development Authorities use water for irrigation purposes. These ministries and agencies are outside the mandate of the Ministry of Water Resource Management and Development. Yet, they impact directly on the mandate of the Ministry.

Inter-ministerial and agencies co-ordination is necessary to ensure a focused approach to the water resources management and development issues. The Ministry will promote and provide leadership in the effective co-ordination of the water resources related management priorities.

3.11 Improving the Management and Access to Water Resources Information

Information is key to effective planning and sustainable management of water resources. Information on surface and groundwater resources; water quality and waterflows; catchment management and re-aforestation; and water use and re-use in urban and rural areas, is essential for water resource management and development.

To improve the availability and accessibility of water resources information, the Ministry will develop and implement an integrated information management system. Information dissemination on all aspects of water resource management will be achieved through structured information products and distribution channels. It is important to ensure that all players in the sector have access to relevant information on the management and development of water resources.

In line with Government policy on e-government, the Ministry will develop and implement an ICT strategy. The objective is to integrate and disseminate water resources management and development information within the Ministry and across all sector players.

3.12 Mobilizing Resources for Water Resource Management and Development

Investment in water resource management and development has declined over the years due to budgetary constraints. In the event, the highly skilled capacity in the Ministry has been unable to achieve its full potential. Core programmes identified for investment include: water and catchment conservation and protection; conservation of pans and dams; construction of urban and rural water supplies; and construction and rehabilitation of irrigation infrastructure. Mobilization of resources will, therefore, entail the following:

(a) Promoting Efficiency in Utilization of Available Resources

The reform of institutions in the water sector means that the financial resources available for the core functions of the Ministry will increase. Focusing on core priorities and functions will ensure effective utilization of available resources. But the Ministry has the responsibility of supporting new institutions in their mandate. Resources will therefore be mobilized from both traditional and non-traditional sources. Development partners will be requested to support sector development needs on the basis of clearly planned objectives.

(b) Innovation in Resources Mobilization

New and innovative ways of resources mobilization will be explored. It is now accepted that private, public partnerships are viable strategies for major utilities and infrastructural development. The Ministry will explore this approach to resources mobilization.

The role of the private sector and communities in sector investment will be supported and encouraged. Community based organizations have been effective in maintaining water schemes and projects. This role will be supported through technical capacity building and community mobilization.

3.13 HIV / AIDS in the Ministry

It is estimated that in the period of three years (2000 – 2003), a total of 236 members of staff have died. Considering that the staff complement in the Ministry currently stand at approximately 6900, this loss constitutes 3.4 per cent of total employment. This is equivalent to a loss of 1.1 per cent per annum. Further analysis indicate that 51 per cent of staff deaths could be HIV/AIDS related; and that 85 per cent of HIV/AIDS related deaths are men who are normally stationed outside Nairobi. This analysis would indicate the need to factor HIV/AIDS related staff loss in human resource development plans.

(a) HIV/AIDS Prevention and Control

The Ministry has established the Ministerial Aids Control Committee to spearhead the fight against HIV/AIDS. In addition, a two and half years Strategic Plan has been prepared. Sensitisation seminars at the headquarters, provinces and districts have been held for all cadres of staff. To reinforce the fight against HIV/AIDS Control Units have been established and are operational at provincial and district levels.

(b) HIV/AIDS and the Water Sector

The Ministry operates throughout the country. Ministry operations involve interaction with the wider society. The effect of HIV/AIDS in the country has a negative effect on the mandate of the Ministry. The disruption of the social life of communities due to HIV/AIDS pandemic means that the goal of protection, conservation and management of water resources is undermined.

Government has mandate the National AIDS Control Council (NACC) to spearhead the fight against HIV/AIDS in the country. The Ministry, through the Ministerial AIDS Advisory Committee and the various Aids Control Units, will link up with the National Aids Control Council and its relevant outreach programmes to develop and implement prevention and control measures at district and locational levels. In this task the Ministries will also enlist the support of NGOs and the private sector in fighting this national menace.

(c) Monitoring the Effect of HIV/AIDS Programmes

HIV/AIDS workplans have in-built monitoring mechanism. This has not been applied. Emphasis has been on developing and implementing intervention programmes. It is necessary that the impact of prevention and control measures be known. The Ministry will make deliberate attempts to measure the impact of HIV/AIDS control measures. This will be done in collaboration with the National AIDS Control Council and the Central Bureau of Statistics. Periodic surveys will be conducted, on a sample basis, to monitor the effect of the prevention and control measures on the behaviour change in the workplace; and to estimate savings in life and costs achieved through various interventions.

3.14 Institutionalizing Corruption Prevention in the Ministry of Water and Irrigation

The Ministerial Corruption Prevention Committee was formed in late 2003. While the corruption prevention plan has been developed, the implementation needs to be strengthened.

Other improvements are required in integrating anti-corruption activities in the provinces and districts. While extensive planning has been carried out in the Ministry, the need to re-inforce anti-corruption message has been identified. The need for more resources to enhanced anti-corruption activities has been identified.

Integrity Assurance Officers (IAO) are in place to implement planned activities. They need high-level support to discharge their role. A critical need is communication equipment and facilities; and financial resources, which are necessary for effective anti-corruption activities. Improvement is also required in the management of anti-corruption reporting process.

The Ministry is committed to the fight against corruption and will implement corruption prevention strategies as detailed in the Public Integrity Programme Source Book.

(a) Enhanced Strategies for Corruption Prevention Activities

In line with Government policy to fight corruption, the Ministry will vigorously implement the PSIP through the constitution and operationalization of the departmental and sectional CPS's. Strong linkage will be established with the PSIP Steering Committees and PSIP Secretariat to support anti-corruption efforts in the Ministry.

Efficiency in service delivery is an effective tool in anti-corruption efforts. Poor service delivery invites corruption as a means of expediting public service. The Ministry will enhance public service delivery through the integration of performance management and service delivery standards in all public contact points.

The Ministry recognizes that the success of corruption prevention measures will depend on the support of the wider society. It will be necessary, therefore, to involve all sector players in the anti-corruption activities. This will entail-development of joint programmes with the private sector and civil society organizations to fight against the vice. This collaboration will be extended to community levels through suitably targeted outreach programmes.

