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SUPPORT TO THE DEVELOPMENT OF AN INTEGRATED WATER RESOURCES MANAGEMENT (IWRM) PLAN FOR NAMIBIA

APPRAISAL REPORT

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AFRICAN WATER FACILITY

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List of Acronyms and Abbreviations

AWF	African Water Facility
CUM	Cubic Meter
DWAF	Department of Water Affairs and Forestry
FFA	Framework for Action
GEF	Global Environmental Facility
GWP	Global Water Partnership
GWP-SA	Global Water Partnership Southern Africa
IWRM	Integrated Water Resources Management
MAWAF	Ministry of Agriculture, Water Affairs and Forestry
NamWater	Namibia's Bulk Water Supplier
NDP	National Development Plan
NRA	National Resource Accounting
NWP	Namibian Water Partnership
NWRMR	Namibian Water Resources Management Review
NPRP & S	National Poverty Reduction Policy and Strategy
PSC	Project Steering Committee
SADC	Southern African Development Community
UNESCO	United Nations Educational, Scientific and Cultural Organization
WDM	Water Demand Management
WRMA, 2004	Water Resources Management Act, No 24, 2004

LOGICAL FRAMEWORK ANALYSIS FOR DEVELOPMENT OF THE AN IWRM PLAN FOR NAMIBIA

HIERARCHY of OBJECTIVES	EXPECTED RESULTS	Reach (BENEFICIARIES)	PERFORMANCE INDICATORS (PI), SOURCE (S), PERIODICITY (P)	INDICATIVE TARGETS and TIMEFRAME	RISKS & MITIGATION STRATEGIES
<p>GOAL: Enable Namibia to achieve the sustainable management of water resource for the purpose of economic development, improved social well-being and protection of the environment.</p>	<p>IMPACT Sustainable water resource management contributing to social equity, economic efficiency and environmental sustainability in Namibia.</p>	<p>The government and people of Namibia , communities and municipalities , NGOs, private sector</p>	<p>PI : Achievement of enhanced water resources management applying IWRM framework t S: Government budget and report P: Annual</p>	<p>The IWRM Framework available 2 years from start of process. Medium to long term water resources management strategy based on IWRM framework</p>	<p>The main long-term and project level risks are:</p> <ul style="list-style-type: none"> • Political commitment to sustainable development in the long term context remains low and this may hinder implementation to achieve the long term goals. • The water resources endowment is significantly influenced by the climatic conditions and the transboundary nature of the main perennial rivers and hence negatively affects water availability. • At the project level lack of adequate commitment among the stakeholders to work on multi-stakeholder platform may hinder fully participatory process. <p>The main mitigation strategies are:</p> <ul style="list-style-type: none"> • The project is launching an institutionalised awareness creation process that would accompany the IWRM plan implementation to provide a plat form for dialogue and actions on the long term implementation issues and the need to ensure satiability. • An integrated strategy of water conservations; water use efficiency and transboundary cooperation will be proposed to ensure water security as part of the IWRM plan. • The installation of robust information and knowledge system coupled with the monitoring of key indicators on climate change and water use will provide an objective framework for timely actions. • The strong commitment from the Ministry, the Regional and National Water Partnerships, concerted participatory awareness campaigns and assignment of qualified and experienced project coordinators will facilitate the successful outcome of the process

HIERARCHY of OBJECTIVES	EXPECTED RESULTS	Reach (BENEFICIARIES)	PERFORMANCE INDICATORS (PI), SOURCE (S), PERIODICITY (P)	INDICATIVE TARGETS and TIMEFRAME
<p>OBJECTIVES</p> <p>Facilitate the preparation of IWRM plan for a sustainable water resources use and management in Namibia.</p>	<p>OUTCOMES</p> <ul style="list-style-type: none"> • A holistic, integrated approach to water resources use and management in the context of sustainable development is formulated and implemented as a national IWRM plan. • Ownership of the National Frameworks and the process is developed by all stakeholders. 	<p>Ministry of Agriculture, Water, and Forestry</p> <p>Other government ministries such health, mining, environment. Local government and rural development unit etc</p> <p>Water Management and User Organizations</p> <p>Regional and international development partners</p> <p>Farmers Association and Namibian Water Partnership; donors, NGOs</p>	<p>Indicators:</p> <ul style="list-style-type: none"> • National IWRM Plan available and used for national planning; • Institutional development and capacity strategy and action plan put in place • Financial resources mobilisation mechanisms developed • National awareness and consensus on IWRM and sustainable development created <p>Source: Project reports Periodicity: Annual</p>	<p>IWRM plan and component strategies prepared 2 years from start of process</p>
<p><u>Activities</u></p> <p>1. Consolidation of National Water Resources development Strategy and Action Plan.</p> <p>i.) Review and assessment of existing situation</p> <p>ii.) Assessment of resources potential and development needs considering the economic, social and environmental uses</p> <p>iii.) Formulation of a Comprehensive water Demand Management Programme</p> <p>iv.) Formulation of National Water Resources development</p>	<p>Outputs</p> <p>1. :</p> <p>i.) The existing information reviewed, documented and adopted</p> <p>ii.) The resources potential, use and allocation established</p> <p>iii.) Water demand management strategies and programme formulated,</p> <p>iv.) A comprehensive, strategy and action plan optimizing water supply and demand prepared as input to the overall IWRM plan.</p>		<p>1. National IWRM Strategy and action plan prepared and endorsed by stakeholders</p> <p>2. National I&K and M&E mechanism prepared and endorsed by DWAF</p> <p>3. National monitoring and evaluation mechanism prepared with action to strengthen existing systems</p> <p>4. A sustained funding strategy mechanism prepared launched</p> <p>5. A comprehensive institutional and human resources capacity development plan prepared and</p>	<p>1. 14 month after commencement</p> <p>2. 16 months after commencement</p> <p>3. 18 months after commencement</p> <p>4. 20 months after commencement</p> <p>5. 22 months after commencement</p>

<p>strategies and action plan</p> <p>2. Development of Information and knowledge system</p> <p>3 Development of long-term Monitoring and Evaluation Framework</p> <p>4. Development of funding mechanisms for Implementation of the IWRM Plan</p> <p>5. Development for integrated framework for institutional development and capacity building</p> <p>6. Awareness creation on IWRM</p> <p>7. Consolidation of the Namibia IWRM Plan for Vision 2030</p>	<p>2. A mechanism for sustained information and knowledge management prepared</p> <p>3. A framework for long-term M&E of integrated water and land resources use and management</p> <p>4, A strategy for securing financing implementation of the IWRM plan prepared</p> <p>5. An integrated framework to enhance institutional capacity and human resources development established, and adopted for implementation.</p> <p>6. An awareness campaigning on integrated water and land resource management launched</p> <p>7. A national IWRM plan to achieve the goal of Vision 2030 prepared</p>		<p>endorsed by DWAF</p> <p>6. A sustained awareness campaign on IWRM launched</p> <p>7. A comprehensive National IWRM plan prepared for implementation</p>	<p>6. continuous</p> <p>7. 24 months after commencement</p>
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1 Background

