MOZAMBIQUE

UNICEF – Government of the Netherlands Partnership: Water, Sanitation and Hygiene

Mozambique Project Proposal

Revised, May 2006

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Government of the Netherlands - UNICEF partnership: Water Supply and Sanitation in Eastern and Southern Africa (2006-2012)

Mozambique Proposal

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ABBREVIATIONS/ACRONYMS

ADB	African Development Bank	**GoM**	Government of Mozambique
ARA	Regional Water Administration	**GoN**	Government of the Netherlands
CBO	Community Based Organisation	**GPC**	Planning and Co-operation Office
CCD	Community Capacity Development	**HRBAP**	Human Rights Based Approach to Programming
CIDA	Canadian International Development Agency	**IMR**	Infant Mortality Rate
CP	Country Programme of Co-operation	**INE**	National Institute of Statistics
DAF	Administration and Finance Department	**JICA**	Japanese International Co-operation Agency
DAR	Rural Water Department	**MAE**	Ministry of State Administration
DAS	Water and Sanitation Department	**MDG**	Millennium Development Goals
DES	Sanitation Department	**MICOA**	Ministry for the Co-ordination of Environmental Actions
DGRH	Water Resources Management Department	**MIPAR**	Rural Water Supply Implementation Manual
DNA	National Directorate of Water	**MMR**	Maternal Mortality Ratio
DPE	Provincial Directorate of Education	**NER**	Net Enrolment Rate
DPOPH	Provincial Directorate of Public Works and Housing	**NGO**	Non-Governmental Organisation
DPS	Provincial Directorate of Health	**NWP**	National Water Policy
DRA	Demand Responsive Approach	**PARPA**	Absolute Poverty Reduction Action Plan
DRH	Human Resource Department	**PLWHA**	People Living with HIV/AIDS
EP1	Primary Education Level 1	**PSAA**	Small Piped Systems
EP2	Primary Education Level 2	**SDC**	Swiss Development Co-operation
EPAR	Public enterprise specialised in rural water works	**ToR**	Terms of Reference
ESDEM	Social, Demographic and Economic Statistics	**U5MR**	Under-Five Mortality Rate
EU	European Union	**WASH**	Water Sanitation and Hygiene
FBO	Faith Based Organisation	**WES**	Water and Environmental Sanitation
GAS	Water and Sanitation Working Group	**WSHP**	Water, Sanitation and Hygiene Promotion
GER	Gross Enrolment Rate	**WSP/WB**	Water and Sanitation Programme /World Bank
CEDESA	Water Sector Strategic Development Centre	**YP**	Youth Participation

PROJECT LOCATION

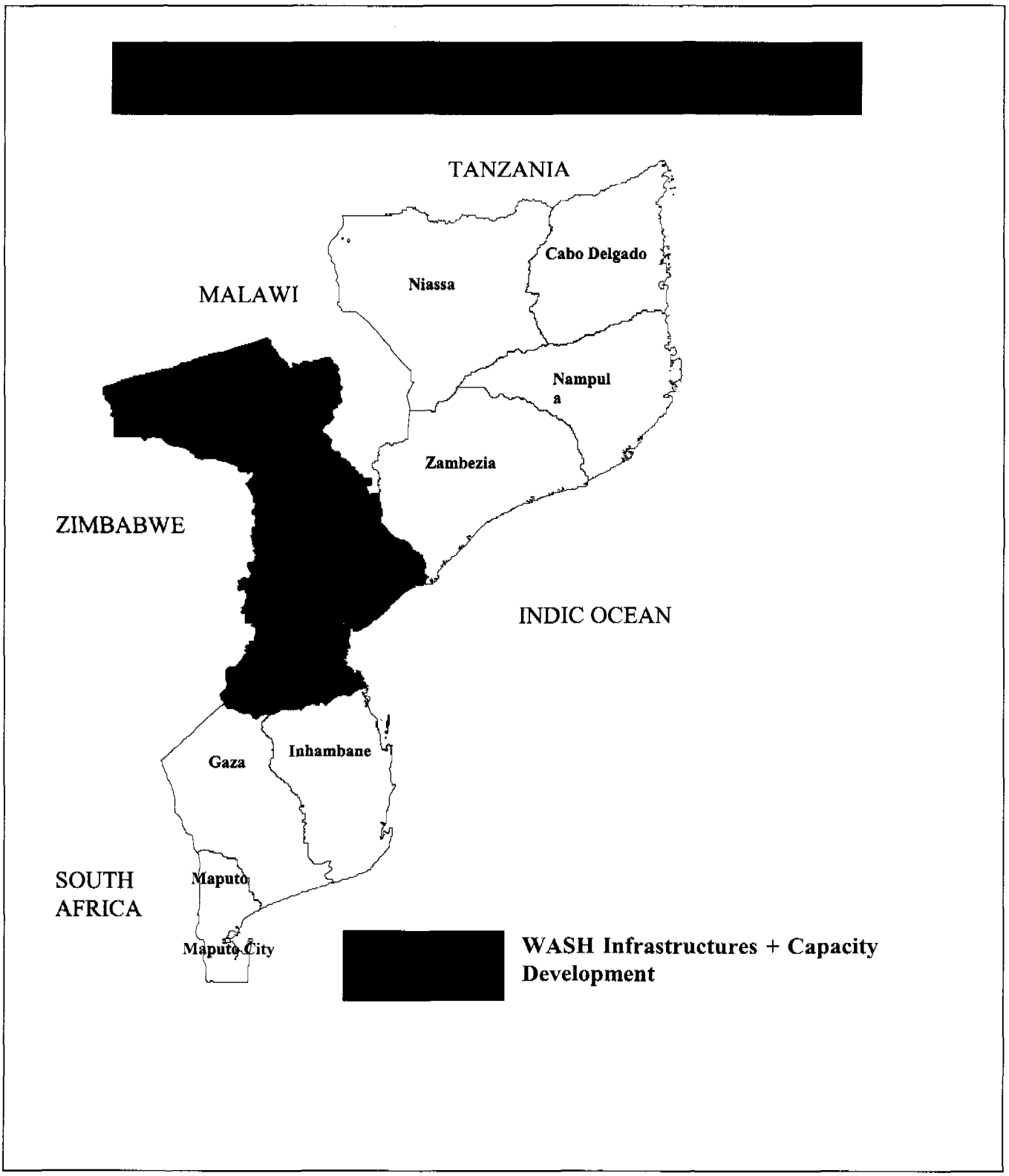


Fig. 1: Project Location Areas

PROJECT SUMMARY

Name

The Government of the Netherlands – UNICEF partnership for progress towards the MDG water and sanitation targets in Mozambique

Contracting party

UNICEF Maputo, Mozambique

Output

- 1 million new users, living in poor rural areas, of safe and sustainable drinking sources water;
- 200,000 users of newly rehabilitated safe and sustainable drinking water sources;
- 1 million new users of safe and hygienic sanitation facilities;
- 1.2 million new practitioners adopt appropriate hygiene practices especially hand washing with soap or ash, after toilet use and before eating/feeding;
- 140,000 children, in 400 primary schools, use new safe water and sanitation facilities and adopt appropriate hygiene practices in schools and at home;
- 18 districts of the project area strengthened their technical and management capacities for WASH planning and implementation aiming the sustainability of WASH interventions;
- 3 provincial water departments with adequate technical and management capacities for WASH planning, co-ordination and supervision including contracts management; and
- 4,500 persons with appropriate skills and knowledge on WASH issues (planning and procurement, contract management, hygiene promotion, HIV/AIDS prevention, self-help construction of household (HH) latrines, operation, maintenance and management and gender mainstreaming)

Project Description

This integrated Water, Sanitation and Hygiene (WASH) project is designed and will be implemented within the context of the Government of Mozambique and UNICEF Country Programme of Co-operation, which supports the achievement of government priorities and targets as outlined in the National Plan for Poverty Reduction (PARPA), and contributes to the achievement of the Millennium Development Goals (MDG). The goal is to achieve improved child survival and development through the provision of sustainable safe water and sanitation facilities and good hygiene practices. Within this context, the project will support two main components:

(a) **Access to water and sanitation** for poor and vulnerable populations living in rural areas. Focus will be on improvement of and increasing access to safe water, adequate sanitation and strengthening the knowledge and skills of communities and school children to adopt safe hygiene practices.

(b) **Capacity building and development** through strengthening the capacity of Government institutions at the district and provincial levels to enable them to fulfil their roles and responsibilities more effectively. Assistance will also be provided to the Government for its partnership with the private sector to

establish an enabling environment that supports and nurtures active private sector participation in the project with a focus on establishing a sustainable supply chain of pumps and spare parts, in close proximity of the project end-users.

Implementation strategy

The project will be implemented within the framework of the Government of Mozambique - UNICEF Programme of Cooperation (2007-2009) which is a partnership for improving the wellbeing of children and women particularly with regards to (*i*) young child survival and development, (*ii*) basic education and gender equity; (*iii*) HIV/AIDS and children; (*iv*) child protection from violence abuse and exploitation; and (*v*) policy advocacy and partnership for child rights.

The project implementation strategies are fully aligned with the national water policy and related strategies for rural water supply and sanitation including school sanitation which places priority on meeting the basic needs of the disadvantaged, on decentralized management and on the participation of users; services are to be provided by the private sector in response to the users demand, while the government undertakes a facilitating and regulatory role. The project adopts a demand responsive approach where the communities will take leadership in project planning, implementation and post-completion maintenance and management of their water and sanitation facilities. This will be achieved through application of a human rights based approach to programming and the use of gender responsive participatory methods as well as integrated approaches involving water, sanitation and hygiene in order to maximise health impacts.

Relation to national policies

The project is consistent with the visions and strategies in the water and sanitation sector and supports the Government of Mozambique's efforts to attain its water and sanitation related goals articulated in the National Water Policy (NWP), Mozambique's Absolute Poverty Reduction Action Plan (PARPA) and the Millennium Development Goals (MDG). Country efforts will aim at achieving 55 per cent coverage of the rural water supply by medium-term (2009), corresponding to approximately 8 million people with access to safe water, and achieving 70 per cent coverage in the long term (2015), corresponding to 11.8 million people with access to safe water. With regards to rural sanitation, the targets are to achieve 40 per cent and 50 per cent coverage respectively at medium and long terms, which corresponds to about 6 million and 8.4 million people in rural areas with improved sanitation.

The revised NWP is geared towards decentralised planning, implementation, operation and maintenance of water and sanitation interventions along with greater involvement and participation of WASH stakeholders (users, NGOs/CBOs and the private sector). The NWP also clearly defines the respective roles and responsibilities of the WASH stakeholders with the Government assuming facilitation, coordination and policy and strategy

development roles, while service delivery are carried out by the private sector.

Conformity with DGIS policy priorities

Poverty eradication and women empowerment: The project targets poor people living in rural areas that currently do not use safe drinking water and/or, sanitation facilities and do not practice appropriate hygiene (especially hand washing). The use of sustainable and affordable safe drinking water will reduce direct and indirect health costs of both households and the health services and will contribute to reducing opportunistic costs.

These economic gains will primarily benefit women and girls who are traditionally responsible for health care at the household level and for collecting most of the domestic water. Easing the burden of water collection means that girls and women are no longer forced to spend hours on fetching water. Mothers have more time to care for their children, and girls are more likely to attend school. The development of gender sensitive sanitation facilities (separate facilities for girls and boys) in schools will contribute to girls' attendance and retention rates. Therefore, women and girls will be the primary stakeholders at the community level receiving priority in the ownership of the water facilities and in hygiene and sanitation promotion activities.

Fight against HIV/AIDS: The areas targeted by the project are highly affected by the HIV/AIDS pandemic with sero-prevalence among the three targeted provinces ranging from 16.6 per cent in Tete, 19.7 per cent in Manica to 26.6 per cent in Sofala (Sofala province has the highest sero-prevalence rate of the country). The project will support community mitigation activities aiming at reducing the detrimental impact of the pandemic through the provision and use of safe water, sanitation and hygiene facilities, which will reduce the vulnerability of people living with HIV/AIDS (PLWHA) to opportunistic infections, while simultaneously strengthening the skills and knowledge of caregivers to better assist the sick family members through adoption of safe hygiene practices.

Budget

Total project budget: USD 42.41 million, of which:

- USD 27.47 million from the Netherlands and UNICEF partnership
- USD 8.34 million from UNICEF regular resources
- USD 5.53 million from the Government of Mozambique
- USD 1.08 million from the communities and households.

Project location

Mozambique. Manica, Sofala and Tete provinces for physical WES infrastructures and capacity building, including the establishment of spare part networks.

Time frame

6 years, with implementation effective from January 2007 to December 2012 (*the project inception phase should start in the last quarter of 2006 in order to allow start-up activities for effective implementation in January 2007*).

Risks

The country is chronically vulnerable to natural disasters. Natural disasters such as floods, droughts and cyclones may pose risks to project implementation as in case of natural disasters efforts might be diverted to more pressing emergency response and subsequently reducing the ability of the population to contribute to WASH services. Other risks that could negatively impact the project are related to possible inadequate coordination and management mechanisms and low interest of the private sector in spare parts commercialisation. The project coordination and technical support team will closely monitor trends to ensure that risks are minimised and mitigation actions are taken, in conjunction with national and international development partners.