(b) Monitoring and Evaluating Corruption Prevention Activities

A monitoring mechanism is provided in Ministerial Corruption Prevention Plans. This approach will be adopted in developing the Ministry specific Corruption Prevention Plan. The Ministry will monitor the implementation of planned anti-corruption activities on a continous basis. Periodic reports will be made to the Ministerial Corruption Prevention Committee on the status of programme implementation. Quarterly reports will be submitted from all Anti Corruption Units. These reports will be analysed and remedial measures taken. The implementation status in the Ministry will be advised to the PSIP Steering Committee through the PSIP Secretariat in year one of the programmes implementation; and, each year thereafter, an evaluation exercise will be carried out, on a sample basis, to determine the impact of anti-corruption activities and the cost of these activities against the planned budgets. The outcome of these evaluations will be shared with PSIP Steering committee, the Anti-Corruption Commission and the wider stakeholders. Remedial action will be taken, as necessary.

CHAPTER FOUR: ORGANISATIONAL STRUCTURE

4.1 Proposed Organizational Structure for the Ministry of Water and Irrigation

The Ministry of Water and Irrigation is implementing a major water sector reform programme. The aim of the reform is to promote and facilitate the attainment of the National Water Policy Objectives through a system of institutional and regulatory measures. Chapter 2 of this strategic plan, which deals with Institutional Analysis, has outlined some of these reforms.

For the Ministry of Water and Irrigation to successfully implement its strategic plan, there must be a technical relationship between strategy and structure capable of delivering value to stakeholders in a cost effective manner.

The following are the key characteristics of the current Ministry organizational structure:

- a) The Ministry's technical services comprise of Water Resource Management, Water Supply and Sewerage Services, Water Conservation, Irrigation, Drainage and Land Reclamation, Water Reform Programme and Applied Water Research. Due to reforms, some of these functions are being transferred to parastatals and private sector companies. Provincial offices act as links between the head office and the Districts, while the Districts link the divisions with the rest of the structure. The Ministry's support functions include planning, administration, and finance.
- b) Decision-making is centralized at Maji House, the Ministry's Headquarters. This has reduced the participation of field offices and stakeholders in the decision making process, weakening policy and strategy implementation.
- c) Information, Communication and Technology is not exploited fully by the Ministry. Office work is still predominantly manual.
- d) Multi or intra-disciplinary approach to Water management, development and utilisation is inadequate.

4.2 Proposed Reorganization

The proposed Ministry's organisational structure has the following distinct features:

- a) Focuses on the ministry core business and core objectives;
- b) Recognises the key support functions to the core business;
- c) Aims at facilitating timely and efficient management information and communication for decision making;
- d) Allows for effective delegation and control of management process.

The proposed structure has also put in place and depicted transfer of most of the functions and responsibilities to parastatals and regulatory boards. Some of these institutions include:

- (i) Water Resources Management Authority
- (ii) Water Services Regulatory Board
- (iii) Water Service Boards
- (iv) Water Service Trust Fund
- (v) National Water Conservation & Pipeline Corporation
- (vi) National Irrigation Board
- (vii) Kenya Water Institute, and
- (viii) Water Appeal Board.

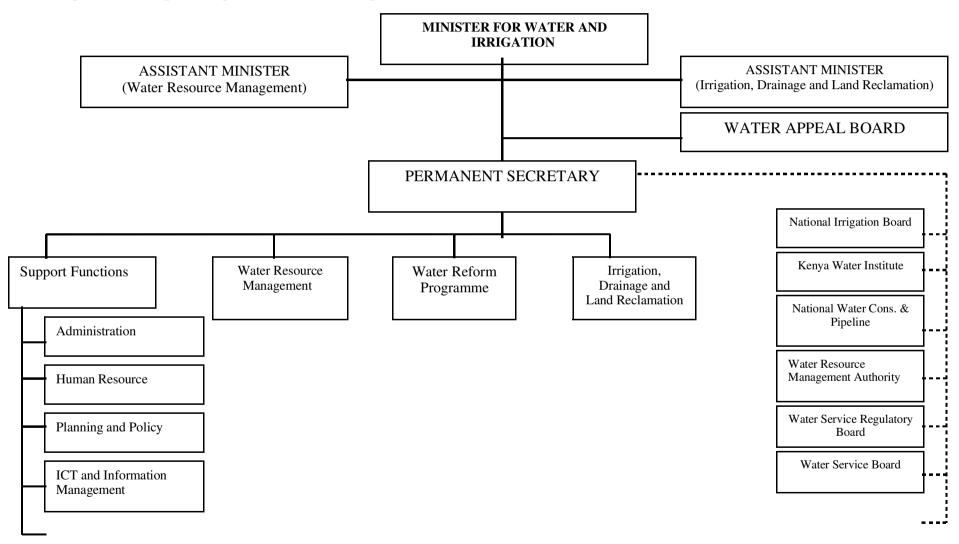
(ix) Irrigation Development and Land Reclamation

Figure 4.1 presents the proposed high level Ministerial Organizational Structure while **Figure 4.2** presents Water Basin Organizational Structures.

4.3 Redefined Role of the Ministry

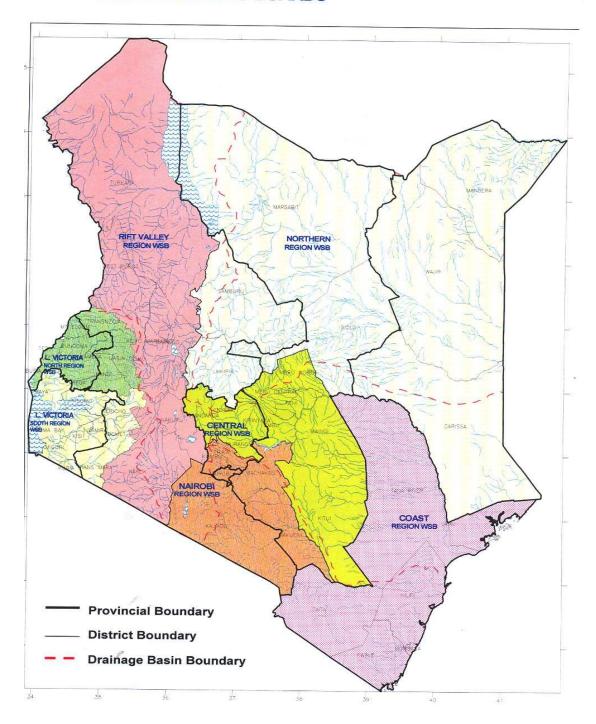
It has been indicated in Chapters two and three that the core functions of the Ministry of Water and Irrigation is policy and strategy formulation, supervision of parastatals and agencies, implementation of land reclamation and irrigation development, guidance, sourcing of funds from exchequer and development partners. The support functions necessary for the Ministry to deliver its mandate include Administration, Finance, Planning Human Resource Management and Information Management. The key functions of the Ministry are discussed in the subsequent sections of this Chapter.