1.1 The Water Sector

1.1.1 Namibia is the most arid country in Southern Africa with low and varied precipitation from a maximum of 600mm to less than 50mm per year. Only about 2% of the rainfall ends up as surface run-off and a mere 1 % becomes available to recharge the groundwater. The balance of 97% is goes through evaporation (83%) and evapo-transpiration (14%). The rainfall is skewed with the northeast getting more than the west and southwest part of the country. The internal annual renewable water resources is estimated as 6.2 billion CUM with major portion of this quantity in perennial rivers forming part of boundary or transboundary water resources system. (For Location see Annex 1). Namibia's international boundaries, both northern and southern are marked by the Kunene River in the northwest, the Okavango River in the central north and the Zambezi and Kwando Rivers in the northeast. The Orange River marks Namibia's southern border. It is only in these rivers that perennial surface water resources are found in Namibia.

1.1.2 Water is a limiting factor in agricultural production as a result of low and highly variable and unpredictable rainfall. As a result, subsistence agriculture consisting mainly of mixed farming is practiced only on 6.5% of the total land area. The two major demands on water supply in Namibia are either urban centers, or agriculture in both the communal and commercial farming areas which constitutes 91% of Namibia's water demand. The water demand is expected to rise from 300 Mm³/annum in 2000 to 600 Mm³/annum by 2020.

1.1.3 The water resources challenges in Namibia can only be addressed through a high degree of efficient water resources management including development of an integrated institutional framework and provisions of infrastructure to ensure water security. Namibia will look to international water resources to meet water demands from the major river system shared with Angola, Zambia, Botswana and South Africa thus necessitating a closer cooperation with these countries within the SADC protocol on shared water resources.

1.1.4 In 2004 the government launched Namibia's Vision 2030 which provides the overarching framework for the development of Namibia with the main goals improving the quality of life of its people and achieving the status of developed country by the year 2030. Water resources development will significantly contribute to the achievement of the Vision goals and in this respect provides the framework for the water sector policy and strategy goals and objectives. The water sector goals are specifically aligned to the Poverty Reduction Strategy and National Poverty Reduction Action Programme. The Water Resources Management Act (WRMA), of 2004 based on IWRM principles, provides overall guidance in the sector. The overarching goals for the water sector are fully aligned to meeting the MDG and the sub regional goals articulated in the SADC protocol.

1.1.5 The key challenges of the water sector are the operationalisation and implementation WRMA of 2004 and the recommendation of the NWRMR by addressing

the technical, institutional, financial, socio-economic issues under a consolidated National IWRM Plan within the time framework of Vision 2030. Namibia will increasingly use the maximum potential offered from transboundary water resources and hence has taken steps to ensure sustainable cooperation within the existing international frameworks and the SADC shared water protocol.

1.2 Origin of the Project

1.2.1 Actions taken to implement the IWRM approach in Namibia have resulted in a plethora of plans, strategies and approaches designed to achieve the same overall goals of integrated and sustainable water use and management in the country. These include the Water and Sanitation Policy of 1993, National Water Policy of 2000 and the Community Based Management Strategy for Rural Water Supply. The Water Resources Management Act, 2004, also based on IWRM principles, provides overall guidance but it is not fully operationalised. As a result, a variety of *ad hoc* interventions are being undertaken by government and other stakeholders, together and separately towards meeting the national development objectives. The Ministry of Agriculture, Water Affairs and Forestry (MAWAF) has the overall responsibility for water resources management but the operative policy directives and legislative instruments at the moment remain highly sectoral and fragmented.

1.2.2 It was from this perspective that the Namibia Water Partnership forum, organized a workshop in April 2006 with wide representation from line Ministries and public and private sector to address the structural and policy issues impeding water resources development in the country. The Namibia Water Partnership Forum was established in 2001 to undertake a facilitated support for the formulation of an IWRM Plan; to share information and knowledge on IWRM; to create further awareness among the key stakeholders in the implementation of IWRM in Namibia; and to strengthen partnership in the water sector.

1.2.3 The April 2006 workshop confirmed the need to develop a realistic and feasible IWRM plan that integrates the various water uses and the institutional, technical and financial framework needed to achieve the long term goals of Vision 2030. The IWRM plan will provide i) a forum for partners' engagement, ii) an information sharing and monitoring system, iii) mechanisms for formulating and implementing relevant legislation and iv) platform for coordinating the activities of all concerned ministries and other stakeholders. The key feature of the Plan preparation process is to ensure i) the support by all stakeholders with clear roles and responsibilities ii) development of proper institutional mechanisms and capacity building strategies iii) funding for implementation of all aspects of the Plan

1.2.4 Global Water Partnership Southern Africa (GWP-SA) assisted the MAWAF and the Namibia Water Partnership Forum in developing the framework for action and in prioritizing focus areas under the auspices of the SADC Water Vision. The final outcome of this process is the development of a proposal that was submitted to the Africa Water Facility to obtain funding to support the Government of Namibia to formulate the IWRM plan.

1.3 Sector Priorities

1.3.1 The broad objectives of the Namibian water sector is to achieve the efficient supply and allocation of water to ensure equitable access to water resources and sanitation and contribute to long-term social and economic development of Namibia. This is based on ensuring the environmental sustainability of water use and re-use; full participation of the stakeholders and a strong institutional capacity from local to national level. The perennial rivers of Namibia are transboundary in nature and their sustainable and judicious use requires agreements between the basin states due to their trans-boundary and shared nature. Cooperation with riparian countries is facilitated under the framework of SADC Shared Water Protocol

1.3.2 The sector priorities focus on providing basic water supply and sanitation services to all Namibians, at an affordable cost. This will be achieved through the combined efforts of the government and the beneficiaries, based on community participation and the acceptance of mutual responsibility. The water sector priorities are aligned with National Development Plans and similar instruments of other natural resource and related sectors under the overall guiding framework of NDPs.

1.3.3 Sector priorities are guided by a number of policies developed within the Ministry of Agriculture, Water Affairs and Forestry. The Water and Sanitation Sector Policy resulted in restructuring of the Ministry and establishment of a Directorate of Rural Water Supply and a bulk water supplier, NamWater. Priorities were reexamined and realigned under Namibia's Water Resources Management Review (2004) which further elaborated, under the Water Sector Planning Process (2005), the need to address four key water sectors i.e., irrigation, rural water supply, urban water supply and mining and the initiation of implementation of the basin management approach.

