



Ministry of Energy, Meteorology and Water Affairs
Commissioner of Water

Long Term Water and Sanitation Strategy



Long-Term Water and Sanitation Strategy

Volume II

Water Sector Programme

May 2014

Synopsis

This document is Volume II of the Long Term Strategy for the Water Sector in Lesotho. The Strategy is presented in brief in Volume I and this Volume II presents the detailed description of the Water Sector Policy and Institutional framework as the foundation for developing the Strategy as well as the detailed description of the Water Sector (WS) Programme with information on the activities, inputs and outputs for achieving the Goals under each Key Focus Area and Strategic Aim.

The WS programme consists of a number of Strategic Aims and activities grouped under the following Key Focus Areas:

- Key Focus Area I: Establishment of Catchment Management
- Key Focus Area II: Climate Change, Water Resources and Environmental Management
- Key Focus Area III: Water, Sanitation and Hygiene
- Key Focus Area IV: Regulated Water and Sewerage Services
- Key Focus Area V: Water Resource Development
- Key Focus Area VI: Sector Resource Planning, Coordination and M&E

The combined documentation for the Strategy consists of:

- Inception Report, Final, February 2013
- Progress on LWSP Implementation and Inst. Mapping, Final, May 2014
- Institutional Models for emerging Water Supply Solutions, Final, May 2014
- A Model for Integrated Catchment Management, Final, May 2014
- Volume I: Water Sector Strategy, Final, May 2014
- **Volume II: Water Sector Programme, (this report), Final, May 2014**
- Integrated Monitoring and Evaluation Plan for the Strategy, Final 2014
- The Strategy Summary Report, Final, May 2014
- Documentation CD with MSWord and Pdf files of all reports and MS Excel planning tools and monitoring framework

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List of Abbreviations

AMCOW	African Ministers Council on Water
BFP	Budget Framework Paper
BOS	Bureau of Statistics
CBO	Community Based Organisation
CC	Community Council
CMA	Catchment Management Area
CMJC	Catchment Management Joint Committee
CMS	Continuous Multi-sector Survey
COW	Commissioner of Water
DMA	Disaster Management Authority
DMS	Drought Management Strategy
DoEnv	Department of Environment
DRWS	Department of Rural Water Supply
DWA	Department of Water Affairs
EIA	Environmental Impact Assessment
EMP	Environmental Management Plan
ESIA	Environmental and Social Impact Assessment
EU	European Union
GDP	Gross Domestic Product
GIS	Geographical Information System
GOL	Government of Lesotho
ICT	Information and Communication Technology
IT	Information Technology
IWRM	Integrated Water Resources Management
KFA	Key Focus Area
LEA	Lesotho Electricity Authority
LEC	Lesotho Electricity Company
LEWA	Lesotho Electricity and Water Authority
LHDA	Lesotho Highland Development Authority
LHWP	Lesotho Highlands Water Project
LLWSP	Lesotho Lowlands Water Supply Project
LLWSU	Lesotho Lowlands Water Supply Unit
LMS	Lesotho Meteorological Services
LWSIMS	Lesotho Water Sector Information Management System
LWSP	Lesotho Water and Sanitation Policy
M&E	Monitoring and Evaluation
MA	Metolong Authority
MAFS	Ministry of Agriculture and Food Security
MCA	Millennium Challenge Account – Lesotho
MCC	Maseru City Council
MDG	Millennium Development Goal
MDWSP	Metolong Dam and Water Supply Programme
MEMWA	Ministry of Energy, Meteorology and Water Affairs (part of previous MNR)

MLG	Ministry of Local Government
MLRF	Ministry of Land Reclamation and Forestry
MNR	Ministry of Natural Resources (now MEMWA)
MoE	Ministry of Education
MoF	Ministry of Finance
MoH	Ministry of Health
MTEC	Ministry of Tourism, Environment and Culture
MTEF	Medium term expenditure framework
NAP	National Action Plans (ORASECOM)
NAPA	National Adaptation Programme on Climate Change Action
NGO	Non-Governmental Organisation
NRW	Non-Revenue Water
NSDP	National Strategic Development Plan
NUL	National University of Lesotho
O&M	Operation and Maintenance
ORASECOM	Orange-Senqu River Commission
PIU	Project Implementation Unit
PPP	Public Private Partnership
PPSU	Policy Planning and Strategy Unit in the CoW's Office
QA	Quality Assurance
RSA	Republic of South Africa
RWS	Rural Water Supply
SADC	Southern African Development Community
SEA	Strategic Environmental Assessment
SFPM	Strategic Financial Planning Model
SWAP	Sector Wide Approach to Planning
SWR	State of Water Resources (Report)
TDA	Transboundary Diagnostic Analysis
TED	Technologies for Economic Development (NGO active in Sanitation)
TOR	Terms of Reference
VIP	Ventilated Improved Pit (Latrine)
VWHC	Village Water and Health Committees
W&S	Water and Sanitation
WASA	Water and Sewerage Authority
WASCo	Water and Sewerage Company
WB	World Bank
WDM	Water Demand Management
WHO	World Health Organisation
WMO	World Meteorological Organisation
WS	Water Sector
WSA	Water Service Authority
WSP	Water Service Provider

Terminology

Term	Explanation
Strategy	<i>Strategy is a high level plan to achieve one or more goals under conditions of uncertainty (Wikipedia).</i> In the context of the ‘Long-term Water and Sanitation Strategy’, the term ‘Strategy’ has been used to describe the actions generally and at an overall level that are proposed to reach the Policy objectives of the water sector.
Key Focus Areas (KFAs)	For the purpose of describing clearly the many aspects of the water sector, the description of the Strategy is divided into the actions that are needed under 6 Key Focus Areas (KFAs). The delineation between the KFAs is based on the action areas that are closely interlinked while also considering institutional responsibilities.
Water Sector Programme (WS Programme)	The term ‘WS Programme’ is used for the proposed implementation programme for the Strategy i.e. the detailed description of the outputs, the activities and the inputs that will be needed to achieve the Strategic Aims under each of the Key Focus Areas, the timing of the activities and the estimated budgets.
Strategic Aim	The term ‘Strategic Aim’ is used to describe the ‘sub-goals’ or ‘result areas’ under each KFA in order to group the planned activities together that contribute to a common result.
Urban Councils	Has been used as the common terminology for 12 Urban Councils including Maseru City Council (10 district capitals + Maputsoe and Semonkong) – these areas are demarcated as urban areas in the Bureau of Statistics (BOS) statistics and covers areas supplied by WASCo and by community managed schemes
Community Councils	The 62 Community Councils – these areas are demarcated as rural areas in the BOS Statistics and cover some areas supplied by WASCo (Peka, Mapoteng, Roma, Morija) and the majority supplied by community managed schemes
Local Councils	Used in the Water Sector (WS) Programme as common name for the Urban and Community Councils
District Councils	There are 10 District Councils composed of members from the Community Councils in the District. The District Councils co-ordinate with the Urban Councils in the ‘District Development Coordination Committee’.
Water Service Authority (WSA)	The definition of responsibility for a Local Council to be responsible for planning and overseeing that the population in its area of jurisdiction has access to adequate water and sanitation services

Term	Explanation
Water Service Provider. (WSP)	The actual provision of water services to water users. WASCo is a WSP in its designated service areas. The ‘Village Water and Health Committees’ can be WSP on the community managed water systems or they could decide to appoint a private operator as a WSP in the community.
Catchment Management	The coordinated and integrated planning and management of an area defined by the water sheds. The importance of catchment management stem from the effect that up-streams users have on down-stream uses of water and other natural resources in a catchment area.
Catchment Management Area	‘Catchment Management Area’ has been used as a general expression in the Strategy and the WS Programme covering the overall water management zone that will be managed by a ‘Catchment Management Joint Committee’ (CMJC) as well as small catchment areas or sub-basins where the local level Catchment Management Committees would be planning and implementing rainwater harvesting and natural resources management activities linking directly to the use of water for productive uses and improved livelihood in the communities.

1 Introduction and Context

This Chapter provides information on the Water Sector in Lesotho and the National Context as well as the institutional and legal framework. The Strategy for the future must be anchored on the present situation in the water sector in Lesotho and the existing experiences and expertise in the sector institutions. The background information therefore provides the foundation for the analysis of options and the rationale for the development of the Long Term Strategy for Water and Sanitation.

1.1 The Water Sector and the National Context

National Development Framework

Development in Lesotho is guided by the ‘Vision 2020’, launched in 2003: by 2020 Lesotho would be *‘a stable democracy and a united, prosperous nation at peace with itself and its neighbours; that it should have healthy and well-developed human resources; and that its economy would be strong, its environment well-managed and its technology well-established’*.

The major strengths of Lesotho, as identified in the Vision document, include the Government’s commitment to development, widely accepted and respected constitution, cultural homogeneity, the electoral system and high adult literacy. Major weaknesses on the other hand include food insecurity, high rate of unemployment, poor strategic and operational planning, inadequate research in science and technology, and an underdeveloped Small, Micro and Medium Enterprises sector. In the external environment the major opportunities are foreign direct investment and good relations with the Republic of South Africa (RSA), while the major threats include brain drain, donor conditionalities, decline in mine labour remittances and the increasing competition from international markets.

It is acknowledged that there is a wide gap between the present situation and the desired vision. For Lesotho to realise its vision there are three major challenges namely: improvement of the development management capacity; sustenance of the investment currently characterising Lesotho’s economy; and sustenance of political commitment and support to the Vision up to the year 2020.

Local governance and popular participation contribute towards good governance. To this end, the country is working towards decentralisation by implementing the Local Government Act of 1997. The challenge is to empower the imminent local government authorities, and to improve chieftainship as a strategy to complement local governance at the grassroots level. Freedom and pluralism of the Media are some of the measures of stability and democracy.

The strategy for achieving ‘Vision 2020’ was guided by the Poverty Reduction Strategy Paper and the ‘Interim National Development Framework 2009/10–2010/11’. From March 2012 the ‘National Strategic Development Plan 2012/13–2016/17’ (NSDP) provides the overall guidance for coordination, policy decision-making and resource allocation towards realising the Vision. The objectives of the NSDP are:

- promotion of peace, democracy and good governance
- pursuit of high, sustainable and equitable economic growth
- poverty reduction through employment generation and reduction of social vulnerability
- protection of the environment and promotion of climate-friendly technologies and practices

- promoting HIV/AIDS prevention, care and treatment
- radically transforming technical, vocational and higher education to produce world-class skills and expanding access to ICT.

Water Resources

Water is one of the most important natural resources of Lesotho and the water sector encompass almost all aspects of life, the economy and the natural environment in Lesotho and therefore has a unique position and the potential to contribute positively to achieving the objectives of the NSDP and the Vision 2020.

Lesotho falls within the Orange-Senqu River basin with the major sub-catchments being: the Senqu in the eastern part of Lesotho (24,500 km²), the Makhaleng in the centre of the country (3,000 km²) and the Mokokare being the western border to the RSA (6,850 km²).

Lesotho's renewable water resources are estimated to be 5 031 Million m³/year. While Lesotho covers 3.4% of the total area of the Orange-Senqu basin it contributes with almost half of the river system's total runoff.

Lesotho cooperates with the Orange-Senqu riparian countries (RSA, Botswana and Namibia) in the Orange-Senqu River Commission (ORASECOM). ORASECOM has undertaken a Transboundary Diagnostic Analysis (TDA) and based on the findings developed a Strategic Action Programme (SAP) for the basin and National Action Plans (NAPs) for the riparian countries. The NAP for Lesotho is addressing priority environmental problems for the basin as well as country specific environmental concerns that are not necessarily of a transboundary nature.

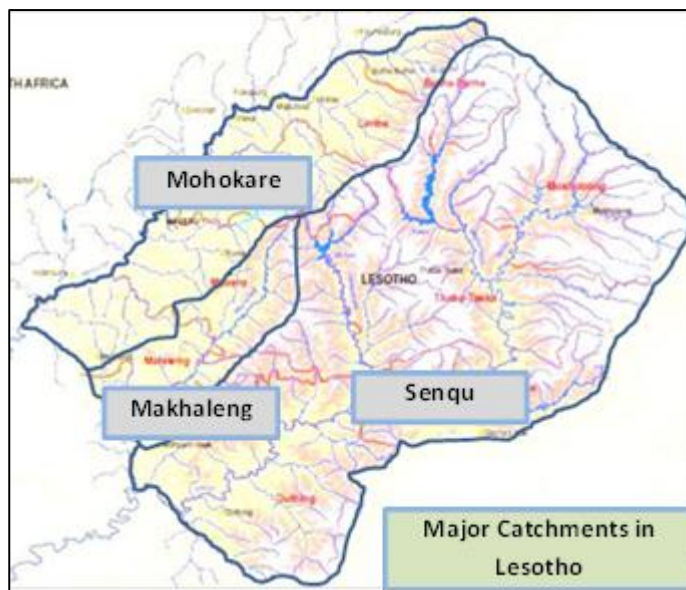
The availability of water resources is unevenly distributed within Lesotho, with ample water resources in the mountain areas covering the eastern part of the country and less in the lowlands in the western part of the country where the population is concentrated.

The unique geographic location, high altitude and pristine natural quality of the mountain areas covering the eastern part of the country position Lesotho as the 'Water Tower' of southern Africa. The Lesotho Highlands Water Project has over the last 11 years transferred an annual average of over 700 Million m³/year to RSA and thereby generating more than M3 billion revenue for Lesotho Government and generating hydropower worth more than M600 million per year.

Economy

Lesotho has a population of approximately 1.8 million people with about 75% living in rural areas. Despite the ample water resources and revenues generated by the water sector, more than 40% of the population do not have adequate access to water and sanitation services, due to various challenges related to uneven distribution of water resources, population settlement patterns and sector planning and management.

Figure 1-1: Major Catchments in Lesotho



Water contributes to the Gross Domestic Product (GDP) of Lesotho economy in terms of royalty payments for the transfer of water to South Africa, hydro-electric energy production, value of irrigated crops produced, domestic and commercial water, investment in water infrastructure and government expenditure in the water sector. The contribution is estimated at M1.3bn¹ or 7% of the GDP of Lesotho. The specific contribution of wetlands to the economy of Lesotho has been analysed in the Strategic Performance Assessment² of the Millennium Challenge Account (MCA) funded Wetlands Project. The conclusion is that the direct and indirect contribution of wetlands to the Lesotho economy is almost USD 1bn annually or 22% of the GDP and contributes to 30% of the employment in Lesotho. In spite of the uncertainties and the approximations of these estimates, it can be concluded that water resources have a significant contribution to the economy in Lesotho – and the budgets proposed in the ‘Water Sector Programme’ for improved management of this valuable resource should be seen in this light.

Water Sector

To address the challenges of increasing service coverage and ensuring a sustainable water sector, the Government of Lesotho has undertaken several processes and a comprehensive set of reforms through its water and sanitation sector institutions. Among the key outcomes from this process is the adoption of the Lesotho Water and Sanitation Policy (LWSP) (2007) and the Water Act (2008). Implementation of these has been supported by an Interim Water and Sanitation Strategy (2010-2012) extended to March 2014.

The Interim Water and Sanitation Strategy focuses on two of the LWSP seven policy statements and aims to improve water supply and sanitation services in both urban and rural areas in the immediate term, and fast track institutional development.

The Water Act requires the development of a Long-term Water and Sanitation Strategy.

The Strategy includes all aspects of integrated water resources management and development and is in line with the NSDP and the existing water sector policy and strategy framework. Of specific importance is the ‘Interim Water and Sanitation Strategy’, the ‘IWRM Strategy’, the ‘Financing Strategy’, and the Strategy should take cognizance of current and planned programmes such as the ‘Metolong Dam and Water Supply Programme’, the ‘Lesotho Highlands Water Project Phase II’, the water and sanitation sector monitoring and evaluation initiative, the State of Water Resources Report, as well as institutional arrangements in water and sanitation regulation, management of water and sanitation assets and bulk water operation.

Extract from the Water Act (2008):

12. The Water and Sanitation Strategy developed under this Act shall set out the strategies, objectives, plans, guidelines, procedures and institutional arrangements in relation to the protection, conservation, development, management and control of water resources within the framework of the existing Government water and sanitation policy in to achieve:

- a) the effective implementation of this Act; and
- b) such water and sanitation quality standards as may be prescribed

¹ State of Water Resources Report 2010/11, COW

²² Strategic Performance Assessment of the Lesotho Wetlands Restoration and Conservation project, MCA Lesotho, Contract No WS-F-045-12 Euroconsult Mott MacDonald in association with Green’s Integrated Services, Final Report, 29 April 2013

1.2 The Sector Policy, Strategic and Legal Framework

1.2.1 Lesotho Water and Sanitation Policy (LWSP)

The LWSP recognises the international best practices embodied in Agenda 21, the Dublin Principles, the Helsinki Rules, Johannesburg Plan of Implementation and the guidelines from the Global Water Partnership.

The policy is formulated within the regional framework established by the Southern African Development Community (SADC) Revised Protocol on Shared Water Courses (2000); the SADC Regional Water Policy (2006) and the SADC Regional Water Strategy of 2007. The legal framework include regional agreements such as the ORASECOM agreement (2000) and the Lesotho Highlands Treaty (1986).

The LWSP is set out to be updated every five years to accommodate domestic and international changes and challenges and is also based on the recognition of a need for a holistic and integrated approach to sustainable water resources management and development, ensuring as wide a participation of water stakeholders as possible and treating the resource as an economic, environmental and social good.

It aims to make a clarion call to all sectors of the society to join hands in managing, conserving, and protecting this valuable resource in order to satisfy our present needs as well as those of future generations. Of vital importance are controlling land degradation, good rangeland management practices, wetlands conservation, controlling pollution and invasive alien species.

Apart from addressing specific water resource management issues and in recognition of the fact that water impacts on many other sectors, the policy document is aligned with the ‘Vision 2020’, the ‘Poverty Reduction Strategy 2007’, the Millennium Development Goals (MDGs) and other related policies such as those on Decentralization, Energy, Environment, Food Security, Gender, Forestry and Land Reclamation, HIV/AIDS, Industrialisation, National Irrigation Policy, and Science and Technology.

Policy Objectives

The objectives of the Lesotho Water and Sanitation Policy (LWSP) are to promote:

- 1) *The proper management of the country’s water resources and its sustainable utilization;*
- 2) *Adequate and sustainable supply of potable water and sanitation services to all of the population of Lesotho;*
- 3) *Co-ordination and coherence in the management and development of water and other related natural resources, in order to maximise the resultant socio-economic benefits without compromising the sustainability of vital ecosystems; and*
- 4) *Harmonisation of processes and procedures followed by different development partners and other stakeholders in order to optimise available internal and external resources as well as ensure timely implementation of sector programmes.*

Principles

The guiding principles of the Lesotho Water and Sanitation Policy are:

- A. *Fresh water is a finite and vulnerable resource, essential to sustain life, development and the environment. Its utilization must therefore be sustainable;*
- B. *Since water sustains life, in order to be effective, the management of water resources demands a holistic approach, linking social and economic development with the protection of natural ecosystems. Effective management of water resources would also link land and*

water uses across the whole of a catchment area as well as the groundwater aquifer in an integrated management framework;

- C. Water has an economic value and should be recognized as an economic good. Managing water as an economic good is an important way of balancing its competing uses and achieving its equitable, efficient and sustainable utilization while encouraging its conservation and protection;*
- D. Water management and development should be based on a participatory approach, involving users, planners and policy-makers. A participatory approach involves raising awareness on the importance of water among policy-makers and the general public. A participatory management approach also requires that, decisions be taken at the lowest appropriate level of governance, with full public consultation and the involvement of users in the planning and implementation of water and sanitation programmes and projects;*
- E. Women and girls continue to play a central role in the provision, management and safeguarding of potable water. The pivotal role of women as providers and users of water and as guardians of the living environment requires enabling policies and strategies to empower them to participate at different levels of decision-making in water resources management and development and to share in the benefits of water utilization on the basis of equity;*

The assessment of progress in the implementation of the LWSP and the Water Act is described in detail in ‘Report #2’³. The assessment is based on a review of the sector documentation and consultations with sector stakeholders. The overall conclusion from the assessment is that the implementation of the LWSP is well on the way. Progress has been made in initiating the strategies in the LWSP, however, practical progress is yet to materialise in many areas and there is still a long way to go before the implementation of the LWSP shows results on the ground.

There has been progress on implementation of all the seven policy statements. Most progress appears to have been made on the institutional framework (Policy Statement 7) and transboundary water resources management (Policy Statement 4); considerable progress has also been achieved on water and environment (Policy Statement 3) and sector wide approach (Policy Statement 5) while the activities on water resources management (Policy Statement 1) and water services (Policy Statement 2) have progressed less. Little change or progress seems to have been achieved in improving the involvement of stakeholders (Policy Statement 6) on areas such as increased private sector involvement in the water sector.

The analysis of the progress on the respective LWSP Policy Statements is complemented with an analysis of the resources allocated to the water sector. An analysis of the last five years Government budgets shows that the capital budget for the water sector amounts to close to 30% of the total Government capital budget in the last two financial years. This clearly indicates the priority given to the water sector. The analysis of budgets also shows that about 95% of the water sector budgets are allocated for improvements in water services.

The nature of the resources needed for implementation of the respective policy objectives vary from high capital requirements for improving access to water services and the full implementation of the catchment management strategies, to much less capital requirements for the

³ Long Term Water and Sanitation Strategy - Report #2: Progress on LWSP Implementation and Institutional Mapping, Draft Final Report, July 2013.

‘softer’ policy objectives related to sector management, coordination, institutional development and stakeholder participation. The analysis of budgets indicates that high priority has been given to water services and less to catchment management. Given the high level of funding to the water sector generally, any limited progress on the ‘softer’ policy objectives, would generally therefore most likely stem from lack of priority and limited vision rather than from lack of resources.

The main challenges in implementation of the LWSP and the Water Act are related to:

- Inadequate capacity for water resources management and the non-involvement of Local Councils in management of water resources and local communities in catchment management to ensure benefits for the population of Lesotho
- Inadequate access to water and sanitation services for all Basotho and lack of effective and integrated manner when addressing water, sanitation and hygiene; inadequate access to basic services for vulnerable households
- Inadequate decentralisation of rural water services to the Local Councils
- Inadequate enforcement of regulations for water quality and pollution control
- Inadequate sector coordination with wider stakeholder participation
- Limited introduction of wider private sector participation in water and sanitation services
- Weak M&E and weak sector communication/ information dissemination.

The main guidance to the water sector is provided by the LWSP and the Water Act. A number of strategies and policies complement the LWSP and these are described in summary below. These include:

- Integrated Water Resources Management (IWRM) Strategy
- Drought Management Strategy
- Water Demand Management Strategy
- Financing Strategy for Water and Sanitation
- Industrial Waste Water Policy
- Irrigation Strategy
- Climate Change Adaptation Plan
- Tariff Policy
- After Care Strategy
- National Sanitation Strategy

1.2.1.1 Integrated Water Resources Management Strategy (2007)

The objective of the IWRM strategy is to develop a coordinated approach in management, utilization and development of water resources. The IWRM strategy is a road map to achieve Policy goals or desired futures for the water sector as outlined in the LWSP. The IWRM strategy proposes the following strategic goals: Social Equity, maximum Reliability of Supply, minimum Government Investment, minimum Environmental Impact. The Strategy emphasise 5 guiding standard strategies against which the detailed strategies are prioritised as shown in Table 1-1.

Table 1-1: IWRM Standard Strategies

Strategy	Goal	Success Crite- rion	The WS Programme and the IWRM Strategy
1. Social Equity Strategy	Equal distribution of water resources goods and services	Degree of equal access to safe water and sanitation services	The focus in the WS Programme on affordable water services for all addresses specifically the Social Equity Strategy Focus on productive use of water at local level
2. Maximum Reliability of Supply Strategy	Reliability of service delivery to the majority of the population	Degree of water delivery efficiency	The WS Programme focus on catchment management and sustainability of water resources which is key to reliability of services. Capacity building to improve management of rural water systems and improved operations of urban systems addresses reliability of services
3. Minimum Government Investment Strategy	Minimize necessary investment in measures by GoL	Amount of Government monetary investment	The aim of full cost recovery of urban water services by improving operational efficiencies and increasing tariffs work towards minimising the Government funding to the sector Focus on productive use of water at local level and link to economic development
4. Minimum Environmental Impact Strategy	Implement the measures that impact least on the environment	Amount of impact on the state and health of ecosystems	Aim at using water sources that supply water by gravity and avoiding systems with high energy and chemical use. Investment in proper environmental management plans. Investment in wastewater treatment for industries
5. Rapid Result Strategy	Implement the rapid and short term measures that give results fast	Implementation time times anticipate success	Focus on increased access e.g. by public standpipes in urban areas and increasing the density of the reticulation systems making it easier for poor households to afford the connection fees

The IWRM Strategy formulates principles for water sector policy as a whole and for water resources management in particular. However, the concept should not be regarded as a rigid blueprint. On the contrary, it must be implemented on a context-specific basis. IWRM is an ongoing process to optimise the water sector in line with the specific needs of the local population and the environment. The strategy provides general guidance to the development of the water sector and has guided the development of the policy and the Water Act. It will in particular guide the approaches to Catchment Management.

1.2.1.2 Drought management strategy (2007)

The Drought Management Strategy (DMS), as a supporting document to the IWRM Strategy, highlights core priority measures that aim to make use of limited resources to reduce vulnerability of the population as well as enhance resilience of the water resources to hydrological droughts. The strategic measures that deal with all steps of Drought management include: Preparation, Adaptation, Response and Recovery strategic measures.

The strategy is endorsed by the Ministry and is ready for implementation. The implementation of drought management measures will be an integrated part of catchment management. The implementation of the LWSP and Water Act measures for improving catchment management in general is thus expected to improve the response to drought challenges.

1.2.1.3 Water Demand Management Strategy (2007)

The Water Demand Management (WDM) strategy deals with the approach to conserve water by controlling demand. It involves the application of selective incentives to promote efficient and equitable use of water and deals essentially with the avoidance of wastage of water and the uneven distribution of its use. The benefits include the possibility to postpone major investments in structural works, such as surface water reservoirs and wastewater treatment capacity. The WDM deals with four types of measures: i) Economic measures; ii) Structural and operational measures; iii) Legal and institutional measures; and iv) Awareness raising and public education measures.

The strategy proposes specific measures under each of these four types that are relevant for the water sector in Lesotho. The strategy is expected to guide WASCo's activities in improving the operating efficiencies of the urban water services.

1.2.1.4 Financing Strategy for Water and Sanitation

A financing strategy for water and sanitation was developed in 2009/10 with the development of the 'Strategic Financial Planning Model' (SFPM) as a tool for estimating the financing needs versus available funding in the water and sanitation services sub-sector in Lesotho for different development and policy scenarios.

The SFPM can be used to determine the future demand and estimate the consequences in terms of investment costs and operating profits. The SFPM provides estimates of the present coverage and the back-log in terms of coverage. The SFPM is based on inputs from the DRWS District Information Systems and the WASCo Financial Model.

The Strategy analyses the tariff increases needed for WASCo to achieve cost recovery by 2030 and the need for concessional/ grant funding until the tariffs can cover all operating and capital costs. The strategy anticipates that grant funding will remain the main funding modality for rural water and sanitation.

1.2.1.5 Industrial Waste Water Policy and Action Framework (2003)

The Government is actively promoting industrial development as a means of creating employment and enhancing economic growth. Significant growth has taken place in the manufacturing sector, and specifically in the textile sector that is considered as a "wet industry" due to its large water requirements and associated wastewater discharges.

Inadequate treatment of industrial wastewaters is impacting negatively on the receiving water environment within Lesotho and in rivers downstream in the riparian countries. Although the legislative framework makes provision for actions against polluters, the level of enforcement is limited. Current water and wastewater tariffs for the wet industries, implemented by Government as an incentive to industrial development, are disincentives for efficient water and wastewater management. Within the wet industries, little or no attention is given to efficient use, re-use or recycling of the scarce water resource.

Action in the following priority areas are intended to ensure efficient and effective industrial wastewater management:

- Legislation and Enforcement: Implement and enforce existing legislation.
- Institutional Arrangements: Develop and implement an integrated and co-ordinated institutional approach to industrial wastewater management.

- Tariff System: Implement the “polluter-pays-principle” through the development and use of an equitable industrial wastewater tariff system.
- Training: Strengthen and update the technical and managerial skills of personnel responsible for the management of industrial wastewater.
- Awareness Raising: Raise awareness of government, industry and civil society stakeholders about sustainable industrial wastewater management.

A number of associated strategies were agreed for achieving the Policy goals. The time horizon for the Industrial Wastewater Management Policy was five years. The Policy has only partly been implemented and it would be timely now after 10 years to review the implementation of the policy.

1.2.1.6 Irrigation Strategy

The Agricultural Sector Strategy (2003) emphasises the need for irrigation in ensuring food security in Lesotho. Of the 270,000 Ha of arable land 13% or 36,000 Ha are considered suitable for formal irrigation. In addition there is scope for gravity fed small scale irrigation and rain-water harvesting. The available data indicate that irrigation projects covering 2,637 Ha have been implemented however by 1999 only 66 Ha were still operational.

The Sector Strategy emphasises the need to promote water management in all its forms and has reoriented the policies to promote water management techniques that are appropriate to the local conditions. In summary the focus will be on:

- Targeting smaller farmers, down to units of 2 Ha of diversified production
- Concentration on sensitisation of farmers and implementation on the basis of demand by farmers rather than the transfer of pre-designed irrigation packages
- Complementary activities in other sub-sectors to ensure a coordinated approach
- Encouragement of the private sector to participate more fully in the development of irrigation practices

The MoAFS is responsible for implementation of the irrigation strategy in cooperation with the water sector. The focus of the irrigation strategy links directly to the catchment management activities as prescribed in the LWSP and the Water Act. The catchment management activities and active participation of the agricultural sector and Local Councils are expected to facilitate irrigation development and improved livelihoods in rural areas.

1.2.1.7 Climate change adaptation Plan

The strategies in Lesotho for adaptation to climate change are described in the ‘National Report on Climate Change’ (April 2000) and the ‘Lesotho’s National Adaptation Programme on Climate Change Action’ (NAPA). The NAPA entails Lesotho’s “urgent and immediate” priority adaptation needs aimed at providing an enabling mechanism for the country to minimize the impacts of climate change while at the same time enhancing adaptive capacity of vulnerable communities that are most prone to the adverse effects of climate change.

Climate change activities are coordinated by the MEMWA through the Lesotho Meteorological Services (LMS) including implementation of the climate change adaptation plan. The plan facilitates the vulnerability assessments of different socio economic sectors to climate change and also identifies corresponding adaptation measures in the different sectors. Analysis of Lesotho’s future climate predicts warmer climate conditions, lower precipitation, particularly in

the spring and summer seasons, shift in precipitation patterns in such a way that good seasonal rains that characterize summer season could set in late. Climate change will thus have severe impacts on water resources of Lesotho, as diminishing rainfall will lead to the shrinkage of surface and ground water resources. Due to recurring droughts, fresh water availability is set to diminish. It has been projected that Lesotho would enter a water stress period of less than 1,700m³ per capita per year by 2019 and a water scarcity period of less than 1,000m³ per capita per year by 2062.

Therefore, the issue of management and preservation of water resources has thus become one of the very critical developmental challenges for the country. Closer collaboration on climate and water management should be instituted to further explore the links between climate, water and economic development. The focus on catchment management is expected to enhance the response to the climate change challenges. This will require active collaboration between LMS and DWA and other institutions in ensuring that the readiness to deal with climate change is appropriately addressed in the catchment management and development plans.

1.2.1.8 Tariff Policy

Before the establishment of the LEWA Regulatory Framework, the MEMWA Principle Secretary exercised authority over tariff approvals in consultation with the sector stakeholders in particular the COW. The present tariff structure is banded according to the amount of water consumed plus a monthly standing charge. The aim is to cross-subsidise the cost per m³ for low consuming households from higher consuming costumers.

Table 1-2: WASCo Tariffs

Customer Groups	M/ m ³	Standing Charge
Domestic		
Band A (< 5m ³ /month)	3.59	21.93
Band B (5 – 10 m ³ /month)	6.07	36.68
Band C (10 - 15m ³ /month)	10.67	36.68
Band D (> 15m ³ /month)	14.71	36.68
Public Stand Pipe	4.86	0
Industry, business	9.71	244.23
Government	9.71	352.77
Schools, churches	9.63	176.39

Table 1-2 shows the current (2013) WASCo tariffs and Figure 1-1 illustrates the effect of the standing rate on the average cost of water per m³ for different types of consumers. The effect of the tariffs and standing rates are:

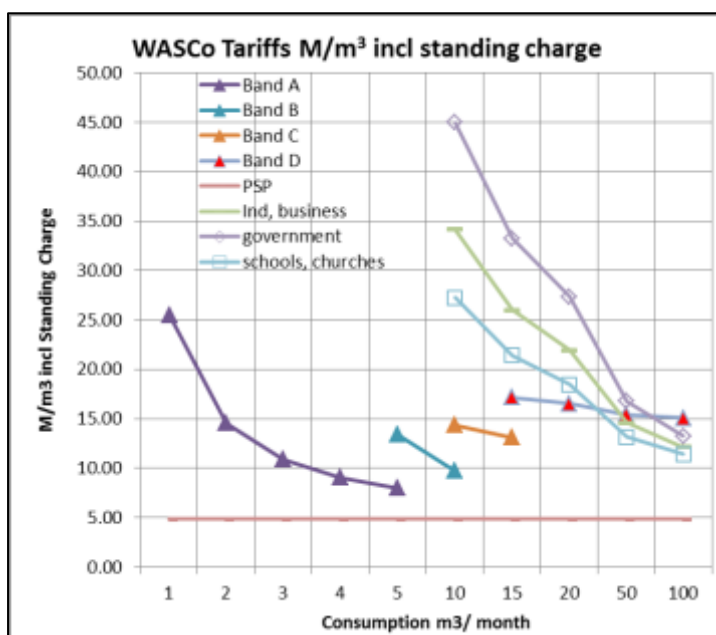
1. WASCo supplies water below the production cost to Public Standpipes and at near production cost to Band A consumers using 5m³/ month
2. Low consuming customers using 1 to 2 m³ per month pay relatively higher price per m³ for water. Billing statistics show that this group is almost 50% of the domestic customers.

The tariff policy allows WASCo tariff increases according to inflation annually and foresee review of tariffs every 3 years to enable amending the tariffs to bring them into line with actual costs and recovery rates.

Figure 1-2: WASCo Tariffs per m³ of water per month including Standing Charge

The connection fees range from M1,500 to M4,500 depending on the distance up to 150 metres for domestic water connections and M3,000 to M5,000 for sewerage connections. WASCo has various models for making connections more affordable such as gradual payment over a year or waiving the connection fee for households that cannot afford. The connection fee is believed to be one of the main obstacles for poor households to access water services.

The tariff policy is being implemented and WASCo is provided with annual increases according to inflations.



1.2.1.9 After Care Strategy

The detailed rural water and sanitation strategy document that describes the implementation policies and roles and responsibilities of stakeholders is the 'After Care Strategy'. The 'After Care Strategy' is critical for the sustainability of rural water and sanitation investments. The policy principles are outlined in the box below:

The After Care Policy Principles

The management of rural water systems shall be guided by the following policy principles:

- Community Councils (CCs) as the lowest level of Local Government are the owners of the water systems and responsible for planning and implementation of new water systems and monitoring and supervising the management of existing rural water systems.
- Village Water and Health Committees (VWHCs), legally established under the CCs are responsible for management, operation and maintenance of their water systems.
- The private sector will be contracted by the VWHC where necessary to provide maintenance and operational services.
- Water users will pay for water services according to tariffs for individual water systems based on operation and maintenance plans and sound business principles for the management of the water systems.
- Central Government will play a facilitating role and will not be directly involved in operation and maintenance of the water systems.
- DRWS will provide support and capacity building to the new local governments to operate effectively in the sector and support VWHCs.
- VWHCs can apply for subsidy for major repairs, rehabilitation and extension of systems. The subsidy will be for a maximum of 90% of the cost and the remaining will be contributed by the VWHCs either in kind as participation in the works or as cash contribution to project costs.
- To achieve maximum impact on poverty alleviation, health benefits and achievement of the Millennium Development Goals, the support to community management of water supplies shall be coordinated with the promotion of sanitation and hygiene education, and shall include capacity building of the users and community organizations in management, operation and maintenance of the water and sanitation facilities as well as covering environmental issues.
- Gender equity and social issues including HIV/AIDS prevention shall be considered and fully taken into account in the capacity building activities as well as the development and management of facilities.

The After Care Strategy was endorsed by the Cabinet in 2006 and is being implemented. The Strategy is guiding the work in the rural water sector however the roles of the Local Government Authorities still need to be fully operationalised to improve the sustainability of rural water and sanitation activities.

1.2.1.10 National Sanitation Strategy

The strategy for implementation of rural sanitation was developed in 1983 and is based on full payment by owners for sanitation facilities and government provision of capacity building and health and hygiene promotion. The 1983 national sanitation strategy focussed on hygiene education and promotion of sanitation facilities and included an extensive programme for training local mason in the construction of latrines. Households would contract directly with the local masons for construction of sanitation facilities and there was no subsidy for the construction cost.

The strategy has been very successful in raising the level of sanitation coverage in rural areas from less than 20% in 1985 to approximately 35% in 1995 and 50% in 2006. However it has been realised that the main barrier to increasing the coverage further is poverty and the income levels in rural areas makes it difficult for rural households to afford the sanitation facilities and use their scarce funds for other necessities such as food.

To reach the poorer segments of the communities, DRWS in cooperation with the rural sanitation program under Ministry of Health has over the last 10 years been promoting household sanitation with a subsidy as an integrated part of water supply projects. The practise is that the rural households provide local available construction materials and digs the hole for the VIP latrine. Other projects such as the MCA-Lesotho funded rural water and sanitation programme has implemented sanitation with 100% subsidy where the contractors are fully responsible for completing the VIP latrines.

The cost of the strategy of providing the current level of subsidy at 90% for latrines in rural areas has been estimated to approximately M 60 mill annually until 2020 to reach the target of full coverage. The 1983 National Sanitation Strategy is still useful and should be updated/complemented with the recent experiences in providing subsidies for household latrines to ensure that the poor households can afford the sanitation facilities.

1.2.2 **Legal Framework**

The present legal framework of importance for provision of water and sanitation services includes the following:

1.2.2.1 The Water Act (2008)

The Water Act provides the legal basis for the water sector activities. It makes provisions for conservation and protection of the water resources from all forms of pollution. It provides for the ownership of all water resources to be vested in the Basotho nation and held in trust by the King. It makes provision for different types of permits, such as abstraction permits and construction permits and the manner of acquiring them. It establishes the office of the CoW to be responsible for the formulation of the Water and Sanitation Strategy, determination of a reserve and classification of water resources for the management and utilisation of water resources in the country.

The Water Act details the roles of Local Councils in Catchment Management and provision of Water Services.

1.2.2.2 The WASCo Company Act

The WASCo Company Act established the former Water and Sewerage Authority (WASA) as a company under the Companies Act (no 25 of 1967) in September 2010. WASCo is owned by Government with 50% of the shares held by the Ministry of Finance and 50% by MEMWA.

As a Company, WASCo is a Water Service Provider (WSP) regulated by the Lesotho Electricity and Water Authority (LEWA). The previous legal establishment of WASA is thus changed and WASCo as a Company will be able to provide water and sewerage services to areas in the country where it can make a profit subject to the regulation by LEWA and in agreement with the Local Government Authorities.

1.2.2.3 LEA Amendment Act

The Lesotho Electricity Authority (LEA) was established in 2004 through the Lesotho Electricity Authority Act No.12 of 2002. In 2007 the Government decided that LEA should be transformed to be a multi-sector regulatory body and in addition to electricity also regulate urban water and sewerage services in the country. The LEA Amendment Act (2011) transforming LEA into a multi-sector regulator, the Lesotho Electricity and Water Authority (LEWA) come into operation in April 2013 with the licensing of WASCo as a service provider.

LEWA deals with water and electricity pricing, complaints handling and resolution and the supervision of the implementation of the Quality of Service and Supply standards by its licensees. Presently the Lesotho Electricity Company (LEC) and WASCo are licensed by LEWA. LEWA operations will be financed by licence fees from LEC and WASCo.

1.2.2.4 Metolong Authority Act

The Metolong Authority (MA) was established by the 'Metolong Authority Act, 2010'. The MA is responsible for implementing the Metolong Dam Water Supply Programme (MDWSP) and in accordance to the Act,

The Act provides for winding up of the MA by an Act of Parliament at the end of the MDWSP.

1.2.2.5 The Lesotho Environment Act, 2001 (Act 15 of 2001) and amended in 2008

The Environment Act is the framework for implementing the National Environment Policy. The principles include: i) ensuring that every person living in Lesotho has a fundamental right to a clean and healthy environment; ii) establishing adequate environmental standards; iii) polluter pays principle; and iv) promotion of national, regional and international cooperation for the protection of the environment.

The Environment Act is being implemented but not yet fully enforced since development of guidelines and regulations is still ongoing. When it is enforced it will have implications for the water sector and especially for the management of wastewater from the industries.

The implementation of catchment management in Lesotho as prescribed in the Water Act and the development of guidelines will need to be coordinated with the regulations under the Environment Act to ensure effective functioning of the processes such as approval of discharge permits and environmental impact assessments.

1.2.2.6 The Local Government Act of 1997 and Local Government (Amendment) Act, 2004

The Local Government Act establishes local councils at District Council, Urban Council and Community Council levels and defines their functions.

The current demarcation of Urban and Community Councils in 2011 establishes 12 Urban Councils (Maseru City Council, Urban Councils in the 9 other district towns and in Maputsoe and Semonkong) and 64 Community Councils. The District Councils are composed of representatives from the Community Councils in a District. The District Council and the Urban Councils in a district coordinate planning through the District Development Coordination Committee.

The boundaries of the Urban and Community Councils differ from the service areas for WASCo and the rural areas supported by DRWS. Typically the Urban Councils include villages that are served by community managed schemes supported by DRWS and the WASCo service areas include rural areas such as Peka, Mapoteng, Roma and Morija that fall under Community Councils.

The Local Government Act Schedule 2 defines the responsibilities of the Local Councils to cover operation and maintenance of rural water and sanitation while the Water Act assigns the full responsibility for rural water and sanitation services to the Local Councils. This would need to be harmonised. The Local Government Act prescribes 'District Planning Units' in each District responsible for assisting the Councils in preparation of development plans. The Local Councils' responsibility for planning for water and sanitation services as implied in the Water Act will need to be coordinated with the responsibilities of the District Planning Units to ensure coherent planning.

1.2.2.7 Other Legal Documents of Importance for the Water Sector

The legal framework contains many other Acts that are of importance for the water sector, especially in relation to catchment management. These include:

- The Land Act (2010)
- The Nature Conservation Bill (2008)
- The Land Husbandry Act (1969)
- The Weeds Eradication Act (1969)
- The Roads Act (1969)
- The Historic Monuments, Relics, Fauna and Flora Act (1967)

1.2.3 Regulations

1.2.3.1 Water Quality Standards and Guidelines 2013

Draft standards and guidelines for water quality have been developed by the COW in cooperation with the Department of Environment. The standards and guidelines include:

- Water quality standards for drinking water purposes
- Water quality guidelines for natural aquatic ecosystems
- Water quality standards for wastewater or industrial effluent discharge
- Water quality guidelines for irrigation purposes
- Water quality guidelines for recreation
- Water quality standards for aquaculture
- Implementation plan

Until the new standards are applied, the World Health Organisation (WHO) water quality guidelines are used by the water sector institutions.

Other regulations of importance for the water sector are the environmental sanitation regulations and the ‘Range Management and Grazing Control Regulations (1980)’ that addresses grazing control, introduces grazing fees and organising the use of cattle posts.

1.3 Institutional Context

The description of the roles and responsibilities of the sector players presented below is divided into:

1. **The present status** – intended to provide a snapshot of how the sector functions presently
2. **The recent developments** – intended to provide information on the recent developments and decisions taken on the institutional development
3. **Review of the definition of roles and responsibilities** – the definition is provided by the legal framework for the sector and comments are provided on the roles defined in the Water Act and other legislation as compared to the present practice.

The mapping of institutional responsibilities is described in detail in ‘Report #2’⁴. The mapping is based on a review of the sector documentation and consultations with sector stakeholders. Consultations have been held with water sector institutions individually as well as related ministries such as Health and Local Government, NGOs and the private sector.

The Key Water Sector Institutions:

- **Ministry of Energy, Meteorology and Water Affairs (MEMWA)**: sector ministry providing policy guidance and oversight over sector institutions.
- **Office of the Commissioner of Water (COW)**: responsible for planning and coordination of water sector activities.
- **Department of Water Affairs (DWA)**: responsible for monitoring, assessment and allocation of water resources.
- **Department of Rural Water Supply (DRWS)**: responsible for support to local governments and communities for water and sanitation in areas not covered by WASCo.
- **Lesotho Meteorological Services (LMS)**: responsible for meteorological data collection and weather forecasts. Secretariat for climate change adaptation activities.
- **Water and Sewerage Company (WASCo)**: government owned company responsible for water and sewerage services in major urban areas and operation of bulk water services.
- **Lesotho Electricity and Water Authority (LEWA)**: responsible for regulation of electricity and water services
- **Lesotho Highlands Development Authority (LHDA)**: responsible for planning, implementation and operations of the water resource development activities in the highlands and related electricity generation and bulk water transfers.
- **Metolong Authority (MA)**: responsible for implementing the Metolong Dam and Water Supply Programme (MDWSP) for bulk water supply to Maseru and surrounding towns and major villages and associated environmental and social management plan.
- **Lesotho Lowlands Water Supply Unit (LLWSU)**: originally responsible for feasibility study and design of the bulk water schemes for the lowlands. Presently providing technical services to COW.

⁴ Long Term Water and Sanitation Strategy - Report #2: Progress on LWSP Implementation and Institutional Mapping, Draft Final Report, July 2013.

The water sector institutions cooperate with a number of related ministries such as the Ministry of Tourism and Environment, Ministry of Forestry and Land Reclamation, Ministry of Agriculture, Ministry of Health, Ministry of Education and Training and the Ministry of Local Government as well as for overall coordination and planning with the Ministry of Development Planning and the Ministry of Finance. At local level there is active cooperation with the Local Councils, communities and traditional leaders as well as the private sector and NGOs.

1.3.1 The Present Institutional Roles and Responsibilities

The present roles of the sector institutions within the main function areas in the water sector are summarised below:

Policy and Strategy:

- The Ministry of Energy, Meteorology and Water Affairs (MEMWA) provides overall policy and strategy direction to water management institutions on the discharge of their functions. The Ministry facilitates the legal establishment of sector institutions and creates the enabling environment for private sector and stakeholder involvement at policy level.
- The COW's Office is responsible for monitoring and evaluating sector policies and strategies, and providing policy direction to departments and institutions to implement the sector policies and strategies and the legal framework.
- The DWA through the Wetlands Unit is active in developing and implementing strategies for wetlands management through various pilot projects.
- Lesotho Meteorological Services (LMS) is the secretariat for Climate Change activities in Lesotho and provides input to strategies and policies in relation to climate change.

Regulation:

- MEMWA is facilitating the legal approval and gazettment of regulations, political approval of cost recovery, polluter pays principles and other politically sensitive regulatory issues.
- The COW's Office is responsible for establishing the overall regulatory framework for the sector including principles for cost recovery, environmental water allocations and water quality standards.
- Lesotho Electricity and Water Authority (LEWA) is responsible for regulation of water services and is in the process of establishing the regulatory framework.
- DWA is responsible for regulation of the use of water resources. DWA assesses application for water abstraction and issues water use and construction permits. DWA participates with the Department of Environment (DOEnv) in assessment of applications for water discharge and approval of Environmental Impact Assessments (EIAs) related to water.

Sector Planning:

- MEMWA is responsible for the overall planning and funding of the water sector activities including management and coordination of the 'Medium Term Expenditure Framework' (MTEF) budgeting process. MEMWA participates in trans-boundary activities and initiate joint planning with the RSA at policy level.
- The COW's Office is coordinating the implementation of the MTEF and the 'Budget Framework Paper' (BFP) procedures for the water sector institutions. The COW's Office is participating in trans-boundary water activities at technical level.
- Department of Rural Water Supply (DRWS) and Water and Sewerage Company (WASCo) prepare annual plans and contribute to the national planning and budgeting

process within their areas of responsibility. DRWS plans for rural water and sanitation services in cooperation with the District Councils. WASCo plans for urban water and sewerage services.