1. INTRODUCTION

The present project proposal, developed under the Government of the Netherlands and UNICEF Partnership, supports the Government of Mozambique's efforts to attain its water and sanitation related goals, as articulated in the National Water Policy, Mozambique's Absolute Poverty Reduction Action Plan and the Millennium Development Goals. The project will contribute to achieving the country sector goals and targets, through (*i*) increasing and improving access to and use of safe water, adequate sanitation and improved knowledge and skills of safe hygiene practices; (*ii*) enhancing sector capacities at district and provincial levels for efficient and effective planning, co-ordination, supervision of sector programme activities and delivery of quality services.

In order to carefully select the areas for project intervention, a number of factors were assessed and analysed, including the prospective for WES investment/donor mapping, WES coverage trends in relation to population growth rates, ease of access to water and sanitation facilities, susceptibility to drought and to cholera outbreaks, HIV/AIDS prevalence, levels of stunting and chronic malnutrition among children, poverty rate and provincial and district capacities for WASH planning and implementation.

Several consultation meetings involving the Netherlands Embassy in Mozambique, the National Water Directorate and UNICEF took place to harmonise views and priorities and reach consensus on key project/sector issues. Two full days were spent on problem identification, development of a cause-effect problem tree, development of an objective tree and LFA matrices (end-user and institutional). This process, facilitated by a professional national consultant with recognised skills in LFA and familiarity with the water and sanitation sector in the country, involved representatives from Government institutions at national and provincial levels (senior officials from DNA, National Water Director and heads of rural water, sanitation and planning departments; DPOPH – Maputo Director), the Netherlands Embassy in Mozambique, UNICEF and Water and Sanitation Working Group (GAS) members. The consultations reaffirmed the receptiveness of all sector partners to the proposal and DNA throughout the consultation process showed remarkable leadership.

This analysis resulted in the selection of three provinces (Manica, Sofala and Tete); all located in the central region of the country for physical implementation of WASH activities and developing/strengthening Government capacities in order to ensure the sustainability of these interventions.

Once the three provinces were selected, the consultation process was continued at the local level to ensure that the Provincial and District Authorities were duly involved and also had the opportunity to share ideas, build consensus and develop commitment to "the end product". The conclusion of this consultation facilitated by DNA and UNICEF resulted in a consensual selection by the National, Provincial and District Authorities of 18 districts, six in each targeted province.

2. PROJECT LOGFRAME

Logical Framework – Technical Component

Overall Objective	Reduced incidence of water and sanitation-related diseases, particularly among the most vulnerable group (children and women) living in rural areas; increased economic growth and a higher ranking in the Human Development Index.	• Reduction in U5MR due to diarrhoea and other water-related diseases from 178/1000 to 130/1000 (PARPA -II target) • Reduction of 30% in cholera outbreaks and other diarrhoeal diseases • Increased access to and use of safe drinking water and improved sanitation facilities in communities with high HIV prevalence, therefore reducing the risk of opportunistic infections • Poverty index below 54% (PARPA targets) • Human Development Index (171 in 2004 and 168 in 2005)		
Project Purpose	To enable a minimum of 1.2 million currently un-served people to use domestic water from improved water sources, and 1 million to use improved sanitation facilities and adopt safe hygiene practices, such as hand washing with soap (or ash where soap is not available) after toilet use and before eating/feeding. To enable 140,000 school children to access and use improved sanitation, hand washing and water supply facilities in 400 primary schools. To ensure that 200,000 users have renewed access to safe water through the rehabilitation of their non-operational water points.	• Rate of provincial coverage of rural water supply (intervention's target areas) • Rate of provincial coverage of rural sanitation (intervention's target areas) • # of targeted population covered by hygiene education activities • # of targeted schools with access to water supply • # of targeted schools with access to adequate sanitation	• DNA annual reports • DPOPH annual reports • Project progress & annual reports • INE 2007 census • Project baseline study • Project evaluation reports • Rural water and sanitation database (DNA and DPOPH/DAS) • MEC reports.	• *Effective beneficiary involvement*
Results	• **(R1)** - Increased access and use of safe drinking water from 44.4%, 45.9% and 66.8% to a least 70% in Manica, Sofala and Tete provinces respectively by 2011. • **(R2)** - Increased access and use of improved sanitation facilities from an average of 42% to at least 50% in Manica, Sofala, Tete provinces by 2011. • **(R3)** - Increased girls' enrolment and retention in 400 primary schools in Manica, Sofala and Tete provinces by 2011.	• **For R1**: o # of new users o # of water committees functioning effectively in the project areas o # of communities in high HIV prevalence areas with access to safe drinking water • **For R2**: o # of households with adequate latrines o # of child-headed and elderly-headed households with access to improved sanitation facilities • **For R3**: o # of targeted schools with adequate water supply and sanitation o # of students using the latrines correctly	• **For R1**: o DNA annual reports o Project progress & annual reports • **For R2**: o Project progress & annual reports • **For R3**: o MEC Reports o Projects progress & annual reports o Impact evaluation report	• *Integration of emergency plans with current sector planning* • Effective implementation of the Local Organs Law and the Decentralisation Policy

		○ # of students washing their hands at critical times (before eating and after using the latrine) ○ % of operational water sources (in the project area)		
	• **(R4)** – Increased (at least 1 million) number of caregivers (particularly women) applying safe hygiene practices in the project area. • **(R5)** - Reduced the % of non-operational water points from 30% to 15% in the project area.	• **For R4**: ○ # of people washing their hands at critical times (before eating, after using the latrine, before suckling, before cooking) ○ # of households using the latrines properly ○ # of cases of diarrhoea reported ○ # of households with adequate containers for water storage • **For R5**: ○ % of operational water sources (in the project area)	• **For R4**: ○ Baseline study ○ Impact evaluation report ○ Epidemiological vigilance system of MISAU • **For R5**: ○ DPOPH annual reports ○ Baseline reports ○ Project Progress & annual Reports	
Activities	• **For R1**: ○ Carry out baseline studies ○ Promote the DRA and the project's principles ○ Establishment and training of community water committees; ○ Construction & rehabilitation of water sources ○ Monitor the quality of works ○ Monitor the functioning of water committees • **For R2**: ○ Conduct baseline studies ○ Promote the DRA and the project's principles ○ Build demonstration centres at district level ○ Plan the intervention, organise the communities and train the local artisans ○ Promote the building of improved latrines ○ Intensify hygiene promotion for correct use of the latrines • **For R3**: ○ Conduct a baseline study ○ Design and produce education materials for school hygiene ○ Establish school clubs for promoting hygiene ○ Carry out integrated (water and sanitation) interventions for promoting hygiene; Construction of school WES facilities including hand washing facilities ○ Carry out impact evaluation studies (at the middle and end of the project cycle). • **For R4**: ○ Conduct a baseline study		• Baseline reports • Project Progress & annual reports • Baseline reports • Project Progress & annual reports • Baseline reports • Project Progress & annual reports	• Adequate capacity of the private sector and civil society.

	○ Design and produce education and training materials for hygiene promotion ○ Train community activists ○ Conduct integrated hygiene promotion activities ○ Carry out impact evaluation studies (at the middle and end of the project cycle). • **For R5**: ○ Promote the establishment of spare parts network ○ Strengthen community skills for operating and maintaining water sources ○ Training of community mechanics to repair water point breakdowns; ○ Improve the supervision and inspection of works ○ Improve the supervision of social interventions ○ Conduct a baseline study ○ Conduct a project evaluation study		• Project Progress and annual reports	
				PRECONDITIONS: Adequate internal capacity of District Administration and DPOPHs (being addressed as part of the project).

Logical Framework – Institutional Component

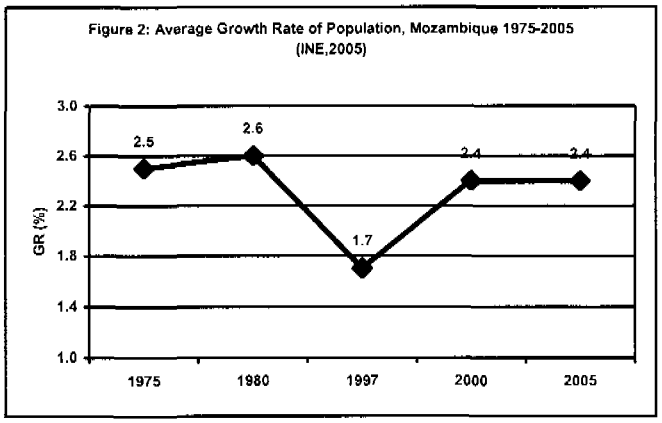
Overall Objective	Increased access to water supply and sanitation by the targeted population, through improved management of sector funds and programme activities.	• Available reliable financial investment and expenditure records • Integrated sector planning processes		
Project Purpose	Strengthened sector capacities (particularly at the sub-national level) to plan, co-ordinate, implement, supervise sector activities; document and disseminate sector lessons learned and good practices.	• Process Indicators: o Formal project mechanisms in place o Improved planning mechanisms o Improved monitoring and evaluation for recording of new users o Partners competence evaluation • Impact Indicators: o Degree of realisation of the project results (quality, cost, time) o Stakeholder satisfaction with the project intervention o Competence updating level of partners improved	• Project progress & annual reports • Project final report	• Water sector partner's willingness to cooperate • Water sector staff willing to cope with project demands • Effective implementation of new roles and responsibilities, particularly in relation to decentralisation.
Results	• **(R1)** - Roles and activities of the different actors in this and other similar projects clarified • **(R2)** - Planning, Monitoring and Evaluation systems improved • **(R3)** - Districts and provinces provided with resources to meet the requirements of this and other projects • **(R4)** - Competence and performance of the human resources of the sector developed to meet the requirements of this and other projects • **(R5)** - Actual and future partner competence and performance improved, in order to respond to the complexity of this and other similar projects.	**For R1**: • Process Indicators: o Formal project mechanisms approved and tested • Impact Indicators: o Degree of realisation of the project results (quality, cost, time) o Stakeholder satisfaction with the project intervention **For R2**: • Process Indicators: o Planning system developed, tested and documented o Monitoring and evaluation system developed, tested and documented • Impact Indicators: o Degree of staff satisfaction with the systems **For R3**: • Impact Indicators: o Degree of realisation of the project results (quality, cost, time) **For R4**: • Process Indicators: o Performance evaluation system implemented • Impact Indicators: o Competence updating levels improved, following the individual competence development plan **For R5**: • Process Indicators: o Competence evaluation and development system implemented o Performance evaluation system implemented • Impact Indicators: o Improved competence updating levels, in accordance with the individual competence development plan.	• Report defining the roles and responsibilities of stakeholders • Planning system specification report • Monitoring and evaluation system specification report	• Availability of qualified training institutions • Availability of technical and management support skills, through consulting or technical assistance • Minimal rotation of project staff.

Activities	**For R1:** • Develop and approve "Value delivery system" model and value chain for each actor • Define roles and responsibilities for each project actor • Define, test and implement communication and information mechanisms between central, provincial and district levels, as well as between the different stakeholders • Review procedures in order to respond to the new challenges • Propose regulation that facilitates the existence of fundamental project functions at district, provincial and national levels **For R2:** • Develop and approve a list of standardized indicators • Develop, test and implement a regular indicator data collection process (ensured by project contracted staff) • Implement monitoring and evaluation system, allowing to link project costs to results and impact (ensured by project contracted staff) • Assure quality of baseline information **For R3:** • Allocate water and sanitation human resources at district level • Reinforce human resources at DPOPHs • Establish staff retention mechanisms at district/province level. **For R4:** • Conduct training sessions for sector staff at all levels • Design, test and implement the performance evaluation systems **For R5:** • Design attractive business packages that motivate gross investment of partners (ensured by project contracted staff – procurement function) • Develop the management capacity of partners • Support NGO/CBO/FBO strategy definition and strengthen their implementation capacities	• **For R1:** o Process Indicators: ▪ "Value delivery system" developed and validated ▪ Value chain developed for each stakeholder ▪ Roles and responsibilities of each stakeholder clearly defined and approved ▪ Staff allocation to different functions assured ▪ Communication and information mechanisms between central, provincial and district level defined and tested ▪ Regulations proposed. o Impact Indicators: ▪ Degree of stakeholders satisfaction with the project co-ordination and management mechanisms ▪ Degree of realisation of the project results (quality, cost, time) • **For R2:** o Process Indicators: ▪ Planning system developed, tested and documented ▪ Monitoring and evaluation system developed, tested and documented o Impact Indicators: ▪ Degree of stakeholders satisfaction with the procedures being used • **For R3:** o Process Indicators: ▪ # of water and sanitation professionals at district level ▪ # of benefits included in the staff retention mechanisms o Impact Indicators: • Degree of realisation of projects results (quality, cost, time) • **For R4:** o Process Indicators: ▪ Performance evaluation system developed ▪ Objective definition and evaluation carried out o Impact Indicators: ▪ Beneficiaries satisfaction level with the system and it's integration with the competence evaluation system • **For R5:** o Process Indicators: ▪ # and value of business packages established by the project ▪ # of partners taking part in management training ▪ Partners requirements defined and agreements signed ▪ Programmatic, administrative and financial processes and procedures established o Impact Indicators: ▪ Competence updating levels improved ▪ Staff satisfaction levels towards the implementation mechanisms.	• **For R1:** o "Value delivery system" definition report o Stakeholders roles and responsibilities definition report o Project progress & annual reports o Project management and implementation structure document • **For R2:** o Project progress & annual reports • **For R3:** o District Administration staff list o Project progress & annual reports • **For R4:** o Project progress & annual reports • **For R5:** o Project progress & annual reports o Partner's shortlist report	• Financial resources available.

