

ANNEXES

Annex 1 National and Sector Policy and Planning Framework

Sector Policy Framework

The previous National Water Act was approved in 1995 and defines the competencies and general principles of the use of water resources in the country. The National Water Policy (PNA) ¹ was also approved in 1995. In 2007, the PNA was revised in the context of the MDGs and the experiences of ten years of sector reform, and became the Water Policy (PA). For rural water supply and sanitation, the revised PA reinforces most principles stated on its previous version:

- Implementation of the demand-responsive approach through participation of end users in the decision-making process, with special attention to women's participation; up-front cash contribution for capital cost; collection of water fees to cover operation, maintenance, repair and replacement costs of water facilities
- The minimum level of service for rural water supply coverage is a protected water source for 500 inhabitants providing a minimum of 20 lpcd. Acceptable technologies for protected water sources are boreholes or hand-dug wells with handpumps, rainwater catchment systems, spring protection systems or small piped systems for small rural communities. The selection of the technology option is an informed decision taken by end users based on their capacity and willingness to pay for capital and recurrent costs.
- The minimum level of service for rural sanitation coverage is an improved latrine. The cost of construction is the responsibility of households. Sector resources are focused on water, hygiene and sanitation promotion as well as creating the capacity among local artisans to construct improved latrines at community level.

In addition, the new PA opens the possibility for new mechanisms of support, such as:

- Involvement of the local private sector or individuals selected by end users to manage water services as an alternative solution for community water management systems
- Decentralization delegates responsibilities to district level for planning, supervision and monitoring of new and rehabilitated rural water sources and hygiene and sanitation promotion. The district level is also responsible for ensuring the sustainability of services by promoting maintenance and repairs of facilities at community level. It is also responsible for promoting the involvement of local private vendors and creating capacity of local artisans for handpump management and repair, latrine construction and commercialization of spare parts
- Use of sector resources to support supply chains at provincial, district and local levels. Commercialization of handpumps and spare parts in rural areas should involve local initiatives, including local private vendors and community organizations
- Government promotes research in the use of alternative low-cost WSS technologies which are suited to conditions in different parts of the country

¹ *Política Nacional de Águas (PNA)*, approved in 1995, and *Política de Águas (PA)*, approved in 2007

Sector Operational Strategies and Guidelines

The following were approved as tools for making the PNA operational: in 1997, the Rural Water Transition Plan, and in 2002, the Rural Water Supply Project Implementation Manual (MIPAR)². Also in the final approval phase are the Rural Sanitation Manuals (Technical and Social Guidelines for Rural Sanitation)³.

As a normative and regulatory tool for implementing rural water supply projects using a demand-responsive approach, MIPAR addresses policies and strategies, social aspects of their implementation, and technical specifications for the infrastructure. MIPAR is aligned with the present process by which responsibilities are being decentralized to the district level.

The Rural Sanitation Manuals (DNA, 2006) define the mission and vision for the sub-sector and present a set of guidelines for implementing the Rural Sanitation Program, including health and hygiene promotion. They also present sanitation technology options to be selected by beneficiaries depending on their needs and financial capabilities.

Legal Framework

The Law for Local State Institutions (LOLE) and its regulations provide the legal framework, norms, local organization's roles and responsibilities, as well as mechanisms and processes for good governance at sub-national level and with the active participation of the population.

The district administration contains a number of Services, with the Health, Women and Social Action Services (HWSAS) being responsible for hygiene promotion and sanitation. Water supply is the responsibility of the Planning and Infrastructure Services (SDPI) However, this division of responsibilities may change with the ongoing reorganization within district administrations.

The SISTAFE Law establishes planning, control and disbursement rules, regulations and accounting and internal auditing based on international standards for all government institutions and public funds. Regulations relating to this Law are the SISTAFE Regulation and the Regulation on Procurement of Public Works and Services.

Decree on Procurement of Public Works is the entry point for decentralization of sub-sector activities, from promotion of the local private sector, local artisans' associations and rural micro-enterprises under the Development of Local Economy program to support to the creation of maintenance mechanisms at the local level to ensure the sustainability of water facilities. Districts should then develop the capacity to contract and supervise construction of public works, including rural water supply facilities.

It is important for the RWSS sub-sector to build on experience in the following areas:

- Harmonization of the Demand-Responsive Approach and district participatory planning for the preparation of the annual District Budget and Socio-economic Plan (PESOD)
- The need for more inclusive and bottom-up sector planning mechanisms to support annual and medium-term planning, including the negotiation of medium and long-term budget support for implementing District Development Plans and PESOD

² *Manual de Implementação de Projectos de Abastecimento de Água Rural (MIPAR)*, DNA

³ *Manuais do Saneamento Rural: Directrizes Técnicas e Sociais para o Saneamento Rural*, DNA

- To design a long-term strategy for decentralizing responsibilities to district level supported by capacity building and the allocation of adequate resources
- To coordinate sector activities at district level to capture government and non-government water supply and sanitation activities in annual plan and monitoring system

Planning and Budgetary Framework

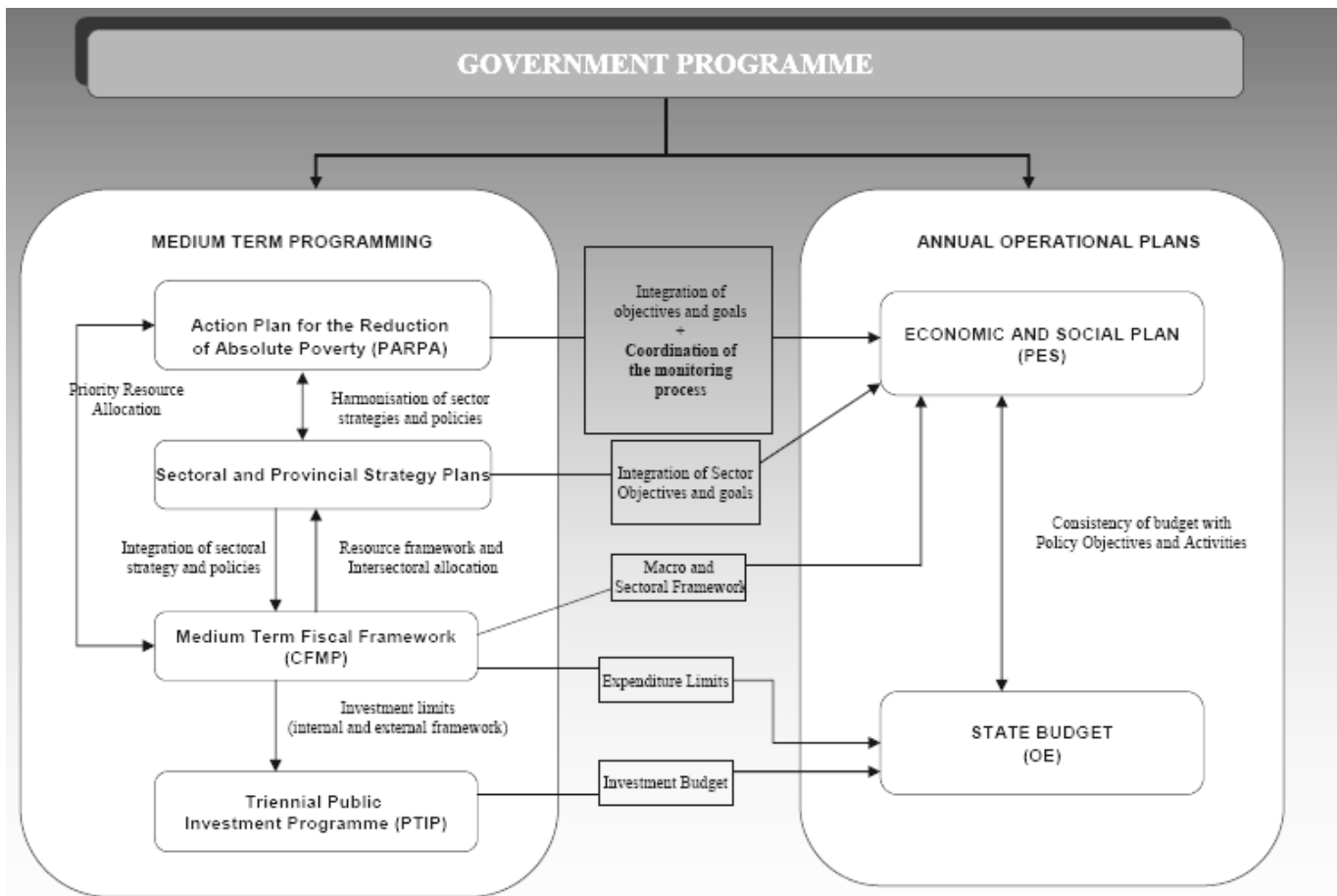
The Government's Five-Year Plan (2005-2009) builds on experience in implementing previous five-year plans and supports the fight against poverty by promoting sound social and economic development. It also promotes access to basic services to contribute to poverty reduction. It sets targets, benchmarks and priorities for increasing coverage of rural water and sanitation which are in line with the relevant MDGs, as well as promoting sustainability of existing coverage and promotion of improved water use, hygiene and sanitation practices. It also promotes inter-sectoral coordination to achieve its targets.

Implementation and monitoring of the Five-Year Plan is based on existing planning mechanisms. The medium and long-term planning process is based on sectoral strategic plans such as PESA-ASR and PARPA II, as well as the availability and prioritization of resources in the MTFP. (Figure 1 below illustrates the Government planning mechanisms and processes.)

Annual planning has traditionally been top-down, but with strengthening of districts, planning at central level will increasingly build on district, provincial and sectoral plans. The district PESOD will inform the preparation of the Provincial PES which will in turn be used in the preparation of national PESs, MTFPs and other plans.

Information on support from development partners is also used to prepare annual implementation plans for sectors and sub-sectors, whose budgets are part of the sub-sector PES, and eventually included in the National Social and Economic Plan (PES) and the State Budget (OE).

Figure 1 Government Planning Mechanisms and Processes



Source: Governance and Local Development, presentation by Jacob Massuanganhe, UNDP, October 2005

The Second Poverty Reduction Support Strategy - PARPA II⁴ articulates the Government’s strategic vision for poverty reduction by promoting increased productivity and by improving capacities and opportunities for all Mozambicans. PARPA II, 2006-2009, focuses on three main pillars: governance, human capital and economic development. PARPA II focuses on development at district level and defining human poverty as the lack of human basic needs, including water and sanitation.

PARPA II is implemented through the annual Economic and Social Plan (PES), which is assessed according to agreed performance indicators⁵.

Strategic Plan for Rural Water and Sanitation (PESA-ASR) 2006-2015⁶ is an integral part of the National Water Sector Strategic Plan and the first of three sub-sector plans (i.e. Rural Water Supply

⁴ Plano de Acção para a Redução da Pobreza Absoluta II– PARPA II

⁵ Balanço do Plano Económico e Social (BdoPES)

and Sanitation; Urban Water and Sanitation; and Water Resources Management) and two cross-cutting plans; (1) Institutional Development and Human Resources, and (2) Investment. The PESA-ASR operationalizes the medium and long-term vision for the RWSS sub-sector by defining objectives, strategies and investment requirements.

The PESA-ASR describes the division of responsibilities among the different actors and the anticipated trend in these in the medium and long term, in the context of decentralization and privatization. The PESA-ASR presents a number of possible development scenarios for rural water supply and sanitation to 2015, identifying the financial resources for each of them. It also identifies short-term measures to implement the plan.

Medium-term Fiscal Framework - MTEF (2007-2009) is the public-sector planning and budgeting instrument, updated every three years. The MTEF is revised and approved every year in annual plans and their respective budgets. It is currently being updated for the next three-year period, 2010-2012.

In the RWSS sub-sector, DNA prepares the MTEF using information received from DPOPHs at provincial level, MPD, MoF and relevant development partners. In the future, the MTEF will use information from provincial RWSS master plans and District Development Plans. MTEF contains information on population, the estimated requirement for new water sources and sanitation facilities, and investment requirements to meet important targets such as those in the Government's 5-Year Development Plan, which includes MDGs.

Sectoral MTEFs guide preparation of Annual Implementation Plans (AIP) and budgets for ministries and departments and are based on funding availability and prioritization of activities and projects. Sectoral MTEFs from provinces are consolidated by the respective ministries and submitted to MPD and MoF for prioritization and inclusion in the consolidated MTEF for approval by the General Assembly.

Coordination and Performance Review Mechanisms

Partnership Aid Program (PAP) aims to ensure funding for poverty reduction, clearly and transparently linked to performance through the state budget, which is at the heart of the budget support program aligned with in-country management systems to improve ownership and accountability, implementation capacity, and transparency as a result of an improved public planning and financial management.

In the water sector, there is a PAF Coordination Group chaired by the Heads of Cooperation and formed by representatives of sector working groups relevant for assessing PAF performance and plans. Sector reviews representing PARPA pillars inform the PAP joint reviews, the annual review and mid-year review. Annual Reviews generally take place in March-April, following the production of the PES monitoring report. Mid-year reviews take place in August-September, prior to submission of the PES and OE to the General Assembly.