1.3.4 The sectoral and sub-sectoral policies, guidelines, legislations and associated processes have helped Namibia in setting priorities in the water sector. The key problem was identified as lack of an overall Integrated Water Resources Management plan that guides the above efforts toward improved, more effective and efficient, water management in Namibia.

1.4 Problem Definition

1.4.1 The participatory process used for defining the problems is based on a number of national multi stakeholder processes that have assessed the main challenges and set the water sector priorities. The main conclusion drawn from these processes was that although national institutions in the water sector have taken holistic and integrated water resources management approach, the policy directives and legislative instruments operative at the moment remain highly sectoral and fragmented. Functions and responsibilities are largely duplicated and the spheres of mandates are unclear and uncoordinated leading to inefficiency.

1.4.2 Inadequate or non-existent infrastructure, limited technological and human capabilities for hydrological and ecological assessments, database management, continuous monitoring and updating, and purification and recycling of water pose

challenges to the full implementation of IWRM. This is further compounded by the lack of institutional and human capacity for effective data collection, service delivery, coordination, regulation, monitoring, inadequate mechanisms for addressing gender issues and enforcement of IWRM practices. Finally limited 'political will' to implement IWRM remains a serious challenge.

1.4.3 The April 2006 stakeholder workshop identified and prioritized, possible threats to water resources management and recommended the need for the formulation of National IWRM plan. The group identified the key steps in plan formulation; strategies that need to be elaborated in order to achieve the IWRM plan objectives; and the specific actions required to elaborate the plan and the responsible for taking actions.

1.5 Beneficiaries and Stakeholders

1.5.1 The Namibian government and people will be the overall beneficiary of the project. The DWAF in the Ministry of MAWAF is the recipient of this grant is mandated to ensure equitable, sustainable, efficient and effective water use and management in Namibia. The DWAF as key department of the Ministry responsible for water resources management and other stakeholders from rural Water Point Committees to the bulk water supplier such as Nam-Water will have a suitable framework under which to operate and implement the 2004 WRMA.

1.5.2 Effective stakeholder participation at all levels will be guaranteed in all decisions concerning water resources allocations and management, with the focus of capacitating stakeholders for managing specific water resources activities, thus ensuring ownership and overall responsibility. The cooperative process under the SADC shared water protocol will be facilitated through the IWRM plan and will provide an opportunity for a win win use of the water resources shared with other countries. The IWRM plan will facilitate the long-term engagements of regional and international development partners and stakeholders in the development of Namibia's water resources.

2 The Project

2.1 Impact and Outcome

2.1.1 The overall long term impact of the project will be to enable Namibia to achieve a sustainable water resource management regime contributing to social equity, economic efficiency and environmental sustainability in the country. This will result in improved health and sanitary conditions of communities, improved water related livelihoods; gains to agriculture from improved land and water management, reduced risk of floods and droughts. Transboundary cooperation on beneficial use of shared water resources will be greatly enhanced leading to joint project implementation and operational management.

2.1.2 The outcome of the project is the implementation of a holistic, integrated approach to water resource use and management in the framework of the national IWRM plan. This will result in the achievement of greater equitable access to water ensuring gender equity and social welfare; improved sanitation, recycling and safe waste disposal;

increased security from natural disasters; improved agricultural and water management; and operational transboundary cooperation. From this perspective Namibia will take implementation actions with respect to the Framework for Action of the Southern African Vision for Water Life and Environment adopted at Second World Water Forum in 2000.

2.2 Outputs

2.2.1 The main output of the project is formulation of the National IWRM Plan for Namibia that will provide a holistic and integrated framework for water resources management as key input for achieving the MDGs and the national development goals of Vision 20303.

2.2.2 The outputs from the process of the preparation of the IWRM will be as follows.

- i) The existing information reviewed, documented and adopted
- ii) The resources potential, use and allocation established
- iii) Water demand management strategies and programme formulated,
- iv) A comprehensive, strategy and action plan optimizing water supply and demand for economic development and social welfare and environmental use prepared as an input to the overall IWRM plan.
- v) A mechanism for sustained information and knowledge management prepared
- vi) A framework for long-term M&E for integrated water and land resources use and management including attainment of the WSS targets.
- vii) A strategy for securing financing implementation for the IWRM plan prepared
- viii) An integrated framework to enhance institutional capacity and human resources development established, and adopted for implementation.
- ix) An awareness campaigning on integrated water and land resource management launched

2.3 Activities

2.3.1 The project activities are designed as sets of discrete actions that will provide specific and useful outputs which together will lead to the formulation of the National IWRM Plan. The national stakeholder process has identified a number of key actions that are grouped into seven activity components. The activity sequence follows a process of assessment, review and analysis leading to the formulation of the discrete outputs for each component described below. Annex 2 shows the activity flow and inter-linkages to archive the envisaged outputs.

2.3.2 Activity I: Consolidation of National Water Development Strategy and Action Plan – This is based on a comprehensive review of assessment of existing situation; diagnostics of resources potential and development plans and formulation of demand management strategy and guidelines. The Strategy and Action Plan document will address key technical, institutional, financial, economic, social, and environmental challenges, issues and formulation of response strategies to address short to long term development needs. The strategy element will provide an IWRM framework to address development needs, the water conservation and demand management challenges and provide a consolidate action plan and broad programmes to enable Namibia to use its

water resources to meet goals of Vision 2030. The main sub activities related to this component are :

i.) The review and assessment of existing situation will cover:

- National and regional IWRM policy Framework and water management plans
- National and regional legal framework and institutional setup
- Status of baseline data, information and knowledge and monitoring and evaluation systems and activities
- status of water resources utilization, conservation and identification of key issues and challenges
- Stakeholder engagement, participation and awareness creation with particular attention paid to women and youth.
- Investment level, sources and gaps
- Issues of gender, water rights and cost sharing

ii.) The assessment of resources potential and development needs

- Water resources potential, availability, allocation and utilization including surface and ground water
- Projected water resources development scenarios and management needs including infrastructure provisions for various types of utilization with specific consideration of gender related issues.
- Climate variability and long term impact on water security
- Assessment of alternative water resources supply sources such as desalinization, inter-basin transfer and shared use of transboundary resources
- Strategies for ensuring water security taking into consideration the social, economic and environmental use and water conservation needs including specific actions to enhance transboundary cooperation.

iii.) Formulation of Water Demand Management Strategy and Guidelines based on :

- Assessment of Water Demand Management (WDM) for all water uses including the regulatory and legal frameworks and gender related issues. Demand assessment should include the social, economic and environmental use of water.
- Formulation of water demand management strategies and guidelines fully addressing the gender and youth issues
- Promotion and testing of the WDM guidelines with all water management institutions
- Integration of WDM into capacity building and awareness raising programme

iv.) Preparation of the National Water Development strategy and Action Plan

- Consolidation of the supply and demand analysis and preparation of national strategy and action plan subjected to stakeholder validation

2.3.3 Activity II: Formulation of Information and knowledge systems for the purpose of planning, implementation and monitoring of water and associated resources and impact of development. This will be based on the identification of the data, information and knowledge gaps and need for sustainable water resources management and the elaboration of infrastructure and institutional needs including the implementation action plan.

