

2012

ENVIRONMENT PROTECTION,
WATER AND HOUSING SECTOR
REPORT

TREASURY

1/11/2012

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Acronyms and Abbreviations

ABTs -	Appropriate Building Technologies
A.i.A -	Appropriation in Aid
AMCOMET-	African Ministerial Conference on Meteorology
AMSS-	Automatic Message Switching System
ASALs -	Arid and Semi-Arid lands
BMU-	Beach Management Units
CBOs -	Community Based Organizations
CCK -	Commission Communication of Kenya
CSOs-	Civil Society Organizations
DANIDA -	Danish International Development Agency
DEC -	District Environment Committees
DRSRS -	Department of Resource Surveys Remote Sensing
EIP -	Expanded Irrigation Programme
EMCA	Environmental Management and Coordination Act
EPWH -	Environmental Protection, Water and Housing
ESD-	Education for Sustainable Development
EU -	European Union
FBOs-	Faith Based Organizations
FY -	Financial Year
GFCS-	Global Framework of Climate Services
GiZ -	German International Co-operation
GHG -	Green Houses Gases
GoK -	Government of Kenya
GDP -	Gross Domestic Product
Ha -	Hectare
IFMIS -	Integrated Financial Management Systems
IPAR -	Institute of Policy Analysis and Research
JICA -	Japan International Cooperation Agency
JKIA -	Jomo Kenyatta International Airport
KEWI -	Kenya Water Institute
KIPPRA -	Kenya Institute for Public Policy Research and Analysis
KISIP-	Kenya Informal Settlements Improvement Project
KMD -	Kenya Meteorological Department
KNBS -	Kenya National Bureau of Statistics
Kshs -	Kenya Shillings
LAPSSET-	Lamu Port and Lamu-Southern Sudan-Ethiopia Transport Corridor
LVEMP -	Lake Victoria Environment Management
MDAs-	Ministries, Department and Agencies
MDGs-	Millennium Development Goals
MEAs -	Multilateral Environmental Agreements
M&E-	Monitoring and Evaluation
MEMR -	Ministry of Environmental and Mineral Resources
MoH -	Ministry of Housing
MOU -	Memorandum of Understanding
MoWI-	Ministry of Water and Irrigation

MSG -	Meteosat Second Generation
MTEF -	Medium Term Expenditure Framework
MTP -	Medium Term Plan
MWI -	Ministry of Water and Irrigation
NAMA-	National Appropriate Mitigation Action
NAP-	National Adaptation Plan
NCCRS -	National Climate Change Response Strategy
NEC -	National Environment Council
NEMA -	National Environment Management Authority
NEPAD -	New Partnership for Africa's Development
NETFUND -	National Environment Trust Fund
NET -	National Environment Tribunal
NFCS -	National Framework of Climate Services
NGOs -	Non Governmental Organizations
NHC -	National Housing Corporation
NIB -	National Irrigation Board
NWCPC -	The National Water Conservation and Pipeline Corporation
PECs-	Provincial Environmental Committees
PCLNR-	Parliamentary Committee on Lands and Natural Resources
PCC -	Public Complaints Committee
RCMRD -	Regional Centre for Mapping of Resources for Development
RSMC -	Regional Specialized Meteorological Centre
RTC-	Regional Training Centres
SAGAs -	Semi Autonomous Government Agencies
SoE -	State of Environment
SP -	Sub-Programme
UNCCD -	United Nations Convention to Combat Desertification
UNCTAD -	United Nations Conference on Trade and Development
UNCBD -	United Nations Convention on Biological Diversity
UNFCCC -	United Nations Framework Convention on Climate Change
UN-HABITAT-	United Nations Human Settlements programme
USAID -	United States Agency for International Development
WAB -	Water Appeal Board
WASREB -	Water Services Regulatory Board
WCIC -	Weather and Climate Information Centres
WRMA -	Water Resources Management Authority
WMO-	World Meteorological Organization
WSTF -	Water Services Trust Fund
WSBs -	Water Services Boards

EXECUTIVE SUMMARY

The Environmental Protection, Water and Housing Sector consist of Environment and mineral resources, Water and Irrigation and Housing Sub-Sectors. The Sector Vision is ‘*Sustainable access to adequate water and housing in a clean and secure environment*’ whereas Mission is to *promote, conserve and protect the environment and improve access to water and housing for sustainable national development*. The Sector’s goal is to ensure that ‘Every person has access to decent and affordable housing with access to portable water in a clean and secure environment’.

The Constitution of Kenya and the Kenya Vision 2030 recognize the importance of the Sector as a foundation for sustainable socio-economic development of the country. The Article 43 (1) (b) of the Constitution of Kenya provides for “accessible and adequate housing, and to reasonable standards of sanitation”. In addition, the Article 43 (1) (d) places the provision of safe water in adequate quantities as a basic economic and human right for all Kenyans. The provision of adequate water, housing in sustainable human settlements and clean environment is critical in the realization of the Vision 2030 and the aspiration of the Constitution.

Most of the Sectors including agriculture, livestock, wildlife, tourism, health, housing, water resources, and energy among others heavily depend on the sustainable management of the environment and prudent exploitation of the natural resources. During the period under review, the Sector played a significant role towards the attainment of the targeted economic growth through the supply of key goods and services with the allocated resources. The approved budget for the Sector stood at KShs.46.639billion during FY2011/12, which was a decrease as compared to KShs.47.416billion for FY2010/11. The overall actual expenditure for the Sector during the period under review rose from KShs.29billion to KShs.36.5billion and KShs.39.335billion in the FY2009/10, FY2010/11 and FY2011/12 respectively. The allocated resources were utilized to realize most of the set targets and achievements of some of the flagship projects and Medium Term Plan (MTP) targets as detailed in the report.

In the MTEF period 2013/14 – 2015/16, the Sector’s key policy priorities in the medium term include; expansion of water coverage and sewerage facilities; scaling up water storage to improve water security; scaling up irrigation to reduce dependence of rain fed agriculture; protection, conservation and management of catchment areas; mitigation and adaptation

measures on climate change; enforcement of sector laws and regulations; restoration of Nairobi Rivers; modernization of meteorological services; mineral exploration and mining cadastre system; enhancing housing development through various initiatives; up-scaling slum upgrading and redevelopment; and lowering the cost of building material to increase access to housing. The Sector has eleven programmes which have been prioritized and ranked according to issues emanating from the County strategic interventions priorities based on County consultations in October/November 2011, basic requirements in the Constitution and the overall objectives of the Kenya Vision 2030.

The Sector requires **KShs.114.8billion** in the Financial Year 2013/14 to achieve its objectives and expected outputs. However, the Sector's ceiling allocation for the FY 2013/14 is **KShs.57.9billion**. In addition to the inadequate budget allocation, the Sector also faces other challenges namely; effects of climate change, disputes/litigation, procurement processes, unplanned settlements, and inadequate legal policy framework among others.

Since the Sector forms a foundation for rapid and sustainable economic growth and development, poverty reduction and employment creation. It is recommended that the Sector policies and legal frameworks be fast tracked, donor procurement procedures should be in tandem with the provisions in the Procurement Act, 2005, exchequer releases should be informed by cash flows and procurement plans, mainstream Climate Change in programmes and projects to ensure environmental sustainability, strengthen research and development to improve service delivery in the Sector through institutional capacity building programs to support the country's research and academic institutions to undertake research and adopt new and appropriate technologies to mitigate against challenges in environmental conservation, water supply and sewerage and building of affordable houses.

CHAPTER ONE

1. INTRODUCTION

1.1. Background

The country's economic growth depends largely on exploitation of natural resources and environmental goods and services. The role of Environmental Protection, Water and Housing Sector in the attainment of Kenya Vision 2030 and the aspiration of the people of Kenya as stipulated in the Constitution of Kenya 2010 is recognized. The sector plays a significant role in the attainment of the targeted annual GDP growth of 10% in the Vision 2030. Most of the sectors including agriculture, livestock, wildlife, tourism, health, housing, water resources and energy heavily depend on the sustainable management of the environment and prudent exploitation of the natural resources. The Kenya Vision 2030 emphasizes the importance of mitigating against negative impacts of climate change, pollution, depletion of water resources, environmental degradation, disaster and resource exploitation.

The Sector comprises of Environment and Mineral Resources; Water and Irrigation, and Housing Sub Sectors. The goals for the sector include: catchment conservation and management, enforcement of policies and regulations to ensure a clean and safe environment, collection and dissemination of data; mineral development; protection of biodiversity resources, provision of clean and safe drinking water; irrigation infrastructure; and facilitation of adequate housing in sustainable human settlements. However, in the recent past, climate change has emerged as a major threat to sustainable development and this has had severe negative impacts on the poor and the vulnerable groups. This is a major challenge particularly in poverty reduction and threatens to undo gains of past development efforts.

The centrality of water in economic and social development cannot be overemphasized. Reliability and availability of and enhanced access to water resources are critical elements in the fulfillment of the Constitution of Kenya and Vision 2030. The performance of key sectors in the economy especially agriculture, livestock, manufacturing and tourism depends on the availability and reliability of required water resources. Therefore access to adequate and reliable supply of water is not only a key input to poverty reduction but also an important element for social

stability, economic growth and meeting the targets of the Vision 2030 and Millennium Development Goals (MDGs). The Constitution of Kenya (Article 43(1) (d) has placed the provision of safe water in adequate quantities as a basic economic and human right for all Kenyans. In addition, adequate sanitation for all households has been enshrined as a right to be enjoyed by all. This has necessitated the review and aligning of all legal and institutional frameworks in the water sector to the Constitution. Provision of adequate potable water and basic sanitation to households is a hallmark of sustainable human settlements.

Housing is a basic human need that is recognized globally as a human right. The Universal Declaration of Human Rights of 1948 recognizes the right to adequate housing as an important component of the right to adequate standard of living and this has been further reaffirmed by subsequent various international instruments of which Kenya is a signatory. More affirmatively the Article 43 (1) (b) under Bill of Rights in the Constitution of Kenya, provides for “accessible and adequate housing, and to reasonable standards of sanitation”. Therefore provision of adequate housing in sustainable human settlements is critical in the realization of the vision of an adequately housed nation. Implementing the prioritized areas for the 2013/14-2015/16 will enhance housing production and prevent mushrooming of informal settlements and slums.

The report endeavors to align the sector performance with aspirations of Kenya Vision 2030 and Medium Term Plan (MTP) 2008-2012. It reviews performance and presents achievements of programmes, and analyses expenditures trends for Financial Years 2009/10-2011/12 for the three Sub-Sectors. It also outlines priorities for the Financial Years 2013/14-2015/16 and their financial requirements based on sector wide consultations involving the sub-sectors and the county stakeholders’ fora held in 2011.

The report is organized into six chapters based on the structure format of Treasury Circular No.6/2012 of 3rd August, 2012 as follows; chapter one presents an introduction which provides the background, sector vision and mission, strategic objective, mandate, SAGA and the role of stakeholders. Chapter two gives an outline of the Ministry’s programmes and a review of performance of expenditures for the period 2009/10 – 2011/2012, chapter three presents medium term priorities and financial plan for the MTEF period 2013/14-2015/16, chapter four discusses cross-sector linkages and emerging issues and challenges, chapter five provides the conclusions

drawn from the review and key recommendations to improve implementation of the budget in terms of efficiency, effectiveness, timeliness and target for better service delivery, and finally chapter six outlines some of the proposed recommendations.

1.2. Sector Vision and Mission

Sector Vision is *‘Sustainable access to adequate water and housing in a clean and secure environment’*.

Sector Mission is *‘To promote, conserve and protect the environment and improve access to water and housing for sustainable national development’*.

1.3. Strategic goals/Objectives of the Sector

The sector’s overall goal is to enhance access to decent and affordable housing with access to portable water in a clean and secure environment. The sector is committed to the progressive realization of the provisions of Chapter Four of the Constitution on the Bill of Rights. The specific objectives to achieve this include:

1. Develop, implement and review policies and legislative frameworks in line with the Constitution of Kenya;
2. Enhance sustainable management of environment, water and natural resources;
3. Increase access to water and sewerage services;
4. Enhance access to adequate and affordable housing under various initiatives;
5. Enhance capacity building for environmental and water resources management, and housing development; and
6. Enhance research and development to generate and manage data and information.

1.4. Sub-Sectors and their Mandates

The Sub-Sectors mandates are presented below:

Water and Irrigation Sub Sector

The Sub Sector is mandated to conserve and manage water resources, development of water storage, provision of water and sewerage services, development of irrigation and drainage, reclamation of wastelands, and capacity building for the water institutions.

Environment and Mineral Resources Sub Sector

The Sub-Sector is mandated to protect, conserve, manage and regulate the environment and natural resources for socio-economic development.

Housing Sub Sector

The Sub-Sector is mandated to improve access to housing in sustainable settlements through, coordination of the implementation of Housing Policy; housing development; shelter and slum improvement; National Secretariat for Human Settlement; Housing for Civil Servants and Disciplined Forces; estate management; Leasing of Public Office Accommodation and Housing for Constitutional office holders; housing infrastructure development; and resolution of rent and other disputes in the housing sector.

1.5. Autonomous and Semi Autonomous Government Agencies

The sector has seventeen SAGAs and three other institutions created by Environment Management and Coordination Act (EMCA). Their roles and mandates as described below:

Water and Irrigation Sub Sector has fifteen SAGAs as follows:

- i. **Water Appeal Board (WAB)** is mandated to deal with conflict resolution management under the Water Act 2002.
- ii. **Water Services Regulatory Board (WASREB)** was established under the Water Act 2002 to regulate water and sewerage services provision including issuing of licenses, setting service standards and guidelines for tariffs and prices.
- iii. **Water Resources Management Authority (WRMA)** was established under the Water Act 2002 to be responsible for regulation of water resource issues such as water allocation, source protection and conservation, water quality management and pollution control as well as management of international waters.
- iv. **Water Services Trust Fund (WSTF)** is responsible for the mobilization of financial resources for development and rehabilitation of water and sewerage services infrastructure, especially to poor and under-served areas.
- v. **Water Services Boards (WSBs)**- There are eight WSBs which were established under the Water Act 2002 to manage water and sewerage service provision in their respective areas of jurisdiction. These are: Tana, Athi, Tanathi, Lake Victoria South, Lake Victoria North, Rift Valley, Coast and Northern Water Services Boards. Their role is to ensure efficient and economical provision of water and sewerage services, contracting Water

Services Providers (WSPs), developing water and sewerage facilities, regulating water services and tariffs in their board areas and procuring and leasing water and sewerage facilities.

- vi. **The National Water Conservation and Pipeline Corporation (NWPC)** was established under the State Corporations Act in 1988. It is mandated under the Water Act 2002, is to construct dams and drill and equip boreholes.
- vii. **Kenya Water Institute (KEWI)** was transformed in to a Semi-Autonomous institution in July 2002 under the Kenya Water Institute Act 2001 to provide training, research and consultancy services in the water and irrigation sector.
- viii. **National Irrigation Board (NIB)** was established through the Irrigation Act of 1966. It is mandated to develop, promote and improve irrigated agriculture through sustainable exploitation of available irrigation and drainage potential in Kenya. Its key responsibility is development and management of the National Irrigation Schemes in Kenya.

Environment and Mineral Resources Sub Sector has one SAGA and three other institutions as described below:

- i. **National Environment Management Authority (NEMA)**

The Authority was established to exercise general supervision and coordination over all matters relating to the environment and to be the principal instrument of Government in the implementation of policies, regulations and standards relating to the environment.

Under NEMA the following institutions were established by Environment Management and Coordination Act (EMCA);

- a) **National Environment Trust Fund (NETFUND)** was established to facilitate research intended to further the requirements of environmental management, capacity building, environmental awards, environmental publications, scholarships and grants
- b) **National Environment Tribunal (NET)** is responsible for reviewing administrative decisions made by NEMA relating to issues of revocation or denial of licenses, provide legal opinions to NEMA and carry out investigations.
- c) **Public Complaints Committee (PCC)** is responsible for investigating any allegations in relation to the condition of the environment.

Housing Sub Sector has one SAGA as described below:

- i. **National Housing Corporation (NHC)** was established by the Housing Act Cap 117. Its mandate is to develop and facilitate development of decent and affordable housing for Kenyans.

1.6. Role of Stakeholders

The sector has a wide range of stakeholders involved in the implementation of programmes and projects. Successful implementation calls for effective partnerships, collaboration and participation of both public and private partners because their involvement is critical in the achievement of the sector goals. The major stakeholders and their roles are outlined below.

Public/Citizens

According to the Article 201 (a) of the Constitution of Kenya, the process of consultations plays a major role in public participation in budget making process for incorporation of the needs into the Sector requirements. Public participation is a sure way of building their confidence in the Sector budget making process and addressing county key strategic intervention issues.

Research and Academic Institutions

The Sector needs human capital which is competent enough to deliver on its mandate. Research institutions, universities and other institutions of higher learning play a critical role in capacity building for the sector in terms of technical training at all levels and creation of knowledge through research. A close collaboration between the sector and these institutions is important in development of relevant training programs and research activities which would lead to optimum performance of the sector.

Government Ministries, Departments and Agencies (MDAs)

The sector works closely with several government ministries, departments and agencies while implementing its mandate and functions. The MDAs include the Ministry of Finance; Ministry of Planning, National Development and Kenya Vision 2030; Ministry of Local Government; Ministry of Public Works; Ministry of Lands, Local Authorities among others. This is general support from public administration. This support is expected to be strengthened under the new governance structure.

Private Sector Organizations and professional bodies

These organizations are endowed with both human and financial resources that could be tapped into for resource mobilization and advocacy. They promote professional management; improve innovation, research and development; and policy analysis.

Civil Society Organizations

The Civil Society Organizations (CSOs) include Non-Governmental Organizations (NGOs), Community Based Organizations (CBOs), Faith Based Organizations (FBOs,) and other special interest groups. The CSOs partner with the Sector in resource mobilization, advocacy and technical support.