Water Sector Code of Conduct (CoC) was signed in March 2008 by MOPH, DNA and a number of development partners. The intention of the CoC is to promote the Paris Declaration on Aid Effectiveness' principles of ownership, harmonization, alignment, results and accountability and to provide a common basis for development cooperation in the water sector in Mozambique. The CoC

⁶ *Plano Estratégico do Sector de Águas para Água e Saneamento Rural - PESA-ASR, 2006*

signatories are committed to support the establishment and implementation of a SWAP in the water sector, which, in addition to the RWSS sub-sector, will include urban water supply and water resources management, to be led by DNA. There is also a commitment on the part of some development partners to move toward sector budget support and pooled funding depending on assessments of the planning, financial management and implementation capacity in the sector.

To support implementation of the Paris Declaration principles, the CoC promotes the increasing use of Government policies, strategies and systems for planning, budgeting, financial management, monitoring and reporting, including PARPA II, the PESA-ASR, MTFF, annual budgets and implementation plans.

A draft Memorandum of Understanding for a RWSS Common Fund was prepared in 2009⁷ as a further development of the intentions expressed in the water sector CoC. The draft MOU is for the establishment of a Common Fund to support the National RWSS Program (NRWSSP). The proposed RWSS Common Fund, which is already highly aligned with national systems, may develop into full sub-sector budget support in the future, a development which is encouraged by Government.

The draft MOU presents objectives and procedures for planning, implementing, monitoring and evaluating sub-sector performance. As indicated by experience from implementing Sectoral Support to the Water Sector (ASAS) since 2002, not all PAPs are willing at present to channel aid through a Common Fund. Some development partners prefer pooled funds and direct support to provinces and districts, including CIDA-Irish Aid, CARE and WaterAid, while others, such as MCC, UNICEF and EU provide much of their support through parallel funding arrangements.

Water Sector Core Group is composed of key sector donors, NGOs and GoM/DNA. The Core Group reports to the PAP, which supports and monitors the PRSP/budget support program. It meets several times a year and leads annual and mid-year reviews of the water sector.

Water and Sanitation Group (GAS)⁸ has been operational for over ten years and continuously since 2000. GAS operates as a technical sub-group to the larger donor coordination group which serves as a forum for government and development partners to discuss important sector issues. The GAS is chaired by DNA and includes representatives from the health sector, projects, NGOs, the private sector and occasionally representatives from provincial governments. GAS meetings are normally held monthly in Maputo with one or two meetings a year held in the provinces.

GAS has an annual work plan which includes important issues such as coordination and communication among sector stakeholders, policy and strategy development, and monitoring and evaluation. GAS has formed working groups to deal with important issues.

⁷ MOU for a Common Fund for “Programa Nacional de Água e Saneamento Rural” – PNASR, Version 8.0, February 2009.

⁸ Grupo de Água e Saneamento (GAS)

Annex 2 Logical Framework Matrix - Narrative Summary

| Program Element | Verifiable Indicator | Means of Verification | Risks and Assumptions |
|--|---|---|--|
| <p>Development Objective</p> <p>Contribute to satisfaction of basic human needs, improvement of well being and the fight against rural poverty through increased use and access to water supply and sanitation services</p> | <ul style="list-style-type: none"> - % of households that spend less than 30 minutes a day collecting water - Quantity of water used per capita per day - Incidence of diarrhea in under-five children - % of child caregivers and food preparers with good hand washing behavior | <ul style="list-style-type: none"> - SINAS - Household surveys DHS, MICS, WHS, IDS - IAF/Census 2007 | |
| <p>Intermediate Objective</p> <p>Increase sustainable use of and access to water supply and sanitation for 70% and 50% of the rural population by 2015, respectively</p> | <ul style="list-style-type: none"> - % of rural population with access to improved water supply within 500 meters - % of rural population with access to improved sanitation facilities - % of water sources in good working condition - % of population using hygienic sanitation facilities | <ul style="list-style-type: none"> - IAF / Census 2007 - SINAS - Household surveys DHS, MICS and WHS | <p>RWSS is high on the political agenda.</p> <p>Long-term behavior change</p> |
| Immediate Objectives | | | |
| <p>1. <u>Improving quality and increased coverage and sustainability</u></p> | <ul style="list-style-type: none"> - No. of new water sources built; No. of rehabilitated water sources; - No. of small new piped systems; No. of small piped systems rehabilitated; No. of schools with water and sanitation facilities; No. of improved latrines built | <ul style="list-style-type: none"> - Annual district monitoring - Quarterly/Annual District Reports | <p>RWSS with continuous political support</p> |
| <p>2. <u>Broadening the range of technological options and management models</u></p> | <ul style="list-style-type: none"> - % of water committees with women holding key positions - % water sources directly maintained and repaired by communities with pro-poor management rules and regulations - % of poor households with access to water and sanitation - No. of districts with efficient commercialization of spare parts and technical support to communities - % of HHs with year-round access to improved water source | <ul style="list-style-type: none"> - Quarterly/Annual Provincial Reports - SINAS information | <p>Demand for services will provide incentives to the private sector</p> <p>Availability of accurate information</p> |
| <p>3. <u>Decentralizing and strengthening RWSS institutions and human resources</u></p> | <ul style="list-style-type: none"> - RWSS activities harmonized with GoM strategies and processes - Funds available to meet water and sanitation MDG targets with support arrangements in place and functioning - % of PAPs aid reported in the budget execution report - % of PAPs aid using public procurement systems | <ul style="list-style-type: none"> - DNA and MEC annual reports - Program reviews and audits | <p>Limited institutional and technical capacity</p> |
| <p>4. <u>Strengthening the relationship between planning, financing and decentralization</u></p> | <ul style="list-style-type: none"> - Capacity for implementation and management at provincial and district levels - SWAP at district, provincial and national levels operational - Off-budget/off planning RWSS initiatives reduced at PESOD | | |

| Program Element | Verifiable Indicator | Means of Verification | Risks and Assumptions |
|--|--|--|---|
| Program Activities | | | |
| <u>1. Improving quality and increased coverage and sustainability</u> | | | |
| 1.1 Increased capacity, quality and timely delivery for drilling and related services through global sourcing and joint ventures with local private sector suppliers of goods and services for up to 17,000 improved rural water sources built | <ul style="list-style-type: none"> – No. of positive water sources built or rehabilitated per year – Ratio of new positive/Negative water sources per contract – No. of contracts finished (drilling, fiscal, local private sector) meeting quality standards and timeframes – No. of MOUs/business packages implemented meeting quality standards and financial accountability of PEC activities, social marketing and hygiene promotion signed with NGOs/EAS – Average per capita cost of new water sources reduced | Annual district monitoring Quarterly/annual district reports Quarterly/annual Provincial reports | Market distortions and barriers for business development related to water and sanitation activities reduced Subsidies used to create enabling environment and support building of civil society capacity |
| 1.2 Construction of sanitation facilities at schools and health centers | <ul style="list-style-type: none"> – % of schools and health centers with water, hand washing and sanitation facilities properly used – Design guidelines and hygiene promotion materials for schools | SINAS information | |
| 1.3 Repair/rehabilitation of feasible existing water supply facilities according to district plans | <ul style="list-style-type: none"> – No. of business packages for maintenance implemented by local PS – No. of recoverable existing water supply facilities repaired or rehabilitated – No. of abandoned water sources that are not recoverable – Ratio of operational/non-operational water sources per district | Model bidding documents, contracts, MOUs and reporting formats prepared | Demand will provide incentives to the private sector |
| 1.4 Promote community-led total sanitation and hygiene to achieve a minimum of 493,000 improved latrines built and hygiene behavior changes at household level | <ul style="list-style-type: none"> – No. of demonstration workshops actively marketing sanitation facilities – No. of HHs with hand-washing and improved latrines built by local private sector and paid by households | | |
| 1.5 Increase PEC efficiency and effectiveness to ensure effective O&M, collection of water fees, hygiene promotion and social marketing approaches | <ul style="list-style-type: none"> – No. of communities with water sources operating more than 80% of the time – No. of communities with total sanitation – No. of water committees properly working with at least one woman in a decision making position – No. of communities with O&M funds used for O&M and total sanitation | | |

| Program Element | Verifiable Indicator | Means of Verification | Risks and Assumptions |
|---|--|--|--|
| 2. Broadening the range of technological options and management models | | | |
| 2.1 Pilot, promote and adopt alternative water supply technologies for shallow and deeper water levels as appropriate. | <ul style="list-style-type: none"> – No. of alternative pump designs tested and approved as appropriate for deeper water levels with a supply chain tested and up-scaled – Rope pump approved, certified and production and distribution capacity increased and supply chain established – Alternative shallow well pump designs tested, approved and production and supply capacity scaled up – No. of affordable and efficient technical options approved for different hydrogeological conditions with reliable spare parts supply | <p>District monitoring information</p> <p>Quarterly/annual district reports</p> <p>Quarterly/annual provincial reports</p> | <p>Subsidies used to create enabling environment and support building of civil society capacity</p> <p>Market distortions and barriers for business development related to water and sanitation activities reduced</p> |
| 2.2 Sustainable and effective maintenance and repair options available to ensure sustainable operation of handpumps | <ul style="list-style-type: none"> – No. of management models developed according to local market conditions and stakeholder performance – No. of water sources delegated by communities to the local private sector for maintenance and repair services – No. of technical options, pricing and management models designed with active participation of end users especially women, the poor and the most vulnerable groups – Water treatment for emergency measures and post emergency training and community involvement guidelines designed and implemented for emergency response to ensure sustainability of water and sanitation facilities | | |
| 2.3 Promote establishment of supply chain for handpumps, spare parts and repair services, including post-construction technical support for communities | <ul style="list-style-type: none"> – No. of communities with access to technical support for major repairs and handpump spare parts – No. of districts/provinces with efficient commercialization system of certified handpumps – No. of national and international handpump manufacturing companies certified for handpump utilization in Mozambique | | |
| 2.4 Districts and localities with lowest coverage and highest poverty prioritized for implementation | <ul style="list-style-type: none"> – No. of communities with O&M funds supporting productive use of water to ensure the most vulnerable can pay water charges – % of communities with internal mechanisms to ensure that child, female or elderly-headed households have access to water – No. of communities in high HIV prevalence areas with access to safe drinking water – No. of child, female or elderly-headed household and people living with HIV with access to improved water and sanitation facilities | <p>Quarterly/annual national reports</p> | <p>Household livelihood security not affected by environmental degradation and other disasters</p> |

| Program Element | Verifiable Indicator | Means of Verification | Risks and Assumptions |
|---|--|--|---|
| 3. <u>Decentralizing and strengthening RWSS institutions and human resources</u> | | | |
| 3.1 Implement SWAP framework and Common Fund at national, provincial and district level for the RWSS sector with common procedures in accordance with GoM policy, strategies and plans | <ul style="list-style-type: none"> – Program management structure and processes agreed & operational – Additional CoC signatories/RWSS Common Fund operational – e-SISTAFE and UGEAs operational at DNA – Resources supporting district planning | <p>MOU and COC signed</p> <p>Ministerial approvals</p> | <p>RWSS activities have a high priority on the political agenda</p> <p>Ability to leverage internal and external resources at all levels and a variety of stakeholders</p> <p>Not all donors initially support the RWSS Common Fund</p> |
| 3.2 Coordinate, share information and promote participation among stakeholders, including civil society, in mid-year and annual sector reviews, planning and implementation at all levels | <ul style="list-style-type: none"> – Mid-year and annual sector plans and reviews carried out – No. of district RWSS Fora meetings, attendance and actions taken – No. of provincial and national GAS meetings, attendance and actions taken – Documents shared – Responsibilities shared among sub-sector stakeholder | <p>Mid-year and annual sector and reviews</p> <p>Aide memoirs</p> <p>GAS minutes</p> | |
| 3.3 Advocate for mobilization of funds from GoM and development partners | <ul style="list-style-type: none"> – Agreements with sector partners negotiated in an ongoing basis – % of the sector annual budget at national level and % of provincial and district budgets allocated for RWSS – Public-Private-Partnerships for financing, research and implementation agreements implemented – Database of technical and funding capacity for emergencies updated | <p>Annual district/provincial plans and reviews</p> <p>OE</p> <p>Ministerial decrees</p> <p>MOUs</p> | |
| 3.4 Capacity of local private sector increased for construction of sanitation facilities | <ul style="list-style-type: none"> – No. of associations/rural enterprises approved for construction/ rehabilitation of water and sanitation infrastructures – No. of associations/micro rural enterprises providing latrine construction services to community households – No. of financially viable sanitation demonstration workshops at district level created | <p>District annual monitoring system</p> | |
| 3.5 Continuous training at all levels, particularly at district and local level, and for the private sector. | <ul style="list-style-type: none"> – Sanitation staff allocated at district and provincial level – Public and private sector trained in UFSA procurement guidelines – NGOs following guidelines with improved performance | <p>Quarterly/annual district, provincial and national reports</p> | |

| Program Element | Verifiable Indicator | Means of Verification | Risks and Assumptions |
|---|--|--|--|
| 4. <u>Strengthening the relationship between planning, financing and decentralization</u> | | | |
| 4.1 Approve and implement annual district plans with actual financial resources available at district and provincial level from Common Fund and other governmental and non-governmental RWSS activities | <ul style="list-style-type: none"> – No. of districts capturing all governmental and non governmental RWSS activities in their annual plans and harmonized at district level through planning and reviews processes – Provincial and national PES includes all governmental and non-governmental RWSS activities resulting from a bottom-up process starting at district level – Timely delivery of funds and contract payments for service provision at all levels | PESOD, provincial and sub-sector PES | <p>Staff with management and technical skills at sub-national level retained</p> <p>Low capacity at sub-national level</p> |
| 4.2 Approve, share and implement district and provincial RWSS plans | <ul style="list-style-type: none"> – No. of provinces and districts with approved RWSS master plans in line with PES-ASR, PARPA II and MDGs – Clear long-term funding negotiated per district and province – Data base of technical and fund mobilization capacity for emergency response among provincial stakeholders | <p>Approved RWSS plans at provincial and district levels</p> <p>Annual district/ provincial/national plans and reviews</p> | <p>Participatory processes not transparent</p> |
| 4.3 District participatory planning implemented | <ul style="list-style-type: none"> – Poverty mapping at district and locality level defined and deprived localities defined in district participatory planning to promote DRA and program principles – No. of districts using participatory planning for PESOD designed – No. of communities actively participating in local councils – Women, poor and vulnerable groups participating in decision making | <p>Decentralization reviews and assessments</p> | <p>Monitoring information and reports inadequate</p> |
| 4.4 SINAS operational and receiving regular information from central, provincial and district levels | <ul style="list-style-type: none"> – No. of districts annually monitoring operational water sources and functioning sanitation facilities and hygiene practices – PAF common indicators and collection systems harmonized with PAPs and INE implemented at national, province and district level | Annual district/provincial /national plans | |
| 4.5 Joint water sector reviews carried out | <ul style="list-style-type: none"> – MIPAR, social marketing for hygiene promotion and sanitation guidelines reviewed/approved and shared – Common Fund monitored by mid-year and annual joint reviews – Program cycle and strategies reviewed through monitoring, lessons learned and best practices | <p>-Aide Memoires</p> <p>-Reports</p> | |

Annex 3 RWSS Sub-sector Issues

RWSS Sub-sector Issues

Introduction

In spite of significant progress achieved in investment and coverage in the sector in recent years, there are a number of unresolved issues which threaten to undermine the long-term impact of investments in the sector. These include the sustainability of completed water facilities, fragmentation in sector activities, complicated planning and procurement systems, capacity of sector institutions, disparate information systems, low capacity and quality of services by the private sector, low market efficiency for inputs, among others.