2.3.4 Activity III: Development of long-term Monitoring and Evaluation Framework which identifies the monitoring and evaluation needs, methodology, standards and broad indicators and mechanisms to meet national objectives with outcome based monitoring and evaluation programme as integral part of the IWRM Plan

2.3.5 Activity IV: Development for Integrated Framework for Institutional Development and Human Resources Capacity building based on the assessment of the water management institutional landscape and mechanisms including legal framework and organizational setup for sustainable stakeholder engagement that responds to the needs of the outputs in **Activity I** to **III**. The strategy will provide the approaches for strengthening and or development legal framework, institutional setups at local, national and regional level; human resources requirement in terms of broad skill mix and a programme for launching the institutional development and manpower development actions. Special attention will be given to strengthening the gender mainstreaming at all level of water resources management activities.

2.3.6 Activity V: Strategy for Funding the Implementation of the IWRM Plan. This will include an assessment of investment requirement for the implementation of the water action plan, assessment of cost recovery and pricing in the context of economic, social and environmental use of water to a framework for securing from internal and external financial resources for IWRM implementation

2.3.7 Activity VI: Launching of an Awareness Creation Campaign on IWRM – This will be based on the review of ongoing awareness creations activities and suitability for the IWRM. Awareness creation strategies and action plan with particular attention to the gender and youth issues will be developed and implementation will commence during the project period. The engagement and consultation of all stakeholders to provide inputs at key stages of the preparation of the IWRM plan will be ensured through workshops and seminars that will be conducted as part of the awareness campaign.

2.3.8 Activity VII: Consolidation of the Namibia IWRM Plan for Vision 2030: The development of the national IWRM plan is the consolidated result of the outcome of the activity I-VI and will constitute the main outcome of the project.

2.4 Justification for AWF Support

2.4.1 The project is considered under the AWF operational focus areas of providing support for improved water resources management at national level. The project will enable Namibia to consolidate its IWRM policies, institutional frameworks legislative and regulatory frameworks and capacity development, as well as prepare strategies,

programmes and implementation plans, necessary to attract appropriate national and international investments in the sector. As a result, Namibia will have increased capacity to manage its water resources effectively based on IWRM principles to achieve long term development goals.

2.4.2 The project will enable Namibia to achieve the facilitation of the following main key water resources development actions in line with the objectives of AWF:

- Creation of a consolidated data, information and management system to support the risk management, planning and implementation and monitoring the resources base and development impact
- Framework regional cooperation to enable Namibia make maximum use of the shared water resources under the SADC shared water protocol
- Long term resources mobilization strategy to leverage and sustain finance for the infrastructure development and operations
- A platform for engagement of all national stakeholder around a common development framework
- The National IWRM plan will provide a common framework for coordinated response from partners and donors and others thus enhancing increased resources availability for investment

2.5 Risks and Assumption

2.4.1 The main risks affecting project implementation are institutional and relate to insufficient commitment among the stakeholders to work on multi-stakeholder platform. The IWRM planning process is partly technical, but it certainly also has a political component. Resistance to change by entrenched interests in the sector could hinder progress of national plan formulation. The strong commitment from the Ministry, the Regional and National Water Partnerships, concerted participatory awareness campaigns and assignment of qualified and experienced project coordinators will facilitate the successful outcome of the process.

2.4.2 The IWRM plan will provide the basis for a sustainable long term actions to build the nations water security for the overarching objectives of poverty reduction and economic well being of the nation. Failure to realise this objective at the political, technical and institutional level poses a fundamental risk of tanking the hard decisions and actions by all stakeholders involved. The execution of the project through a Core Team composed of representatives of all relevant stakeholders will ensure ownership of the process by government, civil society, donors and NGOs and lead to commitment to plan and implement IWRM strategies together. It is assumed that political leadership and other stakeholders including donors will respect the process, and commit themselves to the investment agenda resulting from this process

2.4.3 Namibia's available natural water resources endowment is significantly influenced by the internal climatic conditions and the transboundary nature of the main perennial rivers. The re is long term risk of negative impact arising from climate change and variability on the future water resources availability and distribution to meet existing

and increasing demand to meet the social, economic and environmental needs. An integrated strategy of water conservations; water use efficiency and transboundary cooperation will be proposed to ensure water security as part of the IWRM plan. The installation of robust information and knowledge system coupled with the monitoring of key indicators on climate change and water use will provide an objective framework for timely actions.

2.6 Costs and Financing Plan

2.6.1 The primary activities of the project are collection, of existing data and information; review, analysis and evaluation of available information; consultation at various level; facilitation of a stakeholder process; preparation of interim and final reports and launching of awareness campaign. The final result is the preparation of an integrated water resources management plan for Namibia.

2.6.2 The main cost elements are related to the provision of multi-disciplinary technical assistance to undertake the preparation of the IWRM plan, facilitation and support for project operation. The technical assistance will provide long term a water resources specialist and Socio-Economist. The water resources specialist will lead the technical team and also cover issues of water supply & sanitation expert while the socio-economist will cover the economic, gender and social equity issues.

2.6.3 Short terms experts include, Institutions, M&E, Environment, Finance and Communication. The facilitation cost will cover the need for stakeholder consultation process and awareness creation including seminars, workshops and the Steering Committee meetings. The project operations expenses are for procurement of some IT equipment and soft wares, publications expenses and support for the work of the PMT. A project allowance for staff assigned from the DWAF is also included in the cost.

2.6.4 The overall cost of the project is estimated as Euro 648,200. The AWF grant component is EURO 498,200 to cover the cost of technical assistance and contribute to the cost of national staff, awareness and facilitation and provision of other goods and services. The Government of Namibia will contribute Euro 150,000 to cover national staff time, office space and provision, data and information acquisition and running cost including local transport, communication and utility cost.