Figure 4.1: Proposed High Level Ministerial Organisational Structure.



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WATER SERVICES BOARDS



The Minister is the political leader of the Ministry of Water and Irrigation performing the roles of liaison, spokesperson and representative of the Government in all forums, including cabinet and parliament. The functions of the Minister is to provide leadership and exercise control over water resources management, conservation, irrigation and land reclamation matters in exercise of powers given by the president and contained in the Water Act. The functions of the Minister for WRMD as provided in the Water Act 2002 include:

- (a) Exercising control over every Water Resources
- (b) Promoting the investigation, conservation and proper use of water resources and ensuring the effective performance of every person or authority charged with the responsibility of the management of water resources and provision of water services
- (c) Formulating water strategies
- (d) Classifying water resources for various uses
- (e) Establishing Water Service Boards
- (f) Appointing members of the Water Resources Management Authority, Water Services Regulatory Board, and Water Services Boards in consultation with nomination agents of stakeholders
- (g) Providing leadership on matters relating to irrigation, drainage and land reclamation.

4.3.2 Assistant Ministers

The Assistant Ministers will assist the Minister in performing his/her duties. In doing so, one Assistant Minister will be in charge of Water Resources while the other will be in charge of Irrigation and Land reclamation.

4.3.3 The Permanent Secretary

The Permanent Secretary is the accounting officer tasked with managing the Ministry's mandate, policy formulation and execution, strategic focus and ensuring integrity. The PS is the link between administration/management and the Government and co-ordinates inter-ministerial functions. The Ministry's administration and management team is responsible for the day-to-day management of the Ministry within the policy guidelines provided by the Government.

4.3.4 Technical Departments

Three technical departments have been provided in the Ministry structures. These are:

- (a) Water Resources Management;
- (b) Irrigations, Drainage and Land Reclamation;
- (c) Water Reform Programme

The Water Reform Programme is responsible for the co-ordination and implementation of the reforms in the water sector. Once these reforms are completed, the Programme will cease to exist.

The Water Resource Management and Irrigation Drainage and Land Reclamation functions advise the Ministry on all aspects of policy, strategy and implementation co-ordination. Important roles of these functions include also quality assurance, strategic audit and monitoring and evaluation.

Support functions

The following are the proposed support departments within the Ministry:

- a) Responsibility of Human Resource responsibilities include issues of HIV/AIDS, human resource planning, management and development, establishment control, PSIP, gender issues and concerns.
- b) **Responsibility of Finance** responsibilities include accounts, audit, budgets and procurement.
- c) Responsibility of Administration responsibilities include legal and parliamentary affairs, administration and public services: security, office services, public relations; state corporations and regulatory affairs.
- d) **Responsibility of Policy and Planning** responsibilities include policy analysis and research; policy reviews; sector development plans; strategic planning; statistical surveys; policy formulation; policy research; monitoring and evaluation.
- e) **Responsibility of ICT and Information Management** responsibilities include ICT (egovernment); information dissemination: library services; information management.

4.3.6 Water Management Authority.

4.3.5

The Water Act has provided for the separation of management of Water Resources from that of Water Supply and Sewerage. This will be achieved through the establishment and operationalization of the Water Management Authority. The Authority will manage, protect and conserve water resources. The Water Resource Management Authority will have Regional Offices at the catchments level for decentralised decision making for quick response to water resource management problems and to speed the water allocation process equitably.

Key Functions of Water Resource Management Authority under the water Act 2002 include:

- (a) Developing principles, guidelines and procedures for the allocation of water resources
- (b) Monitoring and periodically re-assessing the national water strategy
- (c) Issuing, verifying, transferring and cancelling water permits
- (d) Monitoring and enforcing the conditions attached to the water permits
- (e) Regulating and protecting water resources quality from adverse impacts
- (f) Managing and protecting water catchments
- (g) Determining charges and levying water use fees
- (h) Gathering and maintaining water information and publishing the sane periodically
- (i) Liaising with other actors for better regulation and management of water resources
- (j) Advising the minister on any matter concerning water resources

4.3.7 The Water Service Boards

The Water Service Boards will have delineated areas of supply. This will ensure the provision of water services to all parts of the country. The water service providers shall be autonomous bodies such as water companies formed by the Local Authorities as Public or Private companies. In cases where competent Water Service Providers are not available or the production of bulk water supply through state schemes is limited, the National Water Conservation and Pipeline Corporation will act as a fall back.

Functions of the board, as outlined in Section 53 of the Water Act 2002, are:

- (a) Efficient and economical provision of water services as authorized by licence
- (b) Custodianship of Water Services Provision Assets

- (c) Contracting, monitoring and enforcing agreements between WSBs and WSPs, in accordance with the regulations set by WSRBs in the licences
- (d) Maintaining and acquiring assets, planning development and management
- (e) Ensuring efficient and economical provision of water services authorized by the licence

4.3.8 Key Functions of Catchments Area Advisory Committee (CAAC)

The role of CAAC is advising the Water Resource Authority at the catchments level on the following:

- (a) Water resource conservation, use and apportionment
- (b) Issuance, cancellation and variation of water permits at catchments level
- (c) Any other matter pertinent to the proper management of water resources

4.3.9 Water Services Regulatory Board

Section 47 of the Water Act 2002 spells out the function of the board as follows:

- (a) Issuing licenses for provision of water services
- (b) Determining standards for the provision of water to consumers
- (c) Establishing procedures for handling complaints made by consumers against licenses
- (d) Monitoring compliances with established standards for the design, construction, operation and maintenance of facilities for water services
- (e) Monitoring and regulating licenses and to enforce license conditions
- (f) Advising licenses on procedures for dealing with complaints from consumers and to monitor the operations of these procedures
- (g) Developing guidelines for fixing of tariffs for the provision of water services
- (h) Developing guidelines for and providing advice on cost-effective and efficient management and operation of water services
- (i) Developing model performance agreements for use between licensees and water service providers
- (j) Monitoring the operation of agreements between water service boards and water service providers and taking appropriate action to improve their effectiveness
- (k) Developing guidelines on regulations of water services to be adopted by licensees, publish forecasts, projections and information on water services
- (l) Disseminating information on water services
- (m) Promoting water conservation and demand management measures
- (n) Monitoring and from time to time re-assess, the national water services strategy
- (o) Determining fees, levies, premiums and other charges to be imposed on water services in accordance with the national water services strategy
- (p) Gathering and maintaining information on water services and from time to time publish forecasts, projections and information on water services
- (q) Liaising with other bodies for the better regulation and management of water services
- (r) Advising the Minister on matter related to water services