Sustainability

Rural water supply facilities suffer from inadequate facility management arrangements and follow-up support, resulting in up to 35% of rural water facilities in some provinces are not working and in need of repair at any one time⁹.

Sustainability may also be affected by wrong technology choices or misapplication of available handpump technologies, substandard or lacking geophysical investigations, resulting in poor siting and performance of boreholes. Lack of adequate training, including refresher training, and post-construction support to managers, mechanics and caretakers also threaten sustainability and undermine benefits from improved water sources.

The above threats are exacerbated by the absence of an effective supply chain which can produce and deliver necessary components such as tools, spare parts, repair services and other required inputs to dispersed rural areas in a timely and affordable manner.

Lack of an effective monitoring mechanism to track performance of constructed facilities and to provide a timely diagnosis of reasons for failures also threatens the sustainability and impact of completed water facilities.

The sustainability of rural water supplies may also be affected by variability in climate and rainfall and extreme weather events and natural disasters which constitute an important external risk to program activities.

Fragmentation of sector activities

The sector still reflects an historical legacy of diversity of approaches, management and reporting requirements, funding arrangements and institutional priorities.

In addition to traditional institutional divisions between water resources management and water supply, programs and projects implemented in various parts of the country employ differing approaches in such critical areas as choice of technology, community contributions, management arrangements, monitoring indicators and reporting procedures, resulting in administrative inefficiencies, increased transaction costs and shortfalls in capacity.

⁹ Project Appraisal Document, Water Services and Institutional Support Project (WASIS), World Bank, 2007

The sector is presently characterized by divergent demands from various donors and financial institutions regarding procurement and financial management, monitoring and reporting arrangements. The requirements from various funding agencies increases transaction costs and contributes to delays in approving and implementing financing agreements, disbursements and expenditure, auditing and related actions.

In a recent initiative, MCA has its own mandated global procurement and financial management guidelines and has engaged the services of private entities to undertake financial management and procurement for its water sector activities. It needs to be verified to what extent these contracted entities will use national systems and procedures for planning, monitoring and reporting at central, provincial and district levels.

Capacity of RWSS sub-sector institutions

The need for capacity building at all levels in the sector has been highlighted by GoM and development partners as an urgent and important priority for the RWSS sub-sector. Inadequate capacity to plan and implement programs, as much as inadequate funding, can contribute to low output, performance and impact.

The Implementation Completion Report for NWDP II¹⁰ identified low quality at entry as a significant constraint and cause for delays in the processing and implementation of the project. Limited institutional capacity leads to weak absorptive capacity and low disbursements. A number of programs and projects have experienced underspending as a result of lengthy and complicated procurement and financial management requirements and procedures. This is further exacerbated by payment difficulties with respect to counterpart funds and issues related to the value added tax (VAT).

GoM and development partners have attempted to address these issues. DNA and major donors⁴ have agreed to move towards a comprehensive SWAP for the RWSS sub-sector. This approach will contribute to harmonizing planning, funding, implementation and monitoring as well as improve the effectiveness of aid modalities and aid flows based on the Paris Declaration principles.

Data and information systems

At present there are several discreet data bases and reporting systems operating in the sector which require integration as well as links to demographic information maintained by INE and to water resources information maintained by the ARAs. There is also a need to generate data to validate and refine planning and coverage criteria such as the number of users per source, to identify areas with high absolute poverty rates to improve targeting, costs of inputs, etc.

There is also a need to harmonize and reconcile data and indicator definitions and reporting formats and procedures among such initiatives as the national census, the JMP, periodic household surveys, project-specific baseline and impact studies and DNA's own databases.

There is also a need to use information, in addition to annual and medium-term planning, to actively address observed problems and deficiencies in a timely manner and provide feedback to those collecting and providing information.

¹⁰ Implementation Completion Report, National Water Development Project, NWDP II, World Bank, 2007

The accuracy of the current norm of a rural water point serving an average of 500 people or about 100 households within 500 meters walking distance is widely questioned, with a consensus of opinion being that actual coverage is significantly lower.

The issue of establishing a reliable coverage norm is compounded by present assumptions regarding the proportion of inoperational sources, definitions of what constitutes a “safe” water source and distribution of water sources in relation to population density.

Private sector capacity and market inefficiencies

A number of organizations report poor performance and/or significant delays by private sector providers, mainly drilling contractors. Capacity constraints are also reported in related services such as geophysical investigations, water quality testing and, importantly, in borehole and handpump repair services. These factors contribute low output, high failure rates and increased costs for inputs and services.

Overall sector performance is negatively affected by inefficiencies in the market for inputs, due in part to a limited number of providers of these inputs related to the increasing demand, import tariffs and taxes, and lack of timely sharing of price information and targeted investment promotion activities, to mention a few.

Since the new program will most likely further increase demand for inputs such as geophysical investigations, drilling, water quality testing, groundwater monitoring and mapping, inspection and quality assurance and related services, this constraint is likely to intensify if actions are not taken to increase the number of providers and the quality of their services to the sector.

Annex 4 NRWSSP Preparatory Actions

The preparatory or “readiness” actions presented below will take place mainly at national and provincial levels and be carried out by DNA, development partners and/or DPOPH.

Actions by GoM/DNA/DPOPH

- Stakeholder consultations completed at national and provincial levels
- Program approved by DNA, MOPH, MPD, MoF and DPOPHs
- Joint review and appraisals of the Program successfully completed
- Annual Implementation Plan (AIP) and budget for 2009 adjusted to include Program actions and resources and approved by MPD and MoF
- RWSS Common Fund MOU signed by GoM and participating development partners
- Medium-term and annual sub-sector allocations agreed with development partners
- Program Coordinator identified and in place at DNA
- Sector Coordination Committee and secretariat established and inaugural meeting held
- Program Steering Committee established and inaugural meeting held
- New bilateral MOUs/agreements with partners consistent with Program approaches
- existing bilateral agreements for consistency with Program approaches reviewed and amended where feasible
- Establishing an UGEA in DNA is being progressively implemented
- E-SISTAFE operational in DNA-DAF with other departments having access as users
- Accountant assigned to DES
- Rural Sanitation Unit established in DES at central level and DAS at provincial level
- Plan for rollout of SINAS approved and being progressively implemented
- NRWSSP Program Document and Operations Manual printed and distributed to relevant parties at national, provincial and district levels

Actions by development partners

- Joint appraisal(s) of the Program completed with positive results
- Joint fiduciary/procurement assessments/review(s) completed
- NRWSS Program presented and discussed by the Water Sector Core Group
- NRWSS Program approved
- Water Sector Code of Conduct signed by participating development partners
- RWSS Common Fund MOU finalized and approved by GoM and participating partners
- Annual and medium-term sub-sector allocations agreed with GoM
- New bilateral MOUs and agreements consistent with Program principles and approaches
- Existing bilateral MOUs reviewed for consistency with Program approaches and procedures and adjusted where feasible

Annex 5 Implementation Readiness Actions

Once the above preparatory actions have been completed, or substantially completed, the Program will be considered to be in effect. The next actions to be completed are those relating to readiness to start implementation at all levels. These actions will occur in two scenarios, *viz* (1) for “new” provinces, districts/areas/localities, where there are no major implementation activities, and (2) districts/areas/localities with ongoing or planned RWSS activities.

Once the inaugural workshop and operation and implementation manuals have been reviewed, revised and distributed, other implementation readiness activities will take place simultaneously across provinces and districts. In areas with ongoing or already planned activities extending beyond mid-2009, so as not to disrupt or delay these activities, the readiness actions below will be considered as targets to be substantially achieved by early 2010. For new areas where planning starts after commencement of the Program, these actions will apply.

Expenses for activities over and above those already planned/budgeted which are required to achieve the Program’s readiness criteria may be provided from Program resources.

Actions at Central Level

Preparation

- Inaugural workshop held for national stakeholders and provincial representatives
- Relevant manuals reviewed and revised to ensure consistency with Program approaches and disseminated
- DNA to assess/verify provinces’ readiness for Program implementation according to agreed criteria (see provincial-level actions below)

Release of Funds/Procurement

- Procurement plan for first package of goods, works and services prepared and approved
- Approval of model/standard contracts for geophysical investigations, drilling, supply of handpumps, hygiene and sanitation promotion (PEC), technical assistance and associated services by DNA, DPOPH and, where necessary, development partners
- Tender documents prepared for next package of contracts for goods, works and services, including technical assistance, and expressions of interest requested.
- RWSS Forex, multi-currency CUT and provincial RWSS budget lines established and operational
- Program partners release first tranche of funds using agreed procedures and funding mechanisms
- First tranche of funds released and available to DNA and relevant DPOPHs and districts to meet expenses and contractual obligations for the next six months

Actions at Provincial Level

Preparation and Planning

- Inaugural workshop for provincial/district stakeholders held
- New MOUs with relevant development partners are consistent with program approaches, roles and requirements
- Existing MOUs/agreements reviewed for consistency with program approaches and requirements and amended where feasible
- Provincial RWSS Master Plans completed/updated and reviewed/accepted by DNA and used by DNA and relevant development partners
- Program activities in annual budgets and funds allocated for the first year in accordance with agreed procedures described in the Program Operations Manual and relevant MOUs
- Relevant DPOPH-DAS staff trained in use of Program Operations Manual and revised implementation manuals, including planning, procurement, financial management and monitoring and reporting
- Agreements with participating districts defining roles and responsibilities for implementing activities
- Assess/verify district's compliance with implementation readiness criteria

Release of Funds/Procurement

- Approval of annual budget and procurement plan
- Funds requested and received to cover expenses and contractual obligations for the next 6 months
- Bidding documents prepared and approved for the first package of contracts
- Expressions of Interest for provision of services and goods for first procurement package advertised and received and capacity of service providers evaluated

Actions at district level

Preparation and Planning

- Sign implementation agreements/MOUs with DPOPH-DAS and development partners including NGOs specifying roles and responsibilities, including post-construction management and technical support and supply chain arrangements. This agreement includes a commitment to support and promote facility-specific capital cost contributions and water charges that at least cover operation and maintenance costs¹¹.
- Program activities and costs included in medium-term and annual plans and budgets
- Assess/verify compliance with implementation readiness criteria by localities/villages

¹¹ These requirements will also apply to existing water supply facilities beginning on or before the date that ownership of these facilities is formally conferred.

- Sign implementation agreement with selected localities/villages in accordance with procedures and using formats in the Program Operations Manual.

Release of Funds/Procurement

- Approval of annual budget and procurement plan which includes RWSS activities
- Funds requested and available to cover expenses and expected contractual obligations for the next 6 months
- Relevant staff trained in and able to use public procurement guidelines
- Bidding documents prepared and approved for the first package of contracts
- Expressions of Interest for provision of first package of services, works and goods advertised, replies received and capacity of respondents evaluated

Human Resources

- Appoint a suitable financial officer/accountant to be responsible for RWSS funds
- Appoint a technical officer from among existing staff to be responsible for supervision of construction
- Relevant district staff trained in implementation procedures, including planning, budgeting, procurement, supervision, financial management, monitoring and reporting

Localities/Villages

- Sign agreement with the district administration which includes principles for capital cost contributions and water charges, allowing access to sites during studies and construction, release of land for water supply facilities, and, where necessary, establishing a protection zone around vulnerable water sources.
- Participate in and approve implementation plan for RWSS activities, including choice of technology, siting of facilities, management models and supply chain arrangements
- Sign contract/agreement for supply of tools, equipment, spare parts and non-routine repair services
- Mobilize and pay agreed capital cost contribution for water supply facilities
- Form community organizations and elect officers according to procedures described in the Program Operations Manual
- Identify local artisans/caretakers/mechanics for training
- Adopt operation and maintenance plan and budget which include water charges that cover all O&M costs using principles and procedures described in the Program Operations Manual and updated at least annually to reflect actual costs

Annex 6 Proposed Resource Allocation Model/Selection Criteria

Ensuring Implementation Readiness

NRWSSP seeks to address and reduce sector inefficiencies arising from the following sources; poor targeting of resources, entering into program/project agreements before having the necessary capacity and instruments in place, starting implementation before planning issues have been adequately resolved, resulting in the spillover of planning tasks into implementation, source failures due to poor water resources assessments, and, most importantly, attempting to “implement” in places which lack the capacity to plan, implement and manage intended activities and outputs.