2.6.5 The detailed costs and nature of expenses for the AWF grant support are provided in Annex 6. The total project cost and sources of financing is indicated in Table 1 below

Table 1: Project Cost and Financing Plan in Euro

Cost Component	AWF	Government	Total cost
Technical Assistance	331,200		331,200
Support for National Experts	49,000	60,000	109,000
Awareness and Facilitation	96,000	40,000	136,000
Goods and supplies	22,000	50,000	72,000
Grand total	498,200	150,000	648,200

3 Implementation

3.1 Recipient

3.1.1 The Ministry of Agriculture, Water Affairs and Forestry is the lead Ministry responsible for water affairs in Namibia. The Ministry requested the AWF grant support for the preparation of IWRM Plan and hence is the recipient of the grant fund. The Department of Water Affairs and Forestry under the Ministry is responsible for the overall management of national water resources and provision of water supplies will be the Executing Agency of the project and hence will directly administer the use of the grant fund. (See Annex 5 for the organisational structure of the Ministry).

3.2 Implementation Arrangement

3.2.1 The Department of Water Affairs and Forestry is the Executing Agency responsible for the implementation of the Project. The DWAF will designate a Project Manager who will be directly responsible for the day to day management of the Project. The Project Coordinator will be supported by a multidisciplinary technical assistant team lead by a water resources specialist and will be responsible for technical aspect of the project. Annex 3 shows the project management and implementation structure. DWAF will prepare and submit detailed terms of references for the coordination and technical assistance team on signing of the Grant Agreement.

3.2.2 Implementation will be overseen by a Project Steering Committee (PSC) chaired by the Namibian Water Partnership. The PSC will provide the overall guidance, monitor progress review interim and final outputs and ensure the reflection of the concerns and requirement of various stakeholders. The members of the PSC will include representatives of DWAF, the bulk water supplier, Local Authority, line ministries, CSO, WUA, donor organizations. The Namibian Water Partnership Forum which has a membership of 15 different institutions from all sectors provides an inclusive stakeholders platform for participation and monitoring of the process and outcome.

3.2.3 The Namibian Water Partnership will in addition to chairing the PSC, facilitate and support the Government as a multi-stakeholder platform to implement the plan. The NWP and PSC will work in close cooperation and collaboration with the GWP-SA and SADC, tapping on their experience and expertise with development and implementation of IWRM plans of various other countries. They will also be involved in facilitating various regional links, training and sharing lessons learnt from other relevant initiatives.

3.3 Performance Plan

3.3.1 Project implementation will be based on the result based management framework with clearly defined objectives, activities and outcome as provided in the Logical Framework Analysis Matrix. Supervision and project implementation monitoring will be guided by the achievement as measured against the main indicators in the LFA.

3.3.2 The specific activities and indicators of output with time frame for monitoring the performance of the project are given in Table 2 below.

Table 2: Performance Plan and Time Frame

Item	Activity Component	Indicator of Outputs	Time frame
1	National Water Development Strategy and Action Plan	Review and assessment of existing situation completed	6 month after commencement
		Assessment of resources potential and development needs completed	8 month after commencement
		Preparation of WDM Strategy and Guidelines	10 month after commencement
		National Water development strategy and action plan prepared	14 month after commencement
2	Formulation of Information and knowledge system	An information and knowledge management system prepared through a multiple stakeholders process	16 months after commencement
3	Formulation of long-term Monitoring and Evaluation Framework	National monitoring and evaluation mechanism prepared with action to strengthen existing systems	18 months after commencement
4	Framework for Institutional and Human Resources Capacity	<ul style="list-style-type: none"> • Updated overview of institutional landscape with respect to IWRM • Updated overview of capacity building programmes with respect to IWRM • Programme for strengthening institutions involved in IWRM Guidelines; integrated into IWRM plan 	20 months after commencement
5	Strategy for Funding the Implementation IWRM Plan	Financial strategy to for the implementation of the IWRM plan prepared	22 months after commencement
6	Launching of an Awareness Creation Campaign on IWRM	<ul style="list-style-type: none"> • Programme of workshops, meetings and diverse interactions • Awareness campaign for IWRM Plan formulation process • Awareness and information programmes for high-level decision-makers 	continuous
7	Consolidation of the Namibia IWRM Plan for Vision 2030	A validated National IWRM plan for 2030 prepared	24 months after commencement

3.4 Implementation Schedule

3.4.1 The formulation of the Namibia IWRM plan will be undertaken over a period of two years. Annex 4 provides the overall duration of the project and the time frame for each activity components and the interrelation between them. The main milestones of the process are the preparation of the National Water Development Strategy and Action Plan during the first year of the project and the preparation of the National IWRM Plan for vision 2030 during the second year of the project.

3.4.2 The preparation of the national strategy and action plan involves a comprehensive review of the existing situation; the resources endowment and potential use; the demand side management that encapsulates the socioeconomic and environmental dimensions. This will be the basis for assessing the requirement for information and knowledge; monitoring and evaluation; institutional development and capacity building and the financial base for implementation. Participatory engagement and awareness creation will commence early on the process through the start up workshops on consultations of the formulation of the national strategy and action plan and will evolve into an institutionalized national campaign.

3.4.3 The Namibia National IWRM plan is the consolidated result of the project prepared to guide the sustainable management of the national water resources for objectives of meeting the MDG as well the longer term socio-economic development goals of the Namibia's Vision 2030.

3.5 Procurement

3.5.1 Procurement arrangements are summarized in Table 3 below. All procurement of goods, works and acquisition of consulting services financed by the AWF grant will be in accordance with the Bank's *Rules of Procedure for Procurement of Goods and Works* or, as appropriate, *Rules of Procedure for the Use of Consultants*, using the relevant Bank Standard Bidding Documents.

Table 3: Procurement Arrangement (Euro '000)

Category	International Short List	National shopping	Direct Purchase	Total
1. Office equipment and supplies		22.0		22.0
2. Technical Assistance	331.2			331.2
3. Facilitation and workshops		96.0		96.0
4. National Staff allowance			49.0	49.0
5. Total	33.1	118.0	49.0	498.2

3.5.2 Consulting services relating to the preparation of the diagnostic studies and preparation of the national IWRM plan [Euro 331, 200 in aggregate] will be procured on the basis of shortlists of qualified consulting firms in accordance with the Bank rules of Procedures for use of Consulting Firm. For facilitation and awareness creation activities with aggregate value of Euro 96,000 which includes organisation of workshops and seminars at national and provincial level, Direct Negotiation procedures will be applied, using the services of NGOs, specialized national institutions, etc

3.5.3 Goods and ancillary items required for the project team (computers, Office Equipment and Supplies etc) with aggregate value of Euro 22,000, in will be procured through National Shopping. This is because the goods to be procured are readily available

off-the-shelf items or standard specification commodities, which can be purchased locally.

3.5.4 The Department of Water Affairs and Forestry (DWAF) in the Ministry of Agriculture, Water and Forestry is the Executing Agency and will be responsible for the implementation of the Project. The DWAF has the capacity, experience, expertise to manage the procurement requirement of the Project. The Department will assign an experienced and qualified coordinator and national staff to work with the Technical assistance team. An aggregate of Euro 49, 000 is allocated to cover project allowance for the national staff.