Development Partners and International Organizations

Provide financial and technical support; capacity development of the communities on the importance of environment conservation and give strategic Initiatives. The sector collaborates with development partners in the implementation of its programmes.

Parliament

The policies and legislative issues from the sub-sectors are approved by Parliament. The time taken to approve policies directly affects the timing and extent of implementation of the activities /programmes that require a legislative framework. The sector relies on Parliament for enactment of various crucial bills.

CHAPTER TWO

2. PERFORMANCE REVIEW FY2009/10 – FY2011/12

This chapter presents the performance of the sector programmes and sub programmes. Further it gives the budgetary allocation and expenditure trends for the period 2009/10 –2011/12 and also reviews the sector’s pending bills. Section 2.1 gives a general overview of the performance of Sector’s programmes.

2.1. Performance of Sector Programmes

2.1.1 Environment and Mineral Resources Sub Sector

During the period under review, the sub sector realized most of the set targets which are under the flagship projects and MTP targets. In summary, 42,000 km² of Mau Forest complex, 2,300km² of Aberdare Forest, 1,800km² of Cherengany and 1,980km² of Mt. Kenya Forest were mapped. In addition, 3,360,000 tree seedlings were planted in Mau Forest Complex, and 180,000 planted in Nyando catchment area

Further, 13,718Km² area was geologically mapped; 98,011km² of Southern Wildlife corridor and migratory route was mapped; completed landuse/cover mapping of 15,546 km² in Kajiado and 7,491 km² of Nakuru counties; 480 km² of Doum palm was also mapped in Turkana and Turkwel basins; while Dandora dumpsite decommissioning study was finalized. Under the Nairobi River Basin Programme, 50km of Nairobi River basin was mapped and 30 effluent discharge points into the river were stopped; 3,000tonnes of solid waste removed and 15km of Ngong and Mathare rivers dislodged. Baseline survey of illegal dumping sites was completed for Mombasa, Thika, Nakuru, Eldoret and Kisumu municipalities.

The Draft Geology, Minerals and Mining Policy and Bill were harmonized with the Constitution of Kenya and submitted to the Minister for Environment and Mineral Resources. The draft National Environment Policy was completed. The subsector enhanced capacity for efficient management of mining and mineral rights by operationalizing a digital mining cadastre system. In addition, the sub sector has continued to implement the provisions of the Mining Act, Cap 306 and the Explosives Act Cap 115 as defined in its mandate. However, achievements were

constrained by shortage of personnel, slow flow of financial resources, inadequate field utility vehicles and the undesirable security situation in North Eastern parts Kenya.

2.1.2 Water and Irrigation Sub Sector

During the period under review, the sub sector has undertaken significant measures to ensure increased access to safe and adequate water country-wide. In urban areas, major projects undertaken include the Nzoia Cluster phases 1 to 3 which provides water to over 950,000 persons. The rehabilitation works in Kisumu Long term adjustment plan has seen major works undertaken for Kisumu water supply thus serving more than 400,000 persons, completion of Nakuru water supply under Nakuru Water and Sanitation programme, completion of Ruiru water supply and commencement of both Murang'a and Maragwa bulk water supply projects. These initiatives in major urban centres have seen a significant increase in population served. The sub sector has also undertaken rehabilitation works on existing rural water supplies and assisted in construction of community based water schemes. These works have made water accessible to the most deserving population in the rural areas. Several programmes for urban water supplies have included sanitation components which means major activities have also been undertaken to increase sewerage coverage. The major among these are Garissa, Kisumu and Mombasa mainland sewerage works.

The latest survey shows coverage has gone up in urban areas has gone up by 14% to 82% in the urban areas and by 15% to 52% in the rural areas. Sewerage coverage in the urban areas country wide has now reached 32%.

In addition, 507 hydro-meteorological stations for water resources information gathering were rehabilitated and installed in the 6 catchment regions, Catchments Management Strategies for six basins completed.

Water storage capacity stood at 24.22million m³ at the end of 2011/2012. This is as a result of rehabilitation of Sasumua, and completion of Maruba and Kiserian Dams with storage capacities of 16.0, 2.45 and 1.22million m³ respectively. A total of 198 small dams and water pans constructed or rehabilitated in ASAL areas increasing water availability and accessibility to 4.55 Million m³. A total of 5 km of flood control dykes were constructed along River Nyando and River Daua and a total of 7.1 Km of drainage channels were completed in River Nyando.

During the period under review, 32,000 ha of land were developed for irrigation. This was achieved through development of new schemes and rehabilitation and expansion of existing public schemes namely Bura, Hola, Mwea, Ahero, South West Kano, Pekerra and Bunyala. A total of 35,000ha of land was reclaimed in the seven ASAL Counties. This was done through construction of 9,187 water conservation and rain water harvesting structures in ASALs.

Inadequate policy framework to guide investment in water, irrigation and land reclamation still remains a challenge in the sub sector. During the period under review, the Ministry developed the following policy instruments: draft Water Policy and Water Bill 2012; draft irrigation policy; draft land reclamation policy; National Water Quality Management Strategy; National Water Harvesting and Storage Strategy; National Water Master Plan (Interim Report on the review and updating of water master plan); National Irrigation Master Plan.

2.1.3 Housing Sub Sector

In the sub-sector, slum upgrading and prevention initiatives were upscaled, utilisation of appropriate low cost building materials and technologies was promoted, new land was opened up for housing development through development of housing infrastructure, drafting of legislative and policy instruments was initiated to provide a legal framework, civil servants were facilitated to access housing through development of housing and the loan facility; government housing and plots were maintained and secured , and tenancy relations in controlled tenancies enhanced.

Specifically, the National Housing Bill, Building Laws and Regulations Bill, Landlord and Tenant Bill forwarded to the State law Office and Maintenance Policy were drafted forwarded to the Cabinet; construction of 400 housing units at Kibera Soweto East village Zone A commenced after the court injunction restraining the Ministry from developing the area was lifted, implementation of Kenya Informal Settlements Improvement Programme (KISIP) funded by International Development Agency (IDA) commenced; physical and social infrastructure developed in various slums and informal settlements in Nyeri, Kisumu and Mombasa. 61 constituency ABT Centres were also established and 3,200 community members trained on use of ABTs, 170 acres of new land opened up for housing development through development of

housing infrastructure (trunk water system and trunk sewerage line), over 6,000 government housing units were refurbished and allotment letters were secured for 32 government plots.

2.2. Review of Key Indicators of Sector Performance

This subsection is a review of key indicators of the sector. The planned outputs and the actual achievements are summarized in table 2-1 below.

Table 2-1: Summary table of performance and achievement of the sector

Programme/ Sub- Programme	Intended Output	Output Achieved	Remarks
Environment and Mineral Resources Sub Sector			
Programme 1: Environment Policy Development and Coordination			
Outcome: Improved environmental governance.			
SP.1.1: Environment Policy Development and Coordination	National Action plan prepared for Climate Change	County consultations completed	On going
	Master Plan for Conservation of Water Towers prepared	Draft Master Plan prepared	Awaiting publication
	To conserve water Towers	3.36 million tree seedlings planted in Mau forest complex and Naivasha Water catchment Areas	Programme activities ongoing
	Multilateral Environmental Agreements (MEAs) Strategy formulated	Draft MEAs Strategy formulated	Draft ready and awaiting editorial work
	National Chemicals and Waste Policy in place	Draft National Chemicals Management policy prepared	Awaiting tabling in Cabinet
	Institutionalization of Climate Change in other Ministries and institutions	Climate Change desk officers established in other Ministries and institutions	Preparation of policy instrument in the pipeline
	National Environment policy prepared	Draft National Environment policy prepared	Awaiting presentation to cabinet
Programme 2: Environment Management and Protection			
Outcome: Sustainably managed environment and natural resources			
SP. 2.1: Resource Surveying and Remote Sensing	Spatial maps and trend statistics of wildlife and livestock population in Narok, Garissa, Turkana, Baringo and Laikipia prepared	Spatial maps and trend statistics of wildlife and livestock population in Narok, Garissa, Turkana, Baringo and Laikipia produced	Ongoing in Narok, Kajiado and Laikipia
	Atlas of wetlands of Kenya	Atlas of wetlands of Kenya produced	Awaiting publication
	Map on the quality of the Aberdares forest	2.300 km ² of Aberdare Forest mapped	Report published (Technical report No. 92)
	Status and distribution of dams in the former white highlands assessed	Report and maps on status and distribution of dams in the former white highlands produced	2700 water dams documented
	Map wildlife migratory routes and corridors	98,011 Km ² southern wildlife migratory corridor mapped	Mapped in Eburru, Mara, Tsavo, Amboseli, Kitengela, Elementaita,

Programme/ Sub- Programme	Intended Output	Output Achieved	Remarks
			Magadi and Naivasha
	Map land use and settlement patterns mapped	Land use and settlement pattern maps prepared for Nakuru and Kajiado Counties	Completed and technical reports available
SP.2.2: National Environment Management	Management plans for wetlands developed	State of the Coast report Prepared ICZM Plan Prepared Management plans for Lake Jipe, Olbolosat prepared	Launched and under implementation
	Baseline surveys report on illegal discharges into Nairobi rivers	Baseline survey report prepared 67 discharges stopped	Monitoring of discharges ongoing
	Environmental guidelines, regulations and standards on noise and air quality developed and operationalized	Noise and Excessive Vibration Regulations, 2009 operationalized Air quality and chemical management regulations drafted	103 cases prosecuted and finalized 2,676 licenses processed against a target of 948 on gazzetted regulations
	National Inventory of Green House Gases (GHGs)	National inventory on green House gases (GHG) prepared	Inventory undertaken
	State of Environment (SoE) report published	State of Environment Report (2009, 2010) produced	SoE report for 2011 under preparation
	National Waste Management Strategy developed	Draft National Waste Management Strategy prepared	Draft prepared for implementation by the the Mombasa, Thika, Nakuru , Eldoret and Kisumu municipalities
	Education for Sustainable Development (ESD) Policy prepared	Draft ESD policy prepared	Awaiting presentation to Cabinet
SP.2.3:Lake Victoria Environment Management Programme (LVEMPII)	Carry out feasibility study on sewerage treatment facilities and eco sanitary toilet	Feasibility study for Homa Bay and Bomet sewerage treatment facilities completed	3 No. Exhausters to be procured procured and delivered Kisumu, Homa Bay and Bomet municipalities
	Wetlands management plans developed	2 draft management plans for Kingwal and Ombeyi wetlands prepared	Plans under implementation
SP. 2.4: Nairobi Rivers Rehabilitation and Restoration	Tree planting and maintenance of the restoration activities of Nairobi River Basin	65,000 seedlings planted. 15 Km of Ngong and Mathare rivers dislodged 3000 tonnes of waste removed along the river Orbit quarry rehabilitated, Public toilet, foot bridge completed at Kijabe area	Establishment a park along Nairobi River during the planned period besides tree planting
	River Sosiani within the Eldoret Municipality Rehabilitated	River cleaned, 96,000 tree seedlings planted	Tree planting and cleaning of river ongoing
SP.2.5: Catchment Rehabilitation and conservation	Water catchments rehabilitated and conserved	2 Million seedlings planted in the Lake Naivasha Catchment, IMARISHA Naivasha Board gazzetted and operational Inventory of Water pans/dams within the Lake Naivasha Catchment done and estimates	Ongoing. Tree seedlings to be planted in the water catchment areas of Lake Naivasha, Marsabit, Kapchorwa, Enderit forests and Shimba hills

Programme/ Sub- Programme	Intended Output	Output Achieved	Remarks
		done for rehabilitation, 81 ha of Mau catchment rehabilitated	
Programme 3: Mineral Resources Management			
Outcome: Enhanced Geological and Mineral Information			
SP. 3.1: Mineral Resources Development	Mining Policy and Law prepared	Draft Geology, Minerals and Mining Policy and Bill prepared	The Draft Geology, Minerals and Mining Policy and Bill harmonized with the Constitution
SP. 3.2: Geological Survey and Mineral Exploration	Geological map for Kimangau, Kiminini, Garissa and Tseikuru	12500 km ² remapped and reports prepared	Ongoing for Tseikuru
	Geohazard areas in Kenya mapped and monitored	20 geo-hazard areas mapped and monitored	Ongoing for areas prone to geo-hazards
	10 Mineral deposits prospects investigated	10 Mineral prospects investigated	Ongoing for Meru county
	2 detailed geophysical investigation on mineral deposits	Geophysical investigations done	Ongoing for Meru county
Programme 4: Meteorological Services and Climate Change			
Outcome: Improved Meteorological Services			
SP. 4.1: Meteorological Systems modernization	Data observation systems and networks established	Phase I, II and III completed with installation and operationalisation of 36 Automatic Weather Stations (AWS) and procurement of 24 AWS procured 3 No. Airport Weather Observing Systems (AWOS) installed at JKIA, Wilson Airport and Moi International Airport 17 No. Hydromet stations installed for catchment management/monitoring of water towers Ngong Observatory established	36 Automatic Weather Stations (AWSs) to be installed annually, at various counties; 4 No. new weather observatories established at Kitui, Kisumu, Kakamega, and Garissa county
	Data telecommunication system and networks established	Pilot Information and Pre-flight Briefing System installed at JKIA	Data Collection System (RADOME) to be installed at KMD HQS Nairobi
	Data processing, analysis and forecasting systems established	Integrated Meteorological Information System (IMIS) installed at KMD HQs Flood forecasting laboratory established for River Nzoia Basin	Climate Data Management System (CDMS)/CLISYS for climate forecasting to be installed
	Information Systems established for effective dissemination of weather and climate information & products to users	RANET stations established in Kangema, Suswa, Budalangi and Kwale Meteo-Factory system installed at KMD HQs.	8 RANET stations to be established at Wajir, Matungu, Garissa, Isiolo, Baringo, Nyando, Bunyore and Kitui
	Human capacity development and research enhanced	Construction of the National Meteorological Research Centre completed	Enrolment of specialised course at WMO RTC to be increased by 10% each year

Programme/ Sub- Programme	Intended Output	Output Achieved	Remarks
SP. 4.2: Advertent Weather Modification Programme	Advertent Weather Modification undertaken	Project proposal finalized No. officers trained on weather modification	Suffered from inadequate funding
Water and Irrigation Sub Sector			
Programme 5: Water Policy and Management			
Outcome: Well coordinated water and Irrigation services			
SP.5.1: Water Policy and Management	Water Policy Irrigation Policy Water Storage Policy Land Reclamation Policy Water Act 2012 Irrigation Act National Water Quality Management Strategy National Water Harvesting and Storage Strategy National Water Master Plan (Interim Report) The National Irrigation Master Plan	Draft Water Policy Draft Irrigation Policy Draft Water Storage Policy Draft Land Reclamation Policy Draft Water Bill 2012 Draft Irrigation Bill National Water Quality Management Strategy National Water Harvesting and Storage Strategy National Water Master Plan (Interim Report) The National Irrigation Master Plan	Draft Water Policy and Draft Water Bill 2012 have been forwarded to CIC for review. Draft Irrigation Policy and Draft Irrigation Bill had earlier been forwarded to the Cabinet and Attorney General respectively but later returned to the ministry for updating. Interim Report is on the review and updating of water master-plan
SP. 5.2: Capacity Building in Water Sub- Sector	Graduate 1500 students in long term courses	1500 students graduated in long term courses	Long term courses are Diploma and Certificate courses in Water Engineering, Water Resources Management, and Irrigation and Drainage.
SP. 5.3: Dispute Resolution	Resolve all reported water disputes	80% of water disputes resolved	WAB is a quasi-judicial institution responsible for resolving all water related disputes A total of 56 disputes were reported of which 45 were resolved.
Programme 6: Water Supply Services			
Outcome: Increased access to adequate water supplies			
SP. 6.1: Urban Water Supply	Expand urban water supplies in 18 medium size towns.	15 medium size towns urban water supplies infrastructure under expansion	Target could not be achieved due to inadequacy of funds
SP. 6.2: Rural Water Supply	Construct of 540 water and sanitation projects in rural areas	631 new water and sanitation projects constructed in rural areas	The target was exceeded due to increased funding by development partners
	Drill and equip 300 new boreholes	277 new boreholes drilled equipped	Target could not be achieved due to inadequacy of funds
Programme 7: Sewerage Services			
Outcome: Increase access to sanitation services			
SP. 7.1: Sewerage Services	Construct 99 sewerage schemes	94 sewerage schemes constructed	Construction involves major expansion works on the schemes

Programme/ Sub- Programme	Intended Output	Output Achieved	Remarks
Programme 8: Water Resources Management and Water Storage			
Outcome: Increased availability of sustainable water resources			
SP.8.1: Water Resources Management	Rehabilitate 580 hydro-meteorological stations	507 Hydro- meteorological stations have been rehabilitated and are working	Target could not be achieved due to inadequacy of funds
	Construct 2 large size dams	Feasibility study and design completed for Nzoia dam	Construction of 2 large dams could not be done as planned due land dispute for Nzoia dam and lack of funding for Koru dam
SP. 8.2: Water Storage and Flood Control	Construct 16 medium size dams and 195 small dams and water pans	3 medium size dams constructed and 198 small dams and water pans constructed	Water storage capacity increased by 24.22 million m ³ in 2011/12 brings per capita water storage to 8 m ³ . This is far below the MTP target 8 m ³ at the end of 2012.
	Construct 4.5 km of flood control dykes	5 km of flood control dykes constructed	***
Programme 9: Irrigation and Land Reclamation			
Outcome: Increased utilization of land through irrigation, drainage and land reclamation			
SP.9.1: Irrigation and Drainage Infrastructure	Rehabilitate 7 public irrigation schemes	7 public irrigation schemes rehabilitated	Mwea, Bura, Hola, Ahero, South West Kano, Pekerra and Bunyala schemes rehabilitated
	Put 40,000 hectares of land under irrigation	32,000 ha of land put under irrigation	The MTP annual target is 40,000 Ha. The target was not met because of inadequate budgetary provision and water storage.
SP. 9.2: Land Reclamation	Reclaim 35,000ha of land	35,000ha of land reclaimed	
	Construct 8,200 water conservation and rain water harvesting structures in ASALs.	9,187 water conservation and rain water harvesting structures in ASALs.	The target was exceeded due to contribution by other actors at the local level e.g. World Food Programme.
Housing Sub Sector			
Programme 10: Housing Development and Human Settlement			
Outcome: Improved quality and affordable housing in urban and rural areas as well as efficiently and effectively managed government estates			
SP.10. 1: Housing Development	Construct 400 housing units at Kibera Soweto East village Zone A up to 52%	Project is at 54% completion level	Project delayed due to a court case which has since been settled and project on course
	Establish and Operationalize 25 housing cooperatives within slum project areas	25 housing co-operatives operationalized	The objective of cooperatives is to facilitate resource mobilization among slum dwellers
	Construct Kamukunji Hawkers market in Nyeri and Manyatta Market sheds in Kisumu to	Markets completed and handed to the beneficiary communities for use	This initiative is to provide opportunities for income generation