- The DWA is responsible for water resources assessment and use various data bases, Geographical Information System (GIS) and to some extent Basin Models to carry out assessments and planning.
- The Lesotho Highlands Development Authority (LHDA) is responsible for planning of major water storage and transfer infrastructure including hydropower in the highlands of Lesotho.
- The Metolong Authority (MA) is responsible for establishment of an environmental management plan for the catchment area for the Metolong dam.

Monitoring & Evaluation:

- MEMWA monitors budget implementation and implementation of performance contracts with sector institutions. The Ministry also develops and implements Monitoring and Evaluation (M&E) systems at ministerial level.
- The COW's Office is responsible for developing and maintaining sector M&E system and reporting frameworks; maintaining and updating the 'Lesotho Water Sector Information Management System' (LWSIMS); producing annual 'State of Water Resources Report'; and guiding and supporting the development of M&E systems in the sector institutions.
- The COW's Office provides information on water and sanitation services based on data from WASCo and DRWS as well as data from the Bureau of Statistics (BOS) on access to water and sanitation. WASCo operates internal data management systems on the urban networks and operations. DRWS operates a 'District Information System' with data on the individual rural water systems. DRWS and WASCo prepare annual reports.
- The DWA is responsible for monitoring of water resources and operates a monitoring network covering surface water, groundwater and water quality. DWA operates a water quality laboratory and drilling rigs and test pumping equipment for research and exploration of groundwater.
- LMS operates a network of weather stations and provide data on rainfall and other climatic parameters.
- LHDA provides data to DWA on the monitoring stations in the catchments for the Katse and Mohale dams.

Implementation:

- MEMWA provides financial oversight and budget control over implementation and the COW's Office coordinates and monitors the implementation by sector institutions and Project Implementation Units (PIUs).
- The MA implements the Metolong Dam and Water Supply Programme (MDWSP) for bulk water supply to Maseru and surrounding towns and major villages. MA also implements improvements to the water and sanitation facilities in the rural communities in the immediate vicinity of the Metolong Dam.
- DRWS implements water and sanitation systems in rural areas through the de-concentrated DRWS district teams working closely with the District Councils and Community Councils.
- WASCo implements investments in urban water and sewerage services.

- The Private Sector is providing consultancy and construction services for implementation of water services and a few NGOs are supporting rural communities in the implementation of water and sanitation projects.
- In terms of water resources management and development, presently, the MA is active in the development of the Metolong dam; other sector ministries such as ‘Land Reclamation and Forestry’, ‘Agriculture and Food Security’, and ‘Environment’ are important stakeholders in the implementation of catchment management.
- The Local Councils take part in the implementation at local level of the activities of the central government ministries although the lack of fiscal decentralisation and capacity constraints at local level limits the effective participation. Local communities, Community Based Organisations (CBOs) such as ‘Grazing Associations’ and the Chiefs are important actors at local level for water resources management.

Operation and Maintenance:

- MEMWA provides financial oversight and budget control and the COW’s Office monitors and advises on operation and maintenance activities of sector institutions.
- DRWS supports the operation and maintenance of the community managed rural water systems through training for committees and water minders. The Village Water and Health Committees (VWHCs) and water minders carry out daily operation and minor maintenance. DRWS carry out major maintenance as requested by the VWHCs within the available budgets.
- WASCo operates and maintains the urban water and sewerage systems, including services for emptying of septic tanks and pit latrines in designated areas. LHDA cooperates with the COW and WASCo in releases of water to lowland rivers in periods of drought to alleviate water shortages in the urban water systems in particular Maseru.
- The private sector is providing services for replacement and major maintenance for both rural and urban water systems as well as services for emptying septic tanks and latrines.
- LHDA operates and maintains the bulk water infrastructure in the highlands.
- DWA operates and maintains the water resources monitoring networks.

Institutional Development, Capacity Building and Stakeholder Involvement:

- MEMWA facilitates and chairs the coordination with stakeholders. The Ministry carry out Human Resource Assessment and facilitate approval of institutional human resource plans. The Ministry is responsible for establishing the legal basis for institutional reforms and private sector participation at policy level.
- The COW’s Office is responsible for guiding the sector institutions on institutional development. Responsibilities include: develop the water sector communication strategy and strategies for awareness creation and stakeholder participation and providing overall guidance to sector institutions on stakeholder and civil society involvement, private sector participation and creating an enabling environment for Public Private Partnership (PPP) at technical level. The COW arranges sector coordination meetings and joint annual reviews.
- DRWS cooperates with District and Community Councils and capacitates communities (VWHCs and water minders) for management of the water and sanitation systems. DRWS provide hygiene education in villages where water and sanitation projects are implemented.
- WASCo interacts with stakeholders through the customer relations functions of the water utility and through the media.

- WASCo and DRWS are responsible for internal institutional development and capacity building to fulfil their mandates.
- MA and LHDA implement comprehensive stakeholder involvement and compensation programmes in relation to the implementation of the MDWSP and the water resources development projects in the Highlands.
- DWA implements community capacity building and awareness raising programme in particular in relation to the wetlands management pilot projects.
- Consultants and NGOs are involved in various aspects of institutional development and sector capacity building.

1.3.2 Recent Changes related to Institutional Roles and Responsibilities

Since the formulation of the LWSP, the COW's office has carried out the sector management and coordination functions as described above. The capacity of the COW's Office is steadily increasing, however, there are challenges in terms of staff turn-over. As required in the LWSP, an M&E Unit has been setup within the COW's Office. The Asset Management Agency is in the process of being set up inside the Office of COW.

The 'Lesotho Lowlands Water Supply Unit' (LLWSU) was established under the DWA to manage the feasibility study and design of the lowlands bulk water supplies. The LLWSU has completed its initial mandate and presently the LLWSU provides technical services for the COW.

Water Services

WASCo has been registered as a Company and the responsibility for operating bulk water infrastructure has been assigned to WASCo. The Bulk Water Unit in WASCo is yet to be established.

LHDA has completed the implementation of rural water and sanitation projects in the vicinity of the Mohale and Katse Dams and the water systems are handed over to the communities and supported by DRWS as other community managed systems.

The Environmental Health Division and the Health Education Unit in the Ministry of Health (MoH) are responsible for hygiene education and promotion of sanitation in urban and rural areas. These functions in MoH are planned to be decentralised to Local Councils.

The decentralisation process is proceeding and new Local Councils were established after the 2nd elections in May 2011. The boundaries of the 12 Urban Councils and the 64 Community Councils differ from the service areas for WASCo and the rural areas supported by DRWS.

Water Resources Management and Development:

There have not been major recent changes in the institutional roles and responsibilities related to water resources management and development. However, the MA has been formally established by the 'Metolong Authority Act, 2010' from the Metolong Project Implementation Unit to develop the water resources for the bulk water supply to Maseru and surrounding towns.

The LHDA has carried out the feasibility study for the phase II of the Lesotho Highlands Water Project and is in the process of establishing the project implementation unit.

1.3.3 Review of the Definition of Roles and Responsibilities

The present situation in relation to sector management does not differ significantly from the roles defined in the LWSP and the Water Act. However, three issues in relation to the responsibilities of the COW appear to need attention:

1. The Water Act states (amongst other functions) that the COW shall: '*develop water and sanitation strategies and plans and ensure their implementation and periodical review*'. Presently the water sector institutions do not report to the COW on progress and financial matters including preparation of plans and budgets and requests for release of funding.
2. The LWSP and the Water Act require the formulation of national water and sanitation plans and programmes and this is not taking place presently. The COW's Office (or Departments under the COW) needs increased internal capacity and tools required to carry out overall national planning for water services in urban, peri-urban and rural areas.
3. The LWSP places emphasis on the development of capacity for M&E in the COW's Office. The M&E Unit is established while the M&E system still needs to be developed.

In terms of water services, the following main issues arise from the review of the definition of roles and responsibilities in the LWSP and the Water Act as compared to the present institutional roles:

1. The Water Act assigns full responsibility to the District and Community Councils for provision of water and sanitation services in rural areas while presently DRWS has the major role.
2. Inadequate attention to sanitation. A comprehensive sanitation strategy appears to be needed, combining hygiene education and promotion with targeted subsidies to achieve the desired improvements in hygiene and access to sanitation and covering both rural and urban areas.
3. The areas under the authority of the Urban Councils include both WASCo service areas and typical rural villages with community managed water systems supported by DRWS. DRWS would therefore have to provide Technical Assistance not only to the District Councils covering rural areas, but also to the community managed systems under the Urban Councils.
4. The LWSP encourages water distributors to be established. Presently there are no independent water distributors except small scale sale of water from private water supplies.
5. The LWSP allows for establishment of a Bulk Water Authority and an Asset Management Agency and these functions have been assigned to WASCo and the COW's Office respectively. Capacity building to carry out the functions is needed.
6. The Local Government Act Schedule 2 defines the responsibilities of the Local Councils to cover operation and maintenance of rural water and sanitation while the Water Act assign the full responsibility for rural water and sanitation services to the Local Councils. These would need to be harmonised.

In terms of water resources management and development, the main issues in relation to the implementation of the LWSP statements and the Water Act are:

1. The Water Act and the LWSP makes it clear that development planning and management of water resources will be delegated to Local Councils and would be done in collaboration with stakeholders. This would require effective coordinating structures that include the District and Urban Councils, other sectors and major water users within a catchment area, in order to carry out rational water resources management following catchment boundaries. The DWA will play a coordinating role in the catchment management.

2. The LWSP requires the participation of local communities in catchment management and ensuring that ‘Integrated Water Resources Management’ (IWRM) is implemented and benefitting the population. This is presently not the case.
3. The implementation of the updated functions will require a comprehensive capacity development programme targeted towards the Local Councils and other stakeholders.
4. Dam safety will need attention also in relation to climate change and increased possibility for extreme events of flooding and spilling.

2 Long Term Strategy for Water and Sanitation

This Chapter provides information on the process of developing the Long Term Strategy and the strategic considerations. It describes how the Strategy for water sector contributes to achieving the National Strategic Development Plan and how it addresses the objectives of the LWSP.

The overall focus and the goals for the WS Programme with a 2020 and a 2030 horizon are described as an introduction to the subsequent chapters that provide detailed information on the Strategy and Programme within the respective Key Focus Areas.

2.1 Process of developing the Long-Term Strategy

The development of the Long-Term Strategy for the water sector and the resulting Water Sector Programme (WS Programme) is intended to provide direction and guide the water sector activities in the period from April 2014 to March 2020 and provide an outline programme for the period from 2020 to 2030.

The Long Term Strategy is formulated based on the analysis of options for catchment management and water services carried out in consultation with stakeholders and presented in detail in ‘Report #3: Institutional Models for emerging Water Supply Solutions’ and ‘Report #4: A model for Catchment Management’. The overall direction for the strategy is provided by the existing legal and policy framework for the sector, primarily the LWSP and the Water Act, and also the other laws, strategies and policies that provide guidance to the water sector as presented in Chapter 1.2 above.

The process of developing the Long-Term Strategy started with the assessment of progress in the implementation of the LWSP and mapping of the institutional responsibilities (TOR Task 1 and 2). This was followed by detailed work on assessing ‘Institutional Models for Emerging Water Supply Solutions’ (TOR Task 3) and developing ‘A Model for Integrated Catchment Management’ (TOR Task 4). The work has been guided by three Task Forces dealing with ‘Catchment management’, ‘Water Services’ and ‘Sanitation’ respectively. The Task Forces comprised professionals from the water sector institutions and NGOs active in the water sector. The resulting strategic direction given by the Task Forces has been distilled into the WS Programme as presented in the following chapters.

The WS Programme was presented at a stakeholder workshop in July 2013 followed by a public consultation process. The final Strategy and WS Programme documentation will be presented to Government for Approval. The WS Programme includes a ‘Monitoring and Evaluation (M&E) Plan’ and after approval the WS Programme will form the basis for the preparation of Annual Operational Plans for the sector institutions and the M&E Plan will form the basis for the sector monitoring and progress reporting system.

The WS Programme is structured according to six ‘Key Focus Areas’ and a number of ‘Strategic Aims’ under each Key Focus Area. The Key Focus Areas have been defined with the seven LWSP Policy Statements as the basis. The objectives and strategies under each LWSP Policy Statement naturally overlap e.g. catchment management activities are covered both under Policy Statement 1: *Water Resources Management* and Policy Statement 3: *Water and Environment*.

To form a coherent programme it has therefore been necessary to group the Strategic Aims and activities under the following Key Focus Areas:

- Key Focus Area I: Establishment of Catchment Management
- Key Focus Area II: Climate Change, Water Resources and Environmental Management
- Key Focus Area III: Water, Sanitation and Hygiene
- Key Focus Area IV: Regulated Water and Sewerage Services
- Key Focus Area V: Water Resource Development
- Key Focus Area VI: Sector Resource Planning, Coordination and M&E

The LWSP Policy Statements and Strategies included in the respective Key Focus Areas are presented in the matrix in Annex A.

2.2 Strategic Considerations

The following strategic considerations have emerged from the consultations with stakeholders, discussions with Task Forces and feedback during the Workshops and have thus guided the formulation of the Long-Term Strategy and the WS Programme:

1. Be loyal to the direction given by the LWSP and Water Act but flexible and realistic in the timing of the envisaged changes such as the involvement of Local Councils in water service provision
2. Focus on the importance of the water sector for economic development and livelihoods in Lesotho and ensure that the water sector links to the Government's development efforts in general and the NSDP
3. Support and link into the decentralisation process rather than impose water sector changes before the Local Councils are ready
4. Focus on clarifying future roles and responsibilities of Local Councils and water sector institutions rather than proposing new institutional structures or major institutional changes
5. Urgently address the catchment management and environmental issues and build on the experiences related to catchment management such as wetlands management and range management
6. Build on the strength and past achievements in urban and rural water services while using the opportunities presented by the decentralisation process to effectively address some of the challenges related to planning, access to services and functionality of rural water systems.
7. Use the M&E system to monitor and identify strengths and weaknesses and gradually adjust the implementation of the WS Programme according to lessons learned.

The WS Programme contributes directly to the implementation of the NSDP in several areas. Table 2-1 highlights some of obvious areas where the WS Programme will contribute directly to the achievement of the NSDP Objectives.

Table 2-1: Contribution from WS Programme to NSDP Objectives

The objectives of the NSDP	Contribution from WS Programme to the NSDP Objectives
Promotion of peace, democracy and good governance	Actively support the decentralisation process and stakeholder involvement. Participatory and transparent approaches to catchment management can potentially have a huge impact on governance and development of democracy at local level
Pursuit of high, sustainable and equitable economic growth	Catchment management focussing on the link to productive use of water and improved livelihood in rural areas will provide a foundation for sustainable and equitable economic growth. Development of Water Resources and bulk water infrastructure will ensure adequate water for urban and industrial development
Poverty reduction through employment generation and reduction of social vulnerability	Provision of affordable water services combined with an integrated approach to water, sanitation and hygiene will contribute to health improvements and improved living standards for the poorer segments of the population. The catchment management activities and the links to productive use of water can have a major positive impact on employment and economic development in rural areas.
Protection of the environment and promotion of climate-friendly technologies and practices	The catchment management activities are a key component in adapting to climate change and protection of the environment in general. Implementation of catchment development plans in the highlands and lowlands of Lesotho is likely to include renewable energy sources such as wind, hydropower and biomass.
Promoting HIV/AIDS prevention, care and treatment	The practices of including HIV/ AIDS awareness and prevention activities in the implementation of all water sector projects and activities will contribute to prevention in general for Lesotho to recover from the pandemic
Radically transforming technical, vocational and higher education to produce world-class skills and expanding access to ICT.	Focus on taking advantage from the new remote sensing, basin modelling and GIS technologies in planning and monitoring in the water sector combined with active cooperation with the Technical Institutes and Universities in ensuring these technologies are covered in the curriculum will contribute to the wider use and development of ICT skills. Providing space for practical attachment for students in the water sector will further enhance the use of the new technologies in the sector and promote access to qualified staff for the development of the sector institutions

2.3 LWSP Objectives and the WS Programme

The WS Programme as a whole aims at implementing the LWSP and therefore the objective of the WS Programme should remain as defined for the LWSP. These are outlined in Table 2-2 together with remarks on where the LWSP Objectives have assisted in providing guidance to the WS Programme.

Table 2-2: LWSP Objectives and the WS Programme

LWSP Objectives	Contribution from WS Programme to the LWSP Objectives
The proper management of the country's water resources and its sustainable utilization	Focus in the WS Programme on Catchment Management and improved capacity for monitoring and assessment of water resources
Adequate and sustainable supply of potable water and sanitation services to all of the population of Lesotho	Focus in the WS programme on improved access to water and sanitation services – e.g. ensuring universal access to affordable water services in urban areas and improved functionality for rural water systems. Focus on sanitation in both urban and rural areas
Co-ordination and coherence in the management and development of water and other related natural resources, in order to maximise the resultant socio-economic benefits without compromising the sustainability of vital ecosystems	Focus on Catchment Management and the integration of environmental protection with provision of water for productive uses and improvements in livelihood. Focus on establishment of coordination structures for catchment management and the effective involvement of local government structures and communities in natural resources management with adequate guidance and technical assistance from the national ministries
Harmonisation of processes and procedures followed by different development partners and other stakeholders in order to optimise available internal and external resources as well as ensure timely implementation of sector programmes	Continued focus on establishment of SWAP and coordination mechanisms in the water sector and common funding mechanisms. Improved coordination with other sector in Lesotho and use the WS Programme to ensure that all development partners contribute to a coherent programme. Focus on efficient M&E and reporting systems in the sector that satisfy the Government's needs as well as the development partners.

2.4 Overall Focus and 2020 Goals for the WS Programme

The overall focus for the WS Programme until 2020 will be to achieve the following situation in 2020:

- Effective catchment management coordination structures will have been established and 'Catchment Management and Development Plans' have been formulated for all the catchments in Lesotho – Implementation of the plans has started.
- Capacity for adapting to climate change has been improved through comprehensive water resources monitoring at catchment level and development of capacity for advanced and independent assessment of water resources and climate change impact at national level.
- Access to water and sanitation will have improved in rural and urban areas through sustained investments, improved operations and an integrated approach to planning in cooperation with Local Councils. The functioning of community managed water services will have improved through clarification of roles and responsibilities for Local Councils in planning, implementation and management of water systems and comprehensive capacity development. New approaches have been tested for increased involvement of the private sector in provision of services.

- Universal access to affordable water services has been achieved in the WASCo service areas through a clear pro-poor approach and effective regulation. Sewerage services will be planned and implemented as an integrated part of the Local Councils' plans for sanitation. WASCo will be a water utility managed according to commercial principles on the path to full cost recovery through justified tariff adjustments and improved operating efficiency.
- The planning of water resource development activities in Lesotho will take place in an integrated manner as part of catchment planning and development in cooperation and partnership with the Local Councils and communities. Long-term plans will have been formulated for the development of Lesotho's water resources for the benefit of Basotho considering climate change.
- Water sector planning and coordination will be well functioning with strong cooperation between sectors and in partnership with development partners. Sector funding will be budgeted and implemented through Government systems and the Monitoring and Evaluation and reporting systems will be used by Government as well as development partners.

The vision for the institutional changes until 2020 is:

- The **Office of the Commissioner of Water** will be strengthened and will be coordinating all water sector planning and reporting. The sector overheads will have been minimised through definition of clear roles and responsibilities and effective use of 'Project Implementation Units' when required to deal with peak implementation activities.
- The **DWA** will have been strengthened and will have a high level of professional capacity in water resources management and assessment using the latest remote sensing and basin modelling technologies. All monitoring activities will have been de-concentrated to regional offices that function as technical secretariats for the Catchment Management Joint Committees (CMJCs) in the designated Catchment Management Areas.
- The capacity for climate change monitoring and assessment in **LMS** will have been strengthened and LMS and DWA will be cooperating and operate integrated monitoring systems for monitoring water resources and climate in a holistic manner.
- The **Local Councils** will have been capacitated to play an effective role in catchment management and will be implementing catchment management plans in cooperation with the communities, the private sector and other stakeholders.
- The **Local Councils** will have been capacitated to play a constructive role in water, sanitation and hygiene services. The Urban Councils and the Community Councils will have been formally established as 'Water Service Authorities' responsible for planning and overseeing water and sanitation services within their respective areas of jurisdiction.
- **Water services** will be provided by a variety of Water Service Providers (WSPs) depending on what is most feasible in each area. WASCo will remain the most important in the urban areas and will supply bulk water through the implementation of the Lowlands Water Supply Projects. Private WSPs will be operating in some communities while the functioning of the existing 'Water and Health Committees' will be improved through formal establishment as WSPs and supervision and capacity development. The District Councils will have developed capacity for assisting the Community Councils in planning and implementation of water and sanitation services through formal decentralisation of the DRWS District Offices to the District Councils.

- **DRWS Head Office** will have developed capacity for national level water and sanitation planning, monitoring and reporting and will be providing effective technical assistance to the District and Urban Councils in preparation of water and sanitation plans and in the quality control of the implementation of the plans. DRWS will have developed standards and guidelines on various appropriate sanitation technologies and maintained and updated the standards and guidelines for water supply. The Department will be operating effective planning tools including a GIS on water and sanitation systems and will be carrying out effective national level planning for water and sanitation services. DRWS will be cooperating effectively with the MOH and MOE in the formulation of guidelines and training programmes for hygiene education as an integrated part of water and sanitation service provision.
- **Sector financing** will be through a common funding mechanism for financing investments by Local Councils in water and sanitation services and catchment management activities. Major infrastructure development beyond the capacity and areas of the individual Local Councils such as the Lesotho Lowlands Bulk Water Scheme will be implemented through Project Implementation Units funded by Government of Lesotho in cooperation with Development Partners.

In conclusion, the major changes until 2020 are expected to happen in DWA in relation to operationalising catchment management as well as substantial capacity development in the Local Councils for both catchment management and water services.

The past institutional development in DRWS, WASCo and LEWA is envisaged to continue with formalising the functioning of the presently de-concentrated DRWS District Offices as part of the District Councils; continued efforts to improve the operating efficiencies in WASCo and development of the regulatory framework by LEWA.

A major change in the sector financing would be the change from the different Government budgets and various development partner funding modalities to a common funding mechanism for Local Council investments in water, sanitation and catchment management.

2.5 Strategic Priority Areas for 2020-2030

In line with the strategic direction outlined above until 2020, the vision for how the water sector would look like in 2030 could be expressed as:

- Implementation of catchment management and development plans has resulted positively in improved livelihood in rural areas, improved food security and improved water resources and environmental management
- Lesotho will be internationally recognised for its capacity for integrated monitoring and assessment of climate and water resources and will be adapting positively to climate change with evidence based programmes with links to catchment management activities.
- All Basotho will have access to appropriate and affordable water and sanitation services according to desired service levels. The water services will be provided by a variety of Water Service Providers (WSPs) with WASCo recognised as an efficient Water Utility providing services in the major urban areas as well as bulk water services. Water and hygiene related diseases have been minimised.

- Full cost recovery for regulated water and sewerage services with Government subsidies specifically targeted to: i) ensure the provision of services to the poor, and ii) ensure compliance with environmental regulations.
- The water resource development activities in Lesotho will be implemented in an integrated and sustainable manner. The catchment management and development activities will have resulted in a sustainable path for water availability in Lesotho taking account of various climate change scenarios.
- Water sector planning and coordination will be well functioning with an increasing level of cost recovery. Government modalities will be fully used for all planning and implementation modalities.

2.6 Water Sector Programme

The Water Sector Programme (WS Programme) provides the guidance for implementation of the Long Term Strategy. The following sub-chapters outline the Strategy within the six Key Focus Areas:

- Key Focus Area I: Establishment of Catchment Management
- Key Focus Area II: Climate Change, Water Resources and Environmental Management
- Key Focus Area III: Water, Sanitation and Hygiene
- Key Focus Area IV: Regulated Water and Sewerage Services
- Key Focus Area V: Water Resource Development
- Key Focus Area VI: Sector Resource Planning, Coordination and M&E

The description of the Key Focus Areas provides first the justification for the strategic direction within the Key Focus Areas and the options that have been considered. This is followed by the specific ‘Strategic Aims’ and the related outputs, activities and inputs required for achieving the Strategic Aims and the envisaged goals by 2020 and 2030.

An implementation plan for the WS Programme is described in Chapter 9 including the time schedule, the funding requirements and the monitoring plan.

3 **Key Focus Area I: Establishment of Catchment Management**

This chapter provides information on the Strategy for Key Focus Area I: ‘Establishment of Catchment Management’ and the analysis of options that has resulted in the preferred option for catchment management described in this WS Programme.

Detailed information is provided on the respective Strategic Aims under Key Focus Area I and the related activities and inputs.

3.1 **The Rationale for Key Focus Area I**

3.1.1 **Policy Direction**

The catchment management activities are designed to provide the foundation and institutional framework for achieving a number of LWSP objectives and strategies in particular:

Policy Statement 1: Water Resources Management: Manage water resources in an integrated and sustainable manner to ensure availability of this resource in adequate quantities and quality for present and future social, economic and environmental needs.

Objective 1: To enhance the conservation and protection of the country’s water resources and to promote its sustainable management

Policy Statement 3: Water and Environment: Protect and conserve water resources and minimize the adverse impacts of socio-economic development activities on water

Objective 1: To promote integrated water resources management with a view to reducing the negative impacts of human activities and natural processes on sensitive ecosystems

Objective 2: To encourage the implementation of catchment management principles and practices as the basis for managing the country’s water resources

Objective 3: To enhance protection of water resources against various forms of pollution and to minimise the risk of over-exploitation

Policy Statement 4: Trans-boundary Water Resources: Manage trans-boundary water resources on the basis of Lesotho’s sovereignty in a way that ensures maximum benefits while taking cognisance of her obligations to downstream users under international law.

Objective 1: To strengthen co-operation with riparian states in an effort to find solutions to the challenges of managing trans-boundary water basins

Objective 2: To promote joint planning and management of the development of trans-boundary water resources while maximising benefits for the people of Lesotho

Policy Statement 7: Institutional Arrangements and Legislative Framework: Put in place appropriate institutional arrangements and a legislative framework for the sustainable development and management of the nation’s water resources and for the supply of water and sanitation services. In particular the strategies related to devolving water resources development and management functions to lower level institutions; and promoting involvement of other stakeholders, including local communities and the private sector in the management of water resources and in the provision of water supply and sanitation services.

The links between Key Focus Area I and the LWSP Objective and Strategies are shown in detail in ‘Annex A: LWSP and Key Focus Areas’.

The Water Act clearly states that “Local Authorities” shall be responsible for management of the catchment areas and that this shall be done based on catchment management plans prepared in consultations with the population.

3.1.2 The Challenges related to Catchment Management

Feedback from stakeholder consultations when preparing the Integrated Water Resource Management (IWRM) Strategy for Lesotho revealed that the establishment of Catchment Management was regarded as the most important IWRM challenge. The key issues that need attention were identified as:

- Soil conservation, to reduce/ stabilize erosion rates and thereby maintain land productivity and reduce/ stabilize sediment yields and thereby maintain reservoir capacity.
- Water conservation, often interpreted as base flow maintenance in streams.
- Biodiversity conservation/ habitat conservation (especially wetlands).
- Water quality protection (dissolved substances).

Among these, soil conservation and associated erosion, were seen as the absolute priority for Lesotho, as loss of land productivity and loss of reservoir capacity were mentioned to be major national problems. Increasing population, the need for producing more food, and possible impacts from climate change are all factors that increase the urgency of acting now.

The envisaged local level remediation measures include physical and planning/ regulatory measures such as:

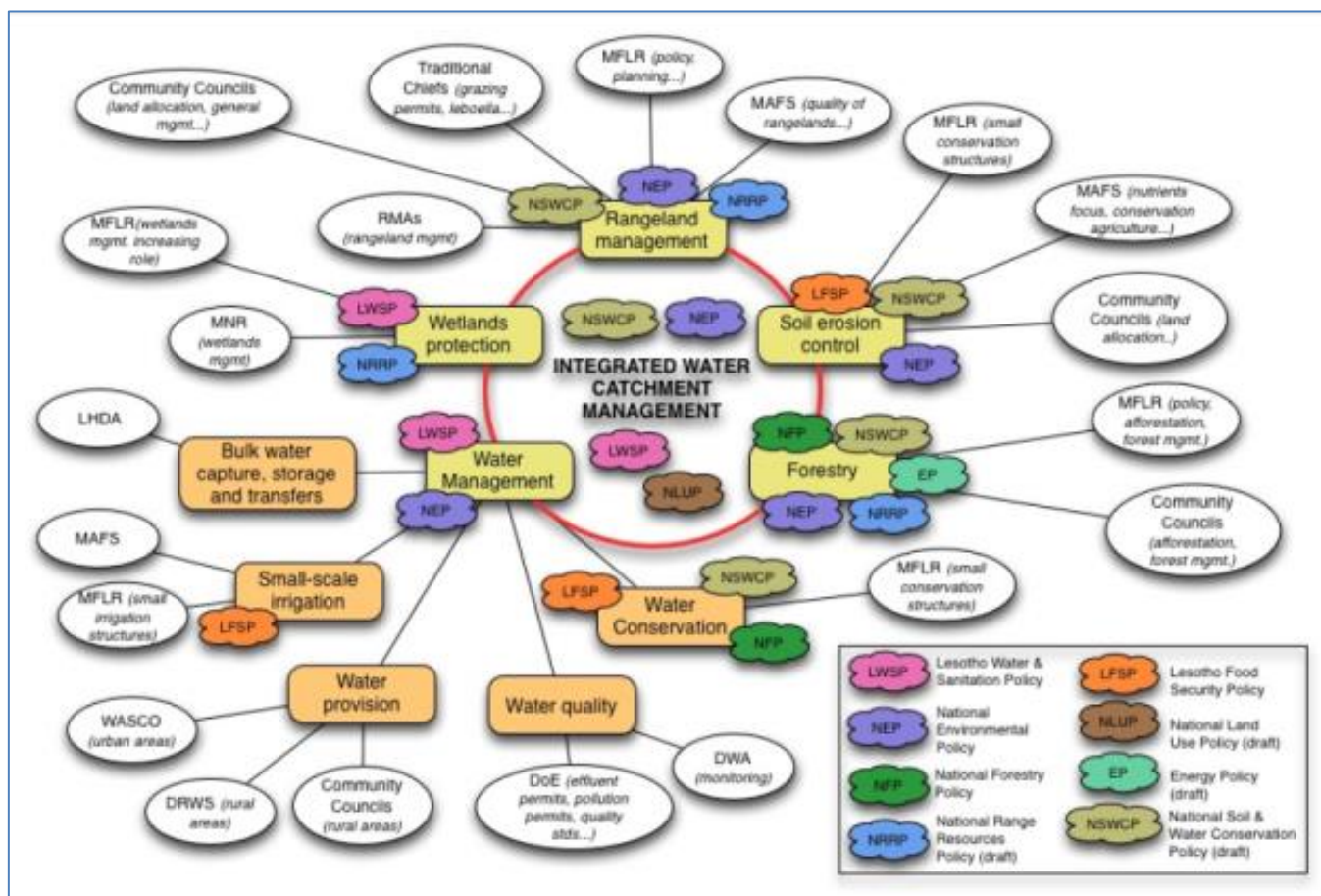
- Reduction of grazing intensity: Overgrazing is widely seen as the main cause of excessive erosion, in the Highlands, on the hill slopes and in some Lowland areas. This measure requires cooperation from all livestock owners and robust measures for compensation, regulation, monitoring and enforcement.
- Strip cropping: A system of alternation strips of crops and permanent grass, following contour lines, is amongst the most robust ways of soil conservation.
- Gully control: combination of construction of gabion dams, biological rehabilitation of gullies with grasses such as vetiver grass, local grasses and bamboo and construction of soil dams across the main drainage channels. The control measures needs to begin at the start of the gully to develop a continued cascade of erosion and water flow control measures.
- Selective and improved road construction: road drainage and culverts concentrate run-off and can cause erosion if not well designed.
- Hill slope forest planting: important for terrestrial ecosystems and biodiversity if native forests are rehabilitated or re-created and can also impact positively on fluvial dynamics and base flows to rivers, streams and wetlands.
- Runoff harvesting: could be both harvesting in soil dams in drainage channels or diverting slope runoff to an off-channel pond. The link to productive use of the harvested water can be an important factor in improving livelihoods in rural areas.
- Introduce payment for environmental services: both terrestrial, aquatic and wetlands ecosystems provide goods and services that have an economic value. Valuation of these should be undertaken and incentives for payment that can be used for further environmental protection.
- Enforce coordination on land allocation system: improved land administration is important to ensure access to land, water, pasture, woodland and wildlife for improved livelihood in

rural areas as well as reducing the sprawl development around towns that lead to land degradation.

- Improve awareness on environmental conservation, wetland and range management: both at community level, Local Council level and national level to create awareness about the short and long term impacts and benefits from sustainable environmental management.

Above examples illustrate the technical complexity of the activities to be taken into account as part of Integrated Catchment Management, which are further complicated due to the fact that several sectors are involved. Figure 3-1 below⁵ demonstrates the challenges related to Integrated Catchment Management in Lesotho and the multitude of sectors and stakeholders.

Figure 3-1: Components, Stakeholders and Policies an Integrated Catchment approach



3.1.3 Experiences on Catchment Management in Lesotho

The experiences from selected catchment management initiatives in Lesotho were assessed and the challenges and lessons learned are provided in detail in the supporting 'Report #4 Catchment Management'. The initiatives include the LHDA work on Integrated Catchment Management, the work of the Ministry of Forestry and Land Reclamation/ Department of Soil and Water Conservation and the Department of Range Management, the initiatives on wool and mohair by the Ministry of Trade and Industry, Cooperatives and Marketing, the Millennium

⁵ Source: Environmental Profile of Lesotho, EU, 2012

Challenge Account – Lesotho (MCA-L) supported wetlands activities and the Maloti Drakensberg Trans-frontier Conservation and Development Project.

The **challenges and lessons learned** from these experiences with the establishment of catchment management in Lesotho include:

- The need for linking the catchment management activities to improved livelihoods in the rural communities and economic development in general.
- The need for a longer term involvement and the limitations in the time-bound project approach.
- The challenges in coordination with Local Councils and different sector Ministries
- The important role of the Local Councils in development planning and the need for involvement of different line ministries.
- The need for awareness-raising at all levels.

3.1.4 Review of the Legal Framework governing Catchment Management

The review seeks to compare the various pieces of legislation with a view to identifying areas that are likely to create conflicts or which need improvement in order to establish consensus on a national strategy for integrated catchment management. The review is undertaken within the broad aims and objectives including principles embodied in the Lesotho Water and Sanitation Policy of 2007 and Water Act 2008 as well as other Policies.

The review is described in detail in the supporting ‘Report #4 Catchment Management’. It is clear that there is a need to harmonize local government legal framework with the water legislation in order to define the roles of the local authorities and the COW. Table 3-1 below summarizes the recommendations of the legal review.

Table 3-1: Summary of legal recommendations

Key Objectives	Short-Term Recommendations	Medium-Term Recommendations
To harmonize legal framework on local governance institutions and central governance institutions (COW) and To identify areas of conflicts of laws on functions and responsibilities	<ul style="list-style-type: none"> ✓ Introduce the proposed changes earliest in order to render local government system effective and efficient in catchment management ✓ Introduce catchment fee and use it to defray costs associated with catchment management 	<ul style="list-style-type: none"> ✓ Final legal amendments should be informed by agreed policy framework
To incorporate provisions of water legislation to form part of local government legal framework to mitigate against possible inconsistencies and conflicts	<ul style="list-style-type: none"> ✓ Amend Local Government Act 1997 	
To amend certain identified statutes to accommodate suggested changes	<ul style="list-style-type: none"> ✓ Use Water Act to amend identified statutes 	<ul style="list-style-type: none"> ✓ Comprehensive analysis of various statutes necessary to accommodate local government system

Key Objectives	Short-Term Recommendations	Medium-Term Recommendations
To articulate functions of local authorities in clear terms as they have now been broadened by the Water Act	<ul style="list-style-type: none"> ✓ Each local authority to perform all functions in one schedule ✓ Specify the functions of district council and those of local councils in relation to water use management and catchment management 	<ul style="list-style-type: none"> ✓ Make regulations specifying which Council performs specific functions

3.2 Options for Integrated Catchment Management in Lesotho

The following factors were considered when assessing the options for Integrated Catchment Management in Lesotho:

- The given hydrological boundaries for the main catchments in Lesotho (Senqu, Makhaleng, Mohokare (Caledon)).
- The need for further sub-division of the main catchments due to distribution and type of issues, logistical challenges (e.g. distances), population densities, other catchment related initiatives, etc.
- The existing capacity of the human resources at District and at Community Level
- The present stage of the on-going decentralisation process in Lesotho including the flow of funds from central to local level.
- The international agreement related to shared water resources e.g. ORASECOM.
- The likely available funding for initial investments (recruitments, capacity building and awareness campaigns) as well as future annual operation costs of the catchment management setup.
- The realistic modalities for efficient cooperation between involved Ministries and how they will be able to agree on and co-finance the Catchment Management Plans which are supposed to address aspects related to not only water resources, but also agriculture, energy (hydropower), environment and land reclamation.
- The capacity of the organisation leading the process of establishing the Catchment Management structures.

The options for Integrated Catchment Management described below have been developed in consultations with stakeholders and through the discussions from the Task Force Meetings.

3.2.1 Delineation of the Catchment Management Areas (CMA)

Three “hydrological independent” catchments exist in Lesotho. These are Senqu, Makhaleng and Mohokare Catchments, which are all sub-basins to the overall Orange-Senqu basin.

The Water Act states that the Local Authorities shall function as Managers for catchments and therefore the delineation of administrative and catchment boundaries is a challenge.

Figure 3-2 shows the main catchment boundaries together with the district boundaries and it is clear that the Senqu Catchment involves all 10 Districts of Lesotho while Makhaleng and Mohokare involve 6 and 3 respectively.

Figure 3-2: The three Main Catchments and District Boundaries

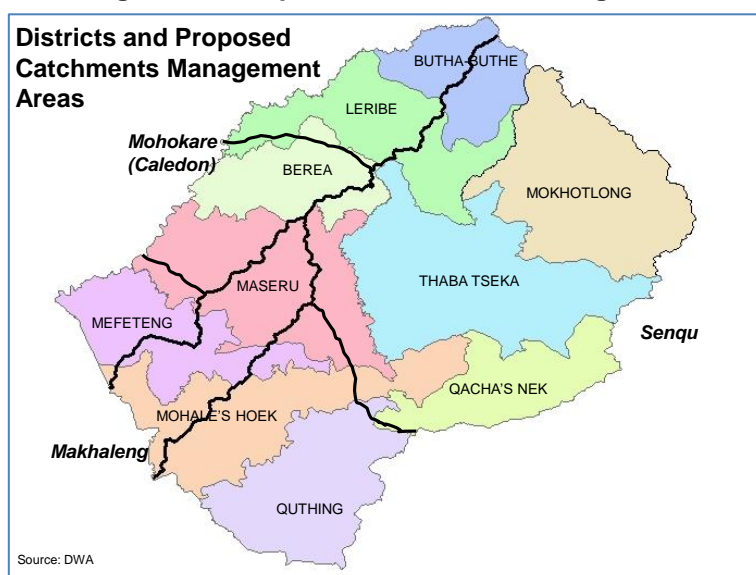
A further sub-division was assessed by the Task Force taking criteria into account such as distances and population density; on-going catchment initiatives (e.g. LHDA); type and density of issues (downstream Mohokare have more severe issues (drought, erosion, lack of vegetation) than upstream Mohokare; and district boundaries in order to reduce number of District per Catchment



Figure 3-3: Proposed Catchments Management Areas

Based on these criteria the proposed Catchment Management Areas would be as follows:

- Senqu Catchment has been divided into two sub-catchments: 1) Upper Senqu and 2) Lower Senqu. The main reasons for this are the huge area covered and the low population density. Further, the Upper part of the Catchment is more or less covered by the LHDA which is already engaged in catchment management activities.
- Mohokare Catchment has been divided into 3 “parallel” Catchment Management Areas:
 - 1) Upper Mohokare Catchment Area with more rainfall and few catchment issues;
 - 2) Central Mohokare Catchment Area with high urbanisation and related pollution problems; and
 - 3) Lower Mohokare Catchment Area with the drier areas and high land use stress around Mafeteng.
- Makhaleng Catchment Area is unchanged



3.2.2 The proposed initial model for Integrated Catchment Management in Lesotho

The Water Act provides guidance on the roles for Catchment Management: the Local Councils must prepare and implement catchment management plans with technical assistance provided

by the national ministries with expertise. The proposed organisation of the involved institutions and stakeholders are shown in Figure 3-4.

Figure 3-4: Catchment Management Institutions and stakeholders

The CMJC: The Catchment Management Joint Committee (CMJC) is the governing organ within the Catchment Area on all issues related to water resources and land use. It is composed by representatives of each of the involved Districts and will initially function according to the model for “Joint Committee” as provided for in the Local Government Act.

The responsibility of the Catchment Management Joint Committee is primarily to take decisions on water resource and land use issues according to national legislation and with advice from the national ministries. The CMJC will arrange for the preparation of the Catchment Management Plan and oversee its implementation.

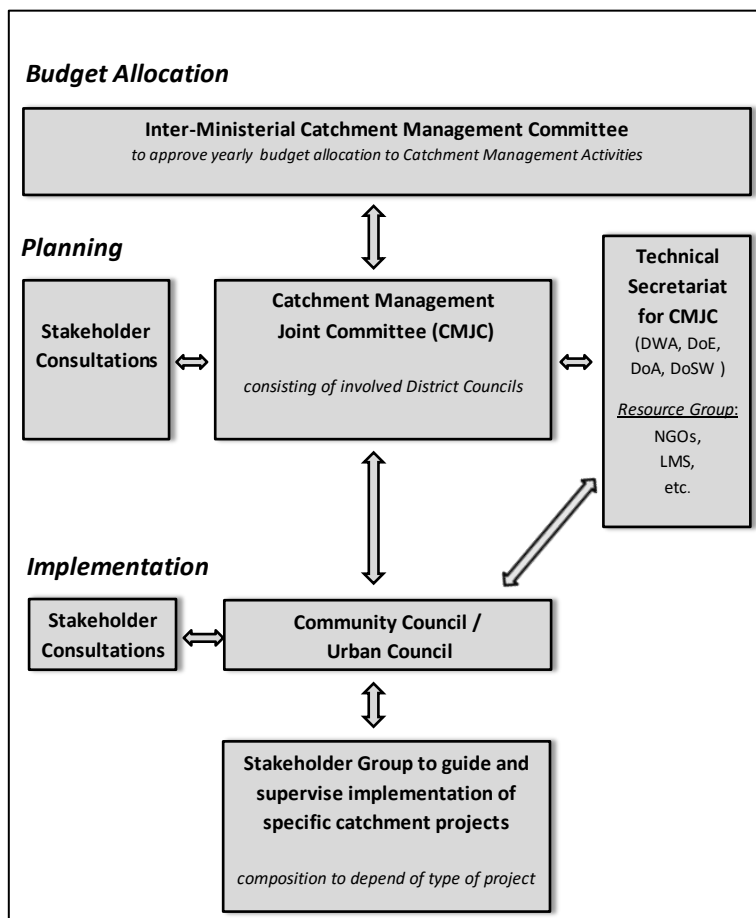
The CMJC will be supported by a Technical Secretariat to carry out the above technical tasks.

The Technical Secretariat will support the CMJC in its technical tasks such as:

- Monitoring of the water resources and the land use within the Catchment Management Area and preparing reports on the state of water resources and land cover.
- Defining the root causes for the water resource and land use issues and prepare Catchment Management and Development Plan to address the issues
- Facilitate stakeholder workshops on behalf of the CMJC to ensure an open dialogue and consensus on the issues, their causes, and actions to be implemented – including the prioritizing the actions.
- Prepare budget requests to the Inter-Ministerial Catchment Management Committee
- Provide support to Local Councils in implementation of the catchment activities including support to tendering procedures, technical and financial progress monitoring and establishing and organising project specific stakeholders groups to ensure local ownership.

The Technical Secretariat will initially be staffed with resource persons from Department of Water Affairs (DWA), Department of Environment (DoE), Agriculture and Land Reclamation. DWA will be the lead partner.

The Inter-Ministerial Catchment Management Committee: The Catchment Management Plan will not only contain “water activities”, but also activities which will directly concern (or



indirectly impact) the environment, agricultural practices, public health or land reclamation. For this reason an inter-ministerial committee shall be formed to ensure relevant funding to implement the Catchment Management Plan. The involved Ministries are expected to include the Ministries of ‘Finance’, ‘Health’, ‘Energy, Meteorology and Water Affairs’, ‘Land Reclamation and Forestry’, ‘Agriculture and Food Security’, and ‘Tourism, Environment and Culture’.

The role of the inter-ministerial Catchment Management Committee will be to allocate budget to the approved Catchment Management Plans of the various Catchment Management Areas. The committee is expected to meet once a year to: monitor progress on budget spending of the previous year and allocate budget for coming year based on applications and approved plans from the CMJCs. All Catchment Management Areas are expected to be dealt with during the same meeting. The Ministry of Energy, Meteorology and Water Affairs is expected to act as Secretary for the Inter-Ministerial Catchment Management Committee.

The Stakeholders at Catchment Level: All relevant stakeholders in a Catchments Management Area shall be invited to participate in presentations and discussions of the 1) State of the water resources and land cover and 2) Catchment Management Plans.

The CMJC will invite the stakeholders in the Catchment Management Area including the Local Councils; Ministries represented in the Catchment Management Area; interest groups (CBOs and NGOs) related to water, environment, health and economic development; infrastructure projects (e.g. dams, irrigation schemes) and other ongoing projects.

The Local Councils (Community Councils/ Urban Councils): The Local Councils will be the implementing authority for the activities of the Catchment Management Plan. The council may be assisted in this responsibility by the Technical Secretariat.

Besides implementing activities of the Catchment Management Plan the Local Council shall also report back to the Catchment Management Joint Committee on possible water resource and land issues within the council as well as their likely causes.

The Stakeholders at Local Council Level: Many of the stakeholders at the Local Council Level may very well be identical to those described for the catchment level. However, it is important that the Local Council demonstrates transparency on how they implement the catchment projects and on how they report back to the Catchment Management Joint Committee on possible water resource and land use issues.

It is recommended that the local council hosts a stakeholder meeting once a year on water resources and land use to inform on on-going and planned activities - and to listen and learn from the stakeholders. Local NGOs and interest groups are often very useful and constructive partners when making environmental, land use and water resource planning to the well-being of the local population.

Stakeholder Groups formed specifically for implementation of Catchment Projects: For some of the projects to be implemented by the Local Councils it may be relevant to form project specific stakeholder groups to guide and supervise the projects in order to ensure that these will be implemented in line with expectations of the local population and thus ensure ownership after installation and sustainability during the operation.

3.2.3 A possible future model for Integrated Catchment Management in Lesotho

The option of moving directly to a permanent institutional set-up for catchment management could be considered; however it was found appropriate to start by the “light version” model described above as an initial step to get experience in the coordination between the Local Councils and utilise the existing expertise in the national ministries.

A future more comprehensive setup for Integrated Catchment Management in Lesotho might be the longer term option. The more comprehensive model may look as follows:

Figure 3-5: Model for future Catchment Management

The **Technical Secretariat** will be converted *from* being an ad hoc support structure with staff presently employed at the central ministries *to* a permanent office with permanent staff headed by a “Catchment Secretary”.

With its own staff the Secretariat will be able to monitor land use and water resources, to make assessments and forecasting based on up-to-date assessment tools.

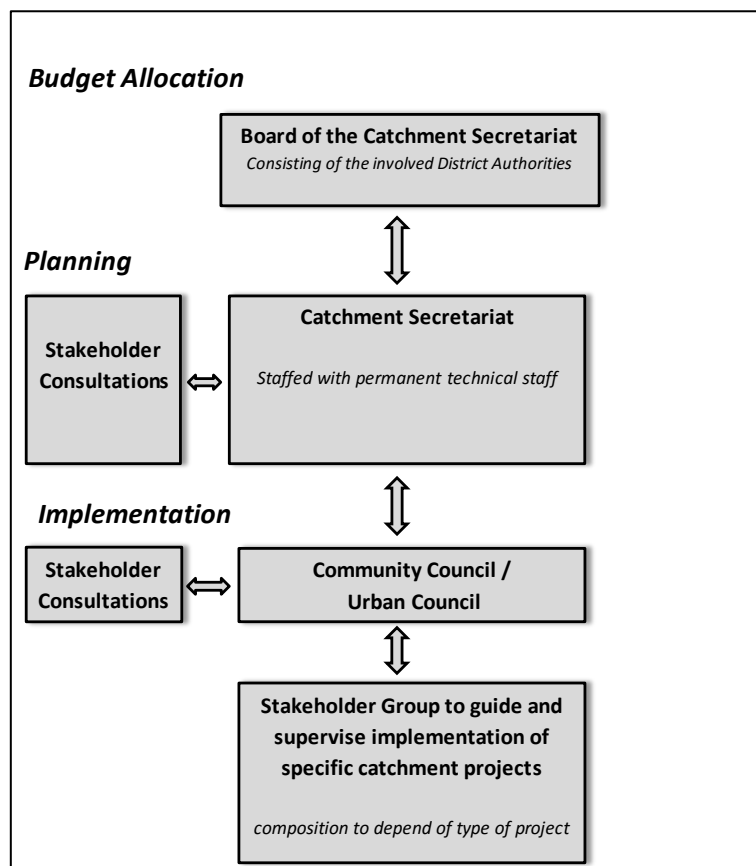
The Secretariat will have its own legal status and its Board will consist of representatives of the involved Districts. This Board will approve the Catchment Plan and funding of its activities.