3. PROJECT RATIONALE

3. 1 Context and project justification

The Government of Mozambique (GoM) has made great strides towards achieving the Millennium Development Goals, particularly in terms of reducing poverty levels. With a population close to 19 million (2003), the proportion living below the poverty line fell from 69 per cent in 1997 to 54 per cent in 2003. This decline in poverty has been supported by the establishment of stable democratic structures and improved governance and partnerships, which have had a synergistic effect on progress against several indicators related to the well-being of children and women.



The population growth rate has been estimated at 2.4 percent in 2005 (Figure 2) close to numbers reached prior to the civil war, which raised the overall mortality rates and dipped the growth rate to 1.7 per cent in 1997 (year of last official census). The projections made by INE shows that some districts are showing a regressive population trend. However, updated population figures will be obtained in the next planned census (2007).

From 1997 to 2003, U5MR decreased from 219 to 178/1,000; IMR from 147 to 124/1,000; MMR dropped to 408/100,000 in 2003; Gross and Net Enrolment Rates in the lower education primary level (EP1), respectively rose from 75 per cent to 113 per cent and 44 per cent to 69 per cent; GER and NER in EP1 among girls increased from 62 per cent to 102 per cent and 49 per cent to 66 per cent respectively.

These gains, however, are increasingly challenged by the triple threat (HIV/AIDS, drought/food insecurity and weak governance) that is assiduously undermining national capacities. The HIV/AIDS prevalence among 15 to 49 year-olds has steadily increased over the years, from 8.2 per cent in 1998 to 16.2 per cent in 2004 and it is estimated that 25 per cent of deaths among adults are due to AIDS. The situation is creating an orphan crisis with an increasing number of households headed by children or elderly people, which has an impact on the WES sector strategies and approaches to ensure sustainable water supply and sanitation facilities. In addition, the increasing HIV/AIDS prevalence poses a greater challenge to the WES sector in relation to its contribution to mitigating the impact of HIV/AIDS.

The provision of safe water, improved sanitation and the promotion of safe hygiene practices reduce the vulnerability of PLWHA to opportunistic infections and also save time and energy spent by women and children – particularly girls – on water collection, which will, in turn, leave more time for attending school, or caring for sick family members. The diarrhoea incidence among children under five years of age is estimated at 14.1 per cent (13.4 per cent in rural areas and 15.9 per cent in urban areas) and cholera remains a threat in the country, with repeated outbreaks, particularly in areas with high population density.

While considerable progress has been made in recent years, **low coverage levels, poor service delivery and weak sustainability** characterise the overall water supply and sanitation situation in Mozambique. According to the National Water Directorate, approximately **60.7 per cent of the rural population does not have access to safe water** (total: 61.4 per cent; urban: 64 per cent) and **72 per cent (total: 66.3 per cent; urban: 46.7 per cent) does not have access to adequate sanitation**[1]. In addition, there are considerable disparities in access both between and within provinces. The lack of water and sanitation facilities affects every aspect of the family's life and condemns people, particularly women and children, to perpetual struggle to survive at a subsistence level.

Approximately 28 per cent of the water supply facilities that have been constructed in recent years are non-operational. This breakdown of water points can be attributed to various factors, including the lack of mechanisms to support users to undertake adequate preventative maintenance (such as spare parts networks close to the users); the poor quality of services delivered; inept community empowerment to take actions; and insufficient time spent in creating demand for services (through strengthening community/family knowledge and skills in regard to safe hygiene practices and their impact on health).

Water supply and sanitation in schools remain extremely poor and hygiene education occurs only on an informal basis and in few schools. It tends to be message-based, rather than practical and is often not oriented to stimulate behavioural change as it is not supported by the corresponding facilities (hand washing facilities, soap). Currently, **there are 8,330 EP1 & EP2 schools** in the country. It is estimated that **only around 30 per cent of these schools have water and sanitation facilities**, mainly in urban and peri-urban areas. In rural areas, most schools are constructed with local materials, mainly with community contribution, and do not have safe water supplies inside or near the schools. In these areas, open defecation around the schools is the common excreta disposal practice.

Even where latrines have been constructed, over 50 per cent of them are not operating or are not being used, either due to faulty design or incorrect construction. Since there are no standardised designs for schools, each partner (including the Government) follows its own design. Feedbacks from schools and communities indicate that the lack of a child-friendly approach to school sanitation and hygiene design adversely impacts the enrolment, retention and performance of children, and in particular that of girls, since they cannot carry out their daily hygiene and sanitation practices with dignity and privacy. UNICEF and other development partners (such as the World Bank) have been supporting the Government in the preparation of studies and manuals to improve the design of school and household level sanitation facilities.

Capacity development and strengthening at all levels is a key sector challenge and priority for achieving the country's WES goals and targets, particularly those relating to the MDGs. The sector has embarked on a decentralisation process, which aims to transfer decision-making processes to the lower (sub-national and community) levels, in order to ensure increased accountability and enhanced ownership of WASH facilities by the users.

This process of shifting roles and responsibilities, especially from implementation to facilitation, policy and strategy development, has not been complemented with the necessary and corresponding

[1] DNA, 2003

strengthening of capacities, particularly at the sub-national level (district and provincial levels) and this is heavily impacting upon the sector's capacity to absorb allocated funds. For example, the level of sector implementation (not allocation) of public and external investments dropped from 35.9 per cent in 2003 to 28.2 per cent in 2004[2]. The slow disbursement of sector funds, especially in view of the major investments from WB, AfDB and EU, is the main reason for this situation. Nevertheless, the sector implementation through decentralised funds has improved from 41 per cent in 2003 to 63 per cent in 2004 and could further increase if the implementation capacities are adequately reinforced.

Within the context of accelerating progress towards the attainment of the MDG targets related to water and sanitation, to which the sector (Government and its supporting partners) is fully committed, the establishment of an enabling sector environment with stronger institutions at district, provincial and national levels - including maximising the private and public sector capacities – in order to allow for efficient and effective co-ordination, monitoring and delivery of quality services, is considered to be a main priority. The recent study on the impact of HIV/AIDS on the water and sanitation sector revealed the necessity to further develop human capacities and skills particularly at sub-national levels and establish programmes that strengthen staff knowledge and practices of HIV prevention and behaviour change.

Following a number of recent international fora that have brought water and sanitation issues to the forefront once again, the sector has been advocating for an increase in investment, particularly in relation to meeting rural water supply and sanitation targets. As a result of these efforts, a significant number of donors and funding agencies are showing interest in providing financial resources that could meet part of the short and medium term needs.

3. 2 Problem Analysis

Mozambique is one of the most climatically vulnerable countries in Southern Africa. Over the past five years, the population of the southern and central (that includes the project targeted provinces: Manica, Sofala and Tete) provinces of Mozambique has suffered the impact of various natural disasters, ranging from floods and cyclones to drought. With over 50 per cent of Mozambique's population living below the poverty line, such shocks have dramatic consequences on the lives of the affected population. This project will be implemented in the above context and in poor and vulnerable rural areas highly impacted by the HIV/AIDS pandemic. The project area is also cyclically affected by cholera outbreaks. According to the Ministry of Health's data, more than 50 per cent of the registered cholera cases in the country over the past three years have occurred in Manica, Sofala and Tete provinces. Access to safe drinking water and adequate sanitation is very limited and there are considerable disparities in access both between and within districts. The table below shows the key indicators of the project area, including WASH activities of partners.

[2] Water Sanitation Joint Review, April 2005

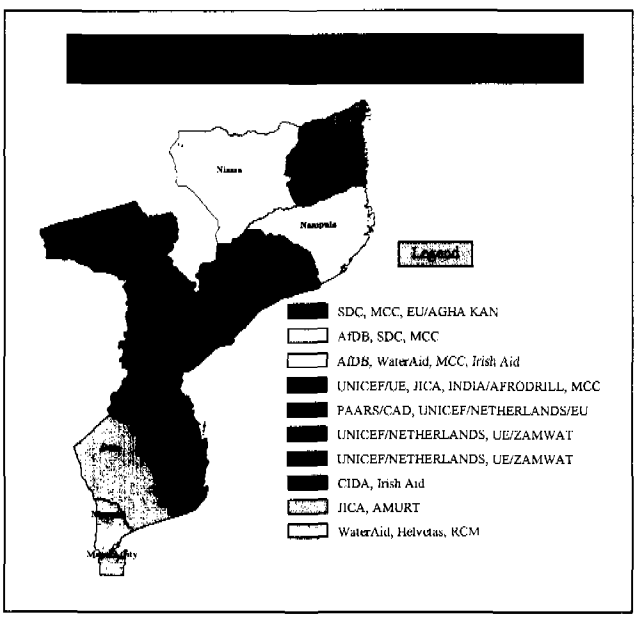
Table 1: Key indicators in the project area

Rural population (2005)	975.671	967.529	1.349.280
Urban population (2005)	344.561	670.292	162.552
Poverty rate	44%	36%	60%
U5 mortality rate (per 1,000 live births)	184	205	206
Key Donor support for WSHP	EU (2002-2007)	EU (2002-2007); Austrian Cooperation (2003-2006)	EU (2002-2007)
Rural water supply coverage	47.1%	68.1%	50.8%
Sanitation coverage (urban + rural)	46.6%	29.5%	53.2%
HIV/AIDS sero-prevalence	19.7%	26.6%	16.6%
Primary School Attendance Rate	67%	60%	52%
Stunting malnutrition among children	39%	42%	45.6%
Susceptibility to natural disasters and cholera	Drought *** Flood ** Cholera **	Drought ** Flood *** Cholera ***	Drought *** Flood ** Cholera **
Human Resources (DAS + Districts): University Degree Medium level technicians	0 11	2 15	0 12

Source: INE DHS 2003, DNA (RWSSI), DPOPHs, **Key:** *** higher; ** potential

Despite the tangible progress made over the past years in sector capacity development, particularly at provincial level, the sector is still facing challenges in terms of recruitment of qualified and skilled staff for WASH programme planning, co-ordination and supervision both at provincial and at district levels. The Ministry of State Administration has recently initiated the process of empowerment of the district Governments. This process includes the review and adjustment of the district Government structure in line with Government roles and responsibilities at the district level.

All these indicators and factors - prospective for WES investment/donor mapping (Figure 3), WES coverage trends in relation to rates of population growth, access to water and sanitation facilities, susceptibility to drought and cholera outbreaks, HIV/AIDS prevalence, levels of stunting and chronic malnutrition among children, poverty rate, WASH implementation capacities - were analysed and resulted in the selection of 18 districts (six in each province) in Manica, Sofala and Tete provinces. The implementation of WASH activities in these target provinces will be complemented by the development and strengthening of Government capacities in order to ensure long-term sustainability of WASH interventions.



Capacity building, particularly at sub-national level, is currently a Government priority as the district is increasingly recognised to have the primary role in planning sector-wide activities. The table below (No.2) indicates the selected districts and the targeted population.

Table 2: Targeted Project Districts

Manica	Gondola, Guro, Machaze, Manica, Mossurize, Sussundenga	6	917,917
Sofala	Chemba, Dondo, Gorongoza, Maringue, Muanza and Nhamatanda	6	619,121
Tete	Zumbo, Angónia, Chifunde, Changara, Tsangano, Maravia	6	806,797

Financial and Economic Analysis

The purpose of this analysis is to establish the expected net macro socio-economic benefits accruing from implementation of the project. The calculation methodology is mainly guided by a WHO study: *Evaluation of the Costs and Benefits of Water and Sanitation Improvement at the Global Level (Hutton and Haller, WHO, 2004).*

Results and conclusions of the economic feasibility analysis

The **Annex 10** shows the detailed calculations to determine the **costs avoided** in health care and also the value of time savings. The analysis shows that the costs saved per capita in:

(i) Avoiding direct expenditure to the health sector - inpatient and outpatient costs are US$ 0.8 per capita per year;
(ii) Avoiding direct expenses to the households in transport, accommodation (during inpatient period) and the income gained (assuming 53 per cent of the time saved in avoiding care giving is used for economic gain) – US$ 0.42 per capita per year;
(iii) Parents avoiding costs of losing productive days as they take care of children - US$ 0.13 per capita per year; and
(iv) Avoiding school absenteeism resulting from both inpatient and outpatient - US$ 0.14.

Total per capita direct and indirect health costs avoided are **US$ 1.50**

(v) Time savings for improved access to water is - US$ 1.74; and
(vi) Time savings for improved access to sanitation - US$ 1.39.

Total per capita value of time savings in accessing water and sanitation is US**$ 3.13 and** the total per capita value.

Sustainability: The results of the Financial Feasibility Analysis indicate a positive NPV of US$ 3,777,125 and a Financial Internal Rate of Return of 11 per cent which is higher than the discount rate of 10 per cent. Both the financial and economic feasibility analyses demonstrate that the project, which aims to improve access to water and sanitation facilities for 1,200,000 people, is sustainable within the established assumptions. The financial sensitivity analysis indicates that the project will be highly sensitive to tariff regimes. However, when the economic benefits are considered in addition to the financial considerations, the projects sensitivity to tariff regimes is reduced so that even with a 50 per cent reduction in initial tariff, the project ENPV and EIRR are still positive.