4.3.10 Water Services Trust Fund

Section 83 of the Water Act 2002 mandates WSTF to assist in financing the provision of water services to areas without adequate water. The functions of WSTF include:

- (a) Mobilizing resources
- (b) Ensuring compliance with the rules of funding water services

- (c) Ensuring disbursement of funds
- (d) Monitoring implementation of projects and impact
- (e) Carrying out technical and financial audits of projects
- (f) Appraising applications and proposals for financing of projects
- (g) Establishing links with Water Service Boards in all parts of Kenya and other stakeholders in the water sector
- (h) Facilitating the efficient administration, management of activities and operations of the Trust Fund

4.3.11

Water Appeal Board (WAB)

The functions of the board, as outlined in section 85 and 87 of the Water Act 2002, include:

- (a) Hearing and determining appeals from decisions or orders of the Authority, the Minister or Regulatory Board
- (b) Hearing and determining disputes in the water sector
- (c) Performing other judicial functions that pertain to the use and development of water resources
- (d) Making and varying rules of their procedures from time to time

4.3.12

The Drainage Basic Office (DBO)

The functions and responsibilities of Drainage Basin Offices are to ensure that Government policies are implemented, rules are followed and work programmes are co-ordinated, monitored and evaluated. Furthermore, Drainage Basin Offices provide ministerial representation at the regional level, including co-ordinating with other ministries through inter-ministerial co-ordination committees, of which the Permanent Secretary is a member. The Seven (7) Drainage basin Offices are namely: Rift Valley region, Northern region, Lake Victoria North region, Lake Victoria South region, Central region, Nairobi region and Coast region. (See fig. 42)

4.3.13

The National Irrigation Board

The National Irrigation Board is responsible for the following:

- (a) Co-ordination of construction and rehabilitation of major irrigation and drainage infrastructure
- (b) Operation and maintenance of major irrigation and drainage infrastructure
- (c) Administering land in the public schemes and provide technical advice on maintaining a cropping calendar in consultation with the schemes and
- (d) Irrigation expansion.

4.3.14 The National Water Conservation and Pipeline Corporation

The National Water Conservation and Pipeline Corporation has the following functions:

- (a) Management of Water Supplies in an efficient, effective and sustainable manner both for bulk and direct distribution
- (b) Rehabilitation and augmentation of existing water supplies
- (c) Development of water facilities for the corporation and other stakeholders (e.g Water Supplies developed for DOD and Eldora municipal Council)

4.3.15

The Kenya Water Institute

The Kenya Water Institute is operating under its own Act of Parliament and is responsible for the following functions within the water sector;

- (a) Conducting training to the middle level personnel in the water sector
- (b) Carrying out relevant research and producing their publications for the water sector
- (c) Providing consultancy and production related services specific to the water sector.
- (d) Providing commercial related training to the water sector

4.4 Staff Analysis

There is need to achieve optimal staffing levels in the Ministry. The present optimum establishment for the Ministry of Water and Irrigation, on the basis of employee cadre, is shown in **Table 4.1** below.

Table 4.1: Directorate of Personnel Management approved establishment as at August 2003

	Technical staff	Support staff	Total
Current complement	3677	2895	6569

Source: Ministry of Water and DPM

Staff currently performing functions and responsibilities relating to water resource management and water and sewerage services, and those operating and managing assets and equipment are being off-loaded to the respective new institutions as indicated in the new organization chart. The following cadre of staff are to be transferred from the Ministry to the new institutions.

- (a) Professional staff comprising of Engineers, Geologists, Hydrologists, Chemists and Surveyors.
- (b) Para-professionals comprising of Technicians and Artisans/Craftsmen
- (c) Administrative and Support staff

The Ministry staffing has been based on the current strategy and work load analysis other than the department of Irrigation and Land Reclamation. Staffing levels for the department of Irrigation and Land Reclamation are based on current establishment pending finalisation of the proposed re-organisation.

Ranking of the jobs for the Ministry staff is an exercise currently being undertaken by DPM. The results will therefore be adopted by the Ministry once approved. On the other hand, the establishment and staffing levels for each parastatal and agency within the Ministry has been determined through the Report of the Inter-Ministerial Task Force on The Delinking of the Water State Corporation dated August, 2004.

Table 4.2 (a) and 4.2 (b) outline the recommended staff establishment and excess for the Ministry of Water Resources Management, exclusive of the Department of Irrigation and Land Reclamation; and for the Department of Irrigation and Land Reclamation respectively.

Annex 1 provides details of the Ministry of Water Resources and Irrigation staffing levels exclusive of parastatals and agencies.

Table 4.2. (a): Recommended staff establishment for the Ministry of Water and Irrigation, exclusive of the Department of Irrigation and Land Reclamation

	Technical staff	Support staff	Total
Current complement	3677	2895	6569
Optimal complement	88	183	271
Excess staff	3589	1724	5213

The staffing levels exclude the staff transferred and to be transferred to parastatals and agencies. The optimum establishment for the Ministry of Water and Irrigation, on the basis of technical and support staff, is shown in table **4.2 (a).** The requirement for technical staff is 88, while that of support staff is 183, totalling 271 members of staff. It became obvious that putting job groups would not be practical since DPM has already commissioned job evaluation exercise. The staff have therefore been divided into technical and support.

Table 4.2. (b): Recommended staff establishment for the Department of Irrigation Drainage and Land Reclamation

	Technical staff	Support staff	Total
Current complement	166	587	763
Optimal complement	to be established	to be established	to be established

CHAPTER FIVE: RESOURCE MOBILISATION

5.1 Resource Mobilization for the Strategic Plan

The Ministry of Water and Irrigation has various specific goals it has been mandated to achieve in the pursuit of poverty alleviation, economic recovery and growth, and employment creation; which have been outlined in this strategic plan. The water sector, which is undergoing radical changes to deliver these strategies, requires an estimated US\$ 1.4 billion (40 percent of Kenya's national budget) to finance the immediate rehabilitation and medium term expansion of water supply and sanitation systems. The government is unable to raise this figure by itself considering the needs of other sectors. This means that the implementation of the strategic plan will be shared between the government, development partners, local authorities and the private sector, reflecting the government's principles outlined in the Economic Recovery Strategy for Wealth and Employment Creation to increase efficiency and productivity in service provision of the productive sectors by those best placed to do so (private sector) while the government, as a manager of development, focussed on improving sector governance.