In order to improve implementation efficiency and targeting while ensuring that program participants at all levels are actually “ready” to undertake effective implementation (also referred to as quality-at-entry), increased rigor in planning will be sought by applying an explicit set of criteria or “triggers” to guide the planning and implementation of program activities. Applying these criteria during the planning phase of the program will maximize the likelihood for successful implementation and the sustainability and impact of program benefits, while reducing the risks of programmatic failure.

These criteria and selection process can be presented in the following steps:

1. Identify districts in Province X with no ongoing/planned RWSS program or project
2. Rank these "unserved" districts from lowest to highest on water supply coverage using information from the Provincial RWSS Master Plan
3. The five districts with lowest coverage are then ranked from highest to lowest on poverty criteria. The resulting list is the district RWSS priority list.
4. These "priority" districts will then be contacted and informed of the priority list and the readiness criteria that will determine actual selection for implementation
5. Districts are then assessed against the selection criteria. The first district(s) meeting all district selection criteria will then be "shortlisted" for implementation.
6. The WSS investment requirements for the shortlisted district(s) will be obtained from the Provincial RWSS Master Plan and included in the MTFP for Province X.
7. This information is forwarded to DNA-DAR to be included in the MTFP.
8. The first X localities in the shortlisted districts to meet all "readiness" criteria for localities will then "qualify" for implementation and be included in the annual District Development Plan.
9. Baseline surveys/feasibility studies will then be conducted in the qualifying localities to identify water availability/accessibility and actual WSS needs and costs.
10. Estimated investment costs will then be included in the annual district budget and forwarded to DPOPH for inclusion in the annual provincial budget for RWSS.

DPOPH will aggregate investment requirements from all districts/localities and forward them to DNA-GPC for inclusion in the annual RWSS plan.

Annex 7 Assumptions for Budget Preparation

Program Budget

The Program budget presents the cost of implementing RWSS activities during Phase I of the Program (2009-2011). The budget is based on projected rural population and need for improved water supply and sanitation facilities from 2009-2011. Domestic and external resources available during the same period are presented in Annex 7 and used to determine the funding gap in the RWSS sub-sector for Phase I.

Rural water supply and sanitation coverage

Government has set phased targets to meet the MDGs for rural water supply and sanitation as shown in Table 1 below:

Table 1 RWSS coverage targets (%)

| Period | Water Supply | Sanitation |
|---------------|---------------------|-------------------|
| End of 2007 | 48.5 | 39 |
| 2008 – 2010 | 58.7 | 42 |
| 2011 – 2015 | 70 | 50 |

PESA-ASR and DNA PES Annual Report 2007

Population projections

Population projections in the PESA-ASR were used as the basis for estimating the future need for improved water supply and sanitation facilities. At the time of the design of the NRWSSP 2007 Census data was not fully available. However, there is a minimum variation nationwide of 4% by comparing aggregated population projections from the 1997 Census and preliminary data from the 2007 Census, knowing that there are larger variations at provincial level. Therefore, until information on the 2007 rural population is fully available, population information from PESA-ASR 2006-2015 will be used for estimating future needs and deriving costs and targets for Phase I of NWRSSP. The projected rural population for 2008-2015 is shown in Table 2 below.

Table 2 Projected rural population by province (2008-2015)

| Province | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 |
|--------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| Niassa | 846,403 | 866,282 | 886,496 | 907,053 | 927,979 | 949,213 | 970,688 | 992,362 |
| Cabo Delgado | 1,493,009 | 1,518,796 | 1,544,542 | 1,570,432 | 1,596,633 | 1,623,117 | 1,649,845 | 1,676,743 |
| Nampula | 3,058,663 | 3,206,241 | 3,274,894 | 3,257,354 | 3,327,529 | 3,399,734 | 3,473,881 | 3,549,854 |
| Zambezia | 3,406,176 | 3,466,060 | 3,525,824 | 3,585,493 | 3,644,966 | 3,704,146 | 3,763,058 | 3,821,601 |
| Tete | 1,449,667 | 1,484,757 | 1,520,608 | 1,557,037 | 1,593,877 | 1,631,111 | 1,668,666 | 1,706,436 |
| Manica | 1,053,176 | 1,079,565 | 1,106,144 | 1,132,736 | 1,159,403 | 1,186,112 | 1,212,758 | 1,239,279 |
| Sofala | 1,015,111 | 1,031,191 | 1,047,176 | 1,062,758 | 1,077,780 | 1,092,195 | 1,105,976 | 1,119,082 |
| Inhambane | 1,219,835 | 1,241,242 | 1,262,610 | 1,283,756 | 1,304,706 | 1,325,414 | 1,345,735 | 1,365,558 |
| Gaza | 1,045,408 | 1,060,620 | 1,075,848 | 1,090,873 | 1,105,604 | 1,119,913 | 1,133,616 | 1,146,610 |
| Maputo | 339,611 | 332,852 | 325,435 | 316,276 | 305,522 | 293,057 | 278,752 | 262,336 |
| TOTAL | 14,927,059 | 15,287,607 | 15,569,576 | 15,763,769 | 16,043,999 | 16,324,012 | 16,602,975 | 16,879,861 |

PESA-ASR (2006-2015), DNA

Rural water supply facilities

Overall, the number of new or rehabilitated water points by year has increased significantly in the last seven years, with a sharp increase in 2007, as shown in Table 3 below:

Table 3 Water Facilities Constructed/Rehabilitated (2001-2007)

| Province | Water Points | | | | | | |
|---------------|--------------|--------------|--------------|------------|--------------|--------------|--------------|
| | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 |
| Niassa | 118 | 126 | 211 | 147 | 175 | 160 | 254 |
| Cabo. Delgado | 163 | 94 | 59 | 74 | 55 | 75 | 175 |
| Nampula | 62 | 107 | 74 | 92 | 308 | 370 | 486 |
| Zambézia | 103 | 272 | 229 | 37 | 191 | 200 | 609 |
| Tete | 74 | 126 | 103 | 92 | 13 | 75 | 165 |
| Manica | 59 | 33 | 45 | 11 | 125 | 130 | 173 |
| Sofala | 144 | 107 | 84 | 86 | 95 | 100 | 207 |
| Inhambane | 150 | 169 | 299 | 240 | 104 | 110 | 219 |
| Gaza | 145 | 30 | 36 | 14 | 66 | 70 | 69 |
| Maputo | 153 | 38 | 64 | 85 | 75 | 75 | 85 |
| Total | 1,171 | 1,102 | 1,204 | 878 | 1,207 | 1,365 | 2,442 |

PESA-ASR,; DNA-DAR PES Annual Reports, 2006 and 2007

The above table shows a large increase in water supply facilities constructed in 2007. Information from the 2007 PES Annual Report indicated that there was an increase in resources availa-

ble as well as increased output of construction activities. In addition, DNA reported 423 new/rehabilitated water points constructed by other actors, representing 17% of the total number of facilities. This finding underscores the importance of inclusive planning and monitoring to capture outputs from all sources.

The estimate of new/rehabilitated water points is based on reports at annual meetings of district, provincial and national staff at Quelimane and Nampula in 2007. Implementation capacity has increased in recent years as a result of improved tendering, contracting and contract management and increase in resources from such activities as the ASNANI Project, One Million Initiative (UNICEF), JICA, WaterAid, HAUPA, Aga Khan Foundation, and others.

The total number of water points is reduced by 15% each year by assuming that 5% of water points will reach the end of their effective lives each year. It is also assumed that 10% of all water points become non-functional before the end of the guarantee period for a variety of reasons, including construction defects and water quality problems.

Using the above assumption, 7,675 new/rehabilitated water points, including new and rehabilitated boreholes and new wells, need to be constructed during the period 2009-2011. Rehabilitation of shallow wells will not be promoted due to the relatively high cost and low reliability and demand.

The PESA-ASR and PES Annual Report 2007 confirm that the assumption of 80% new and 20% rehabilitated water points based on the 3,577 water points that are non-functioning is still valid. However, as more current and detailed information from provincial RWSS master plans becomes available, this assumption can be adjusted accordingly to reflect provincial variations.

As a result of the Master Plans, a close analysis of non-functioning wells and boreholes can be used to determine the number of non-functioning water sources that can be recovered and those that should be classified as non-recoverable.

A reduction in the target of 25% hand dug wells used in the PESA-ASR to 15% is used, due to relatively high unit cost, reliability, and low acceptance from the community. In 2007, only 6% of the water points constructed were hand dug wells.

The estimated number of water points to be built or rehabilitated are shown in Table 4 below:

Table 4 Water Points Required by Type (2009-2015)

| Type | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | Total | % |
|---------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|---------------|------|
| Boreholes | 1,277 | 1,415 | 1,556 | 1,663 | 1,831 | 1,987 | 1,989 | 11,718 | 83.5 |
| New | 1,022 | 1,132 | 1,245 | 1,330 | 1,465 | 1,588 | 1,831 | 9,613 | 68.5 |
| Rehabilitated | 255 | 283 | 311 | 333 | 366 | 399 | 158 | 2,105 | 15.0 |
| Wells | 235 | 250 | 275 | 293 | 323 | 352 | 404 | 2,132 | 15.0 |
| PSAAs | 14 | 17 | 20 | 24 | 29 | 35 | 42 | 181 | 1.3 |
| Total | 1,526 | 1,682 | 1,851 | 1,980 | 2,183 | 2,374 | 2,435 | 14,031 | |

Estimate based on PESA-ASR and DNA updated figures, December 2007

Unit Costs – Rural Water Supply

Unit costs from PESA-ASR were used for preparation of the first draft of the budget. However recent information from procurement by projects show that unit costs have risen from an average of USD 6,393 in 2005 to approximately USD 7,300 in 2008, representing 14% inflation during this period

For the budget estimate for Phase I, the starting unit cost of USD 7,300 is used in 2009, with an annual inflation rate of 4%. While the Program will support improved quality and efficiency of drilling operations and contracting, a limited impact on costs of 2% is expected during Phase I, reducing increases in costs from 5% to 4% a year. A larger impact is expected during Phase II, reducing cost increases from 5% to 2% a year due to improved contract management, lower number of negative boreholes and longer-term contracts.

To estimate traditional PEC costs, a norm of 30% of the cost of new boreholes used in the PESA-ASR was used in wells and rehabilitated boreholes, since PEC activities are similar. To estimate PEC Zonal costs, 50% of the average cost of 110,000USD/district/year for water supply and sanitation activities is used.

Table 5 Unit Cost - Water Points

Unit Cost of Water Points by Technology with Traditional PEC

| Item | Boreholes | | New hand dug well |
|--|---------------|---------------|-------------------|
| | New | Rehabilitated | |
| Drilling, including handpump | 7,300 | 3,200 | 4,500 |
| Quality Assurance/Fiscal ² | 1,095 | 480 | 675 |
| Supervision | 730 | 320 | 450 |
| Contract Management | 730 | 320 | 450 |
| PEC: Community Organization and O&M Training | 2,200 | 2,200 | 2,200 |
| Total | 12,055 | 6,520 | 8,275 |

¹ PESA-ASR Average cost per borehole, USD 6,393 from 2005 plus 10% inflation and increase in fuel costs according to actual 2008 prices (UNICEF).

² The terms, quality assurance, supervision and contract management are equivalent to *fiscalização*, institutional costs and management cost, respectively used in the PESA-ASR

³ Traditional PEC Cost is based on 30% of the cost of infrastructure.

Unit Costs of Water Points by Technology with PEC Zonal

| Item | Boreholes | | New Hand Dug Well |
|--|---------------|---------------|-------------------|
| | New | Rehabilitated | |
| Drilling, including handpump | 7,300 | 3,200 | 4,500 |
| Quality Assurance/Fiscal ² | 1,095 | 480 | 675 |
| Supervision | 730 | 320 | 450 |
| Contract Management | 730 | 320 | 450 |
| PEC: Community organization and O&M training | 1,400 | 1,400 | 1,400 |
| Total | 11,255 | 5,720 | 7,475 |

¹ PESA-ASR Average cost per borehole, USD 6,393 from 2005 plus 10% inflation and increase in fuel costs according to actual prices from 2008 (UNICEF).

² The terms, quality assurance, supervision and contract management are equivalent to *fiscalização*, institutional costs and management cost, respectively used in the PESA-ASR

³ PEC Zonal costs is based on 50% of USD 110,000/district/year for water and sanitation.

Small piped systems

It is estimated that during Phase I an average of 17 small piped systems will be constructed annually. Unit cost from PESA-ASR was used, including costs for feasibility studies and quality assurance. Since DAR is going to be responsible only for the lowest range of small piped system (Category I) and AMU will take over of the medium and larger range of systems (Category II and III). PEC and training costs are estimated to be 10% of the construction cost. The resulting costs are shown in Table 6 below.