Programme/ Sub- Programme	Intended Output	Output Achieved	Remarks
	completion		
	Construct Makongeni Health Centre in Homabay to completion	Project is complete	The project handed over to the beneficiary community
	Develop Project Appraisal Document (PAD) for Kenya Informal Settlements Project (KISIP)	PAD report and KISIP initiated	PAD to guide KISIP implementation
	Consultancy for socioeconomic and feasibility studies for KISIP	Socioeconomic and feasibility studies reports for Nakuru and Mombasa Municipalities	The studies to inform the investments to be undertaken in the informal settlements of the participating municipalities
	Construct 6 classrooms at Rabuor Masawa primary in Homa-Bay	6 classrooms constructed and handed to the community	The project has been handed over to the community
	Installation of 40 High mast floodlighting structures in various selected slums	42 installed in various slums across the country	This project is intended to improve security in the targeted slum and informal settlements
	Construct 1.6 km Kisimani Street-Mkunguni road and VOK – Gichanga road at Ziwa-la-Ngombe Mombasa to completion	Project is complete	The project has been handed over to the beneficiary community
	3 Stakeholder fora to development slum upgrading and prevention initiatives	Stakeholder fora held and implementation of recommendations initiated	Stakeholders fora bring together stakeholders to share experiences and plan for purposes of ownership
	120 acres of land opened up for housing development	170 acres opened	land opened up for housing development
	Construct 64.8 km of access roads in various places ;(7.5km in Mavoko; 20km in Malava; 7.5km in Nkoroi;6.8km in Nossim; 8.0km in Mtwapa; 15km in Gatitu; Kiamwathi; and Gitathini)	58% of works done on the targeted access roads	Projects undertaken in collaboration with Local Authorities to open up land for housing development
	Construct 7 km trunk system and 5 km water lines Kapsabet and Thika	55% of works completed	The projects undertaken in collaboration with Local Authorities to provide infrastructural services
	Construct 6 km trunk sewerage line in Eldoret	70% of works completed	The projects undertaken in collaboration with Local Authorities to provide infrastructural services
	Construct 7 Km trunk water sewerage lines/system in Thika	project completed	The projects undertaken in collaboration with Local Authorities to provide infrastructural services
	Undertake housing survey	Pilot survey undertaken.	National Housing Survey targeted for 2012/13
	Establish constituency Appropriate Building	81 Constituency ABTs centres established	The centres are constituency – based

Programme/ Sub- Programme	Intended Output	Output Achieved	Remarks
	Technologies (ABTs) Centres		
	Train new community members on use of Appropriate Building Materials and Technologies (ABTs)	3,192 new trainees trained on the use of ABTs	There was enhanced awareness and interest among stakeholders on ABT.
	Increased number of civil servants accessing housing by 200	200 more civil servants with government housing and in government rental units	This will be achieved through sale/purchase of developed housing units and the loan
	Finalize Housing Bill	Draft Bill finalized and forwarded to Cabinet	To provide a legislative framework for housing development
	Construct 526 housing units for sale to Civil Servants in Ngara Phase II, commercial centre and nursery school up to 97%	Project at 98% completion level	Project on course
	Construction of 22 housing units in Makueni Road- Kileleshwa up to 99%	95% complete	Project stalled after termination of the contract due to poor performance. Project was re-tendered.
	Construction of 130 housing units under Civil Servants in Ngara Phase I up to 90%	97% complete	Project on course to be completed in 2012/13
	Complete 688 Housing Units	643 Housing units completed	The negative variance was due to Contractor's Under-performance and unforeseen site conditions
	Construct 881 housing units up to 40%	45% Completion	The corporation fast tracked process and project construction
	Construct an Expanded Polystyrene panel (EPS) factory	Factory constructed	The factory will produce building panels for sale to the public for housing construction
SP.10.2: Estates Management	Refurbishment of 6,000 government houses	6,867 refurbished	Targeted durability of government houses
	100% registration of new government houses	100% of new Government houses registered	New government houses registered once completed by Ministry of Public Works totaled to 3008 housing units
	Security of 1800 government houses and plots	1,805 government houses fenced. 32 allotment letters secured. 18 Part Development Plans (PDPs) prepared. 77 government plots registered	This entails putting up of a perimeter stone wall or chain link to secure the houses
	Draft maintenance policy	Maintenance Policy drafted and forwarded to Cabinet	Policy to provide maintenance guidelines and standards
	Preparation of Draft Building Laws and Regulations	Draft Bill User manual	*****
	Resolve rent tribunal cases within	706 cases were resolved within 2	Target met, no pending

Programme/ Sub- Programme	Intended Output	Output Achieved	Remarks
	2 months after close of defence hearing	months	cases
	Finalize review of Rent Tribunal Act	Draft Landlord and Tenant Bill	The Bill with the Cabinet awaiting publication by AG

2.3. Sector Expenditure Analysis

The total resource allocation to the sector increased from KShs.36,304 million in FY2009/10, to KShs.47,416 million in FY2010/11 and reduced to KShs. 46,639 million in FY2011/12. This was an increase of 30 per cent from KShs.36,304 million in 2009/10 to KShs. 46,639 million in FY2011/12 and majorly in the development budget. This is in line with government policy of delivering results to Kenyans through increasing resource allocation to development. The growth in expenditures is as a result of more allocation on development over recurrent due to the ongoing water sub-sector reforms, modernization of equipment and infrastructure and the scaling up of housing development initiatives. The absorption rate was 80% in 2009/10 and improved to 84.7% in FY2011/12. However, the absorption rate was affected by the following issues namely: slow disbursement of donor funds, budget reviews often leading to budget cuts hence the released funds being lower than the approved, lengthy procurement processes leading to slow implementation of projects, litigation leading to delayed implementation of projects and challenges associated to IFMIS administration. The trends in the total expenditure during the period are summarized in Table 2-2.

Table 2-2: Trends of Expenditure by Sub Sectors for FY2009/2010-2011/2012 (KShs. millions)

Sub Sector	Printed Estimates			Approved Estimates			Actual Expenditures		
	2009/10	2010/11	2011/12	2009/10	2010/11	2011/12	2009/10	2010/11	2011/12
Environment and Mineral Resources	4,334	6,827	6,351	4,554	5,006	6,549	3,740	4,366	5,601
Water & Irrigation	29,175	38,199	42,991	27,789	38,613	36,215	21,748	28,601	30,343
Housing	4,110	3,960	4,025	3,961	3,797	3,876	3,578	3,494	3,391
Total.	37,619	48,986	53,367	36,304	47,416	46,639	29,066	36,461	39,335

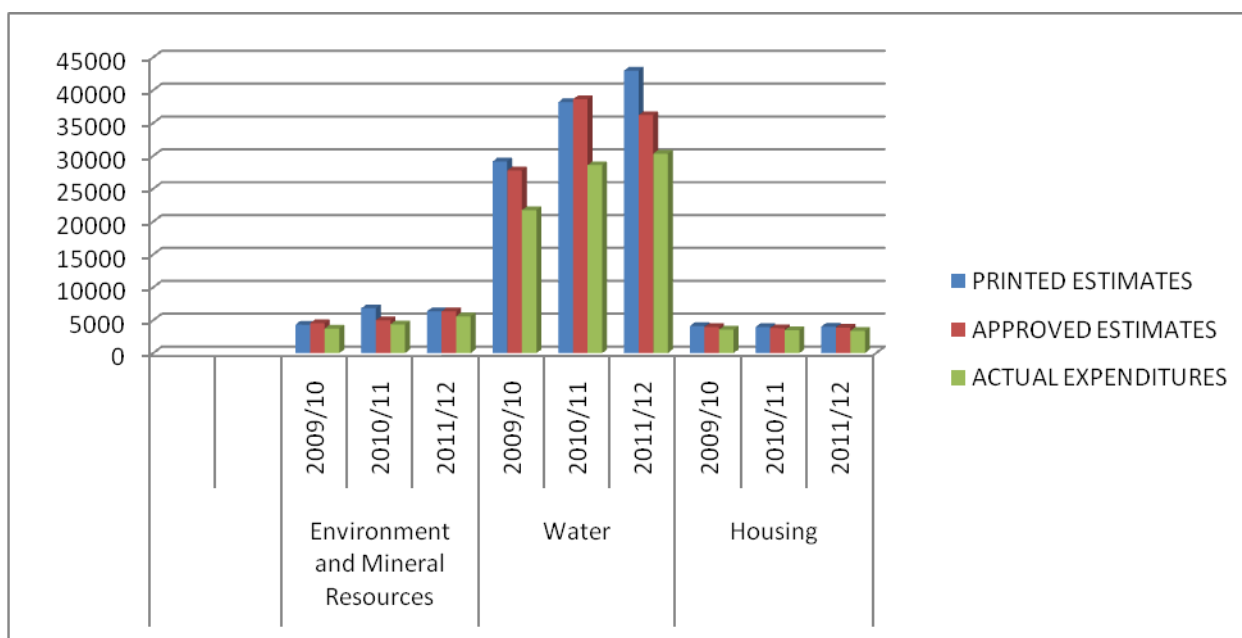


Figure 2.1: Graphical representation of trends of total expenditure by Sub Sectors (KShs.million).

2.3.1. Analysis of Recurrent Expenditure

The approved expenditure consistently rose from KShs.8,593.5million from 2009/10 to KShs.10,623.5million in 2011/12 and the actual expenditures also rose from KShs.7,588.3 million to KShs.9,926.1million respectively. The sector recurrent budget absorption rate improved over the period from an average of 88.3% in 2009/10 to the 93.4% in FY2011/12. However, Kshs.697.4million was unspent in FY2011/12 due to low disbursement, under-collection of AiA, unexpected IFMIS closure, non release or late release of exchequer, among others. Table 2-3 below shows the trends of recurrent expenditure by sub sectors.

Table 2-3: Trends of Recurrent Expenditure by Subsectors for FY2009/2010-2011/2012 (KShs. millions)

Sub Sector	Printed Estimates			Approved Estimates			Actual Expenditures		
	2009/10	2010/11	2011/12	2009/10	2010/11	2011/12	2009/10	2010/11	2011/12
Environment and Mineral Resources	2,065	2,397	2,399	2,221	2,453	2,757	2,061	2,424	2,678
Water & Irrigation	4,479	5,669	6,060	4,536	5,830	6,130	4,012	5,400	5,769
Housing	1,860	978	1,706	1,836.5	1,714.9	1,736.5	1,515.3	1,563.0	1,479.1
Total	8,404	9,044	10,165	8,593.5	9,997.9	10,623.5	7,588.3	9,387.00	9,926.1

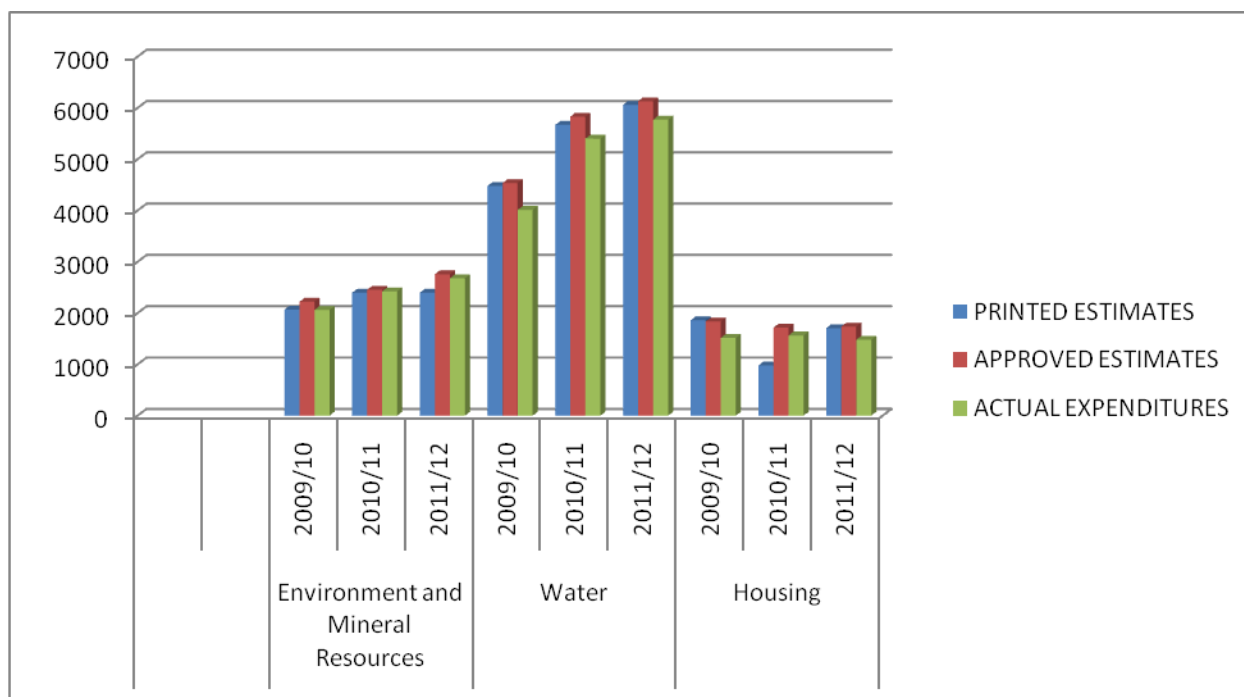


Figure 2.2: Graphical representation of trends of recurrent expenditure by Sub Sectors (KShs.million).

2.3.2. Analysis of Development Expenditure

The development budget allocation to the sector increased from Kshs. 27,710 million in 2009/10 to KShs. 37,421million in FY2010/11 and dropped to KShs.35,814.3 million in FY2011/12. On the other hand the absorption rate was 77.5% in 2009/10, declined to 72.1% in FY2010/11 and improved to 82.0% in FY2011/12. The reasons for the under-expenditure include under issue of exchequer, lengthy procurement processes, and stringent donor conditionality.

Table 2-4: Trends of Development Expenditure by Subsectors for FY2009/2010-2011/2012 (Kshs. millions)

Sub sector	Printed Estimates			Approved Estimates			Actual Expenditures		
	2009/10	2010/11	2011/12	2009/10	2010/11	2011/12	2009/10	2010/11	2011/12
Environment and Mineral Resources	2,269	4,430	3,952	2,333	2,556	3,590	1,679	1,946	2,923
Water	24,696	32,530	36,931	23,253	32,783	30,085	17,736	23,201	24,574
Housing	2,250	2,982	2,319	2,124	2,082	2,139.3	2,063	1,931	1,911.9
Total	29,215	39,942	43,202	27,710	37,421	35,814.3	21,478	27,078	29,408.9

In the water and irrigation sub-sector, analysis of approved development estimates and actual expenditures shows in overall that in FY2010/11, the absorption rate was low as the actual

expenditure were less compared to approved estimates by KShs.607 million (24%) lower from KShs. 655 million (28%) in FY2009/10. However, it improved from FY2009/10 financial year. Overall, a comparison between approved estimates and actual expenditure from 2008/09 to FY2010/11 shows under expenditure by 30%, 7% and 13% respectively. Development budget rose by 40.0% from Kshs 23.3 billion in 2009/10 to Kshs 32.8 billion in FY2010/11. Actual expenditure was 70.8% of the revised budget for development expenditures.