The operation of the Catchment Secretariat and the funding of the Catchment Management Activities will be fully or partly funded by the water users and land users of the Catchments Area (those benefitting - on short or long term - of the services provided by the Secretariat to ensure protection of the environment and sustainable utilization of the resources as well as to prepare for future challenges (e.g. Climate Change)).

Government funding and/or external funding is expected to be obtained until the catchment management activities can be fully funded by the beneficiaries inside the Catchment Management Area. Figure 3-5 shows the possible future model based on “self-financing” and a permanent “Catchment Secretariat”.

3.2.4 The recurrent cost implications

The recurrent cost implications of the initial set-up with CMJC supported by Technical Secretariats with personnel from Sector Ministries are expected to be minimal. The model is simply a ‘cooperation model’ between existing institutions and will not in itself demand new staffing. The recurrent costs would thus be related to the facilitation of meetings, and office and transport operating expenses.



For the model to provide results, it is naturally a prerequisite that 1) there are qualified staff to provide the technical secretariat functions and this might need capacity building in DWA and the other national departments including a limited number of new positions; and 2) that there is funding available for carrying out the activities – both for improved monitoring of water and land resources, developing the catchment management plans and for implementing the plans.

Cost estimates for the capital costs of these activities are provided in ‘Annex C: WS Programme Annual Budgets’. The potential long-term benefits from the investment in catchment management are huge in terms of reduced environmental degradation, economic development based on the natural resources in the catchment areas, and improved water and food security. The development of Catchment Management Plans with specific development activities will make it possible to quantify the expected benefits from implementation of the plans.

The recurrent cost implications of the permanent more comprehensive set-up would be more substantial. The permanent secretariats might have an average staffing need of up to 10 professional staff with recurrent costs in the range of M3 – M4 million per secretariat annually – or about M25 million for all the catchment areas. The permanent secretariats will to some extent replace the present DWA monitoring activities and there would be a reduction in the DWA recurrent costs.

The funding model is expected to have a large degree of self-financing by payment for the use of the environmental resources in the catchment areas; however this could take time to achieve and in the interim there would be a need for Government funding of the Secretariats.

3.3 Goals for Key Focus Area I

The goals for Key Focus Area I in 2020 and 2030 are:

- 2020: Effective catchment management coordination structures will have been established and ‘Catchment Management and Development Plans’ have been formulated for all the catchments in Lesotho – Implementation of the plans has started.
- 2030: Implementation of catchment management and development plans has resulted positively in improved livelihood in rural areas, improved food security and improved water resources and environmental management.

3.4 Strategic Aim I.1: National consensus of the framework for Catchment Management

The collaboration by various stakeholders at national and local level is needed for catchment management to be effective and it is therefore important that national consensus is established so that all stakeholders contribute to the difficult task of changing the management of natural resources to a sustainable path.

The activities designed to achieve national consensus are described below:

3.4.1 Delineation of Catchment Management Areas in consultation with local councils and national departments

Scope of Work:

Activity	Responsible	Inputs
1. Preparation of GIS map showing the catchment areas in Lesotho and the Local Council boundaries and Principal Chief Areas	DWA	Data from Bureau of Statistics/ Land Authority on Local Council Boundaries and Cattle Post Areas DWA maps on catchment areas Professional staff time input
2. Consultations with the Ministry of Local Government and the Local Councils and Principal Chiefs on the demarcation of Local Council boundaries and the areas of jurisdiction of the Principal Chiefs in relation to the Catchment Management Areas	DWA	Transport and accommodation expenses for consultation with Local Councils and Chiefs Professional staff time input
3. Consultations with National Ministries (in particular Ministry of Land Reclamation and Forestry, Ministry of Agriculture and Food Security and the Department of Environment) on demarcation of Catchment Management areas	DWA	Transport for consultation with national ministries Professional staff time input
4. Finalising GIS map showing the catchment areas and the Local Council boundaries and Principal Chief Areas according to the agreed demarcation	DWA	DWA GIS for production of final maps showing the catchment areas and local boundaries Professional staff time input

Output: the output shall be a map showing the delineation of Catchment Areas and the Local Council areas and Principal Chief areas according to the consensus with all stakeholders. In case of disagreements on the demarcation, further consultations should be arranged and the demarcation discussed at a national workshop, possibly in conjunction with the workshop for consultation on the roles and responsibilities.

3.4.2 Institutional functional analysis for Catchment Management Institutions, agreement on structures for catchment management and development of staffing and capacity building plan

Scope of Work:

Activity	Responsible	Inputs
1. Preparation of TOR for Institutional Functional Analysis and Capacity Building Plan.	DWA	Professional staff time input
2. Procurement of Consultant for Institutional Functional Analysis	DWA	Funding for consultancy assignment Professional staff time input
3. Implementation of Institutional Functional Analysis including consultations and consensus building	Consultant reporting to DWA	Consultancy input, transport and accommodation for consultations, time of national government, local council staff and stakeholders for consultations Professional staff time input
4. National workshop for presentation of the result of the Institutional Functional Analysis and the Capacity Building Plan	Consultant reporting to DWA	Workshop expenses Professional staff time input

Key Points for Scope of Work for Consultancy Assignment:

- Study and documentation of Catchment Management experiences in neighbouring countries and internationally
- Analyse the Local Government Act, the Water Act, the Environment Act and other legal instruments related to catchment management
- Carry out consultations amongst National Ministries and other stakeholders on the roles of National Departments and Local Councils in Catchment Management
- Determine the functions and the detailed roles and responsibilities of CMJC, Technical Secretariats and National Departments in relation to catchment Management
- Determine the required professional expertise and number of the staff in the Technical Secretariats and carry out work load analysis
- Determine the linkages and communication lines to Communities, Local Councils, District Councils and national Departments
- Analyse the existing capacities in the Local and District Councils and the National Departments and identify the capacity building requirements
- Develop a capacity building plan for the District Councils, Local Councils, National Departments and other stakeholders including the training needs, the development of procedures and organisational structure, the transport and office requirements, computer hardware and software etc.
- Facilitation of national workshop for consensus building on results of analysis.

Output: Report on Institutional Functional Analysis and staffing. Capacity building plan

3.4.3 Amendments to the Legal Framework to clarify responsibilities and enable collection of water use charges

Scope of Work:

Activity	Responsible	Inputs
1. Consultations with Law Office and legal officers in Ministry of Local Government and other Ministries on the legal implications of catchment management and the implementation of water user fees	DWA and the MEMWA Legal Officer	Professional staff time inputs
2. Analysis and drafting of legal documents	MEMWA Legal Officer and Law Office	Professional staff time inputs
3. Processing and approval of documents for the amendments to the legal framework	MEMWA Legal Officer	Professional staff time inputs

Output: Amendment to Water Act and Local Government Act and other sector legislation as required.

Guidance Notes: detailed analysis of the legal framework and the required amendments is provided in ‘Report #4 Catchment Management’. In summary:

- There is a need to harmonize local government legal framework with the water legislation in order to define the roles of the local authorities and the COW. There are no serious conflicts, but there are areas that need harmonisation with the objective of retaining clarity.
- It is recommended that the Local Government Act of 1997 be amended to incorporate what is contemplated in sections 15 (3), 16 and 17 (2) of the Water Act. The amendment should be effected with the purpose of acknowledging the broadened mandate of the community councils in relation to water resources management, control and regulation especially in relation to catchment management plans and the use of water resources in the catchment area within their jurisdiction.
- The relationship between the COW and the local authorities must be clearly articulated. This requires a review of the functions of the COW as fully set out in section 8 and those of local authorities as fully set out in section 15 (3) of the Water Act. The role of the COW in developing and elaborating catchment management plans of local authorities is extremely important.
- The responsibilities of the District Council and the Local Council need revision to clearly define the responsibilities of the councils with regards to the catchment areas. It is not enough to contend that the district council consists of members of local councils because there is need to avoid duplicating of functions and sometimes unnecessary conflicts that might be brought about by the contentions for control of the water resources and the benefits they may bring.
- The role of chiefs will have been created should be considered. Although chiefs are part and parcel of the local authorities and/ or at least they are represented they have sought in the past to undermine efforts made by local authorities especially on land issues. The separate role of chiefs in ensuring the protection of the catchment areas under their jurisdiction is fundamental. Their role in educating their communities and representing their views at all levels should be acknowledged to avoid unnecessary potential conflicts in the future.

3.5 Strategic Aim I.2: Establishment of Catchment Management in Priority Areas

The testing in priority areas will be important to gain experience in the establishment of the coordination structures for catchment management in Lesotho and how the catchment planning and management activities can best be operationalised before application nationwide.

3.5.1 Agree on criteria and select one – three priority catchment areas and sensitising the local and national stakeholders

Scope of Work:

Activity	Responsible	Inputs
1. Develop TOR for Process Consultant to guide the process of selecting the priority catchment areas, carry out consultations and assist in the establishment of the CMJCs	DWA	Professional staff time input
2. Procurement of Process Consultant	DWA	Professional staff time input
3. Develop selection criteria in consultation with stakeholders	Consultant reporting to DWA	Consultancy input and travel expenses for consultations Professional staff time input
4. Workshop with national and local council stakeholders for sensitising and awareness raising on Catchment Management and selection of priority catchments	Consultant reporting to DWA	Consultancy input and Workshop expenses Professional staff time input
5. Documentation of results in report	Consultant reporting to DWA	Professional staff time input

Output: Report on selection criteria and the justification of selection of the priority areas

Key Points for Scope of Work for Consultancy Assignment:

- Study background information and documentation of Catchment Management
- Consult with key stakeholders at national and local level and formulate criteria for selection of priority Catchment Areas
- Arrange and facilitate workshop for awareness raising and selection of priority Catchment Areas using the criteria
- Document workshop results in report on selection of priority Catchment Areas

The TOR for the Process Consultant could include continued support the district councils in the priority Catchment Areas to establish CMJCs and the development of procedures as described in the activities below.

3.5.2 Establish the Catchment Management Joint Committees (CMJCs) in the priority areas

Scope of Work:

Activity	Responsible	Inputs
1. Support to the involved Local Councils and Principle Chiefs guided by MLG negotiate and agree on membership and establishment of the CMJCs	Consultant reporting to DWA	Consultancy input and travel expenses for consultations Professional staff time input from DWA, MLG and other line ministries. Local Councillors' inputs and expenses for meetings
2. Develop procedures and regulations for the CMJCs in cooperation with the Local Councils and MLG	Consultant reporting to DWA	Consultancy input and travel expenses for consultations Professional staff time input from DWA, MLG and other line ministries. Local Councillors' inputs and expenses for meetings
3. Document the agreed procedures and regulations in report	Consultant reporting to DWA	Consultancy input Professional staff time input

Output: Document on membership, procedures and regulations for CMJCs

Key Points for Scope of Work for Process Consultancy Assignment:

- Support to the District Councils and MLG for the establishment of CMJCs
- Development of procedures for selection of membership, conduct of meetings and regulations for the CMJC
- Document the results in a report to form part of guidelines for the establishment of other CMJCs.

3.5.3 Establish mechanism to be able to recover fees from land and water users in the catchment areas to be used directly for the catchment management

Scope of Work:

Activity	Responsible	Inputs
1. Consultation with stakeholders on the benefits of water and land use fees and which activities should be included (tourism, commercial use, mining) and how to ensure that the collected fee stays in the catchment and will be used for the catchment management	DWA and MEMWA Legal Officer	Professional staff time input from MEMWA, DWA, MLG and other line ministries. Travelling and accommodation expenses for consultations Local Councillors' inputs and expenses for meetings
2. Development of draft regulations for administration of fees including collection, criteria for use of fees (common national fund or local) and decision making	DWA and MEMWA Legal Officer	Professional staff time input from MEMWA and DWA
3. Presentation of draft regulations and procedures for collection and use of the water use fees to stakeholder workshop	DWA and MEMWA Legal Officer Workshop facilitator	Professional staff time input from MEMWA and DWA Workshop expenses
4. Legal process of approval and publication of regulations	MEMWA Legal Officer and Law Office	Professional staff time input from MEMWA and Law Office

Output: regulations for collection of water and land use fees published in Government Gazette.

Guidance Notes: The regulations for collection of fees for water use need to be socially just and practical while at the same time fulfil the role of raising funding for catchment management and regulating the use of water resources. Some of the considerations include:

- The regulations for collection of fees for water uses should not include too many water uses of small quantity that would not contribute significant revenue in proportion to the cost of collection.
- The LWSP emphasises the free access to water for basic human consumption and the basic consumption can therefore not be included in the collection of water use fees.
- Water is an economic goods and use of water e.g. above the need for subsistence farming and livestock could be the areas where water use charges would focus.
- Water use charges therefore need to focus on the major water uses such as major irrigation schemes, major abstractions for urban water services. The consumptive use of water resources for hydropower generation (evaporation from dams) could be a major source of water use revenue.
- The bulk water exports from Lesotho is a major area that would need to be considered and how application of water use fees could assist in providing sustainable finance for water resource management activities.
- The ideal should be that the water use fees are used in the catchment where the funds are generated, however in the Lesotho context this might lead to inequalities in access to funding where it is mostly needed (dry lowland areas) compared to where it is mainly generated (highlands).

3.5.4 Establish Technical Secretariats for the CMJCs

Scope of Work:

Activity	Responsible	Inputs
1. Re-organising the existing DWA regional offices to function as Technical Secretariats for the priority CMJCs The Secretariats initially staffed with personnel undertaking the water resources monitoring work in the catchment area according to DWA procedures and guidelines	DWA	Professional staff time input from DWA Travelling and accommodation expenses for consultations
2. Logistic arrangements with the involved District Councils and establishment of office facilities for the Technical Secretariats	DWA	Professional staff time input from DWA Travelling and accommodation expenses for consultations Cost of establishing office facilities for Technical Secretariats
3. Arrangements with other line Ministries (agriculture, forestry and land reclamation, environment and tourism etc.) important for catchment management for professional staff inputs to the Technical Secretariats	DWA in consultation with other line ministries	Professional staff time input from DWA and other line ministries
4. Training of Technical Secretariat staff in the Catchment Management Activities using the Catchment Management Guidelines (see activity 3.7.1). Training the Technical Secretariat Staff in methodologies for preparation of 'Water Resources Assessment and Land Use Report' and the preparation of catchment management and development plans	DWA in consultation with other line ministries Training consultant	Training consultancy inputs and Professional staff time input from DWA and other line ministries

Output: functional technical secretariats established for the priority CMJCs

Guidance Notes: the Technical Secretariats would carry out the present DWA functions such as operation and maintenance of the monitoring networks and data collection from the field.

These functions therefore need to be carefully considered as compared to the national functions of the DWA to ensure effective linkages.

This will be addressed under Strategic Aim II.2 activity II.2.1 Function analysis for the DWA/LMS functions and development of capacity building plan.

3.5.5 Prepare ‘Water Resources Assessment and Land Use Report’ for the priority Catchment Management Areas and conduct stakeholder consultations

Scope of Work:

Activity	Responsible	Inputs
1. Develop TOR for the preparation of first versions of the ‘Water Resources Assessment and Land Use Report’ for the priority catchment areas	DWA in consultation with CMJCs and Technical Secretariats	Professional staff input from DWA, other line ministries, Technical Secretariats and District Councils
2. Procurement of Consultant	DWA/ CMJCs	Professional staff input from DWA, and District Councils
3. Collection and compilation of existing spatial data and design/ programming of GIS set-up (GIS data from DWA water resources data base, agricultural land use survey, water systems, water harvesting, BOS socio-economic data, etc.)	Consultant in cooperation with Technical Secretariat	Consultancy input and Professional staff input from Technical Secretariats and Local Councils DWA GIS staff inputs
4. Field surveys for verification and additional data collection resulting in an inventory of the land use and water resource issues and their causes	Consultant in cooperation with Technical Secretariat	Consultancy input and Professional staff input from Technical Secretariats Transport and accommodation for consultations and GPS surveys. GPS and Computer hard/ software
5. Preparation of report and consultations with District Planning Units and other stakeholders for verification and further development of report to improve use of the report	Consultant in cooperation with Technical Secretariat	Consultancy input and Professional staff input from Technical Secretariats and Local Councils
6. Consultation with stakeholder for validation of data and the report Final approval by the CMJC for the respective Catchment Area	Consultant in cooperation with Technical Secretariat CMJCs	Consultancy input and Professional staff input from Technical Secretariats and Local Councils

Output: ‘Water Resources Assessment and Land Use Report’ published for each priority Catchment Management Area.

Key Points for Scope of Work for Process Consultancy Assignment:

- Develop scope/ content for ‘Water Resources Assessment and Land Use Report’
- Work with DWA GIS Unit to design GIS for Catchment Area and collect data from other line ministries and BOS
- Work with Technical Secretariats and Local Councils to collect additional field data
- Compile report and present to stakeholders for verification
- Final presentation of report to the CMJC

3.5.6 Prepare ‘Catchment Management and Development Plan’ in consultation with stakeholders

Scope of Work:

Activity	Responsible	Inputs
1. Develop TOR for the preparation of first versions of the ‘Catchment Management and Development Plan’ for the priority catchment areas	DWA in consultation with CMJCs and Tech. Sec.	Professional staff input from DWA, other line ministries, Technical Secretariats and District Councils
2. Procurement of Consultant	DWA/ CMJCs	Professional staff input from DWA, and District Councils
3. Consultations with Local Councils, District Planning Units, communities and stakeholders on visions and plans in the Catchment Area and priorities	Consultant in cooperation with Tech. Sec	Consultancy input Professional staff input from Tech. Sec and Local Councils Transport and accommodation expenses for consultations
4. Preparation of the draft Plan and presentation to CMJC for comments.	Consultant in cooperation with Tech. Sec	Consultancy input and Professional staff input from Tech. Sec. DWA GIS staff inputs
5. Consultation workshop for stakeholder for presentation of the Plan and validation of the priorities. Final approval by the CMJC for the respective Catchment Area	Consultant in cooperation with Tech. Sec CMJCs	Consultancy input and Professional staff input from Tech. Sec and Local Councils Workshop expenses
6. Publishing the ‘Catchment Management and Development Plan’	CMJC	Printing and dissemination expenses

Output: ‘Catchment Management and Development Plan’ approved and published for each of the priority Catchment Management Areas.

Key Points for Scope of Work for Planning Consultancy Assignment:

- Develop scope/ content for ‘Catchment Management and Development Plan’
- Consultations with Local Councils, District Planning Units, communities and stakeholders on visions and plans for physical and economic development activities e.g. production and manufacturing, tourism, agriculture, irrigation, livestock, forestry, use of natural resources, mining, extraction of stone, sand and gravel, etc.
- Consultation on the priorities to be included in the Plan based on the ‘Water Resources Assessment and Land Use Report’
- Preparation of the draft Plan utilising the GIS established for the ‘Water Resources Assessment and Land Use Report’ to bring the Local Council and sector plans into a common framework. The Plan should include the physical development activities as well as the capacity building and awareness raising activities including the establishment and capacity building of local catchment management committees and water user associations to plan, implement and manage local level use of natural resources
- Identification of indicators and preparation of monitoring plan for implementation
- Identification of possible funding sources for the different aspects of the plan
- Presentation of the plan to CMJC for comments.
- Consultation workshop for stakeholder for presentation of the Plan and validation of the priorities.
- Final approval by the CMJC for the respective Catchment Area
- Publishing the ‘Catchment Management and Development Plan’

3.5.7 Obtain financing for proposed Catchment Management and Development activities and implement these activities through Local Councils and communities including capacity building activities

Scope of Work:

Activity	Responsible	Inputs
1. Presentation of the 'Catchment Management and Development Plan' to the Inter-Ministerial Catchment Management Committee for allocation of budget needed to implement the activities of the Plan	CMJC	Professional staff input and meeting expenses
2. Mobilising finance from various sources (local, national and international)	CMJC and national departments	Professional staff input and meeting expenses
3. Implementation of the catchment management and development plans by the Local Councils, communities, private sector and other stakeholders	Local Councils and Tech. Sec. and other implementers	Funding for implementation of the 'Plan' Professional Staff input, transport and expenses for work by line Ministries, Local Councils, consultants and contractors for supervision of implementation.
4. Monitoring the implementation and the results of the Catchment Management activities on the economic development and livelihoods in the Catchment Area. Documentation of monitoring in Annual Reports	CMJC Tech. Sec.	Tech. Sec. Professional Staff Input for monitoring

Output: Economic development and improved livelihood in communities as a result of implementation of the catchment management and development plans. Monitoring reports on the implementation of the 'Plans'.

Guidance Notes: Presently budgets for Catchment management activities are included in the budgets for different sector ministries and appropriate coordination mechanisms need to be in place to ensure effective use of funding. This could be in the form of an Inter-ministerial Committee to ensure that funding from the various involved ministries would be made available or the coordination could be handled by Cabinet.

Implementation will range from major infrastructure (e.g. multi-purpose dams and bulk water infrastructure to be done by National level Project Implementation Units) to local and community level activities (to be done by Local Councils and Catchment Area Stakeholders) on rain-water harvesting and natural resources management linked to agricultural production and other productive use of water and natural resources. Where a project area extends into two or more Local Councils the involved Councils will form a Joint Committee (as provided for in the Local Government Act) to manage the implementation of the project and, when relevant, the operation after the implementation. In addition to the involvement of the Local Councils (or Joint Committee of Local Councils) also specific Stakeholder Groups can be formed to guide and supervise a specific catchment project (e.g. villages related to the land area to be restored).

The CMJCs will monitor and supervise the implementation in collaboration with the line ministries within their fields of expertise.

3.5.8 Monitor performance of activities, carry out evaluation and document the lessons learned and assessment of sustainability of the Catchment Management Activities

Scope of Work:

Activity	Responsible	Inputs
1. Develop TOR for an independent evaluation of the results of the implementation of the 'Catchment Management and Development Plan' for the priority catchment areas	DWA in consultation with CMJCs and Tech. Sec.	Professional staff input from DWA, other line ministries, Technical Secretariats and District Councils
2. Procurement of Consultant	DWA/ CMJCs	Professional staff input from DWA, and District Councils
3. Assessment of Local Council and line Ministries monitoring data and verification and collection of additional data for evaluating the successes, failures and challenges in the implementation of the Catchment Management activities and the prospects for sustaining the catchment management activities.	Consultant reporting to DWA	Consultancy inputs Transport and accommodation expenses for consultations. Professional staff input from DWA, other line ministries, Technical Secretariats and District Councils
4. Documentation of the findings in an Evaluation Report and presentation to stakeholders at a workshop designed to draw conclusions and lead to adjustment of the approach and wider application		Workshop expenses

Output: Evaluation Report on the priority Catchment Management Activities

Key Points for Scope of Work for Evaluation Consultancy Assignment:

- Assessment of background documentation and in particular the 'Water Resources Assessment and Land Use Reports' and the 'Catchment Management and Development Plans' for the priority catchment areas
- Collection and assessment of implementation and monitoring data according to the monitoring plan from the Local Councils, line ministries and Technical Secretariats
- Consultations with Local Councils, District Planning Units, communities and stakeholders on outcomes of the implementation of the plans and the impact on livelihoods and economic development.
- Preparation of evaluation report
- Presentation of evaluation results to a Stakeholder Workshop
- Final documentation of the outcome of the evaluation and the workshop and lessons learned for adjustment of the approach to Catchment Management in the other catchments in Lesotho.

3.6 Strategic Aim I.3: Expand to all Catchment Areas

The outcome of the Catchment Management activities in the priority Catchment Areas will result in adjusted guidelines and plans for how the catchment management activities can best be organized in Lesotho. These adjusted plans will be implemented in the priority catchment areas as well as in the remaining catchment areas in the country. In the following description it is assumed that the establishment of joint committees by the Local Councils will remain the cornerstone of the Catchment Management organizational set-up.

3.6.1 Adjust the organisational setup and flow of funding as per lessons learned during the testing

Scope of Work:

Activity	Responsible	Inputs
1. Develop TOR for revision of Catchment Management Guidelines	DWA in consultation with CMJCs and Tech. Sec.	Professional staff input from DWA, other line ministries, Technical Secretariats and District Councils
2. Procurement of Consultant	DWA/ CMJCs	Professional staff input from DWA, and District Councils
3. Revise the guidelines for establishment, funding and organisational development of the organisations for catchment management based on the evaluation of the priority Catchment Management activities	Consultant reporting to DWA	Consultant input Professional staff input from DWA, other line ministries, Technical Secretariats and District Councils
4. Consultations with CMJCs, Technical Secretariats, Local Councils and line ministries on the revised guidelines	Consultant reporting to DWA	Consultant input Professional staff input from DWA, other line ministries, Technical Secretariats and District Councils
5. Preparation of revised Guidelines and presentation to stakeholder workshop	Consultant reporting to DWA	Workshop expenses for presentation and discussion of the revised guidelines
6. Publishing the revised Guidelines	Consultant reporting to DWA	Cost of printing and dissemination.

Output: Revised guidelines on the establishment of catchment management organisations in Lesotho

Key Points for Scope of Work for Consultancy Assignment: The consultancy for updating the guidelines could be a continuation of the consultancy for evaluating the results of the catchment management activities in the priority areas (see 3.5.8 above) to benefit from the insight gained through the evaluations. The additional scope of works would include:

- Assessment of evaluation report on the outcome of the Catchment Management Activities in the priority catchments and the existing Catchment Management Guidelines
- Consultation with CMJCs, Technical Secretariats, Local Councils and communities on the aspects of the guidelines to be revised
- Preparation of revised Guidelines
- Presentation to a stakeholder workshop and finalising and publishing the revised guidelines.

3.6.2 Establish CMJCs for remaining Catchment Management Areas

Scope of Work:

Activity	Responsible	Inputs
1. Support to the involved Local Councils and Principle Chiefs guided by MLG negotiate and agree on membership and establishment of the CMJCs	Consultant reporting to DWA	Consultancy input and travel expenses for consultations Professional staff time input from DWA, MLG and other line ministries. Local Councillors' inputs and expenses for meetings
2. Develop procedures and regulations for the CMJCs in cooperation with the Local Councils and MLG	Consultant reporting to DWA	Consultancy input and travel expenses for consultations Professional staff time input from DWA, MLG and other line ministries. Local Councillors' inputs and expenses for meetings
3. Document the agreed procedures and regulations in report	Consultant reporting to DWA	Consultancy input Professional staff time input

Output: Document on membership, procedures and regulations for CMJCs (or similar set-up according to the revised guidelines).

Key Points for Scope of Work for Process Consultancy Assignment:

The Consultancy for supporting the establishment of the CMJCs could be arranged as a continuation of the consultancy for revising the guidelines to benefit from the insight into the experiences with the functioning of the CMJCs in the priority Catchment Areas. The additional points of the Scope of work would include:

- Support to the District Councils and MLG for the establishment of CMJCs
- Development of procedures for selection of membership, conduct of meetings and regulations for the CMJC based on the revised guidelines

3.6.3 Establish Technical Secretariats for the CMJCs

Scope of Work:

Activity	Responsible	Inputs
1. Re-organising the existing DWA regional offices to function as Technical Secretariats for the CMJCs. The Secretariats initially staffed with personnel undertaking the water resources monitoring work in the catchment area according to DWA procedures and guidelines	DWA	Professional staff time input from DWA Travelling and accommodation expenses for consultations
2. Logistic arrangements with the involved District Councils and establishment of office facilities for the Technical Secretariats	DWA	Professional staff time input from DWA Travelling and accommodation expenses for consultations Cost of establishing office facilities for Technical Secretariats
3. Arrangements with other line Ministries (agriculture, forestry and land reclamation, environment and tourism etc.) important for catchment management for professional staff inputs to the Technical Secretariats	DWA in consultation with other line ministries	Professional staff time input from DWA and other line ministries
4. Training of Technical Secretariat staff in the revised Catchment Management Activities using the Catchment Management Guidelines (see activity 3.6.1). Training the Technical Secretariat Staff in methodologies for preparation of 'Water Resources Assessment and Land Use Report' and the preparation of catchment management and development plans	DWA in consultation with other line ministries Training consultant	Training consultancy inputs and Professional staff time input from DWA and other line ministries

Output: functional technical secretariats established for all the CMJCs.

Key Points for Scope of Work for Process Consultancy Assignment:

The Consultancy for training of Technical Secretariat staff could be arranged as a continuation of the consultancy for revising the Catchment Management guidelines to benefit from the insight into the experiences with the functioning of the CMJCs in the priority Catchment Areas. The additional points of the Scope of work would include:

- Training of Technical Secretariat staff in the Catchment Management activities
- Training in the Preparation of the 'Water Resources Assessment and Land Use' Report
- Training in the preparation of the 'Catchment Management and Development Plan' including training in monitoring the implementation of the plans

Notes: The Secretariats will initially be staffed with personnel undertaking the water resources monitoring work in the catchment area according to DWA procedures and guidelines. Competencies gradually increased to include contribution to preparation of catchment management and development plans.

3.6.4 Prepare ‘Water Resources Assessment and Land Use Report’ for the Catchment Management Areas and conduct stakeholder consultations

Scope of Work:

Activity	Responsible	Inputs
1. Develop TOR for the preparation of first versions of the ‘Water Resources Assessment and Land Use Report’ for the remaining catchment areas	DWA in consultation with CMJCs and Technical Secretariats	Professional staff input from DWA, other line ministries, Technical Secretariats and District Councils
2. Procurement of Consultant	DWA/ CMJCs	Professional staff input from DWA, and District Councils
3. Collection and compilation of existing spatial data and design/ programming of GIS set-up (GIS data from DWA water resources data base, agricultural land use survey, water systems, water harvesting, BOS socio-economic data, etc.)	Consultant in cooperation with Technical Secretariat	Consultancy input and Professional staff input from Technical Secretariats and Local Councils DWA GIS staff inputs
4. Field surveys for verification and additional data collection resulting in an inventory of the land use and water resource issues and their causes	Consultant in cooperation with Technical Secretariat	Consultancy input and Professional staff input from Technical Secretariats Transport and accommodation for consultations and GPS surveys. GPS and Computer hard/ software
5. Preparation of report and consultations with District Planning Units and other stakeholders for verification and further development of report to improve use of the report	Consultant in cooperation with Technical Secretariat	Consultancy input and Professional staff input from Technical Secretariats and Local Councils
6. Consultation with stakeholder for validation of data and the report Final approval by the CMJC for the respective Catchment Area	Consultant in cooperation with Technical Secretariat CMJCs	Consultancy input and Professional staff input from Technical Secretariats and Local Councils

Output: ‘Water Resources Assessment and Land Use Report’ published for each of the remaining Catchment Management Area.

Key Points for Scope of Work for Consultancy Assignment:

- Assessment of experiences in priority catchment areas with the preparation of the ‘Water Resources Assessment and Land Use Report’ and revise the scope/ content based on experiences
- Work with DWA GIS Unit to design GIS for Catchment Area and collect data from other line ministries and BOS
- Work with Technical Secretariats and Local Councils to collect additional field data
- Compile report and present to stakeholders for verification
- Final presentation of report to the CMJC

3.6.5 Prepare ‘Catchment Management and Development Plans’ in consultation with stakeholders

Scope of Work:

Activity	Responsible	Inputs
1. Develop TOR for the preparation of first versions of the ‘Catchment Management and Development Plan’ for the remaining catchment areas	DWA in consultation with CMJCs and Tech. Sec.	Professional staff input from DWA, other line ministries, Technical Secretariats and District Councils
2. Procurement of Consultant	DWA/ CMJCs	Professional staff input from DWA, and District Councils
3. Consultations with Local Councils, District Planning Units, communities and stakeholders on visions and plans in the Catchment Area and priorities	Consultant in cooperation with Tech. Sec	Consultancy input Professional staff input from Tech. Sec and Local Councils Transport and accommodation expenses for consultations
4. Preparation of the draft Plan and presentation to CMJC for comments.	Consultant in cooperation with Tech. Sec	Consultancy input and Professional staff input from Tech. Sec. DWA GIS staff inputs
5. Consultation workshop for stakeholder for presentation of the Plan and validation of the priorities. Final approval by the CMJC for the respective Catchment Area	Consultant in cooperation with Tech. Sec CMJCs	Consultancy input and Professional staff input from Tech. Sec and Local Councils Workshop expenses
6. Publishing the ‘Catchment Management and Development Plan’	CMJC	Printing and dissemination expenses

Output: ‘Catchment Management and Development Plan’ approved and published for each of the remaining Catchment Management Areas.

Key Points for Scope of Work for Planning Consultancy Assignment:

- Review the experiences and the scope/ content for the ‘Catchment Management and Development Plan’ in the priority areas and revise according to experiences
- Consultations with Local Councils, District Planning Units, communities and stakeholders on visions and plans for physical and economic development activities.
- Consultation on the priorities to be included in the Plan based on the ‘Water Resources Assessment and Land Use Report’
- Preparation of the draft Plan utilising the GIS established for the ‘Water Resources Assessment and Land Use Report’ to bring the Local Council and sector plans into a common framework. The Plan should include the physical development activities as well as the capacity building and awareness raising activities including the establishment and capacity building of local catchment management committees and water user associations to plan, implement and manage local level use of natural resources
- Identification of indicators and preparation of monitoring plan for implementation
- Identification of possible funding sources for the different aspects of the plan
- Presentation of the plan to CMJC for comments.
- Consultation workshop for stakeholder for presentation of the Plan and validation of the priorities.
- Final approval by the CMJC for the respective Catchment Area
- Publishing the ‘Catchment Management and Development Plan’.

3.6.6 Obtain financing for proposed Catchment Management activities and implement these activities through Local Councils

Scope of Work:

Activity	Responsible	Inputs
1. Presentation of the 'Catchment Management and Development Plan' to the Inter-Ministerial Catchment Management Committee for allocation of budget needed to implement the activities of the Plan	CMJC	Professional staff input and meeting expenses
2. Mobilising finance from various sources (local, national and international)	CMJC and national departments	Professional staff input and meeting expenses
3. Implementation of the catchment management and development plans by the Local Councils, communities, private sector and other stakeholders	Local Councils and Tech. Sec. and other implementers	Funding for implementation of the 'Plan' Professional Staff input, transport and expenses for work by line Ministries, Local Councils, consultants and contractors for supervision of implementation.
4. Monitoring the implementation and the results of the Catchment Management activities on the economic development and livelihoods in the Catchment Area. Documentation of monitoring in Annual Reports	CMJC Tech. Sec.	Tech. Sec. Professional Staff Input for monitoring

Output: Economic development and improved livelihood in communities as a result of implementation of the catchment management and development plans. Monitoring reports on the implementation of the 'Plans'.

Guidance Notes: the arrangements for financing the implementation of the 'Catchment Management and Development Plans' will benefit from the experiences in the priority Catchment Areas. It is expected that at the stage where the Catchment Management Activities are initiated in all the Catchment Areas, that the national coordination mechanisms are functioning to ensure effective allocation and use of funding.

The CMJCs will monitor and supervise the implementation in collaboration with the line ministries within their fields of expertise.

3.7 Strategic Aim I.4: Capacity for Catchment management

The establishment of an organizational set-up for Catchment Management will be a new activity in Lesotho and it will be important to systematically collect the experiences and share the lessons learned through continued development and update of ‘Catchment Management Guidelines’ that will assist the many diverse stakeholders in working together in a coherent approach.

3.7.1 Development of Catchment Management Guidelines (include format and tools for Reports and Plans, Monitoring and Reporting) and programme for capacity building in application of guidelines

Scope of Work:

Activity	Responsible	Inputs
1. Develop TOR for the preparation of the ‘Catchment Management Guidelines’	DWA in consultation with Councils	Professional staff input from DWA, other line ministries, and District Councils
2. Procurement of Consultant	DWA	Professional staff input from DWA, and District Councils
3. Collection of lessons learned from catchment management activities in the region and internationally	Consultant reporting to DWA	Consultants input
4. Development of ‘Catchment Management Guidelines’ that specifically addresses the situation in Lesotho	Consultant reporting to DWA	Consultants input
5. Consultation on the content of the Guidelines with Local Councils and national level stakeholders	Consultant reporting to DWA	Consultants input Professional staff input Travel and accommodation expenses for consultations
6. Preparation of draft Guidelines and presentation of the guidelines to a stakeholder workshop.	Consultant reporting to DWA	Consultants input Professional staff input and workshop expenses
7. Development of programme for awareness raising and capacity building in the use and application of the Guidelines	Consultant reporting to DWA	Consultants input Professional staff input

Output: ‘Catchment Management Guidelines’ published

Key Points for Scope of Work for Consultancy Assignment:

- Collection of lessons learned from catchment management activities in the region and internationally
- Development of a set of ‘Catchment Management Guidelines’ that specifically addresses the situation in Lesotho in terms of organisational set-up, topographical and environmental conditions, socio-economic conditions, technology, etc.
- Consultation on the content of the Guidelines with Local Councils and national level stakeholders
- Preparation of draft Guidelines and presentation of the guidelines to a stakeholder workshop.
- Development of programme for awareness raising and capacity building of the various stakeholders in the use and application of the Guidelines.

3.7.2 Implementation of programme for awareness raising and capacity building in application of the Catchment Management Guidelines

Scope of Work:

Activity	Responsible	Inputs
1. Develop TOR for the implementation of awareness raising and capacity building programme	DWA in consultation with Councils	Professional staff input from DWA, other line ministries and District Councils
2. Procurement of Consultant	DWA	Professional staff input from DWA, and District Councils
3. Implementation of the capacity building and awareness raising activities as stipulated in the capacity building plan.	Consultant reporting to DWA	Consultants input Cost of training and awareness activities Cost of tools and equipment for stakeholders at national and Local Council Level
4. Arrange for study tours to take advantage of experiences gained elsewhere in catchment management.	Consultant reporting to DWA	Consultants input Cost of study tours Professional staff input
5. Arrange for scholarships for training of key staff in catchment management methodologies and specific approaches	Consultant reporting to DWA	Consultants input Cost of scholarships Professional staff input
6. Preparation of report on results of the capacity building activities	Consultant reporting to DWA	Consultants input

Output: Increased capacity for implementation of Catchment Management Activities. Report on capacity building activities

Key Points for Scope of Work for Consultancy Assignment:

The consultancy could be arranged as continuation of the consultancy for development of the Catchment Management Guidelines to benefit from the insight gained. The additional points in the scope of work would include

- Implementation of the capacity building and awareness raising activities as stipulated in the capacity building plan. This should include preparation and implementation of training and capacity building activities at local, district and national level, development of procedures and provision of tools and equipment and other logistic support to implement catchment management activities at all levels.
- Investigate regional or international best practices and arrange for study tours to selected locations to take advantage of experiences gained elsewhere in catchment management.
- Investigate appropriate learning institutions for education on Catchment Management and arrange for scholarships for training of key staff in catchment management methodologies and specific approaches
- Preparation of report on results of the capacity building activities

3.7.3 Continued wetlands management activities and development of strategy for integration of wetlands management in the general catchment management set-up

Scope of Work:

Activity	Responsible	Inputs
1. Continued support to the ongoing wetlands management activities and the functioning of the National Wetlands Committee and wetlands management committees at local level.	DWA in consultation with Local Councils	Funding for continuation of the ongoing wetlands management programmes. Funds for transport and accommodation for consultations and workshops Professional staff input from DWA, other line ministries and Local Councils
2. Development of revised guidelines for wetlands management taking the experiences with the pilot catchment management arrangements into account.	DWA	Professional staff input from DWA, and CMJCs and Technical Secretariats
3. Continued support to wetlands management as an integrated part of catchment management activities in the Local Councils and communities	DWA	Professional staff input from DWA, and CMJCs and Technical Secretariats

Output: Revised wetland strategy for integration of wetlands management in the general catchment management.

Guidance Notes: The wetlands cannot be managed in isolation from the general activities for management of catchment areas and natural resources. It is therefore natural that the presently ongoing wetlands activities need to be integrated into the general catchment management activities as these gain momentum. It is however important that the wetlands activities continue while the capacity for catchment management is being developed and that the catchment management methodologies learn from the experiences in managing the wetlands

The analysis of the future functions for DWA will clarify the organisational arrangements, however it is likely that the former Wetlands Unit (presently the PIU for the MCA funded wetlands activities) would need to be integrated into the division responsible for Catchment Management activities to ensure that the experiences from wetlands management are fully utilised.

The National Wetlands Management Committee would continue to function until a more general national committee is functioning to coordinate the Catchment Management activities generally.

3.7.4 Establish permanent “Catchment Secretaries” with own legal status and with permanent staff supervised by a Board consisting of representatives of the involved Districts

Scope of Work:

Activity	Responsible	Inputs
1. Develop TOR for the assessment of Technical Secretariats	DWA in consultation with CMJCs and Tech. Sec.	Professional staff input from DWA, other line ministries, Technical Secretariats and District Councils
2. Procurement of Consultant	DWA/ CMJCs	Professional staff input from DWA, and District Councils
3. Assessment of the experiences with the functioning of DWA led Technical Secretariats in cooperation with other line ministries and assessment of the pros and cons of permanent ‘Catchment Secretariats’	Consultant reporting to DWA	Consultants inputs Professional staff input from DWA, other line ministries and Local Councils
4. Assessment of the functioning of the CMJCs as supervisors and decision makers on catchment management and the options for establishing formal ‘Boards’ responsible for catchment management.	Consultant reporting to DWA	Consultants inputs Professional staff input from DWA, other line ministries and Local Councils
5. Workshop for presentation of results and consensus building on recommendations for future establishment and functioning of Technical Secretariats for Catchment Management	Consultant reporting to DWA	Consultants inputs Professional staff input from DWA, other line ministries and Local Councils

Output: Effective functioning Catchment Secretariats.

Guidance Notes: The timing of these activities is expected to be after experiences have been gained over a number of years with the functioning of the CMJCs and the Technical Secretariats.

Points on the Scope of Work for consultancy:

- Assessment of experiences with Catchment Management in Lesotho as documented in monitoring reports and other evaluations.
- Assessment of the experiences with the functioning of DWA led Technical Secretariats in cooperation with other line ministries and assessment of the pros and cons of permanent ‘Catchment Secretariats’
- Assessment of the functioning of the CMJCs as supervisors and decision makers on catchment management and the options for establishing formal ‘Boards’ responsible for catchment management.
- Facilitation of workshop for presentation of results and consensus building on recommendations for future establishment and functioning of Technical Secretariats for Catchment Management
- Final documentation of results and recommendations for the future functioning of Technical Secretariats.

3.8 Strategic Aim I.5: Effective participation in transboundary water resources management

Lesotho is entirely in the Orange-Senqu basin and although the main water sources in the basin are controlled by Lesotho, participation in the ORASECOM work is important for Lesotho to have an influence on the benefit sharing from the water resources in the basin and also important for the longer term harmonious development in the region.

3.8.1 Integrated Man. Framework for Orange-Senqu River Basin implemented

Scope of Work:

Activity	Responsible	Inputs
1. Continued active participation in the ORASECOM technical and political fora.	MEMWA and COW	MEMWA (political level) and COW (technical level) participation in ORASECOM work. Travel and accommodation expenses Annual Government of Lesotho contribution to ORASECOM budget
2. Assessment of the National Action Plan for implementation of the ORASECOM activities in Lesotho and integration of the activities where appropriate into the activities for operationalising catchment management and the water sector plans in general	COW/ DWA/ CMJCs	Professional staff input from COW/ DWA, and District Councils

Output: the ORASECOM Integrated Management Framework implemented effectively in Lesotho.

Guidance Notes: ORASECOM and the Government of Lesotho have developed a National Action Plan (NAP) for implementing the national level activities in Lesotho contributing to achieving the Strategic Action Programme (SAP) for the Orange Senqu basin. The NAP and SAP are based on a Trans-boundary Diagnostic Analysis (TDA) of the environmental concerns and shared management issues in the basin. The NAP includes objectives such as:

- Priority Area 1: Land Degradation – land degradation and desertification reversed through improved watershed management
- Priority Area 2: Changes to water resources quality – water resources quality managed and maintained within national and international frameworks
- Priority Area 3: Wetlands Degradation – hydrological functioning of wetlands restored through promoting conservation measures and sustainable use
- Priority Area 4: Increasing Water Demand – expanded water and sanitation distribution services to industries, commercial centres, households and other institutions

These objective of the NAP are all responding to the aims of the WS Programme:

- Priority Areas 1 to 3 related to Key Focus Area 1 - Catchment Management, and
- Priority Area 4 related to Water Services Key Focus Areas 3 and 4.

The guidance provided through the ORASECOM cooperation will enhance the implementation of these Key Focus Areas. The monitoring of the implementation of the NAP and the WS Programme can be coordinated and harmonised to ensure effective use of resources for the implementation of the WS Programme including the NAP activities.

3.8.2 Integrated planning framework for the Mohokare/ Caledon River Basin developed and implemented

Scope of Work:

Activity	Responsible	Inputs
1. Bilateral consultations with RSA on the development of the 'Integrated Planning Framework for the Mohokare/ Caledon River Basin'	MEMWA and COW	MEMWA (political level) and COW (technical level) participation in bi-lateral consultations Travel and accommodation expenses
2. Development of the contributions from the Mohokare/ Caledon catchment in Lesotho to the 'Integrated Planning Framework' in collaboration with the CMJCs that are part of the Mohokare basin	COW/ DWA/ CMJCs	Professional staff input from COW/ DWA, and District Councils
3. Implementation of the catchment development plans in the Lesotho part of the Mohokare/ Caledon basin as part of the implementation of the sub-catchment Management and Development Plans	CMJCs and Technical Secretariats	Funding for implementation of Catchment Management and Development Plans Professional Staff inputs

Output: Integrated planning framework for the Mohokare/ Caledon River Basin' agreed between the two riparian countries, documented and approved.

Guidance Notes: the consultations between RSA and Lesotho on the development of the 'Integrated Planning Framework for the Mohokare/ Caledon River Basin' are still to be initiated and depending on the timing there seems to be two possibilities for integrating the planning for the entire Mohokare/ Caledon basin in the Catchment Management activities in the Lesotho part of the basin:

1. The bilateral consultations on the 'Integrated Planning Framework' progress faster than the establishment of 'Catchment Management and Development Plans' in the Lesotho part of the catchment – in this case the development of the 'Plans' in the Lesotho Catchment Management Areas will benefit from the general data collection and planning that would be done as part of the common 'Integrated Planning Framework'.
2. The establishment of the 'Catchment Management and Development Plans' in Lesotho progress faster than the bilateral consultations on the 'Integrated Planning Frameworks' – in this case Lesotho will be well prepared for contributing to the integrated planning with RSA since it will have established a data foundation and plans for the development of the catchments in the Lesotho part of the basin.

4 Key Focus Area II Climate Change and Water Resource Monitoring and Assessment

This chapter provides information on the Strategy for Key Focus Area II: ‘Climate Change and Water Resources Monitoring and Assessment’. The background and rationale is provided for the Strategic Aims and the activities related to climate and water resource monitoring and environmental management described in this WS Programme.

Detailed information is provided on the respective Strategic Aims under Key Focus Area II and the related activities and inputs.

4.1 The Rationale for Key Focus Area II

4.1.1 Policy Direction

The climate change and water resources monitoring and assessment activities are designed to provide the data foundation for evidence based ‘Catchment Management and Development Planning’.

A number of the LWSP objectives and strategies highlight the need for the activities grouped under Key Focus Area II and the improved capacity for water resources monitoring and assessment. In particular:

Policy Statement 1: Water Resources Management: Manage water resources in an integrated and sustainable manner to ensure availability of this resource in adequate quantities and quality for present and future social, economic and environmental needs.

Objective 2: *To improve the assessment of the nation’s surface and ground water resources.*

Policy Statement 3: Water and Environment: Protect and conserve water resources and minimize the adverse impacts of socio-economic development activities on water.