As such, the need for financial planning is critical in this process to ensure the proper allocation of funds, its expenditure and responsibility for accounting and audit. Financial planning is necessary to meet capital needs (especially infrastructure), operations and maintenance, for financing private sector/local Government/local communities initiatives, for supporting residual service or social obligations by government and for funding research.

Other objectives include addressing the high priority placed on water and sanitation services (WSS) as a key to stimulate economic growth and improving public health. Further, to reduce the high cost of avoidable flood and drought damage which during the 1996/7 financial year amounted to 11% of GDP. In pursuit of the goals outlined in the Economic Recovery Strategy, The Ministry of Water and Irrigation, as a sector player will, act to enable investments in the arid and semi arid lands which are poor and most vulnerable due to disparities caused by the lack of water. By extending services to areas without water, this will increase overage while help to reduce the high cost of water borne by poor communities compared to communities in wealthier environs.

5.2 Current Financial Situation in the Ministry

5.2.1 Current Finance Levels and Sources

Government financing can be divided into three areas: recurrent expenditure, development expenditure and Appropriations In Aid (AIAs, also known as extra-budgetary resources). The table below outlines the resources allocated to the Ministry for the 2004/05 financial year.

Table 5.1: Resources Allocated to the MWI for the FY 2004/05

Gross	Appropriations	Net	Composition of	of Appropriatio	ns in Aid
Estimate (Kshs)	in Aid (Kshs)	Estimates (Kshs)	Grants (Kshs)	Loans (Kshs)	Local (Kshs)
4,982,958,264	2,653,571,292	2,329,386.97 2	1,678,091,624	965,579,668	9,900,00 0

Source: Printed Estimates, Government Printer, Nairobi

The following table shows the Government's three-year water budget by line item for the Ministry of Water and Irrigation for the period 2003-2006.

Table 5.2: GOK 3 Year Water Budget 2003/2006

GOK 3 year Budget 2003/04- 2005/06	2003/04		2004/05		2005/06
Main budget lines	AIA (Mill Kshs)	GOK Budget (Mill Kshs)	AIA (Mill USD)	GOK Budget (Mill USD)	GOK Budget (Mill USD)
1. Water Sector Reforms		230	0.0	0.3	0.3
2. Urban Water	1,705.2	1,170.4	21.3	14.6	35.9
3. RWS incl. Rainwater Harvesting & Sanitation	1,056.9	3,473.1	13.2	43.4	56.6
4. Irrigation and Drainage Investment Programme	2,295.8	1,236.2	30.8	16.6	16.4
5. Water Resources Management	0.0	416.3	0.0	5.2	5.2
Total	5,057.9	6,526.0	65.3	80.1	114.4

Source: Zero Draft Investment Plan (MWRMD, 2004) & Irrigation and Drainage Sub-Department Summary of Strategic Plan (2003).

5.2.2 Appropriations in Aid/Extra Budgetary Resources

Within the Ministry, there are two sources of Appropriations in Aid; donor support and local sources of revenues (receipts for water service provision and licenses). It appears from the 2003/04 financial year that donor funding to the ministry is high and supports many activities.

Further, it is acknowledged that revenue collection (fees for water supply) within the ministry has been poor. There is need to improve and maximise on this.

5.2.3 Financial Challenges Facing the Ministry

The Medium Term Expenditure Framework (MTEF) is a strategic government budgeting process which links expenditures to desired outcomes by sector to enhance inter and intra sectoral linkages and ensures prioritisation of expenditures to match sector policies within the prevailing resource constraints. The MTEF is dependent on well developed monitoring and evaluation indicators that will allow greater transparency and accountability in the management of public resources, and does not consider the allocations made in the previous financial year as a basis for making new allocations.

The first and major shortcoming of the MTEF budgeting process is the lack of a system to allocate resources to priorities that would also allow trade offs between priorities. In relation to this, there is need to have a sector MTEF committee to enable this as well as follow up on the Ministry use of expenditure. This would enable periodic readjustments to allow funds to be used where needed.

Further, the MTEF system requires a reorganisation of the Government fiscal structure as the current structure does not provide the MTEF process enough flexibility (in terms of fiscal space) for negotiation. For example, the current budget is rather rigid due to the presence of many items

under recurrent expenditure that leaves little room for negotiation of how to allocate resources to sector priorities for development.

The other problem relates to the fact that the old system of budgeting, which was dependent on legality not efficiency, has largely been carried over to the MTEF budgeting process. Thus, the deepening of the MTEF budgeting process should adequately address this shortcoming. An act of parliament would provide a firm foundation for the MTEF system of budgeting, establish timeframes for the budget, indicators for annual performance review, a mechanism stating the method to follow up on the budget and locus of responsibility. Currently, accountability relates to whether the money was used, but not how well or if the expenditure met the aims for which the funds were allocated.

5.3 Cost of Implementing the Strategic Plan

The cost of the implementation of the strategic plan will be shared between the government, development partners, local authorities and the private sector. This reflects the government's principles outlined in the Economic Recovery Strategy for Wealth and Employment Creation to increase efficiency and productivity in service provision of the productive sectors by those best placed to do so (private sector) while the government, as a manager of development, focuses on improving governance. This will result in increased efficiency of operations, reduction of costs and improved distribution mechanisms for the resultant wealth.

This strategic plan outlines the activities to be carried out by the Ministry of Water and Irrigation in a five year phase. The funds required for year one are high due to the initial financial requirements to implement the strategies as outlined in the strategic plan. If the initial financial requirements are provided, years two and three will require much less funding. The financial requirements for years four and five will be for completion of the projects/programmes started, dependent on monitoring and evaluation reports.

The draft ZIP (September 2003) makes estimates of the investment needs of the sector based on reaching full coverage by 2015 and is summarised in table 5.3.

Table 5.3: Zero Investment Plan 2004/6

Zero Investment Plan	Three Year Inv. Plan 2003/4, 4/5 -2005/6	
Main budget lines	KSHS mill	Mill USD
1. Water Sector Reforms	470,000	5.9
2a. Urban Water	4,500,000	56.3
2b. Rural Water Supplies	6,000,000	75.0
3. Rainwater Harvesting	354,800	4.4
4. Irrigation and Drainage Investment Programme	11,093,000	138.7
5. Water Resources Management	2,650,000	33.1
Total	25,067,800	313.4

Source: Zero Draft Investment Plan (MWRMD, 2004) & Irrigation and Drainage Sub-Department Summary of Strategic Plan (2003).