3.5.6 The services of a Project Auditor will be funded by Awe’s Administrative budget and will be procured directly by AWF by means of a shortlist. The selection procedure will be based on the comparability of technical proposals and selection of the lowest financial offer. For contracts of values below Euro 10,000, Direct Negotiation procedures will apply.

3.6 Disbursement Arrangements

3.6.1 The DWAF will open a Special Account, denominated in foreign and local currency in a bank acceptable to the Bank for channeling the funds from the AWF. The account will be managed by DWAF and in this respect the operation of the account will be the sole responsibility of the DWAF.

3.6.2 Disbursement of funds will made on revolving method basis whereby funds will be deposited in the special account, which will be replenished periodically based on the reports of previsions expenditure and work plan for the following periods. Table 4 below provided the proposed disbursement schedule.

Table 4: Semi Annual Disbursement Schedule in Euro

Item	Description	2007		2008		Total
		1 st tranche	2 nd tranche	3 rd tranche	4 th tranche	
1	Office equipment and supplies	10000	4000	4000	4000	22000
2	Technical Assistance	99360	82800	82800	66240	331200
3	Facilitation and workshops	24000	24000	24000	24000	96000
4	National Staff allowance	12250	12250	12250	12250	49000
5	Total	145610	123050	123050	106490	498200

3.7 Accounting and Audit Arrangements

3.7.1 The Grant Agreement will include the specific accounting arrangements and requirements for the Recipient opening of a Special Account with a local bank acceptable to Bank from which all eligible payments will be made. DWAF will be responsible for financial management of the project and the administration of the special account.

3.7.2 The Bank will recruit and retain an auditor to perform ex-post evaluation or supporting documents review and audit the project. The Bank will require that a statement of expenditure and supporting documents review be performed and certified by the independent auditor at predetermined intervals to ensure that funds have been utilized in line with the grant agreement. The costs of such audit shall be charged to AWF and are not included in the Grant.

3.8 Monitoring Evaluation and Reporting Arrangement

3.8.1 The objectives, actions, and expected outputs and outcomes of the AWF activities, as summarised in the attached LFA matrix adopted by DWAF. A list of specific indicators of achievement and means of verification mentioned will serve as a basis for result based performance monitoring during implementation and after completion. Monitoring of the specific outputs indicated in section 3.3 above will be made on the basis the reports submitted by the project team and reviewed by the DWAF and the Steering Committee.

3.8.2 The implementation supervision of the AWF will include regular correspondence with the DWAF, and review of the Dwarf's quarterly Progress Reports and technical reports related to specific study components. AWF will consider field supervision missions to check if the specific outputs of the AWF funding have been timely delivered with the required quality and if the expenditures are in agreement with the budgets and schedules.

3.8.3 The level of achievement in relation to the project objectives and expected results shall be reported to, and assessed by, the Steering Committee at its semi-annual and annual meetings. These reports shall cover the technical, financial and administrative issues and shall address specific difficulties or constraints, if any, facing the project and suggest solutions to mitigate identified problems.

4 Effectiveness, Efficiency and Sustainability

4.1 Effectiveness and Efficiency

4.1.1 Effectiveness and efficiency of water development, use and management are key elements of the IWRM plan. The framework for IWRM becomes, inter alia, a framework for water infrastructure development to ensure sustainable socio-economic wellbeing and environmental safety. The IWRM Plan will fully assess Namibia's water challenges, the causes and the policies that are designed to address the water challenges and provide an

integrated strategy that is based on the assessment of resources availability and demand coupled with the technical and institutional framework for efficient and effective water resources management and use.

4.1.2 During the process of IWRM plan preparation, focus will be made on establishing coherence among policies in diverse sectors. Integration amongst actors and enhancing the capacity and strengthening of national, regional and local institutions of all actors is a major challenge for Namibia and will be addressed on the formal and non-formal levels in the IWRM plan. A coherent institutional framework that addresses the needs from sustainable data management to planning, implementation and monitoring the developmental impact and state of natural resources will be designed for implementation thus ensuring the sector development effectiveness.

4.1.3 The IWRM plan will provide the framework for enhancing efficiency in relation to minimizing the financial, political, social and environmental transactional costs while maximizing development effectiveness. The demand management strategy which balances the national resources endowment against the current and future demands will ensure greater water use efficiency through conservation, reuse and recycling. Regular availability of adequate data, information and knowledge on water will lead to planning and implementation of optimum solutions and ensure credible and regular monitoring of impact as measure of broader water use efficiency.

4.1.4 A key component of the IWRM plan is the strengthening of the engagement of key stakeholders and the public through CSO networking, participatory platforms and public awareness campaign on efficient water use. Economic incentives and technologies in water reuse and recycling with appropriate water pricing and tariff incentives will offer great opportunity for increased water efficiency.

4.2 Sustainability

4.2.1 Sustainability is the over-arching objective of the IWRM plan and its associated plan of action. The IWRM plan and its associated action plans will focus on enhancing the information base while reviewing and adapting policies, establishing the institutional framework, and a monitoring and evaluation system based on credible data and information management system. The water resources development strategy is based on a realistic assessment of the resources potential and use and a comprehensive approach to water demand management to enhance social welfare and economic growth. The plan provides an inclusive platform and a continuous engagement of all stakeholders and provides for a funding strategy to secure financial resources for the long term development needs.

4.2.2 The greatest challenge for Namibia, as one of the driest country south of the Sahel, is to ensure sustainable water security to meet the social, economic and environmental needs. The IWRM plan will bring change to current state of inefficient decision process and create a framework for an integrated approach based on the analysis of long term development requirement, resources endowment and monitor able management decision processes. The information system will be remarkably improved to

provide the required input for forecasting disasters, planning and implementation and monitoring and evaluation. Affordable cost recovery while addressing the social dimension of the provision of basic water supply and sanitation will be the basis for ensuring payment for services which is currently a major issue of considerable implications.

4.2.3 The IWRM plan will provide a basis for decentralization, based on inter and intra-sectoral information sharing to enhance holistic thinking, transfer of skills, experience and best practices as a key component of these processes. Partnerships amongst government, NGOs and the private sector are essential to support IWRM and decentralization and ensure overall sustainability.

4.2.4 Gender mainstreaming as a cross-cutting issue will be central to the planning, implementation and monitoring process. The roles of both women and youth will be reflected in the institutional arrangements for water resource development and management. In this regard, specific measures to facilitate and enhance the participation of women and youth in water resources management include specifically targeting them in awareness, education and training programmes as well as mechanisms specifically targeted to encourage, promote and facilitate their engagement and participation in IWRM. This will constitute as one of the corner stone for ensuring sustainability in the country's long term water resources management efforts.