Specifically the strategies:

- a) Develop and implement relevant environmental standards and guidelines for aquatic ecosystems;*
- b) Promote environmental education aimed at creating awareness of conservation and sustainable use of water resources for all groups including among others industrialists, herders, farmers, youths, councillors;*
- c) Require the prevention of pollution at source through the adoption of cleaner technologies and management systems;*
- h) Promote Strategic Environmental Assessment (SEA) of policies and strategies, programmes and plans for water resources development in order to enhance sustainable development; and*
- i) Adopt Environment Impact Assessment (EIA) for all water resources development projects with emphasis on environmental protection, poverty alleviation, and reduction of the spread of the HIV/AIDS pandemic;*

Policy Statement 4: Trans-boundary Water Resources: Manage trans-boundary water resources on the basis of Lesotho’s sovereignty in a way that ensures maximum benefits while taking cognisance of her obligations to downstream users under international law.

In particular the strategies:

b) Establish a comprehensive monitoring system in collaboration with other riparian states for the collection, processing and sharing of data on integrated water resources management and development;

e) Cooperate in the establishment of a Management Information System for water resources that is compatible with national data management systems for ease of information sharing among riparian states.

The links between Key Focus Area II and the LWSP Objective and Strategies are shown in detail in ‘Annex A: LWSP and Key Focus Areas’.

4.1.2 The Existing Situation and Challenges related to Water Resources Assessment

The DWA is monitoring surface water, water quality and groundwater resources in Lesotho and the LMS is monitoring the climate. The number of operational climate and water resources monitoring stations is summarised in Table 4-1.

Table 4-1: Operational data collection network⁶

Climate Data: The LMS collects and manages data on the rainfall, sunshine and other weather data from meteorological stations covering the country. LMS clients include civil engineering, research, government departments, farmers, insurance companies.

The Meteorological operations are divided into:

- Weather forecasting: day to day forecasts, services to aviation, news etc.
- Climatology division: station network, data management and maintenance
- Applications division: agro meteorology, hydro, environment

Type of Measurement	2010/11
Climate Stations	
Multi-parameter	42
Precipitation only	50
Surface water	
River discharge	69
Lake/reservoir level	3
Water quality	10
Groundwater	
Observation boreholes	72
Springs	162
Wetlands	
Discharge	13

The LMS has a total of 78 staff plus data collectors for the individual stations. Reports from stations sent by mail or collected by LMS staff as part of supervision and quality control.

The network includes 50 rainfall stations (precipitation only stations), 30 climate stations (temp, rain, humidity), 4 synoptic stations (hourly data on pressure, clouds etc.) and 11 agro-meteorological stations. 3 of the weather stations are not working due to lightning strikes.

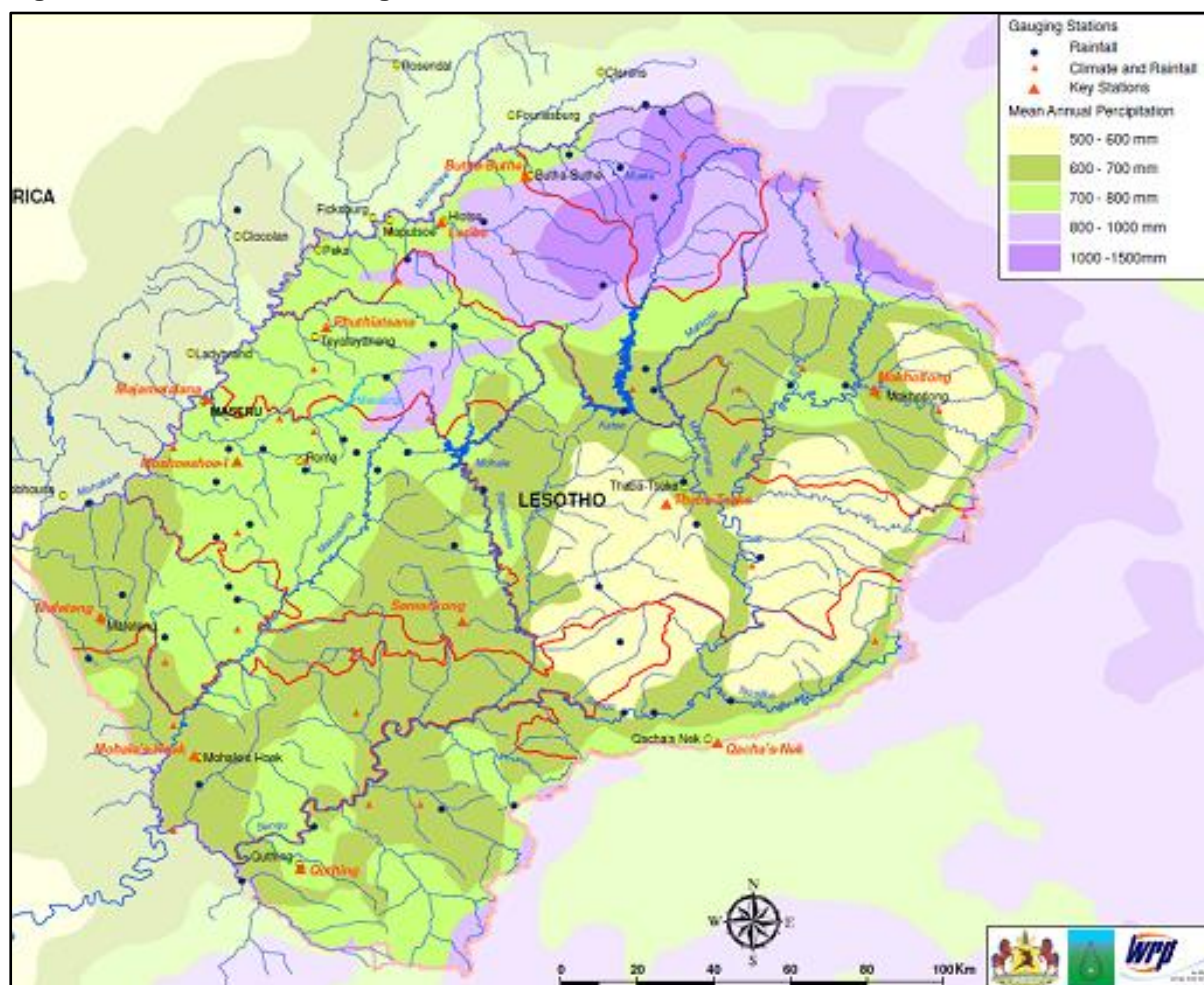
LMS uses CLIMSOFT software for data storage which is supplied to clients in MS Excel. Analysis of the data is done using Surfer 7 software.

The ‘Monitoring of Environment for Sustainable Development’ (AMESD) is an EU funded project for SADC and ECOWAS for environment and agriculture with headquarters in Botswana and is supporting the use of satellite monitoring in Africa. The LMS will have access to satellite data continuously through an installation in Maseru. The other partners in Lesotho are

⁶ State of Water Resources Report 2010/11, COW

the Ministry of Agriculture and Disaster Management Authority (DMA). When operational, the satellite monitoring tools could be of value for DWA for monitoring catchments and wetlands etc.

Figure 4-1: Climate Monitoring Stations in Lesotho⁷



Some of the challenges for meteorological services in Lesotho are:

- Automatic weather stations are vulnerable to lightning
- There is a high turnover of staff for reading stations as well as technical staff at head office
- The software used for mapping is an old version with limited functionality. Only used presently for rainfall and could be used more generally.
- Stations are not yet mapped in GIS.

Projects planned under the National Action Plan for Adaptation (NAPA) to climate change will include improvements to early warning systems and support new automatic weather stations and upgrade of software. There is cooperation with DMA. DMA has plans to implement an elaborate GIS (1.5 mill USD) for all sectors for early warning.

⁷ Source: State of Water Resources Report 2010/11, COW

There is need for strong links between LMS and the DWA e.g. in the location of new weather stations in relation to the need for development of basin models for the Catchment Management Areas.

Surface Water Resources: The DWA Hydrology Division is monitoring surface water resources. In the Lesotho Highland Water Project areas, the monitoring is carried out in cooperation with LHDA. River flow data are measured through the observation of water levels. The levels are then converted to water flow using rating curves. There are 95 active surface water stations with 69 stations operational at end of 2010/11. The water levels at the Katse, Mohale and Muela Dams and the releases from the dams are monitored by LHDA.

There is a need to increase the number of operational stations from the current 69. The current situation is a result of budgetary constraints, vandalism of stations and a shortage of qualified staff. There is a need to prioritise stations for rehabilitation and to programme and budget for the renovation and replacement work.

The DWA Water Quality Division monitors surface water quality. There are 152 water quality monitoring sites; however, measurements at most of these sites are rarely undertaken. Ten key sites are used for regular monitoring for the State of Water Resources Report (three sites on the Senqu River, four on the Mohokare River and three on the Makhale River). The parameters monitored are electrical conductivity (EC), pH, total dissolved solids (TDS), sulphates (SO₄); Phosphates (PO₄), Nitrites (NO₃), Suspended solids, Iron (Fe), Aluminium (Al), Manganese (Mn) and Fluoride (F).

Groundwater Resources: The DWA Groundwater Division monitors groundwater levels at 72 observation boreholes, although many of these are measured very infrequently. A number of key observation boreholes for each of the 7 main aquifers, the Maputsoe, Matukeng, Morija, Berea, Butha-Buthe, Mafeteng and Likotsi Aquifers, have been selected for the State of Water Resources annual reporting. The discharges of springs are monitored from a total of 162 springs, although many of these are checked very infrequently.

The water quality of groundwater and springs is not monitored on a regular basis and this is a major gap. The distribution of monitoring boreholes and springs is considered to be adequate. However, the frequency of monitoring is currently low due to high operational costs.

Wetlands: The wetland systems are important ecosystems and the eastern alpine areas of Lesotho has a network of unique high altitude bogs and sponges, a system of wetlands found nowhere else in the world. The wetlands play a crucial role in the hydrological cycles, in particular, through their retention and slow release of water.

There is no generalised wetland monitoring programme however three wetland areas are currently being monitored as part of the Wetlands Restoration and Conservation Project at Khalong la lithunya, Koti sephola and Lets'eng-la-letsie. The discharge monitoring network was only implemented in 2010 and will provide valuable data in the future.

Water resources assessment: The DWA is responsible for monitoring and regulating the use of water resources in Lesotho. The Department maintains the monitoring stations and databases on surface water, groundwater, water quality and water use permits.

The DWA use GIS to capture data from all the divisions however the GIS is only available on a stand-alone computer and therefore not used effectively in the day-to-day business in the Department. The HYDSTRA software is used for surface water flow data and the data on water quality, groundwater and water permits is captured in the respective divisions using MSExcel.

The HYDSTRA, a licensed software, was introduced as part of the SADC Hydrological Cycle Observing System (HYCOS) project.

The DWA has limited capacity in the use of basin models for analysis of water flows, rainfall data, water quality, groundwater etc. Rainfall data is available from LMS as excel files when requested. The South African developed Yield and Planning model has been introduced to DWA as part of the ORASECOM project on establishing a model for the basin and is used for the estimate of water balance in the annual State of Water Resources Reports. The RIBASIM (basin model developed by Deltares, Holland) was used for the development of the IWRM strategy but is not presently available in Lesotho.

The DWA Water Resources Division is responsible for catchment management and planning, however only very limited activities are carried out in relation to catchment management. The Water Resource Division has 10 professional positions and include: wetlands, planning unit, MIS unit, water law, Water Quality laboratory and would need to be strengthened considerably to be able to carry out catchment management activities in cooperation with the local governments and stakeholders as envisaged in the LWSP and the Water Act. The Water Rights Division has data on water use permits.

DWA has 140 permanent positions of which 30 are currently vacant. 91 personnel are engaged on a temporary basis. In addition the DWA is engaging 66 observers located at the surface water monitoring stations taking water level readings. The department operates 15 vehicles and operates drilling and pump testing equipment. The department provide boreholes to other government institutions and private individuals at highly subsidised rates – the rate of M5,000 per borehole has not been adjusted for more than 10 years and is presently only a fraction of the actual drilling cost. The annual recurrent budget for DWA is approximately M17 million.

In addition to the head-office in Maseru, DWA has regional offices in Thaba Tseka, Qacha's Nek, Mokhotlong, Quthing and Botha Buthe with 2 – 3 persons per office responsible for data collection. There could be a need for assessing the most effective de-concentrated set-up of DWA in relation to the functions and linkages to the District and Community Councils and especially related to the future focus on catchment management activities as envisaged in the LWSP and the Water Act.

The challenges in relation to water resources assessment have been identified as

- Budget constraints result in that only about 50% of the water resources monitoring data is actually captured
- The rating curves for relating water level measurements to flow measurements have not been calibrated for many years for most of the monitoring stations and this is leading to inaccurate estimates of surface water flows
- Inadequate capacity in DWA to fully utilise the advanced basin modelling tools and remote sensing
- The climate and water resource monitoring stations are not optimally situated for assessment of water resources on a catchment basis

4.1.3 The Existing Situation and Challenges related to Environmental Management

The water resources are affected by pollution. The decline in surface water quality stems from⁸:

- Urban storm water drainage systems
- Overflowing septic tanks and broken sewage reticulation systems
- Garment factories
- Other types of factories such as canneries, pharmaceuticals, breweries and mills
- Insecticides used for spraying/ dipping of livestock
- High sediment yields as a result of erosion

The decline in groundwater quality are from:

- Pesticides, herbicides etc. (through leaching)
- Latrine water filtering through the ground
- Leaching from waste dump sites and
- Leaching from urban drainage systems

All development projects in Lesotho undergo an Environmental Impact Assessment (EIA) and the DWA is involved in the approval of EIAs for projects that have impact on water resources. The consultations with stakeholders on the status of implementation of the LWSP revealed:

- There is a need to clarify the responsibilities between DOEnv and other affected stakeholders including DWA on approval of EIAs and monitoring the implementation and adherence to the Environmental Management Plans (EMPs)
- There are gaps in ensuring adherence to the EMPs
- A Board for approval of EIAs could be a way of ensuring involvement of all parties and ensure effective monitoring of adherence to EMP conditions – could be linked to the Catchment Management Committees for water management areas
- Effective solid and hazardous waste management still a challenge in most local councils
- Water Quality Standards - COW in cooperation with the DOEnv has developed Water Quality Standards; however these are yet to be implemented. The Director of Environment issues discharge permits in consultation with COW/ DWA
- The regulation of wastewater discharges and pollution control is not effectively implemented

A coordinated approach with involvement of Local Councils in Catchment Management activities and pollution control together with establishment of Technical Secretariats will provide an opportunity to improve the cooperation between the involved national departments and the local councils and streamline the procedures for water allocation, water discharge and monitoring of adherence to EMPs.

4.2 Options and Consequences of no Action

4.2.1 The Options

Water is a valuable resource for Lesotho and rational utilisation of this valuable resource need good monitoring data on the quantity and quality of water resources. Huge investments in water resources development are taking place in both the highlands and the lowlands to utilise the

⁸ ORASECOM – UNDP-GEF Orange Senqu Strategic Action Programme – National Action Plan for Lesotho, June 2013

water resources and improved information on the water resources will potentially have a big effect on the cost effectiveness of these investments.

The present situation with gaps in the data collection network and in operations of the monitoring systems due to organisational inefficiencies and budget limitations for the LMS and DWA is undesirable from a long term perspective. The gaps of historic and present data can never be filled subsequently and it is important for proper assessment of water security and adaptation to climate change that comprehensive and continuous datasets are available on water resources and climate.

The options are basically two:

- 1) Continue the present inadequate monitoring of water resources; or
- 2) Invest in reorganising and renewing the climate and water resource monitoring networks that adequately will provide data for assessing present water resources and scenarios for the future.

The economic and social consequences of option 1) are potentially very severe with reduced ability of the country to adapt to climate change and the effect that this can have on food and water security and economic development. Inadequate data can also result in less cost effective investments in water resource development infrastructure. Since the amounts invested in water resources development in Lesotho are huge, the relatively small investments in monitoring systems could be saved many times over. The contribution of water resources to the economy in Lesotho is substantial and proper management of this valuable resource will naturally benefit the Lesotho economy substantially.

Improved capacity for water resources assessment is also important aspects of achieving the LWSP objectives for transboundary water resources such as *'to promote joint planning and management of the development of trans-boundary water resources while maximising benefits for the people of Lesotho'*.

4.2.2 The Recurrent Cost Implications

The DWA has a fairly large staff complement: 140 permanent positions (110 filled) + 91 temporary staff and 66 observers. A detailed analysis is needed to assess the future human resources and equipment requirements for operating and maintaining an up-to-date monitoring network and capacity for water resources assessment including operation of an efficient water quality laboratory. It might well be that the number of staff would not need to increase, however there would be need to:

1. Concentrate on the DWA core business of water resources monitoring and assessment and rearrange activities such as borehole drilling to operate on a commercial basis or make arrangements for the private sector to provide the limited drilling services that the Department need for research in groundwater
2. Reorient and retrain the staff for improved performance in data collection and management as well as building capacity for DWA to support catchment management activities.
3. Relocate the regional offices to provide technical secretariat services for the CMJCs
4. Ensure adequate recurrent budgets for maintenance of a revamped climate and water resource monitoring network designed to adequately provide data for assessment of water resources on a catchment basis.
5. Ensure adequate recurrent budget for operating the water quality laboratory to the required standard.

6. Upgrade existing positions and fill vacant positions with adequately trained staff to improve the capacity for IT, GIS and data management, and expertise in basin modelling and remote sensing technologies.

A proper institutional functional analysis (activity 4.5.1) would be needed to estimate the future recurrent budget requirements; however an indication could be arrived at by looking at a high-level estimate the staffing requirement. Assuming that each catchment area would need 10 senior staff and the head office an additional 40 staff for the national level activities, the total annual recurrent budget would be in the range of M30-40 million (about M300,000 per senior staff including support staff, office and transport facilities). This would be a doubling of the existing recurrent budget of M17 million however still only around 3% of the total annual investments in the water sector in Lesotho and a small fraction of the contribution of water resources to the economy of Lesotho.

The investment in capacity for water resources assessment is likely to be gained many-fold by improved effectiveness of the investments, improved readiness to deal with climate change and improved capacity for negotiating with neighbouring state on the shared utilisation of the country's water resources.

4.3 The goals for Key Focus Area II

The goals for Key Focus Area II in 2020 and 2030 are:

- 2020: Capacity for adapting to climate change has been improved through comprehensive water resources monitoring at catchment level and development of capacity for advanced and independent assessment of water resources and climate change impact at national level.
- 2030: Lesotho will be internationally recognised for its capacity for integrated monitoring and assessment of climate and water resources and will be adapting positively to climate change with evidence based programmes with links to catchment management activities.

4.4 Strategic Aim II.1: Operational monitoring network in all Catchment Management Areas

The monitoring networks are of utmost importance for Lesotho to be able to properly plan and develop water resources and thus benefit from the ample resources in the country.

Investments in water resources and climate monitoring networks are the foundation for effective adaptation to climate change based on evidence. Comprehensive data on climate and water resources is an investment for the future and possible missing data will forever hamper the assessment of water resources and possibilities for preparing sustainable development plans.

4.4.1 Carry out Water Resources Assessment and develop water resource and climate monitoring plan for each Catchment Management Area incl. capacity needs assessment and capacity development plan.

Scope of Work:

Activity	Responsible	Inputs
1. Develop TOR for the Water Resources Assessment and development of the 'Water Resource and Climate Monitoring Plan' and 'Capacity Needs Assessment Report'.	DWA/ LMS	Professional staff input from DWA and LMS and other line ministries
2. Procurement of Consultant	DWA/ LMS	Professional staff input from DWA and LMS
3. Carry out assessment of existing water resources and climate data and prepare water resources assessment baseline report	Specialist Consultants reporting to DWA and LMS	Professional Staff Input from DWA Consultancy Inputs Travel and accommodation expenses
4. Assessment of existing hydrometric, meteorological, groundwater and water quality monitoring networks for the respective Catchment Management Areas and development of comprehensive monitoring plans	Specialist Consultants reporting to DWA and LMS	Professional Staff Input from DWA Consultancy Inputs Travel and accommodation expenses
5. Assessment of the cost of monitoring versus the cost of the impact of inadequate water resources management and development of a financing plan for implementation of the improvements to the monitoring network and its operation and maintenance	Specialist Consultants reporting to DWA and LMS	Professional Staff Input from DWA Consultancy Inputs Travel and accommodation expenses
6. Preparation of specifications, cost estimates for the required improvements to the monitoring networks	Specialist Consultants reporting to DWA and LMS	Professional Staff Input from DWA Consultancy Inputs
7. Presentation of the Water Resources Assessment and the monitoring and capacity development plans to stakeholders and Government and consensus on implementation	Specialist Consultants reporting to DWA and LMS	Professional Staff Input from DWA Consultancy Inputs Workshop

Output: Water Resources Assessment and 'Water Resource and Climate Monitoring Plan' for each Catchment Management Area. Capacity Needs Assessment Report.

Key Points for Scope of Work for Consultancy Assignment:

- Assessment of the existing hydrometric, meteorological, groundwater and water quality monitoring networks for the respective Catchment Management Areas and all existing data on water resources and climate
- Prepare baseline Water Resources Assessment report.
- Assessment of the existing use of water resources assessment tools, availability of rating curves etc.
- Assessment of the optimal and cost effective monitoring networks required for use of basin models for assessment of water resources and climate on a catchment basis and the related data management tools
- Assessment of options for data logging and data transmission systems and selection of appropriate options considering the human resources and infrastructure in Lesotho and how the data collection can most appropriately be done in relation to the envisaged technical secretariats for catchment management.
- Development of comprehensive monitoring plans that will adequately provide the data and tools needed for full implementation of detailed basin models for the water management zones covering Lesotho and provide data for analysis of impact of climate change.
- Preparation of specifications and costing of the improvement to the monitoring networks.
- Assessment of the cost of monitoring versus the cost of the impact of inadequate water resources management
- Development of a financing plan for implementation of the improvements to the monitoring network and its operation and maintenance.
- Preparation of a staged Capacity Development Plan for implementing the improvements to the monitoring networks
- Presentation of the water resources assessment and the monitoring plan and capacity development plan and consensus building on the way forward

4.4.2 Capacity development according to the needs assessment plan and implement new stations and upgrade existing as well update data management and data exchange systems, development of rating curves etc.

Scope of Work:

Activity	Responsible	Inputs
1. Development of tender documents based on the specifications and Capacity Building Plans for development of the monitoring networks	DWA/ LMS with specialist support	Professional Staff Input from DWA/ LMS Consultancy Inputs
2. Procurement of civil works, equipment and specialist inputs as needed for the implementation of the plan	DWA/ LMS with specialist support	Professional Staff Input from DWA/ LMS Consultancy Inputs
3. Implementation of civil works and installation of equipment	DWA/ LMS with specialist support	Professional Staff Input from DWA/ LMS Consultancy Inputs Travel and accommodation expenses
4. Update of data management systems and procedures, agreement on data exchange systems between LMS and DWA and other stakeholders e.g. LHDA.	DWA/ LMS with specialist support	Professional Staff Input from DWA/ LMS Consultancy Inputs
5. Flow surveys for development and updating of rating curves for surface water stations	DWA/ LMS with specialist support	Professional Staff Input from DWA/ LMS
6. Training of staff at various levels for efficient management of the monitoring networks	DWA/ LMS with specialist support	Professional Staff Input from DWA/ LMS Consultancy Inputs Workshop and training expenses

Output: Upgraded monitoring network in all catchment areas. Up-to-date data management systems.

Guidance Notes: the preparation of tender documents and support to the implementation of the monitoring and capacity development plans could be arranged as a continuation of the engagement of the specialist consultants for the development of the monitoring plan. The additional points to be included in the TOR would be:

- Development of tender documents for procurement and installation of monitoring equipment
- Development of tender documents for procurement of civil works including if needed de-commissioning of stations no longer required
- Supervision and inspection of delivery and installation of monitoring equipment and civil works
- Advice to DWA and LMS on the procurement of data management tools
- Development of procedure manuals and guidelines for operation and maintenance of the monitoring networks and data management systems
- Implementation of training courses in the operation and maintenance of the monitoring equipment and the use of the data management tools

4.4.3 Regular data management, operation and maintenance of monitoring network in DWA and LMS

Scope of Work:

Activity	Responsible	Inputs
1. Recurrent operation and maintenance of the monitoring networks by DWA and LMS	DWA/ LMS	Professional Staff Input from DWA/ LMS Travel and accommodation expenses
2. Data management and data quality control	DWA/ LMS	Professional Staff Input from DWA/ LMS
3. Regular assessment and update of data collection and management systems and training of staff	DWA/ LMS	Professional Staff Input from DWA/ LMS Travel and accommodation expenses

Output: Complete and comprehensive data sets available on water resources and climate in Lesotho.

Guidance Notes:

This activity is the recurrent work of the DWA and LMS in data collection and management. While the capacity development activities are described in Activity 4.4.2 above, it should be anticipated that continuous capacity development would be required to ensure a continued high quality and comprehensiveness of the water resource and climate data.

The recurrent data collection and management work routines work would also change and need to be adjusted as the technical secretariats for catchment management are developing in capacity.

4.5 Strategic Aim II.2: State-of-the-Art Assessment Tools used for Climate Change Readiness and Assessment of Water Resources

The comprehensive monitoring of climate and water resources is the foundation for assessing the effects of climate change and preparing plans for sustainable use of the countries water resources. Complex and sophisticated basin modelling tools combined with remote sensing tools can provide invaluable information for the development of strategies for best to benefit from the water resources for socio-economic development of the country.

4.5.1 Function analysis for the DWA/ LMS functions at national level to define the future responsibilities, work load and required staffing levels and development of capacity building plan for IT and human capacities to develop, operate and maintain water resources assessment tools including GIS, remote sensing tools, basin models etc.

Scope of Work:

Activity	Responsible	Inputs
1. Development of TOR for Institutional Functional Analysis	DWA/ LMS	Professional Staff Input from DWA/ LMS
2. Procurement of Consultant	DWA/ LMS	Professional Staff Input from DWA/ LMS
3. Analysis of the functions in relation to data management and assessment of water resources, workload analysis, organisational set-up and job descriptions	Consultant reporting to DWA/ LMS	Professional Staff Input from DWA Consultancy Inputs
4. Development of Capacity Development Plan for IT, data management procedures and human resources.	Consultant reporting to DWA/ LMS	Professional Staff Input from DWA Consultancy Inputs
5. Presentation of Capacity Development plan to stakeholders	Consultant reporting to DWA/ LMS	Professional Staff Input from DWA, Consultancy Inputs Workshop expenses
6. Develop specification of the IT equipment and software needed	Consultant reporting to DWA/ LMS	Professional Staff Input from DWA Consultancy Inputs

Output: Function Analysis and Capacity Development Plan.

Key Points for Scope of Work for Consultancy Assignment:

- Analysis of the functions in relation to data management and assessment of water resources that will be required by DWA and LMS to advise Government appropriately on the best responses to development and readiness for climate changes.
- Assessment of the DWA activities in general and prepare recommendations for future bore-hole drilling and pump testing activities including possible PPP arrangements for how the current equipment can be put to efficient use, and how the groundwater research activities can most cost efficiently be carried out.
- Detailed assessment of work load, required staffing levels and development of organisational structure and job descriptions.
- Preparation of capacity building plan for IT and human capacities to develop, operate and maintain water resources assessment tools including GIS, remote sensing tools, basin models etc.
- Prepare TORs for TA and specification of the IT equipment and software needed.

4.5.2 Implementation of Capacity Building Plan including human resource development and purchase and installation of the required IT hard- and software in DWA and LMS

Scope of Work:

Activity	Responsible	Inputs
1. Implementation of recommendations from Functional Analysis and Capacity Building plan in terms of organisational changes and established positions	DWA/ LMS	Professional Staff Input from MEMWA/ COW/ DWA/ LMS and Public Service
2. Procurement and installation of hard- and software	DWA/ LMS	Professional Staff Input from DWA/ LMS Specialist Consultancy Inputs Cost of hard and software
3. Implementation of capacity building plan, training of staff as on-the-job training by Technical Assistance or specific training courses in basin modelling and application of remote sensing technologies	DWA/ LMS	Professional Staff Input from DWA/ LMS and Public Service TA and training expenses

Output: High level of professional capacity in DWA and LMS for assessment of water resources supported by adequate tools and equipment.

Guidance Notes: the implementation of the capacity building plan is likely to include re-organisation of the DWA and the established positions according to the normal Government Procedures involving the MEMWA and Public Service and filling the positions with qualified staff.

The implementation could also include cooperation with NUL to ensure that graduates have the required skills combined with arrangement of practical attachments in DWA and LMS and thereby attracting new professional staff to the sector. This is included in a general manner in the WS Programme as described in 8.6.3.

The training of staff is likely to be a combination of on-the-job training by Technical Assistance and specific training courses e.g. in basin modelling and application of remote sensing technologies in conjunction with the procurement and installation of hard- and software.

The Technical Assistance would focus on capacity building and development of routines, procedures and guidelines for assessment of water resources and climate related studies.

The reorganisation would probably also include rearranging the drilling and pump testing activities.

4.5.3 Regular use of the climate and water resources assessment tools to produce national level reports, research and development, studies, climate change reports etc. with reference to WMO Practices

Scope of Work:

Activity	Responsible	Inputs
1. Regular use of the monitoring data and the basin models and assessment tools to prepare studies and research	DWA/ LMS	Professional Staff Input from DWA/ LMS
2. Cooperation with NUL and other universities in the further development of capacity and undertaking research and studies	DWA/ LMS	Professional Staff Input from DWA/ LMS
3. Participation in international fora to strengthen the knowledge and practice in Lesotho	DWA/ LMS	Professional Staff Input from DWA Travel and accommodation expenses

Output: Reports and advice to Government as needed

Guidance Notes: the focus is likely to be on regular use of the monitoring data and the basin models and assessment tools to prepare studies and research as required for evidence based decision making by Government.

An important part of the research will be cooperation with NUL and other universities in the further development of capacity and undertaking research and studies. This type of cooperation will be instrumental in ensuring interest in the work of DWA and LMS and attract students to the water sector.

The assessment and research activities should be combined with participation in international fora to strengthen the knowledge and practice in Lesotho and ensure that Lesotho benefits from international best practices and up-to-date tools.

4.5.4 Quality control and support to climate and water resources monitoring and assessment at Catchment level

Scope of Work:

Activity	Responsible	Inputs
1. Regular collection of data from the existing monitoring networks until the Technical Secretariats are functioning and the data collection and management is de-concentrated to these.	DWA/ LMS	Professional Staff Input from DWA Travel and accommodation expenses
2. Regular supervision and training of staff in the Technical Secretariats in the proper use of the monitoring stations and processing of data	DWA/ LMS	Professional Staff Input from DWA Travel and accommodation expenses
3. Quality control checks on data handling and the proper functioning of equipment	DWA/ LMS	Professional Staff Input from DWA Travel and accommodation expenses

Output: Comprehensive and high quality data available from Technical Secretariats.

Guidance Notes: the establishment of Catchment Management and Technical Secretariats is likely to be a gradual process and the reorganisation of the data collection work into the de-concentrated Technical Secretariats will be a process over time. In this process it is important that the existing work procedures are reinforced to ensure that there is continuity in the data collection.

The function of the DWA is will change from direct involvement in the data collection and data management to focus on regular supervision and training of staff in the Technical Secretariats in the proper use of the monitoring stations and processing of data.

In the longer run the national departments would focus on quality control checks on the data handling and the proper functioning of equipment.

4.6 Strategic Aim II.3: Environmental Standards and Guidelines are enforced

The development and enforcement of environmental standards and guidelines are important to ensure that Lesotho's natural environment is maintained and protect the population and environment from the negative effects of industrial and other development activities. The implementation of Catchment Management will require that new procedures and guidelines are prepared to ensure cost effective enforcement of the standards in cooperation the Local Councils.

4.6.1 Implementation of Water Quality Standards and Guidelines as defined in 2013 Standards and implementation programme

Scope of Work:

Activity	Responsible	Inputs
1. Implementation of the activities as described in the implementation programme for the water quality standards and guidelines	DWA	Professional Staff Input from DWA and DOEnv Water quality analysis Travel and accommodation expenses for field work
2. Monitoring water quality in the aquatic environment and sewerage discharges and take action on pollution sources	DWA	Professional Staff Input from DWA and DOEnv Water quality analysis Travel and accommodation expenses for field work

Output: Monitoring reports on water quality.

Guidance Notes: The activities are described in detail in the implementation programme for the water quality standards and guidelines.

Collaboration between the Department of Environment as the custodian of the guidelines and standards and DWA as the agency responsible for monitoring water quality in the aquatic environment and sewerage discharges.

The implementation plan includes completing the implementation of the Environmental Act 2008 and capacity building of the Department of Environment as well as the legal process of approval and enactment of Guidelines and Standards before the actual implementation will take place.

The implementation will include the development of a systematic programme for monitoring the aquatic ecosystems and wastewater discharges.

4.6.2 Development of capacity for water quality analysis (MOH Labs in districts for drinking water quality, DWA Lab for regular monitoring and NUL Lab as reference)

Scope of Work:

Activity	Responsible	Inputs
1. Development of TOR for assessment of existing laboratories and development of improvement plan	DWA and DOEnv	Professional Staff Input from DWA and DOEnv
2. Procurement of Consultants	DWA and DOEnv	Professional Staff Input from DWA and DOEnv
3. Detailed assessment of existing laboratory facilities and preparation of plan for improvement	Consultants reporting to DWA and DOEnv	Professional Staff Input from DWA Consultancy Inputs Travel and accommodation expenses
4. Implementation of improvement plan	DWA/ DOEnv	Professional Staff Input from DWA Funding for improvement plan including procurement and installation of equipment and engagement of specialists for training

Output: Adequate capacity for cost effective water quality analysis in Lesotho

Guidance Notes: Detailed assessment of the existing facilities in:

- the MOH District Laboratories for drinking water quality surveillance
- the DWA Laboratory for regular analysis of water quality in the aquatic environment and monitoring of wastewater discharges
- the NUL Laboratories for adequate capacity for proper analysis of reference samples and specialised tests.

Development of a capacity development plan to establish and maintain adequate facilities.

Implementation of the capacity development plan including procurement of equipment, training of staff and development of operational manuals for the proper functioning of the laboratories.

4.6.3 Development of national guidelines, standards and regulations for aquatic ecosystems incl. determining the reserve, classification of water resources, discharge standards, wetlands protection and rehabilitation etc.

Scope of Work:

Activity	Responsible	Inputs
1. Development of TOR for determining the reserve and classification of water resources	DWA	Professional Staff Input from DWA
2. Procurement of Consultants	DWA	Professional Staff Input from DWA
3. Implementation of water resources assessment in consultation with stakeholders	Consultants reporting to DWA	Professional Staff Input from DWA Consultancy Inputs Travel and accommodation expenses
4. Presentation of results to stakeholders	Consultants reporting to DWA	Professional Staff Input from DWA Consultancy Inputs Workshop expenses

Output: Determination of the Reserve and Classification of Water Resources documented as required by the Water Act.

Guidance Notes: water resource assessments and study of in-stream flow requirements to determine the reserve for basic human needs and the ecological reserve. Development of a system for classification of water resources according to the use, type, location and geographical function.

Use the classification and determination of the reserve to develop the standards and regulations for aquatic ecosystems including wetlands and guidelines for the Catchment Management (CMJCs) to enforce the standards.

The activities will include consultation with stakeholders and presentation of results

4.6.4 Review the implementation of the 'Industrial Waste Water Policy and Action Framework (2003)' and define and adopt regulation measures promoting reduction of pollution at source (cleaner technologies) and implement 'Polluter Pays Principle'

Scope of Work:

Activity	Responsible	Inputs
1. Development of TOR and plan of action by DWA, DOEnv and Trade and Industry	DWA/ DOEnv	Professional Staff Input from DWA and DOEnv
2. Procurement of Specialist Consultants	DWA/ DOEnv	Professional Staff Input from DWA
3. Assessment by Task team from Department of Environment, DWA, Ministry of Trade and Industry with Specialist Consultants of present status of implementation of the industrial wastewater policy and development of updated action framework	DWA/ DOEnv and Consultants	Professional Staff Input from DWA and DOEnv Consultancy Inputs Travel and accommodation expenses
4. Implementation of updated action framework	DWA/ DOEnv and Consultants	Cost of implementing the action framework

Output: Updated Industrial Wastewater Policy and Action Framework.

Guidance Notes: the 2003 Action Framework for implementation of the Industrial Waste Water Policy has not been implemented fully and it is timely to assess the status.

The activities will include an assessment of the present status of implementation of the 2003 Action Framework and update the Industrial Wastewater Policy according to the present situation and Government objectives for industrial development and environmental management.

This will include wide consultation with stakeholders and active involvement of the Ministry of Trade and Industry and LNDC as well as the industrial investors.

The work could be envisaged to be carried out by a Task Team from Department of Environment, DWA, Ministry of Trade and Industry with Specialist Consultants for assessment of present status of implementation of the industrial wastewater policy and development of updated action framework.

Funding would be needed for water quality analysis and specialist Consultancy inputs on cleaner technologies and on-site treatment of industrial wastewater.

4.6.5 Develop regulations and standards for dam safety in view of climate change and develop capacity for enforcement

Scope of Work:

Activity	Responsible	Inputs
1. Development of TOR for Consultancy inputs on developing regulations for dam safety	DWA	Professional Staff Input from DWA and other institutions
2. Procurement of Consultants	DWA	Professional Staff Input from DWA
3. Assessment of scope and priorities for dam safety and development of standards	Consultants reporting to DWA	Professional Staff Input from DWA and other institutions Consultancy Inputs Travel and accommodation expenses
4. Development of capacity building plan for enforcement of dam safety regulations and standards	Consultants reporting to DWA	Professional Staff Input from DWA and other institutions Consultancy Inputs Travel and accommodation expenses
5. Consultation with stakeholders on regulations and capacity building plan	Consultants reporting to DWA	Professional Staff Input from DWA and other institutions Consultancy Inputs Workshop expenses
6. Legal process for approval and publishing regulations and standards	DWA	Professional Staff Input from DWA

Output: Regulations and standards for dam safety published in Government Gazette.

Guidance Notes: assessment of scope and priorities for dam safety for existing and future dams in Lesotho. The activities will include the development of standards in view of possible climate change scenarios and function analysis of institutions involved in dam safety issues and development of capacity building plan for ensuring enforcement of dam safety standards in design, implementation and operation and maintenance of dams in Lesotho.

The key points for the TORs should include:

- Assessment of the scope and priorities for dam safety in Lesotho in light of climate change and existing design standards and practices
- Development of dam safety regulations and standards
- Function analysis for institutions involved in dam safety function analysis of institutions involved in dam safety issues (COW, LHDA, DWA, Soil Conservation Department etc.) and capacity gaps analysis
- Development of capacity building plan for all stakeholders involved in dam safety in Lesotho
- Consultation with stakeholders on the regulations and capacity building plan
- Preparation of final regulations and dam safety standards for final approval and publishing.

4.6.6 Environmental awareness raising and education targeting Local Councils, National Institutions, Industries, Schools and communities at large

Scope of Work:

Activity	Responsible	Inputs
1. Cooperation with national curriculum development to include appropriate levels of environmental awareness education in all levels of education	COW/ DWA/ DOEnv	Professional Staff Input from Education and COW/ DWA/ DOEnv
2. Development and implementation of specific awareness raising programme targeting Local Councils and economic groups	COW/ DWA/ DOEnv	Professional Staff Input COW/ DWA/ DOEnv Media consultants for design of programmes
3. Facilitation of cooperation with the media and regular environmental programmes in radio, TV and the printed media	COW/ DWA/ DOEnv	Professional Staff Input COW/ DWA/ DOEnv Media consultants for design of programmes

Output: High level of awareness on environmental management issues resulting in support for Catchment Management and environmental management in general.

Guidance Notes: the activities are envisaged to include continued cooperation with national curriculum development in the Ministry of Education to include an appropriate level of environmental awareness education in all levels of education from early childhood to primary, secondary, high school and tertiary level education.

The inclusion in curriculum would be complemented by the development and implementation of specific awareness raising programme targeting Local Councils and economic groups such as industries, mining companies, livestock owners, herd boys etc.

These specific awareness raising programmes would be further enhanced by facilitation of cooperation with the media and regular environmental programmes in radio, TV and the printed media.

The awareness raising activities would be headed by professional staff input from the Department of Environment, DWA, COW and other government institutions combined with inputs from Media Consults for design of effective media campaigns to accompany the introduction of Catchment Management and other environmental management initiatives in the country.

4.6.7 Enforcement of Environmental Standards and pollution control, gradually changing to quality control and support to pollution control and implementation of environmental standards at Catchment level

Scope of Work:

Activity	Responsible	Inputs
1. Development of procedural guidelines and capacity building programmes for CMJCs and Technical Secretariats in the enforcement of environmental standards.	DWA/ DOEnv	Professional Staff Input from DWA and DOEnv Consultancy Inputs Travel and accommodation expenses
2. Implementation of the capacity building programme	DWA/ DOEnv	Professional Staff Input from DWA and DOEnv Consultancy Inputs Travel and accommodation expenses Training expenses
3. Regular refresher courses as new Councillors gets elected and participates in the work of the CMJCs	DWA/ DOEnv	Professional Staff Input from DWA and DOEnv Consultancy Inputs Travel and accommodation expenses Training expenses

Output: Effective enforcement of Environmental Standards by CMJCs and Technical Secretariats.

Guidance Notes: the CMJCs and the Technical Secretariats are in the future foreseen to play an important role in the enforcement of environmental standards. It will therefore be necessary to development of procedural guidelines for the work of the Technical Secretariats and a specific capacity building programme for the CMJCs and Technical Secretariats in the enforcement of environmental standards.

This capacity building programme will be gradually implemented as the CMJCs are established and develop capacity to carry out the regulatory functions in cooperation with the national departments.

The Councillors that form the CMJCs will be replaced after elections and regular refresher courses will be needed as new Councillors participate in the work of the CMJCs.

The capacity building programme would include the development of procedures and guidelines for national government departments, in particular Department of Environment and DWA for quality control of work done by the CMJCs and Technical Secretariats in the enforcement of environmental standards.

4.7 Strategic Aim II.4: Effective application of SEA and EIA processes

The EIA processes are well developed and are implemented routinely in Lesotho. With the emerging Catchment Management organizations there is a need to ensure that the CMJCs are included effectively in the EIA procedures as the EIA procedures are a key tool to ensuring that development activities are environmentally sound.

The Strategic Environmental Assessment (SEA) tools have not been used extensively in Lesotho. SEA tools are effective in assessing the impact of larger sector programmes. An example could be the implementation of the WS Programme with the establishment of Catchment Management including the envisaged increase in rainwater harvesting structures and small dams nationwide to ensure water for local productive use. There would be a need to undertake strategic assessments of the impact of these programmes.

4.7.1 Development of SEA and EIA guidelines incorporating the role of Catchment Management Organisation and capacity building of all actors in the application of the guidelines

Scope of Work:

Activity	Responsible	Inputs
1. Development of revised EIA Guidelines to incorporate the role of Catchment Management organisations in the assessment and approval of EIAs related to natural resources	DOEnv/ DWA	Professional Staff Input from DOEnv/ DWA Consultancy Inputs Travel and accommodation expenses
2. Development and implementation of a capacity building programme for the CMJCs and Technical Secretariats in the use of the EIA Guidelines	DOEnv/ DWA	Professional Staff Input from DOEnv/ DWA Consultancy Inputs Travel and accommodation expenses and training expenses
3. Preparation of a SEA of the WS Programme and development of guidelines for SEA of other sector programmes in Lesotho	Consultants reporting to COW	Professional Staff Input from COW/ DOEnv/ DWA Consultancy Inputs Travel and accommodation expenses

Output: Revised EIA Guidelines incorporating the role of Catchment Management organisations in the assessment and approval of EIA related to natural resources.

CMJCs and Technical Secretariats capacitated in application of the EIA Guidelines.

SEA of the WS Programme and preparation of SEA Guidelines for sector programmes

Guidance Notes: the Catchment Management organisations will in the future have a role to plan in the approval of EIAs for developments within the catchment areas. It will therefore be appropriate to develop revised EIA Guidelines to incorporate the role of Catchment Management organisations in the assessment and approval of EIAs related to natural resources. The activities will also entail the development and implementation of a capacity building programme for the CMJCs and Technical Secretariats in the use of the EIA Guidelines.

The implementation of the WS Programme can have substantial impacts and it could be appropriate to undertake a SEA for this programme and use the experiences to develop guidelines for SEA of sector programmes in Lesotho.

4.7.2 Carry out SEA/ EIA of all development programmes and plans to be implemented in the Catchment Management Areas prior to its approval and implementation

Scope of Work:

Activity	Responsible	Inputs
1. Implementation of SEA of the ‘Catchment Management and Development Plans’ for each Catchment Area before approval of the plans	DOEnv/ DWA	Professional Staff Input from DWA Consultancy Inputs Travel and accommodation expenses
2. Implementation of EIA before implementation of specific components of the catchment development plan and approval by CMJCs as part of the Department of Environment approval procedures	DOEnv/ DWA	Professional Staff Input from DWA Consultancy Inputs Travel and accommodation expenses

Output: SEA carried out on the ‘Catchment Management and Development Plans’

EIAs carried out for specific components of the Development Plan.

Guidance Notes: the combined implementation of a ‘Catchment Management and Development Plans’ for a catchment area can have various impacts and it would be appropriate to carry out a strategic assessment of these impacts before approval of the plans.

In line with the normal procedures, it will be required to carry out an EIA before implementation of specific components of the catchment development plan and approval by CMJCs as part of the Department of Environment approval procedures.

These activities would be carried out with Consultancy inputs for preparation of SEA and EIAs and with professional staff input from the Department of Environment and DWA.

5 Key Focus Area III: Water, Sanitation and Hygiene

This chapter provides information on the Strategy for Key Focus Area III: ‘Water, Sanitation and Hygiene’ and the analysis of options that has resulted in the preferred option for water services and the involvement of Local Councils described in this WS Programme. Detailed information is provided on the respective Strategic Aims under Key Focus Area III and the related activities and inputs.

5.1 The Rationale for Key Focus Area III

5.1.1 Policy Direction

The policy direction for water and sanitation services is provided by the LWSP and the Water Act. In particular the following Policy Statements and Objectives:

Policy Statement 2: Water Supply and Sanitation Services: Ensure access to a sustainable supply of potable water and basic sanitation services for all Basotho

Principle F: All the Basotho are entitled to have access to a sustainable supply of potable water and to the provision of basic sanitation services at an affordable cost

Principle G: Public-Private Partnerships are essential for sustainable development of water resources and accelerated access to potable water and sanitation services to the un-served and underserved population on account of improved efficiency of operations and investments

Objective 1: To accelerate the delivery of water and sanitation services to all Basotho in line with national development goals

Objective 3: To devolve provision of water supply and sanitation services to relevant institutions at National, District and Community Council levels

Objective 4: To promote equity in access to water supply and sanitation services taking into account vulnerable and marginalized groups including women, girls and all those affected by HIV/AIDS

Policy Statement 6: Stakeholder Involvement: Ensure participatory approach with effective involvement of all stakeholders at different levels in water resources management and development in order to ensure sustainability of sector programmes.

Objective 1: To promote effective stakeholder participation in the formulation and implementation of all sector programmes

Objective 2: To ensure participation of all gender groupings in the formulation and implementation of all sector programmes

Objective 3: To facilitate the involvement of the private sector as an important stakeholder in the management of water resources and in the provision of water services

Policy Statement 7: Institutional Arrangements and Legislative Framework: Put in place appropriate institutional arrangements and a legislative framework for the sustainable development and management of the nation’s water resources and for the supply of water and sanitation services.

Objective 1: To improve institutional and legal framework for implementation of the Water and Sanitation Policy

Objective 2: To foster clarity and separation of roles and responsibilities in water resources development and management; and water and sanitation services delivery to match the needs of Basotho

The links between Key Focus Area III and the LWSP Objective and Strategies are shown in detail in ‘Annex A: LWSP and Key Focus Areas’.

The Water Act clearly states that “Local Authorities” shall be responsible for the provision of water and sanitation services in rural areas and that water and sanitation service providers will be regulated by the Lesotho Electricity and Water Regulator.

In accordance with the Act, the role of the COW and the departments under COW is to provide technical assistance to the Local Councils.


The possible institutional models for emerging water supply solutions were discussed in a Task Force on Water Services and the sanitation issues were discussed in a Task Force on Sanitation. The results of the analysis in the task forces are described in detail in Report #3 on Institutional Models for emerging Water Supply Solutions. A summary of the challenges and experiences is presented below.

Water Act on Water Services

Provision of Water and Sanitation Services in the Urban and Rural Areas

17. (1) where a permit is obtained by a water and sanitation service provider for use in connection with a regulated activity, the service provider and his services shall be regulated under the Lesotho Electricity and Water Authority Act, 2008 taking into consideration Water and Sanitation Policy and Strategies formulated under this Act.