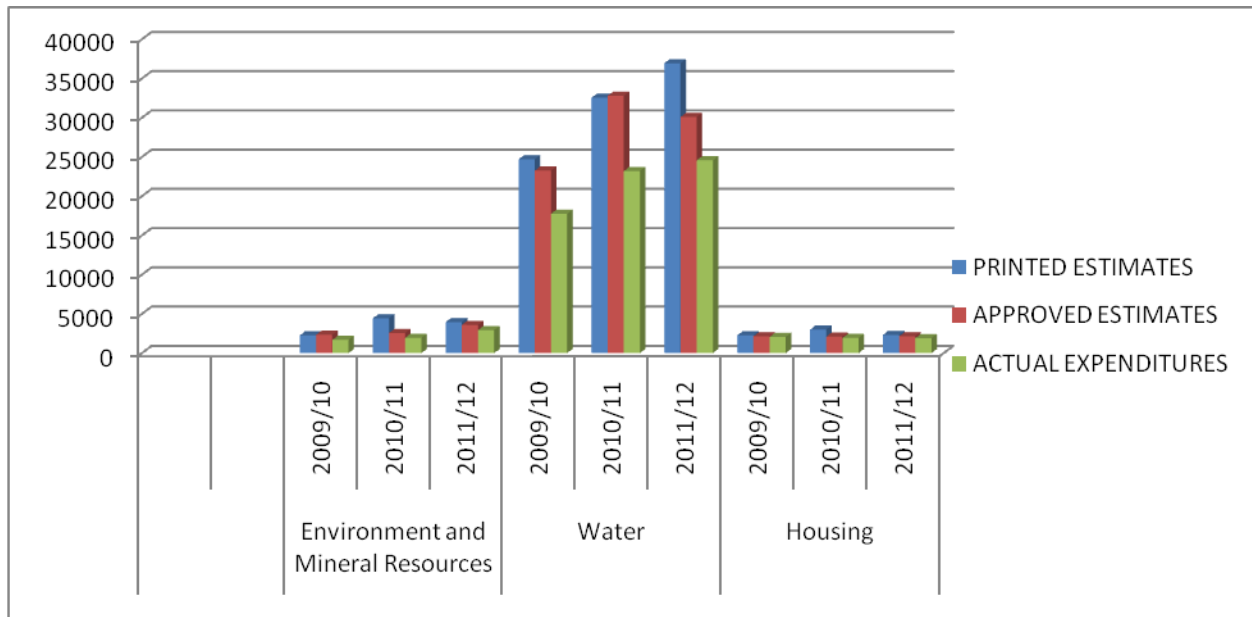


Figure 2.3: Graphical representation of trends of development expenditure by Sub Sectors (KShs.million)

2.3.3. Analysis of Externally Funded Programmes

External funding of programmes in the sector increased over the period from KShs. 10,334million in FY2009/10 to KShs.11,858million in FY2010/11 and Kshs.16,301million FY2011/12 during the period. Expenditure increased from Kshs.5,980million in FY2009/10 to KShs.7,393million in FY2010/11 and Kshs.12,479million in FY2011/12 representing an absorption rate of 57.9%, 62.2% and 76.2% respectively. The under expenditure is due to lengthy procurement procedures and requirements by development partners. Table 2-5 below shows approved and printed expenditure of Donor funds for the period FY2009/10 to FY2011/12.

Table 2-5: Expenditure Analysis of Externally Funded Programmes by Subsectors for FY2009/2010-2011/2012 (Kshs. millions)

Programme	Donor	Approved Estimates			Actual Expenditures		
		2009/10	2010/11	2011/12	2009/10	2010/11	2011/12
Environment and Mineral Resources Sub Sector							
Preparation of the second phase management of LVEMP- Loan-Rev	IDA	39	290	-	281	100	-
Kenya Agricultural Productivity & Sustainable Land Management Project (GEF) - Grant-Rev	IDA	-	6	20	-	-	14
Natural Resource Management Programme (MEMR) - Grant-Rev	DANIDA	-	64	86	-	47	80
Natural Resource Management Programme (MEMR)- Grant-AIA	DANIDA	-	36	16	-	-	-
Natural Resource Management Programme (NEMA) - Grant-Rev	DANIDA	-	64	69	-	64	69
Natural Resource Management Programme (NEMA)- Grant-AIA	DANIDA	-	43	-	-	3	-
Capacity building and technology assistance-Grant-Rev	UNEP	5	5	5	5	5	3
Phasing out ozone depleting substances project -Grant- Rev	UNDP/UNEP	9	9	9	9	8	6
Mt Elgon Regional Ecosystem Conversation Mgt- Grant-Rev	EDF/EEC	28	29	22	11	13	10
Africa Adaptation Project (AAP) - Grant-Rev	UNDP	-	37	44	-	-	-
Africa Adaptation Project (AAP) - Grant-AIA	UNDP	-	87	103	-	-	-
Kenya to Control Transboundary Movements of Hazardous Wastes & Chemicals- Grant-Rev	UNEP	-	4	4	0	0	0
Dadaab Integrated Environmental Management Program-Grant-Rev	UNEP	-	3	3	0	0	0
Water and Irrigation Sub Sector							
Mount Kenya East Pilot Project	IFAD	338	270	147	265	172	106
Water services	EU/KfW	482	470		440	188	

Programme	Donor	Approved Estimates			Actual Expenditures		
		2009/10	2010/11	2011/12	2009/10	2010/11	2011/12
improvement for the urban poor							
Nairobi Water and Sanitation Emergency Physical Investment Project	IDA/AFD	924	2,200	2,692	326	1,313	2,146
Water and Sanitation improvement in Informal settlements in AWSB	EU	67	90	89	47	46	69
Water and Sanitation improvement in Informal settlements in TWSB	EU	159	139	2,483	89	62	2,051
Water Services Support Project in CWSB	AFD/IDA	300	1,202	2,881	34	504	2,388
Kisumu Water and Sewerage Project	AFD/ADB	725	1,070	200	157	933	121
Water Governance in Lake Victoria south	ACP-EU	161	110	500	61	56	312
CETRAD	Switzerland	12	12	12	6	-	12
Water Sector Development Program Phase I and II	KfW/GER	2,415	667	826	1,059	1,181	810
Rift Valley Water and Sanitation Project	ADB	586	339	40	476	281	40
Water Services Boards Support Project in NWSB	ADB	280	572	188	23	121	188
Garissa Sewerage Project	BADEA/OPEC	375	300	100	88	85	100
Capacity Building for Rural Water Services Providers in Northern Kenya	ACP-EU	41	96.4	250	25	75	108
Kenya Italy Debt for Development Programme	Italy	615	7	-	397	7	-
Kenya Water and Sanitation Program (KWSP)	SIDA/DANIDA	380	200	-	380	200	-
UNICEF WASH Programme	Netherlands	389	559	220	336	417	220
Natural Resources Management Project (NRM)	World Bank	1,348	800	562	933	696	472
Water Sector Reform Program	GiZ	220	220		143	218	
Small Holder Irrigation Program for Mt. Kenya Region(Phase II)	KfW	150	151	182	143	0	177
Small Holder Irrigation Program for Mt. Kenya	KfW	-	162	151	-	153	140

Programme	Donor	Approved Estimates			Actual Expenditures		
		2009/10	2010/11	2011/12	2009/10	2010/11	2011/12
Region							
Project for Sustainable Smallholder Irrigation and Management (SIDEMAN)	JICA	61	-	-	61	-	-
Bura Irrigation Project	BADEA/K UWAIT / OPEC	200	500	180	133	6	30
Hola Irrigation Project	BADEA	25	-	-	2	-	-
Feasibility Study for Kieni Irrigation Scheme	BADEA	-	20	5	-	0	0.09
Nakayoncho Water Project	ITALY	-	120	-	-	108	-
Small Towns and Rural WSS Bondo and Siaya	ADB	-	100	50	-	10	21
Tigania Water Supply Project	ITALY	-	80	0	-	80	0
Small Towns and Rural WSS.Maua town water supply and Sewerage project	ADB	-	210	-	-	0	-
Small Towns and Rural WSS.MUKURWEINI water supply and Sewerage	ADB	-	110	-	-	0	-
Small Towns and Rural WSS Othaya water supply and Sewerage	ADB	-	150	-	-	11	-
Small Towns and Rural WSS-Kitui supply and Sewerage	ADB	-	55	-	-	0	-
Small Towns and Rural WSS Yatta dam canal,Irrigation water supply and Sanitation Project	ADB	-	90	450	-	0	-
Umanyi-Mtito Andei Water and Sanitation Project	ITALY	-	60	500	-	60	73
Kenya Youth Empowerment Project	IDA	-	50	-	-	150	-
Thua Water project	ITALY	-	-	80	-	-	80
Matugulu Water project	ITALY	-	-	116	-	-	116
Kieni Water Project	ITALY	-	-	102	-	-	102
Water services board support project- Isiolo and Nyahururu and rural water project	ADB	-	-	490			315
Modogashe water supply	OPEC	-	-	32	-	-	21
Water service Board support project-Migori Water and sanitation	ADF	-	-	350	-	-	136

Programme	Donor	Approved Estimates			Actual Expenditures		
		2009/10	2010/11	2011/12	2009/10	2010/11	2011/12
project and rural supply projects							
Awendo water supply	EDF	-	-	32	-	-	31
WaSSIP Nzoia Phase III	IDA	-	-	1,247	--	-	1,247
Kapsabet water supply	JAPAN	-	-	114	-	-	114
Nzoia cluster Phase II	KFW	-	-	484	-	-	304
Mwea Irrigation Development Project	KUWAIT/I TALY	-	-	181	-	-	35
Housing Sub Sector							
KENSUP(A-I-A)	SIDA	-	-	-	50	20	0
KISIP (Revenue)	IDA	-	-	-	-	-	212.3
TOTAL		10,334	11,858	16,301	5,980	7,393	12,479

2.3.4. Expenditure Review by Programmes

The table below shows analysis of expenditures by programmes.

Table 2-6. Analysis of expenditure by programmes for FY2009/2010-2011/2012 (KShs. millions)

Programme	Approved Estimates			Actual Expenditure		
	2009/10	2010/11	2011/12	2009/10	2010/11	2011/12
Environment and Mineral Resources sub sector						
Programme 1: Environment Policy Development and Coordination.	925	1,233	489	548	971	464
Programme 2: Environment Management and Protection	2,041	2,240	4,050	1,710	1,879	3,383
Programme 3: Mineral Resources Management	297	305	471	276	292	346
Programme 4: Meteorological Services and climate change	1,291	1,228	1,259	1,205	1,218	1,407
Total sub-sector	4,554	5,006	6,549	3,739	4,360	5,601
Water and Irrigation sub sector						
Programme 5: Water Policy and Management	278	276	416	265	246	372
Programme 6: Water Supply Services	14,896	25,931	23,213	9,621	17,428	18,895
Programme 7: Sewerage Services	2,784	3,744	3,654	2,606	3,479	3,136
Programme 8: Water Resources Management and Water Storage	6,008	4,746	4,266	5,973	4,551	4,088
Programme 9: Irrigation and Land Reclamation	3,824	3,916	4,666	3,283	2,899	3,852
Total Sub Sector	27,789	38,613	36,215	21,748	28,601	30,343
Housing sub sector						
Programme 10: Housing Development and Human Settlement	3,124.0	3,605.9	3,684.4	2,904.1	3,294.6	3,197.9
Programme 11: Administration and Support Services Department	786.2	191.0	191.0	774.2	199.3	193.1
Total Sub Sector	3,910.2	3,796.9	3,875.4	3,678.3	3,493.9	3,391.0
TOTAL	36,253	47,416	46,639	29,165.3	36,455	39,335

Table 2-6 shows that there was a general increase in approved estimates in FY2010/11 amounting to KShs.47,417million from KShs.36,253million in FY2009/10. However, there was a decrease in FY2011/12 which stood at KShs.46,639million. The actual expenditures stood at KShs.29,165.3million, KShs.36,445 and KShs.39,335million in FY2009/10, FY2010/11 and FY2011/12 respectively. In view of the foregoing, absorption rate stood at 80%, 77% and 84% in FY2009/10, FY2010/11 and FY2011/12 respectively.

2.4. Review of Sector Pending Bills

The Sector's total pending bills stood at **KShs.1,989** during the period under review. The pending bills increased from KShs.211.1million, KShs.614 to KShs.1,163 in FY2009/10, FY2010/11 and FY2011/12 respectively. Out of the total pending bills during the period under review, 59% was due to lack of provision amounting to **KShs.1,173.8** whereas **KShs.814.7** was due to lack of liquidity. Out of the total pending bills, 18% emanated from recurrent expenditure amounting to KShs.359.1 whereas 82% emanated from development expenditure amounting to KShs.1,630 of the total pending bills during the period under review. It is noted that most of the development pending bills were due to lack of provision while pending bills in recurrent expenditure were due to lack of liquidity.

Table 2-7: Review of Sector Pending Bills

	Due to lack of liquidity (Kshs.million)			Due to lack of provision (Kshs.million)		
	2009/10	2010/11	2011/12	2009/10	2010/11	2011/12
Recurrent	42.5	55	196.6	65	0	0
Development	103.6	0	417	0	559	549.8
Total	146.1	55	613.6	65	559	549.8

2.4.1. Recurrent Pending Bills

The total recurrent pending bills due to lack of liquidity has increased since 2009/10. The bill was KShs.42.5 million, KShs.55 million and KShs.196.6 million in FY2009/10, FY2010/11 and FY2011/12 respectively. These were made up mainly of unpaid supplies resulting from delays caused by the IFMIS while processing procurement. Pending bills due to lack of provision was Ksh.65million in 2009/10 but were fully paid in the subsequent Financial Years.

Table 2-8: Summary of pending bills on Recurrent (Kshs millions)

	Due to lack of liquidity Million (Kshs.)			Due to lack of provision Million (Kshs.)		
	2009/10	2010/11	2011/12	2009/10	2010/11	2011/12
Recurrent						
Environment and Mineral Resource						
Utility telephone	-	-	-	65	-	-
Electricity	-	-	-	-	-	-
Water	-	-	-	-	-	-
Personal claims	-	-	-	-	-	-
Others-(unpaid supplies)	36	15	52	-	-	-
Water and Irrigation						
Utility telephone	-	-	-	-	-	-
Electricity	-	36	-	-	-	-
Water	-	-	-	-	-	-
Personal claims	-	-	-	-	-	-
Others-(unpaid supplies)	-	4	90	-	-	-
Housing						
Utility telephone	-	-	-	-	-	-
Electricity	-	-	-	-	-	-
Water	-	-	-	-	-	-
Personal claims	-	-	-	-	-	-
Others-(unpaid supplies)	6.5		54.6	-	-	-
Total	42.5	55	196.6	65	-	-

2.4.2. Development Pending Bills

The sector's development pending bill due to lack of liquidity was KShs.103.6 million, zero and KShs.417 million in FY2009/10, FY2010/11 and FY2011/12 respectively. It stood at zero, KShs. 559 and KShs.549.8 due to lack of provision in FY2009/10, FY2010/11 and FY2011/12 respectively. In both case, the areas affected were unpaid supplies.

Table 2-9: Summary of pending bills on Development Vote (KShs. Millions)

	Due to lack of liquidity Million (Kshs.)			Due to lack of provision Million (Kshs.)		
	2009/10	2010/11	2011/12	2009/10	2010/11	2011/12
Development						
Environment and Mineral Resources.	-	-	-	-		-
Utility telephone	-	-	-	-	-	-
Electricity	-	-	-	-	-	-
Water	-	-	-	-	-	-
Personal claims	-	-	-	-	-	-
Others-(unpaid supplies)	102	-	371	-		-
Water and Irrigation						
Utility telephone	-	-	-	-	-	-
Electricity	-	-	-	-	-	-
Water	-	-	-	-	-	-
Personal claims	-	-	-	-	-	-

Others-(unpaid supplies)	-	-	46	-	559	474
Housing	-	-	-	-	-	-
Utility telephone	-	-	-	-	-	-
Electricity	-	-	-	-	-	-
Water	-	-	-	-	-	-
Personal claims	-	-	-	-	-	-
Others-(unpaid supplies)	1.6	-	-	-	-	75.8
Total	103.6	-	417	-	559	549.8

CHAPTER THREE

3. MEDIUM TERM PRIORITIES AND FINANCIAL PLAN FOR THE MTEF PERIOD 2013/14 – 2015/16

The chapter presents the Sector's priorities in terms of programmes and sub programmes by order of ranking and their respective objectives. It also shows the expected outputs, outcomes and key performance indicators of each programme. Further, it gives the financial resource requirements and allocations for the various programmes and sub programmes within each sub sector.

3.1. Prioritization of Programmes and Sub-Programmes by order of Ranking

The section highlights the priority programmes, their objectives, expected outputs, outcomes and key performance indicators. The sector has a total of ten priority programmes to be undertaken in the 2013/2014-2015/2016 MTEF period. The ten priority programmes were prioritized and ranked taking into consideration the three key factors namely; issues emanating from County consultation forum in October/November 2011, basic requirements in the Constitution and finally the overall objectives of the Kenya Vision 2030. The programmes are ranked in order of priority as follows:

3.2. Programmes and their Objectives

1. Environment Management and Protection

Objective: To protect, conserve and sustainably manage the environment

2. Water Resources Management and Water Storage

Objective: To increase availability of sustainable water resources

3. Housing Development and Human Settlement

Objective: To facilitate access to decent and affordable housing

4. Meteorological Services and Climate Change

Objective: To provide accurate and timely weather and climate information and services for the safety of life, protection of property and conservation of the natural environment

5. Irrigation and Land Reclamation

Objective: To increase utilization of land through irrigation, drainage and land reclamation

6. Water Supply Services

Objective: To increase access to adequate and reliable water supplies

7. Sewerage Services

Objective: To increase access to sanitation services

8. Mineral Resources Management

Objective: To develop geological and mineral resources databases and formulate, implement and review existing mining policies and legislation

9. Environment policy development and coordination.

Objective: To provide policy and legal guidance for efficient and effective management of the environment and mineral resources

10. Water Policy and Management

Objective: To facilitate effective management and coordination of water and irrigation services

11. Housing Policy development and Coordination

Objective: To facilitate effective management and coordination of Housing development.

3.3. Programmes, Sub-Programmes, Expected Outcomes, Outputs, and Key Performance Indicators for the Sector

Table 3-1 presents the sector’s programmes and their associated programme outputs, outcomes and key performance indicators.