Table 6 Unit Cost - Small Piped Systems

| Item | Norm | Cost (USD) |
|---|----------------------|----------------------|
| Construction cost (includes feasibility study/ <i>projecto executivo</i> , technical design and QA) | 450,000 ¹ | 495,000 ² |
| Supervision | 10% ¹ | 49,500 |
| Contract management | 10% ¹ | 49,500 |
| PEC activities, training and related costs | 10% | 99,000 |
| Total | | 693,000 |

¹ PESA-ASR estimate

² PESA-ASR estimate, plus 10% increase due to inflation

Rural sanitation

In the PES Annual Report, 2007, rural sanitation coverage was 39%, which is in line with projections in the PESA-ASR. Targets for Phase I are 161,519 household latrines and 16,152 demonstration latrines.

Reaching these coverage targets requires an average increase of 3,858 latrines per district per year during Phase I. It is estimated that 20 new districts will be covered per year. NGOs and contractors will be engaged to carry out social marketing and construct demonstration latrines. Table 7 below shows overall, annual and district targets for rural sanitation.

Table 7 Rural Sanitation Targets (2009-2011)

| Item/Type of latrine | Household | Demonstration |
|---------------------------------|------------------|----------------------|
| Latrines ¹ | 161,519 | 16,152 |
| Latrines per year | 53,840 | 5,384 |
| Latrines per district | 2,692 | 269 |
| Districts per year ² | 20 | |

¹ PESA-ASR

² Estimate using intensive campaigns at district level

Costs – Rural Sanitation

Unit costs for rural sanitation are shown in Table 8 below. Unit cost is an average of USD92 per latrine, based on Sofala Provincial RWSS Master Plan¹². Average cost for demonstration latrines is based on 4 improved latrines and 1 eco-latrine for every 500 people, equivalent to 10% of the number of latrines planned, which is consistent with estimates in the PESA-ASR.

The total cost for establishing water and sanitation demonstration centers is estimated at USD 4,000 per center and 12 centers per district.

Estimated cost of PEC zonal is 50% of the average cost of USD 110,000/district/year for water and sanitation activities, including social marketing and training local artisans and community promoters. District monitoring and incentives for communities is estimated at USD 10,000 per district.

The breakdown of costs for sanitation activities is 55% from GoM and projects and 45% from communities/households.

¹² Plano Director Provincial de Abastecimento de Agua e Saneamento Rural na Provincia de Sofala, DPOPH-Sofala, May 2008

Table 8 Rural Sanitation Costs – Phase I (USD)

| Item | Unit Cost | Units | Total | % |
|--|------------------|--------------|-------------------|------------|
| Construction of 5 demonstration latrines per center | 92 | 269 | 1,485,000 | 9.7 |
| Equipment for local artisans associations | 10,000 | 1 | 600,000 | 3.9 |
| Demonstration centers for water and sanitation construction (per district) | 4,000 | 240 | 2,880,000 | 18.8 |
| Social marketing: hygiene and sanitation promotion per district including training for community wash promoters for two years ⁴ | 110,000 | 20 | 3,300,000 | 21.5 |
| Incentives for community awards (per district) | 10,000 | 20 | 600,000 | 3.9 |
| Household latrines (including material and labor) | 40 | 2,692 | 6,461,000 | 42.2 |
| Total | | | 15,326,000 | 100 |

Sources/notes:

DNA March 2007, RWSS Sofala Master Plan, including materials and labor

DNA, 2007, Rural Water and Sanitation Strategic Plan (2006-2015) PESA-ASR

Average cost per set of 5 demonstration latrines (4 improved latrines USD 40/latrine plus 1 eco-latrine USD 300/latrine. Costs from RWSS Sofala Master Plan)

Estimated cost of social marketing and WASH Promotion as PEC ZONAL per district (Consultant's estimate).

Program Implementation Support

In addition to support to the construction of water supply and sanitation facilities, the Program will provide support to decentralized planning, management and monitoring at provincial and district levels. This support includes preparation of RWSS plans, monitoring, equipment and vehicles and bridging support.

Unit costs for support to RWSS planning, management and monitoring at provincial and district levels are shown in Table 9 below.

Table 9 Unit Costs - Support to Provinces and Districts

| Item | Unit Cost (USD) |
|--|------------------------|
| Provincial RWSS master plans | 200,000 |
| District RWSS plans | 16,000 |
| District RWSS monitoring and reporting | 12,000 |
| Equipment (lump sum) | 2,864,000 |
| Bridging support and internships/year | 4,159,800 |

Bridging Support

Table 10 below shows the detailed cost of providing bridging support at central, provincial and district levels.

Table 10 Human Resource Support

| Description | DNA | Provinces | Districts | Unit Cost (USD/year) | Total (USD) |
|--|----------|-----------|------------|----------------------|------------------|
| One-year bridging salary for Mid-level Technicians | 0 | 0 | 256 | 2,200 | 563,200 |
| One-year bridging salary for High Level Technicians | 0 | 20 | 0 | 4,400 | 88,000 |
| One-year bridging salary for High Level Technicians | 5 | 0 | 0 | 10,900 | 54,500 |
| Sub-total - Bridging Salaries | 5 | 20 | 256 | | 705,700 |
| Six-month Internship for Mid-level Technicians | - | - | 256 | 11,100 | 2,841,600 |
| Six-month Internship for High Level Technicians | - | 20 | - | 12,500 | 250,000 |
| Other training, study visits, conferences, etc. | 6 | 20 | - | 17,400 | 452,400 |
| Sub-total - Internships and other HR activities | 6 | 40 | 256 | | 3,544,000 |
| Total | | | | | 4,249,700 |

Equipment

Equipment will be provided to DNA, DPOPH-DAS and the district service responsible for RWSS. The type, distribution and unit cost of this equipment are shown in Table 11 below:

Table 11 Cost and Distribution of Equipment

| Item | DNA | Provinces | Districts | Unit Cost (USD) | Total (USD) |
|-------------------------|-----|-----------|-----------|-----------------|------------------|
| Vehicles | 0 | 20 | 128 | 45,000 | 6,660,000 |
| Motorbikes | 0 | 0 | 128 | 6,500 | 832,000 |
| GPS equipment | 5 | 10 | 128 | 900 | 129,000 |
| Water quality test kits | 5 | 10 | 128 | 7,000 | 1,001,000 |
| Computers/printers | 20 | 10 | 128 | 2,500 | 395,000 |
| Software license | 1 | 0 | 0 | 10,000 | 10,000 |
| Anti-virus licenses | 20 | 10 | 128 | 500 | 79,000 |
| Total | | | | | 9,106,000 |

Human Resource Development

Formal Training

The Program will support training for relevant DNA, DPOPH and district RWSS staff. This support will consist of a limited number of long-term courses and short courses in subjects of relevance to the future development of the RWSS sub-sector in Mozambique.

The type and number of courses is shown in Table 12 below.

Table 12 HRD Support¹

| Course | Number |
|--------------------------------|--------|
| Short-term | 520 |
| Mid-level | 0 |
| Undergraduate/higher technical | 20 |
| Master's degree | 0 |
| Study Visits | 10 |
| Conferences | 10 |

¹Some long-term courses may extend beyond 2011

Unit Costs - Training

Unit costs for training activities are presented in Table 13 below. Four courses for the private sector and 3 for NGOs are assumed for each province. The cost of start-up equipment/tools for local artisans is also included.

Table 13 Unit Costs for HRD Activities (per trainee)

| Target Group | Unit Cost (USD) |
|--|-----------------|
| Public Sector | |
| Short courses | 2,000 |
| Mid-level courses | 3,000 |
| Undergraduate/higher technical courses | 7,000 |
| Cross visits | 8,000 |
| Conferences | 5,000 |
| Private Sector | |
| Support to handpump/spare parts supply chain | 2,000 |
| Quality assurance | 2,000 |
| Contract management | 2,000 |
| Local artisan training/certification | 8,000 |
| NGO | |
| DRA, social and sanitation manuals | 2,000 |
| Sanitation and hygiene promotion | 2,000 |
| Contract and project management | 2,000 |

Piloting Technologies and Approaches

The Program will support the piloting of alternative management models for water supply facilities and supply chain arrangements for handpumps and spare parts. Three different handpumps with a total of 100 pumps per technology will be tested and three latrine options with 200 latrines per technology to evaluate the potential up scaling at national level.

Unit costs

Unit costs for piloting alternative water supply technologies included the cost of new boreholes and handpumps presented in Table 5 above. The cost of latrines uses the average cost represented in Table 8 above.

Table 14 Unit Costs - Piloting Approaches and Technologies

| Item | Unit Cost (USD) |
|---|-----------------|
| Handpumps | 12,100 |
| Latrines | 92 |
| Management Models | 110,000 |
| Supply Chain for Spare parts and services | 200,000 |

Technical Assistance

Technical assistance will be provided at central, provincial and district levels as long and short-term consultancies. Table 15 below shows the annual cost for TA at national and provincial level in addition to a 6-month per TA member of a Strategic Technical Assistance as described in Chapter 3.

Table 15 Annual Costs -Technical Assistance

| Item | Cost (USD) |
|-------------------------------------|------------|
| TA (national and provincial levels) | 100,000 |
| Other TA (lump sum - 6 months) | 267,000 |

An indicative list of TA and associated unit costs for Phase I (three years) are presented in Table 16 below. Provision for unallocated TA is also included.

Table 16 Technical Assistance Cost (USD)

| Item | Unit Cost | Period | Total |
|--|-----------|----------|------------------|
| Procurement Services (8%) | 200,000 | 2 years | 200,000 |
| External Monitoring | 200,000 | 1 year | 200,000 |
| Value-for-Money Study/Audits/Review | 200,000 | annual | 600,000 |
| Contract Management | 150,000 | 1st year | 150,000 |
| Financial Management | 150,000 | 1st year | 150,000 |
| Procurement Management | 150,000 | 1st year | 150,000 |
| Decentralized Planning | 150,000 | 1st year | 150,000 |
| Groundwater Mapping | 900,000 | 1st year | 900,000 |
| Technology Options and Supply Chain | 150,000 | 2 years | 300,000 |
| Manuals Review and Revision | 150,000 | 1st year | 150,000 |
| Poverty Mapping | 150,000 | 1st year | 150,000 |
| Community Mobilization and Participation | 150,000 | 1st year | 150,000 |
| Unallocated TA | 150,000 | 3rd year | 150,000 |
| Total | | | 3,400,000 |

A consolidated budget for Phases I and II is presented below:

| Component/Item | Unit | 2009 | | | 2010 | | | 2011 | | | Total Phase I | % | Total Phase II |
|---|--------------|-----------|--------|-------------------|-----------|--------|-------------------|-----------|--------|-------------------|-------------------|-------------|--------------------|
| | | Unit Cost | No. | Total | Unit Cost | No. | Total | Unit Cost | No. | Total | | | |
| Increasing Sustainable RWSS Coverage | | | | | | | | | | | | | |
| Water points (wells and boreholes) | | | | | | | | | | | | | |
| New boreholes with traditional PEC | water points | 12,100 | 204 | 2,468,400 | 12,600 | 340 | 4,284,000 | 13,100 | 407 | 5,331,700 | 12,084,100 | 7.9 | 10,771,200 |
| New boreholes with Zonal PEC | water points | 11,200 | 816 | 9,139,200 | 11,600 | 816 | 9,465,600 | 12,100 | 816 | 9,873,600 | 28,478,400 | 18.5 | 73,807,200 |
| New wells with traditional PEC | water points | 8,280 | 45 | 372,600 | 8,600 | 75 | 645,000 | 9,000 | 90 | 810,000 | 1,827,600 | 1.2 | 1,633,500 |
| New wells with Zonal PEC | water points | 7,380 | 180 | 1,328,400 | 7,700 | 180 | 1,386,000 | 8,000 | 180 | 1,440,000 | 4,154,400 | 2.7 | 10,692,000 |
| Rehabilitated boreholes with Traditional PEC | water points | 6,520 | 51 | 332,520 | 6,800 | 85 | 578,000 | 7,100 | 102 | 724,200 | 1,634,720 | 1.1 | 1,458,600 |
| Rehabilitated boreholes with Zonal PEC | water points | 5,620 | 204 | 1,146,480 | 5,800 | 204 | 1,183,200 | 6,100 | 204 | 1,244,400 | 3,574,080 | 2.3 | 9,225,900 |
| Sub Total – Dispersed Rural Water Sources | | | | 14,787,600 | | | 17,541,800 | | | 19,423,900 | 51,753,300 | 33.6 | 107,588,400 |
| Rural Sanitation | | | | | | | | | | | | | |
| Hygiene and Sanitation Promotion | District | 65,000 | 20 | 1,300,000 | 67,600 | 40 | 2,704,000 | 70,300 | 40 | 2,812,000 | 6,816,000 | 4.4 | 6,984,000 |
| Demonstration Centers and Local Artisans Assoc | District | 83,000 | 20 | 1,660,000 | 86,300 | 40 | 3,452,000 | 89,800 | 40 | 3,592,000 | 8,704,000 | 5.7 | 8,919,000 |
| Household Investment in Latrine Improvement | Latrines | 40 | 26,920 | 1,076,796 | 40 | 53,840 | 2,153,592 | 40 | 80,760 | 3,230,388 | 6,460,777 | 4.2 | 9,300,000 |
| Sub-total - Rural Sanitation | | | | 4,036,796 | | | 8,309,592 | | | 9,634,388 | 21,980,777 | 14.3 | 25,203,000 |
| Sub-total - Increasing Sustainable RWSS Coverage | | | | 18,824,396 | | | 25,851,392 | | | 29,058,288 | 73,734,077 | 47.9 | 132,791,400 |