Fiscal Impact: The project is expected to have a positive fiscal impact on Government finances by increasing the amount of funds spent on development in water and sanitation facilities and reducing the level of future recurrent expenses on operating and maintenance.

3. 3 Country planning for achieving the MDG targets for rural water supply and sanitation

Access to water and sanitation is one of the key Government priorities under the Mozambican Absolute Poverty Reduction Action Plan for 2001-2005. The PARPA is supported by the National Water Policy, which places priority on meeting the basic needs of the disadvantaged, on decentralised management and on the participation of users. Services are to be provided by the private sector, in response to community demand, while the Government adopts a facilitating, co-ordination and regulatory role. Both PARPA and NWP have been reviewed, in light of progress achieved and new country challenges and targets (MDG targets, Agenda 2025). The review process took place with the active participation of sector stakeholders, represented through the Water and Sanitation Core Group (a donor co-ordination group for water and sanitation), which is co-ordinated by the Embassy of the Netherlands and Water and Sanitation Working Group, which is facilitated by the National Water Directorate (co-chaired by UNICEF) and involves Government officials and sector funding partners.

The PARPA-II, covering the period between 2007 and 2009, has been recently finalised, while the revised National Water Policy – including the revised Water Law and Water Resource Management Strategy - has been submitted to the Council of Ministers for approval. In addition, the sector has developed its financial needs for the period up to 2015, as well as detailed financial scenarios up to 2010, both in light of the MDG targets.

With the review processes of the NWP and PARPA, the sector has initiated the process towards MDG Roadmap development. The National Water Directorate with technical support from the Water Sector Strategic Development Centre (CEDESA), WSP/WB, UNICEF and active participation from GAS members, is preparing the National Strategic Plan for Water and Sanitation (NSPWS) in support of the MDGs targets. Preliminary findings of NSPWS regarding the rural water supply and sanitation components indicate the need for the sector to adopt strategies towards increasing and improvement of sustainable water supply and sanitation coverage and use. Additionally, sector focus should also be on the development of alternative and affordable (for the users) WASH technology options, effective decentralisation complemented by human resources development and integrated planning, particularly at implementation level (district level). The table below shows country targets for achieving the MDGs, to which the current project proposal will contribute:

Table 3: Mozambique's MDG and PARPA Targets for Rural Water and Sanitation

Description/ Coverage Targets	PARPA I (2005)			PARPA II (2009)			MDGs (2015)		
	Population (millions)		Coverage Rate	Population (millions)		Coverage rate	Population (millions)		Coverage rate
Rural Water	13.4	5.5		14.5	8.0		16.9	11.8	
SANITATION	Total	Served	%	Total	Served	%	Total	Served	%
Rural Sanitation	13.4	4.7	35.0%	14.5	5.8	40%	16.9	8.4	50%
Source: DNA, 2005									

Findings from the initial project stakeholder consultation indicated that the most important element within the process of accelerating attainment of the PARPA and MDGs (Table 3) is the development of a unified sector investment plan, to be developed by building on and extending the various agency investment plans, in order that all sources of funding for achieving the MDGs are integrated into a single plan. Such a plan would facilitate resource mobilisation, co-ordination and monitoring.

Donor Aid Environment

International development assistance in Mozambique is undergoing a transformation, emphasising greater national ownership, harmonisation and alignment of donor programmes and increased aid effectiveness in line with the Paris and Rome declarations. The new aid environment in Mozambique is characterised by a Partners Aid Partnership (PAP) framework comprised of 17 key donors (Table 4) which accounts for 80 per cent of all inflows to Mozambique estimated at around US$ one billion. The overall value of disbursed aid to Mozambique increased in real terms by 12.6 per cent between 2004 and 2005. Direct Budget Support (DBS) and Sector Aid (e.g. Programme SWAPs) account for more than 50 per cent of the PAPs aid, while project based aid modality still accounts for 36 per cent of aid provided by PAPs and overall it represents between 50 per cent and 60 per cent of aid to Mozambique.

The major objective of the PAP is to contribute to poverty reduction in all its dimensions as per the PARPA strategies. This is achieved through the financing of the public sector for poverty reduction, clearly and transparently linked to performance in a way that improves aid effectiveness and country ownership of the development process, allows efficiency in public spending, increases the effectiveness of the state and public administration, improves monitoring and evaluation and strengthens domestic accountability. Under this Partnership framework, two joint GoM-PAP review processes have been established (as monitoring processes), which are aligned with the GoM's planning, budgeting and monitoring cycle: (i) the annual review (a joint review of performance) and; (ii) the mid-year review (highlighting forward planning, budgeting and agreement on the Performance Assessment Framework).

UNICEF, a member of the UN Development Group (UNDG) fully supports and promotes the harmonisation and alignment initiatives at country level, while simultaneously participating in various SWAp fora (Health, HIV/AIDS, Education and Water and Sanitation). In Water and Sanitation, UNICEF is the co-chair of the SWAp forum, which is chaired by DNA and is also member of the core donor group that includes the Netherlands (chair), African Development Bank, WSP/WB, EU and

SDC. Both fora are instrumental in advising the Government on policy reforms, technology development, sector capacity development, information and management systems and budget planning and analysis.

In the general context of the PAP, several committees (technical, thematic and co-ordination) have been established, in order to support the monitoring of **sector performance indicators and targets,** as defined in the Performance Assessment Framework.

Table 4: Mozambique PAP Financial contribution in 2005[3]

Belgium	2,580,000	1,290,000	0	0	1,168,740	325,080	0	5,363,820
Canada	1,975,000	14,082,031	9,133,677	749,486	3,780,425	779,051	0	30,499,670
Denmark	10,200,000	39,440,000	1,530,000	1,700,000	4,590,000	0	0	57,460,000
EU	56,509,740	37,772,490	45,644,955	284,080	13,984,019	4,101,795	0	158,297,079
Finland	5,160,000	7,514,250	10,212,678	0	3,175,145	0	0	26,062,073
France	3,870,000	4,063,500	11,094,000	0	0	0	0	19,027,500
Germany	4,515,000	7,069,200	21,478,500	258,000	4,515,000	0	0	37,835,700
Ireland	7,740,000	25,800,000	2,580,000	0	0	10,707,000	0	46,827,000
Italy	4,287,973	2,580,000	14,330,396	0	2,286,108	0	0	23,484,477
Norway	15,150,000	21,000,000	22,500,000	0	900,000	0	0	59,550,000
Portugal	1,548,000	0	7,869,000	0	1806,000	0	0	11,223,000
Spain	3,870,000	2,580,000	13,696,882	0	4,993,182	0	3,870,000	29,010,064
Sweden	18,900,000	14,560,000	34,720,000	2,520,000	6,580,000	0	0	77,280,000
Switzerland	8,300,000	3,984,000	2,266,730	2,000,300	5,351,010	0	0	21,902,040
Netherlands	23,220,000	17,673,000	12,384,000	4,644,000	13,545,000	0	0	71,466,000
WB	60,000,000	45,170,000	142,540,000	5,800,000	0	0	0	253,510,000
UK	57,000,000	9,690,000	17,670,000	858,800	760,000	475,000	0	86,453,800

3. 4 Government policy for rural water supply and sanitation

The Government approved the National Water Policy in 1995, which established sector principles and policies towards achieving the country goals up until the year 2000. Decentralisation, sustainability, effective user participation, shifting of Government roles and responsibilities from implementer to facilitator and increased involvement of the private sector, NGOs and CBOs are the key principles outlined in the NWP. A set of guidelines/instruments for rural water supply have been developed in support of the operationalisation of the NWP:

(a) The Rural Water Transition Plan (RWTP), developed in 1997, which emphasises the adoption of the demand responsive approach (DRA); increased participation of the private sector; and increased responsibility and accountability of provincial and district authorities.

(b) The Rural Water Supply Implementation Manual (MIPAR), issued in 2002, which provides the framework for stimulating community demand and ownership and responding to that demand. The manual defines clearly the roles and responsibilities of all stakeholders involved, with an emphasis

[3] Review of PAPs' Performance in 2005; Ernst & Young Mozambique, March 2006

on the roles and responsibilities of the users for operation, maintenance and overall management of their water supply facilities. Specific technical and social guidelines have been developed to complement the manual, in addition to a communication strategy and related promotional materials.

(c) The Technical, Social and Institutional Manuals for Rural Sanitation and Implementation Strategy, all drafted in 2005 which provide to WASH stakeholders the tools for planning, implementation monitoring and evaluation of the rural sanitation activities. Also clarify the roles and responsibilities and the institutional relationships among all involved while recommending institutional strengthening and reforms that should be taken for effective integration of water, sanitation and hygiene. A national sanitation workshop is scheduled for June 2006 for discussion and finalisation of the manuals.

Building on the lessons learned, progress made and experiences from the sector, and also to mainstream effectively the MDGs into the overall planning process, the NWP – including National Water Law and National Strategy for Water Resource Management - has been reviewed and submitted to the Council of Ministers for approval. The key strategies for rural water supply and sanitation include:

- strengthening users active participation in all processes of the project cycle;
- wide implementation of the DRA towards the sustainability of water and sanitation facilities and to strengthen community/user ownership;
- integrated planning and implementation approach to water, sanitation and hygiene, to increase the impact on the health of users;
- continuing and strengthening the decentralisation process (moving the decision-making level closer to users) through the shifting of roles and responsibilities and, more importantly, development of the necessary capacity with adequate resources and expertise, in turn benefiting from adequate central support;
- establishment of sustainable mechanisms, such as spare parts supply chains, to support users to fulfil their roles and responsibilities in relation to the operation and maintenance of water supply facilities;
- strengthening private sector, NGO and CBO/FBO capacities and participation;
- promotion of local initiatives - pilot and demonstration centres - for the construction of household rural sanitation facilities, encouraging the use of local materials;
- strengthening hygiene education activities, through improving inter-sector co-ordination around the issue (particularly the health, education and environment sectors); the training of local activists; and efforts to ensure that every household with a safe water supply also has a pit latrine (the minimum level of sanitation service in rural areas is the improved pit latrine);
- prioritisation of the provision of safe water supply, sanitation facilities and hygiene promotion activities in schools and more vulnerable communities; and
- effective monitoring system on WASH improvements.

These strategies are articulated to support the achievement of the sector's objectives and targets. Within this context, the Government is committed to focusing its efforts primarily on capacity development and strengthening at provincial and district levels, as a pre-condition for successfully

attaining the sector's objectives and targets. The decentralised process being followed in the implementation of water and sanitation activities demands qualified professional staff, particularly at sub-national levels for improved planning, co-ordination, and supervision of WASH activities.

3. 5 Government programme(s) and expenditure trends for rural water supply and sanitation

The sector investments have, in general, increased over the years with significant increases particularly related to funds allocated for emergency response (floods and drought). For example, the total water sector expenditure had significantly increased (almost doubling) from US$ 15.1 million in 1999 to US$ 28.1 million in 2000 and slightly decreased to US$ 24.3 million in 2001. The increase in 2000 and 2001 was due to significant fundraising and expenditure in response to the severe floods in those two years. Nevertheless, the expenditure efficiency, as represented by the percentage of the annual Investment Budget actually spent in each year, had been relatively low: the DNA spending as a percentage of the DNA Investment Budget (GoM-funded portion only) averaged at only 63 per cent in 1999-2001; the comparable figure for donor spending was 70 per cent. This situation was attributed to slow release of GoM Investment Budget funds by the Ministry of Finance as well as other bureaucratic process that involve donor funding[4].

The sector analyses also indicate that over 80 per cent of the overall budget for the rural water supply interventions come from external support. The Government's commitment, however, is to adopt sector funding strategies that ensure balance between the investment of the Government and donors. These strategies has showed its results: the Government Investment Budget directly involved in the construction of water points has increased (in relation to the total Investment Budget) from 5.61 per cent in 2002 to 11.26 per cent in 2003 and 30.7 per cent in 2004 while the donor funds, for the same period, decreased from 94.39 per cent to 69.29 per cent[5].

Table 5: Sector Expenditure for construction of water points (2002-2004)

Total of water points constructed	1102	1204	878	4355
Government Funds	463,303	1,016,680	2,021,982	3,501,965
External Funds	7,801,697	8,013,320	4,563,018	20,378,035

Source: Draft, Water & Sanitation Strategic Plan, 2006

One of the lessons learnt and recommendations from Government – Partners Joint Review 2005, is that the donor harmonisation needs to advance in the water sector, particularly at the operational level and options for joint funding mechanisms should be identified. The management of most WASH projects/programmes remains project-based, despite concerted efforts made to improve co-ordination and information sharing. As a result, information regarding the financial implementation of these programmes and projects, in addition to information on off-budget and spent amounts are not available either at DNA or DPOPH levels (Government institutions responsible for overall co-

[4] Mozambique Public Expenditure Review, 2002

[5] Draft, Water and Sanitation Strategic Plan, 2006

ordination of water and sanitation activities at national and provincial levels respectively). This situation impacts negatively on sector performance assessment (recording with accuracy sector achievements and financial information) as well as sector analysis of the available and required implementation capacity.