17. (2) Provision of water and sanitation services in the rural areas as well as operations and maintenance of the systems shall be the responsibility of a local authority established in terms of the Local Government Act, 1997, with the technical assistance from the Commissioner, where necessary.



The Water Act is **flexible** (consider Policy and Strategies) except on one point: the responsibility in rural areas rest with the Local Authorities

5.1.2 The Challenges related to Water and Sanitation Services

The main challenge related to water and sanitation services is clearly to address the lack of universal and affordable access to reliable services for the population in Lesotho and adequate services for industrial and commercial development. Presently almost 50% of the population do not have access to improved water services and more than 50% do not have appropriate sanitation facilities.

Areas underserved with water: approximately 20% of the unserved population reside within the existing WASCo service areas and do not have domestic connections or access to public standpipes; a small 2% part of the underserved reside in communities within the Urban Council boundaries but outside the WASCo service areas while an estimated 30% of the underserved live in rural communities in the lowlands where the existing infrastructure provides inadequate services. The largest proportion, about 50%, of the underserved population live in smaller inaccessible villages in the foothills, mountain and Senqu River Valley. These smaller communities pose the biggest challenge since the per capita costs are high for serving the small villages that often are not accessible by road.

The services in **rural areas** are provided through community managed water systems supported by the DRWS. The water systems are mainly small piped gravity systems (50% of the served population); different solar, electrical and diesel powered pumping systems (20%) and hand pumps cover about 30% of the served population. The functionality of the rural water systems is a challenge and while updated data on functionality is not available, it is estimated that more than 20% of the water systems are not operational.

The sanitation services are mainly provided by pit latrines and approximately 45% of the rural population is using improved latrines. The DRWS is subsidising the construction of Ventilated Improved Pit (VIP) Latrines in the communities where water projects are implemented while many household invest on their own in latrines of varied standards.

DRWS has a de-concentrated structure with district offices in each of the 10 districts. The actual implementation is carried out by the District RWS Offices. The district offices have an average staff complement of 10 positions, headed by a District Engineer supported by technical officers and administrative staff including accountants. The head office has about 50 positions covering management, administration, planning, design and construction and village affairs. In total DRWS has approximately 150 positions filled. The annual recurrent budget is approximately M17 million and the capital budget has in recent years increased from less than M100 million to about M200 million, mainly due to the implementation of projects supported by MCA-L.

WASCo operates water systems in 16 **urban centres**. The overall capacity for serving the population in the WASCo service areas is generally in place or will be with the ongoing investments in bulk water supplies and expansion of the urban systems. However, only about 60% of the population has access to the water services due to the affordability of domestic connections and the absence of public standpipes. WASCo has a staff complement with 506 filled positions with operational staff in all the 16 centres. WASCo collects annual revenue of about M120 million annually which covers the operational costs. Staff costs are approximately M65 million annually.

Sanitation services in urban areas are provided through pit latrines and water borne sewerage connected to septic tanks or sewerage systems. Only 5% of the urban population⁹ do not have access to sanitation facilities, however for those with access 60% use facilities that are shared with other households. The coverage with non-shared sanitation facilities in urban areas is therefore less than 40%. Less than 5% have toilets connected to water borne sewerage systems.

5.1.3 The Experiences related to Water and Sanitation Services

The experiences in the **SADC region** were analysed as part of the work of the Task Forces. Report #3 describes the experiences from South Africa, Zimbabwe, Tanzania, Zambia and Botswana. The general conclusions can be summarised as:

- A movement towards decentralised responsibility of water and sanitation services at local level with flexibility for how these are provided
- A water services offering with a variety of differing, but upgradable levels of service
- Strong commitment to oversight and financial viability
- Flexible tariff models that allow for equitable access and cross subsidisation
- Regulatory frameworks that encourage a range of water services providers from government, parastatal, civil society to private companies.

Service delivery in the countries analysed has been hampered by:

- Persistent institutional capacity issues

⁹ Bureau of Statistics, Continuous Multi-purpose Survey, April 2012.

- Dynamics of institutional change especially where changes to asset ownership, and responsibilities occur
- A rural-urban institutional water services split with, in some cases, different regulatory bodies
- Complicated institutional frameworks with overlapping institutional responsibilities
- Coordinated planning
- Authority without necessary skills or funding to take on the responsibilities
- Political interference
- Limited level of service options
- Forums for the involvement of water users at a local scale with little influence on decision making.

The sector reforms in Botswana have taken another direction than in the other countries in the region. Rather than the common decentralised approach to service delivery, it was decided to centralise the water service provision for all rural and urban settlements in the Water Utilities Corporation which until now only serves the major urban centres. The aim was to ensure technical expertise and uniform access and cost of water services to all population groups. The results and cost effectiveness of the approach is still to emerge as the changes are implemented.

In **Lesotho**, the LWSP and the Water Act call for decentralisation of water and sanitation service provision and for greater involvement of the private sector and civil society. This will require a number of changes to the status quo above and in the way consumers, service providers and government relate to each other. The review of other SADC nation's water and sanitation sectors unveiled three important considerations:

- the first is the larger the institutional change the more difficult it was to effect,
- the second that government institutional capacity issues can be very persistent, and
- the third that there is no one right way of delivering services.

This seems to indicate that it is important that the recommended changes to the service model are not drastic and the model is made as flexible as possible to allow for more than one solution and different players to get involved in service delivery to make up for any capacity issues in arms of government.

The LWSP makes it clear that cost recovery for services is a priority. The service model proposed thus needs to reflect both the willingness and ability of consumers to pay for a certain level of service. The LWSP also makes provision for ensuring access to services for the poorer segments of society therefore basic services for the poor will need to be cross-subsidised.

DRWS is carrying out pilot projects to find solutions to provision of water services in areas where the traditional small community based services are not feasible:

- A project serving about 5,000 persons in Mt Moorosi in Quthing district is managed by a Committee established under the Community Council and with members from the individual water committees in the villages covered by the project. 2 personnel are employed to administer and operate the water system and collect tariffs from households with private connections.
- A project serving about 20 communities in Pitseng in Leribe District is under construction – the management set-up is not yet decided, but is possibly going to be an operator engaged by the Community Council

- A project for all the villages in a Community Council is under implementation in the Tsikoane area in Leribe District. The area will be served from different water sources with the larger villages served with bulk water from the nearby WASCo water system. The management set-up is still to be decided.
- A project is planned for the connection of the major villages along the main distribution lines from the Metolong Project serving Maseru and neighbouring towns. The water will be supplied in bulk to the village and a management system will need to be established in each village.

5.1.4 The Legal Framework

The legal framework for water and sanitation services is mainly provided by the Water Act (2008) and the Local Government Act (1997) and its amendments. The LEA Amendment Act (2011) provides for the regulation of water services and the WASCo Company Act establishes WASCo under the Companies Act.

The Local Government Act Schedule 2 defines the responsibilities of the Local Councils to cover operation and maintenance of rural water and sanitation while the Water Act assign the full responsibility for rural water and sanitation services to the Local Councils. This would need to be harmonised.

The Local Government Act prescribes ‘District Planning Units’ in each District responsible for assisting the Councils in preparation of development plans. The Local Councils’ responsibility for planning for water and sanitation services as implied in the Water Act will need to be co-ordinated with the responsibilities of the District Planning Units to ensure coherent planning.

5.2 Options for Water and Sanitation Services

The options for water service provision were considered in different dimensions:

1. Decentralisation versus centralised service provision
2. Government/ Local Government roles in service provision versus private sector involvement
3. Cost recovery issues and responsibilities for funding water service provision

Options		Advantages	Disadvantages
1. One Water Utility responsible for all service provision	1.1 Uniform service and tariff in all settlements (new Botswana model)	Concentration of technical and management capacity in one organisation	<p>High cost of serving small settlements in remote areas</p> <p>High cost and inefficiencies of utility staff operating small systems in remote areas</p> <p>Households in villages unlikely to be willing to pay WASCo tariffs</p>

Options		Advantages	Disadvantages
	1.2 Utility services in major settlements and community management in smaller settlements	Concentration of technical and management capacity in one organisation Economy of scale by only maintaining one organisation	Water Utility to undertake two different business areas: 1. Commercial services in major settlements 2. Technical Assistance to Communities
2. WASCo responsible for commercial services and DRWS responsible for support to community management	2.1 WASCo providing services in the present service areas and expand where it makes sense commercially. DRWS provide support to Local Councils directly	Clear commercial focus for WASCo Continued overlap of WASCo and DRWS target areas DRWS continue with the present practices and no interruption of organisational set-up	Unclear links to planning in Local Councils Difficulties in reaching rural communities without clear involvement of local government structures
	2.2 WASCo providing services in the present service areas and expand in consultation with Local Councils DRWS District Team decentralised to District Councils and Head Office provide national support	Coordinated planning between WASCo and Local Councils Better links and communication to local communities through the decentralised Local Government Structures	Some dependency on the capacity for planning and implementation at District and Local Council levels Organisational change in DRWS disrupt the established routines
	2.3 As above but only O&M decentralised to District Councils	In line with Local Government Act (but not with Water Act) Easier to establish capacity for O&M in district councils Not depending on implementation capacity at District Council Level	The different stages of the project life cycle will depend on support from different institutions Less efficient management of staff and resources when support to communities split between different institutions O&M support dependent on technical capacity from DRWS

Options		Advantages	Disadvantages
3. Private sector involvement in water service provision	3.1 Pure Private sector Service Models for finance and service delivery	Private sector brings capacity and efficiency to the sector	Cost implications – profit orientation of private sector investments and some services need to have a social focus
	3.2 Intermediate options between public and private service models	Flexibility and efficiency of private operations in specific areas	Private sector only interested in profitable service areas

The considerations for private sector involvement is described in detail in Report #3 on Water Services Chapter 5.

The result of the analysis and Task Force Discussions

Considering the settlement patterns in Lesotho with many dispersed settlements in remote areas, option 1.1 with on water utility serving all settlements is found to be un-practical and inefficient due to the logistics and transport costs involved in deploying utility staff for operation and maintenance of more than 5000 small systems in remote areas. The present low operational costs for gravity systems make it unlikely that water users in rural villages would be willing to pay the higher WASCo tariffs. The combination of utility services in larger settlements and some level of local or community management in smaller settlements is likely to be more cost effective as it reduces the organisational management and supervision and focus the responsibilities close to the users.

Considering the present division of responsibility between WASCo and DRWS; and the existing organisational challenges in both organisations for improved performance, there seems to be little gained by merging the two institutions as implied in option 1.2. There is little gained in terms of staffing levels since the utility management in the larger settlements and the support to community management would require separate skills and capacities and therefore limited synergy would be achieved by merging the water utility and support to community management (option 1.2).

Considering the present difficulties related to rational national level planning for water services between WASCo/ DRWS and the implementation of bulk water projects there is a need for improved and coordinated planning. The local government structures are responsible for development planning of which water services planning is an integrated part. Therefore improved coordination of planning as implied in Option 2.2 and 2.3 would be desirable. The bottom-up planning for water services will need to be combined with a top-down planning for major bulk water infrastructure where this is needed to provide sustainable services.

Considering that the low functionality rates for rural water systems have been difficult for DRWS to address in the past, there is a need for improvements. The low functionality rate is linked to inadequate capacity and formal structures at community level for management of the systems and lack of communication links and formal reporting requirements. The establishment of Community Councils presents an opportunity to formalise the community management of water systems. The decentralisation of service provision as foreseen in LWSP and the Water

Act would be in line with this. The degree (O&M only or the full responsibility for service provision) and time schedule for the decentralisation of services would need to be determined according to the establishment of capacities at Local Council level and the implementation of fiscal decentralisation.

Cost recovery will be in focus for the commercial water services in the larger settlements where economic activities are concentrated and there is a willingness to pay for water services. The aim for the community managed systems is that O&M costs shall be paid by the users and government subsidies for investment in new and replacement of infrastructure is foreseen to continue in the foreseeable future.

Considering that presently there is little involvement in management and operation of water services by the private sector in Lesotho, there is a need to take a gradual approach. The private sector is providing services for implementation of rural and urban water and sanitation projects spanning from consultancy services for planning, design and supervision to supply of materials and equipment, construction and maintenance services and will be able to develop capacity for providing water services. The involvement of the private sector will be targeted at areas where there is an opportunity to provide more reliable and cost effective services than the public sector. Therefore option 3.2 is preferred with gradual testing and implementation of private service provision.

Considering that the promotion of sanitation is seen as a responsibility of the Local Councils and the process of decentralising the environmental health functions from MOH has been started, the water sector needs to support this and actively work with the Local Councils, the MOH and the MOE in the promotion of sanitation and provide the technical standards and guidelines for different sanitation technologies.

The role of the Local Councils in provision of water services is suggested to be formalised by establishing the Community Councils and the Urban Councils as ‘Water Service Authorities’ (WSAs) responsible for planning and ensuring that the population within their areas of jurisdiction have access to services. The actual services will be provided by a mixture of water service providers that include WASCo, the ‘Village Water and Health Committees’ and private operators in some cases.

The formal division between rural and urban areas will in the future no longer be relevant in the water sector since there are rural communities supplied by WASCo – the existing service areas in Peka, Mapoteng, Roma and Morija and communities to be served from the Metolong Pipelines. There are also a number of community managed water systems inside the Urban Council areas.

The **preferred option for service provision** resulting from the analysis and discussions with stakeholders in the Task Forces can be summarised as:

- The Local Councils will be capacitated to play a constructive role in water, sanitation and hygiene services. The Urban Councils and the Community Councils will be formally established as ‘Water Service Authorities’ responsible for planning and overseeing water and sanitation services within their respective areas of jurisdiction
- Water services will be provided by a variety of Water Service Providers (WSPs), WASCo being the most important in the urban areas and as supplier of bulk water. Private WSPs will be operating in some communities while the functioning of the existing ‘Water and Health Committees’ is improved through formal establishment as WSPs and supervision and capacity development.

- The District Councils will develop capacity for assisting the Community Councils in planning and implementation of water and sanitation services through formal decentralisation of the DRWS District Offices to the District Councils according to timing and scale to be agreed between the MOLG, the water sector and the Local Councils.
- DRWS Head Office will develop capacity for national level water and sanitation planning, monitoring and reporting and will provide technical assistance to the District and Urban Councils in preparation of water and sanitation plans and in the quality control of the implementation of the plans.
- DRWS will develop standards and guidelines on various appropriate sanitation technologies and will maintain and update the standards and guidelines for water supply. The Department will develop effective planning tools including a GIS on water and sanitation systems and carry out effective national level planning for water and sanitation services.
- DRWS will cooperate effectively with the MOH and MOE in the formulation of guidelines and training programmes for hygiene education as an integrated part of water and sanitation service provision.

5.2.1 The recurrent cost implications

The recurrent cost implications for Government of the model presented above can be analysed from the following considerations:

- WASCo will continue to fund the operation and maintenance of urban water services from the user payment of tariffs. An increasing level of funding for investments is also expected to come from the users with the gradual improvement in operating efficiencies and approval of justified tariff increases
- The changes foreseen in DRWS with decentralisation of the de-concentrated district offices is not in itself affecting the recurrent costs since the staffing levels in the District Offices are expected to remain at a similar level.
- The exact implication of the capacity development at DRWS at national level for planning and sanitation technologies will be determined by a detailed function analysis, however, it is likely that the changes will involve retraining and reallocation of staff rather than creating new positions or abolishing existing positions.
- The cost of Government subsidy for maintenance of the community managed systems has in the past been provided by both the recurrent and the capital budgets to DRWS. The decentralisation of responsibilities to Local Councils will not in itself change the need for subsidising major maintenance; however improvements to community management could in the longer-term result in a larger degree of self-financing of maintenance by water users.

In conclusion, major recurrent cost changes are not expected from the service model presented above.

5.3 Goals for Key Focus Area III

The goals for Key Focus Area III in 2020 and 2030 are:

2020: Access to water and sanitation will have improved in rural and urban areas through sustained investments, improved operations and an integrated approach to planning in cooperation with Local Councils. The functioning of community managed water services will have improved through clarification of roles and responsibilities for Local

Councils in planning, implementation and management of water systems and comprehensive capacity development. New approaches have been tested for increased involvement of the private sector in provision of services.

- 2030: All Basotho will have access to appropriate and affordable water and sanitation services according to desired service levels. The water services will be provided by a variety of Water Service Providers (WSPs) with WASCo recognised as an efficient Water Utility providing services in the major urban areas as well as bulk water services. Water and hygiene related diseases have been minimised.

5.4 Strategic Aim III.1: Local Councils established as Water Service Authorities

The Urban and Community Council areas of jurisdiction are provided with water services by a mixture of WASCo services and community managed systems. To implement the Water Act requirements that the Local Councils are responsible for (rural) water and sanitation in a coherent manner and to ensure an effective planning framework for future water services, it would be an advantage to clarify the roles by establishing the Urban and Community Councils as ‘Water Service Authorities’ (WSAs).

This simply means that the Local Councils are formally responsible for planning and overseeing that the population in their area of jurisdiction are provided adequate water and sanitation services. The actual water and sanitation services would be provided by ‘Water Service Providers’ (WSPs) with WASCo being the most important in the towns and the ‘Water and Health Committees’ would continue to be the water service providers in most of the community managed systems.

5.4.1 Assessment of the functions and capacity needs for Local Councils to be Water Service Authorities and preparation of capacity development plan and training materials and manuals.

Scope of Work:

Activity	Responsible	Inputs
1. Development of TOR for functional analysis and capacity development plan	DRWS/ MOLG	Professional Staff Input from DRWS and MOLG
2. Procurement of Consultant	DRWS/ MOLG	Professional Staff Input from DRWS and MOLG
3. Analysis of functions of the District Councils, Community Councils and Urban Councils related to water and sanitation services in consultation with MOLG and the Councils	Consultant reporting to DRWS and MOLG	Professional Staff Input from DRWS/ MOLG Consultancy Inputs Travel and accommodation expenses
4. Assessment of capacity needed and the capacity gaps compared to present situation	Consultant reporting to DRWS and MOLG	Professional Staff Input from DRWS/ MOLG Consultancy Inputs Travel and accommodation expenses
5. Preparation of Capacity Development Plan to fill the gaps in capacity	Consultant reporting to DRWS and MOLG	Professional Staff Input from DRWS/ MOLG Consultancy Inputs
6. Presentation of results at stakeholder workshop and finalising the Capacity Development Plan	Consultant reporting to DRWS and MOLG	Professional Staff Input from DRWS Consultancy Inputs Workshop expenses

Output: Functional Analysis Report; Capacity Development Plan with training materials and training manuals

Key Points for Scope of Work for Consultancy Assignment:

- Clarification of the functions of Local Councils as ‘Water Service Authorities’ and clarification of the role of the District Councils in supporting Community Councils

- Clarification of the role of the District Planning Units in relation to the Urban, Community and District Councils in planning for water services
- Assessment of the capacity needed to carry out the planning and oversight roles by the Local Councils as ‘Water Service Authorities’ and the capacities needed for implementation of water and sanitation facilities
- Assessment of the present capacity in Local Councils, the DRWS District Offices, the District Planning Units and MOLG to guide the preparation of the water and sanitation plans
- Preparation of a capacity development plan including training materials and training manuals as well as the logistic and office requirements, development of procedure manuals and guidelines etc.

5.4.2 Amendment of legal framework to allow for Urban and Community Councils to be established as Water Service Authorities

Scope of Work:

Activity	Responsible	Inputs
1. Consultations with Law Office and legal officers in MOLG on the legal implications of establishing Local Councils as Water Service Authorities and harmonising the Water Act and the Local Government Act	DRWS and the MEMWA Legal Officer	Professional staff time inputs
2. Analysis and drafting of legal documents including the regulations for ‘Water Service Authorities’	MEMWA Legal Officer and Law Office	Professional staff time inputs
3. Processing and approval of documents for the amendments to the legal framework	MEMWA Legal Officer	Professional staff time inputs

Output: Amendments to the Local Government Act and the Water Act and regulations for ‘Water Service Authorities’ published in Government Gazette.

Guidance Notes:

Assessment of the legal amendments required to clarify the roles of the Local Councils in provision of water and sanitation services and harmonise the requirements in the Local Government Act and the Water Act.

The task include the drafting and approval of regulations for ‘Water Service Authorities’ to facilitate the operationalization of the roles of Local Councils in water services

5.4.3 Implementation of capacity building of Urban and Community councils to fulfil their roles as WSAs and of District Councils to fulfil their supporting role.

Scope of Work:

Activity	Responsible	Inputs
1. Implementation of Capacity Development Programme including training of Local Councils, Councillors and DRWS staff	Consultants reporting to DRWS and MOLG	Professional Staff Input from DRWS/ MOLG Consultancy Inputs Travel and accommodation expenses Cost of training activities and cost of logistic and office development as needed in the CD Plan
2. Evaluation of results of training programme and adjustment of training materials based on experience	DRWS	Professional Staff Input from DRWS Travel and accommodation expenses Cost of training activities
3. Re-peat of training programme for Councillors after new elections and when Council staff is replaced	DRWS	Professional Staff Input from DRWS Consultancy Inputs Travel and accommodation expenses Cost of training activities

Output: Capacitated Local Councils with clarity on WSA responsibilities. Capacitated District Councils with clarity on responsibilities.

Guidance Notes: The After Care Strategy indicates that the DRWS District Offices should be decentralised to the District Councils. The DRWS District Offices are presently functioning as de-concentrated units consulting and coordinating with the District Councils on matters related to planning and implementation of the water and sanitation projects. The decentralisation will be an important formal step in clarifying and formalising the roles between National Departments and District and Local Councils more than a substantial change in the present practice. The change, however, will have implications for decision making and for financial management and procurement activities.

The capacity building will be guided by detailed procedures to be developed for financing of Local Council investments in water, sanitation and hygiene activities (as described under 8.4.5).

The consultancy support for implementation of the training programme might most effectively be arranged as continuation of the development of the training programme to ensure continuity and use of experiences.

Key Points for Scope of Work for the additional tasks in the Consultancy Assignment:

- Planning of training activities, venue etc.
- Implementation of the training programme for Councillors, Urban and Community Council Staff, District Council Staff and DRWS staff.
- Evaluation and reporting on the result of the training
- Revised training materials based on the experiences from implementation of the training

5.5 Strategic Aim III.2: Access to water and sanitation services for all

The access to water services according to the latest results from the BOS Continuous Multi-purpose Survey (CMS) from April 2012 indicate that 78% of the population in urban areas and 70% of the population in rural areas have access to improved water services¹⁰.

Data on access to sanitation depend on the definition of the standards that are regarded as acceptable. The 2012 CMS data indicate that 38% of the urban population and 42% of the rural population are using improved sanitation facilities that are not shared with other households¹¹. If shared latrines are included as acceptable sanitation, the access is 95% in urban areas and 50% in rural areas, however if latrines without a slab are excluded the figure reduce to 78% in urban areas and 33% in rural areas.

Whichever statistics are used for describing access to water and sanitation services, it is clear that substantial investments are needed to ensure that the LWSP's goal of access to water and sanitation for all Basotho is reached.

5.5.1 Preparation of water and sanitation plans by the Local Councils/ District RWS Teams incl. WASCo service areas, LHDA Camps, institutions and sewerage where appropriate

Scope of Work:

Activity	Responsible	Inputs
1. Update the GIS systems per district on water systems to establish an accurate baseline for planning for water and sanitation services in each Local Council Area	DRWS/ Local Councils	Professional Staff Input from DRWS and Local Councils Travel and accommodation expenses for field work
2. Preparation of Water and Sanitation Service Plans for each Local Council Area	DRWS/ Local Councils	Professional Staff Input from DRWS, Local Councils and District Planning Units Travel and accommodation expenses for field work
3. Presentation of the plans to the Local Councils and the communities and adjusting the plans according to comments	DRWS/ Local Councils	Professional Staff Input from DRWS and Local Councils Workshop expenses

Output: Water and Sanitation Plans for Urban Council and Community Council Areas

Guidance Notes:

The development of water and sanitation plans shall be based on the planning guidelines (described in 5.9.1).

¹⁰ These figures do not include the collection time and the amount of water available per person and the actual coverage according to the standards of maximum 150 m collection distance and minimum 30 l/person/day is likely to be substantially lower as indicated by the data from DRWS and WASCo indicating 2012 coverage of approximately 50% in urban areas and less than 50% in rural areas (access to functioning systems).

¹¹ Shared latrines are not regarded as improved sanitation facilities by WHO

The plans will be prepared using the GIS tools on existing water systems that the DRWS has started establishing for each district. The updated GIS will establish an accurate baseline for planning for water and sanitation services in each Local Council Area

The preparation of ‘Water and Sanitation Service Plans’ for each Local Council Area will indicate the type of technologies, water resources and services providers in the different towns and communities and cost estimates for the water and sanitation facilities, the operation and maintenance costs and implementation modalities and responsibilities.

The plans will be prepared by the Local Councils assisted by the DRWS District Teams and the District Planning Units based on guidelines to be developed by DRWS in collaboration with the MLG and WASCo.

The Plans will include the services for domestic use as well as institutional, commercial and industrial use. The planning process and the collaboration with WASCo will enable WASCo to prepare water and sewerage expansion plans that are consistent with the Local Council plans.

The plans will include water as well as sanitation – implying that the local councils will need to take decisions with WASCo on which areas in the towns that will be feasible for sewerage systems and the areas where other sanitation technologies will be promoted.

The planning will be guided by national level planning of major infrastructure for bulk water supplies and the possibilities of connecting larger rural communities to the bulk water pipelines as presently being planned for the villages close to the Metolong transmission pipelines.

The guidelines will clarify the planning process and the time frame for the plans. It is likely that the plans will be a plan for implementation in all communities and that the implementation schedules will be updated annually to fit into the annual planning and budgeting process. This is similar to the present planning modalities in the District Information System (DIS) used by the DRWS.

5.5.2 Preparation of village mobilisation, feasibility studies, detailed design and tender documents by Local Councils/ District RWS Teams according to Project Life Cycle Procedures and Quality Control by DRWS Head Office

Scope of Work:

Activity	Responsible	Inputs
1. Consultations and village mobilisation activities, surveys and water resource assessments resulting in feasibility studies for new and rehabilitation or extension of water systems.	DRWS District Teams	Professional Staff Input from DRWS District Teams Travel and accommodation expenses
2. Detailed design for new and rehabilitation/ extension of water systems and preparation of tender documents	DRWS District Teams	Professional Staff Input from DRWS District Teams Travel and accommodation expenses
3. Quality control and approval of feasibility study/ design documents and tender documents	DRWS Head Office	Professional Staff Input from DRWS Head Office

Output: Approved Detailed Design Reports ready for financing

Guidance Notes:

The implementation of consultations and village mobilisation, feasibility studies and water resource assessments will be carried out according to the established 'DRWS Project Life Cycle' procedures.

The detailed design for new and rehabilitation/ extension of water systems will be according to the established DRWS specifications, standard drawings and design standards.

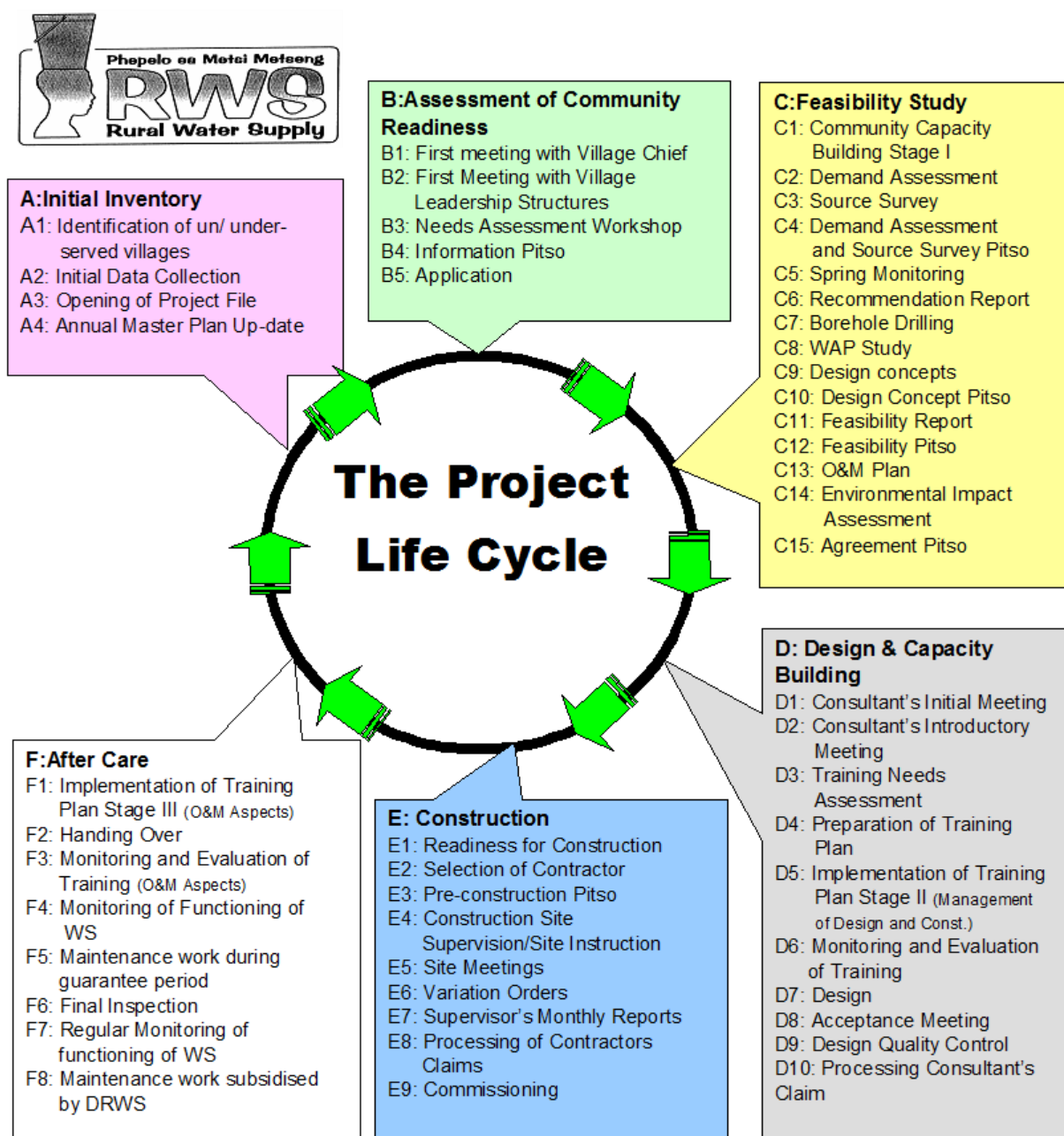
The activities will be carried out by the District RWS Teams in close collaboration with the Local Councils and where appropriate consultants will be engaged for preparation of feasibility studies, detailed designs and tender documents.

The feasibility and design activities will cover a range of situations from individual community schemes to larger areas schemes such as the extension of tertiary lines to rural communities from bulk water schemes and larger systems serving several communities where adequate water sources are not available for individual community schemes.

The feasibility studies and designs will also cover sanitation facilities and recommending technologies based on the demand and socio-economic situation in the communities. The feasibility studies will be guided by the Water and Sanitation Plans.

DRWS Head Office will carry out quality control of compliance with standards and guidelines and return of approved documents to Local Councils or specification of the revisions that are required. The quality control and approval will follow the established procedures for check of feasibility study reports and detail design and tender documents.

Figure 5-1: DRWS Project Life Cycle



5.5.3 Tendering, supervision of construction, commissioning and handing over of water and sanitation projects by Local Councils/ District RWS Teams and quality control by DRWS

Scope of Work:

Activity	Responsible	Inputs
1. Tendering for the implementation of the water and sanitation systems	DRWS	Professional Staff Input from DRWS Travel and accommodation expenses
2. Supervision of construction, commissioning and handing over according to the established procedures by the DRWS District Teams	DRWS	Professional Staff Input from DRWS Consultancy Inputs Travel and accommodation expenses
3. Quality control of implementation at various stages by the DRWS Head Office including formal commissioning and handing over	DRWS Head Office	Professional Staff Input from DRWS Head Office Travel and accommodation expenses

Output: Water and sanitation facilities constructed according to standards and specifications and handed over to Local Councils as the WSA/ owners of the systems.

Guidance Notes:

Tendering for the implementation of the water and sanitation systems, initially according to the present practice by DRWS Head Office and when adequate capacity and procedures are in place, by the District and Urban Councils.

Supervision of construction, commissioning and handing over according to the established procedures by the DRWS District Teams. The implementation takes place in collaboration with the Local Councils and the community leadership.

In accordance with the Project Life Cycle Procedures, the implementation of water and sanitation projects includes capacity building for operation and maintenance.

Quality control at various stages of the implementation process by DRWS Head Office staff. This could be audit of procurement process and tender evaluation/ award, quality control of construction standards for major components (pumps, tanks etc.); participation in commissioning and handing over; and final inspection at the end of the contractor's guarantee period. The quality control is documented in inspection reports.

5.6 Strategic Aim III.3: Improved hygiene in Rural and Urban Communities

Hygiene education and promotion of sanitation is included in the implementation of investment projects for water and sanitation according to Project Life Cycle Procedures. The implementation of new projects only targets a fraction of the rural and urban population. To address the backlog of access to sanitation in both rural and urban areas and improve personal hygiene and water and sanitation related diseases, there is a need to implement a programme in general in the communities on hygiene education and promotion of appropriate sanitation facilities. The hygiene education and sanitation promotion programme will be carried out by the environmental health staff in the Local Councils supported by the MOH and the DRWS District Teams.

5.6.1 Development of guidelines and training materials for promotion of sanitation and hygiene education by MOH and DRWS

Scope of Work:

Activity	Responsible	Inputs
1. Development of guidelines by MOH and DRWS including development of standard promotional materials and training materials	MOH/ DRWS	Professional Staff Input from MOH and DRWS Consultancy Inputs for graphic designs
2. Field testing of guidelines and training materials in cooperation with Local Councils	MOH/ DRWS	Professional Staff Input from MOH/ DRWS and travel and accommodation expenses
3. Presentation to stakeholders and agreement on strategy for subsidies for promotion of sanitation	MOH/ DRWS	Professional Staff Input from MOH and DRWS Workshop expenses

Output: Guidelines and Training Materials for promotion of sanitation and hygiene education.

Guidance Notes: The MOH, DRWS and NGOs active in sanitation and hygiene will cooperate on the development of guidelines and training materials. The health education unit and the environment health division in MOH will contribute with professional inputs on hygiene education and promotional materials and DRWS will contribute on technical sanitation design aspects. The guidelines will provide ‘rules’ for subsidies and when these can be applied as well as guidance on when different sanitation technologies are considered appropriate. Consultations with Local Councils and stakeholders in general will be needed to ensure that the sanitation guidelines are acceptable to all.

The implementation of sanitation in combination with water projects include a high level of subsidy for households to construct VIP latrines. The subsidy varies from 100% with complete construction by contractors (e.g. under the MCA-L funded rural W&S programme) to approximately 90% according to the normal DRWS practice where households dig the pits and provide local construction materials. For sustainability of the sanitation improvements, the households’ ownership and involvement is important and it would be important for the sector to arrive at a coherent approach to promotion of sanitation; in general in rural and urban areas including the subsidy rules to be applied by different implementation modalities for water and sanitation projects.

The training materials will be field tested and regularly updated according to experiences and changing conditions in the communities.

5.6.2 Development and implementation of hygiene and sanitation programme in schools

Scope of Work:

Activity	Responsible	Inputs
1. Consultations with the MOE on the inclusion of hygiene and sanitation in curriculum in the different levels	MOH/ MOE/ DRWS	Professional Staff Input from MOH/ MOE and DRWS
2. Development of training materials and posters for hygiene awareness-raising and maintenance of sanitation facilities etc.	MOH/ MOE/ DRWS	Professional Staff Input from MOH/ MOE and DRWS Graphic design input
3. Field testing of training materials and promotional materials	MOH/ MOE/ DRWS	Professional Staff Input from MOH/ MOE and DRWS Graphic design input
4. Presentation of training and promotional materials to stakeholders	MOH/ MOE/ DRWS	Professional Staff Input from MOH/ MOE and DRWS
5. Implementation of hygiene and sanitation programme in schools.	MOE and Schools	Professional inputs by teachers, school management and Local Council environmental sanitation staff. Supportive input by MOE, MOH and DRWS
6. Monitoring of implementation of the hygiene and sanitation programme in schools	MOE	Monitoring by MOE as part of regular supervision of schools

Output: Hygiene and sanitation included in curriculum at various level and operation and maintenance of sanitation facilities included in management programmes for schools.

Improved hygienic behaviour of students and teachers and improved operation and maintenance of sanitation facilities for schools

Guidance Notes: School children in all ages are important agents for change and schools hygiene and sanitation will be an important part of improved sanitary conditions in the communities.

The activities will include consultations with the MOE on the inclusion of comprehensive hygiene and sanitation in curriculum in the different levels. This will be followed by development of training materials and posters for hygiene awareness-raising in schools.

Maintenance of existing sanitation facilities at schools is problematic and the programme should include appropriate measures to ensure that maintenance of sanitation facilities are included in the management programmes for the schools.

The guidelines and training materials will guide the implementation of hygiene and sanitation programme in schools. The programme will be carried out by the schools in collaboration with the environmental health staff in the Local Councils and supervised by the MOE and with guidance from the MOH.

DRWS will provide guidance on design and operation and maintenance issues for water and sanitation facilities.

5.6.3 Promotion of sanitation and hygiene education by Local Councils/ District RWS Teams (communities with no ongoing water projects)

Scope of Work:

Activity	Responsible	Inputs
1. Implementation of promotion activities and hygiene education as defined in the Sanitation Guidelines	Local Councils	Professional Staff Input from Local Councils with guidance from MOH and DRWS Cost of promotional materials
2. Training and guidance to households on the implementation of sanitation facilities	Local Councils	Professional Staff Input from Local Councils with guidance from MOH and DRWS Cost of promotional materials
3. Training and guidance for latrine builders and local contractors in provision of sanitation facilities of different technologies	DRWS and MOH	Professional Staff Input from MOH and DRWS Cost of promotional materials

Output: Improved hygiene practices and improved sanitation coverage.

Guidance Notes:

The activities will include implementation of promotion activities and hygiene education as defined in the Sanitation Guidelines and using the hygiene education and promotional materials.

The activities will be carried out by the environment health staff in the Local Councils and should cover the urban and rural communities where there are no ongoing integrated water, sanitation and hygiene projects.

The activities will be guided by the Water and Sanitation Plans developed by the Local Councils to determine which sanitation technologies that should be promoted in different locations e.g. which areas will be covered by WASCo sewerage systems or areas where other decentralised sewerage systems for smaller communities or institutions are planned.

The increasing provision of water services and availability of water for private connections makes it important to accompany the improvements in water supply with appropriate sanitation investments to ensure that the lack of wastewater disposal facilities does not result in hygiene and environmental hazards.

The activities should also include guidance to the households on the different technology options for sanitation and training of latrine builders and local contractors in the construction of different type of sanitation facilities.

5.6.4 Carry out sanitary inspections of water sources and water quality surveillance

Scope of Work:

Activity	Responsible	Inputs
1. Sanitary inspection of water supply installations and preparation of inspection report and feedback to the owners/ operators of the water systems	Local Councils	Professional Staff Input from environmental sanitation staff in Local Councils Travel and accommodation expenses for fieldwork
2. Water quality sampling and testing in specific cases where needed	Local Councils	Professional Staff Input from environmental sanitation staff in Local Councils Travel and accommodation expenses for fieldwork Cost of water quality tests
3. Reporting on the sanitary inspections and water quality testing to MOH and DRWS	Local Councils	Professional Staff Input from environmental sanitation staff in Local Councils and MOH/ DRWS
4. Follow-up where needed by MOH and DRWS on designs and construction standards	MOH/ DRWS	Professional Staff Input from MOH/ DRWS

Output: Adherence to Water Quality Standards for drinking water

Guidance Notes:

Regular water quality testing is expensive to carry out on the many widely distributed community managed water systems in Lesotho and the MOH has adopted the sanitation inspections methodology for water sources to ensure that drinking water quality adhere to the standards.

The sanitation inspections identify the potential risks for pollution of the water sources and pollution of water in the water systems by inspecting the environment around the water sources and the maintenance state of the infrastructure. The result is reported to the operator and managers of the water systems for corrective measures to be taken.

The sanitary surveys would be complemented as needed by occasional water quality testing to verify the results and identify specific pollution sources.

The sanitary inspections will be carried out by the environmental health staff in the Local Councils and will form part of the regular reporting on the functioning of the community managed water systems.

The results will be reported to the MOH and DRWS for any action e.g. improvements to designs and construction specifications to ensure drinking water quality.

5.6.5 KAP Studies, monitoring the effect of hygiene activities in communities and schools and improvements to guidelines and training materials

Scope of Work:

Activity	Responsible	Inputs
1. Preparation of TOR for KAP studies	MOH/MOE/DRWS	Professional Staff Input from MOH/ MOE/ DRWS
2. Procurement of consultants for KAP studies	MOH/MOE/DRWS	Professional Staff Input from MOH/ MOE/ DRWS
3. Development and testing of questionnaires for KAP studies	Consultant reporting to MOH/ MOE/ DRWS	Professional Staff Input from MOH/ MOE/ DRWS Consultancy inputs
4. Field studies and data collection, data analysis and reporting of results to MOH and DRWS	Consultant reporting to MOH/ MOE/ DRWS	Professional Staff Input from MOH/ MOE/ DRWS Consultancy inputs
5. Revision of Guidelines and training materials to reflect outcomes from KAP studies	Consultant reporting to MOH/ MOE/ DRWS	Professional Staff Input from MOH/ MOE/ DRWS Consultancy inputs
6. Presentation of results of KAP studies and revised guidelines to stakeholders	Consultant reporting to MOH/ MOE/ DRWS	Professional Staff Input from MOH/ MOE/ DRWS Consultancy inputs Workshop expenses

Output: Hygiene and Sanitation promotion guidelines and training materials improved based on evidence on effectiveness

Guidance Notes: Implementation of Knowledge, Attitude and Practice (KAP) studies in urban and rural communities and schools are needed to identify the key areas to be addressed by the hygiene and sanitation promotion guidelines and training materials.

Update of the guidelines and training materials based on the evidence on how the effect of using the materials.

Key Points for Scope of Work for Consultancy Assignment:

The TOR should include:

- Assessment of previous studies on KAP in Lesotho and methodologies used internationally
- Design of questionnaires for KAP study and field testing and revision of questionnaire.
- Development of sampling methodology and programme for data collection
- Training of enumerators
- Field data collection, data entry and quality control
- Analysis of results and preparation of report
- Presentation of results to MOH/ DRWS and suggestions on revision of guidelines and training materials
- Revision of guidelines and training materials
- Facilitation of workshop for presentation of results to stakeholders
- Preparation of final report and guidelines/ training materials

5.7 Strategic Aim III.4: Improved functioning of Community Managed Systems

Approximately 20% of the existing community managed systems are not functioning for various reasons related to the management of the systems. The challenges are related to the management capacity, inadequate mechanisms for raising and administering funding for maintenance from the water users, technical capacity to operate and maintain the systems, the attitude that Government rather than the water users should pay for maintenance etc.

Some of the issues are due to the ‘informal’ manner in which the community managed systems function – without legal status of the water committees and resulting lack of enforcement of bylaws, lack of paid operators and no well-established management set-up as well as lack of formal reporting procedures for DRWS to monitor and follow-up on the non-functional systems. The reliance on government funding for major maintenance also contribute to the problems especially in periods where the budgets are not adequate for DRWS to assist the communities.

The investment in water systems that are not delivering services to the population is obviously wasted and effort and funding spent on improving the functionality of the water systems would seem to be well justified.

5.7.1 Registering of Water Committees as Water Service Providers with the WSA (Local Council)

Scope of Work:

Activity	Responsible	Inputs
1. Development/ updating of bylaws for the management of individual water systems including pitso for community acceptance of bylaws	VWHC with support from WSA and District RWS Office	Professional Staff Input from WSA and RWS Travel and accommodation expenses
2. Registration by the WSA of the VWHC as Water Service Provider and registration of bylaws	WSA and District RWS Office	Professional Staff Input from WSA and RWS Travel and accommodation expenses

Output: The existing ‘Water and Health Committees’ formally registered as ‘Water Service Providers’ by the ‘Water Service Authorities’ with approved bylaws.

Guidance Notes: Registration of ‘Water and Health Committees’ formally as ‘Water Service Providers’ by the ‘Water Service Authorities’/ the Local Councils.

This will include clarifying the roles and responsibilities and the reporting requirements. It will also include registration of the bylaws for the respective water systems by the WSA/ Local Council so that Council as the legal owner of the water system can assist the ‘Water and Health Committees’ in the enforcement of the bylaws.

The registration could happen as part of the process of updating the data and GIS mapping of all existing water systems as part of developing the Water and Sanitation Plans for the Local Council areas.

5.7.2 Design reporting formats and procedures for performance monitoring system for WSPs

Scope of Work:

Activity	Responsible	Inputs
1. Development of reporting formats for WSPs to WSAs and further reporting by WSAs to District Councils and DRWS nationally	DRWS	Professional Staff Input from DRWS/ District RWS teams and WSA
2. Field testing of reporting formats and design of data management systems and procedures	DRWS	Professional Staff Input from DRWS/ District RWS teams and WSA Travel and accommodation expenses for field work
3. Implementation of reporting system at WSP/ WSA/ District and National level	DRWS	Professional Staff Input from DRWS/ District RWS teams and WSA Travel and accommodation expenses for field work Training activities and equipment/ tools for implementation at WSA level

Output: Clear reporting formats and procedures available for WSPs. Regular performance monitoring reports on WSAs/ WSPs in the whole country.

Guidance Notes: The activities would include the development of appropriate reporting formats for WSPs – this could be the ‘Water and Health Committees’ in the existing community managed systems or private sector WSPs for other water systems. The reporting formats should include the information needed by the WSAs as well as the summary information needed at district and national level for monitoring the functioning of water services and providing statistics on access to water and sanitation.

The reporting formats will be field tested and a simple data management systems that can work at Local Council level will be designed to provide information needed for the WSA and the data for district and national level monitoring of performance of the WSPs.

The systems should be developed to form part of the national monitoring system and should be designed in collaboration with the COW M&E unit.

The development of the data system must be accompanied with the development of implementation programme including training programme for district and local council and community level staff. The implementation will include training of all levels in the implementation of the performance monitoring systems from the WSPs (water committees and operators); WSAs, District Councils and DRWS District Teams. The activities must include the full roll out of the system and procedures for data management and quality assurance of the reports.

The systems will be developed with professional staff input by DRWS Head Office, District Offices and Local Councils for design and development of appropriate reporting formats and data management systems. If needed consultants should be engaged to ensure integration of the reporting system with the data management and GIS systems in DRWS. The work will be guided by the COW M&E unit in the design of the systems.

5.7.3 Capacity building of Local Councils and Village Committees and Water Minders for improved management, operation and maintenance

Scope of Work:

Activity	Responsible	Inputs
1. Development of capacity building programme for WSAs and WSPs and operators/ water minders for improved management and operation of water systems	DRWS	Professional Staff Input from DRWS and District Councils
2. Assessment of availability of spare parts and maintenance contractors in the different areas of Lesotho and development of plans for promotion of private suppliers and contractors if needed	DRWS	Professional Staff Input from DRWS and District Councils Travel and accommodation expenses
3. Implementation of capacity building programme targeting systems with management problems	District Councils/ RWS Offices	Professional Staff Input from District Councils/ RWS Offices Travel and accommodation expenses Training materials

Output: Improved functionality of Community Managed Water Systems

Guidance Notes: the activities will start with the development of a capacity building programme for Local Councils as WSAs, Village Committees as WSPs and Water Minders for improved management, operation and maintenance of water systems.

The development of the capacity building programme will include identification of challenges in spare part supply and availability of technical skills for providing maintenance services and the development of a programme of ensuring adequate supply of spare parts in local hardware stores and capacity building/ training of local mechanics/ plumbers/ masons in the maintenance of the water systems.

The implementation of the programme and the training activities will be targeted at the systems where the performance monitoring systems indicate that there are problems with the capacity to manage, operate and maintain the systems

The design of the programme will be done by DRWS in collaboration with the District Councils and the implementation will be carried out by RWS District Teams supplemented where required by trainers or consultants to carry out the capacity building programmes.