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| Component/Item | Unit | 2009 | | | 2010 | | | 2011 | | | TOTAL PHASE I | % | TOTAL PHASE II |
|--|----------|-----------|-----|------------------|-----------|-----|---------------|-----------|-----|---------------|------------------|------------|------------------|
| | | Unit Cost | No. | Total | Unit Cost | No. | Total | Unit Cost | No. | Total | | | |
| Provincial RWSS master plans | Province | 200,000 | 2 | 400,000 | 208,000 | 3 | 624,000 | 216,000 | - | - | 1,024,000 | 0.7 | 2,388,000 |
| District RWSS planning | District | 16,000 | 39 | 624,000 | 17,000 | 39 | 663,000 | 17,000 | 50 | 850,000 | 2,137,000 | 1.4 | 2,444,800 |
| District RWSS supervision and monitoring | District | 12,000 | 39 | 468,000 | 12,000 | 78 | 936,000 | 13,000 | 128 | 1,664,000 | 3,068,000 | 2.0 | 1,830,400 |
| Equipment for Central, Provinces and Districts | | | | | | | | | | | | | |
| Central level | | | | | | | | | | | | | |
| GPS | Unit | 900 | 5 | 4,500 | 900 | - | - | 1,000 | - | - | 4,500 | 0.0 | 5,500 |
| Water Quality Test Kit | Unit | 7,000 | 5 | 35,000 | 7,300 | - | - | 7,600 | - | - | 35,000 | 0.0 | 42,000 |
| Computers with printers | Unit | 20 | 20 | 400 | - | - | - | - | - | - | 400 | 0.0 | - |
| ArcGIS license | Unit | 10,000 | 1 | 10,000 | 10,400 | - | - | 10,800 | - | - | 10,000 | 0.0 | 11,900 |
| Software license | Unit | 500 | 20 | 10,000 | 500 | 20 | 10,000 | 500 | 20 | 10,000 | 30,000 | 0.0 | 48,000 |
| Sub-total - Central level | | | | 59,900 | | | 10,000 | | | 10,000 | 79,900 | 0.1 | 107,400 |
| Provincial level | | | | | | | | | | | | | |
| Vehicles 4WD | Unit | 45,000 | 20 | 900,000 | 46,800 | - | - | 48,700 | - | - | 900,000 | 0.6 | 1,074,000 |
| GPS equipment | Unit | 900 | 10 | 9,000 | 900 | - | - | 1,000 | - | - | 9,000 | 0.0 | 11,000 |
| Water Quality Test Kit | Unit | 7,000 | 10 | 70,000 | 7,300 | - | - | 7,600 | - | - | 70,000 | 0.0 | 84,000 |
| Computers with printers | Unit | 2,500 | 10 | 25,000 | 2,600 | - | - | 2,700 | - | - | 25,000 | 0.0 | 30,000 |
| Software license | Unit | 500 | 10 | 5,000 | 500 | 10 | 5,000 | 500 | 10 | 5,000 | 15,000 | 0.0 | 6,000 |
| Sub-total - provincial level | | | | 1,009,000 | | | 5,000 | | | 5,000 | 1,019,000 | 0.7 | 1,205,000 |

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| Component/Item | Unit | 2009 | | | 2010 | | | 2011 | | | TOTAL PHASE I | % | TOTAL PHASE II |
|---|------------|-----------|-----|------------------|-----------|-----|------------------|-----------|-----|-------------------|-------------------|-------------|-------------------|
| | | Unit Cost | No. | Total | Unit Cost | No. | Total | Unit Cost | No. | Total | | | |
| District level | | | | | | | | | | | | | |
| Vehicles 4WD | Unit | 45,000 | 78 | 3,510,000 | 46,800 | 78 | 3,650,400 | 48,700 | 100 | 4,870,000 | 12,030,400 | 7.8 | 6,873,600 |
| Motorbikes | Unit | 6,500 | 78 | 507,000 | 6,800 | 78 | 530,400 | 7,000 | 100 | 700,000 | 1,737,400 | 1.1 | 998,400 |
| GPS | Unit | 900 | 78 | 70,200 | 900 | 78 | 70,200 | 1,000 | 100 | 100,000 | 240,400 | 0.2 | 140,800 |
| Water Quality Test Kit | Unit | 7,000 | 78 | 546,000 | 7,300 | 78 | 569,400 | 7,600 | 100 | 760,000 | 1,875,400 | 1.2 | 1,075,200 |
| Computers with Printers | Unit | 2,500 | 78 | 195,000 | 2,600 | 78 | 202,800 | 2,700 | 100 | 270,000 | 667,800 | 0.4 | 384,000 |
| Software license | Unit | 500 | 78 | 39,000 | 500 | 78 | 39,000 | 500 | 100 | 50,000 | 128,000 | 0.1 | 76,800 |
| Sub Total - district level | | | | 4,867,200 | | | 5,062,200 | | | 6,750,000 | 16,679,400 | 10.8 | 9,548,800 |
| Sub-total - Equipment for provinces and districts | | | | 5,936,100 | | | 5,077,200 | | | 6,765,000 | 17,778,300 | 11.6 | 10,861,200 |
| Personnel | | | | | | | | | | | | | |
| One-year bridging salary for Medium Level Technicians | Year | 2,200 | 78 | 171,600 | 2,300 | 78 | 179,400 | 2,400 | 100 | 240,000 | 591,000 | 0.4 | - |
| One-year bridging salary for High Level Technicians | Year | 4,400 | 20 | 88,000 | 4,600 | - | - | 4,800 | - | - | 88,000 | 0.1 | - |
| One-year bridging salary for High Level Technicians | Year | 10,900 | 5 | 54,500 | 11,300 | - | - | 11,800 | - | - | 54,500 | 0.0 | - |
| Six-month Internship for Medium Level Technicians | Six months | 11,100 | | - | 11,500 | 128 | 1,472,000 | 12,000 | 128 | 1,536,000 | 3,008,000 | 2.0 | |
| Six-month Internship for High Level Technicians | Six months | 12,500 | | - | 13,000 | 13 | 169,000 | 13,500 | 13 | 175,500 | 344,500 | 0.2 | |
| Other training, study visits, conferences, etc. in Mozambique | Lump sum | 17,400 | | - | 18,100 | 2 | 36,200 | 18,800 | 2 | 37,600 | 73,800 | 0.0 | |
| Sub-total - Personnel | | | | 314,100 | | | 1,856,600 | | | 1,989,100 | 4,159,800 | 2.7 | - |
| Sub-total - Support to Decentralized Planning | | | | 7,742,200 | | | 9,156,800 | | | 11,268,100 | 28,167,100 | 18.3 | 17,524,400 |

| Component/Item | Unit | 2009 | | | 2010 | | | 2011 | | | TOTAL PHASE I | % | TOTAL PHASE II |
|---|-----------------|-----------|-----|------------------|-----------|-----|------------------|-----------|-----|------------------|------------------|------------|------------------|
| | | Unit Cost | No. | Total | Unit Cost | No. | Total | Unit Cost | No. | Total | | | |
| Capacity Building | | | | | | | | | | | | | |
| Government Staff | | | | | | | | | | | | | |
| Short-term training | Trainee /course | 2,000 | 170 | 340,000 | 2,100 | 170 | 357,000 | 2,200 | 230 | 506,000 | 1,203,000 | 0.8 | 1,368,000 |
| Skills training - district technicians | t/year | 3,000 | 20 | 60,000 | 3,100 | 20 | 62,000 | 3,200 | 20 | 64,000 | 186,000 | 0.1 | 216,000 |
| Skills training - provincial technicians | t/year | 20,000 | 5 | 100,000 | 20,800 | 5 | 104,000 | 21,600 | 5 | 108,000 | 312,000 | 0.2 | 358,500 |
| Staff training, central level | t/year | 7,000 | 40 | 280,000 | 7,300 | 40 | 292,000 | 7,600 | 40 | 304,000 | 876,000 | 0.6 | 1,008,000 |
| Study visits (international) | visit | 8,000 | 10 | 80,000 | 8,300 | 10 | 83,000 | 8,600 | 10 | 86,000 | 249,000 | 0.2 | 288,000 |
| Conferences (international) | conference | 5,000 | 10 | 50,000 | 5,200 | 10 | 52,000 | 5,400 | 10 | 54,000 | 156,000 | 0.1 | 180,000 |
| Sub-total - government staff | | | | 910,000 | | | 950,000 | | | 1,122,000 | 2,982,000 | 1.9 | 3,418,500 |
| Private sector capacity building | | | | | | | | | | | | | |
| Quality Assurance | t/course | 2,000 | 60 | 120,000 | 2,100 | 60 | 126,000 | 2,200 | 80 | 176,000 | 422,000 | 0.3 | 480,000 |
| Contract Management | t/course | 2,000 | 60 | 120,000 | 2,100 | 60 | 126,000 | 2,200 | 80 | 176,000 | 422,000 | 0.3 | 480,000 |
| Local Artisan training and accreditation | t/course | 8,000 | 60 | 480,000 | 8,300 | 60 | 498,000 | 8,600 | 80 | 688,000 | 1,666,000 | 1.1 | 1,920,000 |
| Sub-total Private sector capacity building | | | | 720,000 | | | 750,000 | | | 1,040,000 | 2,510,000 | 1.6 | 2,880,000 |
| NGO capacity building | | | | | | | | | | | | | |
| DRA, Social Manuals, Sanitation Manuals | t/course | 2,000 | 60 | 120,000 | 2,100 | 60 | 126,000 | 2,200 | 80 | 176,000 | 422,000 | 0.3 | 480,000 |
| Hygiene and Sanitation Promotion | t/course | 2,000 | 60 | 120,000 | 2,100 | 60 | 126,000 | 2,200 | 80 | 176,000 | 422,000 | 0.3 | 480,000 |
| Contract Management | t/course | 2,000 | 60 | 120,000 | 2,100 | 60 | 126,000 | 2,200 | 80 | 176,000 | 422,000 | 0.3 | 480,000 |
| Sub-total - NGO capacity building | | | | 360,000 | | | 378,000 | | | 528,000 | 1,266,000 | 0.8 | 1,440,000 |
| Sub-total - Capacity building | | | | 1,990,000 | | | 2,078,000 | | | 2,690,000 | 6,758,000 | 4.4 | 7,738,500 |

| Component/Item | Unit | 2009 | | | 2010 | | | 2011 | | | TOTAL PHASE I | % | TOTAL PHASE II |
|---|--------------|-----------|-----|----------------|-----------|-------|------------------|-----------|-------|------------------|------------------|------------|------------------|
| | | Unit Cost | No. | Total | Unit Cost | No. | Total | Unit Cost | No. | Total | | | |
| Testing Technology Options | | | | | | | | | | | | | |
| Piloting Alternative Hand-pumps | water points | 12,100 | - | - | 12,600 | 200 | 2,520,000 | 13,100 | 100 | 1,310,000 | 3,830,000 | 2.5 | 4,320,000 |
| Piloting Alternative Latrines | Latrines | 92 | - | - | 100 | 2,000 | 200,000 | 100 | 1,000 | 100,000 | 300,000 | 0.2 | 300,000 |
| Piloting Alternative Management Models | | | | | | | | | | | | | |
| Assessment and proposal of options | Study | 80,000 | 1 | 80,000 | 83,200 | - | - | 86,500 | - | - | 80,000 | 0.1 | 95,500 |
| Testing management models | Models | 30,000 | - | - | 31,200 | 4 | 124,800 | 32,400 | 6 | 194,400 | 319,200 | 0.2 | 358,000 |
| Sub-total - Piloting Alternative Management Models | Study | | | 80,000 | | | 124,800 | | | 194,400 | 399,200 | 0.3 | 453,500 |
| Piloting Alternative Supply Chain | | | | | | | | | | | | | |
| Assessment and proposal of options | Study | 200,000 | 1 | 200,000 | 208,000 | - | - | 216,300 | - | - | 200,000 | 0.1 | 238,800 |
| Testing Supply Chain Models | province | 30,000 | - | - | 31,200 | 4 | 124,800 | 32,400 | 6 | 194,400 | 319,200 | 0.2 | 358,000 |
| Sub-total - Piloting Alternative Supply Chain models | | | | 200,000 | | | 124,800 | | | 194,400 | 519,200 | 0.3 | 596,800 |
| Sub-total - Testing Technology Options | | | | 280,000 | | | 2,969,600 | | | 1,798,800 | 5,048,400 | 3.3 | 5,670,300 |
| Other | | | | | | | | | | | | | |
| Technical Assistance and Consultancy | | | | | | | | | | | | | |
| National level | p/year | 100,000 | 4 | 400,000 | 104,000 | 4 | 416,000 | 108,200 | 4 | 432,800 | 1,248,800 | 0.8 | 477,600 |
| Provincial level | p/year | 100,000 | 10 | 1,000,000 | 104,000 | 10 | 1,040,000 | 108,200 | 10 | 1,082,000 | 3,122,000 | 2.0 | 1,194,000 |
| Technical Assistance | c-m/year | 44,500 | 6 | 267,000 | 46,300 | 6 | 277,800 | 48,200 | 6 | 289,200 | 834,000 | 0.5 | |
| Short-term consultancy services | | | | | | | | | | | | | |
| Outsourcing procurement services (8% of amount) | Services | 200,000 | 1 | 200,000 | 208,000 | - | - | 216,300 | - | - | 200,000 | 0.1 | - |