It can be noted from table 5.3 above that the investment plan only shows figures for three years. This is due to the fact that the Ministry plans to offload all water supply and sanitation services to the private sector in a period of three years as outlined in chapter three of this strategic plan.

During the plan period, the Directorate of Irrigation, Drainage and Land Reclamation will be restructured which also has implications on resource mobilisation efforts of the Ministry.

5.4 Proposals for Funding the Strategic Plan

Considering that the Ministry's ability to deliver the targets presented in this strategic plan will be curtailed by the shortage of funds outlined above, there is need to consider various methods by which resources can be mobilised for ministry use. These are discussed as follows:

- (a) Government Financing through the budgetary process;
- (b) External Funding (through Donors)
- (c) Exploitation of Untapped resources

5.4.1 Strategies for Resource Mobilisation from the Government

As it is, the resources allocated to the Ministry are not able to meet all the financial requirements of the strategic plan. There is need to understand the importance of water to the economy in terms of domestic and industrial use, agriculture, and tourism, among others. For example, the lack of water caused by the La Nina phenomenon (1999-2000) resulted in a high cost of electricity, which coupled with electricity rationing, lead to high costs of doing business in Kenya. On the other hand, there is need to reduce the high cost of avoidable flood (and drought) damage which during the 1996/7 financial year amounted to 11% of GDP. As such, there is need for the Government to consider the critical role that water plays in all sectors of Kenya and allocate adequate resources to increase the quality and quantity of water to all that need it.

To address this, the Government has put in place strategies as outlined in Treasury Circular No. 28/2004. For physical infrastructure, the Ministry is required to adjust its budget for the financial year 2005/06 by 45%. With regards to the stalled projects in the in the Government, special provisions amounting to Kshs. 2 billion for the next three years have been availed. Therefore, the ministry can access these funds to revive NIB irrigation schemes such as Ahero, Bunyala, West Kano, Hola, Perkera, and Mwea; and the Ministry supported Bura scheme. Further, special provisions have been made for water programmes in ASAL areas amounting to Kshs. 1 billion.

5.4.2 Revising the Internal Finance Handling Process of the Ministry

This will involve the Ministry rationalizing the budgetary preparation process to make it more participatory and channel resources to justifiably agreed upon ministerial priorities/ corefunctions as reflected in the Strategic Plan to avoid wastage. The non-core activities that will be identified by the ongoing Ministry rationalisation process will be shed off. The savings that will be realised from this process should be channelled to funding core functions of the Ministry, in line with the Ministry's strategic plan.

The second will involve developing the capacity of the ministry to utilize/absorb donor funds from the current 30-40% to higher levels. This will be done by addressing internal problems related to project formulation for presentation to development partners, in addition to overall management of the programmes, procurement, audit and disbursements. While donor conditionalities may have contributed to this low absorption capacity through rigidities in disbursement and procurement procedures, the Ministry's delay in adhering to the agreed time schedules for designated assignments is also to blame.

Establishing a sustainable mechanism for financing the water sector that attracts funding from key financing agencies, government budget, users of services as well as the private sector is key. This also means that suitable tariff and commercial policies that ensure generation of adequate resources for operation and maintenance (O&M), depreciation and a reasonable return on assets, while ensuring equity and access to low income populations at affordable cost need to be developed. This will be supported by planned demand assessments or surveys to help gather information on the type of service that corresponds to what people want and are willing to pay for.

The 2003 Ministerial PER review has recommended that parastatals within the Ministry undertake their individual Public Expenditure Review (PER) to enable an objective assessment of the utilization of resources received from the ministry, revenues raised and expenditure details. This review will be used in the overall rationalization of state corporations within the ministry with a view to reducing the level of transfer of funds to the Parastatals. This has to an extent been addressed by the Treasury Circular No. 28/2004, which requires the ministry to reduce transfers to state corporations and research institutes by 20%.

Revenue collection in the Ministry (A.I.A) has been poor due to various factors such as corruption, low incentives to collect revenue, huge debts and lack of community sensitisation on the need to pay for water and sanitation services. Even though this will not be the Ministry's purview in the next few years as a result of the ongoing water sector reforms, there is need to improve the capacity of the water and sanitation service providers. Providing incentives for people to clear their water debts and addressing unaccounted for water (UFW) will improve the amount of revenue collected. Additionally, reviewing the current water tariffs to charge fees that are commensurate with levels of usage is important. However, care needs to be taken to have fees that reflect the ability to pay for different users due to the effects of poverty.

Further, instituting effective financial monitoring systems supported by data collection and management can assist in effective decision making. Additionally, this will be improved by strict adherence to the budget rationalisation policy and the laid down financial procedures.

5.4.3 External Funding

Government funding, as outlined above, is insufficient to run all the programmes envisaged by the Ministry. In this regard and in relation to the importance of the water sector, various development partners such as the World Bank, JICA, UNICEF, DFID, KFW, SIDA, ADF and DANIDA, among others, have been supporting water sector programmes in various parts of Kenya. This is evidenced by rapid developments in the water sector, despite low government funding.

Considering the enormous resources involved, the ongoing process of developing an investment plan for the Ministry is critical to the achievement of the Ministry's goals as well as ensuring that duplication of effort is minimised. This is due to the need to reverse the previous trend of low funding in the Water sector which led to deteriorating service delivery, poor conservation of water catchment areas as well as minimal or no rehabilitation of the existing infrastructure or developing new ones. The Investment plan outlines areas of engagement with various development partners as well as the local private sector to invest and develop the existing infrastructure.

Further, ensuring that the agreed targets are met with minimal wastage of time and resources is important to securing the goodwill of the Ministry's development partners.

There is need to coordinate the activities of donor agencies as well as non governmental organisation to ensure that the funds availed are used according to a national plan which will effectively supplement ministry financial resources.

5.4.4 Community Participation

Community contributions to support the water sector cannot be overemphasised since a major source of finance is envisaged to be the fees for services rendered. Further, contributions can be in the form of provision of labour, land for construction of water tanks, time and other resources which can help to improve the linkage between the ministry, water sector regulators, and water service providers. As such, increasing the involvement of the community in this process is critical to the success of water sector reforms, especially in urban slums and rural areas.