5.7.4 Implementation of After Care Strategy procedures for subsidies for major maintenance

Scope of Work:

Activity	Responsible	Inputs
1. Development of the procedures for funding major maintenance	DRWS/ MOLG	Professional Staff Input from DRWS/ MOLG
2. Documenting the procedures for application to the fund and the criteria for approval and disbursement of funding	DRWS/ MOLG	Professional Staff Input from DRWS/ MOLG
3. National workshop for presentation of the concept to stakeholders and agreement on procedures and criteria	DRWS/ MOLG	Professional Staff Input from DRWS/ MOLG Workshop expenses
4. Dissemination and training of District Councils and WSA in the application of the procedures	DRWS/ MOLG	Professional Staff Input from DRWS/ MOLG Training expenses Travel and accommodation costs
5. Monitoring of the adherence to the procedures and collection of lessons learned	DRWS/ MOLG	Professional Staff Input from DRWS/ MOLG

Output: Subsidies available for major maintenance of water systems

Guidance Notes:

The After Care Strategy includes the operation of a fund for major maintenance by the District Councils that the WSAs/ WSPs can apply to for funding of major maintenance activities that are beyond the financial capacity of the WSP or WSA to finance.

The ‘After Care Strategy’ was developed 10 years ago and the development of the procedures for funding major maintenance would need to be done in consideration of the upcoming fiscal decentralisation to ensure that maintenance funding will be administered according to the procedures being established in general for the local government funding.

The activities include documenting the procedures for application to the fund and the approval and disbursement of funding. The prioritisation and approval of funding could include criteria such as up to date reporting from the WSP on the functioning of the system and general adherence to the regulations for how the WSP should operate and report to the WSA.

The activities would be carried out by MOLG and DRWS Head Office staff inputs in the design of the subsidy procedures. District and Local Councils input in the implementation of the procedures.

5.8 Strategic Aim III.5: Effective National Support to Local Councils for water, sanitation and hygiene

The LWSP and the Water Act emphasise the responsibilities of Local Councils in provision of water and sanitation services. The decentralisation process in Lesotho is new and the local government structures are developing capacity to carry out their roles in all areas of service provision.

There will therefore be a need for effective support to the local government structures from the national level to ensure the appropriate capacity is available to carry out the water and sanitation functions. The DRWS District Offices are envisaged in the medium term to be formally changed from the present de-concentrated mode of operation where the District Engineer formally reports to the DRWS Director and coordinates and collaborates with the District and Local Councils in the implementation of the functions.

The DRWS District Offices are envisaged to be decentralised to the District Councils as a technical arm of the District Council supporting the implementation of the water and sanitation activities in the Community Councils.

The MOH is in the process of decentralising health services including the environmental health staff to the District and Urban Councils. The specific national level support to the hygiene education and sanitation promotion activities in the local councils is described in the chapter 5.6 above. Additional general national level support such as regular supervision by the MOH is not included in this WS Programme.

5.8.1 Assessment of the functions and capacity needs at national level to support the Local Councils as WSAs and preparation of capacity development plan

Scope of Work:

Activity	Responsible	Inputs
1. Development of TOR for functional analysis and Capacity Development Plan	COW/DRWS	Professional Staff Input from COW/ DRWS
2. Procurement of Consultant	COW/ DRWS	Professional Staff Input from COW/ DRWS
3. Assessment of the functions that will be needed from DRWS at national level to support the local government structures in fulfilling their responsibilities in planning and implementation of water and sanitation services.	Consultant reporting to COW/ DRWS	Professional Staff Input from COW, DRWS and other national departments Consultancy Inputs
4. Determining the workloads implied in the functions and the required staffing levels and qualifications	Consultant reporting to COW/ DRWS	Professional Staff Input from COW, DRWS and other national departments Consultancy Inputs
5. Development of job descriptions and organisational structure for DRWS	Consultant reporting to COW/ DRWS	Professional Staff Input from COW, DRWS and other national departments Consultancy Inputs
6. Assessment of the existing capacities in DRWS and other national departments/ organisations and determine the capacity gap	Consultant reporting to COW/ DRWS	Professional Staff Input from COW, DRWS and other national departments Consultancy Inputs

7. Preparation of a Capacity Development plan for DRWS Head Office and other national departments/ organisations	Consultant reporting to COW/ DRWS	Professional Staff Input from COW, DRWS and other national departments Consultancy Inputs
8. Presentation of Capacity Development Plan to stakeholders	Consultant reporting to COW/ DRWS	Professional Staff Input from COW, DRWS and other national departments Consultancy Inputs Workshop expenses

Output: Function Analysis and Capacity Development Plan

Guidance Notes: Since the DRWS will be providing services to both rural and urban areas it might be facilitating the acceptance of the new functions if the name is changed to Department of Water and Sanitation or something similar that reflects the new functions better than ‘Department of Rural Water Supply’

Key Points for Scope of Work for Consultancy Assignment:

- Assessment of the future functions needed from DRWS at national level as well as other national organisations such as COW, WASCo, MOLG and MOH to support the local government structures in planning and implementation of water and sanitation services.
- Determine staffing requirements and the workloads implied in the functions
- Determine the required qualifications and grading structure for staff within the government’s public service system
- Develop the job descriptions and propose an appropriate organisational structure for DRWS designed according to the functions
- Assess the existing capacities in DRWS in terms of staff numbers and qualifications
- Determine the gap between the existing capacity and the capacity needed to fulfil the future needs
- Prepare a Capacity Development plan for DRWS Head Office
- Present to the Capacity Development Plan to stakeholders and finalise

The function analysis will determine the capacity needs at national level and indicate the staffing levels and the professional profiles of the staff needed in DRWS to effectively carry out their functions. In addition to the present functions the capacity needs are likely to focus on GIS and M&E functions, national level planning for water services and the development of water and sanitation plans at local council level as well as the development of guidelines and standards for different sanitation technologies including decentralised sewerage systems.

The capacity needs assessment will result in a capacity development plan for the DRWS Head Office and related functions in the COWs Office, WASCo and the MLG and MOH to provide effective support to the local government structures.

5.8.2 Implementation of capacity development plan for DRWS/ national institutions in support of water, sanitation and hygiene in Local Councils

Scope of Work:

Activity	Responsible	Inputs
1. Implement changes to the organisational structure and the government staff positions in DRWS and other institutions as required by the capacity development plan	DRWS and other national institutions	Professional Staff Input from DRWS and other national institutions
2. Training and re-orientation of existing staff and recruitment of staff to fill the required positions.	DRWS and other national institutions	Professional Staff Input from DRWS and other national institutions Training expenses
3. Revise the procedure manuals and guidelines to reflect the new functions	DRWS and other national institutions	Professional Staff Input from DRWS and other national institutions
4. Study tours and training courses to gain from experiences elsewhere of support to Local Government Structures on water and sanitation services	DRWS and other national institutions	Professional Staff Input from DRWS and other national institutions Expenses for training courses and study tours

Output: Capacitated DRWS and other national institutions provide effective support to Local Councils

Guidance Notes: The implementation of the capacity development plan is likely to include a few changes to the established positions to cater for the professional capacities that will be needed in DRWS and other national institutions.

The implementation will also include revision to the existing procedure manuals to clarify the interactions with the local government structures and procedures for quality control, updating of standards and specifications etc. The implementation will also include development of the procedures for collaboration with other national level institutions such as the COWs office and the MOH.

A comprehensive training programme could be envisaged on the new areas such as sanitation technologies, GIS and M&E and planning methodologies.

5.8.3 Development by DRWS of standard designs, guidelines and training materials for promotion of a range of appropriate sanitation solutions for rural and urban areas and updating of designs and standards for water systems

Scope of Work:

Activity	Responsible	Inputs
1. Study of appropriate sanitation technologies and development of standard designs and specifications	DRWS	Professional Staff Input from DRWS Travel and accommodation expenses for study of sanitation technologies
2. Development of training materials and promotional materials for different sanitation solutions in rural and urban areas	DRWS	Professional Staff Input from DRWS
3. Regular updating of the existing standard designs, specifications and design tools for water supplies	DRWS	Professional Staff Input from DRWS
4. Training of District RWS teams and Private Sector Consultants, Contractors and NGOs in the sanitation technologies and updated water system designs	DRWS	Professional Staff Input from DRWS Training expenses

Output: well documented standard designs, specifications and guidelines for water and sanitation technologies.

Guidance Notes: the development of standard designs, specifications, guidelines and training materials for promotion of a range of appropriate sanitation solutions for rural and urban areas will include various on-site technologies such as VIP latrines, EcoSan facilities, Pour-flush and Low-flush toilets, decentralised sewerage treatment with biogas, anaerobic reactors and gravel filters etc.

The existing design standards, design tools, specifications and guidelines for water systems will be updated to take account of any new technological development and changes in the scale of water systems to cover the larger systems in addition to the traditional smaller water systems for individual communities.

The survey and design tools will be updated to correspond to the use of GIS for mapping of water systems and data management and allow for all new designs to be prepared using the GIS tools.

The activities will be carried out by the professional staff of DRWS complemented where needed with inputs by MOH, NGOs active in the sector and Specialist Consultants.

5.8.4 Implementation of pilot projects to develop and test approaches to PPPs and improved Local Council/ Community Management functioning

Scope of Work:

Activity	Responsible	Inputs
1. Monitor and document the experiences from Mt Moroosi with 'the formal community management' structures	DRWS	Professional Staff Input from DRWS Travel and accommodation expenses
2. Carry out consultations with the Local Councils in Pitseng (in cooperation with the design consultant) on the management options for the treatment plant, pumping and distribution systems and support the implementation of the management option and monitor and document the results	DRWS	Professional Staff Input from DRWS Travel and accommodation expenses
3. Carry out consultations with the Local Councils in Tsikoane (in cooperation with the design consultant) on the management options for the water systems and support the implementation of the management option and monitor and document the results	DRWS	Professional Staff Input from DRWS Travel and accommodation expenses
4. Develop and monitor the functioning of the management options for the communities that will be connected to the tertiary lines from Metolong in cooperation with the design consultants.	DRWS	Professional Staff Input from DRWS Travel and accommodation expenses
5. Identify and monitor other private sector operations of water and sanitation services	DRWS	Professional Staff Input from DRWS Travel and accommodation expenses

Output: New approaches to implementation and operations of community managed systems tested and documented

Guidance Notes: The approaches to improved implementation and operations of community managed systems could include continuation of the activities in Mt Moorosi with a management structure under the Community Council with an established office and employed staff operates a water system for several communities.

The activities would also include finding appropriate solutions to the management and operations of the Pitseng scheme where a private operator is a possibility for an area scheme covering more than 20 villages and include operation of treatment plants and pumping stations.

The pilot projects could include other forms of engaging the private sector in the implementation and operation and maintenance of water systems from providing operator services on long term contracts with the Local Councils to situations where a private operator invests in water services and provide services in agreement with the Local Council. This takes place presently on a small scale from many households selling water to neighbours.

The successes and failures of the different approaches will be documented so the results can be used for wider replication where appropriate.

5.8.5 Update and further development of national data bases for water and sanitation and GIS Systems for planning and monitoring of community water and sanitation

Scope of Work:

Activity	Responsible	Inputs
1. Redesign of the DIS and the GIS systems to form an integrated data management system with data on status of water and sanitation access and retaining the reporting, planning and budgeting functions of the DIS	DRWS	Professional Staff Input from DRWS
2. Implementation of the data management system at head office and in the 10 districts	DRWS	Professional Staff Input from DRWS Travel and accommodation expenses IT hardware and software costs and specialist IT inputs where needed
3. Training of staff at national and district level in the operation and maintenance of the data management systems	DRWS	Professional Staff Input from DRWS Travel and accommodation expenses Training expenses

Output: Well-functioning and up-to-date data bases and GIS systems for water and sanitation.

Guidance Notes:

The existing data systems, in particular the DRWS ‘District Information System’ (DIS) and the GIS databases established as part of the AWF Rural Investment Planning project will be updated and combined to form a comprehensive and user friendly data management system for community water and sanitation.

The system will be designed in collaboration with the COW M&E unit to ensure that it contributes to a consistent data management system for the water sector.

The present efforts of establishing a common web-based GIS system integrated in the ‘Lesotho Water Sector Information Management System’ (LWSIMS) will be supported and strengthened.

The system will be based on decentralised data management and GIS systems in the 10 districts and will form the basis for water and sanitation planning at Local Council level as well as overall National level planning for water services.

The work should be carried out by professional staff inputs from DRWS and COW to ensure that the systems are designed and programmed in a manner that they can be maintained in-house. IT consultants will be used for specific tasks where needed.

5.9 Strategic Aim III.6: Effective National Level Planning for Water and Sanitation Services

Presently planning for water and sanitation services is done by WASCo for its designated service areas and by DRWS for the areas that are not served by WASCo. In addition the COW's office through the LLWSU carried out planning for bulk water services for the lowlands. This has resulted in some challenges related to coordination of the WASCo water and sewerage planning with the urban physical planning, in particular in Maseru and coordinated planning between the bulk water investments and capacity expansion in town systems.

The Water Act's assignment of responsibilities for water and sanitation services to Local Councils is an opportunity to harmonise the planning procedures and develop a planning system based on the development of Local Council Water and Sanitation Plans guided by overall planning at national level.

5.9.1 Development and implementation of planning guidelines and manuals for Local Council Planning for W&S Services as an integrated component of Catchment Management Plans and Physical Development Plans

Scope of Work:

Activity	Responsible	Inputs
1. Development of TOR for Planning Guidelines	DRWS	Professional Staff Input from DRWS and MOLG
2. Procurement of consultant for development of Planning Guidelines	DRWS	Professional Staff Input from DRWS
3. Consultation with MLG and stakeholders involved in physical planning activities and assessment of the policy and legal framework for physical planning	Consultant reporting to DRWS	Professional Staff Input from DRWS and MOLG Consultancy Inputs
4. Possible study tours to neighbouring countries to learn from experiences in local government planning for water and sanitation services	Consultant reporting to DRWS	Professional Staff Input from DRWS and MOLG Consultancy Inputs Travel and accommodation expenses
5. Development of planning guidelines for W&S Service Plans in consultation with Local Councils and MOLG	Consultant reporting to DRWS	Professional Staff Input from DRWS and MOLG Consultancy Inputs Travel and accommodation expenses
6. Testing of the planning guidelines in pilot Local Councils	Consultant reporting to DRWS	Professional Staff Input from DRWS and MOLG Consultancy Inputs Travel and accommodation expenses
7. Revision of guidelines based on experiences	Consultant reporting to DRWS	Professional Staff Input from DRWS and MOLG Consultancy Inputs
8. Presentation of guidelines to stakeholders and finalising based on comments	Consultant reporting to DRWS	Professional Staff Input from DRWS and MOLG Consultancy Inputs Workshop expenses

Activity	Responsible	Inputs
9. Design and implementation of a capacity building programme for Local Councils in the use of the guidelines	Consultant reporting to DRWS	Professional Staff Input from DRWS and MOLG Consultancy Inputs Workshop and training expenses

Output: Planning Guidelines and Manuals for preparation of W&S Service Plans for Local Council Areas

Local Councils capacitated in the preparation of W&S Plans

Guidance Notes:

The planning guidelines should be based on the GIS set-up being implemented in the water sector and practical with agreed standard formats. The planning guidelines must refer to the planning process for the wider planning of water resource management and development on a catchment area basis. In the interim until the catchment management activities are fully implemented, interim solutions will be applied for the planning for use of water resources.

The national planning process is envisaged as a combination of a bottom-up process from the Local Councils with an overall planning of the availability of water resources on a catchment basis and an overall national level planning of bulk water infrastructure based on the needs identified in the catchment and local council plans.

The development of the guidelines could include study tours to neighbouring countries e.g. RSA where procedures for local government involvement in water service planning have developed over years and detailed guidelines are available.

Key Points for Scope of Work for Consultancy Assignment:

- Consultation with MOLG and stakeholders involved in physical planning activities and assessment of the policy and legal framework for physical planning
- Development of planning guidelines for W&S Service Plans and clarification of the role of the District Planning Units in the planning process.
- Testing of the planning guidelines in two typical pilot Local Councils
- Revision of guidelines based on experiences
- Presentation of guidelines to stakeholders
- Finalising the planning guidelines and standard formats based on comments
- Development of capacity building programme for training the local councils in the application of the planning guidelines
- Implementation of the capacity building programme

The work should be carried out by professional staff inputs from COW, DRWS, MLG and other national stakeholders facilitated by Consultants for the development of the guidelines.

5.9.2 Establish GIS and other planning tools for national planning for water and sanitation services

Scope of Work:

Activity	Responsible	Inputs
1. Establishment of GIS system for national level planning of water services in DRWS combining the DRWS, WASCo and Metolong data with socio-economic and water resources data	DRWS	Professional Staff Input from DRWS, WASCo and COW Specialist Consultancy Inputs GIS software and IT hardware
2. Develop data updating and exchange protocols between WASCo, COW, DRWS and other sector institutions to ensure access to regularly updated planning data and effective links to e.g. the assets management systems	DRWS	Professional Staff Input from DRWS, WASCo and COW
3. Training and orientation of GIS staff in cooperating institutions in the set-up and use of the planning systems	DRWS	Professional Staff Input from DRWS, WASCo and COW
4. Presentation of planning systems to a stakeholders workshop	DRWS	Professional Staff Input from DRWS, WASCo and COW

Output: Effective planning tools for national level planning for water services

Guidance Notes:

The development of GIS systems is ongoing in the water sector institutions e.g. WASCo is mapping the distribution networks and DRWS has implemented a project for capturing GIS data for all the existing water systems.

These systems will be combined to form a GIS for all water and sanitation infrastructure and combine the WASCo network data with DRWS system data and the Metolong data on the bulk water pipelines as well as other data related to physical planning and socio-economic data such as population data.

The planning system will provide a framework for continued assessment of options for improvement of water services rather than a fixed long-term master plan and will be a valuable tool for continued planning of infrastructure development to match the demand from industries and communities.

The GIS planning systems will be developed in-house by the DRWS professional staff in co-operation with GIS personnel from other water sector institutions, BOS and planners from other sectors.

IT Consultants will be recruited for specialist inputs if needed for the refinement of the GIS systems.

5.9.3 Further develop and institutionalise Strategic Financial Planning Tools to assist in assessment of options and policy dialogue on development of water services

Scope of Work:

Activity	Responsible	Inputs
1. Update the programming of the SFPM to accommodate changes to the DIS and WASCo Financial Model and new developments in the sector	COW/DRWS	Professional Staff Input from COW/ DRWS Consultancy Inputs
2. Investigate and re-programme the SFPM to link directly to the GIS data bases to form an integrated planning tool	COW/DRWS	Professional Staff Input from COW/ DRWS Consultancy Inputs
3. Selection of ‘master users’ and training of these in the programming and updating of the SFPM	COW/DRWS	Professional Staff Input from COW/ DRWS Funds for training
4. Presentation of the SFPM to stakeholders and use the tool for policy dialogue on scenarios for development of water services	COW/DRWS	Professional Staff Input from COW/ DRWS

Output: Policy dialogue based on evidence based planning tools.

Guidance Notes:

The Strategic Financial Planning Model (SFPM) estimates the demand for water services and the investment requirements based on policy variables such as tariff adjustments and service targets. It is based on the data foundation in the DIS and WASCo Financial Model.

The SFPM was developed in 2010 and needs to be updated and linked to any redevelopment of the DIS and the WASCo Financial Model and updated with any new developments such as the Metolong Project infrastructure and the new demarcations of the local government areas.

The possibilities for integrating the SFPM with the GIS data bases to form user friendly and easily updatable tool needs to be investigated and implemented if feasible.

Selected personnel should designated as ‘master users’ of the planning tools and trained in the use and programming of the SFPM to ensure that there are adequate personnel in the water sector institutions familiar with the planning tool and can update and further develop the tool.

5.9.4 Use planning tools to establish and regularly update long term water demands and to develop medium- and long-term water supply and sanitation services programmes including review of Lesotho Lowlands Designs

Scope of Work:

Activity	Responsible	Inputs
1. Use the GIS and SFPM to prepare long term water demands and water supply options for the different areas of the country	COW/ DRWS	Professional Staff Input from COW and DRWS
2. Use the GIS and SFPM to analyse options for the Lowlands Water Supply designs and assess the need to review the designs according to changes in the supply areas and demands	COW/ DRWS	Professional Staff Input from COW and DRWS
3. Document analysis of water supply options in medium and long term water supply and sanitation services programmes to inform overall sector planning and financing requirements	COW/ DRWS	Professional Staff Input from COW and DRWS
4. Present water and sanitation programmes to stakeholders	COW/ DRWS	Professional Staff Input from COW and DRWS

Output: Updated water demand estimates available. Medium- and long-term water and sanitation services programmes available

Guidance Notes:

Use the GIS and the SFPM tools to establish and regularly update long term water demands and water supply options for the different areas of the country. The development of the planning tools and models is specifically designed to be able to provide estimates that can easily be updated as new developments or new priorities arise.

The planning tools would be used to update the water demand and water supply options in the lowland water supply designs and assess the need to review the designs as the development in the supply areas change.

The results will be documented in medium and long term water supply and sanitation services programmes.

Professional staff from COW and DRWS will use the planning tools to provide estimates for long term water demands and water and sanitation services programmes with Consultancy inputs as needed to supplement in the analysis.

6 Key Focus Area IV: Regulated Water and Sewerage Services

This chapter provides information on the Strategy for Key Focus Area IV: ‘Regulated Water and Sewerage Services’ and the background and analysis of options that has resulted in the description of regulated water services in this WS Programme. Detailed information is provided on the respective Strategic Aims under Key Focus Area IV and the related activities and inputs.

6.1 The Rationale for Key Focus Area IV

6.1.1 Policy Direction

The policy direction for water and sanitation services is provided by the LWSP and the Water Act. In particular the following Policy Statements and Objectives:

Policy Statement 2: Water Supply and Sanitation Services: Ensure access to a sustainable supply of potable water and basic sanitation services for all Basotho"

Objective 1: *To accelerate the delivery of water and sanitation services to all Basotho in line with national development goals*

Objective 3: *To devolve provision of water supply and sanitation services to relevant institutions at National, District and Community Council levels*

Objective 4: *To promote equity in access to water supply and sanitation services taking into account vulnerable and marginalized groups including women, girls and all those affected by HIV/AIDS*

Objective 5: *To ensure that the tariffs charged by water and sanitation service providers cover the actual cost, including the capital costs as well as the cost of overheads, of providing water and sanitation services*

Policy Statement 7: Institutional Arrangements and Legislative Framework: Put in place appropriate institutional arrangements and a legislative framework for the sustainable development and management of the nation’s water resources and for the supply of water and sanitation services.

ii. Establish and operationalise a bulk water authority for raw water. The authority will operate and maintain large dams and reservoirs;

iii. Establish and operationalise an independent economic and services regulator with respect to tariffs for treated water, water distribution, and bulk supply of raw water;

iv. Provide for urban water utility, WASA to have responsibility for treatment and distribution of treated water;

v. Facilitate the establishment of water distributors at various levels;

vi. Establish and operationalise asset management agency. The agency will coordinate large investments for expansion of water distribution networks and other related infrastructure

e) Promote involvement of other stakeholders, including local communities and the private sector in the management of water resources and in the provision of water supply and sanitation services;

ii. Review corporate governance arrangements for utility companies to be in line with international and regional standards for corporate agencies.

The links between Key Focus Area IV and the LWSP Objective and Strategies are shown in detail in ‘Annex A: LWSP and Key Focus Areas’.

6.1.2 The Challenges related to Regulated Water and Sewerage Services

The main challenge for the regulated water services is to ensure that the sector provides reliable and affordable services for domestic use and provides adequate services to support economic development in the country.

Large investments have been made or are under implementation in the overall production capacity and transmission systems. Despite these investments, a large proportion of the population in the WASCo services areas do not have access to the water services; mainly due to the high cost of domestic connections and absence of public standpipes or water kiosks.

WASCo has in the past had challenges with the reliability of services and some areas of Maseru have continuously not had 24 hour services. The recent investments in the Metolong production and transmission together with improvements to the distribution networks in Maseru are expected to minimize these problems.

The regulatory framework is being established and is still to be operationalized and this will require improvements to the data management and monitoring systems in WASCo in order to provide reliable data for performance monitoring.

The implementation of the sector reforms is still ongoing and the arrangements for management of the major infrastructure assets in particular the Metolong infrastructure still has to be developed.

The sewerage services provided by WASCo cover mainly the commercial centres of the towns and serve only approximately 3% of the urban population for domestic sanitation. The cost of providing sewerage services with adequate treatment is high in terms of investment costs and there is a need to ensure that the most appropriate and cost effective sanitation technologies are used.

6.1.3 The Legal Framework

The Water Act (2008) provides the overall legal framework for water services.

The LEA Act (2002) was amended to include regulation of urban water supply and sewerage services and the LEA (Amendment) Act (2011) gives LEWA the power to regulate fees and tariffs and develop and monitor technical standards for water supply and sewerage services.

LEWA will issue licenses to the water service providers, presently WASCo and enforce license conditions.

The former Water and Sewerage Authority (WASA) was transformed with the Water and Sewerage Company (Proprietary) Limited (Establishment and Vesting) Act 2010 into the Water and Sewerage Company (Proprietary) Limited (WASCo), vesting of the assets, liabilities, rights and obligations of WASA to WASCO, registered in terms of Companies Act.

Cabinet has allocated the responsibility for bulk water operations to WASCo.

The COW is in the process of defining the functions for the Assets Management Agency to manage the bulk water assets, initially from the Metolong Programme with aim of establishing the procedures and regulations for other future infrastructure assets.

6.2 Options for Regulated Water and Sewerage Services

The analysis of the overall options for provision of water services in Lesotho is provided in Chapter 5.2 presenting the rationale for having a water utility providing services to the urban areas and another organisation supporting community managed services in the smaller dispersed rural settlements.

One versus several water utilities: In terms of the regulated water and sewerage services in the major settlements one could consider whether the present option of one service provider (WASCo) is optimal compared to several smaller service providers. The size of commercial water service business in Lesotho is relatively small (total of 65,000 connections) and considering the challenges in terms of availability and retention of qualified staff, it is unlikely that several different utilities will be effective and able to provide the necessary technical expertise. Having one water utility will provide some economy of scale to ensure the required administrative and technical set-up.

Options for PPP arrangements: Specific areas where PPP arrangements could be advantageous have been identified and these are defined in Chapter 6.8. The PPP options would only be considered in areas where it can be established that there would be clear benefits in terms of service improvements and cost reduction in the longer-term.

Options for increased access for vulnerable households: the LWSP stresses access to affordable water services for all. Implementing this in a manner that allows WASCo to recover costs while ensuring that also the most vulnerable households have access to water at affordable rates is a challenge. A detailed assessment of these aspects is included in the water sector programme as described in Chapter 6.4.4. For vulnerable households with no cash income, adherence to the LWSP principles would require cross subsidies from other water users or Government subsidies specifically targeting these households as a social service.

WASCo has over the last decade practically abolished the public standpipes since no revenue is generated from these and they were difficult to administer. So if the option of cross-subsidy is chosen, WASCo need to be provided with adequate incentives or regulation to ensure that services will be available for these households from public standpipes/ water kiosks.

Options for major investments: The options for investments in overall production capacity for water services have been extensively analysed in the feasibility study and detailed design of the Lesotho Lowland Bulk Water Supply Projects of which the Metolong Programme is presently under preparation. The implementation in other zones is needed to ensure adequate capacity for water services.

The activities described in Chapter 5.9 on the improvements to the national planning for water services will result in review of the demands for the various zones of the Lowlands Projects and assist in prioritising the investments.

Options for bulk water operations: the LWSP prescribes that a Bulk Water Authority should be established to *‘operate and maintain large dams and reservoirs’*. The Cabinet has decided that WASCo shall be the bulk water operator. This is very rational in terms of operation and maintenance of the treatment plant, pumping stations and transmission mains since this is similar to the operations presently carried out by WASCo.

The LWSP prescribes in Policy Statement 7: *‘c) Separate water resources development and management from the provision of water supply and sanitation services.’* The functions of the Bulk Water Authority (now assigned to WASCo) should therefore not include the management

of catchments around the Metolong Dam. The establishment of the appropriate structures in line with the strategies described under Key Focus Area I on Catchment Management is therefore urgently needed to ensure the sustainability of the Metolong Dam.

6.2.1 The recurrent cost implications

The operational costs for WASCo are covered by the tariffs and Government has not for several years contributed with recurrent budget for urban water services.

Implementation of affordable services for the vulnerable households might imply the implementation of subsidies specifically targeting the provision of social services and this would have some cost implications for Government in order to provide adequate incentives to WASCo as a private company to provide these services. This will be clarified by the study described in Chapter 6.4.4.

6.3 Goals for Key Focus Area IV

The goals for Key Focus Area IV in 2020 and 2030 are:

2020: Universal access to affordable water services has been achieved in the WASCo service areas through a clear pro-poor approach and effective regulation.

Sewerage services will be planned and implemented as an integrated part of the Local Councils' plans for sanitation.

WASCo will be a water utility managed according to commercial principles on the path to full cost recovery through justified tariff adjustments and improved operating efficiency..

2030: Full cost recovery for regulated water and sewerage services with Government subsidies specifically targeted to: i) ensure the provision of services to the poor, and ii) ensure compliance with environmental regulations.

6.4 Strategic Aim IV.1: Universal and affordable access to water in WASCo service areas

A large proportion of the poorer population in the WASCo service areas is without affordable access to water services. The WASCo data on the number of connections indicate that about 40% do not have access to services. The substantial investment in capacity and the overall distribution networks in the WASCo systems have resulted in that the overall systems are in place for serving the population – however many households do not connect due to the cost of private connections and the number of public standpipes is inadequate.

The supply of water from public standpipes is not a profitable business for WASCo according to the present tariffs as the water is sold far below the production cost and there is no standing charge for public standpipes. Appropriate incentives therefore need to be implemented to ensure that WASCo provides this service since it is a clear requirement in the LWSP that the population must have access to at least 30 l/person/day at a cost of less than 5% of the income – for households without cash incomes there is therefore a need for social services/ subsidies to ensure universal access.

6.4.1 Planning, feasibility study, EIA, design and implementation of capacity expansion, extension and replacement of water supply infrastructure incl. implementation of the LLWS Bulk water infrastructure with due consideration of the Demand Management Strategy

Scope of Work:

Activity	Responsible	Inputs
1. Planning of expansion, extension and replacement investments and arranging funding	WASCo	Professional Staff Input from WASCo and travel and accommodation costs
2. Feasibility study for expansion, extension and replacement investments	WASCo	Professional Staff Input from WASCo and travel and accommodation costs Consultancy Inputs
3. EIA expansion, extension and replacement investments	WASCo	Professional Staff Input from WASCo and travel and accommodation costs Consultancy Inputs
4. Detailed design for expansion, extension and replacement investments	WASCo	Professional Staff Input from WASCo and travel and accommodation costs Consultancy Inputs
5. Preparation of Tender Documents and procurement for construction of expansion, extension and replacement investments	WASCo	Professional Staff Input from WASCo and travel and accommodation costs Consultancy Inputs
6. Implementation and supervision of construction, testing and commissioning of expansion, extension and replacement investments	WASCo	Professional Staff Input from WASCo and travel and accommodation costs Consultancy Inputs Cost of implementation

Output: WASCo water systems extended or replaced according to need

Guidance Notes: The planning of the WASCo systems will happen within the framework provided by the Local Councils' W&S service plans and the overall national planning for water services.

The detailed work will be carried out by consultants and WASCo's role will be to ensure the right quality of the consultants work and adherence to standards and guidelines. Works will be implemented by Contractors supervised by WASCo assisted by supervising consultants as needed.

For large projects, Project Implementation Units will be established to ensure adequate technical capacity for implementation without overburdening the normal work and procedures of WASCo.

Financing for minor expansion and extension investments will increasingly come from WASCo generated revenue and commercial finance arranged by WASCo with the commercial banks.

Financing for major investment will continue in the medium-term to be arranged in cooperation with Government as concessional loans or grants from International Finance Institutions and Development Partners.

6.4.2 Densification of tertiary reticulation network and other measures to make service available to more customers and to improve affordability of connections.

Scope of Work:

Activity	Responsible	Inputs
1. Development of strategies for making connections affordable such as increasing the present arrangement for payment of connections costs over a period of time or including the connection costs in monthly tariffs	WASCo	Professional Staff Input from WASCo and travel and accommodation costs Consultancy Inputs
2. planning and design of network densification programmes using the GIS mapping of networks and customers combined with the BOS data on population	WASCo	Professional Staff Input from WASCo and travel and accommodation costs Consultancy Inputs
3. Procurement and implementation of network densification programme and establishment of connections	WASCo	Professional Staff Input from WASCo and travel and accommodation costs Consultancy Inputs Construction costs

Output: The Reticulation Networks in the WASCo service areas allow customers to be connected easily and at an affordable individual connections costs.

Guidance Notes:

The present connection rates are low in many areas and longer distances to the tertiary networks increase the cost of connection for individual households and increases the installation of ‘spaghetti lines’ that eventually makes it more difficult to control leaks.

A programme to make connections more affordable for households is therefore needed to increase access to affordable services and at the same time better utilise the production and overall distribution capacity and ensure a rational development of the tertiary networks.

The GIS mapping of networks and customers combined with the BOS data on population will form a rational basis for planning the densification projects.

The WASCo professional staff will use the GIS planning tools to plan and design the densification programmes supplemented with consultants where required. Consultants will be engaged for supervision and Contractors for implementation of the pipe networks.

6.4.3 Implementation of Public Standpipes to ensure access to households that cannot afford domestic connections (Pre-Paid, PPP arrangement for sale of water, or other appropriate options)

Scope of Work:

Activity	Responsible	Inputs
1. Planning and design of network for public standpipes based on the GIS with networks and customer mapping and BOS population data	WASCo	Professional Staff Input from WASCo and travel and accommodation costs
2. Testing of different models for public standpipes such as pre-paid standpipes and different PPP options for sale of water.	WASCo	Professional Staff Input from WASCo and travel and accommodation costs
3. Design and implementation of public standpipes.	WASCo	Professional Staff Input from WASCo and travel and accommodation costs Consultancy Inputs Construction Costs
4. Monitoring the use of water from public standpipes and regular updating of the networks to satisfy the demand	WASCo	Professional Staff Input from WASCo and travel and accommodation costs

Output: Public standpipes operating in all WASCo service areas with population unserved by domestic connections.

Guidance Notes: a large proportion of the households that cannot afford domestic connections buy water from other households at much higher cost than the WASCo tariffs.

To improve access for these poorer households, a pro-poor programme of installation of public standpipes in all areas where there are households without connections is therefore needed to ensure affordable and universal access to water in the WASCo service areas.

The public standpipes can be pre-paid as implemented in a few areas in Maseru or other appropriate arrangement can be made e.g. with water vendors buying water from WASCo and selling at regulated rates to users. Combination of water sale with small kiosks selling other commodities such as airtime and other consumables could be a possibility that has been successful in other countries.

The activities will include planning and design of the location of the public standpipes based on the GIS with networks and customer mapping and BOS population data.

The use of the public standpipes should be monitored and continuously reviewed to ensure that the standpipes are located optimally to satisfy the demand.

6.4.4 Study on subsidy for vulnerable households and implementation of findings

Scope of Work:

Activity	Responsible	Inputs
1. Develop TOR for study on universal access to water for vulnerable households	COW	Professional Staff Input from COW/ LEWA/ WASCo and DRWS
2. Procurement of Consultant	COW	Professional Staff Input from COW
3. Implementation of Study in consultation with stakeholders	COW	Professional Staff Input from COW Consultancy Inputs
4. Presentation of results at stakeholder workshop, agree on preferred options and implementation modalities, presentation of policy paper to decision-makers	COW	Professional Staff Input from COW Consultancy Inputs Workshop expenses
5. Implementation of findings	WASCo, LEWA and DRWS	Funding for implementation

Output: Report on Options for ensuring universal access for vulnerable households and implementation of findings

Guidance Notes: the study will have the objective of developing a strategy for how to implement the LWSP principles of access to water for vulnerable households in both rural and urban areas including developing methodology for how to identify the vulnerable households

Key Points for Scope of Work for Consultancy Assignment:

- Definition and data on vulnerable households including consultations with the BOS and other stakeholders on the definition of vulnerable households in the context of provision of free basic water and the data requirements
- Analyse the existing data on WASA consumers and the data on vulnerable households and assess the scope/ magnitude of the free basic water provision in urban areas
- Discuss with WASA and other stakeholders on the possibilities for implementing free basic water and document the options for provision of free basic water and the pros and cons in terms of costs, fairness, ease of administration and monitoring and loyalty to the policy principles
- Analyse the existing data on rural water consumers and the data on vulnerable households and assess the scope/ magnitude of the free basic water provision in rural areas
- Discuss with DRWS, District, Urban and Community Councils and other stakeholders on the possibilities for implementing free basic water and document the options for provision of free basic water and the pros and cons in terms of costs, fairness, ease of administration and monitoring and loyalty to the policy principles
- Present the options and pros and cons to stakeholders
- Prepare a policy paper for presentation to high level decision makers for approval. The policy paper will include an explanation of alternative ways to pay for the subsidies, including cross subsidies and tax funded subsidies (i.e. transfers from central government to WASCo)
- Following approval, prepare implementation guidelines for operationalising the free basic water in rural and urban areas including monitoring and evaluation plan

6.5 Strategic Aim IV.2: Improved Operating Efficiencies for WASCo

WASCo is making a small operating profit; however, the LWSP goal of full cost recovery including capital cost is far from achieved. The non-revenue water is estimated to be about 30% and other key operational areas such as pumping efficiencies and staff productivity can be improved.

The SFPM¹² indicate that substantial tariff increases of 5% to 10% annually above inflation combined with improved operating efficiencies will be needed for WASCo to achieve full cost recovery including capital costs by 2030. Cost effective service provision naturally depend on efficient operations and the political acceptance of substantial tariff increases are likely to depend on an improved image for WASCo as an efficient water utility.

Improved operating efficiencies are therefore important to reach the overall goal of cost efficient water services and users paying for the real cost of the services.

6.5.1 Implement network and customer mapping and develop hydraulic models for all pipe networks

Scope of Work:

Activity	Responsible	Inputs
1. Completion of the ongoing GIS mapping of the water and sewerage networks including mapping of all connections.	WASCo	Professional Staff Input from WASCo and travel and accommodation costs Consultancy Inputs
2. Zoning of water networks and monitoring of area meters for combined analysis of consumption and flow data for efficient monitoring of NRW	WASCo	Professional Staff Input from WASCo and travel and accommodation costs Consultancy Inputs
3. Development of hydraulic models for analysis of the functioning of the water and wastewater networks and designing improvements to increase efficiencies	WASCo	Professional Staff Input from WASCo and travel and accommodation costs Consultancy Inputs

Output: GIS Mapping and Hydraulic models for all WASCo water and sewerage networks

Guidance Notes: Completion of the GIS network and customer mapping and development of hydraulic models will enable WASCo to analysis the functioning of the networks and planning for cost effective expansions and extensions. The mapping will include zoning of the networks and identify customers in the billing data-base corresponding to the network zones to enable easy analysis of consumption and flow data and identify sources of un-accounted for water.

The work will continue to be done in-house in WASCo for GIS mapping and development of models with specialist consultants when needed.

¹² SFPM – Strategic Financial planning Model developed in 2009/2010 by the COW's office as part of the EU-Water Facility project on capacity building in strategic financial planning

6.5.2 Implement measures to reduce non-revenue water in all networks, improve energy efficiency for pumping and water and wastewater treatment and improve labour ratio.

Scope of Work:

Activity	Responsible	Inputs
1. Installation of area meters for zones in the reticulation systems. Continuous monitoring of consumption data versus area meter flows and identification of areas with high levels of unaccounted for water.	WASCo	Professional Staff Input from WASCo and travel and accommodation costs Funding for installation of area meters and changes to network
2. Field surveys to identify underground leaks and illegal connections. Maintenance and corrective action to control leaks and to eliminate illegal connections.	WASCo	Professional Staff Input from WASCo and travel and accommodation costs Cost of survey equipment, and maintenance work
3. Meter calibration programme to regular test and calibrate customer meters to ensure accurate meter readings. Investigation of possibilities and cost effectiveness of using new smart metering technologies	WASCo	Professional Staff Input from WASCo and travel and accommodation costs Cost of meter calibration programme and cost of meter replacements
4. Analysis of existing energy consumption and identification of areas with inefficient equipment and replace pumping equipment and controls with energy efficient equipment	WASCo	Professional Staff Input from WASCo and travel and accommodation costs Cost of new pumping equipment
5. Continued analysis of labour costs and identify areas where operations can be streamlined to improve the labour efficiencies	WASCo	Professional Staff Input from WASCo
6. Continued improvements to administration of billing and revenue collection to ensure maximum billing and collection rates	WASCo	Professional Staff Input from WASCo

Output: Substantial reduction of non-revenue water, improved energy efficiency and labour ratios.

Guidance Notes: the proposed activities form a comprehensive programme for improving operating efficiencies. The list of activities form part of normal good practices for water utilities; however it will be important for WASCo to assess the cost benefit of the interventions and initially focus on the interventions that will bring the highest immediate return.

The activities should be carried out in-house and the results could be part of the internal performance management assessments as well as the performance criteria for regulation.

6.5.3 Implement effective data management systems for monitoring water quantities, quality and operating efficiencies and provide data for financial models

Scope of Work:

Activity	Responsible	Inputs
1. Development of the WASCo M&E system to provide the data needed for regulation as well as reporting to COW	WASCo	Professional Staff Input from WASCo Consultancy Inputs
2. Improvements to the EDAMS software for customer data base and billing to roll out the software to all the centres and utilise the functions in the EDAMS for improving the record keeping for operations such as the Planned Preventive Maintenance (PPM) Module	WASCo	Professional Staff Input from WASCo and travel and accommodation costs Consultancy Inputs Software and hardware costs
3. Collection of data on customers to provide important planning data on use of water and water consumption per capita	WASCo	Professional Staff Input from WASCo
4. Integration/ linking of the different data management systems such as EDAMS for customer/ billing database and the GIS network mapping data and hydraulic modelling	WASCo	Professional Staff Input from WASCo Consultancy Inputs

Output: Regular and accurate reporting on water quality, quantity and operating efficiencies.

Guidance Notes:

The proposed development of the data systems are described in the '*Rapid Assessment of the Water and Sanitation Sector and Development of Proposal for Support and Strengthening*', Final Report, COW, April 2012.

The activities will be carried out in-house by WASCo staff supplemented with specialist consultancy inputs where required on IT hardware and software.

6.6 Strategic Aim IV.3: Effective Regulation and Cost Recovery for Water Services

LEWA's mandate to regulate water services has started in 2013 and the regulatory framework has been developed and is yet to be fully implemented.

6.6.1 Further development of financial and revenue requirement models assessing tariffs vs operating realities for WASCo to determine long term revenue development to achieve cost recovery

Scope of Work:

Activity	Responsible	Inputs
1. Further development and regular updating of the WASCo Financial Model for predicting future financial situation for the utility	WASCo	Professional Staff Input from WASCo with support of consultants as needed
2. Update and further development of the revenue assessment models by LEWA and assessment of justified tariff increases	LEWA	Professional Staff Input from LEWA and WASCo with support of consultants as needed

Output: Transparent assessment of WASCo operations versus revenue requirements linked to expected improvements in service provision and operational efficiency.

Guidance Notes:

The Financial Model for WASCo has annual data since 2003 on the WASCo financial statements, data on production, connections, consumption, revenues and billing etc. for all the systems. It is a valuable tool for assessing past performance and predicting the future viability of the company and it should be maintained and further developed in light of the models and tools for analysing tariffs being developed by LEWA.

Update and further development of the revenue requirement models by LEWA and assessment of justified tariff increases.

The development and maintenance of the models will be done in-house by WASCo and LEWA professional staff with Specialist Consultancy inputs where required for further development of analytical models and analysis.

6.6.2 Regular assessment and further development of the LEWA regulatory framework and tools and continued application of the tools

Scope of Work:

Activity	Responsible	Inputs
1. Develop performance assessment tools and reporting formats for WASCo	LEWA	Professional Staff Input from LEWA and WASCo Consultancy/ TA Inputs
2. Review the performance of WASCo for the years 2011/12 and 2012/13 using the performance assessment tools	LEWA	Professional Staff Input from LEWA and WASCo Consultancy/ TA Inputs
3. Annual implementation of all the regulatory instruments, performance assessment tools and annual performance assessment of WASCo	LEWA	Professional Staff Input from LEWA and WASCo Consultancy/ TA Inputs

Output: Effective Regulatory Framework for water and sewerage services

Guidance Notes: LEWA has developed a number of regulatory instruments:

- Draft License.
- Draft Quality of Service and Supply Standards (QOSSS).
 - Draft Rules and Regulations such as ‘Water and Sewerage Regulations’; ‘Complaints Handling Rules’; ‘Contingency Fund for Emergencies’; ‘License Fees and Customer Levies Regulations’; and ‘Water Price Review and Structure Regulations’.
- Draft Equipment Types and Standards.
- Draft Wastewater Plants Safety Guidelines.
- Draft Reporting Formats
- Charging Principles for Electricity and Water and Sewerage Services
- Licensees’ Regulatory Accounting Guidelines
- Tariff Filing and Review Procedures for Electricity and Water and Sewerage Services

LEWA is in the process of operationalising the regulatory instruments with Technical Assistance. WASCo was licensed in April 2013 and the regulatory instruments still have to be implemented fully including the monitoring and reporting formats. The implementation will require development and strengthening of skills within LEWA and development of the M&E systems in WASCo to respond effectively to the data requirements for regulation.

The use of the regulatory framework is likely to result in need for regular updating and further development of the tools as well as the data systems in WASCo to provide the required data in a transparent and accountable manner.

The activities will be implemented by professional staff in LEWA and WASCo supported initially by Technical Assistance for the operationalization of the framework.

6.6.3 Develop and implement guidelines and procedures for the Assets Management Functions in the COW's office

Scope of Work:

Activity	Responsible	Inputs
1. Prepare a contract between the AMA and WASCo detailing the respective roles and responsibilities	COW	Professional Staff Input from COW with Consultancy/ TA Inputs
2. Prepare an asset register, financial statements and guidelines for financial management and reporting between the AMA and WASCo to the Government	COW	Professional Staff Input from COW with Consultancy/ TA Inputs
3. Prepare a monitoring and reporting framework	COW	Professional Staff Input from COW with Consultancy/ TA Inputs
4. Define tasks and responsibilities of the AMA and estimate the staff effort required. Prepare a Capacity Development Plan	COW	Professional Staff Input from COW with Consultancy/ TA Inputs
5. Implement the recommendations on Capacity Development for AMA functions	COW	Professional Staff Input from COW with Consultancy/ TA Inputs
6. Monitor and manage the infrastructure according to guidelines including development and maintenance of assets registers and reporting to GOL	COW	Professional Staff Input from COW

Output: Guidelines for Management of major water infrastructure Asset and establishment of capacity for assets management in COW

Guidance Notes:

WASCo will be responsible for the operations and maintenance of the Metolong infrastructure and for financial reasons the Government is retaining ownership of the assets and the Cabinet approved the establishment of an Asset Management Agency (AMA) within COW.

A management contract will be established between the AMA and WASCo to clarify the responsibilities of the parties in terms of asset operations, maintenance, and any future periodic rehabilitation, financial obligations, and reporting requirements.

The activities will be supported by Technical Assistance and will include the development of procedures and regulations for management of the major infrastructure assets, initially focusing on the Metolong Dam and Water Supply Programme assets.

This will be done in consultation with decision-makers on the overall objective of assets management, determination of possible lease fees and the link to LWSP policy statements on full cost recovery including capital costs.

6.7 Strategic Aim IV.4: Expansion of Sewerage Services

The sewerage services provided by WASCo cover mainly the commercial centres of the towns and serve only approximately 3% of the urban population for domestic sanitation.

As the water distribution is expanding and house connections and water borne toilets become commonly used in urban and peri-urban areas there will be a need for expansion of the sewerage network to existing and expanded water service areas to ensure hygienic and environmentally safe disposal of wastewater.

The planning of expansion is expected to happen in accordance with the water and sanitation plans to be developed in cooperation with the Local Councils. Due to the capital and operational costs of operating full reticulated sewerage services there is need to assess the areas most cost effectively covered by sewerage services versus other technologies as part of the planning for water and sanitation services.

Due to the cost of connection to the sewerage systems and the tariffs charged by WASCo for sewerage services, there are households in areas with sewer networks that do not connect. The planning of new sewerage expansion therefore need to be based on clearly articulated demand and commitment to connect by future customers to ensure that WASCo investments will be viable and contribute to improving both the environmental sanitation in urban areas and the operating profit for WASCo.