5. CONCLUSIONS AND RECOMMENDATIONS

5.1 Conclusions

5.1.1 The lack of an over-arching IWRM Plan and strategy has limited government and partner response to ensure appropriate synergies and coordinated action to address prioritized challenges in the water sector of Namibia. The IWRM plan and its resulting outcome, a prioritized, integrated action plan, will address this lack of coherency to ensure effectiveness, efficiency and sustainability in the development of Namibia according to its Vision 2030.

5.1.2 The IWRM plan will provide a basis for strengthening the institutional framework and related aspects of public participation in sector development and will ensure the establishment of strong information and knowledge system as well as monitoring and evaluation mechanisms. The financial strategy which is a key outcome of the project will enable the government to pull national and international resources to achieve the IWRM development objectives. The plan will also facilitate the implementation the SADC shared water protocol thus enabling Namibia to benefit from the shared water resources of the region.

5.2 Recommendations

5.2.1 In view of the strategic importance of the project for the long term water resources development in Namibia, and based on the critical assessment of the relevance, effectiveness, and sustainability of the Project, it is recommended that Bank provide a total grant fund from the African Water Facility Trust Fund no exceeding Euro 498, 200 to the

Ministry of Agriculture, Water Affairs and Forestry to conduct the preparation of the Namibia IWRM Plan.

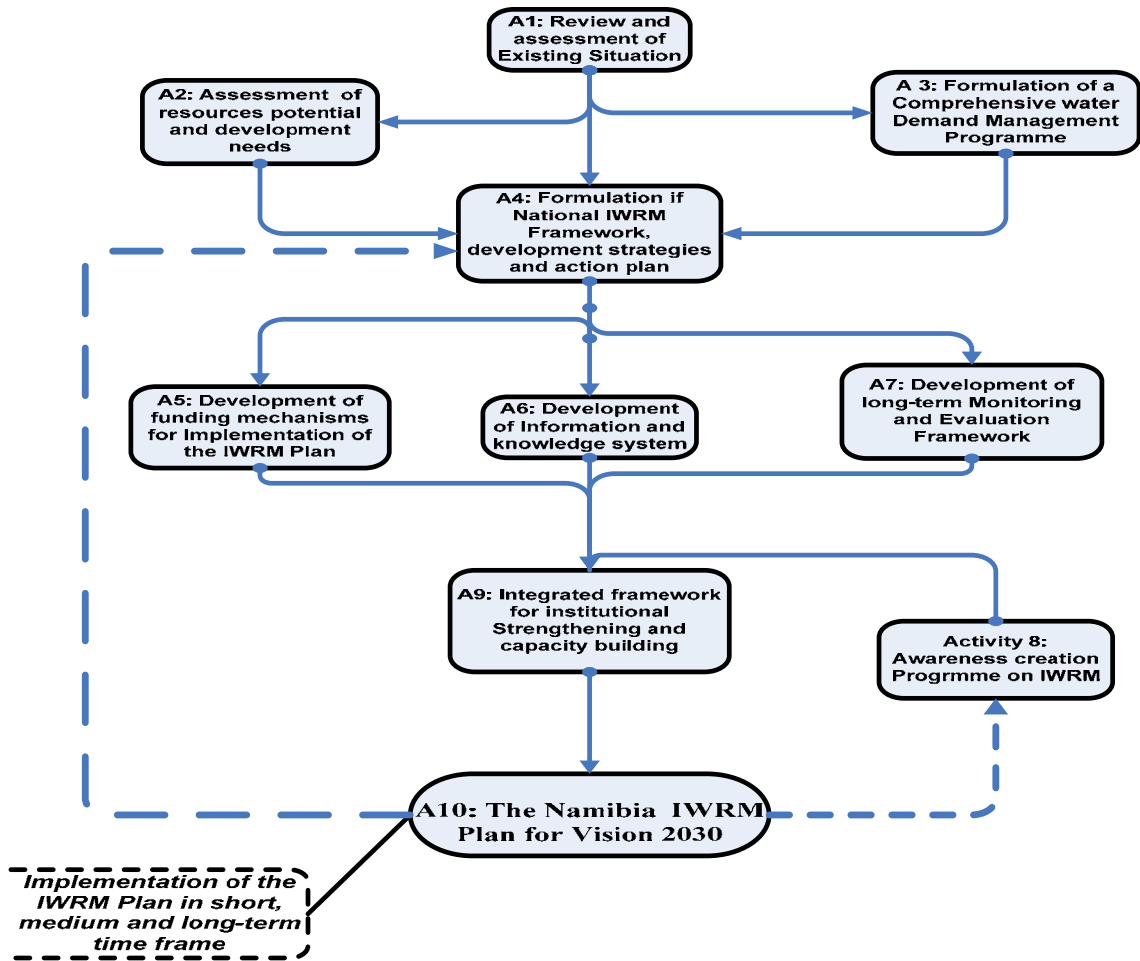
5.2.2 The following conditions for first disbursement from the grant should be met:

- i. Appointment by DWAF of Project Manager acceptable to AWF (Para 3. 2. 1)
- ii. Establishment of the Special Account by DWAF in a bank acceptable to AWF (Para 3.6.1)