Box 1: Key WASH project/programmes ongoing for RWS

- the Sectoral Support to Water Sector project (ASAS), a sector national-wide project funded by the Government of the Netherlands and with significant allocations for rural water supply and capacity building components;
- the Environmental Hygiene and Productive Use of Water project (HAUPA) in Niassa and Cabo Delgado, funded by Swiss Development Cooperation/CARE;
- the Rural Water and Sanitation (ASNANE) project in Nampula and Niassa, funded by the African Development Bank;
- the Rural Water and Sanitation project in Zambézia, funded by SDC/WaterAid
- the Integrated Rural Water Supply and Sanitation project in Zambézia, funded by DFID through UNICEF;
- the Rural Water Supply and Development of Underground Water project in Zambézia, funded by the Japanese International Cooperation Agency;
- the Zambeze Valley Rural Water Supply and Water Resources Management (ZAMWAT) project in Tete, Manica and Sofala, funded by the European Union;
- the Rural Water Supply and Sanitation Programme (PAASR3) in Sofala, funded by the Austrian Cooperation;
- the National Water Development Programme (PNDA I) in Inhambane, funded by the World Bank;
- the Rural Water Supply Development Programme (PDAR) in Inhambane, funded by Canadian International Development Agency; and
- the Rural Water Supply project in Cabo Delgado and Maputo, funded by Helvetas

3. 6 UNICEF-assisted WES: results achieved in 2001-2005

Under the Country Programmes (CP) of Co-operation 1999-2001 and 2002-2006 and within the United Nations Development Assistance (UNDAF) Framework, UNICEF, through its Water, Sanitation and Hygiene Promotion Programme (WSHP), has been supporting the Government of Mozambique's efforts to attain its water and sanitation related goals, as articulated in the National Water Policy (NWP), Mozambique's Absolute Poverty Reduction Action Plan (PARPA) and the Millennium Development Goals. In both CPs, the overall WSHP programme objectives are to: *(i) contribute to the reduction in morbidity and mortality for the under fives, due to diarrhoeal diseases;* and to *(ii) reduce time and energy expenditures of girls and women.* In line with these objectives, UNICEF has focused its support on three interrelated components:

(a) Policy and Integrated WSHP – a national level intervention aimed at creating an enabling environment for the Government to lead, co-ordinate and facilitate the implementation of national integrated WSHP policies and strategies, including emergency preparedness and response.

(b) Access to rural WSHP – focusing in the provinces of Zambézia and Nampula (the most populated provinces and those with the worst health indicators and WES coverage) and emergency affected provinces. This component includes capacity development and improvement of access to and use of water and sanitation services (in communities and schools), linked with hygiene promotion activities for an increased impact.

(c) Access to Urban and Peri-Urban WSHP – the focus of this component is the peri-urban areas of Maputo, Beira, Quelimane, Mocuba and Nampula municipalities. Actions include capacity building for integrated planning and management, including plans for cholera outbreak response; the creation of demand for sanitation; the adoption of hygiene practices and school sanitation interventions.

All three WSHP components collectively contribute to the three Country Priorities, defined in the Country Programme 2002-2006: Integrated Early Childhood Development (IECD), Girl's Education and HIV/AIDS. As a result, and based on the CP Mid-Term Review undertaken in October 2004 and findings from 2005 Annual Review, the following key results have been achieved under UNICEF's assistance:

- establishment and operationalisation of the water and sanitation co-ordination working group (GAS), a technical and consultative forum to support DNA on water and sanitation issues. The group involves the active participation of key sector partners (Government–DNA, The Ministry of Health, UNICEF, WSP/WB, SDC, JICA, The Netherlands, Austrian Co-operation, EU, CARE, WaterAid, Helvetas and UN-Habitat) and monthly meetings are held under the co-ordination of UNICEF (WSHP programme);
- national policies and strategic planning strengthened at national and sub-national levels, through: (*i*) the review of the National Water Policy (NWP), which has a more holistic approach, with the incorporation of sanitation, HIV/AIDS, hygiene and sustainability issues; (*ii*) the development of a strategic plan for water and sanitation, focusing on fiscal scenarios for the attainment of the MDGs; (*iii*) the drafting of procurement guidelines and contract standards for outsourcing rural water supply services;
- development and dissemination of the national guidelines/standards for drinking water – a key instrument for monitoring water quality;
- contribution to increased water coverage (41 per cent) through the construction of 438 new water points and the rehabilitation of three town schemes, benefiting some 540,150 people;
- contribution to increased sanitation coverage from 41.1 per cent to 44.8 per cent (2001 to 2003), through the self-help construction of 15,342 household latrines and the rehabilitation of a town sewerage system, benefiting some 442,300 people;
- contribution to the improvement of GER and NER in EP1 among girls (102 per cent and 66 per cent respectively), through the provision of water facilities and separate girl/boy latrines in 238 schools, which is benefiting 76,000 children (49 per cent girls);
- multi-sector response to the humanitarian situation, through (i) support to the construction of 197 water points in the most vulnerable districts, which benefited 117,135 people; (ii) the rehabilitation of 3 urban water schemes; (iii) support for the self help construction of 5,450 household latrines, (iv) provision of water treatment and distribution supplies and materials; (v) support for the response to cholera outbreak, including the trucking of water to 50,000 people, in rural and peri-urban areas of Sofala, Zambezia and Gaza provinces. These interventions were combined with hygiene promotion activities, which contributed to the reduction of diarrhoeal diseases including cholera and a reduction in the impact of opportunistic diseases for people living with HIV/AIDS. Improved understanding of the sector's contribution to mitigate the impact of HIV/AIDS and other water and sanitation related diseases reinforced the inter-sectoral collaboration among sector stakeholders;

- the WSHP Programme has been strongly advocating for the strategic use of child-to-child sanitation clubs, as an entry point to communities for hygiene education and the adoption of life-skills related to hygiene practices. 270 child-to-child sanitation clubs have been established and are operational in the same number of primary schools, reaching over 215,000 school children; approximately 4,050 school children are involved in child-to-child sanitation clubs and activities carried out by these clubs include hygiene education, cholera prevention and HIV/AIDS; and
- integrated approach to water, sanitation and hygiene widely adopted and included in the National Water Policy, which also contributed to the improvement of inter-sectoral co-ordination and collaboration.

Building on the experiences and lessons learned from the above and other UNICEF–WES assisted programme/projects (such as projects in Nampula and Zambézia funded by the Government of the Netherlands between 1993-1997), the proposed project will aim at strengthening and applying the above approaches, paying special attention to developing the capacity of stakeholders (institutions and community) for project leadership and ownership of WSHP facilities.

One of the lessons learnt from the WSHP supported projects in Nampula and Zambézia was the need to strengthen capacities, not only for service provision but also for planning, co-ordination and community ownership. In addition, this project will facilitate discussions among WSHP stakeholders through the existing fora, on the refinement of the national standardised target of users per water point (500 users/water point), taking into consideration field experiences (from UNICEF supported projects and from other projects) and the dispersed population that characterises most of the rural areas in the country.

3. 7 UNICEF country strategy for water supply and sanitation (2007-2009)

The UNICEF Mozambique Water, Sanitation and Hygiene (WASH) programme for the period 2007-2009 supports the overall UNICEF worldwide objective: *to contribute to the realisation of child rights to survival and development and to achieving universal water, sanitation and hygiene coverage through support to programmes that promote improved hygiene and increase equitable access to, and use of, safe water and sanitation services.*

The Water, Sanitation and Hygiene programme that will be implemented within an interagency partnership framework (SWAp mechanism), will address low coverage levels, poor service delivery and weak sustainability of water and sanitation facilities and will support national efforts to reduce the incidence of diseases such as diarrhoea and cholera.

The programme will contribute to the progressive attainment of the PARPA and MDG targets through building national and local capacities for the provision of sustainable and adequate water and sanitation facilities at community and school levels in disadvantaged rural and poor peri-urban areas of four provinces (Tete, Manica, Soafala and Zambezia). The programme is comprised of the following components:

- *Policy, Planning and Advocacy*, will support the adoption of a pro-poor sector policy that focuses on equity, and the development of effective decentralised planning, monitoring and evaluation mechanisms;

- *Rural and Peri-urban WASH* will support the construction of low-cost water and sanitation facilities in rural and poor peri-urban areas. Emergency interventions will be also supported to reinforce national systems and strengthen sector capacity; and
- *WASH in Schools* will support water, sanitation and education provincial authorities in the construction and rehabilitation of child-friendly sanitation and hygiene facilities in primary schools in the districts targeted by the child-friendly schools initiative.

The following programme outcomes are expected: *(i)* national level policies, strategies, budgets and plans prioritise vulnerable groups to reduce disparities in access to safe water, sanitation and hygiene; *(ii)* at least one million new users, prioritising vulnerable groups, have access to and use safe water and appropriate sanitation and improved hygiene practices in targeted districts, including during emergencies; and *(iii)* 80% of primary schools in targeted districts have water and sanitation services and hygiene education programmes.

In line with WASH programme objective and relevant country policies, strategies and priorities, as well as complementing the activities developed by other sector partners, UNICEF Mozambique assistance in WASH applies five main strategies:

i. **Strengthening Government institutional capacities at decentralised levels** (focusing on districts and municipalities) to meet the demands of people for high quality, sustainable WASH. Civil society organisations (NGOs and CBOs) and the private sector are also instrumental in the implementation of the programme.

ii. **Improving access to and use of safe, reliable and sustainable water supply and sanitation services** by communities and school children and promoting adequate hygiene practices to improve health status. Implementation is being carried out through the active involvement of women and children, particularly in decision-making processes, in recognition of the crucial role women play regarding water collection and maintaining a hygienic home environment, and the catalytic role that children can play in achieving behaviour change.

iii. **Strengthening national capacities for Monitoring and Evaluation of WASH targets and impacts** ensuring that WASH programme designs and implementation are based on the best available information and knowledge and that advocacy is based on rigorously analysed evidences.

iv. **Harnessing and strengthening partnerships with donors, NGOs, private sector, academic and research institutes** to develop innovative approaches and leverage resources and improving, in turn, efficiency and cost effectiveness of programmes. Promoting and supporting the delivery of WASH services in synergy with other sectors particularly the health, education and programme communication (communication and social mobilisation). Facilitating inter-sectoral linkages and integrated programme delivery.

v. **Strengthening the capacities of the sector at national and sub-national levels for emergency** preparedness, planning, coordination and response in conformity with Government policies and UNICEF Core Commitments for Children in Emergencies (CCC).

4. PROJECT APPROACH

The project will be implemented within the context of the sector strategies aiming at accelerating progress towards the MDG7, target 10 (half the number of people without access to safe drinking water and adequate sanitation facilities) and its inter-linkage with the other MDGs (poverty reduction, infant mortality reduction, basic education, gender equality, HIV/AIDS and partnerships) ensuring improved young child survival and development. Therefore, the project will focus on meeting the needs of disadvantaged rural population and schoolchildren in view of access to and use of safe water supply and sanitation services. The project outcomes will contribute to reduced under-five mortality rate and increased primary school attendance rate particularly among girls.

Specifically, the project that will be implemented in 18 districts of Manica, Sofala and Tete provinces will:

- increase access to and use of safe water supply for 1 million people (schools and poor rural communities currently un-served) and 200,000 people have access to rehabilitated water points;
- promote and support the construction of household latrines for 1 million people (about 200,000 households);
- enhance knowledge and skills of 1.2 million people (particularly caregivers) regarding appropriate hygiene practices especially hand washing with soap or ash, after toilet use and before eating/feeding;
- ensure that 140,000 schoolchildren in 400 primary schools practice good hygiene;
- strengthen Government capacities at district (18 districts) and provincial (3 provincial water and sanitation departments) levels for WASH planning, co-ordination, management and supervision; and
- ensure that 4,500 persons have appropriate skills and knowledge on WASH issues (planning and procurement, contract management, hygiene promotion, HIV/AIDS prevention, self-help construction of HH latrines, operation, maintenance and management and gender mainstreaming).

The sustainability of project outputs will form the core of the project approaches and strategies. Therefore, the project will ensure the active participation of the primary stakeholders in project planning and implementation to achieve sustained use of new water and sanitation services. Based on country experience, the role of women and girls in the management of water supplies will be strengthened and expanded through training and their increased participation in decision-making processes.

The project will ensure that school-based interventions are gender sensitive and address the water and sanitation needs of girls in schools. Separate and gender sensitive sanitation facilities for girls will be developed. Training of teachers and school committees (child-to-child committees) and definition of roles and responsibilities of school committee members will take into consideration the needs of girls.

Effective partnerships with the Government at all levels and with NGOs, international agencies, private sector and research institute will be prioritised for project implementation particularly in regard to development and promotion of supply chains, private sector participation, development of business models for rural Water and Sanitation provisions, research of alternative and affordable technology options for WASH, and leveraging of resources. The established coordination fora (GAS, Institutional Capacity Development and Donor Core Groups) will be used to reinforce and expand potential partnerships. These fora were instrumental for the establishment of ongoing partnerships on rope pump introduction as an affordable technology for shallow wells, preparation of MDG Road Map and GIS/mapping. The partnerships will be established taking into account the capacities, roles and responsibilities of each WASH stakeholder and where Government capacities are limited. They will be materialized through MoU and/or joint projects/programmes aligned and harmonised with Government plans.

The project, as part of the Government of Mozambique and UNICEF Programme of Co-operation for 2007-2009 will follow the planning and review processes of the aforementioned programme of co-operation.