Table 3-1: Sector programmes, outputs, Key Performance indicators, targets and outcomes

Programme	Programme Output	Key Performance Indicators and Targets
Programme 1: Environment Management and Protection		
Outcome: Sustainably managed environment and natural resources		
SP. 1.1: National Environment Management	Lake Victoria Basin pollution sources Mapped	3 Water Catchments (Tana, Lake Victoria and Ewaso Ngiro Basins) mapped by 2015/2016
	Incentive to encourage use of clean technologies developed	3 incentives developed on use of clean technologies by 2015/2016
	Plastic waste recovery systems and market instrument developed	3 plastic waste recovery systems supported by plastic levy and 3 market instruments developed for plastic waste recovery by 2015/2016
	Environmentally Significant Area (ESA) Gazetted	2 ESAs Gazetted by 2015/16
	Management plan for Yala wetland developed	2 wetlands management plans for Yala swamp and Tana delta developed by 2015/16
	Draft National Environmental disaster policy Developed	Draft Environmental disaster policy by 2014/15

Programme	Programme Output	Key Performance Indicators and Targets
	county governments sensitized on environmental management regulations	47 County governments sensitized on environmental management regulations by 2015/16
	A National and County Environment action plans and SoE reports prepared	National SoE report and 47 County SoE reports every year
	Environmental legislation and regulations enforced	Waste Management Strategy implemented in 5 Municipalities. Enforcement of 7 regulations Prosecute 100% of cases every year Facilities in 47 Counties inspected every year
	Wild life corridors secured	100% of projects in the wildlife corridors subjected to EIA process
	Institutional capacity enhanced	Established NEMA headquarters and 10 new county offices by 2015/16
SP. 1.2: Resource Surveying and remote sensing	Updated wildlife and Livestock statistical database	Wildlife/Livestock surveys in 7 Counties updated by 2015/16
	Mapped of land use cover	Maps for land use cover in 6 counties by 2015/16
	Mapped water towers	Major water towers in Mau, Aberdares, Cherenganyi, Mt. Kenya and Mt. Elgon mapped by 2015/16
	Mapped Wetlands Basins	Wetlands in Tana and Athi River Basins mapped by 2015/16
	Mapped dams in the Coastal and Eastern region	-Maps of dams in the Coastal and Eastern regions by 2015/16
SP.1.3: Catchment Rehabilitation and conservation	Rehabilitated water Catchments	6 million tree seedlings planted in the water catchment areas of Lake Naivasha, Marsabit, Kapchorwa, Enderit forests and Shimba hills by 2015/16
	Renewable energy centers in ASALs established	5 eco-community projects and 7 renewable energy centers in 6 ASAL counties established
	Green Economy Framework developed	Green Economy Framework by 2015/16
	Adaptation and disaster preparedness project for ASALs developed and Implemented	1 National Adaptation Plan (NAP) and 1 National Appropriate Mitigation Action (NAMA) developed and implemented by 2015/16
	Biodiversity resource center established	1 Biodiversity resource centre established in Nairobi by 2015/16
SP.1.4: LVEMP II	Fish Levy Trust Fund in Kenya Operationalised	Management Board of the Fish Levy Trust Fund established
	Kisumu water quality laboratory rehabilitated and re-equipped	Rehabilitation / Construction works completed at 100% 10 set Assorted laboratory equipments procured
	Capacity of Beach Management Units (BMUs) in Co-management of Fisheries Resources enhanced through training	ToTs trained 300 BMU officials trained
	3 Exhausters for the municipalities of Kisumu, Homabay and Bomet	3 Exhausters procured and delivered to the municipalities of Kisumu, Homabay and Bomet
	Feasibility studies and detailed designs for the rehabilitation and construction of Kisumu, Homabay	3 detailed designs prepared for Kisumu, Homa Bay and Bomet towns

Programme	Programme Output	Key Performance Indicators and Targets
	and Bomet Sewerage Treatment Plants prepared	
	Wetlands management plans for Ombeyi, Tienosiyoiyet, Kingwal and Koyo wetlands implemented	4 wetlands management plans implemented
	Major springs in upper River Nyando Catchment protected	25 springs protected in upper Nyando River catchment area.
	degraded land (Gulleys) in Nyando River Catchment Rehabilitated	100 Hectares of degraded land (gulleys) rehabilitated
	Degraded hilltops and Public land in Nyando River Catchment rehabilitated	500 Hectares of Degraded hilltops and Public land in Nyando River Catchment rehabilitated
	Water Hyacinth in 5 selected hotspots beaches along the lake shores controlled	1000 Hectares of water hyacinth mart cleared in the 5 water hyacinth infestation hotspots
	Sustainable Agricultural and land use Practices in Nyando River Basin Increased to 3030 Ha (Baseline Figure was 2330 Ha, 2010)	3030 Ha of land under Improved Agricultural and land use Practices in Nyando River Basin
SP.1.5: Nairobi Rivers Rehabilitation and Restoration	Rivers rehabilitated and restored	Establish a park along Nairobi River during the planned period Install 2 flood lights along Sosiani and Nairobi River banks Establish 1 GIS Data Base for Nairobi River. 5 KM each of .Nairobi, Sosiani, Kikat and Nanyuki rivers rehabilitated and restored
Programme 2: Water Resources Management and Water Storage		
Outcome: Increased per capita national water storage capacity		
SP. 2.1: Water Resources Management	Water resource monitoring stations rehabilitated	150 monitoring stations rehabilitated and operationalized
	Water quality monitoring stations rehabilitated	300 Water Quality Monitoring Stations rehabilitated
SP. 2.2: Water Storage and Flood Control	Large dams constructed	2 large dams constructed with storage capacity of 2.4billion m ³
	Medium size dams constructed	12 medium size dams constructed with storage capacity of 1billion m ³
	Small dams and water pans constructed	300 small dams and water pans constructed
	Inter-basin transfer canal constructed	54km Inter-basin canal constructed from Tana River to Garissa (Rahole Canal)
Programme 3: Housing Development and Human Settlement		
Outcome: Improved quality and affordable housing in urban and rural areas as well as efficiently and effectively managed government estates		
SP. 3.1: Housing Development	Constituency Appropriate Building Technologies (ABTs) Centres established	30 constituency ABTs Centres established
	Capacity Built in use of ABTs	900 new trainees
	Housing units at Kibera Soweto East village Zone A constructed and handed over	400 housing units constructed and handed over

Programme	Programme Output	Key Performance Indicators and Targets
	Housing cooperatives in informal settlements operationalised	50 housing cooperatives operationalised Kshs.15 M mobilised for housing cooperatives
	Kenya Informal Settlements Improvement Project (KISIP) implemented in informal settlements	10 informal settlements with infrastructure investments
	Infrastructure for housing development provided	100 acres of land opened up. 20 km of trunk sewerage lines 10 km of water lines constructed 70 km access roads to bitumen/murram standards constructed
	Kenyans housed	500 Civil Servants accessing housing 860 Kenyans Housed through NHC
SP. 3.2: Estates Management	Housing units refurbished	2,500 housing units refurbished
	Plots and estates fenced and titled	4,650 plots and estates fenced and titled
	All new Government houses registered	All new Government houses registered
	Maintenance policy formulated	Maintenance policy formulated
	Building Laws and Regulations finalized	Building Laws and Regulations finalized
	Defunct RRT stations revived	4 RRT stations revived
Programme 4: Meteorological Services and Climate Change		
Outcome: Improved meteorological services		
SP.4.1: Meteorological Systems modernization	Data observation systems and networks installed and operationalized	36 Automatic Weather Stations (AWSs) installed annually, at various counties; 4 new weather observatories established at Kitui, Kisumu, Kakamega, and Garissa county by FY 2014-15 3 Airport Weather observing Systems installed at Kisumu Airport, Moi Airbase and Laikipia Airbase 50 no. Automatic Hydromet stations for the Tana Catchments and Nyando installed 2 systems for monitoring of catchment and flood forecasting in Nyando and Tana Catchments established Severe weather forecasting and early warning system established
	- Data telecommunication system and networks established	Data Collection System (RADOME) in FY 2013-2014 installed at KMD HQS Nairobi One WMO web portal plugged in IMIS and Automatic Message Switching System (AMSS) by FY 2014- 2015 upgraded at KMD HQs Nairobi 2 No. Pilot Information and Pre-flight Briefing System acquired
	Data processing, analysis and forecasting systems established	Climate Data Management System (CDMS)/CLISYS for climate forecasting installed Integrated Meteorological Information System (IMIS) for the National Meteorological Research Centre installed
	Information Systems established for effective dissemination of weather and climate information &	Centre for National Framework of Climate Services (NFCS) as part of the WMO Global Framework of Climate Services (GFCS) established with 3 years

Programme	Programme Output	Key Performance Indicators and Targets
	products to users	8 RANET stations established at Wajir, Matungu, Garissa, Isiolo, Baringo, Nyando, Bunyore and Kitui Establish 3 No. County Weather and Climate Information Centres (WCIC) Acquire 1 No. TV Weather System Upgrade of Meteofactory System during FY 2014-2015 at KMD HQs Nairobi One Weather Expo Centre to be constructed within the next three Financial years at KMD HQs Nairobi
	Human capacity development and research enhanced	Enrolment of specialised course at WMO RTC by increased by 10% each year 2 researches on thematic areas undertaken each year E-learning introduced by the financial year 2014-15 Digital classrooms established by financial year 2014-15
SP.4.2: Weather Modification	Advertent Weather Modification undertaken	domain survey for Hailstone suppression over Nandi Hills, Rainfall enhancement over Wajir and Snowpack augmentation over Mt. Kenya – conducted in Phase I Cloud seeding research for Garissa and Wajir Areas conducted Research on Hails and Fog Suppression in Nandi hills, Kericho, Limuru and at international airports carried out by FY 2013/14 6 weather surveillance radars acquired by FY 2013/14 2 specialized Aircraft acquired by FY 2013/14
Programme 5: Irrigation and Land Reclamation		
Outcome: Increased land utilization through irrigation, drainage and land reclamation		
SP.5.1: Irrigation and Drainage Infrastructure	Area developed for irrigation	60,000 Ha developed through public irrigation schemes
		30,000 Ha developed through smallholder irrigation schemes
	Yatta canal extended to cover parts of Kitui and Mwingi Districts	100km of Yatta canal extended by 100km
SP.5.2: Land Reclamation	Area of land reclaimed	36,000 Ha of land reclaimed
Programme 6: Water Supply Services		
Outcome: Increased access to adequate and reliable water supplies		
SP.6.1: Urban Water Supply	Medium size towns urban water supplies infrastructure expanded	30 urban water supplies infrastructure expanded
SP.6.2: Rural Water Supply	Water sanitation projects constructed	450 water and sanitation projects constructed
	Boreholes drilled and equipped	540 boreholes drilled and equipped
Programme 7: Sewerage Services		
Outcome: Increase access to sanitation services		
SP.7.1: Sewerage Services	Sewerage schemes rehabilitated	60 Sewerage schemes rehabilitated
Programme 8: Mineral Resources Management		
Outcome: Enhanced Geological and Mineral information		

Programme	Programme Output	Key Performance Indicators and Targets
SP.8.1: Mineral resources development	Certified mining concessions/operations	150 inspections of exploration and mining concessions/operations
	Explosives magazines certified	60 inspections of quarries. 130 inspections of explosives magazines
SP.8.2: Geological Survey and Mineral Exploration	Monitored and updated Geo-hazard areas	Geo-hazard areas in Central, Rift Valley and Eastern regions updated by 2015/16.
	Geological reports and maps	2,352 km2 geologically mapped by 2015/16
	Mineral prospect reports	Six (6) mineral deposits assessment reports by 2015/16
	Disused mines and quarries inventoried	6 county inventory reports of disused mines and quarries by 2015/16
	Geophysical investigation on mineral deposits	Six (6) detailed geophysical investigation reports by 2015/16
	Seamless countrywide geophysics datasets acquired	Countrywide airborne geophysics data acquired by 2015/16.
Programme 9: Environment Policy Development and Coordination Outcome: Improved environmental policy governance		
SP.9.1: Environment Policy Development and Coordination	M&E reports on sub sector Vision 2030 flagship projects prepared	Quarterly and annual M&E reports
	Ministries sensitized on the National Environment Policy	All ministries sensitized on the National Environment Policy by 2015/16
	Draft Natural Resources Geo-information Policy developed	Draft Policy on Natural Resources Geo-information developed by 2014/15
	Draft Climate Change Policy developed	Draft Policy on Climate Change developed by 2015/16
	Draft National Policy on commercial explosives developed	Policy on commercial explosives developed by 2015/16
Programme 10: Water Policy and Management Outcome: Well coordinated water and irrigation services		
SP.10.1: Water policy and Management	Water Policy, Irrigation Policy, Water Storage Policy, Land Reclamation Policy, Water Act 2012 legislation Irrigation Act legislation National Water Master Plan	Water Policy, Irrigation Policy, Water Storage Policy, Land Reclamation Policy developed Water Act 2012 legislated Irrigation Act legislated National Water Master Plan completed
	Students graduated in long term courses	1,500 students graduated in long term courses
	Resolve all reported water disputes	All reported water disputes resolved
Programme 11: Housing Policy development and Coordination Outcome: Efficiently and effectively coordinated housing sector		
SP.11.1 Housing Policy development and Coordination	M & E reports on sub sector projects Resolve all reported housing disputes Well coordinated policy implementation and management	Quarterly M&E reports All reported housing disputes resolved Housing policy, housing bill, landlord and tenants bill, maintenance policy

3.4. Analysis of Sector Resource Requirement versus Allocation

The following section shows analysis of resources as required by the sector for the MTEF period 2013/14 – 2015/16.

3.4.1. Sector's Total Budgetary Requirements for Recurrent and Development

The Sector requires a total of **KShs.114.8billion** in the FY2013/14 for its proposed projects and programmes of which **KShs.99.583billion** is development and **KShs.14.898billion** is recurrent. The overall increase in total requirement is attributable to decentralization and devolution of services and the expectation of progressive implementation of requirements of the Constitution. Table 3-2 provides a summary of the resource requirements.

Table 3-2: Analysis of resource requirement by Sector (KShs.million)

Sector Expenditure	Printed FY2012/13	Requirement FY2013/14	Projected Requirement	
			FY2014/15	FY2015/16
Recurrent	11,348	14,898	15,883	18,113
Development	43,697	99,583	101,886	104,168
TOTAL	55,045	114,481	117,769	122,281

3.4.2. Sub Sector Total Budgetary Requirements for Recurrent and Development

Table 3-3 below provides a summary of resources requirement by each of the three sub-sectors in the MTEF period 2013/14 – 2015/16.

Table 3-3: Sub Sector analysis of resource requirement (KShs.million)

Sector- Environmental Protection, Water and Housing				
Sub-sector	Printed FY2012/13	Requirement FY2013/14	Projected Requirement	
			FY2014/15	FY2015/16
Environment and Mineral Resources				
Recurrent	3,020	4,155	4,743	5,908
Development	4,421	12,450	10,970	11,580
Sub Total	7,441	16,605	15,713	17,488
Water and Irrigation				
Recurrent	6,147	8,478	8,858	10,297
Development	35,764	82,676	84,134	84,564
Sub Total	41,911	91,154	92,992	94,861
Housing				
Recurrent	2,181	2,445	2,804	3,253
Development	3,512	4,587	5,220	6,049
Sub Total	5,693	7,032	8,024	9,302
TOTAL	55,045	114,791	116,729	121,651

3.4.3. Programmes and Sub-Programmes

The section highlights a justification for the resources required by programmes and sub-programmes.

1. Environment Management and Protection

Environment Management and Protection are key in the realization and of Kenya's Vision 2030 aspirations and attainment of a clean and healthy environment as enshrined in the Constitution. To this end this programme entails implementation of the waste management strategy in 5 municipalities; supporting three plastic waste recovery systems; development of wetland management plans for Yala Swamp and Tana Delta; development of a draft National Environmental Disaster Policy; preparation of a National and county environment action plans and State of Environment reports; conducting wildlife and livestock censuses in 7 counties; mapping landuse/cover in 6 counties; rehabilitation and conservation of Lake Naivasha, Marsabit, Kapchorwa, Enderit forests and Shimba hills water catchment areas; establishment of 5 renewable energy centres in ASALs; development of Green Economy Framework; and establishment of Biodiversity Resource Centre. In addition, procure three exhausters for Kisumu, Homabay and Bomet municipalities and rehabilitation and construction of sewerage treatment plants for the three municipalities; rehabilitation and restoration of 5 km each of Nairobi, Sosiani, Kisat and Nanyuki rivers; establishment of a park along Nairobi River and removal of 1000 Ha of water hyacinth in Lake Victoria.

2. Water Resource Management and Water Storage

More resources are required for Water Resource Management and Water Storage to fast track completion of Siyoi, Nzoia, Rare and Isiolo dams. Kshs.830million is required for flood control in Mogotio, Narok, Isiolo and on-going flood control mitigation programmes. The construction of 85 pans and small dams will cost Kshs.930 million in the Financial Year 2013/14. The additional funding in the Water Resources sub-programme is required to rehabilitate 150 hydro meteorological stations and install regional gauging stations to enhance water resources data collection and management.

3. Housing Development and Human Settlement

The resource requirement by the housing sub sector in the MTEF has generally increased due to the planned programmes aimed at improving housing delivery to Kenyans and upscaling slum upgrading and prevention initiatives. The following are some of the activities intended to be undertaken during the plan period:

The number of housing units and Kenyans housed in the MTEF period is to be enhanced. The funds required for the housing development programme amounts to KShs.6.732 billion in 2013/2014 for development and maintenance projects. These funds include grant to the National Housing Corporation (NHC). This includes funds for housing infrastructure development to open up more areas for housing development, promotion of appropriate building materials and construction technologies, civil servants housing development and the slum upgrading programme.

KShs.1billion is requested as a transfer to NHC to implement the Housing policy by providing housing to the low-income groups through low-cost housing programmes. This will be used to grant loans for rural/peri-urban housing development and direct housing development by the Corporation. This is premised on the fact that housing is now a right for every Kenyan. Other activities to be undertaken include enhancing landlord and tenancy relationships in controlled tenancies, and capacity building on use of ABTs.

4. Meteorological Services

The programme will work to improve the provision of meteorological information and services, by improving capacity on Data Observation Systems and Networks. This will include establishment of new observatories, automatic weather and climate monitoring stations; installation of new telecommunication equipment to improve Data Telecommunication System and Networks; acquiring and installation of state-of-the-art systems and software to improve Data Processing, Analysis and Forecasting Systems. Establishment of Information Systems for effective dissemination of weather and climate information and products to users; and enhance human resource. The programme will also undertake initial studies in Adverent Weather Modification programme for the suppression of hailstone over the Nandi Hills – Kericho areas, enhancement of rainfall in the arid and semi-arid regions, fog suppression on the high grounds of central and Nairobi and snowpack augmentation on Mt. Kenya. A Centre for National

Framework of Climate Services (NFCS), an obligation under the WMO Global Framework of Climate Services (GFCS) will be set up at a cost of KShs.567.0 million.