6.7.1 Development of sewerage expansion plans for the WASCo service areas in cooperation with the Local Councils as an integrated part of the Local Councils' W&S Services Plans and urban physical development plans

Scope of Work:

Activity	Responsible	Inputs
1. Interaction with the Local Councils (in particular the Maseru City Council) and DRWS in the preparation of W&S Plans and assessment of the most appropriate solutions for sanitation in different areas.	WASCo	Professional Staff Input from WASCo and travel and accommodation costs
2. Preparation of sewerage expansion plans for all the WASCo supply areas in response to the Local Councils' W&S Plans and urban development plans	WASCo	Professional Staff Input from WASCo and travel and accommodation costs Consultancy Inputs

Output: Sewerage expansion plans for all WASCo service areas

Guidance Notes: the starting point for the sewerage planning will be interaction with the Local Councils and DRWS in the preparation of W&S Plans and assessment of the most appropriate solutions for sanitation in different areas. Based on the W&S Plans develop sewerage expansion plans to respond to the need for services as determined by the Local Councils and the customers. Specific points in the TOR for development of sewerage expansion plans include:

- an assessment of the current wastewater and sanitation situation
- the demographic situation and future economic/ physical development of the urban area
- specific water consumption and wastewater production figures
- review of relevant technical options and identification of least cost solution and
- financial and economic analyses

6.7.2 Develop strategies to improve cost efficiency of sewerage systems e.g. different technologies to reduce generation of sewerage and improved efficiency of treatment and pumping

Scope of Work:

Activity	Responsible	Inputs
1. Assessment and piloting of different technologies to reduce sewerage volumes such as pour/low flush toilets, on-site pre-treatment such as septic tanks, household biogas digesters etc.	WASCo	Professional Staff Input from WASCo Funding for pilot implementation and promotion
2. Implementation of 'polluter pays principle' to encourage on-site treatment of industrial wastewater and introduction of cleaner technologies etc.	WASCo	Professional Staff Input from WASCo Funding for promotion of cleaner technologies
3. Assessment and implementation of improved efficiency of treatment plant operations and sewage pumping	WASCo	Professional Staff Input from WASCo Funding for new pumping equipment

Output: Strategies for cost effective use of sewerage systems

Guidance Notes:

The activities are intended to ensure cost effective operation of sewerage systems and will include the assessment and piloting of different technologies to reduce generation of sewerage and the BOD/ COD load of the sewage. The interventions can also include assessments and implementation of improved efficiency of treatment plant operations and sewage pumping.

The activities will be carried out by WASCo professional staff with inputs by Consultants and NGOs active in sanitation.

6.7.3 Feasibility study, ESIA, design and implementation of sewerage network extension and wastewater treatment

Scope of Work:

Activity	Responsible	Inputs
1. Feasibility study for expansion, extension and replacement investments in sewerage infrastructure according to the sewerage expansion plans	WASCo	Professional Staff Input from WASCo and travel and accommodation costs Consultancy Inputs
2. EIA for the expansion, extension and replacement investments in sewerage infrastructure	WASCo	Professional Staff Input from WASCo and travel and accommodation costs Consultancy Inputs
3. Detailed design for expansion, extension and replacement investments in sewerage infrastructure	WASCo	Professional Staff Input from WASCo and travel and accommodation costs Consultancy Inputs
4. Preparation of Tender Documents and procurement for construction of expansion, extension and replacement investments in sewerage infrastructure	WASCo	Professional Staff Input from WASCo and travel and accommodation costs Consultancy Inputs
5. Implementation and supervision of construction, testing and commissioning of the sewerage expansion, extension and replacement investments	WASCo	Professional Staff Input from WASCo and travel and accommodation costs Consultancy Inputs Cost of implementation

Output: Operational Sewerage Systems and wastewater treatment facilities in place according to W&S Plans

Guidance Notes:

The activities will include the project cycle for implementation starting from data collection, survey and mapping assessments for preparation of feasibility study for sewerage expansion projects. Environmental and Social Impact Assessments according to established guidelines and detailed design. The systems will be implemented by contractors with supervision by WASCo assisted where needed by supervising consultants.

6.8 Strategic Aim IV.5: Approaches to Private Water Service Providers, Independent Distributors and PPP arrangements developed and tested

The LWSP emphasise the increased use of Private Sector in service provision and the promotion of different forms for Public-Private-Partnerships (PPPs) to improve service delivery and operational efficiency.

6.8.1 Pilot PPP project for planning, design, implementation and operations of water distribution to unserved areas

Scope of Work:

Activity	Responsible	Inputs
1. In cooperation with the Local Councils identify areas not covered by the WASCo distribution network where community based systems or systems operated by Private Service Providers (PSP) could be a possibility	WASCo	Professional Staff Input from WASCo
2. Assess possibilities for pilot PPP projects and advertise for expression of interest from local private companies and NGOs	WASCo	Professional Staff Input from WASCo and advertising costs
3. Design PPP contracts, in cooperation with LEWA, to be signed between WASCo and PSP and set up institutional responsibility for design and implementation of the PPP pilot	WASCo	Professional Staff Input from WASCo, LEWA and COW, support of consultants based on international experience
4. Implement the PPP contracts and monitor implementation and operations	WASCo	Professional Staff Input from WASCo Funds for implementation of pilot or support to operator where needed.

Output: New approaches to implementation and operations of water distribution systems tested and documented

Guidance Notes:

The approaches to improved services to un- or underserved areas within the WASCo service areas could include piloting of implementation and operations of distribution systems by private operators. This could for example be services in an area not easily served by the existing WASCo network such as settlements above the existing reservoirs.

WASCo could engage a Private Service Provider (PSP) through a duly signed PPP contract to implement and operate the distribution of water based on bulk supply from WASCo. The PSP obligations in the PPP contract could also be undertaken by a non for profit community based organization or an NGO with experience in the water sector.

The PPP pilot arrangements will only be considered in situations where the private sector provider (or community based organization or and NGO) can ensure a better service and be more cost effective than the normal operations by WASCo.

The activities would be carried out by WASCo, COW, LEWA and the Local Council in defining, testing and documenting the PPP approaches.

6.8.2 Assessment of institutional options for improving WASCo's operational efficiencies, e.g. performance management contracts

Scope of Work:

Activity	Responsible	Inputs
1. Development of TOR for performance assessment of WASCo and recommendations for actions to improve performance	WASCo	Professional Staff Input from WASCo
2. Procurement of Consultants for independent WASCo's performance assessment	WASCo	Professional Staff Input from WASCo
3. Assessment of the institutional and operational performance of WASCo, including the present performance management systems and make recommendations for a performance enhancement programme	Consultants reporting to WASCo	Professional Staff Input from WASCo Consultancy Inputs
4. Implementation of recommendations and monitoring of performance in the targeted areas	Consultants reporting to WASCo	Professional Staff Input from WASCo Consultancy Inputs

Output: WASCo performance improved by performance management contracts.

Guidance Notes:

An approach to improved performance could be identification of specific business areas and allocation of performance based contracts for these to WASCo employees or private operators; e.g., tools to improve performance can include internally delegated performance contracts with current employees for specific service areas or functions with WASCo.

The approach could also be to design and implement a performance management contract with qualified private sector operator with the objective of the performance management contract to use inputs of the private sector to turnaround WASCo's performance in all fronts.

The activities would start by discussing relevant international experience in performance management contract, defining the TOR and engaging a Consultant specialising in performance improvements in Water Utilities; e.g. through the 'Global Water Leaders Group' or other organisations with specific expertise in performance enhancement and change management in water utilities.

Areas of performance improvements to be included in the performance contract could be: (i) operations of existing plants of productions, (ii) operation of smaller distribution systems or areas that at present are generating financial losses for WASCo; (iii) water meter reading in specific areas and billing systems; (iv) wastewater treatment plans or any other service area that can be ring-fenced and effectively managed separately from the rest of the utility. The operation of septic tank emptying services by private operators is an example where WASCo is already implementing this approach.

The performance management contract will include payments to the delegated manager or to the private sector based on the achievement of well-defined and time bounded milestones reflected on indicators included in the performance management contract. The successes and failures of the different approaches will be documented so the results can be used for wider replication where appropriate.

Key Points for Scope of Work for the Consultancy Assignment:

1. Review

- Review of the previous Performance Contract between the Government and the Company and the regulatory framework established by LEWA
- Review of the Historical Performance of WASCo and the past trends so that all the parties do understand the past performance and appreciate the problems
- Review the Visions, Missions and Performance Objectives
- Carry out a SWOT analysis to establish the Strength, Weakness, Threats and Opportunities for all the Divisions and the Company as a whole with a view of formulating the new Direction for the Company
- Review of the current business plans
- Review of the Billing Data Bases, customer mapping and IT related systems
- Review of the personnel strength and capabilities, HR manuals, Organograms etc.
- Establish baselines for performance and target setting
- Assessing the level of Decentralization and empowerment of the Areas and the Divisions
- Determination of the Areas/ Branches/ Zones to be created and the staff to manage them under possible Internally Delegated Performance contracts or private sector contracts
- Look at the social connection policy and the tariffs

2. Down to Work (Assisting WASCo and the Board in reviewing/ negotiating the Regulatory Framework to establish the exact obligations of the WASCo, the Board and the Regulator

- Assisting WASCo and the Board in Setting up an improvement Programme.
- Organizing Focus groups and workshops to slash out the programme and come up with strategies and activities that will be the basis for the Programme
- Setting up Performance targets for all the Areas/Branches and Divisions
- Determining the incentives and incentive mechanisms
- Drawing up Performance contracts for all Divisions and Areas and signing of the Contracts

3. Monitoring and Evaluation

- Continuous monitoring of the performance programmes
- Evaluation of the Programme in a Workshop
- Preparation of the successor program

6.8.3 Assess options for using local private sector providers in small towns, under contract with WASCo e.g. possibilities of Output Based approaches supported by GP-OBA

Scope of Work:

Activity	Responsible	Inputs
1. Assessment of specific areas where WASCo operations are not efficient due to the mode of WASCo operations and assess other possible solutions	WASCo	Professional Staff Input from WASCo
2. Engage with the support organisations e.g. the Global Partnership on Output Based Aid (GP-OBA) and the IFC/ Small Scale Infrastructure Provider Programme to design a feasible approach for PPP arrangements for improvements and operations of small water systems or sewerage treatment systems	WASCo	Professional Staff Input from WASCo, COW and LEWA
3. Design and implement the PPP programme for small water systems	WASCo	Professional Staff Input from WASCo, COW and LEWA Funding for support to implementation
4. Monitor and document the experiences and costs and benefits of the approach	WASCo	Professional Staff Input from WASCo, COW and LEWA

Output: Output-based approached for implementation and operations of water and sewerage systems tested and documented

Guidance Notes:

One of the main objectives of output based approaches (OBA) is to allocate construction and operational risks to the private sector providers. Using OBA contracts, WASCo could control both cost overruns of investment per capita to improve service provision and time over-run for putting in place infrastructure for service provision. In addition, OBA will offer the possibility of remunerating the private sector providers only after that service is in place providing services to the public.

The principle in the output-based approach is that the interested private operator finances a portion of investment costs for the implementation of a system and operates the system for a number of years before handing over to the owner. The investment provided by the private operator and operational cost are recovered by the user payments for services.

The approach is supported by the WB Global Partnership for Output based Aid (GP-OBA) through programmes such as the ‘Small Scale Infrastructure Provider Programme’. The Development Partners can assist in the preparation of the project and in the provision of concessional finance or arranging commercial bank finance to facilitate the investment.

The activities would be carried out by WASCo in cooperation with COW and LEWA and with participation from the Local Councils.

6.8.4 Assess options for PPP for the implementation of water and/or wastewater treatment plants.

Scope of Work:

1. Assessment of options and costs and benefits for PPPs in the planning, design, finance, construction and operation and maintenance of infrastructure development projects; e.g. the implementation of future water treatment plants for the Lesotho Lowlands or new sewerage treatment plants	WASCo	Professional Staff Input from WASCo, COW and LEWA
2. For projects where the initial assessment of the PPP options are found feasible, engage specialised expertise in the appropriate design and implementation of the PPP arrangements	WASCo	Professional Staff Input from WASCo, COW and LEWA, Specialist expertise in design of PPP arrangements
3. Detailed design of the PPP contractual arrangements and support for the recruitment of private partner.	WASCo	Professional Staff Input from WASCo, COW and LEWA. Support from international donors, including complementary funding for implementation as needed.
4. Monitor and document the experiences and costs and benefits of the approach	WASCo	Professional Staff Input from WASCo, COW and LEWA

Output: Cost effective design, construction and operation of new water and/or wastewater treatment plants using PPP contracts.

Guidance Notes:

The proposed PPP contract to be used is one in which the private sector could take obligations related to final design, partial financing, construction and operations and maintenance of the infrastructure built. This contractual option can be used for new water treatment or sewage treatment plants. Under this arrangement, an interested investor and operator would bid for the complete construction and operation of the plant for a number of years until the cost of the investment and the operational costs are paid back from fees for the delivered services.

In the case of water treatment, WASCo could pay an agreed fee per volume of treated bulk water delivered and in the case of sewage treatment, WASCo would pay a fee per volume of wastewater treated to required standards.

With the increasing need and demand for sewerage services, there could also be the scope for complete sewerage systems e.g. for a part of the community or for institutions where an operator would enter into a contract for implementation and operation of services for a specific time period. In this case the contract might not be with WASCo but with the institutions or the community and the services would be regulated by LEWA similar to WASCo services.

The assessment of options would be done by WASCo in cooperation with COW and LEWA and specialised expertise, e.g. a Technical Assistance for the design of PPP arrangements would be engaged to ensure that appropriate arrangement are made based on best international practice.

7 Key Focus Area V: Water Resource Development

This chapter provides information on the Strategy for Key Focus Area V: ‘Water Resource Development’. Information on the background for water resources development is provided as well as detailed information on the respective Strategic Aims under Key Focus Area V and the related activities and inputs.

7.1 The Rationale for Key Focus Area V

7.1.1 Policy Direction

The policy direction for water and sanitation services is provided by the LWSP and the Water Act. In particular the following Policy Statements and Objectives:

Policy Statement 1: Water Resources Management: Manage water resources in an integrated and sustainable manner to ensure availability of this resource in adequate quantities and quality for present and future social, economic and environmental needs.

d) Promote integrated planning, development and management of water resources at different levels and in different sectors to maximize benefits arising from hydropower, tourism, flood control, irrigation, water supply, water bottling, water for export and others to enhance complementarity and synergies

f) Develop and implement drought relief strategies and flood management measures for risk reduction and effective mitigation of impacts

Policy Statement 2: Water Supply and Sanitation Services: Ensure access to a sustainable supply of potable water and basic sanitation services for all Basotho"

Objective 2: *To promote increased investment in infrastructure development (reservoirs, conveyance structures, etc.) to meet the water demand in urban and rural areas for socio-economic development and for meeting basic consumption and hygiene needs*

f) Develop and implement management systems for existing and planned bulk water storage structures (reservoirs, dams, etc.)

Policy Statement 4: Trans-boundary Water Resources: Manage trans-boundary water resources on the basis of Lesotho’s sovereignty in a way that ensures maximum benefits while taking cognisance of her obligations to downstream users under international law.

Objective 2: *To promote joint planning and management of the development of trans-boundary water resources while maximising benefits for the people of Lesotho*

a) Cooperate with other riparian countries in the development, optimal utilization and protection of trans-boundary waters without compromising the country’s sovereignty

Policy Statement 7: Institutional Arrangements and Legislative Framework: Put in place appropriate institutional arrangements and a legislative framework for the sustainable development and management of the nation's water resources and for the supply of water and sanitation services.

Objective 2: *To foster clarity and separation of roles and responsibilities in water resources development and management; and water and sanitation services delivery to match the needs of Basotho*

ii. Establish and operationalise a bulk water authority for raw water. The authority will operate and maintain large dams and reservoirs

b) Where need arises, establish project implementation units (PIUs) to catalyse implementation of complex projects that require specialized expertise. In the event where PIU is needed, an oversight board, with necessary expertise for quality control, will be formed to provide policy guidance to the former

c) Separate water resources development and management from the provision of water supply and sanitation services

The links between Key Focus Area V and the LWSP Objective and Strategies are shown in detail in 'Annex A: LWSP and Key Focus Areas'.

7.1.2 The Challenges and Experiences related to Water Resources Development

Lesotho is blessed with water resources – being '*the Water Tower of Southern Africa*'. The water resources in Lesotho are, however, not evenly distributed – abundance in the north-eastern highlands and scarcity in the south-western lowlands and in the Senqu River Valley.

The development of water resources has in the past in many aspects been planned separately in the highlands and in the lowlands – mainly due to the planning and implementation of the Lesotho Highlands Water Project (LHWP) with transfer of water to the RSA.

Lesotho Highlands

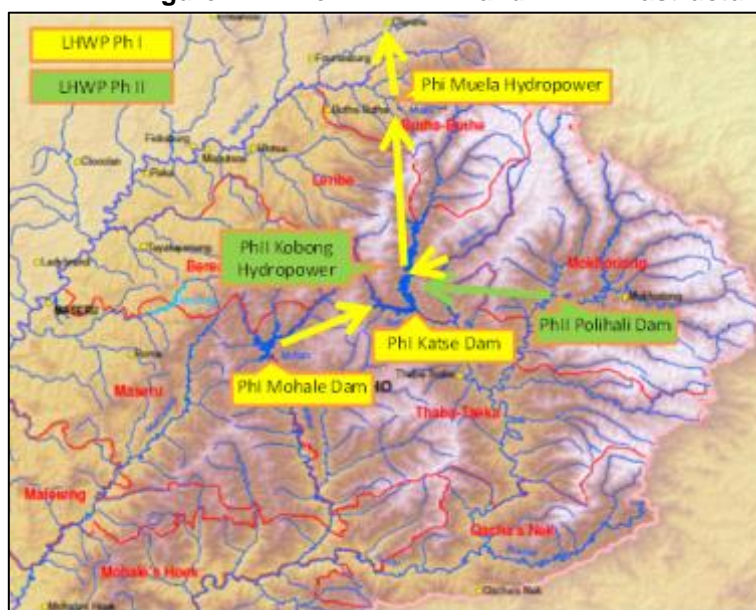
The LHWP infrastructure is designed to transfer water to RSA and generate electricity for Lesotho and export of surplus to the regional electricity grids.

Phase I of the LHWP is complete and the implementation of Phase II is planned to begin in 2013.

The project generates substantial revenue for Lesotho Government and ensures reliable electricity supply to Lesotho.

The proposed development of the Catchment Management Organisations in the Senqu basin provides an opportunity to integrate the LHDA plans and activ-

Figure 7-1: The LHWP Ph I and Ph II Infrastructure



ities in the catchment management plans and ensure that the communities in the area are impacted positively in terms of economic development from productive use of water and other natural resources locally.

The Lesotho Highlands are important for water security, not only for Lesotho but for the whole region and therefore water resources development and transfer schemes must be carefully considered in light of climate changes and the impacts on the long term water availability for the whole of Lesotho.

Lesotho Lowlands

The Lesotho Lowlands water supply project covers the development of bulk water supply for industrial, commercial and domestic use in the lowland towns and surrounding major villages. The Metolong Dam and Water Supply Programme is implementing the Lowland water supply plans in Zone 4 and 5 and is the first phase of the implementation of the programme.

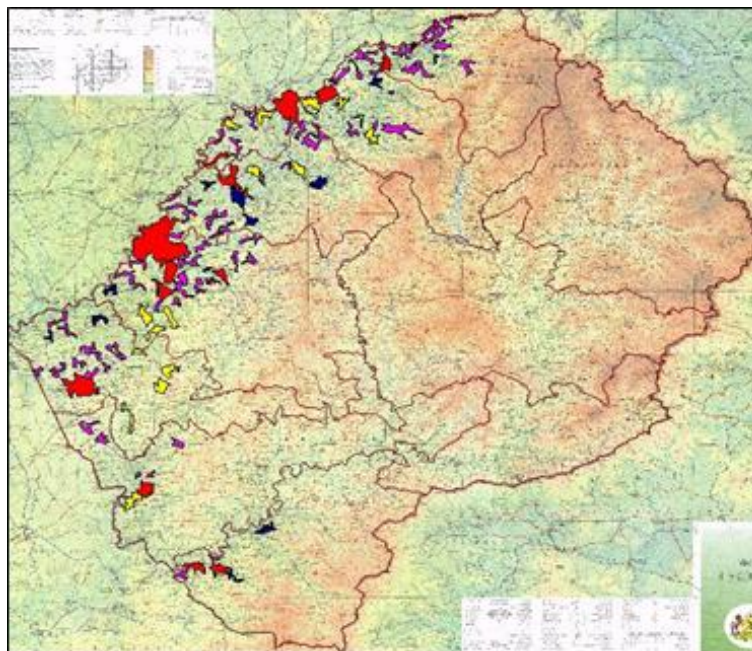
The development of Catchment Management and Development Plans for the catchment areas in the Lowlands presents an opportunity to incorporate the wider multi-purpose use of water in the considerations for the design and implementation of the Lowland designs.

Progress on the bi-lateral development activities in the Mohokare/ Caledon basin and cooperation with RSA further presents an opportunity to revisit the bulk water supply options in view of the combined need for water in the basin

Figure 7-2: Location of Settlements to be supplies with the Lowland Schemes

The analysis of options for the Lesotho Lowlands Bulk Water Supply projects resulted in the use of the lowland rivers as the water sources for water supply to the major settlements in the lowlands.

A number of rivers were investigated to ascertain their reliable yields, and suitable abstraction points. The Ngoajane/ Hololo, Hlotse, Southern Phutiatsana and Makhaleng rivers were found to have the best potential to meet the demand of various zones for large proportions of the year. However, in all cases river flow would have to be augmented during dry periods of the year to ensure adequate reliability.



The Hololo and Hlotse rivers can be augmented with releases from the LHWP and potential dam sites were also identified on each river above the proposed abstraction points, their objective being to provide storage for releases during the winter months, thus ensuring adequate reliable yields.

Integrated Planning

The aspects of integrated planning of water resource development in Lesotho were addressed by the IWRM strategy (2007):

IWRM strategy:

The Orange-Senqu is a trans-boundary river covering 4 basin states (Lesotho, South Africa, Namibia and Botswana) where conflicts and tension over water use have arisen from time to time. The basin is the most developed in the continent with 31 large dams (24 of them in South Africa). Given the ongoing population and economic growth in the basin, future conflicts are prone to arise if not proper coordination and measures are undertaken. The Orange River with a length of 2300 km is the largest and longest river in South Africa, the country that dominates the basin in terms of drainage area and has the largest industrial, agricultural and population base.

This has made the river to become a priority for South Africa, with important implications on water resource development in Lesotho through the LHWP.

Thus by development of the LHWP, and due to its topography and mean annual runoff, Lesotho is in a position to dispose of its surplus water in a more beneficial way than to just allow it to flow downstream across its border into South Africa. The LHWP is a good example to show how Lesotho and South Africa are sharing in the benefits of using Orange River. The water is supplied under gravity from Lesotho into the Vaal Dam near Johannesburg. Lesotho receives royalties for the water conveyed to South Africa while South Africa is saving the costs of pumping the water from the Orange after flowing across the border from Lesotho into South Africa. Lesotho is interested in utilising the financial benefits of the LHWP to supply more water and electricity to its people and to raise the standard of living for all.

Future options from the LHWP Phase 2 should however consider diverting water from the Lesotho Highlands to the growing population and industries in the Lesotho lowlands, where demand for water is prone to increase. Although also a political issue, this is a main IWRM challenge since the Metolong dam will not solve the long term demand challenges in the lowland (35 years +), nor for the greater Maseru area.

Investigating the possibilities of developing the water resources of Lesotho for supply to the lowlands and other riparian states will be important for ensuring water security and drought management for Lesotho lowlands as well as the southern African region. An agreement has been entered into in 2013 between Lesotho and Botswana to investigate the possibilities for transfer of water from Lesotho to augment the water supply to Botswana.

7.1.3 The Legal Framework

The important regional treaties for water resources management and development in Lesotho are:

- The SADC Protocol on Shared Water (Revised 2000)
- The ORASECOM agreement (2000)
- The Treaty of the Lesotho Highlands Water Project (1986) between South Africa and Lesotho and later Protocols.

The Revised SADC Protocol on Shared Water is a comprehensive document guiding the river basin organisations in the SADC Region. An evaluation of the Protocol is planned to be carried out in 2013/14.

The Treaty of the Lesotho Highlands Water Project (1986) between South Africa and Lesotho has had the greatest impact of the usage of water resources both within Lesotho and downstream in Orange River. It has been augmented by 6 Protocols, the latest which was signed in 1999 which deals with changes in Governance of the Project and the recent signing of the agreement to proceed with the second phase of the LHWP.

The purpose of the Treaty is to eventually deliver up to 70 cubic meters from the headwaters of Orange/Senqu to the Vaal River System in South Africa via dams and tunnels, while at the same time generate hydro-electric power for Lesotho. The Treaty provides the projects to be built in 5 or more phases. The treaty covers various aspects related to water resources management like water pollution abatement, setting and adjustment of In-stream Flow Requirements (IFR's) as well as future adjustments in allocation of water between the countries.

7.2 Options for Water Resources Development

The options for water resources development in Lesotho are many and the WS Programme will investigate these to provide for water resources development that will fulfil the LWSP aims of utilising the water resources of Lesotho for the benefit of Basotho as well as the neighbouring countries.

The activities suggested in the WS Programme covers the preparation of studies for the integrated utilisation of the water resources from the highlands and the lowlands. The specific water resource development projects will be defined from this overall national planning for water resources development combined with the bottom-up planning by the preparation of 'Catchment Management and Development Plans' as described under Key Focus Area I 'Catchment Management'.

7.3 The Goals for Key Focus Area V

The goals for Key Focus Area V in 2020 and 2030 are:

- 2020: The planning of water resource development activities in Lesotho will take place in an integrated manner as part of catchment planning and development in cooperation and partnership with the Local Councils and communities. Long-term plans will have been formulated for the development of Lesotho's water resources for the benefit of Basotho considering climate change.
- 2030: The water resource development activities in Lesotho will be implemented in an integrated and sustainable manner. The catchment management and development activities will have resulted in a sustainable path for water availability in Lesotho taking account of various climate change scenarios.

7.4 Strategic Aim V.1: Sustainable Water Resources Development for Socio-economic development in Lesotho for the benefit of all Basotho

The Lesotho Highlands Water Project infrastructure is designed to transfer water to RSA and generate electricity for Lesotho and export of surplus to the regional electricity grids.

The project generates substantial revenue for Lesotho Government and ensures reliable electricity supply to Lesotho. The development of the Catchment Management Organisations in the Senqu basin provides an opportunity to integrate the LHDA plans and activities in the catchment management plans and ensure that the communities in the area are impacted positively in terms of economic development from productive use of water and other natural resources locally.

The Lesotho Highlands are important for water security, not only for Lesotho but for the whole region and therefore water resources development and transfer schemes must be carefully considered in light of climate changes and the impacts on the long term water availability for the whole of Lesotho.

The Lesotho Lowlands Water Supply Project (LLWSP) covers the development of bulk water supply for industrial, commercial and domestic use in the lowland towns and surrounding major villages. The LLWSP covers water services and does not include water resources development for other purposes such as multi-purpose developments including irrigated agricultural production and tourism.

The Metolong Dam and Water Supply Programme is implementing the Lowland water supply plans in Zone 4 and 5 and is the first phase of the implementation of the programme. The development of Catchment Management and Development Plans for the catchment areas in the Lowlands presents an opportunity to incorporate the wider multi-purpose use of water in the considerations for the design and implementation of the Lowland designs.

Progress on the bi-lateral development activities in the Mohokare/ Caledon basin and cooperation with RSA further presents an opportunity to revisit the bulk water supply options in view of the combined need for water in the basin.

7.4.1 Implementation of Phase II of the LHWP – Polihali Dam and associated infrastructure, energy components and Environmental and Social Management Plans

Scope of Work:

Activity	Responsible	Inputs
1. Detailed design, establishment of Project Implementation Unit, procurement of consultants and contractors	LHDA	Professional Staff Input from LHDA and funding for PIU and design consultants
2. Implementation of the Polihali Dam and associated infrastructure and the energy components. Implementation of the Environmental and Social Management Plan (ESMP)	LHDA	Professional Staff Input from LHDA and funding for PIU, consultants and contractors Funding for ESMP including compensation

Output: Polihali Dam and associated infrastructure and energy components functioning and providing revenue to Government.

The developments in the Lesotho Highlands are implemented by the LHDA under the guidance of the Highland Water Commission and in consultation with MEMWA and COW

7.4.2 Complete the implementation of the Metolong Dam and Water Supply Programme

Scope of Work:

Activity	Responsible	Inputs
1. Continued implementation of the Metolong Dam and Water Supply Programme and handing over of the operations of the treatment plant and transmission systems to WASCo and the assets to the Assets Management Agency in the COW's Office.	MA	Professional Staff Input from MA and COW and WASCo Implementation costs and consultancy Inputs
2. Complete the implementation of the Environmental and Social Management Plan including the water, sanitation, electricity and access road infrastructure in the catchment area for the Metolong Dam.	MA	Professional Staff Input from MA Implementation costs and consultancy Inputs

Output: Metolong Dam and Water Supply Programme operating

Guidance Notes:

The activities will be carried out by the MA in collaboration with the COW and WASCo for handing over assets management and operations respectively.

7.4.3 Assessment of water resources and climate change scenarios and long-term possibilities of supply of water from Lesotho Highlands to Lesotho Lowlands and other riparian states

Scope of Work:

Activity	Responsible	Inputs
1. Update and improvement to basin models for detailed assessment of available water resources in the Lesotho Highlands for different climate change scenarios	COW and DWA	Professional Staff Input from COW and DWA Consultancy Inputs
2. Cost benefit analysis of different options for supply to other areas and the implications for the longer term water safety and securing adequate water resources for Lesotho and other riparian states	COW and DWA	Professional Staff Input from COW and DWA Consultancy Inputs
3. Consultation with riparian states on the interest and possibilities for supply of water from Lesotho Highlands within the ORASECOM framework.	COW and DWA	Professional Staff Input from COW and DWA and travel and accommodation costs Consultancy Inputs

Output: Reports clarifying the assessment of water resources and climate change scenarios and long-term possibilities of supply of water from Lesotho Highlands to Lesotho Lowlands and other riparian states.

Guidance Notes:

These activities will be started by the announced study by Botswana and Lesotho to: determination of the viability of water resource development options at reconnaissance level to augment Botswana's bulk water supplies from Lesotho Highlands taking into consideration the latest information on hydrology and environmental needs and the preferred option for such water supplies.

Based on the results of this reconnaissance study, there will be detailed studies to further explore the possibilities for supply to the neighbouring countries and for the Lesotho Lowlands.

The studies will as a minimum cover aspects such as:

- Updating basin models for water resources in Lesotho and use these to analyse different scenarios of climate change and the impact on available water
- Analysing the aspects of water security and drought management for Lesotho and in particular the water supplies and agricultural production in the lowlands of Lesotho as well as the implications for the neighbouring countries
- Analyse the cost benefits of possible water resource development projects in terms of the environmental, social and economic impacts, taking a long-term view
- The risks and mitigation of the risks of the development projects and the consequences of not carrying the water resource development investments
- The financing options for the water resources development projects

The activities will be carried out by the COW in collaboration with DWA, LHDA and ORASECOM with specialist Consultancy inputs.

7.4.4 Development of LHDA water resources development plans as an integrated part of the Catchment Management Plans for upper and lower Senqu

Scope of Work:

Activity	Responsible	Inputs
1. Assessment of the impact of the catchment management activities on the planned dams and bulk water transfer systems	COW and DWA	Professional Staff Input from COW and DWA Consultancy Inputs
2. Consultations with the CMJCs for upper and lower Senqu.	COW and DWA	Professional Staff Input from COW and DWA Consultancy Inputs
3. Consultations with riparian states within the ORASECOM framework on the possible implementation of future phases of the Lesotho highlands development in light of the Catchment Management Plans for upper and lower Senqu	COW and DWA	Professional Staff Input from COW and DWA Consultancy Inputs

Output: Long-term plans for LHDA future phases integrated in Catchment Management Plans.

Guidance Notes:

The aim is to ensure that the LHWP developments are planned in consultation with the envisaged Catchment Management organisations in the upper and lower Senqu as described under Key Focus Area I ‘Catchment Management’.

The activities would include an assessment of the impact of the catchment management activities on the planned dams and bulk water transfer systems. It would also involve consultations between the riparian states on the possible implementation of future phases of the Lesotho highlands development with the CMJCs

The final aim is to arrive at comprehensive ‘Catchment Management and Development Plans’ for the upper and lower Senqu that fully integrate the regional aspects with the local development needs.

The activities will be carried out by the COW and DWA and in close consultation with LHDA and the CMJC for upper and lower Senqu and with consultancy inputs as needed for detailed and specialised studies.

7.4.5 Carry out feasibility study, EIA, and design for multi-purpose water resources development and bulk water schemes according to national water service plans and Catchment Management Plans including review of the future phases of the LLWSP

Scope of Work:

Activity	Responsible	Inputs
1. Review the lowlands design according to new developments, water resource assessments and Local Councils' W&S Plans	COW/ LLWSU	Professional Staff Input from COW/ LLWSU and DRWS and WASCo and travel and accommodation costs Consultancy Inputs
2. Carry out data collection and surveys, detailed assessments and feasibility studies, consultation with stakeholders on the possible implementation of multi-purpose water resources development projects and bulk water schemes in the lowlands in cooperation with the CMJCs and as an integrated part of the catchment management and development plans	Consultants reporting to COW/ LLWSU	Professional Staff Input from COW/ LLWSU and DRWS and WASCo and travel and accommodation costs Consultancy Inputs
3. Environmental and Social Management Assessments and detailed design of possible water resource development projects.	Consultants reporting to COW/ LLWSU	Professional Staff Input from COW/ LLWSU and DRWS and WASCo and travel and accommodation costs Consultancy Inputs

Output: Designs for multi-purpose water resource development infrastructure and bulk water schemes.

Guidance Notes:

The immediate actions would concentrate on the review the lowlands design according to new developments, water resource assessments and Local Councils' W&S Plans. The review would be based on updated analysis and projections of the demand for water in the Lowland demand zones and a reassessment of the available water resources. The completion of the Metolong Programme and development of hydraulic models for the Maseru pipe networks will enable a rational decision on the operation of the Metolong plant and the existing production plants in Maseru and the towns and villages in the Metolong supply zones.

This will in turn inform the possibilities for extending the supply from Metolong to other areas to the south of Morija towards Mafeteng as originally planned in the Lowlands Design.

Other immediate action is needed for review and combining the plans for zone 2 of the Lowlands for the supply to Hlotse and Maputsoe and the ongoing DRWS project in Tsikoane.

The future development of multi-purpose water projects would include planning studies with data collection and surveys, detailed assessments of costs and benefits resulting in feasibility studies and consultation with stakeholders on the possible implementation of multi-purpose water resources development projects and bulk water schemes in the lowlands.

The work would be carried out in cooperation with the CMJCs and as an integrated part of the catchment management and development plans.

The activities will also include the Environmental and Social Management Assessments and detailed design of possible water resource development projects.

The activities would be carried out by the COW/ LLWSU in cooperation with DWA and the CMJCs in the lowlands. Consultants would be engaged for detailed studies.

7.4.6 Establish PIUs when needed and implement multi-purpose water resources development projects and bulk water schemes

Scope of Work:

Activity	Responsible	Inputs
1. mobilising funding for implementation of multi-purpose water resources development projects and bulk water schemes	COW	Professional Staff Input from COW
2. Establishment of Project Implementation Units (PIUs) as needed for efficient implementation of major projects	COW	Professional Staff Input from WASCo and travel and accommodation costs Consultancy Inputs
3. Implementation of projects and related Environmental and Social Management Plans and handing over	PIU/ COW	Professional Staff Input from WASCo and travel and accommodation costs Consultancy Inputs

Output: Multi-purpose water resources development projects and bulk water schemes implemented efficiently.

Guidance Notes: the activities will be based on the identification of multi-purpose development projects and the detailed assessment of the costs and benefits as described above.

The LWSP prescribes that Project Implementation Units (PIUs) are established for implementation of major infrastructure projects. This is a very rational approach since it allows for establishment of adequate technical capacity when it is needed for implementation of complex infrastructure and does not distort the normal functioning of the water sector institutions that would happen if these projects should be managed in-house.

The PIUs would be established according to the specific project requirements and size of the project. Typically a Board or Steering Committee would be established that would have representatives from MEMWA, COW/ LLWSU, DWA, CMJCs and other sectors and stakeholders involved in the multi-purpose project.

8 Key Focus Area VI: Sector Resource Planning, Coordination and M&E

This chapter provides information on the Strategy for Key Focus Area VI: ‘Sector Resource Planning, Coordination and M&E’. The background to these sector management activities are provided and detailed information is provided on the respective Strategic Aims under Key Focus Area VI and the related activities and inputs.

The Key Focus Area VI Strategic Aims and Activities will be supporting the achievement of the Strategic Aims under the Key Focus Areas I to V.

8.1 The Rationale for Key Focus Area VI

8.1.1 Policy Direction

The policy direction for water and sanitation services is provided by the LWSP and the Water Act. In particular the following Policy Statements and Objectives:

Policy Statement 1: Water Resources Management: Manage water resources in an integrated and sustainable manner to ensure availability of this resource in adequate quantities and quality for present and future social, economic and environmental needs.

- b) Develop and maintain a management information system for all water sector related data for ease of storage, retrieval, manipulation and dissemination;
- c) Develop and implement a communication strategy for effective flow of data and information at different levels with a view to avoiding duplication of efforts and increasing sharing of knowledge and experience, efficiency and collaboration;

Policy Statement 2: Water Supply and Sanitation Services: Ensure access to a sustainable supply of potable water and basic sanitation services for all Basotho

- m) Put in place mechanisms to ensure that a proportion of the revenues from the Lesotho Highlands water is utilized to increase coverage of water supply systems in underserved areas

Policy Statement 5: Sector Wide Approach: Adopt a sector wide approach to water resources management and to water supply and sanitation services development, in order to ensure effective and efficient use of internal and external resources

Objective 1: To promote a sector wide approach for water sector management and development in order to facilitate replacement of project-based approach with comprehensive sector-wide programmes

Objective 2: To promote optimal use of national and international funding for the management of water resources and the development of water supply and sanitation services through increased coherence between policy spending and results, and to reduce transaction costs

Objective 3: To improve coordination of water sector planning, programming and activities in order to enhance the chances of the attainment of developmental objectives and to facilitate monitoring and evaluation

Policy Statement 6: Stakeholder Involvement: Ensure participatory approach with effective involvement of all stakeholders at different levels in water resources management and development in order to ensure sustainability of sector programmes."

Objective 1: To promote effective stakeholder participation in the formulation and implementation of all sector programmes

Objective 2: To ensure participation of all gender groupings in the formulation and implementation of all sector programmes

Objective 3: To facilitate the involvement of the private sector as an important stakeholder in the management of water resources and in the provision of water services

Policy Statement 7: Institutional Arrangements and Legislative Framework: Put in place appropriate institutional arrangements and a legislative framework for the sustainable development and management of the nation's water resources and for the supply of water and sanitation services.

Objective 1: To improve institutional and legal framework for implementation of the Water and Sanitation Policy

The links between Key Focus Area VI and the LWSP Objective and Strategies are shown in detail in 'Annex A: LWSP and Key Focus Areas'.

8.1.2 The Challenges and Experiences related to Sector Planning, Coordination and M&E

The development of the sector wide approach to planning started in 1999 with the Water Resources Management Policy which outlined a comprehensive series of sector reforms and established the office of the Commissioner of Water in 2002 to provide policy and sector management coordination. In 2003, a mini-SWAp was started in the rural sub-sector supported by the pooling of Irish Aid and Swiss Development Cooperation funding under government leadership and supporting government planning systems.

The LWSP in 2008 formalised the SWAp as a Policy Statement 5 and in 2010 sector budget support from the EC was agreed upon following a number of preparatory and feasibility studies based on and further supporting a coordinated approach to planning in the water sector.

Challenges to improved planning and coordination in the water sector are many and include:

- inadequate coordination of donors and implementation of large parts of the sector investments through project modalities not fully integrated in the sector planning such as for example the substantive investments from the MCA-L support to the water sector
- the under-resourcing of the office of COW which is crucial to the operation of the sector and coordinated budgeting, planning and performance monitoring
- the combination of donor projects and budget support processes has been exhausting for government. Despite the advantages of budget support and aligned modalities, there advantages in the stand alone project approach which makes use of project implementation units.
- Weak data management systems and the lack of functioning M&E systems in the sector institutions and for the sector as a whole
- Investments in data and information systems such as the Lesotho Water Sector Information Management System (LWSIMS) and the DRWS establishment of GIS that do not produce the desired benefits mainly due to inadequate in-house capacity to benefit from the resources available for developing the systems.

A study in 2011¹³ on the challenges and experiences with water sector planning and coordination in a number of African countries characterized the experiences in Lesotho with the title *‘Lesotho – a SWAp initiated through a coherent set of reforms’*. The study compared the Lesotho experiences with other countries and summarised the lessons learned as:

- SWAp and sector reforms – a reform process is a good place to start to introduce the principles of the sector approach (even if the SWAp label is not used).
- Communication – sector budget support can distract from a sector approach, careful communication is necessary to avoid confusion between a sector wide approach and the modality of sector budget support.
- Partial ownership –SWAps are not often strongly owned by all those responsible to implement them, the power and influence needed to align various interests to the changes implied by reforms and a SWAp should not be underestimated.
- Dialogue skills –donors should shift their involvement from project level controls towards policy level debate. This implies new skills at country office level.
- Continuity – A stop and go approach by donors supporting sector wide approaches is potentially damaging, undermines the concept and should be avoided.
- Role of donors – donors can successfully introduce concepts and support those in the sector who are willing to engage in a sector wide approach. Donors can also actively facilitate coordination in the initial stages of a sector approach through their convening power.
- Public financial management – Sectors are not always successful in trying to implement improvements in financial management in advance of the Ministry of Finance (example with DRWS mini-SWAp attempt to implement a financial management system)

Quarterly Sector Coordination Meetings are the main forum for discussion and coordination between the stakeholders in the water sector. The Quarterly Meetings are held regularly chaired by the MEMWA PS and with good participation from stakeholders and development partners.

The water sector has also undertaken ‘Joint Annual Sector Reviews’ in 2011 and 2013 in conjunction with the EU Sector Budget Support. The reviews were carried out successfully with good participation from stakeholder and development partners. The annual reviews are still to be fully recognised as the main annual coordination event in the sector and integrated in the sector planning and budgeting processes.

8.2 Options for Sector Planning, Coordination and M&E

The present coordination structures in the water sector headed by the COW are working and need to be continuously reinforced to provide effective inputs to the planning and performance monitoring in the sector. The WS programme and the related Monitoring Plan will be an important component of this and should result in consistent monitoring of progress in the implementation of the WS Programme.

The LWSP emphasise the need for improvements to the M&E systems and the COW is implementing a M&E Programme to develop the sector M&E Systems through design of sector wide

¹³ Study of SWAP in the Water Sector. Draft Nov 2011. A study jointly commissioned by the African Development Bank and the European Commission covering the water sectors in Bolivia; Burkina Faso; Jordan; Lesotho; Senegal; South Africa and Uganda.

tools such as the LWSIMS and GIS systems combined with support to the development of data management and M&E Systems in the sector institutions. This works should be continued as part of the implementation of the WS Programme.

Many other parts of the WS Programme addresses the improvements in planning for water services (overall top-down national planning combined with bottom-up W&S planning by Local Councils) and the planning of catchment management and water resources development (top-down overall water resources development planning combined with bottom-up formulation of 'Catchment Management and Development Plans').

8.2.1 The recurrent cost implications

The recurrent cost implications of the coordination activities are minor and consists of facilitation of workshops and coordination meetings. The benefits in-terms of improved effectiveness of the sector activities are potentially large.

The cost implications of the need for improved M&E systems are limited to a few number of key positions in the sector institutions (covered elsewhere in the WS Programme for DRWS and DWA) and in the COW's Office. The COW's office need to have adequate capacity to operate and maintain the data management systems in-house – the operational difficulties with the LWSIMS clearly indicate the need for this. The cost implications in line with the descriptions in the M&E Programme would be around M0.5 to 1.0 million annually for staffing and maintenance of the software and hardware.

8.3 The Goals for Key Focus Area VI

The goals for Key Focus Area VI in 2020 and 2030 are:

2020: Water sector planning and coordination will be well functioning with strong cooperation between sectors and in partnership with development partners.

Sector funding will be budgeted and implemented through Government systems and the Monitoring and Evaluation and reporting systems will be used by Government as well as development partners.

2030: Water sector planning and coordination will be well functioning with an increasing level of cost recovery. Government modalities will be fully used for all planning and implementation modalities.

8.4 Strategic Aim VI.1: Effective Sector Planning and Coordination

The COW has established effective coordination mechanisms with stakeholders and development partners with regular quarterly sector coordination meetings and annual sector reviews.

The development of this WS Programme was guided by Task Forces covering the key areas of Catchment Management; Water Services; and Sanitation. The work of these Task Forces does not end with the formulation of the Programme and the cross sectoral coordination at a technical level that has been possible in the Task Forces will be important to ensure effective implementation of the Programme.

8.4.1 Maintain continuity of Technical Task Forces, Sector Coordination Meetings and Annual Sector Reviews as an integrated part of GOL Sector Management

Scope of Work:

Activity	Responsible	Inputs
1. COW's Office/ PPSU function as secretariats for the Task Forces to ensure effective coordination at a technical level for development of strategies and coordinated implementation plans for Catchment Management, Water Services and Sanitation respectively. Establishment of new task forces if the need arises.	COW	Professional Staff Input from COW and participation from sector institutions and stakeholders Funding for task force meetings
2. Arrangement of Sector Coordination Meetings and continued liaison with the sector ministries and departments related to the water sector as well as development partners and NGOs active in the sector.	COW	Professional Staff Input from COW and participation from sector institutions and stakeholders Funding for sector coordination meetings
3. Arrangement of Annual Sector Reviews with participation of all development partners and stakeholders in the sector. Continued development of the Annual Sector Review to become the main annual event in the water sector for review of experiences and coordination of plans between the Government and sector stakeholders including other sector ministries and development partners	COW	Professional Staff Input from COW and participation from sector institutions and stakeholders Funding for annual sector review

Output: Effective sector coordination.

Guidance Notes:

The coordination activities will be carried out by COW with input from MEMWA and water sector institutions and sectors related to the water sector as well as NGOs and development partners.

8.4.2 MTEF Processes with regular interaction with Sector Funders and MOF to ensure accurate records of all Sector funding on GOL budgets

Scope of Work:

Activity	Responsible	Inputs
1. Participation in the MTEF process and regular interaction with development partners, sector funding agencies and MOF to ensure accurate records of all sector funding on GOL budgets	COW	Professional Staff Input from COW and sector institutions and development partners
2. Ensure effective coordination of the budgeting process including the functioning of the 'Budget Task Force' for sector budget support (if needed) in relation to the established coordination of the budget preparation by the MEMWA.	COW	Professional Staff Input from COW and sector institutions and development partners

Output: Sector budgets capturing all sector funding

Guidance Notes:

A 'Budget Committee' exists under MEMWA and has the overall aim of preparing and monitoring implementation of the water and energy sector budgets. The 'Budget Committee' consists of the economic planners from all the institutions under the MEMWA. The Budget Committee is responsible for:

- Divide the total ministry ceiling between the various departments based on the priorities set out in the budget guidelines
- Oversee the preparation of the Ministry Budget Framework Paper in line with the procedural guidelines
- Ensure grant aided bodies produce estimates in line with procedural guidelines
- Ensure ministry produces budget estimates on time and within ceilings
- Develop and manage an MTEF training programme to ensure all stakeholders are trained in the Ministry, including District officers where appropriate
- Coordinate the preparation of annual work plans and cash flow forecasts and requests for funding from departments for submission to MFDP
- Manage the monitoring and evaluation of programmes and activities and report to MDDP as required

The water sector Coordination Meeting established a Budget Task Force to monitor the water sector budgeting process and the implementation process during the financial year in the water sector institutions focussing on the work planning, transfer of funds, expenditures and financial reporting of the combined Government of Lesotho and Sector Budget Support. The 'Budget Task Team' will initially focus on the issues related to the implementation of the 'Sector Budget Support' and could later expand to cover the whole water sector budget including financing from all Development Partners.

The aim of the 'Budget Task Team' is to

- ensure a transparent process of developing the budget in accordance with the budget guidelines. This will include advice the sector management on the allocation of the combined Government of Lesotho and 'Sector Budget Support' budgets to ensure that the

specific activities agreed for the performance assessment related to the implementation of the Sector Budget Support are adequately included in the budget and advice on the budget allocation between the water sector institutions

- Monitor the implementation of the budget and early identify under- or over expenditures that needs to be reported to the Sector Management with special attention to the activities identified in the performance assessment for implementation of the Sector Budget Support. The monitoring shall be coordinated closely with the COW M&E Unit and the M&E Task Force to ensure consistency and avoid overlaps. This will include:
 - Ensure the conditions agreed to are in accordance with prevailing sector policies/strategies
 - Monitor achievement of targets and fulfilment of the conditions for release of sector budget support and identify proactive action to ensure smooth implementation of sector budget support programmes.
 - Facilitate the preparation and submission of disbursement requests, inclusive of supporting documentation as agreed between government and development partners
 - Facilitate where necessary the smooth implementation (including shared understanding) of programme conditions and modalities
- Prepare terms of reference, monitor and supervise Technical Assistance and facilitate sector feedback on related reports to strengthen PFM and the implementation of budget support.