4.1 Component 1: Rural Sanitation

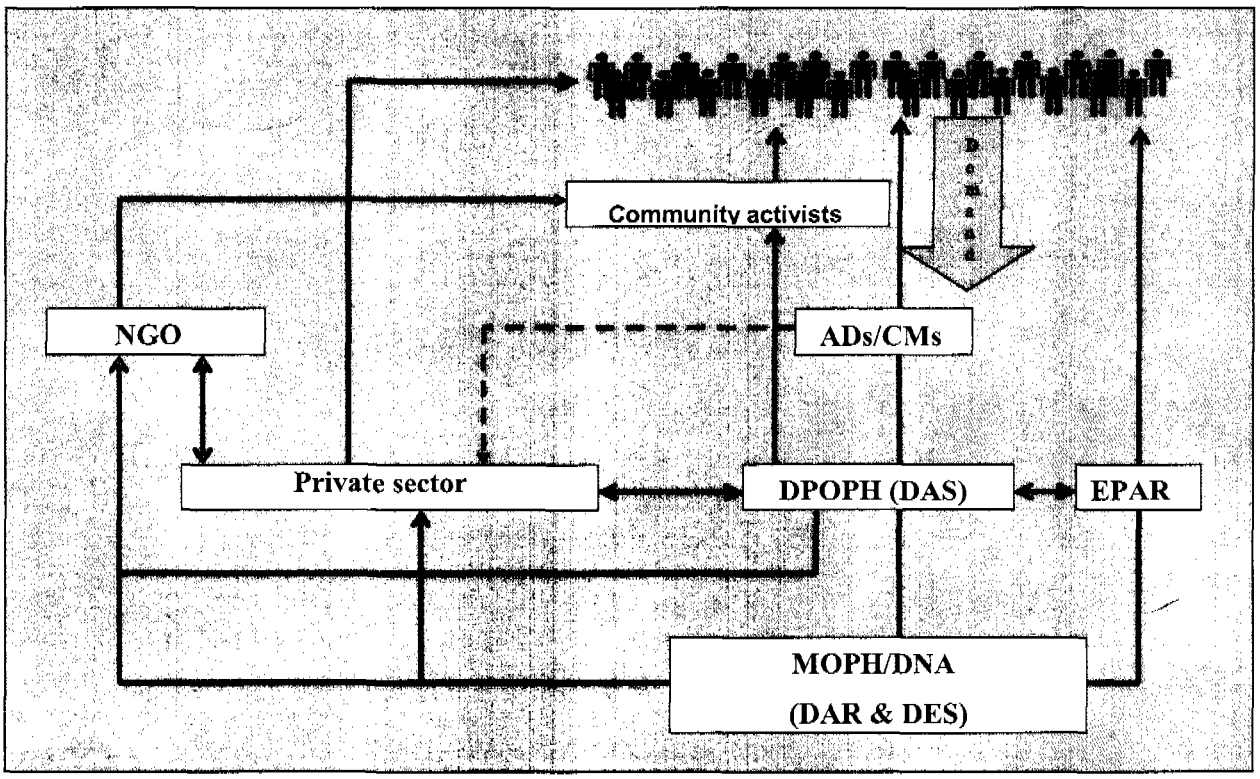
4.1.1 Stimulating demand

Building on the sector's country, regional and world-wide experiences in regard to optimising the health impact of improved water and sanitation services and in recognition of the fact that improved water supply and sanitation facilities alone do not automatically lead to their appropriate use and adoption of good hygiene practices, Mozambique has adopted an integrated planning and implementation approach to water, sanitation and hygiene, which is one of the key strategies of the NWP. Additionally, and as per the NWP, the country has also adopted the Demand Responsive Approach to ensure that WASH services are provided according to willingness and capacity of users which, in turn, will enhance the sustainability of the interventions.

Lessons learnt from the sector have shown that participatory techniques are excellent tools to facilitate demand creation; to encourage the active participation of, and analysis by all users and to help them to use and enhance their practical understanding of health and hygiene issues. The results of a profile study on sanitation "What People Know, Do and Want to Do", conducted with UNICEF support in four districts of Nampula and Zambézia provinces using participatory techniques, showed that families/communities were pro-active in taking action for improving their sanitation conditions, even in the absence of a formal project.

The current project will apply and strengthen these participatory approaches to stimulate family and community demand in relation to adequate sanitation. The figure below (No. 4) shows the institutional arrangement that the project will follow for demand creation and response.

Figure 4: Institutional Arrangements for Demand Creation and Response



The project will engage, through a transparent and competitive process, professional NGOs and CBOs (and their capacities will be enhanced) to effectively facilitate discussion at the community level and to promote HH sanitation and adoption of appropriate hygiene practices. Priority will be given to NGOs and CBOs that are based and already working in the project area, in order to ensure continuity of actions. Each NGO or CBO will be assigned, to one or more districts to undertake throughout the year demand creation and community capacity development activities for HH sanitation, safe water supply and adoption of good hygiene practices. The NGO/CBO will be responsible for identifying, in co-ordination with the local authorities, and training community activists on community participation and education, hygiene promotion and adequate sanitation. The training will also be extended to local authorities in recognition of their central role in community mobilisation and to ensure continuous message dissemination. In addition, the NGO/CBO will closely supervise and assist the activities carried out by community activists and provide all necessary means (bicycles) for smooth implementation of the activities; the contracted NGO/CBO will also prepare and submit project progress reports to DPOPH.

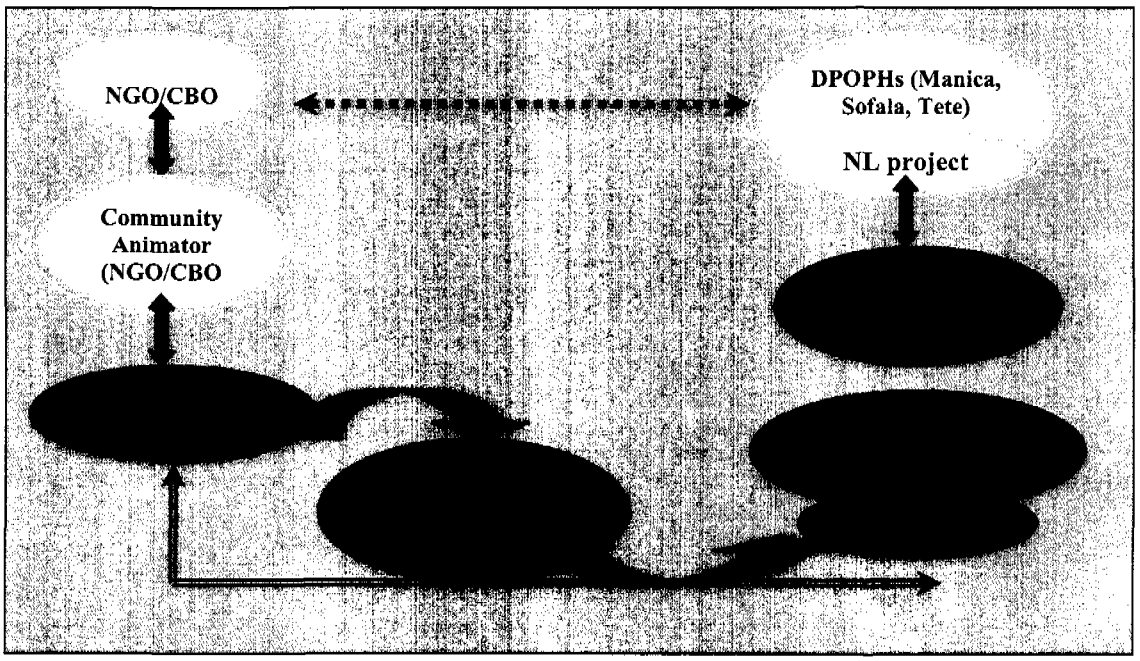
Specifically the NGO/CBO will be responsible for:

- organising the communities to actively participate in the project planning and implementation process;
- assisting communities and local authorities in the establishment of gender-balanced Water and Sanitation Committees and training of these committees (on gender issues, management, operation and maintenance of WASH facilities); and

- establishing and reinforcing communication mechanisms for information sharing among communities and between communities and district/provincial authorities.

The Figure 5 below shows the information flow between the right holders (communities) and service providers (Government, private sector, NGO/CBO) for demand creation and response.

Figure 5: Articulation among stakeholders



The project will also establish demonstration centres near users, in which adequate sanitation technologies are displayed and promoted as per national sanitation strategies. These activities will be complemented with the dissemination of technology options for improved household sanitation. The National Water Directorate has drafted a manual on different technology options for improved rural and peri-urban sanitation, which takes into consideration factors such as environmental conditions, materials available at community level and cultural concerns. In addition, social and strategic manuals that complement the technical manual have also been drafted. Based on these manuals, the project will develop community-friendly materials to facilitate activities carried out by community activists and the local authority at community levels. Meanwhile, the project will also apply experiences from other countries in stimulating community/household demand for sanitation. Such experiences include intensive community mobilisation and education, without the provision of subsidies; delivery at the door step; affordable to low-income families, targeting an entire population of an area; and integration with other programmes (literacy, income generation, agriculture, fisheries).

4.1.2 Strengthening supply

Experience has shown that people take up a new practice when they believe that the practice has net benefits for them and consider these benefits important. In addition, a person's decision to try the new practice (positive or negative) will be influenced by the environment in which they live. **Enabling factors** (skills, means, time) determine whether or not the practice is taken-up, found to be beneficial

and is continued. Bearing in mind these aspects and building on the country's experiences, as well as sector's strategies for rural sanitation, the project will strengthen processes that ensure proper and timely response to family/community demands. Therefore, the project will support:

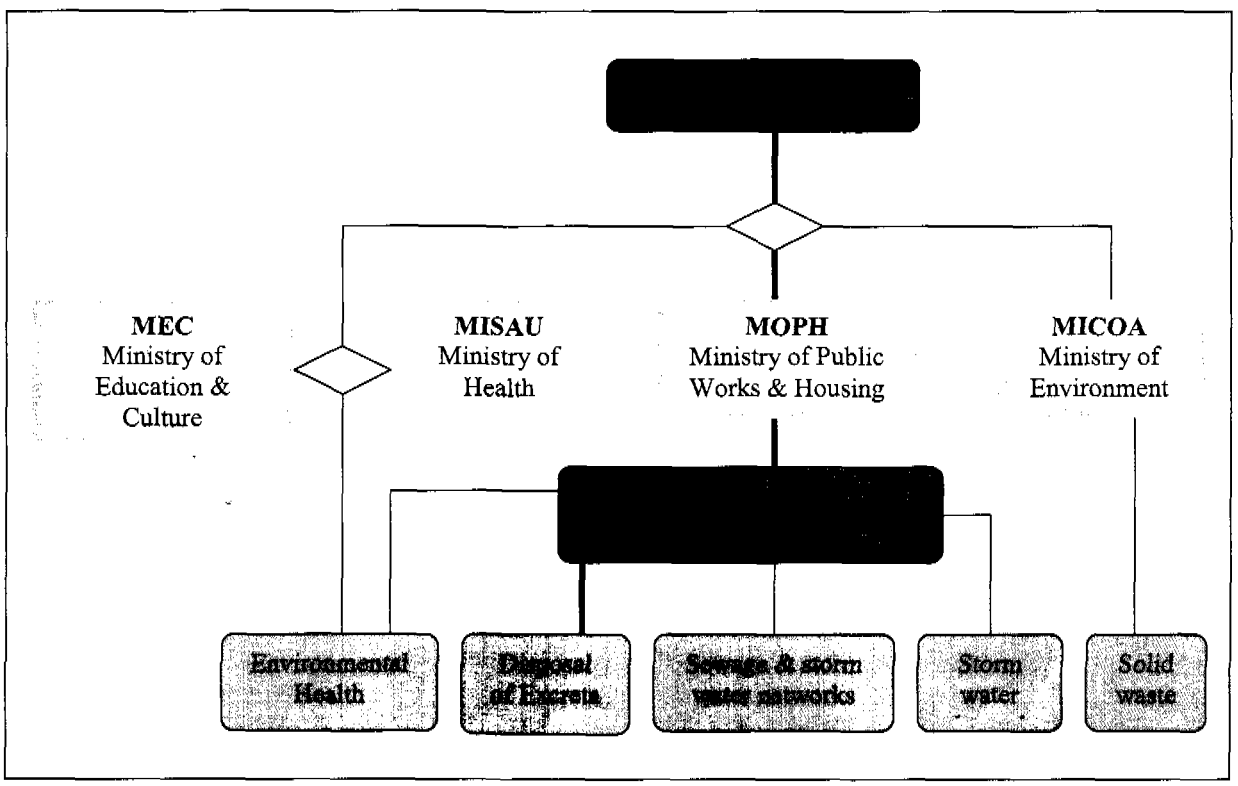
- the establishment of pilot/demonstration centres for technology options to promote improved household rural sanitation facilities using local materials;
- community empowerment for self-construction of improved latrines;
- the training of local community artisans on household latrine construction; and
- the training of community activists on community hygiene promotion.

These activities will be implemented by the private sector, NGOs, and CBOs/FBOs contracted by the project and through a competitive bidding process. Hygiene education to increase knowledge on the adverse impact of poor water and sanitation on health will constitute an integral component throughout the project cycle.