5. Irrigation and Land Reclamation

Additional resources are required for Development of Irrigation and Drainage Infrastructure programme to meet the MTP annual target of 40,000 Ha to be established annually and comply with the Parliament resolution of developing 2,000 acres of irrigation in each constituency with irrigation potential. It is therefore requested that funding for irrigation development is increased by KShs. 27 billion which is the amount required to develop 40,000 Ha annually. In addition the funds will also be used to construct gravity water intakes in Ahero, Hola and Bura schemes to increase the hecterage under public irrigation schemes and cut on the cost of pumping water.

6. Water Supplies Services

The Reforms in the Water sub sector has increased level of funding from donors through our regional water Service Boards to finance construction of water supplies in Urban areas; Nairobi, Mombasa, Kisumu, Nzoia and 26 medium size towns in MTP. This has in turn increased the requirement for counterpart funding There is need to increase funds to match the level of coverage in rural areas since this is where we have the most deserving population. The requirement for this programme will be used in rural water supplies rehabilitation, expansion and development of 450 rural and community water supplies schemes. Also 540 boreholes will be drilled.

7. Sewerage Services

Access to basic sanitation is a requirement of the Constitution under the Bill of Rights. In order to improve sanitation coverage, 60 Sewerage Schemes will be rehabilitated within the next three Financial Years 2013/14 -2015/16.

8. Mineral Resources Management

There exists opportunities in the demand for minerals globally and nationally for industrial development. This has resulted in increased investor interest on the mineral potential of Kenya. However, parts of country remain unmapped and there is a need to update the existing geological information so as to generate enhanced map products to meet customer demands. The programme will intensify acquisition of enhanced geological data and information on rock, mineral and geological conditions, intensify regulation of mining sector, acquisition of country

wide aerial survey to map out and assess potential mineral resources over three year period at an estimated cost of KShs.15 billion. Further, modernization of plant, machinery, equipment, facilities, capacity building, and ICTs will continue to be undertaken.

9. Environment Policy Development and Coordination

Under this Programme, the sub sector will endeavor to implement the constitutional priorities including: establishment of environment decentralized systems to the county governments; undertake monitoring and evaluation to fast track the implementation of the sub sector's Vision 2030 flagship projects, sensitize other sectors on the National Environment Policy; develop Draft Natural Resources Geo-information Policy, Draft Climate Change Policy and Draft National Policy on Commercial Explosives.

Table 3-4 below presents sector resource requirement by programmes and sub-programmes in the MTEF period 2013/14 – 2015/16.

Table 3-4: Resource requirements by programmes and sub-programmes (KShs.million)

Programmes and Sub programmes	Printed FY2012/13	Requirement FY2013/14	Projected Requirement	
			FY2014/15	FY2015/16
Environment and Natural Resources Sub Sector				
Programme 1: Environment Policy Development and Coordination				
SP.1.1: Environment Policy Development and Coordination	471	560	680	550
Total expenditure programme 1	471	560	680	550
Programme 2: Environment Management and Protection				
SP.2.1: Resource survey and Remote sensing.	718	820	900	1070
SP.2.2: National Environmental Management	2,354	3,401	3,950	5,050
SP.2.3: Lake Victoria Environmental management	820	825	765	600
SP.2.4: Nairobi Rivers Rehabilitation and restoration	321	490	650	900
SP.2.5: Catchment Rehabilitation and Conservation	450	450	250	300
Total expenditure programme 2	4,663	5,986	6,515	7,920
Programme 3: Mineral Resources Management				
SP.3.1: Mineral resources development	597	7,733	5,807	6,077
SP.3.2: Geological Survey and Mineral exploration	76	112	165	270
Total expenditure Programme 3	673	7,845	5,972	6,347
Programme 4: Meteorological Services and climate change				
SP.4.1: Meteorological systems Modernization	1,624	1,809	1,866	1,971
SP.4.2: Weather Modification	10	400	450	500
Total Expenditure Programme 4	1,634	2,209	2,316	2,471

Programmes and Sub programmes	Printed FY2012/13	Requirement FY2013/14	Projected Requirement	
			FY2014/15	FY2015/16
Water and Irrigation Sub Sector				
Programme 5: Water Policy and Management				
SP.5.1: Water Policy and Management	402	1,672	1,705	1,740
Total Expenditure Programme 5	402	1,672	1,705	1,740
Programme 6: Water Supply Services				
SP. 6.1: Urban water Supply	25,462	37,754	38,509	39,279
SP. 6.2: Rural water supply	3,489	3,723	3,797	3,873
Total Expenditure Programme 6	28,951	41,477	42,306	43,152
Programme 7: Sewerage Service				
SP.7.1: Sewerage Services	226	362	384	400
Total Expenditure Programme 7	226	362	384	400
Programme 8: Water Resources Management and Water Storage				
SP.8.1: Water Resources Management	2,287	3,261	3,326	3,393
SP.8.2: Water Storage and Flood Control	5,573	12,732	12,987	13,246
Total Expenditure Programme 8	7,860	15,993	16,313	16,639
Programme 9: Irrigation and Land Reclamation				
SP.9.1: Development of Irrigation and Drainage infrastructure	4,305	31,458	32,087	32,730
SP. 9.2: Land Reclamation	167	192	197	200
Total Expenditure Programme 9	4,472	31,650	32,284	32,930
Housing Sub Sector				
Programme 10: Housing Policy development and coordination				
SP.10.1: Housing Policy development and coordination	260	300	342	397
Total Expenditure Programme 10	260	300	342	397
Programme 11: Housing Development and Human Settlement				
SP.11.1: Housing Development	4,111	5,173	5,905	6,844
SP.11.2: Estates Management	1,322	1,559	1,777	2,061
Total Expenditure Programme 11	5,433	6,732	7,682	8,905
Grand Sector Total	55,045	114,786	116,499	121,451

3.4.4. Resource requirement by Economic Classification

Table 3-5: Analysis of resource requirement by economic classification (KShs.million)

Expenditure Classification	Printed FY2012/13	Requirement FY2013/14	Projected Estimates	
			FY2014/15	FY2015/16
Environment and Mineral Resources sub-sector				
1. Current Expenditure	3,020	4,155	3,847	5,908
Compensation to Employees	1,115	1,465	1,520	1,660
Use of goods and services	698	904	1,104	1,359
Current Transfers Govt. Agencies	1135	1,706	1,143	2,739
Other Recurrent	72	80	80	150
2. Capital Expenditure	4,421	12,445	11,636	11,580
Acquisition of Non-Financial Assets	2,542	10,300	9,662	9,170
Capital Transfers to Govt. Agencies	525	550	0	400
Other Development	1,354	1,595	1,974	1,810

Expenditure Classification	Printed FY2012/13	Requirement FY2013/14	Projected Estimates	
			FY2014/15	FY2015/16
Sub Sector Total	7,441	16,600	15,483	17,288
Water and Irrigation sub-sector				
1. Current Expenditure	6,148	8,478	8,858	10,297
Compensation of employees	1,972	2,072	2,175	2,284
Use of goods and services	1,424	1,517	1,690	2,058
Transfers to Gov't Agencies.	2,695	4,823	4,900	5,000
Other Recurrent	57	66	93	955
2. Capital Expenditure	35,764	82,676	84,134	84,564
Acquisition of non-financial assets	6,179	6,502	7,996	8,331
Capital Transfers to Gov't Agencies	28,261	74,482	74,273	74,240
Other development	1,323	1,692	1,865	1,993
Sub Sector Total	41,911	91,154	92,992	94,861
Housing Sub-Sector				
1. Current Expenditure	2,181	2,445	2,804	3,253
Compensation to employees	427	478	545	632
Use of goods and services	622	699	839	973
Current transfers of Govt. Agencies	1,119	1,253	1,403	1,628
Other recurrent	13	15	17	20
2. Capital Expenditure	3,512	4,587	5,220	6,049
Acquisition of Non -Financial Assets	3,056	3,723	4,252	4,926
Other Development	456	864	968	1,123
Sub Sector Total	5,693	7,032	8,024	9,302
Sector Grand Total	55,045	114,786	116,499	121,451

3.5. Analysis of Resource Requirement versus Allocation

The Sector requires a total of **Kshs.114.5billion**, **KShs.117.8billion**, and **KShs.122.3billion** in the MTEF budget period 2013/14-2015/16 against the total expenditure ceilings for the MTEF budget period 2013/14-2015/16 of **Kshs.57.9billion**, **KShs.60.596billion** and **KShs.61.887billion** respectively. In the FY2013/14, the total amount from GoK is **Kshs.31.204billion** whereas the total amount from Donors is **Kshs.26.8billion**. The detailed analysis is given in the following tables.

Table 3-6: Analysis of resource requirement versus allocation by sub-sector (KShs.million)

Sub Sector	Required FY2013/14	Allocation FY2013/14		Allocation FY2014/15		Allocation FY2015/16	
		GoK	Donor	GoK	Donor	GoK	Donor
Environment & Mineral Resources	16,600	6,725	1,200	7,337	1,200	7,581	1,200
Water and Irrigation	91,154	19,905	23,902	21,890	23,609	22,791	23,608
Housing	7,032	4,574	1,600	4,960	1,600	5,107	1,600
TOTAL	114,786	31,204	26,800	34,187	26,409	35,479	26,408

Table 3-7: Analysis of resource requirement versus allocation for Recurrent and Development Expenditure (KShs.million)

Sub Sector	Requirement	Allocation 2013/14		Allocation 2014/15		Allocation 2015/16	
	FY2013/14	GoK	Donor	GoK	Donor	GoK	Donor
Recurrent Expenditure							
Environment and Mineral Resources	4,155	3,154	0	3,317	0	3,356	0
Water and Irrigation	8,478	6,452	0	6,722	0	6,849	0
Housing	2,445	2,314	0	2,412	0	2,429	0
Total Recurrent	15,078	11,920	0	12,451	0	12,634	0
Development Expenditure							
Environment and Mineral Resources	12,445	3,571	1,200	4,020	1,200	4,225	1,200
Water and Irrigation	82,676	13,453	23,902	15,168	23,609	15,942	23,608
Housing	4,587	2,260	1,600	2,548	1,600	2,678	1,600
Total Development	99,708	19,284	26,702	21,736	26,409	22,845	26,408
Total Sector Expenditure	114,786	31,204	26,702	34,187	26,409	35,479	26,408

Table 3-8: Summary of resource allocations by sub-sector (KShs.million)

Expenditure Classification	Resource Allocation for MTEF period 2013/14 – 2015/16		
	FY2013/14	FY2014/15	FY2015/16
Environment and Mineral Resources sub-sector			
1. Recurrent Expenditure			
Gross	3,154	3,317	3,356
A-in-A	508	508	508
Net	2,646	2,809	2,848
2. Development Expenditure			
Gross	4,765	5,220	5,425
GoK	3,565	4,020	4,225
Loans	800	800	800
Grants	400	400	400
Local A-in-A	0	0	0
Total Expenditure	9,530	8,537	8,781
Water and Irrigation Sub-sector			
1. Recurrent Expenditure			
Gross	6,452	6,722	6,849
A-in-A	2,050	2,050	2,112
Net	4,402	4,672	4,737
2. Development Expenditure			
Gross	37,355	38,777	39,550
GoK	13,453	15,168	15,942
Loans	19,342	19,440	19,440
Grants	4,560	4,169	4,168

Expenditure Classification	Resource Allocation for MTEF period 2013/14 – 2015/16		
	FY2013/14	FY2014/15	FY2015/16
Local A-in-A	0	0	0
Total Expenditure	43,807	45,499	46,399
Housing sub-sector			
1. Recurrent Expenditure			
Gross	2,314	2,412	2,429
A-in-A	485	485	485
Net	1,829	1,927	1,944
2. Development Expenditure			
Gross	3,860	4,148	4,278
GoK	2,260	2,548	2,678
Loans	1,600	1,600	1,600
Grants	0	0	0
Local A-in-A	0	0	0
Total Expenditure	6,174	6,560	6,707
Total Sector Expenditure	57,906	60,596	61,887

3.5.1. Analysis Of Resource Requirement Versus Allocation By Programmes And Sub-Programmes

Table 3-9: Analysis of resource requirement versus allocation by programmes and sub-programmes (KShs.million)

Programmes and sub-programmes	Requirement	Allocation for MTEF period (KShs.million)		
	FY2013/14	FY2013/14	FY2014/15	FY2015/16
Environment and Mineral Resources Sub-Sector				
<i>Programme 1: Environmental Policy Development and Coordination</i>				
SP.1.1: Environmental Policy Development and Coordination	560	415	465	475
Total expenditure programme 1	560	415	465	475
<i>Programme 2: Environment Management and Protection</i>				
SP.2.1: Resource survey and Remote sensing.	820	544	714	716
SP.2.2: Environmental Management	3,401	2,610	2,891	2,912
SP.2.3: Lake Victoria Environmental Management	825	825	765	600
SP.2.4: Nairobi Rivers Rehabilitation & Exploration	490	420	585	755
SP.2.5: Catchment Rehabilitation and conservation	450	420	450	500
Total expenditure programme 2	5,986	4,819	5,405	5,483
<i>Programme 3: Mineral Resources Management</i>				
SP.3.1: Minerals resource development	7,733	873	713	765
SP.3.2: Geological survey and mineral Exploration	112	112	147	184
Total expenditure programme 3	7,845	985	860	949
<i>Programme 4: Meteorological Services and Climate Change</i>				
SP.4.1: Meteorological Services	1,790	1,666	1,407	1,474

Programmes and sub-programmes	Requirement	Allocation for MTEF period (KShs.million)		
	FY2013/14	FY2013/14	FY2014/15	FY2015/16
SP.4.2: Weather Modification	412	40	400	400
Total Expenditure Programme 4	2,202	1,706	1,807	1,874
Water and Irrigation Sub-Sector				
<i>Programme 5: Water Policy and Management</i>				
SP.5.1: Water Policy and Management	1,672	463	484	493
Total Expenditure Programme 5	1,672	463	484	493
<i>Programme 6: Water Supply Services</i>				
SP.6.1: Urban water supply	37,686	26,234	27,132	27,672
SP.6.2: Rural water supply	3,723	3,704	3,871	3,947
Total Expenditure Programme 6	41,409	29,938	31,003	31,619
<i>Programme 7: Sewerage Services</i>				
SP.7.1: Sewerage Services	362	226	236	241
Total Expenditure Programme 7	362	226	236	241
<i>Programme 8: Water Resources Management and Water Storage</i>				
SP.8.1: Water Resources Management	3,261	2,512	2,626	2,677
SP.8.2: Water Storage and Flood Control	12,807	5,975	6,245	6,368
Total Expenditure Programme 8	16,068	8,487	8,871	9,045
<i>Programme 9: Irrigation and Land Reclamation</i>				
SP.9.1: Irrigation and Drainage infrastructure	31,458	4,468	4,670	4,762
SP.9.2: Land Reclamation	260	225	235	240
Total Expenditure Programme 9	31,650	4,693	4,905	5,001
Housing Sub-Sector				
<i>Programme 10: Housing Policy development and coordination</i>				
SP.10.1: Housing Policy development and coordination	300	305	310	315
Total Expenditure Programme 10	300	305	310	315
<i>Programme 11: Housing Development and Human Settlement</i>				
SP.11.1: Housing Development	5,173	4,289	4,610	4,700
SP.11.2 : Estates Management	1,559	1,580	1,640	1,692
Total Expenditure Programme 11	6,732	5,869	6,250	6,392
Grand Total	114,786	57,906	60,596	61,887

3.5.2. Analysis Of Resource Requirement Versus Allocation By Economic Classification

Table below shows the resource requirement according to economic classification.

Table 3.10: Resource requirement versus allocation by economic classification for sub-sectors (KShs.million)

Expenditure Classification	Requirements	Allocation for MTEF period (KShs.million)		
	FY2013/14	FY2013/14	FY2014/15	FY2015/16
Environment and Mineral Resources Sub-sector				
Current Expenditure	4,155	3,154	3,317	3,356
Compensation of employees	1,465	1,138	1,190	1,225
Use of goods and services	904	811	910	914

Expenditure Classification	Requirements	Allocation for MTEF period (KShs.million)		
	FY2013/14	FY2013/14	FY2014/15	FY2015/16
Transfers to Gov't Agencies.	1,706	1,155	1,155	1,155
Other Recurrent	80	50	62	62
Capital Expenditure	12,445	4,771	5,220	5,425
Acquisition of non-financial assets	10,300	2,696	2,995	3,295
Capital Transfers to Gov't Agencies	550	120	120	120
Other development	1,595	1,955	2,105	2,010
Sub total Expenditure	16,660	7,925	8,537	8,781
Water and Irrigation sub sector				
Current Expenditure	8,478	6,452	6,722	6,849
Compensation of employees	2,072	1,899	1,987	2,046
Use of goods and services	1,517	1,733	1,802	1,828
Transfers to Gov't Agencies.	4,823	2,763	2,873	2,915
Other Recurrent	66	57	59	60
Capital Expenditure	82,676	37,355	38,777	39,550
Acquisition of non-financial assets	6,502	7,058	7,381	7,527
Capital Transfers to Gov't Agencies	74,482	28,597	29,618	30,210
Other development	1,692	1,700	1,778	1,813
Sub total Expenditure	91,154	43,807	45,499	46,399
Housing sub sector				
Current Expenditure	2,445	2,314	2,412	2,425
Compensation of employees	478	458	456	470
Use of goods and services	699	721	820	818
Transfers to Gov't Agencies.	1253	1,119	1,119	1,119
Other Recurrent	15	16	17	18
Capital Expenditure	4,587	3,860	4,148	4,278
Acquisition of non-financial assets	3,423	3,510	3,788	3,863
Other development	864	350	360	415
Sub total Expenditure	7,032	6,174	6,560	6,707
Sector Total Expenditure	114,786	57,906	60,596	61,887

3.5.3. Semi-Autonomous Government Agencies

The SAGAs in the Environmental Protection, Water and Housing Sector are the implementing Agencies for most development projects, hence the high budgetary requirements. Table 3-11 shows resource requirements by each of the SAGAs in FY2013/14 and the resource allocation in the MTEF period 2013/14 – 2015/16 against resource allocation in the FY2012/13. The resource requirement for the SAGAs in the Financial Year 2013/14 is **KShs.85.586billion** against resource allocation of **KShs.32.8billion** in the Financial Year 2013/14.