The private sector also has an important role to play especially in improving efficiency, strengthening commercial discipline through competition and autonomy of management, and to gradually raise equity financing to help deliver services to underserved areas.

CHAPTER SIX: MONITORING AND EVALUATION

Monitoring Methodologies

6.1

Monitoring is the procedure for checking the effectiveness and efficiency in implementation of the strategic objectives enumerated in this strategic plan, by identifying strengths and shortcomings and recommending corrective measures to optimise the intended outcomes of this plan.

In monitoring the implementation of this strategic plan, the Ministry will compare the execution performance against parameters defined in a baseline plan and take corrective action, where necessary, in seeking to implement this plan within the constraints of defined time, available resources and quality parameters.

6.2 Monitoring and Evaluation Issues in the Ministry

The Ministry will constitute a monitoring and evaluation unit, with the mandate to conduct M&E reviews on the projects in the Ministry.

A critical issue that has to be addressed, however, is the way projects in the Ministry are planned and conceptualised. The projects need to budget for an M&E component.

6.3 Information Management and Monitoring and Evaluation

For M&E to be effective, appropriate information technology must support it. This will ideally include Information Technology tools for data extraction, analysis and reporting. Appropriate software for development of project plans for each project so that project milestones and activities are clear. This will be in addition to appropriate training in the relevant tools.

The Ministry will also develop a comprehensive database of all projects and then schedule M&E activities for all the projects. This will ensure that the respective project managers are informed in advance so that they can prepare the necessary information to facilitate the M&E activities.

6.4 Monitoring and Evaluation Parameters

The table below enumerates the parameters the Ministry will use to monitor and evaluate the implementation of the strategies for each strategic objective:

Strategic objective	Strategy	Parameters
Accelerating the Implementation of Water	Harmonising policy and legislation in the water sector	Policy inconsistencies and inadequaciesOverlaps and duplications in roles of players in the sector
Sector Reforms	Building capacity in water sector institutions	Number of available short and long term courses and their contentNumber of staff trained
	Mobilising stakeholders in the sector	 Number of private sector players in the water sector Improvement in earnings of private sector players
Improving sustainable management of water	Improved water storage infrastructure	 Improved per capita storage from the current 6.1 cubic meters
resources	Water conservation and catchment protection	 Acreage of catchment areas rehabilitated Amount of water from catchment areas Number of communities involved in catchment protection
	Participatory management of water resource	 Number of players in water management Feedback from communities on roles players by regional water bodies
	Trans boundary water management	 Number of international treaties renegotiated Number of new treaties regarding international waters

Improving the provision of water and Sewerage Services	Improved access to sustainable and safe water	Number of cases of water borne diseasesHouseholds with access to safe waterQuantities of safe water available for use
	Improved access to sewerage services	 Number of sewage treatment and disposal facilities developed Level of hygiene especially in urban slum areas and rural areas
Improving utilization of land through irrigation and land	Develop policies and legal framework on sustainable irrigation and drainage systems	Any new policy in place and its effectivenessNew technologies for irrigation and drainage
reclamation	Increase area under irrigation	 Acreage of land irrigated under both national and private schemes especially for ASALs Acreage of irrigated land under crop Irrigation technologies adopted Amount of water resource available Water harvesting structures
	Reclaim poorly drained land	 Acreage re-claimed Land reclamation technologies adopted Agricultural production from reclaimed lands
	Flood control management	Number of flood control projectsPrevalence of flooding in flood prone areas
Land use and water resource management	Efficient management of water resource	 Increase in land use for agriculture Water harvesting structures Amount of water resource available

Strengthening institutions of the water sector	Reform of Ministry ad institutions to be responsive to customer needs Reform of the legal and policy framework for the sector	 New organisation structure in place and its impact in service delivery (more happy customers and less complaints) Revision of the Water Act 2002 to give the Ministry oversight role over all the actors in the water sector
	Promote effective coordination on inter- Ministry/agencies linkages and roles	 Number of inter-ministerial programmes Appropriate placement of roles in their relevant ministries Extent of minimised duplications and overlaps
Improving the Management and access to water resources information	Develop and implement an Information and Communication (ICT) strategy	 Level of ICT skills development and infrastructure provided Adoption of early warning systems Level of adoption of appropriate IT High level of IT usage Methodology for capturing all Ministry data in place
	Development and implementation of an Integrated Management Information System for the Ministry and develop appropriate information delivery mechanism	Availability and improved flow of information and data

Mobilising resources for water resource management and development	Promoting efficiency in utilisation of available resources	 Allocated funds used for purpose intended and desired results achieved Any misappropriations and the amounts involved Accessibility to allocated funds and any hindrances Time taken to receive AIEs in the districts
	Develop innovative ways of mobilising resource	 Number of non-traditional revenue sources Level of diversification of resources Number of projects in place Level of private sector (NGOs, CBOs) involvement in funding programmes Willingness of funding agencies to fund projects i.e. number of successful projects
Focus on HIV/AIDS in the Ministry	Work with Ministry of Health to implement guidelines in relating to HIV/AIDS at the workplace	 Effects of HIV/AIDS on the labour force Number of programmes/projects that have mainstreamed HIV/AIDS Amount and trend of budgetary allocation to combat HIV/AIDS in the Ministry Impact studies of HIV/AIDS on the sector
Institutionalising Public Service Integrity Programme	Focus on reducing corruption within the Ministry	 Number of corruption cases reported Favourable score in the Transparency International bribery index Faster turnaroundof requests from clients High level of commitment to work (strong work ethics)
	Institutionalise good governance and accountability and foster positive organisational culture	 Number of corruption incidences Level of satisfaction of the clients served by the Ministry Favourable score in the Transparency International bribery index Faster turnaroundof requests from clients High level of commitment to work (strong work ethics) High level of satisfaction for Ministry staff

6.5 Way Forward

Strengthening the M&E unit in the Ministry is of utmost importance project managers within the Ministry will be expected to provide adequate information on their projects to the M&E unit. The Ministry will require that all projects undergo M&E reviews annually, so that the findings of the M&E become part and parcel of the Mid-Term reviews that are carried out by the respective donors.

M&E should be participatory where the beneficiaries and the various committees in the districts where the projects are get involved. These committees include District Water Committees and the District Development Committees (DDCs) among others.