4.1.3 Institutional sanitation (except SSHE)

The provision of improved sanitation facilities in schools and health centres is a priority under the UNICEF-supported WSHP programme, in recognition of the impact of these facilities on the health of the population. As indicated in Section 4.1.1, the National Water Directorate has drafted the Institutional Strategy for Rural Sanitation that takes into consideration the roles and responsibilities of the different stakeholders involved in sanitation. The Manual also has been drafted in line with the integrated planning and implementation approach (water, sanitation and hygiene) that the sector has adopted. Figure 6 shows key line Ministries involved in environmental sanitation activities.

Figure 6 - Key Ministries Involved in Environmental Sanitation



The primary stakeholders in the development of rural sanitation are: (*i*) rural families/communities; (*ii*) Community Leaders/Local Authorities; (*iii*) District Government; (*iv*) Non-Governmental Organisation and Community Based Organisations; (*v*) Local artisans/private sector; (*vi*) Provincial Government; and (*vii*) Central Government.

The National Water Directorate under the auspices of Ministry of Public Works and Housing is responsible, at central level, for overall oversight, policy and strategy development of the rural, peri-urban and urban sanitation (except solid waste) and fundraising in close co-ordination with other relevant ministries (Health, Environmental and Education) and institutions (municipalities, funding agencies). At provincial level, DPOPH through its Water and Sanitation Department is responsible for co-ordination, planning, supervision and monitoring of rural and school sanitation components (in close co-ordination with DPE, DPS, sector partners at provincial level) while the urban and peri-urban components are under the responsibilities of the Municipalities.

The planning and implementation of rural sanitation falls under the responsibility of the district Government. Specifically, the district Government is responsible for, in close co-ordination with local authorities and communities:

- creating awareness about the need to participate in sanitation activities, defining priorities and closely following the development of the activities carried out by the implementing organisations;
- preparing annual plans for Rural Sanitation interventions in the district in close co-ordination with DPOPH and Community Authorities and according to the expression of interest and priorities of the communities and seek funding for the execution of the plans;
- disseminating Water and Sanitation Policies and Government Initiatives in order to promote rural health, hygiene and sanitation;
- managing the funds for Rural Sanitation activities in the district;
- collecting, organising and disseminating information on sanitation at district level;
- co-ordinating, supervising and systemically and objectively monitoring sanitation and hygiene programs in the district to comprehensively assess the relevance, efficiency and effectiveness of the health, hygiene and sanitation interventions on the intended beneficiaries at the district level;
- maintaining and harnessing regular contact with the communities, and promoting educational and hygiene activities;
- promoting and facilitating the establishment of the demonstration centres of technology options for rural sanitation and monitor its implementation; and
- identifying and developing partnerships with implementing agencies, NGOs, private entities, and local builders.

At community level, the family is the owner of the sanitation infrastructure in their household and is the crucial partner in planning and implementing rural sanitation activities. Specifically the community/family is responsible for:

- expressing their interest in improving sanitation facilities to Community Leaders/Local Authorities and through them to district Government;
- actively participating in project planning, implementation and decision-making processes;
- selecting the level of sanitation services required;
- acquiring the sanitation infrastructure, either by self-construction or by hiring skilled workforce;
- managing and maintaining the created sanitation infrastructure;
- improving hygienic conditions in the household and village; and
- actively participating in monitoring and evaluating rural sanitation interventions.

The project will be implemented under the institutional arrangements detailed above. The provincial water and sanitation departments will be responsible for the overall planning, co-ordination, supervision and implementation of the rural sanitation activities and will be crucial in assisting district Governments in preparation of annual sanitation plans and its implementation. The district Government and the Community Authorities will be responsible for implementation of the rural sanitation activities.

4.1.4 Subsidies

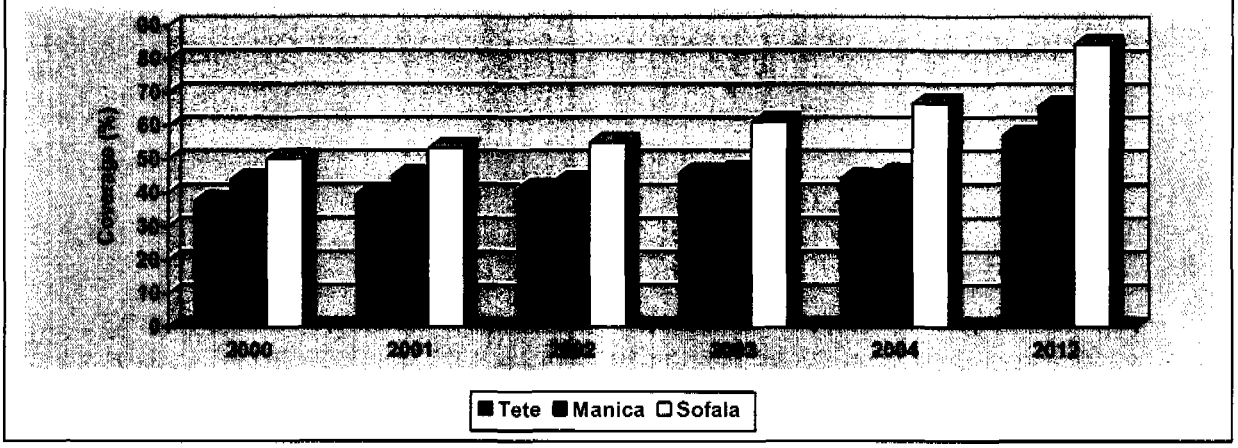
The project will be implemented in support of the Government's strategy on rural and peri-urban sanitation, which places emphasis on demand creation and the establishment of capacities closer to service users. The existing Government strategy reveals a very strong commitment towards improved sanitation in terms of advocacy, communication for social change and social marketing. The strategy also highlights the need to support the poorest and most vulnerable households, in recognition that the positive impacts on health cannot be achieved unless the entire community adopts adequate sanitation practices.
The project will, therefore, focus its efforts on the provision of resources and support for actions that create user demand and ensure timely demand response. Actions indicated under Sections 4.1.1 and 4.1.2 will form the core of the project (no subsidies). Nevertheless, and given the vulnerable situation of the country especially in the context of the HIV/AIDS pandemic and repeated cholera outbreaks, the project will provide support on a small scale (such as the transportation of local materials or provision for latrine components) to poor families such as child-headed households (orphaned and vulnerable children) and elderly-headed households (caring for orphaned and vulnerable children).

4.2 Component 2: Rural Water Supply

The rural water supply component of the project includes the development of water supply facilities for one million new users currently un-served and the rehabilitation of existing non-operational water supply facilities that will benefit about 200,000 people in order to achieve a coverage of at least 70 per cent in each targeted district by 2012. This significant increase of coverage at the district level will have a major impact on the overall coverage levels of the targeted provinces (Figure 7). The establishment or revitalising and training of the Water Committees (on management, operation and

maintenance of water facilities) and hygiene promotion/education activities will complement the physical/hardware activities.

Fig 7: Rural Water Coverage and Targets per Province
(Source: DNA/CEDESA, 2006)



4.2.1 Ensuring community/household ownership

The adoption, by the WASH sector in Mozambique, of the demand responsive approach, has proven to create improved conditions for the sustainability of water supply facilities and a strengthened sense of ownership among users. Through this approach, users are actively involved and participate in all phases of the project cycle (including planning, implementation and monitoring). As a result of participatory approaches users:

- are adequately (and in a timely manner) informed about the project and its implications for community well-being, and how to access the services;
- make well-informed decisions with regards to the type and level of services required, including the site selection of water points (in accordance with available technical information);
- contribute to capital cost sharing (in kind, labour or cash), the percentage of which correlates to the type of the selected service;
- meet the operation and maintenance cost of their water facilities, including the overall management of the services; and
- select and empower community members who will facilitate the management (water committee) and maintenance (maintenance committee) processes of the water facility.

The demand responsive approach requires the establishment of an enabling environment that encourages community members to express openly their needs and preferences and, more importantly, empowers them to spearhead the process. In this regard and as indicated in Section 4.1.1, the project will engage, through a transparent and competitive process, professional NGOs and CBOs to facilitate community demand creation for improved water supply and sanitation facilities (integrated approach), support users in the selection of services, establishment of community mechanisms for cost sharing and maintenance and operation of the water facilities and establishment and training of gender-

balanced Water Committees. These activities will take place before any physical intervention is initiated and will serve as an indicator of community readiness for water supply construction or rehabilitation.

Sector experience has shown that the success of users/community committees fulfilling their obligations in relation to correct and timely maintenance of water points depends largely on the availability of spare parts close to their locality. In this regard, the project will facilitate and support the establishment of sustainable and reliable spare parts networks to ensure adequate maintenance and sustainability of the WASH facilities. Additionally, local community mechanics will be identified and trained to provide backup support in the repair of water supply facilities.

The sector has positive experiences in involving the private sector in the establishment and operation of a spare parts supply chain. In Inhambane province, for example, under the rural water supply project implemented by CARE International, the project facilitated the local shops/vendors to commercialise Afridev pumps and spares parts, with positive results. This requires, however, close collaboration and information sharing between the Government and the private sector, particularly with regards to the sector planned investments that could stimulate the private sector to establish, in a timely manner, the supply chain network in certain geographical locations.

4.2.2 Multiple uses of water

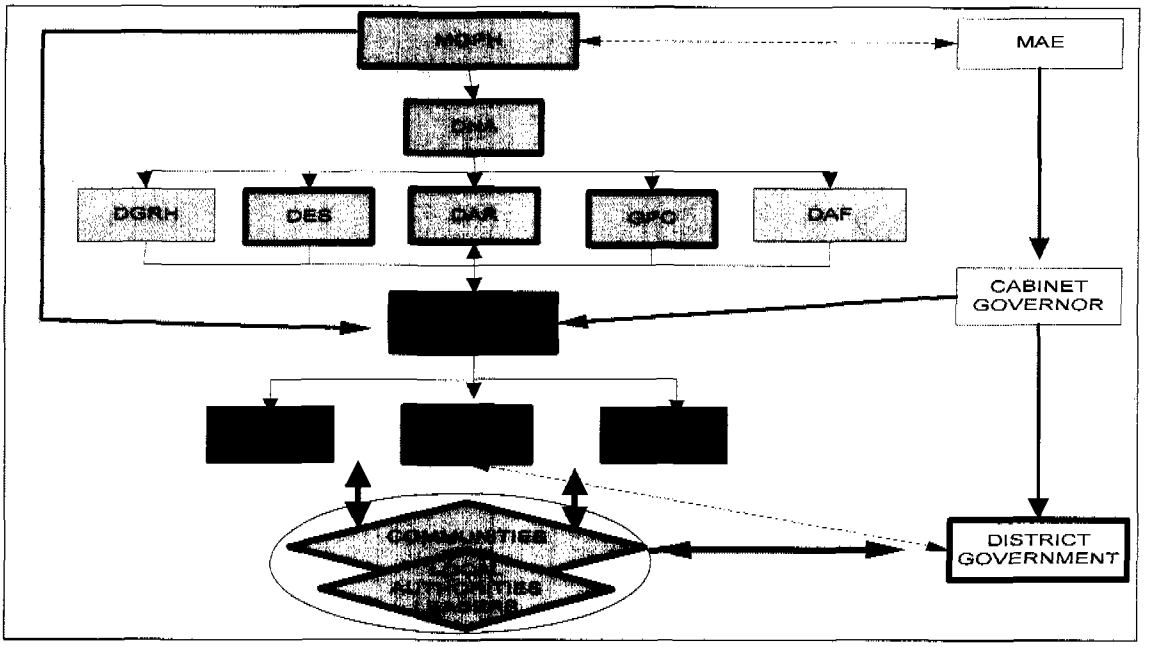
In different ways at different ages access to adequate water and sanitation services influences everybody's health, education, life expectancy, well-being and social development. Water has a social and economic value and contributes both to improving health status and also to community and family income generation. However, the primary purpose of the current project is to increase the use of safe water at the household and school levels in order to achieve improved health status. In this regard, the project will not include direct interventions relating to the productive use of water, but will rather promote the use of wastewater by communities and schools for the development of vegetable gardens that could ultimately contribute to improved nutritional status.

The sector has existing experience on the productive use of water. For example, under the WES project funded by the Swiss Development Co-operation through CARE International, currently being implemented in Nampula province, safe water supply activities are linked with support for the demonstration of the productive use of wastewater in small communities. Therefore, wherever possible and appropriate, the project will work in partnership with other development programmes in schools (such as school feeding programmes) and communities for the most effective and efficient use of wastewater contributing to improved nutritional status of children and increasing, in turn, the learning achievements of school children.

4.2.3 Institutional water supply (except SSHE)

Figure 8 below illustrates the key line Ministries involved in rural water supply activities at various levels. The project will be implemented under the institutional arrangement depicted below, in close co-ordination with the Ministry of Health and Ministry of Education.

Figure 8: Institutional Arrangements for Rural Water Supply



The National Water Directorate through its department of Rural Water Supply (in close co-ordination with departments of Planning and Sanitation) is responsible at central level for overall oversight, policy and strategy development, strategic planning of the rural water supply programme including fundraising. DNA/DAR is also responsible in facilitating and co-ordinating researches on WASH alternative technology options for rural water supply as well as providing necessary technical support.

At provincial level, the Water and Sanitation department under the Provincial Directorate of Public Works and Housing has roles and responsibilities for planning, management (including the management of funds allocated for the RWS), co-ordination and supervision of all RWS activities carried out in the province ensuring that sector strategies are correctly applied. Additionally, DAS/DPOPH is accountable for establishing enabling environment for private sector and other stakeholders' participation through dissemination of provincial business plans and other sector plans for rural water supply.