Table 3-11: Analysis of resource requirement versus allocation - Semi Autonomous Government Agencies- (KShs. millions)

Semi Autonomous Government Agencies	Allocation FY2012/13	Requirements FY2013/14	Allocation FY2013/14	Allocation FY2014/15	Allocation FY2015/16
Water Appeal Board	15	25	20	21	22
Water Services Regulatory Board	85	165	85	89	92
Water Resources Management Authority	370	1,107	370	387	402
Water Services Trust Fund	1,190	3,328	1,198	1,252	1,301
Athi Water Services Board	3,473	4,265	3,473	3,630	3,770
Tana Water Services Board	3,434	5,739	3,439	3,595	3,733
Tanathi Water Services Board	3,392	11,815	3,397	3,551	3,688
Rift Valley Water Services Board	510	2,231	510	533	554
Lake Victoria North Water Services Board	881	1,203	891	931	967
Lake Victoria South Water Services Board	2,452	4,695	2,462	2,573	2,673
Northern Water Services Board	2,371	2,390	2,376	2,483	2,579
Coast Water Services Board	3,624	3,750	3,624	3,788	3,934
National Water Conservation and Pipeline Corporation	5,574	12,666	5,979	6,249	6,491
National Irrigation Board	3,353	28,434	3,378	3,531	3,667
Kenya Water Institute	233	1,479	256	268	278
Sub-Total Water and Irrigation	30,957	82,992	31,458	32,881	34,151
National Environment Management Authority	974	1,399	974	1,025	1,025
National Environment Trust Fund	48	70	48	60	60
Public Complaints Committee	32	45	32	40	40
National Environment Tribunal	22	30	22	30	30
Sub-Total Environment and Mineral Resources	1,076	1,544	1,076	1,155	1,155
National Housing Corporation	0	1,050	300	350	350
Sub-Total Housing	0	1,050	300	300	300
Grand Total for the Sector	32,033	85,586	32,834	34,336	35,606

3.5.4. County Devolved Functions resource requirement versus allocation

During the County Stakeholders Consultation forums in October/November 2011, some of the key strategic intervention issues in the Counties as well as proposed key priority interventions measures were identified. The total requirement cost of funding the devolved function in the Sector based on the existing level of services is estimated at KShs.11.5billion in the Financial Year 2013/14. The funding is required to undertake the projects geared toward addressing concerns raised by the county residence. The County devolved function resource requirement represents 10% of the Sector total resource requirement in the FY2013/14.

The Sector has allocated **KShs.5.9billion** against devolved county functions resource requirement of **KShs.11.5billion** in the Financial Year 2013/14. This represents 19.8% and 52% of the sector's total allocation and devolved county resource requirement in the FY 2013/14 respectively. Table 3-12 presents summary of resource requirement versus allocation for county devolved functions by sub sector

Table 3-12: Summary of resource requirement versus Allocation for County Devolved Functions by Sub Sector (KShs.million)

Sub Sector	Allocation FY2012/13	Requirement FY2013/14	Allocation for MTEF period		
			FY2013/14	FY2014/15	FY2015/16
Water and Irrigation	4,646	9,784	4,971	5,199	5,301
Environment and Mineral Resources	0	0	0	0	0
Housing	912	1,752	998	1,063	1,087
TOTAL	5,558	11,536	5,969	6,262	6,388

3.5.5. Key Strategic Interventions in Counties by order of ranking

Table 3-13 shows the ranking of county key issues and strategic inventions with associated programmes and budgetary allocation for the Financial Year 2013/14.

Table 3-13: Counties Key strategic interventions by order of ranking and resource allocation in the FY2013/14 (KShs.million)

Rank	Key issues	Interventions	Programmes	Allocation FY2013/14
1.	Environmental Degradation and Protection of Wetlands	<ul style="list-style-type: none"> - Encourage afforestation, re-afforestation and agro forestry - Build gabions - Rehabilitate dykes - Enforce 10% tree-cover policy - Subsidize alternative sources of energy - Increased forest patrols - Identification, mapping and rehabilitation of degraded sites - Enhance enforcement and compliance of laws - Public sensitization of environmental conservation - Demarcation of water catchment areas. - Promotion of carbon trading - Encourage contour ploughing - Regulate river stones and sand harvesting - Planting of depleted Mangrove trees 	Environmental Protection and Management	420
2.	Inadequate access to clean	<ul style="list-style-type: none"> - Rehabilitate, expand and develop rural and urban water supplies 	Water Supply Services	3,581

Rank	Key issues	Interventions	Programmes	Allocation FY2013/14
	and safe water	<ul style="list-style-type: none"> - Exploit other viable water sources e.g. gravity system - Zero rate on water equipments - Develop water storage infrastructure for multipurpose use - Conservation, restoration and protection of water springs - Ensure all water supplies have conventional treatment plants - Remove restrictive regulations on drilling of boreholes - Desalination of water - Set up and operationalize County Water Services Company to carry out operation and maintenance of the existing water supplies and contract agents from community organizations 		
3.	Pollution control and Waste Management	<ul style="list-style-type: none"> - Enhance enforcement and compliance of laws - Mainstream environmental audits - Have designated dumpsites - Awareness creation - Establish a fund for waste recycling enterprises by community groups - Provision of waste receptacles - Biodegradation and recycling of waste matter - Regular collection of wastes - Construction of modern solid and liquid waste sites - Harmonizing existing laws between line ministries - Amend by-laws to mitigate on the current issues - Ban the use of plastics - Recycling plant 	Environmental Protection and Management	60
4.	Management and Protection of water resources and sharing	<ul style="list-style-type: none"> - Enhance enforcement and compliance of laws - Identify and map out county water towers and upscale formation of water resource users associations - Set up community committees - Provision of water harvesting technologies - Develop MOU and initialize Payment of Environmental services - Construct dams upstream; - Promotion of carbon trading - Enhance enforcement and compliance of laws; - Conversion of disused quarries into water dams - Sensitize the public on water resource management - Water resource sharing; - Protection of underground water sources 	Water Resources management and Water storage	698
5.	Inadequate decent housing	<ul style="list-style-type: none"> - Development of low cost housing materials - Encourage vertical expansion - Encourage PPP investments - Adopt new construction technologies - Slum upgrading and prevention 	Housing Development and Human Settlement	640

Rank	Key issues	Interventions	Programmes	Allocation FY2013/14
		<ul style="list-style-type: none"> - Enhance physical planning - Establish housing database - Compliance to building laws, regulations and standards - Conservation of cultural houses - Enhance housing development schemes - Enforcement / development of physical planning regulations - Enforce building codes and regulations 		
6.	Availability and dissemination of weather/climate information for early warning systems and disaster preparedness	<ul style="list-style-type: none"> - Scale up on early warning information on weather - Proper dissemination of weather forecast information - Enhance data collection and dissemination - Establish county weather/climate information centres - Establish well equipped management centres - Capacity building (staff and equipment) - Creation of awareness to the people e.g. poor mining practices - Installation of lightening arresters in public buildings and institutions 	Meteorological Services	150
7.	Inadequate irrigation infrastructure	<ul style="list-style-type: none"> - Develop, rehabilitate and expand irrigation infrastructure - Drainage of water-logged agricultural land - Proper farm and soil conservation methods - Awareness creation on irrigation techniques 	Irrigation and Land Reclamation	610
8.	Poor sanitation and sewerage system	<ul style="list-style-type: none"> - Waste water disposal systems in urban centres - Develop sewerage systems and storm water drainage - Enhance solid waste management - Promote construction of Eco friendly toilets in rural and informal settlements 	Sewerage Services	203
9.	Exploitation and exploration of minerals and associated impacts	<ul style="list-style-type: none"> - Carry out detail Geophysical mapping of the counties - Exploitation and benefit sharing in mineral resources - Preparation of customized county specific geological data and maps - Studies for rock and mineral resources to support county and national development objectives such as LAPSET, cement manufacture, steel and coal industries. - Enhance capacity at county level (recruitment, training, construction of facilities and purchase of equipment) - Administration of the various Acts under the mandate of the department - Sensitization and awareness creation 	Mineral Resource Management	100
Total Allocation				6,462

CHAPTER FOUR

4. CROSS-SECTOR LINKAGES AND EMERGING ISSUES/CHALLENGES

4.1. Analysis of Other Sector Linkages to the Sector

Sustainable economic growth and development depend on proactive management of linkages between sectors and relevant stakeholders. Programmes will always have a direct or indirect influence on other programmes in different Sectors. Effective implementation of the Environment, Water and Housing Sector programmes impacts positively on energy production, tourism, agricultural and industrial development, health and sanitation, security, employment creation and poverty reduction to mention but a few. Similarly, the Sector depends on other sectors to support implementation of its programmes and projects in order to meet its development goals and objectives. It is therefore important that all the other sectors recognize and mainstream the protection and conservation of the environment and Water Catchments in their programmes and projects. Both housing and water provision, being a basic need, links the Sector to all other MTEF Sectors. Table 4-1 below illustrates the linkages between the Environmental Protection, Water and Housing Sector and the other MTEF sectors.

Table 4-1: Analysis of Cross Sectors Linkages

MTEF Sector	Linkages
Agriculture and Rural Development	<ul style="list-style-type: none"> • The sector policies/programmes for, protection, and conservation of water resources and environment will inform land use policies • Agriculture and Rural Development land reforms are essential in ensuring availability of land for housing development • Water harvesting and storage will expand potential for increased agricultural production and livestock development • Irrigation and land reclamation will increase agricultural production, particularly in ASALs • Increased environmental awareness to the sector will ensure sustainable utilization and productivity of the resources and at the same time safeguarding the environment from degradation • The Agriculture and Rural Development sector is an implementer of some environmental conservation activities • The sector is a consumer of information on weather and climate

Energy, Infrastructure and ICT	<ul style="list-style-type: none"> • Contributing to ensuring the protection and conservation of water catchment areas so that there may be sufficient water for generation of hydro electricity • Emphasis on the production and use of clean energy (hydro, geothermo, solar wind etc) to minimize pollution of the environment. • Providing Modern equipment, management information systems and appropriate communication infrastructure to the sector. • Providing adequate water and sewerage services to Malili ICT park in Makueni • Providing guidelines for good environmental practices to ensure sustainability of the projects and proper disposal of electronic waste. • Mineral exploitation to be environmentally safe and be efficient in the use and disposal of water. • Adoption of housing designs and technologies that minimize use of lighting and cooling/warming during the day
General Economic, Commercial and Labour Affairs	<ul style="list-style-type: none"> • Clean environment with minimal or no Pollution from industries • The sector ensures a healthy environment as a source of goods and services for sustainable production and growth and a clean working and living environment for the labour force • Labour legislation and policies especially those relating to minimum wages affect the cost of housing delivery.
Health	<ul style="list-style-type: none"> • Availability of clean water is crucial to reduction of diseases. • Slum upgrading impacts positively on health. • A clean environment lowers incidences of diseases and reduces pressure on the health sector budget • Proper disposal of medical waste and adequate sanitation should conform with environmental management and water legislations.
Education	<ul style="list-style-type: none"> • Integrating environmental issues in formal and non-formal education systems. • Provision of safe and adequate water and sanitation services to promote hygiene in educational institutions. • Promotion of government policy on Education for Sustainable Development.
Governance Justice, Law and Order(GJLOs)	<ul style="list-style-type: none"> • Reduce water and natural resource use related conflicts and enhance security mainly in ASAL areas. • Housing sub-sector leases office accommodation for public institutions and residential accommodation for constitutional office holders. The sub-sector also maintains government houses. • Governance Justice, Law and Order (GJLOs) ensure improved governance and provision of services in the sector.
Public Administration and International Relations	<ul style="list-style-type: none"> • Trans-boundary natural resources management requires collaboration with neighbouring countries. • Resource allocation and prioritization of programmes and projects by PND&V2030 and Finance • Policy direction
National Security	<ul style="list-style-type: none"> • Information sharing and security especially for conflict and crime prevention.
Social Protection, Culture and Recreation	<ul style="list-style-type: none"> • Increased availability and access to water in rural areas will make easier for girl child to attend schools and focus on learning, women to engage in other economic activities, and water accessibility to vulnerable groups. • A clean environment provides quality natural recreation areas/sites. • Increased collaboration between the sectors enhances conservation and preservation of cultural sites • The National Environment Tribunal, Public Complaints Committee, Water Appeals Board and Rent Restrictions Tribunal arbitrates on conflicts related to the Sector.

The Cross Sector linkages clearly shows inter-relatedness and social dimension of the Sector with other Sectors in the economy. This calls for a coherent approach to programmes implementation to avoid duplication of resources thus increasing efficiency in the use of resources.

4.2. Emerging Issues

The key emerging issues in the sector are:

Implementation of the Constitution of Kenya: The implementation of programmes for the Sector will be guided by the provisions of the Constitution of Kenya which will involve a shift in budgeting to include budgetary allocations for national Government and the 47 County governments to fulfill some of the provisions as required by Law. It is therefore necessary to review sub sector legislations and policies to be in conformity with the Constitution of Kenya and also the devolve sector functions as guided by relevant clauses of the Constitution of Kenya.

Discovery of minerals: The country has discovered commercial deposits of mineral such as coal, iron ore, oil and gold in different parts of the country and sustainable exploitation of these minerals will spur economic growth. It is emerging that the country should therefore develop relevant legislation to ensure potential adverse effects on the environment and other natural resources including water are abated.

Carbon credits: Educating the stakeholders to take advantage of the carbon credits, will contribute to the which reduction of the effects of carbon emission. The National Environment Management Authority (NEMA) as the lead agent designated national authority for Clean Development Mechanism (CDM) should encourage as many stakeholders to tap into carbon credit trading through production of clean energy and planting trees.

Environmental and water catchment areas degradation: Population increase in the country over the recent past has put pressure on the natural resource base which has necessitated the encroachment of forest land, destruction of water catchment areas, ASALs and other fragile ecosystems, often triggering landslides. This has affected food production and human settlement, water resources quality and quantities.

4.3. Challenges

Disputes and Litigations: Disputes by communities have resulted in delays in key project programmes implementation. Some of the programmes include: Umaa dam which was expected to have been completed in January 2011 but has been subject of dispute and restraining orders issued by the courts; Construction of Nzoia Dam could not commence due to resistance by the affected communities; Construction of 54Km Rahole Canal due to conflicts between the affected communities.

Procurement regulations and donor conditionality: The lengthy and bureaucratic procurement procedures have constrained the completion of projects through unwarranted delays such as the Embu meteorological and weather information centre and, development of irrigation schemes by Water Resources Management Authority (WRMA) and NEMA. The stringent donor conditions have also caused delays in project implementation.

Inadequate release of exchequer and administration of IFMIS: Delays in exchequer releases and under issues often caused by unpredicted revenue streams and unexpected closure of IFMIS has resulted in the delays in processing of payments in various programmes and hence delayed project implementation.

Inadequate Budget Allocation: Inadequate resource allocation has negatively impacted implementation of activities in the sector. For instance during the review period, inadequate resource allocation negatively impacted development of management plans for Yala Swamp and Sabaki, and prefeasibility research on Advertent weather modification.

Data Management: Data collection, storage, retrieval and dissemination on environment, water and housing is not in tandem with the fast evolving technology. In addition, limited data for decision making has constrained sector wide data to inform evidence based planning.

Unplanned settlements and rapid urbanization: The mushrooming of slums and proliferation of unplanned settlements particularly in urban areas constrains access to adequate water, sewerage and waste management services.

Inadequate policy and legal framework: Inadequate policies in water, irrigation and land reclamation have constrained guidance and investment in the Sector. For instance, uncoordinated housing sector legislations often lead to piecemeal and unsynchronized policy framework for implementation.

Climate change: Effects of climate change and associated extreme weather events threaten sustainable development and impacts negatively on the sector. Flooding and droughts affect food production, water supply, housing access, livestock production and general livelihoods of the people.

Environmental and natural resources benefit sharing: The utilization of environmental and natural resources usually benefit communities that are not responsible for their conservation and protection. This has created negative sentiments and therefore, strategies to address resource benefit sharing need to be developed and implemented.

CHAPTER FIVE

5. CONCLUSION

This Sector will be affected by the transition from the current set up to the new dispensation necessitated by the Constitution of Kenya. This will have impact on service delivery and affect the sector's contribution to the country's economic growth, employment creation and poverty reduction. It is important to point out that the Sector has been pro-active in aligning respective policies and legislation to the Constitution of Kenya. In this regard, pace and momentum of institutional reforms should be accelerated in light of emerging structural challenges that are likely to confront the implementation of the Constitution especially in the devolved county governments. The sector appreciates financial reforms that have been initiated so far as a way of improving service delivery and minimize wastage and corruption.

The expenditure analysis reveals that there has been an increase in funding within the three years period under review. However the report notes that certain challenges have emerged that will require concerted focus and additional resources in order to effectively address the challenges in the short to medium-terms. These challenges include increased environmental degradation, rapid population growth and urbanization, aging water and housing infrastructure, proliferations of slums and informal settlements. More specifically, special attention should be directed towards determination and delivery of key social services like housing and water as required under the bill of rights in the constitution of Kenya.