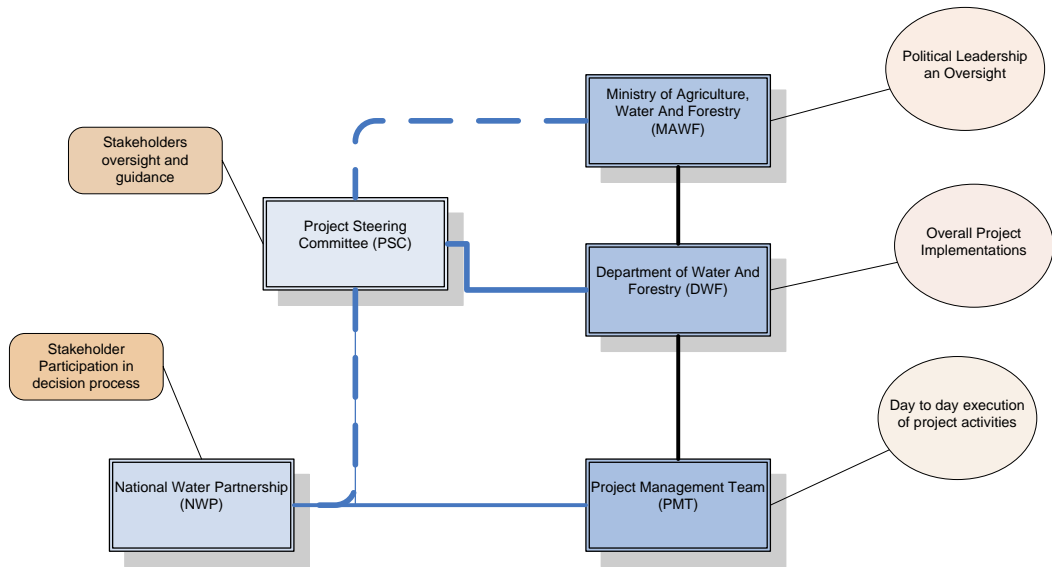
Annex 1: Location Map of Namibia



Annex 2: Activity Flow Chart



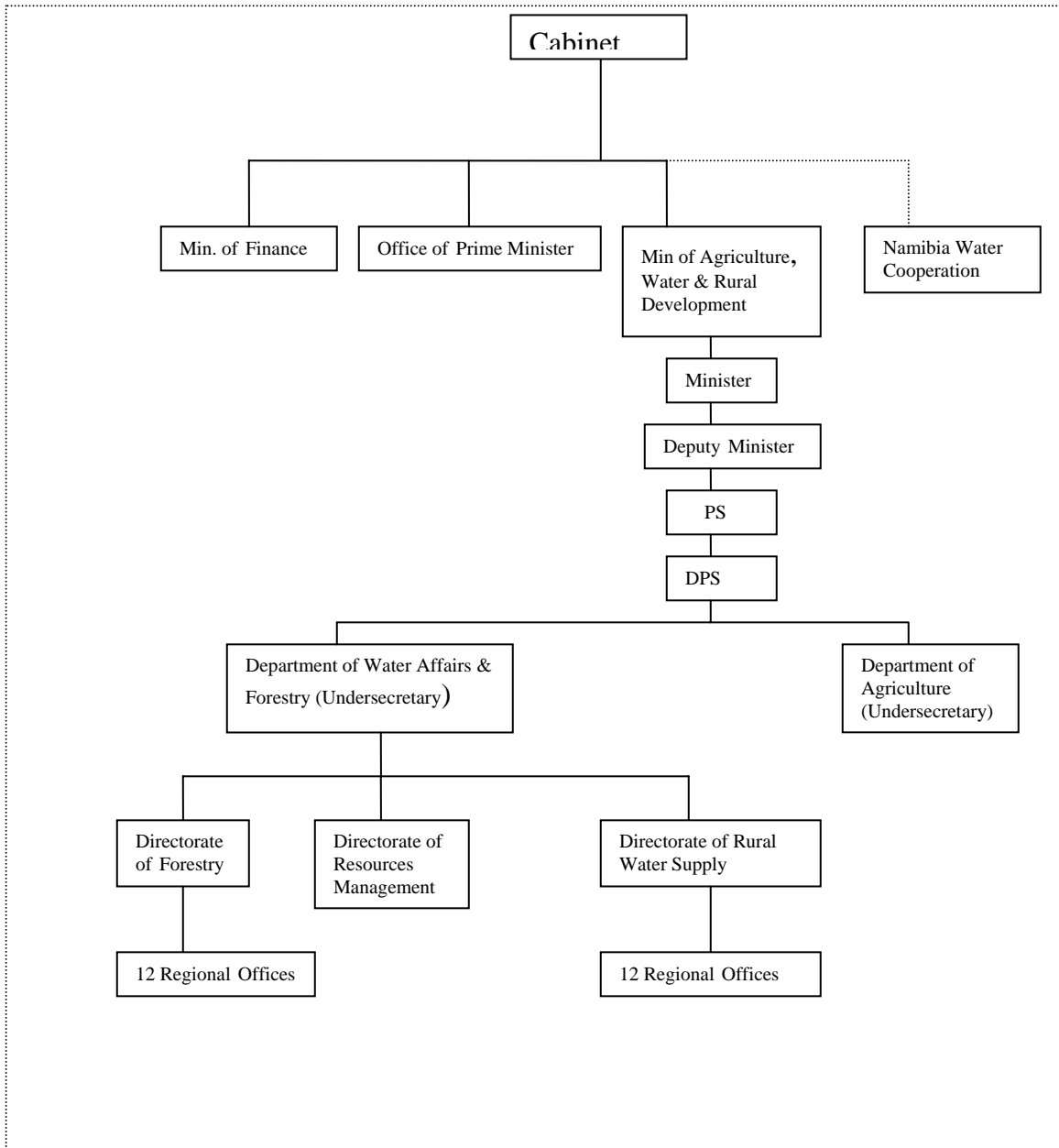
Annex 3: Project Implementation Management Structure



Annex 4: Activity Implementation Schedule

Item	Activities	Year 1												Year 2															
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24				
1.0	Preparatory Tasks including selection of TA	■																											
2.0	National Strategy and Action plan		■																										
2.1	review and assessment of existing situation		▨	▨	▨	▨																							
2.2	Assessment of potential and needs				▨	▨	▨	▨																					
2.3	WDM Strategy and Guidelines						▨	▨	▨	▨	▨	▨																	
2.4	National strategy & action plan									▨	▨	▨	▨	▨	▨														
3.0	Information and Knowledge system													■															
4.0	Monitoring and evaluation																■												
5.0	Framework for Institutional and HR development															■													
6.0	Financing Strategy																			■									
7.0	Awareness creation campaign					▨																							
8.0	Consolidation of National Irma Plan																									■			

Annex 5: Structure of Water Sector in Namibia



Annex 6: Project Cost Estimate

Cost Component	Unit	Quantity	Rate	Amount
1. Technical Assistance				
Long Term Specialist				
1.1 Water Resources Expert	MM	16	7200	115,200.00
1.2 Socio-Economist	MM	12	7200	86,400.00
1.3 Subtotal	MM	30		201,600.00
Short Term Experts				
1.4 M&E Specialist	MM	4	7200	28,800.00
1.5 Institutional Expert	MM	4	7200	28,800.00
1.6 Environmental Expert	MM	4	7200	28,800.00
1.7 Communication expert	MM	3	7200	21,600.00
1.8 Financial expert	MM	3	7200	21,600.00
1.9 Subtotal		18		129,600.00
1.10 Total for TA	MM	48		331,200.00
2.0 Support for National Experts				
2.1 Allowance for Project Coordinator	MM	24	1000	24,000.00
2.2 Allowance for national experts	MM	50	500	25,000.00
2.3 Total	MM	74		49,000.00
2. Awareness and Facilitation				
2.1 National Workshops	sum			40,000.00
2.2 Sub national workshop	sum			20,000.00
2.3 Awareness Campaign	sum			36,000.00
2.4 Subtotal				96,000.00
3. Goods and supplies				
3.1 Office equipment	sum			10,000.00
3.2 Supplies	sum			6,000.00
3.3 Miscellaneous	sum			6,000.00
3.4 Subtotal				22,000.00
Grand Total				498,200.00