| Component/Item | Unit | 2009 | | | 2010 | | | 2011 | | | TOTAL PHASE I | % | TOTAL PHASE II |
|--|----------|------------|-----|------------|------------|-----|------------|------------|-----|------------|---------------|------|----------------|
| | | Unit Cost | No. | Total | Unit Cost | No. | Total | Unit Cost | No. | Total | | | |
| Outsourcing External Monitoring and PAF | Services | 200,000 | 1 | 200,000 | 208,000 | 1 | 208,000 | 216,300 | 1 | 216,300 | 624,300 | 0.4 | 1,194,000 |
| Annual External Money for Value Audit/Review | Services | 200,000 | 1 | 200,000 | 208,000 | 1 | 208,000 | 216,300 | 1 | 216,300 | 624,300 | 0.4 | 1,194,000 |
| Contract Management Consultancy | Study | 150,000 | 1 | 150,000 | 156,000 | | - | 162,200 | - | - | 150,000 | 0.1 | 179,100 |
| Financial Management and Funding Allocation | Study | 150,000 | 1 | 150,000 | 156,000 | | - | 162,200 | - | - | 150,000 | 0.1 | 79,100 |
| Procurement Management Consultancy | Study | 150,000 | 1 | 150,000 | 156,000 | | - | 162,200 | - | - | 150,000 | 0.1 | 79,100 |
| Technology Options and Business Packages | Study | 150,000 | 1 | 150,000 | 156,000 | 1 | 156,000 | 162,200 | - | - | 306,000 | 0.2 | 79,100 |
| Unallocated Consultancy | Study | 150,000 | 1 | 150,000 | 156,000 | | - | 162,200 | - | - | 150,000 | 0.1 | 179,100 |
| Ground Water Mapping | Study | 900,000 | 1 | 900,000 | 936,000 | | - | 973,400 | - | - | 900,000 | 0.6 | 1,074,800 |
| Technology Options and Supply Chain | Study | 150,000 | 1 | 150,000 | 156,000 | 1 | 156,000 | 162,200 | - | - | 306,000 | 0.2 | 79,100 |
| Manuals Review and Revision | Study | 150,000 | 1 | 150,000 | 156,000 | | - | 162,200 | - | - | 150,000 | 0.1 | 79,100 |
| Poverty Mapping | Study | 150,000 | 1 | 150,000 | 156,000 | | - | 162,200 | - | - | 150,000 | 0.1 | 179,100 |
| Integration of DRA in district planning | Study | 150,000 | 1 | 150,000 | 156,000 | | - | 162,200 | - | - | 150,000 | 0.1 | 179,100 |
| Sub-total Short-term Consultancy Services | | | | 2,700,000 | | | 884,000 | | | 594,800 | 4,178,800 | 2.7 | 5,074,700 |
| Sub-total - TA and Consultancy Services | | | | 4,367,000 | | | 2,617,800 | | | 2,398,800 | 9,383,600 | 6.1 | 6,746,300 |
| Program management (10%) | % | 33,203,596 | 10% | 3,320,360 | 42,673,592 | 10% | 4,267,359 | 47,213,988 | 10% | 4,721,399 | 12,309,118 | 8.0 | 17,047,090 |
| Program advocacy and policy-making (5%) | % | 33,203,596 | 5% | 1,660,180 | 42,673,592 | 5% | 2,133,680 | 47,213,988 | 5% | 2,360,699 | 6,154,559 | 4.0 | 8,523,545 |
| Contingencies/Unallocated (10%) | % | 33,203,596 | 10% | 3,320,360 | 42,673,592 | 10% | 4,267,359 | 47,213,988 | 10% | 4,721,399 | 12,309,118 | 8.0 | 17,047,090 |
| Sub-total - Other | | | | 12,667,900 | | | 13,286,198 | | | 14,202,297 | 40,156,395 | 26.1 | 49,364,025 |
| Total - Water Points, Hygiene and Sanitation Promotion | | | | 41,504,496 | | | 53,341,990 | | | 59,017,485 | 153,863,972 | 100 | 213,088,625 |

Estimated Investment Requirements for Small Rural Piped Systems (USD)

| Component/Item | Unit | Unit Cost ¹ | 2009 | | | 2010 | | | 2011 | | TOTAL PHASE I | % | TOTAL PHASE II | % |
|---|--------|------------------------|------|-------------------|------------|------|-------------------|------------|------|-------------------|-------------------|-------------|-------------------|-------------|
| | | | Unit | Total | Unit Cost | No. | Total | Unit Cost | No. | Total | | | | |
| Small Piped Systems (PSAA) | System | | 14 | 9,702,000 | 720,700 | 17 | 12,107,760 | 749,500 | 20 | 15,109,920 | 36,919,680 | 80.0 | 107,474,334 | 80.0 |
| Other | | | | | | | | | | | | | | |
| Program management (10%) | % | 9,702,000 | 10% | 970,200 | 12,107,760 | 10% | 1,210,776 | 15,109,920 | 10% | 1,510,992 | 3,691,968 | 8.0 | 10,747,433 | 8.0 |
| Program advocacy and policy making (5%) | % | 9,702,000 | 5% | 485,100 | 12,107,760 | 5% | 605,388 | 15,109,920 | 5% | 755,496 | 1,845,984 | 4.0 | 5,373,717 | 4.0 |
| Contingencies/Unallocated (10%) | % | 9,702,000 | 10% | 970,200 | 12,107,760 | 10% | 1,210,776 | 15,109,920 | 10% | 1,510,992 | 3,691,968 | 8.0 | 10,747,433 | 8.0 |
| Sub-total - Other | | | | 2,425,500 | | | 3,026,940 | | | 3,777,480 | 9,229,920 | 20.0 | 26,868,584 | 20.0 |
| Total - Small Piped Systems | | | | 12,127,500 | | | 15,134,700 | | | 18,887,400 | 46,149,600 | 100 | 34,342,918 | 100 |

Summary of RWSS Investment Requirements (USD)

| | | | | | | | | | | | | | | |
|---|--|--|--|-------------------|--|--|-------------------|--|--|-------------------|--------------------|-------------|--------------------|-------------|
| Total - Water Points, Hygiene and Sanitation promotion | | | | 41,504,496 | | | 53,341,990 | | | 59,017,485 | 153,863,972 | 76.9 | 213,088,625 | 61.0 |
| Total - Small Piped Systems | | | | 12,127,500 | | | 15,134,700 | | | 18,887,400 | 46,149,600 | 23.1 | 134,342,918 | 39.0 |
| Grand Total | | | | 53,631,996 | | | 68,476,690 | | | 77,904,885 | 200,013,572 | 100 | 347,431,543 | 100 |

¹ 4.0% annual inflation rate was used in calculating unit costs.

Annex 8 Funding Gap Analysis

A funding gap analysis was carried out based on indicative allocations from development partners in March 2009 and is shown in Tables 1 and 2 below.

In addition, domestic resources were estimated based on 2007 and 2008 allocations from the State Budget (OE) and estimates of contributions from communities and NGO projects and is presented in Tables 3 and 4 below.

External Resources

Allocations in the table below are presented both in original currencies and in USD by source of funds and funding modality¹. All amounts are subject to confirmation or revision by the respective organizations.

Table 1 Indicative Funding Commitments – External Sources (Phase I)

1A RWSS Common Fund (millions of units)

| Source | Year | | | | Total ¹ (USD) |
|------------------|----------|----------|----------|-----------|-----------------------------|
| | 2009 | 2010 | 2011 | 2009-2011 | |
| Netherlands | €2.0 | €4.0 | €5.0 | €11.0 | 14.0 |
| DFID (confirmed) | GBP 0.25 | GBP 2.25 | GBP 2.25 | GBP 4.75 | 6.6 |
| DFID (requested) | GBP 0.25 | GBP 0.25 | GBP 0.25 | GBP 0.75 | 1.0 |
| UNICEF | USD 0.7 | USD 0.7 | USD 0.7 | USD 2.1 | 2.1 |
| CIDA/Irish | USD 0.3 | USD 0.5 | USD 0.5 | USD 1.3 | 1.2 |
| SDC | CHF 0.4 | CHF 0.4 | CHF 0.4 | CHF 1.2 | 1.0 |
| Sub-total | | | | | 25.9 |

¹ Based on exchange rates as of March 10, 2009

Source: ODAMOZ database, HoC Meeting, June 2008 and personal communication

1B Project Funding (millions of units)

| Source | Activity | 2009 | 2010 | 2011 | Total | In USD |
|------------------------------------|------------------------|----------|----------|----------|-----------|-------------|
| UNICEF | WASH Program | USD 10.0 | USD 10.0 | USD 10.0 | USD 30.0 | 30.0 |
| MCC | Rural Water Supply | USD 2.97 | USD 2.97 | USD 2.97 | USD 8.9 | 8.9 |
| Netherlands | HAUPA | €2.0 | €2.0 | €2.0 | €5.9 | 7.5 |
| EC/Italy | Inhambane PSAA | €1.3 | €1.3 | €1.3 | €3.8 | 4.9 |
| CIDA/Irish | Inhambane Project | USD 2.5 | USD 0.5 | USD 0.5 | USD 3.5 | 3.5 |
| Switzerland | Local Gov/RWSS Project | CHF 1.2 | CHF 1.2 | CHF 1.2 | CHF 3.6 | 3.1 |
| USAID | Health Program | USD 1.0 | USD 1.0 | USD 1.0 | USD 3.0 | 3.0 |
| Switzerland | WaterAid | CHF 0.8 | CHF 0.8 | CHF 0.8 | CHF 2.4 | 2.1 |
| Austria | PAARSS Project | USD 0.7 | USD 0.7 | USD 0.7 | USD 2.1 | 2.1 |
| EC | Aga Khan Foundation | €1.3 | €0.0 | €0.0 | €1.3 | 1.7 |
| Switzerland | Aguasán Project | CHF 0.8 | CHF 0.6 | CHF 0.5 | CHF 1.9 | 1.6 |
| JICA | Zambezia Project | JPY 60.8 | JPY 70.7 | JPY 30.8 | JPY 162.3 | 1.7 |
| Sub-total – Project Funding | | | | | | 70.1 |
| Line of Credit | | | | | | |
| India (Nampula and Zambezia) | | 5.00 | 5.00 | 5.00 | 15.0 | 15.0 |
| Sub-total – Line of Credit | | | | | | 15.0 |
| Total | | | | | | 85.1 |

¹ Based on exchange rate as of March 10, 2009

Source: ODAMOZ database, HoC Meeting on 13 June 2008, and personal communication

The availability of external funds and its estimated annual distribution is summarized in Table 2 below. The average external funds available during Phase I are approximately USD 37 million per year. There is presently an indicative allocation from development partners of USD 25.9 million for a RWSS Common Fund during the three-year period 2009-2011.

Table 2 External Funding Available by Modality and Year (USD million)

| Modality | 2009 | 2010 | 2011 | Total |
|------------------|-------------|-------------|-------------|--------------|
| RWSS Common Fund | 3.5 | 10.5 | 11.9 | 25.9 |
| Project funding | 26.2 | 22.2 | 21.7 | 70.1 |
| Line of Credit | 5.0 | 5.0 | 5.0 | 15.0 |
| Total | 34.7 | 37.7 | 38.6 | 111.0 |

Domestic Resources

Domestic resources include DNA's budget for DAR and DES and an estimate of DPOPH and district expenditure on RWSS activities. Contributions from users are estimated to be 2% of infrastructure cost for water points and small piped systems. For sanitation, the contribution from users/households is estimated to be USD 40 per latrine.

The total contribution from NGOs was 17% of the number of new or rehabilitated water points in 2007¹³. While this contribution may decrease in terms of percentage, the number of new or rehabilitated water sources supported by NGOs is expected to increase during Phase I. At the same time it is necessary to exclude the contribution from NGOs funded by other agencies whose contribution is included in Table 1 above.

Table 3 Projected Domestic Resources – Phase I (USD million)

| Source/Item/Level | 2009 | 2010 | 2011 | Total | % |
|---------------------------------------|------------|-------------|-------------|-------------|-------------|
| State Budget (OE) | | | | | |
| Water Points | | | | | |
| National | 4.0 | 2.8 | 2.8 | 9.6 | 29.8 |
| Provincial | 0.9 | 0.9 | 0.9 | 2.7 | 8.4 |
| District | 0.7 | 0.7 | 0.7 | 2.1 | 6.5 |
| Sub-total - water points | 5.6 | 4.4 | 4.4 | 14.4 | 44.7 |
| Small Rural Pipe Systems | | | | | |
| National | 0.3 | 0.5 | 0.7 | 1.5 | 4.7 |
| Provincial | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| District | 0.0 | 0.4 | 0.6 | 1.0 | 3.1 |
| Sub-total - small pipe systems | 0.3 | 0.9 | 1.3 | 2.5 | 7.8 |
| Users/households | | | | | |
| Water points | 0.3 | 0.3 | 0.4 | 1.0 | 3.1 |
| Sanitation | 1.1 | 2.2 | 3.2 | 6.5 | 20.2 |
| Small pipe systems | 0.2 | 0.2 | 0.4 | 0.8 | 2.5 |
| Sub-total - users/households | 1.6 | 2.7 | 4.0 | 8.3 | 25.8 |
| NGOs | 1.6 | 2.3 | 3.1 | 7.0 | 21.7 |
| Total | 9.1 | 10.3 | 12.8 | 32.2 | 100 |

¹³ DNA Annual Report, 2007

Funding Gap

The funding gap for Phase I is estimated to be USD 56.8 million, representing 28.4% of the total funding required for Phase I. Domestic and external resources cover 71.6% of the funding requirement for Phase I, of which 16.1% is from domestic sources and 55.5% from external sources, as shown in Table 4 below.