The Budget Task Team will consist of the economic planners from the water sector institutions and MEMWA as well as the desk officer responsible for the water sector from the Ministry of Finance and the Ministry of Planning.

The Task Team will meet as frequently as required, but no less than monthly. The Task Team will report through its convenor and chair to the quarterly Sector Coordination Meeting.

8.4.3 Develop tools for rolling 3-year annual planning in sector institutions based on WS Programme to link to the MTEF budgeting process and regular update of the WS Programme according to progress

Scope of Work:

Activity	Responsible	Inputs
1. Development of tools and formats for preparation of annual operational plans and rolling 3-year annual plans in sector institutions based on the WS Programme	COW	Professional Staff Input from COW and sector institutions
2. Orientation and training of sector institutions in the tools and format for preparation of annual operational plans and 3-year rolling annual plans	COW	Professional Staff Input from COW and sector institutions
3. Coordination of the preparation of the annual operational plans and the 3-year rolling annual plans by the sector institutions in March each year based on the available budgets	COW	Professional Staff Input from COW and sector institutions
4. Preparation of quarterly progress reports on the implementation of the annual operational plans	COW	Professional Staff Input from COW and sector institutions
5. Assessment of progress in the implementation of the WS Programme and revision of the programme as needed when new developments or actual progress necessitates revision.	COW	Professional Staff Input from COW and sector institutions

Outputs:

1. Effective implementation of the WS Programme through the annual operational plans.
2. Transparent quarterly and annual progress reporting
3. Updated WS Programme available to guide implementation in sector institutions.

Guidance Notes:

The WS Programme will form the overall guidance to the preparation of annual operational plans in the sector institutions as well as outline plans for the 3-year medium-term planning horizon.

The WS Programme identifies the responsible implementers and this will guide the respective institutions to ensure that the activities envisaged in the WS Programme are adequately covered in the annual operational plans.

Progress on the implementation of the WS Programme will be reported quarterly to the Sector Coordination Meetings and will be included in the Annual State of Water Resources Report.

The M&E system and effective progress reporting will be important tools in the regular updating and revision of the WS Programme. Any revisions to the WS Programme should be discussed and agreed as part of the coordination meetings and annual sector review process.

The annual planning process and revisions of the WS Programme will be coordinated by COW with inputs from the sector institutions.

8.4.4 Improve water sector coordination by common office facilities for MEMWA Institutions

Scope of Work:

Activity	Responsible	Inputs
1. Assessment of needs for office facilities in the different sector institutions.	MEMWA	Professional Staff Input from MEMWA and the institutions under the Ministry
2. Land acquisition and design of appropriate common office facilities.	MEMWA	Professional Staff Input from MEMWA Design by Architects
3. Mobilisation of funding and assessment of options for finance through Government budgets directly or as PPP arrangements similar to MOH office building	MEMWA	Professional Staff Input from MEMWA and the Ministry of Finance
4. Procurement and engagement of Architects and Consultants and contractors for the implementation of the office facilities	MEMWA	Professional Staff Input from MEMWA Funding for input by Architects, Consulting Engineers and for construction

Output: adequate office facilities for MEMWA Institutions in one location

Guidance Notes:

The effective coordination between the Ministry and the sector institutions is hampered by the location of the sector institutions in different locations around town.

Common office facilities will greatly improve the communication and reduce the time used for coordination between the Ministry and the institutions.

The coordination role of the COW will be facilitated and the Departments under the COW will be able to function as technical departments of the office of the COW.

The implementation of this activity will follow the normal government procedures for implementation of Government Offices.

8.4.5 Establish common financing mechanism for funding Local Council implementation of water, sanitation and hygiene plans and catchment management plans (possibly also electricity projects)

Scope of Work:

Activity	Responsible	Inputs
1. Consultations with the MOLG and MOF on the possibilities for establishing a dedicated funding mechanism for funding Local Council investments in water sector projects	MEMWA	Professional Staff Input from MEMWA and water sector institutions
2. If the consultations are positive, develop TOR for financial management consultant to design the funding mechanism and approval, disbursement and auditing procedures	MEMWA	Professional Staff Input from MEMWA and water sector institutions
3. Procurement of financial management consultant	MEMWA	Professional Staff Input from MEMWA and water sector institutions
4. Preparation of legal documents for the establishment of the funding mechanism and development of procedures for approval, procurement, disbursement, financial management, reporting and auditing	Consultant reporting to MEMWA	Professional Staff Input from MEMWA and water sector institutions Consultant input
5. Approval of establishment of funding mechanism	MEMWA	Professional Staff Input from MEMWA and interactions with Government
6. Preparation of training programme for sector institutions and Local Councils in the procedures for the funding mechanism	Consultant reporting to MEMWA	Professional Staff Input from MEMWA and water sector institutions Consultant input
7. Implementation of the training programme and establishment of the funding mechanism with financial administration etc.	Consultant reporting to MEMWA	Professional Staff Input from MEMWA and water sector institutions Consultant input Funding for establishment

Output: Common funding mechanism for funding Local Council investments of water, sanitation and hygiene plans and catchment management activities

Guidance Notes: the funding of Local Council implementation of water and sanitation facilities and investments in catchment management can be funded in various ways e.g. through allocation of adequate capital budgets to the Local Councils or through a dedicated funding mechanism for water sector investments.

The dedicated funding mechanism has the advantage from the water sector's point of view, that procedures for approval and transfer of funding can be developed in a way that it will allow the sector institutions to retain a mechanism for quality control of design and implementation and adherence to standards and specifications.

The funding mechanism would facilitate a SWAp arrangement that can allow for Development Partners and Government to contribute to a common mechanism with uniform and cost effective financial administration that satisfies all contributors to the fund – when proven to work well, it can thus contribute to increasing the level of funding for the water sector investments at local level.

The funding mechanism could also include electrification projects in order to cover the full scope of MEMWA's cooperation and support to Local Councils.

Key Points for Scope of Work for Consultancy Assignment:

- Consult with the MOLG, MOF, sector institutions and Local Councils on the possible set-up of a common funding mechanism for funding Local Council water sector investments
- Assess the functioning of similar funds in other countries or other sectors to learn from best practices e.g. the administration of the District conditional grants for water and sanitation in Uganda; Water Services Trust Fund in Kenya for funding community projects and similar
- Prepare the legal documents needed for the establishment of the funding mechanism
- Prepare procedure manual with guidelines and formats for the detailed procedures for approval, procurement, disbursement, financial management, reporting and auditing and detailing the roles of the sector institutions in approval and quality control and the reporting requirements from the implementing Councils
- Consultations with Development Partners to ensure that the proposed procedures will satisfy all the common requirements for financial management, reporting and auditing by the potential contributors to the funding mechanism.
- Facilitate the approval of establishment of funding mechanism by providing any additional documentation that might be required by Government or Development Partners
- When approved, prepare a training programme for sector institutions and Local Councils in the procedures for the funding mechanism
- Facilitate the establishment of the funding mechanism with engagement and training of financial manager and accountants and implement the training programme for sector institutions and Local Councils

8.5 Strategic Aim VI.2: Effective Water Sector Monitoring & Evaluation and Reporting

The COW has established an M&E unit and the establishment of the M&E and reporting systems for the sector is ongoing. The Lesotho Water Sector Information Management System (LWSIMS) is seen as a cornerstone in the M&E system and a key tool for dissemination of information to sector stakeholders.

The coordinated functioning of the water sector depends on effective M&E systems and reporting on the work of the many institutions and stakeholders as well as effective communication and interactions with stakeholders.

8.5.1 Develop and maintain data management systems for sector information including the sector GIS and the LWSIMS in coordination with ORASECOM data management systems

Scope of Work:

Activity	Responsible	Inputs
1. Restore the LWSIMS and establish a common GIS platform for the water sector data management and development of the Local Council's W&S Plans, the national water service plans as well as Catchment Management and Development Plans	COW	Professional Staff Input from COW and sector institutions Input by IT specialists as required and investments in hardware and software
2. Ensure effective links and data update procedures with the sector institutions and other contributors to the LWSIMS		Professional Staff Input from COW and sector institutions
3. Coordinate the further development of the LWSIMS with ORASECOM Secretariat and the data systems in the other riparian countries to ensure effective protocols for data exchange etc.	COW	Professional Staff Input from COW Travel and accommodation expenses for coordination with ORASECOM and countries
4. Develop Information Sharing Policy to guide the sector institutions and the LWSIMS administrator in the design of access levels for different stakeholders to the data in the LWSIMS	COW	Professional Staff Input from COW and sector institutions Input by MEMWA Legal Officer
5. Regular update and maintenance of the LWSIMS	COW	Professional Staff Input from COW and sector institutions

Output: Effective and coherent data management systems in sector institutions with links to the LWSIMS.

Guidance Notes: The COW M&E unit will support further development and design of the M&E systems in the sector institutions as an integrated part of the sector M&E and reporting systems and establish effective operation and maintenance for the LWSIMS to ensure that the system is fully operational and always available for sector institutions and stakeholders. The COW M&E Unit shall develop in-house capacity for the normal operation and maintenance of the systems and only use external IT consultants for specialist assistance.

The M&E Programme is described in detail in the document 'Rapid Assessment of the Water and Sanitation Sector and Development of Proposal for Support and Strengthening', COW April 2012.

8.5.2 Cooperate with BOS and other institutions through the M&E Task Force and support the M&E functions in the sector institutions for development and maintenance of consistent data management and reporting systems

Scope of Work:

Activity	Responsible	Inputs
1. Arrange regular meetings of the M&E Task Force to ensure that the water sector M&E systems are developing in a consistent and harmonised manner.	COW	Professional Staff Input from COW and sector institutions
2. Complete the development of definitions on indicators and performance measures for access to water and sanitation in consultation with BOS, MOH and sector institutions as well as the definitions for other key sector indicators	COW	Professional Staff Input from COW and sector institutions, BOS and other sectors with link to the water sector
3. Design the data systems in the sector institutions, in particular WASCo and DRWS to be able to provide data according to the agreed definitions. Cooperate with BOS to ensure that all BOS survey instruments are designed to be able to report on the agreed definition of indicators	COW	Professional Staff Input from COW and sector institutions and BOS
4. Continued development of the M&E system and the reporting procedures from the sector institutions to contribute effectively to the LWSIMS, the regular progress reporting from the water sector on key indicators and the implementation of the WS Programme as well as contributions to the annual State of Water Resources Report	COW	Professional Staff Input from COW and sector institutions

Outputs

1. Effective coordination on M&E development
2. Revised Memorandum of Understanding between BOS and the Water Sector.

Guidance Notes:

Continued cooperation with the BOS and other institutions through the M&E Task Force will be important to ensure that the M&E functions in the sector institutions are well coordinated and utilise data from other sectors and the BOS. The main objective of the M&E Task Force is to ensure continued development and maintenance of consistent data management and reporting systems in the sector institutions.

A 'Memorandum of Understanding' (MoU) was signed in 2011 between BOS and the water sector for cooperation on the provision of consistent data for the sector. This MoU will be regularly updated as required to clarify agreed definitions and reporting formats as and when these are developed and agreed.

The activities are implemented by the professional staff from COW M&E Unit and the M&E Units in the water sector institutions and other sectors. These units need support and strengthening as shown under Chapter 8.6 below.

8.5.3 Further develop format for the annual State of Water Resources reports to encompass all key annual sector reporting needs to stakeholders including progress on the implementation of the WS Programme and prepare annual reports

Scope of Work:

Activity	Responsible	Inputs
1. Continued development of the format for the annual 'State of Water Resources' reports to encompass all key annual sector reporting needs to stakeholders including progress on implementation of the WS Programme and reporting needs for the Sector Budget Support partners	COW	Professional Staff Input from COW M&E Unit in coordination with M&E Units in sector institutions and other sectors
2. Preparation of Annual State of Water Resources Reports	COW	Professional Staff Input from COW M&E Unit in coordination with M&E Units in sector institutions and other sectors
3. Printing and dissemination of the reports to sector stakeholders and on the LWSIMS Website	COW	Professional Staff Input from COW M&E Unit in coordination with M&E Units in sector institutions and other sectors

Output: Comprehensive Annual State of Water Resources Reports covering the water sector reporting needs to stakeholders

Guidance Notes:

The annual 'State of Water Resources' (SWR) report is a requirement specified in the Water Act: 8. (2) The Functions of the Commissioner shall be to: (f): produce state of water resources reports once every year

The first version of the report focused on the state of water resources (in line with the title); however the SWR Report is seen as the main report from the water sector and should therefore encompass all the sector aspects including the access to water and sanitation services.

The annual SWR reports will be the key document for presentation of sector progress to stakeholder at the Annual Sector Reviews and to avoid overlapping and additional reporting requirements, the format for the annual SWR reports should be continuously updated and improved to satisfy the need for information by the Government and sector stakeholders including the reporting to the Sector Budget Support partners.

The report is prepared by the COW M&E Unit staff with contributions from the water sector institutions.

8.5.4 Utilise Sector M&E system to evaluate the implementation of strategies and policies and adjust policies and strategies

Scope of Work:

Activity	Responsible	Inputs
1. Use the M&E system to evaluate i) the implementation of the LWSP and the progress on implementation of the long term strategy and this WS Programme; and ii) identify areas where the policies and strategies are not implemented or do no longer respond to the need of the sector.	COW	Professional Staff Input from COW and sector institutions and stakeholders
2. Prepare policy papers describing the issues in the policy and strategies that need to be revised or adjusted	COW	Professional Staff Input from COW and sector institutions and stakeholders
3. Present the policy papers to sector stakeholders and after consensus prepare for presentation to Government	COW	Professional Staff Input from COW and sector institutions and stakeholders Workshop expenses
4. Seek approval and implement the changes to the Policy and affect the changes in the regular updating of the WS Programme. Identify any adjustment needed to the legal framework and regulations	COW	Professional Staff Input from COW and sector institutions and stakeholders
5. At regular intervals arrange for review of the sector policies and adjust – thorough review proposed in 2020.	COW	Professional Staff Input from COW and sector institutions and stakeholders

Output: Effective water sector policies and strategies

Guidance Notes:

The M&E systems are not an aim in themselves but a tool for improving the performance of the sector.

The results from the M&E systems will inform the sector stakeholders on the progress and the challenges in the sector and will be able to identify areas where revision of strategies or policies are needed to improve the sector performance.

The review of policies and strategies is a main function for the Policy, Planning and Strategy Unit (PPSU) in the COW's Office and the M&E system will be the main tool for the PPSU to inform review of strategies and policies.

The 2007 LWSP prescribed that the policy should be reviewed after 5 years – that seems a short period since it takes time for policy implementation generally to show results. A thorough review could be appropriate around 2020 when the first part of this WS Programme has been implemented for some years and the results should start showing on the ground.

8.6 Strategic Aim VI.3: Effective Human Resources Management

The water sector faces human resources challenges related to retention of qualified staff and effective performance management. The human resources issues need to be addressed by the respective institutions as well as at sector level to ensure that adequate expertise is available to address the many challenges in the sector

The MEMWA developed a Human Resources Needs Assessment, Strategy and Sector Skills Development Plan in 2011/12. This will form the basis for detailed assessment of functions and human resources needs in the sector institutions and preparation of a specific capacity development plan related to the implementation of the LWSP and the WS Programme.

8.6.1 Function analysis for the COW's office and the LLWSU to define the future responsibilities, work load and required staffing levels including linkages and relation to other sector institutions and preparation and implementation of Capacity Development Plan

Scope of Work:

Activity	Responsible	Inputs
1. Development of TOR for functional analysis and capacity assessment	COW	Professional Staff Input from COW and MEMWA
2. Procurement of Consultant	COW	Professional Staff Input from COW and MEMWA
3. Analysis of functions of the COW, the PPSU, the M&E Unit, the Administration and Procurement as well as the LLWSU	Consultant reporting to COW	Professional Staff Input from COW and MEMWA Consultancy Inputs
4. Assessment of capacity needed and the capacity gaps compared to present situation	Consultant reporting to COW	Professional Staff Input from COW and MEMWA Consultancy Inputs
5. Preparation of Capacity Development Plan to fill the gaps in capacity	Consultant reporting to COW	Professional Staff Input from COW and MEMWA Consultancy Inputs
6. Presentation of results at stakeholder workshop and finalising the Capacity Development Plan	Consultant reporting to COW	Professional Staff Input from COW and MEMWA Consultancy Inputs Workshop expenses
7. Implementation of the capacity development plan including establishment and filling of new positions if needed in the plan. Training and continued development and improvement of procedures for the proper functioning of the COW/ LLWSU and procurement of the required office and IT hard- and software and installation and training.	COW and MEMWA	Professional Staff Input from COW and MEMWA

Outputs:

1. Clarity on functions and the staffing requirements in the COW's Office and the relations to sector institutions.
2. Clarity on functions and the staffing requirements in the LLWSU and the relations to sector institutions
3. Capacity Development Plan for COW/ LLWSU

Guidance Notes: the institutional functional analysis will be based on the results of the Human Resources Assessment and Skills Development Plan carried out in 2011/12. The clarification of the functions in the water sector institutions vis-à-vis the Local Government structures as result of the detailed function analysis for Catchment Management (Chapter 3.4.2), Water Resources Management (Chapter 4.5.1) and for water and sanitation services (Chapter 5.4.1 and Chapter 5.8.1) together with the analysis of the functions in the COW's Office and the LLWSU will make it possible to make a specific gaps assessment and capacity development plan that addresses the needs for the sector to implement the LWSP and this WS Programme.

The original mandate of the LLWSU was to carry out the design of the Lowlands Water Supply project and there is a need to clearly define the mandate of the unit to ensure optimal use of the important technical capacity available in the unit.

Key Points for Scope of Work for Consultancy Assignment:

- Clarification of the functions of the COW and the units in the COW's Office, the PPSU, the M&E Unit, the administration and procurement in relation to the sector institutions and MEMWA
- In particular clarification of the role of the COW's Office in the preparation of budgets and work plans in the sector institutions and the supervision of the implementation of the plans
- Clarification of the mandate and functions of the LLWSU in relation to the COW and the sector institutions and the Project Implementation Units (PIUs) that are foreseen in the LWSP for the implementation of major projects (as practiced with the establishment of the MA, the PIU for implementation of the LHWP and major WASCo investment programmes)
- The assessment shall include the functions and staffing requirements for carrying out the Assets Management functions as directed by Cabinet to be carried out by the PPSU.
- Assessment of the capacity needed to carry out the function and a detailed work load analysis and preparation of staffing plan and organisational structure for the COW/ LLWSU
- Development of job-descriptions for the staff in the COW/ LLWSU
- Assessment of the present capacity in the COW/ LLWSU and assessment of the gaps
- Preparation of a capacity development plan including HR development plan, performance management procedures and the logistic and office requirements, development of procedure manuals and guidelines etc. that are needed for the efficient functioning of COW/ LLWSU in relation to the MEMWA and the sector institutions.
- Facilitation of the implementation of the capacity development plan including establishment and filling of new positions if needed in the plan and training of staff.
- Development and improvement of performance management procedures and other administrative procedures for the proper functioning of the COW/ LLWSU and training of staff in the procedures.
- Procurement of the required office and IT hard- and software and installation and training.

8.6.2 Update Human Resources Strategic Plan and Skills Development Plan based on results of Function Analysis in DWA, DRWS and COW and implement

Scope of Work:

Activity	Responsible	Inputs
1. Review and update the Human Resources Strategic Plan and Skills Development Plan (2012) based on the results of the function analysis completed for catchment management, water resources management, water services and the functions of COW and LLWSU	MEMWA/ COW	Professional Staff Input from MEMWA HR, COW and sector institutions
2. Present the updated Human Resources Strategic Plan and Skills Development Plan to sector institutions and review and revise according to feedback	MEMWA/ COW	Professional Staff Input from MEMWA HR, COW and sector institutions
3. Implement the Skills Development Plan	MEMWA/ COW	Professional Staff Input from MEMWA HR, COW and sector institutions

Output: Updated Human Resources Strategic Plan and Skills Development Plan. Appropriate skills available for the sector institutions.

Guidance Notes:

The MEMWA developed a Human Resources Strategic Plan and Skills Development Plan in 2011-12. The plan needs to be updated in view of the results of the function analysis of the sector institutions for the implementation of the Long Term Strategy.

The Human Resources Plan focus on the development of formal sector personnel while recognising the role that the daily-paid workers and other informal sector personnel will need to play in the future in assuring the delivery of Water and Sanitation services given the projected shortfall in the supply of formal sector personnel.

Within the sector, the Plan focuses on the Government Departments and WASCO based on a personnel census conducted in 2011. The Plan includes a capacity building and training plan for different categories of staff and this need to be updated in view of the requirements identified in the functional analysis.

The implementation of the plan would be part of the normal human resources management functions in the MEMWA and the sector institutions.

The activities would be headed by the Human Resources Officers in the MEMWA and by the COW's Office in participation with the sector institutions and public service.

8.6.3 Work actively with Technical Institutes and Universities to ensure inclusion of water and sanitation technologies and water resources management in curricula and arrange practical attachment for students at water sector institutions and Local Councils

Scope of Work:

Activity	Responsible	Inputs
4. Collaboration with technical institutes to ensure that various water supply and sanitation technologies are included in the curricula for example design and installation of solar pumping systems. Design and construction of biogas digesters and decentralised sewerage treatment plants etc.	COW	Professional Staff Input from COW and sector institutions
5. Collaboration with Universities to ensure that water resources management aspects are included in the curricula for example catchment management planning and the application of GIS, basin modelling and remote sensing technologies	COW	Professional Staff Input from COW and sector institutions
6. Establishment of positions and funding for practical attachment of students to DWA, DRWS and local councils to get practical experience and develop interest in the water sector activities	COW	Professional Staff Input from COW and sector institutions
7. Presentation of water sector activities to the institutes of higher learning to raise interest in the water sector and attract students to the practical attachment positions	COW	Professional Staff Input from COW and sector institutions

Output: Qualified professionals interested and available according to the needs in the water sector.

Guidance Notes:

The water sector institutions are facing human resource challenges related to staff turn-over and qualified staff moving to projects or neighbouring countries.

It will therefore be important to ensure that new graduates will appropriately trained to contribute to the development of the water sector. Contributing to this could be a programme of active collaboration with the Technical Institutes and Universities to ensure inclusion of water and sanitation technologies such as decentralised sewerage treatment and water resources management aspects such as basin modelling and remote sensing in the curricula at appropriate levels.

Positions for practical attachment for students at water sector institutions and Local Councils could further enhance the interest and focus of the new graduates to the challenges in the water sector.

The activities would be headed by the COW's Office and should include regular consultations with the educational institutes and the Ministry of Education.

8.7 Strategic Aim VI.4: Effective Communication with stakeholders

The water sector encompasses almost all aspects of life and interacts with multiple levels of stakeholders. Effective communication with stakeholders is therefore important for the sector to achieve optimal impact on the economic development and the environment in the country.

A coordinated approach is needed to ensure that the messages are communicated in a clear and coherent manner to the political decision makers and the general public on key sector issues such as payment for services and the policies for targeted subsidies.

8.7.1 Identification of stakeholders, relevant interactions and development of Communication Strategy to guide sector institutions in communication to Local Councils and other stakeholders

Scope of Work:

Activity	Responsible	Inputs
1. Preparation of TOR for development of Communication Strategy	COW	Professional Staff Input from COW in consultation with MEMWA and sector institutions
2. Procurement of Consultant	COW	Professional Staff Input from COW
3. Analysis of sector stakeholders and their linkages and roles in relation to the achievement of the water sector goals	Consultant reporting to COW	Professional Staff Input from COW in consultation with MEMWA and sector institutions Consultants input
4. For each stakeholder group, identify possible effective communication strategies and methods of interaction	Consultant reporting to COW	Professional Staff Input from COW in consultation with MEMWA and sector institutions Consultants input
5. Document communication strategy and develop sample communication materials including development of consistent graphic designs and layouts for the water sector publications and presentations	Consultant reporting to COW	Professional Staff Input from COW in consultation with MEMWA and sector institutions Consultants input
6. Presentation of the communication strategy to stakeholders and incorporating comments	Consultant reporting to COW	Professional Staff Input from COW in consultation with MEMWA and sector institutions Consultants input Workshop expenses
7. Train sector personnel in the use of the communication materials and tools	Consultant reporting to COW	Professional Staff Input from COW in consultation with MEMWA and sector institutions Consultants input Training expenses

Output: Effective communication with sector stakeholders guided by the ‘Communication Strategy’

Guidance Notes: The activities will include the identification of stakeholders at various levels from international to national and local level and the government and civil society stakeholders. The relevant interactions and information needs of the various stakeholders will be identified and will guide the development of the Communication Strategy.

The water sector Communication Strategy will provide general guidance to the sector institutions on how most effectively to communicate with the Local Councils and other stakeholders.

Key Points for Scope of Work for Consultancy Assignment:

- Analysis of sector stakeholders and their linkages and roles in relation to the achievement of the water sector goals. This will include but not be limited to Local Government Structures, Chiefs, Community members in general, specific groups such as youth, women, men, students, herd-boys, livestock owners, industries, commerce and other government institutions and development partners
- For each stakeholder group, identify possible effective communication strategies and methods of interaction – the methods include radio, TV and printed media, posters and leaflets, booklets, newsletters, websites, telecommunication and presentation at public gatherings etc.
- Document communication strategy for each stakeholder group
- Develop sample communication materials including development of consistent graphic designs and layouts for the water sector publications and presentations
- Presentation of the communication strategy to stakeholders and incorporating comments
- Deliver final package of graphic designs and layout tools to sector institutions
- Train the sector professionals in presentation techniques and use of the graphic design and tools and active use of the LWSIMS for dissemination of information to stakeholders.

8.7.2 Continued attention to integration of HIV/ AIDS awareness raising, gender and poverty alleviation in implementation plans and in interactions with stakeholders by water sector projects.

Scope of Work:

Activity	Responsible	Inputs
1. Prepare TOR for development of guidelines for water sector institutions for effectively addressing the cross-cutting issues of HIV/AIDS, gender and poverty in the water sector programmes.	COW	Professional Staff Input from COW
2. Procurement of Consultant	COW	Professional Staff Input from COW
3. Consult with relevant Government and NGOs active in the prevention and treatment of HIV/AIDS, incorporating Gender in development, and addressing poverty	Consultant reporting to COW	Professional Staff Input from COW Consultancy inputs
4. Prepare guidance documents for water sector institutions in addressing the cross cutting issues in water and sanitation service provision and in catchment management and development planning	Consultant reporting to COW	Professional Staff Input from COW Consultancy inputs
5. Present guidelines to stakeholders and finalise according to comments. Training of planners and implementers in sector institutions in the use of the guidelines	Consultant reporting to COW	Professional Staff Input from COW Consultancy inputs Workshop and training expenses

Output: Guidelines for inclusion of HIV/ AIDS awareness raising, gender and poverty alleviation in implementation plans and in interactions with stakeholders.

Guidance Notes: The sector institutions include HIV/ AIDS awareness raising, gender and poverty alleviation in the interactions with stakeholders and this need to be reinforced and enhanced in the formulation of all new projects and activities.

The COW's office will develop guidelines and will coordinate with the sector institutions in the development of plans to ensure that adequate attention is given to the cross-cutting issues.

Key Points for the Scope of Work for the consultancy assignment:

- Assessment of existing materials in Lesotho and internationally on guidelines for addressing HIV/AIDS/ Gender and poverty alleviation in general and in particular in water sector programmes
- Consult with relevant Government and NGOs active in the prevention and treatment of HIV/ AIDS, incorporating Gender in development, and addressing poverty and collect experiences and training materials etc.
- Prepare guidance documents for water sector institutions including specific training where relevant. The guidelines should include addressing the cross cutting issues in water and sanitation service provision and in catchment management and development planning
- Facilitate a workshop for presentation of the guidelines to stakeholders
- Finalise the documents according to comments.
- Training of selected personnel from water sector institutions in the use of the guidelines and training materials.

8.7.3 Implementation of Communication Strategy – regular communication to stakeholders and interaction with media etc.

Scope of Work:

Activity	Responsible	Inputs
1. Arranging and implementing the annual ‘World Water Day’ with effective communication on pertinent water sector issues	COW	Professional Staff Input from COW and sector institutions Funds for communication materials and activities
2. Regular programmes on radio and TV addressing water sector issues – e.g. information on the new approaches to catchment management, establishment of ‘Water Service Authorities’ or promotion of sanitation and hygiene etc.	COW	Professional Staff Input from COW and sector institutions Funds for communication materials and activities
3. Development of posters and flyers for specific events – e.g. in connection with the Annual Sector Reviews to inform the public about the event and the outcomes	COW	Professional Staff Input from COW and sector institutions Funds for communication materials and activities
4. Preparation of presentation materials for the LWSIMS website to	COW	Professional Staff Input from COW and sector institutions Funds for communication materials and activities

Output: Stakeholders well informed about water sector programmes and participate actively in the sector activities

Guidance Notes:

The activities would include the implementation of the specific aspects in the Communication Strategy and is likely to include regular communication to stakeholders and interaction with media etc.

The communication methods are likely to be a combination of cooperation with the Radio, TV and printed news media and implementation of specific information campaigns in relation to events in the sector such as introduction of catchment management activities, establishment of Water Service Authorities etc. The recurrent celebration of World Water Day would form an integrated part of the strategy.

The LWSIMS should develop to be an active communication tool for the sector stakeholders and the activities could include development of a web-based news-forum as well as printed newsletters based on the same information.

The activities would be carried out by professional staff input from COW and sector institutions complemented with input by Media Consultants. Funding will be needed for events and printing of communication materials.

8.8 Strategic Aim VI.5: Effective framework Private Sector Participation

The LWSP emphasises the increased involvement of the private sector in service provision in the sector and development of guidelines for the Local Councils and the sector institutions would be required to ensure that the results of different pilot projects and testing of approaches is well documented and used for replication of the successes.

The focus of the involvement of the private sector should always be on exploiting the benefits in terms of improved service delivery and lower costs. The guidelines would therefore need to provide specific guidance on how to assess and prioritise the involvement of the private sector and provide tools for transparent assessment of service delivery options.

8.8.1 Assessment of legal framework and implications for more wide private sector involvement in the water sector

Scope of Work:

Activity	Responsible	Inputs
1. Prepare TOR for assessment of the legal framework	COW	Professional Staff Input from COW with input from MEMWA Legal Office and sector institutions
2. Procurement of Consultant	COW	Professional Staff Input from COW
3. Assessment of the legal framework for the water sector and the laws governing the private sector activities and environmental management	Consultant reporting to COW	Professional Staff Input from COW with input from MEMWA Legal Office and sector institutions Consultancy input
4. Preparation of recommendations for amendments to the regulations and laws and implications for contracts	Consultant reporting to COW	Professional Staff Input from COW with input from MEMWA Legal Office and sector institutions Consultancy input
5. Presentation to stakeholders and finalising the recommendations	Consultant reporting to COW	Professional Staff Input from COW with input from MEMWA Legal Office and sector institutions Consultancy input Workshop expenses

Output: Report on possible legal implications for the wider use of the private sector in the water sector activities

Guidance Notes:

Key Points for Scope of Work for Consultancy Assignment:

- Collection of information on the international experiences with the involvement of private sector in water services and the implications for the legal framework
- Assessment of the legal framework in Lesotho and experiences from other sector in Lesotho with the involvement of the private sector in service provision

- Documenting the assessment and prepare recommendations on any amendments needed to the legal framework and regulations and the implications for contracts for private sector involvement
- Facilitation of a workshop for presentation of the results to stakeholders
- Finalising the report.

8.8.2 Development of guidelines for specific involvement of private sector and PPP arrangements for water services, catchment management etc.

Scope of Work:

Activity	Responsible	Inputs
1. Prepare TOR for development of Guidelines	COW	Professional Staff Input from COW and sector institutions
2. Procure Consultant (possibly combined with assessment of legal framework)	COW	Professional Staff Input from COW and sector institutions
3. Consultation with private sector actors and water sector institutions and study of PPP arrangements in other sectors in Lesotho and internationally	Consultant reporting to COW	Professional Staff Input from COW and sector institutions Consultancy inputs
4. Development of guidelines for the involvement of private sector in specific areas such as operation of water supplies, catchment management activities etc.	Consultant reporting to COW	Professional Staff Input from COW and sector institutions Consultancy inputs
5. Presentation of Guidelines to stakeholders including the private sector	Consultant reporting to COW	Professional Staff Input from COW and sector institutions Consultancy inputs
6. Finalising the Guidelines and training of sector professionals in the application of the guidelines	Consultant reporting to COW	Professional Staff Input from COW and sector institutions Consultancy inputs

Output: Guidelines for specific involvement of private sector and PPP arrangements.

Key Points for Scope of Work for Consultancy Assignment. The consultancy inputs for development of the guidelines could be provided as a continuation of the assessment of the legal framework. The additional points in the scope of work would include:

- Assessment of guidelines for private sector involvement in water sector activities internationally e.g. in collaboration with the WB/ IFC and programmes for small scale infrastructure providers
- Consultation with private sector actors and water sector institutions in Lesotho on the scope for private sector involvement
- Study of PPP arrangements in other sectors in Lesotho and internationally.
- Development of guidelines for the involvement of private sector in specific areas such as operation of water supplies, catchment management activities etc. according to the possibilities identified by the sector institutions and the private sector
- Facilitation of workshop for presentation of the guidelines to the private sector and sector institutions
- Training of selected sector professionals in the use of the guidelines and the formulation of specific proposals for projects including monitoring aspects

The activities will be carried out by professional staff input from COW and sector institutions complemented with Consultancy inputs for development of guidelines.

8.8.3 Monitoring and assessment of cost effectiveness and pros and cons of existing PPP arrangements and regular adjustment of guidelines

Scope of Work:

Activity	Responsible	Inputs
1. Ensuring that projects for private sector involvement include adequate data collection and monitoring expertise to ensure that the results can be assessed in a transparent manner	COW	Professional Staff Input from COW and sector institutions
2. Regular progress report on the implementation of projects on private sector service provision	COW	Professional Staff Input from COW and sector institutions
3. Evaluation of the impact e.g. after 2 years of the private sector involvement in service provision and the costs and benefits to the consumers and the sector	COW	Professional Staff Input from COW and sector institutions
4. Presentation of results to stakeholders and discussion of the implications	COW	Professional Staff Input from COW and sector institutions Workshop expenses
5. Adjustment of the Guidelines for PPP arrangements based on the experiences.	COW	Professional Staff Input from COW and sector institutions

Output: Updated Guidelines for PPP arrangements

Guidance Notes:

The design of the projects for involving the private sector in service provision must include clear definition of performance indicators on cost and quality of services and a system for regular collection of data by the service provider and the implementing sector institution.

The experiences from the pilot testing of different approaches to improved service delivery through PPP arrangements will be consistently captured based on the progress reporting and monitoring of the performances. This should contribute to ensuring that the failures are minimised and the successes are replicated where appropriate.

The activities will include assessment of the pilot project and capturing of the lessons learned and revision of the Guidelines to reflect the experiences.

The activities on regular follow-up and monitoring will be done by the COW's office in collaboration with the water sector institution that is implementing and overseeing the private service provision.

9 Implementation Plan

This chapter provides information on the Implementation Plan for the Long Term Strategy as expressed in the WS Programme. The Implementation Plan is described in relation to Timing, Funding Requirements and the envisaged monitoring procedures.

The detailed time schedules are provided in Annex B: WS Programme Implementation Plan; the budgets per Strategic Aim and activity are provided in Annex C: WS Programme Annual Budgets and finally the details of the monitoring indicators are provided in Report #6 Monitoring.

9.1 Time schedule

The immediate attention and the activities within the respective Key Focus Areas in the first year of implementation, the 2014/15 Financial Year would focus on the following:

KFA I: Catchment Management:

- Building national consensus on the framework for catchment management and start developing the guidelines for catchment management and awareness-raising.
- The participation in transboundary water resources management would continue.

KFA II: Climate Change, Water Resources and Environmental Management:

- A detailed assessment of the DWA/LMS functions and preparation of the capacity development plan would take place while the regular activities of DWA and LMS on monitoring of water resource, wetlands management would continue.
- The COW would start implementing the Water Quality Standards and Guidelines

KFA III: Water, Sanitation and Hygiene:

- The assessment of the functions and capacity needs of the Local Councils to be established as Water Service Authorities would be carried out including the required amendments to the legal framework.
- The function analysis for the national level support functions would also be carried out in the first year together with the development of planning guidelines for the preparation of water and sanitation plans for the local councils.
- The normal implementation of rural water and sanitation projects would continue, and there will be renewed emphasis on the improvement of the data and M&E systems.

KFA IV: Regulated Water and Sewerage Services:

- The proposed study on services for vulnerable households would be carried out and the improvement in access in the WASCo service areas would continue with the densification of tertiary reticulation network and implementation Public Standpipes.
- The work on network mapping and improvements to the data management systems would continue. The operationalization of the regulatory framework would continue and the definition of the assets management functions would be completed.
- The preparation of sewerage expansion plans would start with the sanitation master planning study for Maseru.

KFA V: Water Resource Development:

- The implementation of the Metolong Programme would continue and the LHWP Phase II implementation would be starting.

KFA VI: Sector Planning, Coordination and M&E:

- The function analysis for the functions of the COW's Office and the LLWSU will be carried and the plans for capacity development prepared.
- Following the agreement on this WS Programme, focus will be on the development of the 3-year rolling planning and annual operational planning tools for the sector institutions to facilitate the incorporation of the WS Programme in the annual operational plans of the water sector institutions.
- The work on improving the M&E system would continue with the development of reporting formats for progress on the WS programme implementation and the State of Water Resources Report. The data management systems will be improved with work on the sector GIS and the LWSIMS.
- The communication strategy and the guidelines for private sector participation will be developed.

The activities the first year will thus set the stage for the start of implementation of the Catchment Management activities and the development of detailed monitoring plans for each catchment area.

Within water services the analysis done during the first year will facilitate discussion between the Ministry of Local Government and the water sector on the implementation plan for the capacity development of the Local Councils.

The detailed time schedule for the activities is provided in Annex B: WS Programme Implementation Plan.

9.2 Funding Requirements for the WS Programme

The funding requirements for the WS Programme are based on an assessment of the funding needed for the implementation of the respective activities under each key focus area and strategic aim.

The funding needs are assessed for capital costs for water and sanitation infrastructures; capacity building and consultancy inputs; recurrent costs; and other investments in buildings and equipment.

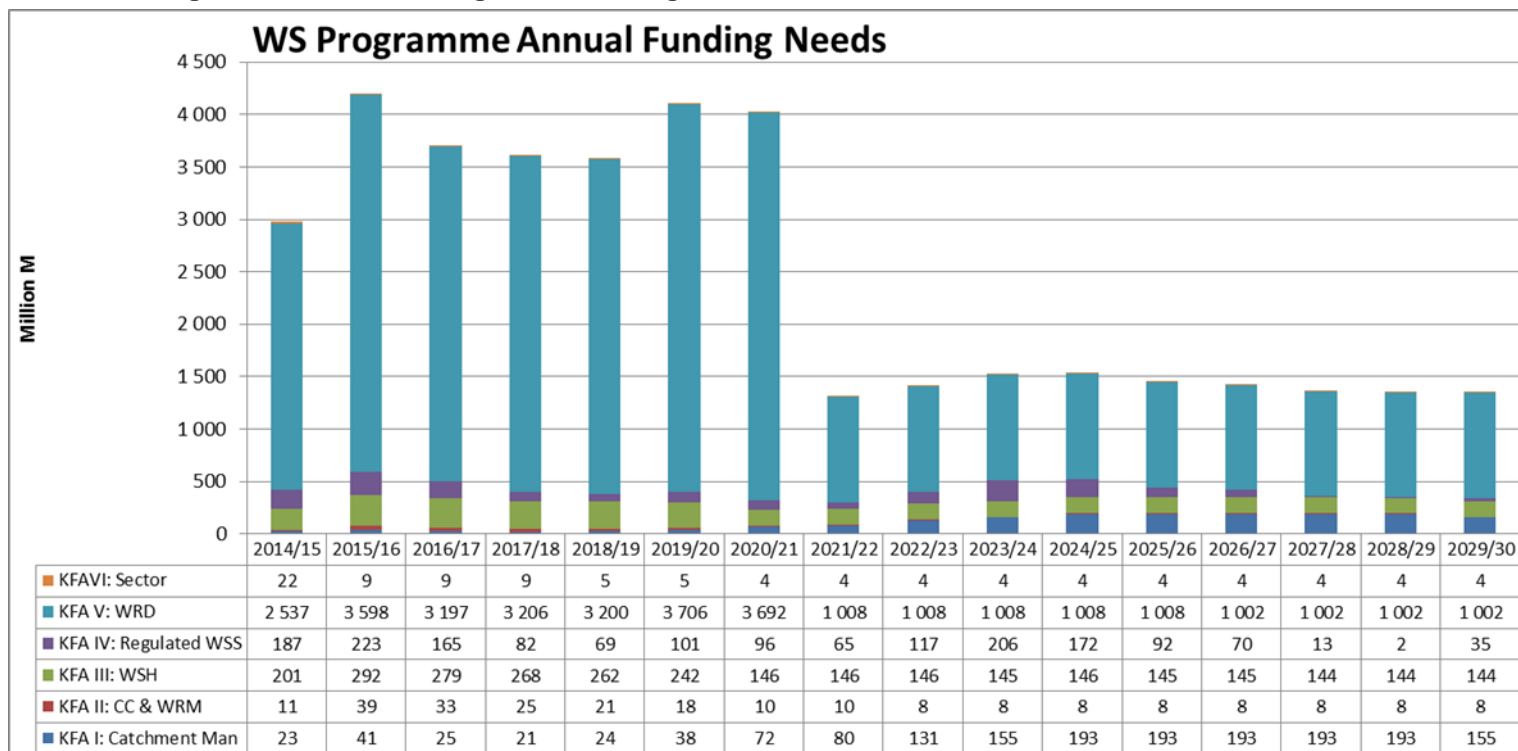
The capital cost funding needs for implementation of water and sanitation services are estimated using the Strategic Financial Planning Model based on 2020 targets for access to water services of 80% in rural areas and 95% in urban areas. The targets are access to sanitation is 70% in both rural and urban areas and a target for domestic sewerage coverage of 15% in Maseru and 10% in the other urban areas by 2020. It is assumed in the modelling that the subsidies for sanitation will gradually decrease with the focus on promotion of hygiene and sanitation. The coverage targets are in line with the targets in the NSDP. The targets are for full coverage in 2030 for both water and sanitation.

The funding requirements for regulated water and sewerage services are based on the funding requirements for investments in capacity expansion and rehabilitation + the O&M costs less the revenues paid by the water users. It is thus the funding that WASCo needs to rise from

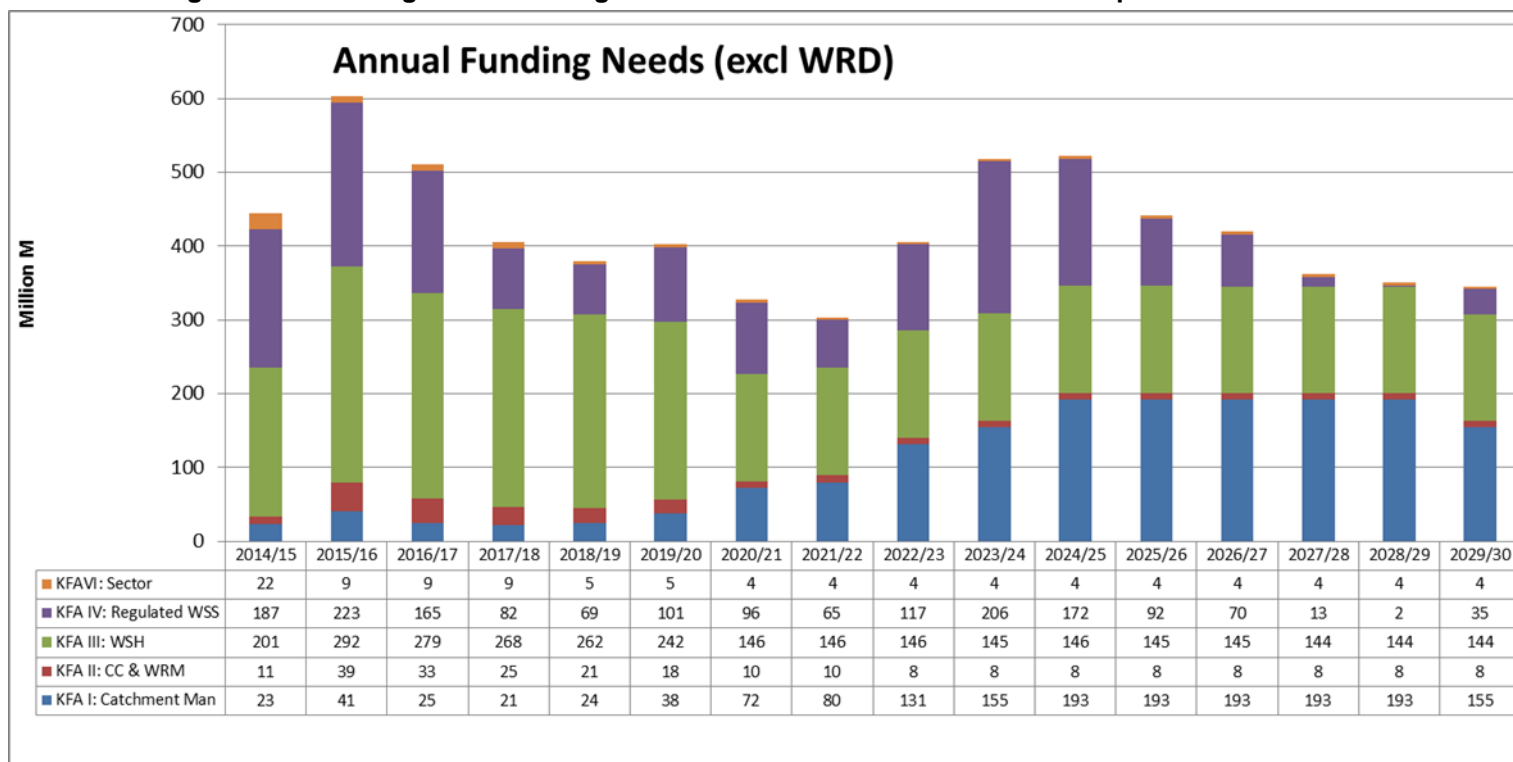
external sources. The estimate of revenues is based on a gradual increase of the WASCo tariffs of 2% annually above inflation.

The water resource development funding requirements are based on the estimated cost of the water component of the LHWP Phase II according to the feasibility study and an assessment of the remaining implementation of the Metolong Programme after April 2014.

Figure 9-1: Total WS Programme funding needs



The investments in water resources development due to the implementation of the second phase of the LHWP naturally overshadows the investments in other sub-sectors and therefore the graphs below indicate both the total as well as the funding needs without the investments in water resources development.

Figure 9-2: WS Programme funding needs without Water Resources Development

The funding requirements for the WS Programme (excluding the WRD) are in line with the total capital and recurrent budgets over the last years of M 4-600 mill for the Government and Donor grants and excluding the loan funding for the Metolong Programme.

The WS Programme is therefore not an acceleration as such of the investments in the water sector, which has been high over the last few years anyway due to the MCA-L funding as well as the EU Project and Sector Budget Support funding.

The WS Programme will; however, refocus the activities and include substantial capacity development in planning and monitoring systems in the sector. In the later years of the programme there will be an increased focus on the implementation of the Catchment Management and Development Plans.

The total and annual funding requirements for each Key Focus Area, Strategic Aim and activity are provided in Annex C: WS Programme Annual Budgets

9.3 Monitoring

The monitoring of the implementation of the WS Programme will be an integrated part of the progress monitoring in the sector. Formats for development of annual operational plans linked to the WS programme will be developed together with reporting formats for quarterly progress reporting on the achievement of the WS Programme outputs.

The annual progress will be reported in the State of Water Resources Report

Monitoring indicators have been defined for the respective activities contributing to the Strategic Aims to enable consistent monitoring of the achievements. The monitoring indicators are provided in Report #6 Monitoring Plan

Annex A: LWSP and Key Focus Areas

Annex B: WS Programme Implementation Plan

Annex C: WS Programme Annual Budgets