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ANNEX 1 Ministry of Water and Irrigation - Staffing Schedule

ADMINISTRATION DIVISION	PROPOSED ESTABLISHMENT
Permanent Secretary	1
Senior Deputy Secretary	1
Deputy Secretary	2
Under Secretary	2
Senior Assistant Secretary	4

Assistant Secretary	3
III/II/I	
SUB TOTAL	12
Planning And Policy Division	
Chief Economist	1
Deputy Chief Economists	1
Principal Economist	2
Senior Economist	2
Statistical Officer I	1
Statistical Officer II	2
Senior System Analysts	1
System Analysts I	1
Computer Programmers/System Analyst	3
SUB TOTAL	13
Supplies Division	
Principal Procurement Officer	1
Chief Procurement Officer	1
Senior Procurement Officer	1
Procurement Officer I	2
Procurement Officer II	2
Procurement Assistant	2
SUB TOTAL	9
HUMAN RESOURCES DEPARTMENT	
Senior Human Resources Officer	1
Principal Human Resources Officer	1
Chief Human Resources Officer	1
Senior Human Resources Officer	1
Human Resources Officer I	1
Human Resources Assistants	2
SUB TOTAL	7
Accounts Division	
	1
Principal Accounts Controller	1 1
Accounts Controller Chief Accountants	1
Senior Accountant	1
Accountant I	1
Accountant I	2
Accounts Assistants	4
SUB TOTAL	11
SUD IUIAL	11
Personnel Division	
	1
Senior Principal Personnel Officer	1
1 CISUIIICI OIIICCI	

Principal Personnel Officer	1 1
Chief Personnel Officer	1
Senior Personnel Officer	1
Personnel Officer I	1
Personnel Assistants	2
SUB TOTAL	7
Executive Officers	
Senior executive Officer	1
Executive Officer I	1
Executive Officer II	1
Executive Officer II Executive Assistant	2
SUB TOTAL	5
Director (W)	
. /	1
Chief Engineer	3
Hydrologist Chief Coologist (W)	1
Chief Geologist (W) Chief Chemist	
	1 7
Engineers	/
Geologists	3
Senior Chemist	1
Chemists	2
GRAND TOTAL	18
Secretarial Cadre	
Executive Secretary	2
Senior Personal Secretary	3
Personal Secretary II/I	4
Shorthand Typist II/I	7
Copy typist II/I/Senior	10
SUB TOTAL	
SUB TOTAL	26
Clerical Cadre	
Co/Hco/Sco	20
Audit Cadre	
Audit assistant	2
Telephone Cadre	
Telephone Supervisors	2
Telephone Operator II/I/ Senior	5
SUB TOTAL	29
Security Services	4/
Security Officer III/II/I	3
Security Officer III/II/I	J

Assistant Security	1
Warden III/IIA/IIB	
SUB TOTAL	4
Drivers	
Driver III/II/I Senior	20
Subordinate staff	
S.SIII/II/ISNR	100
Information Officers	
Chief Information Officer	1
Senior Information Officer	1
Information Officer I	1
Information Officer II	1
Assistant Information Officer	1
Photographic Assistant	1
SUB TOTAL	6
GRAND TOTAL	271

APPROVED ESTABLISHMENT: BURA IRRIGATION SCHEME AND LAND RECLAMATION DEPARTMENT

(A) BURA IRRIGATION SETTLEMENT SCHEME	
DESIGNATION	APPROVED ESTABLISHMENT
General Manager/ Deputy Director Agriculture	1
Deputy General Manager (Asst. Dir. Agric)	1
Chief Accountant	1
Senior Agricultural Officer	1
Superintendent Engineer (M)	1
Senior Procurement Officer	1
Senior Personal Secretary	1
Agricultural Officer II/I	6
Assistant Engineer/Engineer (Civil)	3
Assistant Engineer/Engineer (Irrigations)	1
Assistant Engineer/Engineer (Mechanical)	1
Accountant I	2
Auditor I	1
Assistant Agricultural Officer I	1
Settlement Officer II	1
Auditor II	1
Procurement Officer II	4
Superintendent (Irrigation)	1
Social Welfare Officer II	1
Planning Assistant III/II	4
Assistant Agricultural Officer III/II	20

Draughtsman III./II	1
Inspector/senior Inspector (BLD)	3
Inspector/ Senior Inspector (M)	4
Survey Assistant III/II	1
Accounts Assistant	4
Architectural Assistant III/I	1
Audit Examiner I	2
Housekeeper/cateress	1
Executive Assistant	1
Inspector/Senior Inspector (Irrigation)	1
Procurement Assistant	4
Assistant Research Officer III/II	9
Assistant Housekeeper/Cateress	2
Club Manager	1
Agricultural Assistant I (Tech. Assistant)	35
Copy Typist II/I/Senior	9
Statistical Assistant/Senior	3
Dredger Master I	1
Water Pollution Control Asst. III/II/I	2
Water Supply Operator III/II/I	9
Clerical Officer/Higher/Senior	34
Storeman II/I/Senior	7
Head Barman (Waiter Assistant I)	1
Drier III/II/I/Senior II/I	48
Artisan III/II/I/Chargehand	1
Electrician III/II/I/Chargehand	3
Mechanic III/II/I/Chargehand	13
Plan Operator III/II/I/ Senior II	41
Security Warden III/IIB/IIA/I	2
Junior Agricultural Assistant III/IIB/IIA	14
Junior Survey Assistant III/IIB/A/I	1
Laundryman III/IIB/IIA/I	1
Cook III/II/I	4
Support staff III/II/I/Senior	84
TOTAL	402
TOTAL	402
(B) LAND RECLAMATION DEPARTMENT	
(b) LAND RECEAMATION DEPARTMENT	
DESIGNATION	APPROVED
DESIGNATION	ESTABLISHMENT
Director Land Reclamation	1
Deputy Director Land Reclamation	1
Principal Economist	1
Assistant Director Land Reclamation	2
Research Officer I	1
senior Economist I	3
Senior Land Reclamation Officer	8
Project manager	1

Project Coordinator	1
Deputy Project Manager	1
Senior Personal Secretary	1
Economist II/I	21
Personal Secretary II/I	1
Area Coordinator	4
Planning Assistant III/II	6
Accounts Assistant	1
Procurement Assistant	1
Site Manager (Executive Assistant)	19
Shorthand Typist II/I	11
Copy Typist II/I/Senior	8
Clerical Officer/Higher/Senior	41
Driver III/II/I/Senior II/I	37
Mechanic III/II/I/Chargehand	16
Artisan III/II/I/Chargehand	6
Support Staff III/II/I/Senior	170
TOTAL	289
GRAND TOTAL	763