Table 4 Summary of Funding Gap – Phase I (USD million)

| Funds | Water Points and Sanitation | Small Rural Piped Systems | Total | % |
|------------------------|-----------------------------|---------------------------|--------------|-------------|
| Required | 153.9 | 46.1 | 200.0 | 100 |
| Projected | | | | |
| Domestic | 28.9 | 3.3 | 32.2 | 16.1 |
| External | 105.7 | 5.3 | 111.0 | 55.5 |
| Total projected | 134.6 | 8.6 | 143.2 | 71.6 |
| Gap | 19.3 | 37.5 | 56.8 | 28.4 |

Tables 5 and 6 below show the tentative allocation of funds by funding modality for water points and small rural piped systems for Phase I.

Table 5 Estimated Funding Available for Rural Water Points by Source – Phase I (USD million)

| Item | Central Level | | | Provincial and District Level | | | | | Total | Need | Gap |
|----------------------------------|---------------|-----------------|-------------|-------------------------------|------------|------------|------------|--------------|--------------|--------------|-------------|
| | Common Fund | OE ¹ | Sub-total | Projects | OE | NGOs | Users | Sub-total | | | |
| Water points ¹ | 0.0 | 0.0 | 0.0 | 45.1 | 0.0 | 4.1 | 1.0 | 50.2 | 50.2 | 51.7 | 1.5 |
| Hygiene promotion and sanitation | 0.0 | 0.0 | 0.0 | 12.6 | 0.0 | 2.2 | 6.5 | 21.3 | 21.3 | 22.0 | 0.7 |
| Decentralized funds | 15.2 | 3.0 | 18.2 | 7.0 | 0.0 | 0.0 | 0.0 | 7.0 | 25.2 | 28.2 | 3.0 |
| Capacity building | 0.5 | 1.2 | 1.7 | 4.9 | 0.0 | 0.2 | 0.0 | 5.1 | 6.8 | 6.8 | 0.0 |
| Technology options | 0.0 | 0.5 | 0.5 | 4.4 | 0.0 | 0.1 | 0.0 | 4.5 | 5.0 | 5.0 | 0.0 |
| Technical assistance | 6.5 | 0.0 | 6.5 | 1.5 | 0.0 | 0.2 | 0.0 | 1.7 | 8.2 | 9.4 | 1.2 |
| Program management | 1.8 | 1.9 | 3.7 | 0.0 | 4.8 | 0.0 | 0.0 | 4.8 | 8.5 | 12.3 | 3.8 |
| Advocacy and policy making | 0.4 | 3.0 | 3.4 | 2.8 | 0.0 | 0.2 | 0.0 | 3.0 | 6.4 | 6.4 | 0.0 |
| Contingencies/Unallocated | 0.1 | 0.0 | 0.1 | 2.9 | 0.0 | 0.0 | 0.0 | 2.9 | 3.0 | 12.1 | 9.1 |
| Total | 24.5 | 9.6 | 34.1 | 81.2 | 4.8 | 7.0 | 7.5 | 100.5 | 134.6 | 153.9 | 19.3 |

¹ OE-State Budget

² Implemented with decentralized funds

Table 6 Estimated Funding Available for Small Rural Piped Systems by Source – Phase I (USD million)

| Item | Central Level | | | Provincial and District Level | | | | Total | Need | Gap |
|-------------------------------|---------------|-----------------|------------|-------------------------------|------------|------------|------------|------------|-------------|-------------|
| | Common Fund | OE ¹ | Sub-total | Projects | NGOs | Users | Sub-total | | | |
| Small piped systems | 1.2 | 2.2 | 3.4 | 3.9 | 0.0 | 0.8 | 4.7 | 8.1 | 36.9 | 28.8 |
| Program management | 0.1 | 0.1 | 0.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.2 | 3.7 | 3.5 |
| Advocacy and policy making | 0.1 | 0.2 | 0.3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.3 | 1.8 | 1.5 |
| Contingencies/ Unallocated | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 3.7 | 3.7 |
| Total | 1.4 | 2.5 | 3.9 | 3.9 | 0.0 | 0.8 | 4.7 | 8.6 | 46.1 | 37.5 |

¹OE - State Budget

Annex 9 Procurement Plan -Year 1

Following is the proposed procurement plan for the first year (12 calendar months) of the Program:

| Item | Lots | Client | Bidding | | Value per lot ('000 USD) | Issue Bid- ding Docs. | Bid Submitted/ Evaluated | Contract | | |
|--|---|--------|---------------|--------|--------------------------|--------------------------|-----------------------------|----------|-------|--------|
| | | | Type | Method | | | | Sign | Start | Finish |
| Component 1: Sustainable increase in water supply and sanitation coverage | | | | | | | | | | |
| Preparatory Actions and Program Start-up | | | | | | | | | | |
| A Staff | | | | | | | | | | |
| 1 | One year bridging salary for mid-level technicians | 78 | DG | Cons | NCB | 2.2 | | | | |
| 2 | One year bridging salary for high level technicians | 20 | DPOPH | Cons | NCB | 4.4 | | | | |
| 3 | One year bridging salary for high level technicians | 5 | DNA | Cons | NCB | 10.9 | | | | |
| B Long-Term Technical Assistance | | | | | | | | | | |
| 1 | Long-term TA – DNA | 4 | DNA | Cons | ICB | 100.0 | | | | |
| 2 | Long-term TA – Provincial level | 5 | DNA | Cons | ICB | 100.0 | | | | |
| 3 | Short-term TA - DNA | 1 | DNA | Cons | ICB | 267.0 | | | | |
| C Equipment and vehicles | | | | | | | | | | |
| 1 | Computers and office equipment | 12 | DNA/ DPOPH | GE | LS | 2.5 | | | | |
| 2 | GIS software | 1 | DNA | GE | LS | 10.0 | | | | |
| 3 | Vehicles 4WD | 7 | DPOPH | GE | NCB | 90.0 | | | | |
| 4 | Vehicles 4WD | 3 | DPOPH | GE | NCB | 675.0 | | | | |
| 5 | Software licenses | 12 | DNA | GE | LS | 0.5 | | | | |
| 6 | GPS equipment | 1 | DNA | GE | LS | 83.7 | | | | |
| 7 | Water quality equipment and consumables | 1 | DNA | GE | LS | 651.0 | | | | |

KEY

| | |
|---------------------------------------|---------------------------|
| ICB International competitive bidding | LS Local Shopping |
| NCB National competitive bidding | CW Civil Works |
| SLB Short-listed bidding | GE Goods and equipment |
| QCBS Quality/Cost Based-Selection | Cons Consultancy/Services |

| Item | Lots | Client | Bidding | | Value per lot ('000 USD) | Issue Bidding Docs. | Bid Submitted/Evaluated | Contract | | |
|---|------|--------|---------|--------|--------------------------|---------------------|-------------------------|----------|-------|--------|
| | | | Type | Method | | | | Sign | Start | Finish |
| B Institutional Water Supply and Sanitation | | | | | | | | | | |
| 1 Inventory of schools and health posts/centers | 3 | DPOPH | Cons | SLB | 20.0 | | | | | |
| | | | | | | | | | | |
| C District Repairing/Maintenance Plans | | | | | | | | | | |
| 1 Inventory and assessment of repair needs | 39 | DG | Cons | SLB | 5.0 | | | | | |
| 2 Preparing bidding documents and specifications for repairs, management packages and model contracts | 1 | DNA | Cons | SLB | 20.0 | | | | | |
| | | | | | | | | | | |
| D Water, Hygiene and Sanitation Promotion | | | | | | | | | | |
| 1 District baseline and poverty studies | 39 | DPOPH | Cons | NCB | 5.0 | | | | | |
| | | | | | | | | | | |
| E PEC Capacity Building | | | | | | | | | | |
| 1 Preparing bidding documents and specifications for PEC business packages and model contracts for traditional PEC, zonal PEC and PEC for schools | 1 | DNA | Cons | NCB | 20.0 | | | | | |
| | | | | | | | | | | |
| Component 2: Piloting and scaling up alternative technology options and management models | | | | | | | | | | |
| A Technologies | | | | | | | | | | |
| 1 Review/revision of borehole designs and pump specifications and identification for business packages and model contracts | 1 | DNA | Cons | ICB | 150.0 | | | | | |
| 2 Groundwater mapping | 1 | DNA | Cons | ICB | 936.0 | | | | | |
| 3 Certification of handpumps and local and international manufacturers | 1 | DNA | Cons | QCBS | 200.0 | | | | | |
| | | | | | | | | | | |
| B Management/Supply Chains | | | | | | | | | | |
| 1 Design supply chain and management models | 1 | DNA | Cons | QCBS | 200.0 | | | | | |
| | | | | | | | | | | |
| C Poverty Targeting | | | | | | | | | | |
| 1 Poverty mapping and analysis | 1 | DNA | Cons | NCB | 50.0 | | | | | |
| 2 Support to women, the poor and vulnerable groups | 1 | DNA | Cons | NCB | 100.0 | | | | | |

| Item | Lots | Client | Bidding | | Value per lot ('000 USD) | Issue Bidding Docs. | Bid Submitted/Evaluated | Contract | | |
|--|--|--------|---------|--------|--------------------------|---------------------|-------------------------|----------|-------|--------|
| | | | Type | Method | | | | Sign | Start | Finish |
| Component 3: Strengthening institutions and human resources | | | | | | | | | | |
| A Technologies | | | | | | | | | | |
| 1 | Review/revision of borehole designs and pump specifications - preparation of business packages and model contracts | 1 | DNA | Cons | ICB | 150.0 | | | | |
| 2 | Groundwater mapping | 1 | DNA | Cons | ICB | 936.0 | | | | |
| 3 | Certification of handpumps and local and international manufacturers | 1 | DNA | Cons | QCBS | 200.0 | | | | |
| B Management/Supply Chains | | | | | | | | | | |
| 1 | Design of supply chain and management models | 1 | DNA | Cons | QCBS | 200.0 | | | | |
| C Targeting Poverty | | | | | | | | | | |
| 1 | Poverty mapping and analysis | 1 | DNA | Cons | NCB | 50.0 | | | | |
| 2 | Support to women, the poor and most vulnerable groups | 1 | DNA | Cons | NCB | 100.0 | | | | |
| A Technologies | | | | | | | | | | |
| 1 | Review and revision of borehole designs and pump specifications and identification for business packages and model contracts | 1 | DNA | Cons | ICB | 150.0 | | | | |
| 2 | Groundwater mapping | 1 | DNA | Cons | ICB | 936.0 | | | | |
| 3 | Identification/certification of handpumps and local and international manufactures | 1 | DNA | Cons | QCBS | 200.0 | | | | |
| B Management/Supply Chain Development | | | | | | | | | | |
| 1 | Design of supply chain and management models | 1 | DNA | Cons | QCBS | 200.0 | | | | |
| C Targeting Poverty | | | | | | | | | | |
| 1 | Poverty mapping and analysis | 1 | DNA | Cons | NCB | 50.0 | | | | |
| 2 | Support to women, the poor and vulnerable groups | 1 | DNA | Cons | NCB | 100.0 | | | | |
| D Technologies | | | | | | | | | | |
| 1 | Review/revision of borehole designs and pump specifications Identification of business packages and model contracts | 1 | DNA | Cons | ICB | 150.0 | | | | |

| Item | Lots | Client | Bidding | | Value per lot ('000 USD) | Issue Bidding Docs. | Bid Submitted/Evaluated | Contract | | | |
|---|--|--------|---------|--------|--------------------------|---------------------|-------------------------|----------|-------|--------|--|
| | | | Type | Method | | | | Sign | Start | Finish | |
| 2 | Groundwater mapping and hydrogeological database | 1 | DNA | Cons | ICB | 936.0 | | | | | |
| 3 | Certification of handpumps and local and international manufacturers | 1 | DNA | Cons | QCBS | 200.0 | | | | | |
| Component 4: Strengthening decentralized planning, management and monitoring | | | | | | | | | | | |
| A | Decentralized Planning | | | | | | | | | | |
| 1 | Provincial RWSS Master Plans | 2 | DPOPH | Cons | NCB | 200.0 | | | | | |
| 2 | Support to district RWSS planning | 3 | DPOPH | Cons | NBC | 17.0 | | | | | |
| B | Communication and Information Systems | | | | | | | | | | |
| 1 | Monitoring system and baseline study design | 1 | DNA | Cons | ICB | 200.0 | | | | | |
| 2 | Database/website development | 1 | DNA | Cons | NBC | 100.0 | | | | | |
| 3 | Printing training materials, manuals, etc. | 1 | DNA | GE | NBC | 50.0 | | | | | |
| C | Joint Reviews and RWSS Learning | | | | | | | | | | |
| 1 | Revising manuals | 1 | DNA | Cons | SLB | 100.0 | | | | | |
| 2 | Printing training materials, manuals, etc. | 1 | DNA | GE | SLB | 50.0 | | | | | |
| 3 | Value-for-Money study | 1 | DNA | Cons | ICB | 200.0 | | | | | |