The Sector takes cognizance of the crucial role the private sector, NGOs and other stakeholders play in supporting government efforts. It is therefore important that the budgetary process attempts to quantify all the resources in a manner that provides a holistic analysis of total resources that are directed towards service delivery from all stakeholders.

It is noted that the Sector requires huge financial resources that cannot be accommodated within the available sector resource ceiling. It is therefore paramount to rationalize the expenditures and prioritize key programmes activities to be implemented within the available resource ceiling.

In order to provide efficient monitoring and evaluation and ensure optimal utilization of resources, the M&E framework need to inform policy responses in a timely and effective manner. In this regard, the report therefore advocates for urgent reforms and resources in each sub-sector to support policy research, data collection and dissemination.

In terms of cross sector linkages , the sector plays a key role for rapid and sustainable economic growth and development The effective implementation of the sector programmes impacts positively on all other sectors to ensure sustainable economic growth, employment creation and poverty reduction. More specifically the sector has strong linkages with the education, health-sanitation and land sub-sectors whose complimentary roles guarantee an informed and healthy populace and ensures delivery and facilitation of affordable and decent housing. Access to water and land remain potential areas of insecurity and social conflicts in Kenya. It is therefore imperative that challenges facing Sector are urgently addressed through appropriate policies and legislations supported by a fair and efficient justice and land administration systems that also ensure sustainable land-use and a clean environment.

CHAPTER SIX

6. RECOMMENDATIONS

Environmental protection, water and housing Sector forms a solid foundation for rapid and sustainable economic growth and development, poverty reduction and employment creation. However, challenges and emerging issues affecting the performance of the sector need to be addressed. In view of this, the following recommendations are proposed to improve access to good and services produced by the sector as well as ensure that delivery of services is efficient and effective.

- 1) Fast track alignment of sector policies and legal frameworks to the Constitution of Kenya.
- 2) The donor procurement procedures should be in tandem with the provisions in the Procurement Act, 2005.
- 3) Exchequer releases should be informed by cash flows and procurement plans.
- 4) Mainstream Climate Change in all sector programmes and projects towards ensuring environmental sustainability.
- 5) Monitor, evaluate and audit the Sector projects and facilities for informed decision making.
- 6) Data collection, storage, retrieval and dissemination of information on environment, water and housing should be enhanced to facilitate informed decision making. A policy should be developed to facilitate the exchange of data across all the sectors.
- 7) There is need to strengthen research and development to improve service delivery in the Sector through institutional capacity building programs to support the country's research and academic institutions to undertake research.

Annex

Annex 1: INFORMATION ON PROGRAMMES

	Programme name	MDA responsible for the implementation	Programme Outcome	Expected Output	Medium Term Performance Indicators and Targets
1	Environment Management and Protection	Ministry of Environment and Mineral resources	Sustainably managed environment and natural resources	Lake Victoria Basin pollution sources Mapped;	3 Water Catchments (Tana, Lake Victoria and Ewaso Ngiro Basins) mapped by 2015/2016
				Incentive to encourage use of clean technologies developed;	3 incentives developed on use of clean technologies by 2015/2016
				Plastic waste recovery systems and market instrument developed	3 plastic waste recovery systems supported by plastic levy and 3 market instruments developed for plastic waste recovery by 2015/2016
				Environmentally Significant Area (ESA) Gazetted	2 ESAs Gazetted by 2015/16
				Management plan for Yala wetland developed	2 wetlands management plans for Yala swamp and Tana delta developed by 2015/16
				Draft National Environmental disaster policy Developed	Draft Environmental disaster policy by 2014/15
				county governments sensitized on environmental management regulations	47 County governments sensitized on environmental management regulations by 2015/16
				A National and County Environment action plans and SoE reports prepared	National SoE report and 47 County SoE reports every year
				Environmental legislation and regulations enforced	Waste Management Strategy implemented in 5 Municipalities. Enforcement of 7 regulations Prosecute 100% of cases every year Facilities in 47 Counties inspected every year
				Wild life corridors secured	100% of projects in the wildlife corridors

	Programe name	MDA responsible for the implementation	Programme Outcome	Expected Output	Medium Term Performance Indicators and Targets
					subjected to EIA process
				Institutional capacity enhanced	Established NEMA headquarters and 10 new county offices by 2015/16
				Updated wildlife and Livestock statistical database	Wildlife/Livestock surveys in 7 Counties updated by 2015/16
				Mapped of land use cover	Maps for land use cover in 6 counties by 2015/16
				Mapped water towers	Major water towers in Mau, Aberdares, Cherenganyi, Mt. Kenya and Mt. Elgon mapped by 2015/16
				Mapped Wetlands Basins	Wetlands in Tana and Athi River Basins mapped by 2015/16
				Mapped dams in the Coastal and Eastern region	-Maps of dams in the Coastal and Eastern regions by 2015/16
				Rehabilitated water Catchments	6 million tree seedlings planted in the water catchment areas of Lake Naivasha, Marsabit, Kapchorwa, Enderit forests and Shimba hills by 2015/16
				Renewable energy centers in ASALs established	5 eco-community projects and 7 renewable energy centers in 6 ASAL counties established
				Green Economy Framework developed	Green Economy Framework by 2015/16
				Adaptation and disaster preparedness project for ASALs developed and Implemented	1 National Adaptation Plan (NAP) and 1 National Appropriate Mitigation Action (NAMA) developed and implemented by 2015/16
				Biodiversity resource center established	1 Biodiversity resource centre established in Nairobi by 2015/16
				Fish Levy Trust Fund in Kenya Operationalised	Management Board of the Fish Levy Trust Fund established
				Kisumu water quality laboratory rehabilitated and re-equipped	Rehabilitation / Construction works completed at 100% 10 set Assorted laboratory equipments procured

	Programme name	MDA responsible for the implementation	Programme Outcome	Expected Output	Medium Term Performance Indicators and Targets
				Capacity of Beach Management Units (BMUs) in Co-management of Fisheries Resources enhanced through training	ToTs trained 300 BMU officials trained
				3 Exhausters for the municipalities of Kisumu, Homabay and Bomet	3 Exhausters procured and delivered to the municipalities of Kisumu, Homabay and Bomet
				Feasibility studies and detailed designs for the rehabilitation and construction of Kisumu, Homabay and Bomet Sewerage Treatment Plants prepared	3 detailed designs prepared for Kisumu, Homa Bay and Bomet towns
				Wetlands management plans for Ombeyi, Tienosiyoi, Kingwal and Koyo wetlands implemented	4 wetlands management plans implemented
				Major springs in upper River Nyando Catchment protected	25 springs protected in upper Nyando River catchment area.
				degraded land (Gulleys) in Nyando River Catchment Rehabilitated	100 Hectares of degraded land (gulleys) rehabilitated
				Degraded hilltops and Public land in Nyando River Catchment rehabilitated	500 Hectares of Degraded hilltops and Public land in Nyando River Catchment rehabilitated
				Water Hyacinth in 5 selected hotspots beaches along the lake shores controlled	1000 Hectares of water hyacinth cleared in the 5 water hyacinth infestation hotspots
				Sustainable Agricultural and land use Practices in Nyando River Basin Increased to 3030 Ha (Baseline Figure was 2330 Ha, 2010)	3030 Ha of land under Improved Agricultural and land use Practices in Nyando River Basin
				Rivers rehabilitated and restored	Establish a park along Nairobi River during the planned period Install 2 flood lights along Sosiani and Nairobi River banks

	Programe name	MDA responsible for the implementation	Programme Outcome	Expected Output	Medium Term Performance Indicators and Targets
					Establish 1 GIS Data Base for Nairobi River. 5 KM each of .Nairobi, Sosiani, Kisat and Nanyuki rivers rehabilitated and restored
2	Water Resources Management and Water Storage	Ministry of Water and Irrigation	Increased per capita national water storage capacity	Water resource monitoring stations rehabilitated	150 monitoring stations rehabilitated No. of monitoring stations operationalised
				Water quality monitored	3600 samples tested and analyzed No. of surface water samples
				Large dams constructed	6 large dams constructed
				Medium size dams constructed	22 medium size dams constructed
				Small dams and water pans constructed	100 small dams and water pans constructed
3	Housing development and Human Settlement	Ministry of Housing	Improved quality and affordable housing in urban and rural areas as well as efficiently and effectively managed government estates	Constituency Appropriate Building Technologies (ABTs) Centres established Capacity Built in use of ABTs	30 constituency ABTs Centres established 900 new trainees
				Housing units at Kibera Soweto East village Zone A constructed and handed over	400 housing units constructed and handed over
				Housing cooperatives in informal settlements operationalised	50 housing cooperatives operationalised Kshs.15 M mobilised for housing cooperatives
				Kenya Informal Settlements Improvement Project (KISIP) implemented in informal settlements	10 informal settlements with infrastructure investments
				Infrastructure for housing development provided	100 acres of land opened up. 20 km of trunk sewerage lines 10 km of water lines constructed 70 km access roads to bitumen/murram standards constructed
				Kenyans housed	500 Civil Servants

	Programme name	MDA responsible for the implementation	Programme Outcome	Expected Output	Medium Term Performance Indicators and Targets
					accessing housing 860 Kenyans Housed through NHC
				Housing units refurbished	2,500 housing units refurbished
				Plots and estates fenced and titled	4,650 plots and estates fenced and titled
				All new Government houses registered	All new Government houses registered
				Maintenance policy formulated	Maintenance policy formulated
				Building Laws and Regulations finalized	Building Laws and Regulations finalized
				Defunct RRT stations revived	4 RRT stations revived
4	Meteorological Services and Climate Change	Ministry of Environment and Mineral Resources	Improved meteorological services	Data Collection System (RADOME) in FY 2013-2014 installed at KMD HQS Nairobi One WMO web portal plugged in IMIS and Automatic Message Switching System (AMSS) by FY 2014-2015 upgraded at KMD HQs Nairobi - 2 No. Pilot Information and Pre-flight Briefing System acquired	Defunct RRT stations revived
				Climate Data Management System (CDMS)/CLISYS for climate forecasting installed Integrated Meteorological Information System (IMIS) for the National Meteorological Research Centre installed	Data observation systems and networks installed and operationalized
				Centre for National Framework of Climate Services (NFCS) as part of the WMO Global Framework of Climate Services (GFCS) established with 3 years	Data telecommunication system and networks established

	Programme name	MDA responsible for the implementation	Programme Outcome	Expected Output	Medium Term Performance Indicators and Targets
				<p>8 RANET stations established at Wajir, Matungu, Garissa, Isiolo, Baringo, Nyando, Bunyore and Kitui</p> <p>Establish 3 No. County Weather and Climate Information Centres (WCIC)</p> <p>Acquire 1 No. TV Weather System</p> <p>Upgrade of Meteofactory System during FY 2014-2015 at KMD HQs Nairobi</p> <p>One Weather Expo Centre to be constructed within the next three Financial years at KMD HQs Nairobi</p>	
				<p>Enrolment of specialised course at WMO RTC by increased by 10% each year</p> <p>2 researches on thematic areas undertaken each year</p> <p>E-learning introduced by the financial year 2014-15</p> <p>Digital classrooms established by financial year 2014-15</p>	Data processing, analysis and forecasting systems established
					Information Systems established for effective dissemination of weather and climate information & products to users
5	Irrigation and Land Reclamation	Ministry of Water and Irrigation	Increased land utilization through irrigation and land reclamation	Ha developed for irrigation under Smallholder irrigation schemes	Advertent Weather Modification undertaken
				Ha developed for irrigation under Public irrigation schemes	30,000 Ha developed
				No. of public irrigation schemes rehabilitated	6 schemes rehabilitated (Bura, Hola, South West Kano ,Ahero, Mwea and Pekerra) by June 2013

	Programme name	MDA responsible for the implementation	Programme Outcome	Expected Output	Medium Term Performance Indicators and Targets
				Land reclamation structures constructed in ASALs ,Degraded sites reclaimed	3000 water harvesting structures constructed
				Area of land reclaimed	7000 Ha of land reclaimed
6	Water Supply Services	Ministry of Water and Irrigation	Adequate and reliable water access	Medium size towns urban water supplies infrastructure expanded	30 urban water supplies infrastructure expanded
				Water projects constructed	150 water and sanitation projects constructed
				New boreholes drilled and equipped	180 boreholes drilled and equipped
7	Sewerage Services	Ministry of Water and Irrigation	Reliable sewerage services	Sewerage Projects Constructed	3 Sewerage schemes constructed
				Sewerage Projects rehabilitated	20 Sewerage Schemes rehabilitated
8	Mineral Resources Management	Ministry of Environment and Mineral resources	Enhanced Geological and Mineral information	Certified mining concessions/operations	150 inspections of exploration and mining concessions/operations
				Explosives magazines certified	60 inspections of quarries. 130 inspections of explosives magazines
				Monitored and updated Geo-hazard areas	Geo-hazard areas in Central, Rift Valley and Eastern regions updated by 2015/16.
				Geological reports and maps	2,352 km2 geologically mapped by 2015/16
				Mineral prospect reports	Six (6) mineral deposits assessment reports by 2015/16
				Disused mines and quarries inventoried	6 county inventory reports of disused mines and quarries by 2015/16
				Geophysical investigation on mineral deposits	Six (6) detailed geophysical investigation reports by 2015/16
				Seamless countrywide geophysics datasets acquired	Countrywide airborne geophysics data acquired by 2015/16.
9	Environment Policy Development and Coordination	Ministry of Environment and Mineral Resources	Improved environmental policy governance	M&E reports on sub sector Vision 2030 flagship projects prepared	Quarterly and annual M&E reports
				Ministries sensitized on the National Environment Policy	All ministries sensitized on the National Environment Policy by 2015/16

	Programe name	MDA responsible for the implementation	Programme Outcome	Expected Output	Medium Term Performance Indicators and Targets
				Draft Natural Resources Geo-information Policy developed	Draft Policy on Natural Resources Geo-information developed by 2014/15
				Draft Climate Change Policy developed	Draft Policy on Climate Change developed by 2015/16
				Draft National Policy on commercial explosives developed	Policy on commercial explosives developed by 2015/16
10	Water policy and Management	Ministry of Water and Irrigation	Timely delivery of quality water services	Policy, Legal, regulatory framework implemented	4 Policies Developed (Irrigation, Land reclamation, Water storage and Water Policy)
				Technical capacity built in the sub-sector	500 diploma and certificates awarded
				Water disputes resolved	All water disputes resolved
11	Housing Policy Development and Coordination	Ministry of Housing	Efficiently and effectively coordinated housing sector	M & E reports on sub sector projects Resolve all reported housing disputes Well coordinated policy implementation and management	Quarterly M&E reports All reported housing disputes resolved Housing policy, housing bill, landlord and tenants bill, maintenance policy

Annex 2: BUDGETARY ALLOCATIONS TO PROGRAMMES

Programme Name	MDA Responsible for Implementation	Class of Expenditure	Printed Estimates (KShs.million)	Ceiling (KShs.million)	Projected Estimates (KShs.million)	
			FY2012/13	FY2013/14	FY2014/15	FY2015/16
<i>P1: Environmental Policy Development and Coordination</i>	<i>Ministry of Environment & Natural Resources</i>	Recurrent	370	395	445	455
		Development	101	20	20	20
		Total Expenditure	471	415	465	475
<i>P2: Environment Management and Protection</i>	<i>Ministry of Environment & Natural Resources</i>	Recurrent	1,414	1,468	1,505	1,508
		Development	3,249	3,351	3,900	3,975
		Total Expenditure	4,663	4,819	5,405	5,483
<i>P 3: Mineral Resources Management</i>	<i>Ministry of Environment & Natural Resources</i>	Recurrent	208	235	260	269
		Development	465	750	600	680
		Total Expenditure	673	985	860	949
<i>P4: Meteorological Services and Climate Change</i>	<i>Ministry of Environment & Natural Resources</i>	Recurrent	1,024	1,056	1,107	1,124
		Development	610	650	700	750
		Total Expenditure	1,634	1,706	1,807	1,874
<i>P5: Water Policy and Management</i>	<i>Ministry of Water and Irrigation</i>	Recurrent	315	351	369	368
		Development	87	112	115	125
		Total Expenditure	402	463	484	493
<i>P6: Water Supply Services</i>	<i>Ministry of Water and Irrigation</i>	Recurrent	3,609	3,685	3,840	3,934
		Development	25,342	26,253	27,163	27,685
		Total Expenditure	28,951	29,938	31,003	31,618
<i>P 7:Sewerage Services</i>	<i>Ministry of Water and Irrigation</i>	Recurrent	21	21	22	24
		Development	205	205	214	217
		Total Expenditure	226	226	236	241
<i>P 8: Water Resources Management and Water Storage</i>	<i>Ministry of Water and Irrigation</i>	Recurrent	1,240	1,247	1,299	1,317
		Development	6,620	7,240	7,572	7,728
		Total	7,860	8,487	8,871	9,045

Programme Name	MDA Responsible for Implementation	Class of Expenditure	Printed Estimates (KShs.million)	Ceiling (KShs.million)	Projected Estimates (KShs.million)	
			FY2012/13	FY2013/14	FY2014/15	FY2015/16
		Expenditure				
<i>P9: Irrigation and Land Reclamation</i>	<i>Ministry of Water and Irrigation</i>	Recurrent	963	1,148	1,191	1,206
		Development	3,509	3,545	3,714	3,795
		Total Expenditure	4,472	4,693	4,905	5,001
<i>P10: Housing Policy development and coordination</i>	<i>Ministry of Housing</i>	Recurrent	160	195	208	211
		Development	100	110	102	104
		Total Expenditure	260	305	310	315
<i>P11: Housing Development and Human Settlement</i>	<i>Ministry of Housing</i>	Recurrent	2,021	2,119	2,204	2,214
		Development	3,412	3,750	4,046	4,178
		Total Expenditure	5,433	5,869	6,250	6,392
Sector Total Expenditure			55,045	57,906	60,596	61,887