The district Government is responsible for raising community awareness for improved water supply and sanitation facilities, dissemination of sector approaches (such as DRA), promoting and facilitating the active participation of private sector and CBOs (artisans, community activists). The district Government is in charge of developing the district plans for rural water supply and sanitation and supervising all RWSS activities implemented in the district.

At community level, the Community Leaders/Local Authorities have a leading role in enhancing community awareness and mobilising communities for their active participation in the RWSS interventions. The Community Leaders, with technical support from professional NGOs/CBOs, facilitate the establishment of gender-balanced community water and sanitation committees and ensure their active participation.

The Communities, as owners and primary users of RWSS facilities, are responsible for vigorous participation in all stages of the project cycle, contributing to capital costs in the form of labour, cash or in kind. The users are responsible for covering the full cost of operation and maintenance of RWSS facilities. With assistance from NGOs/CBOs and Water and Sanitation Committees, they establish and agree on the method of user's contribution (for example monthly contribution, amount per family/household).

4.2.4 Cost sharing (capital costs; O&M costs)

The project will be implemented in line with the national guidelines adopted for ensuring ownership and ultimately the sustainability of WES facilities (Demand Responsive Approach). The Rural Water Supply Implementation Manual (MIPAR), which provides a framework for stakeholder participation, indicates that users are responsible for covering full costs related to the operation and maintenance of their water supply facilities, in addition to cost sharing of the capital costs (in-kind, labour or cash). For new water points, the user's contribution to capital costs varies from 2 per cent to 5 per cent, while for the rehabilitation of water points, contribution range from 2 per cent to 10 per cent.

Users need to organise themselves (through water committees and operation and maintenance committees) and establish mechanisms for the collection of funds (paying special attention to poorer families), as well as mechanisms for the procurement of services for repairing breakdowns too serious to be addressed by the relevant maintenance group. In addition, therefore, to support that will be provided for the establishment and training of community water committees, the project will also support the identification and training of local mechanics to provide backup support to each maintenance group.

As indicated in Section 4.1.1 professional NGOs/CBOs will be engaged under this project for demand creation and to support users on the selection of the type of services, establishment of water committees and community mechanisms for cost sharing and maintenance and operation of the water facilities. The project will encourage the establishment of gender-balanced water committees (management and operation and maintenance committees), in recognition of women's responsibility for water collection and the care of family members.

4.3 Monitoring Water Quality

Monitoring water quality is an important component under the provision of water supply in Mozambique. Under the National Water Law, the Ministry of Health, in close co-ordination with the Ministry of Public Works and Housing and the Ministry of Environment, is responsible for the establishment of minimum standards of water quality for human consumption and monitoring processes of water quality. Under this framework, in 2004 the Ministry of Health, with support from UNICEF, developed national guidelines on drinking water supply in rural, urban/peri-urban areas, including water used in food industries.

The guidelines also include standards of drinking water to be supplied in emergency circumstances, such as floods or cyclones. The water parameters include microbiologic, physical and chemical parameters. The guidelines also establish the process of monitoring water quality at all levels:

- *At national level* - the Environmental Health Unit under the National Health Directorate is responsible for planning and supervision of water quality activities, while the National Laboratory for Water and Food Hygiene (LNHAA) provides technical support to the MoH through undertaking analysis of water quality and food and also serves as a reference for all national laboratory networks.
- *At provincial level* - through the Centre for Environmental Hygiene and Medical Examination (CHAEM) and provincial laboratory for water analysis.
- *At district level* - through water quality inspectors based in Health Centres.

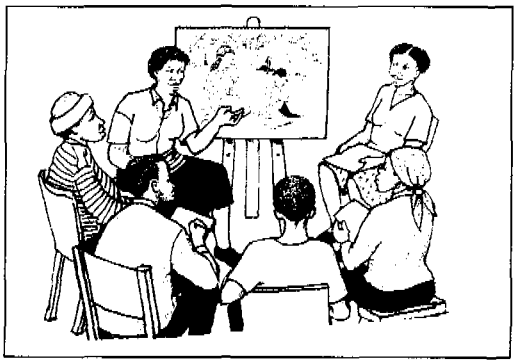
In addition to the above, the water and sanitation department at provincial level or its representative (in drilling contracts) undertake water quality testing for each water point constructed or rehabilitated. Key parameters for *in situ* testing include conductivity and pH level, while the testing of bacteriological and chemical parameters are conducted at provincial water laboratories. The maximum admissible limit for conductivity is 2000 μhmo/cm while for pH the maximum limit is 8.5. If the water quality exceeds these standards, the local communities are informed and advised to use the water for other purposes, such as washing dishes.

Under its Country Programme of Cooperation with the Government of Mozambique, UNICEF is supporting the Ministry of Health and DNA/DPOPHs in the procurement of water quality testing kits and the training of staff, in order to ensure timely water quality testing at the sub-national level. The current project will strengthen and complement on going activities through the procurement of additional kits and the training of additional staff. Simple products like H2S tests kits will be procured and promoted at household level to improve water handling and storage. The H2S paper strip test kit is based on detection of H2S producing bacteria whose presence is consistently associated with the presence of coliform bacteria and faecal contamination in water.

In 2004, the Ministry of Health, in partnership with the Centre for Disease Control (CDC) and Population Services International (PSI) launched the Safe Water System (SWS) product - locally known as "Certeza" - a dilute sodium hypochlorite solution for water treatment at the household level. A local private company produces the product and so far the product is available in most of the provincial capitals. The project will enter into partnership with organisations and institutions (PSI, CDC) involved in promoting water treatment at the household level. These will complement and maximise the impacts of the hygiene promotion activities.

4.4 Component 3: Hygiene Education

Hygiene promotion will form a key component throughout the project implementation cycle and the focus will be on assisting community members and school children to understand and develop safe practices in order to prevent diseases and promote positive attitudes towards good health practices. Participatory hygiene education will be the key strategy for behaviour change and adoption of safe hygiene practices at community level.



The triple A approach and PHAST tools (Participatory Hygiene and Sanitation Transformation) will be used and adapted to the socio-cultural practices of the targeted population. Efforts will therefore be directed towards encouraging participatory discussions within the community for the identification of the best hygiene practices and the major constraints to and actions to promote the adoption of safe practices.

A KAP study will be conducted in the project locations to establish a baseline for project planning and implementation, including the selection of key indicators to be monitored. The study will also identify the communication channels that are widely used and trusted by the different communities and that can be promoted through project activities.

In the three provinces where the project will be implemented, there are local CBOs and NGOs (Kulima, ADC, ADS, UTTAS, AMAI, MUSSANANHI, CEDES, CCM, Lutheran Federation, CVM, HAInt, WVI, União das Cooperativas) working in the area of hygiene education.

The project activities will be planned and implemented in close collaboration and co-ordination with the health and education sectors, which have good existing networks in the communities. The capacities of the community health activists will be reinforced to ensure a more integrated hygiene education, water and sanitation project.

Water, sanitation and hygiene and HIV/AIDS mitigation

As indicated in Section 3.2, the country is registering a significant increase in HIV/AIDS prevalence. The latest national data show that the HIV/AIDS prevalence among 15 to 49 years-old is 16.2 per cent and the targeted provinces have even higher prevalence ranging from 16.6 to 26.6 per cent.

The project will strengthen the knowledge and skills of communities, particularly people caring for sick family members, on the linkages between HIV/AIDS, hygiene, water and sanitation. The provision of water and sanitation facilities will create enabling conditions for communities to adopt and practice their improved behaviours.

4.5 Component 4: School Sanitation and Hygiene Education

A survey conducted in 2005 indicated that there are 10,016 primary schools in the country with a population of 3,846,565 students (girls 1,757,062; boys 2,089,503)[6]. From this number of schools, 70 per cent do not have safe water and sanitation facilities. In the targeted provinces there are in total 1,982 EP1 schools with a total of 800,363 learners (Table 6). With regard to access to safe water and sanitation in schools, the picture in the targeted provinces is similar to the above.

Table 6: Basic data from Primary Schools in the project areas

Province	EP1 Schools	Number of learners	Average per school
Manica	514	247,452	481
Sofala	626	265,231	424
Tete	842	287,680	342

Source: Ministry of Education and Culture, 2005

[6] Annual School Survey, 2005

Most of the schools in the above table are located in rural areas and are constructed of local materials with community contribution and do not have safe water supply and latrines. A school sanitation survey undertaken in 2005 revealed the enormous challenges that authorities normally face in their efforts to create child-friendly schools. The outcomes of this study are summarised in the box below (Box 2).

Box 2: Major findings of the school sanitation study conducted in 2005

- Lack of development vision and plan in each school;
- The vast majority of the schools do not have safe water and sanitation facilities;
- In the majority of the schools with sanitation facilities these do not follow an established standard in terms of design and ration; are not used properly, the hygiene status is poor due to lack of skills;
- The facilities are not maintained properly due to lack of systems and skills;
- There are no garbage bins or garbage elimination points;
- There are no fences around the school yard, making the school vulnerable for misuse of facilities;
- Where learners are involved in cleaning of facilities they are not equipped with protective equipment placing them at risk of contamination;
- The schools do not have budget for maintenance and acquisition of cleaning materials;
- The sanitation facilities do not provide either safety or privacy, particularly for girls, thus, are not used by this group; and
- The schools do not provide a conducive environment for learning.

In school environments, the hygiene and sanitation facilities provide an opportunity for potential learning and effective hygiene education for children by combining teaching about health risks and inadequate hygiene practices with development of essential life skills. These skills are reinforced through child-to-child and child-to-adult interactions in schools and communities.

The Government of Mozambique and partners (including UNICEF) have been pioneering, since 2002, a child-centred hygiene education programme in schools through child-to-child sanitation committees. The committees are composed of a group of children, gender balanced, who are trained in participatory hygiene education, including routes and barriers for diarrhoeal and other water/sanitation-borne diseases; appropriate hand washing at critical times; correct use of latrines; malaria prevention; child rights and HIV/AIDS prevention. Complementing the hygiene education for children, teachers are also trained on these issues in each school providing further assistance to the committees. The committee conducts hygiene education and demonstrations to other children in the school and to surrounding communities. The group links with other community hygiene education activities through community activists.

As a result of UNICEF's technical and financial assistance, advocacy and partnerships with other key sector players, the new school curriculum, approved in 2001, includes water, sanitation and hygiene education, in addition to gender related issues, and gives children the opportunity to expand their knowledge and life skills. Water, sanitation and hygiene promotion issues are integral components of the School Health Strategy recently developed by the Ministry of Health, together with the Ministry of Education and Culture. Under this strategy, hygiene promotion becomes part of the education system and soaps and other hygiene materials are to be secured by the schools themselves.

The current project will be implemented within the above framework (integration of water sanitation and hygiene education and linkage with school curriculum, child-to-child participatory approaches and community involvement through school councils).

The project activities will include support to: (*i*) design of child-friendly and gender sensitive water, sanitation and hygiene facilities; (*ii*) promotion of safer hygiene practices and behaviours for improved health at school, household and community levels; (*iii*) establishment of child-to-child sanitation committees; (*iii*) training of school teachers and activists to facilitate participatory discussions at school level and surrounding communities; (*iv*) provision of water, hand washing and separate sanitation facilities for boys and girls.

Based on positive past experiences from other UNICEF-supported interventions (Gaza provinces and municipalities) children in this project will be specifically involved in the planning, monitoring and evaluation of the following key indicators:

- Appropriate use of latrines;
- Hand washing after use of latrines and before eating;
- Appropriate water management and storage;
- Solid waste collection and disposal in appropriate places within the school yard;
- Primary school attendance by children especially girls; and
- Knowledge on prevention of HIV/AIDS among children and young people.

The project will therefore, scale up and consolidate models that have been already tested by the Government and UNICEF towards to effective impacts and the sustainability and with emphasis on advocacy for: (*i*) prioritisation of school water, sanitation and hygiene education in Government plans, including budget allocation; (*ii*) inclusion of water, sanitation and hand-washing child-friendly and gender sensitive facilities in school construction guidelines; (*iii*) involvement of school councils on planning, operation and management schemes; (*iv*) supporting initiatives to streamline hygiene and sanitation activities through school curricula; (*v*) strengthening joint planning and inter-sectoral collaboration and co-ordination between key Government Ministries (MOPH, MISAU, MEC, MIMAS) and other stakeholders.

4.6 Component 5: Community-based Water Resources Management

The Water Law adopted the principle of decentralisation in water resources management, through the establishment of Regional Water Administration authorities (ARA), which involve one or more river basins. ARAs have a key role in water resource management at river basins (regional and local level), working in close co-ordination and consultation with the relevant Ministries, such as the Ministry of Environment, Ministry of Agriculture and Ministry of Natural Resources.

In accordance with the Water Law, local communities actively participate in the management of the water resources, including the resolution of conflicts resulting from the use of water, as well as participating in the establishment of procedures for titling. The ARAs promote the establishment of river basin committees that consist of representatives from water user associations and other stakeholders; priority in the establishment of river basin committees are given to those basins in which

water scarcity is more pronounced. At present, three ARAs (out of five) have been established and are operational, and this project will be implemented in the river basin that has two operational ARAs (ARA Zambeze and Centre). The establishment of the ARA Zambeze and Centre were supported by the European Union and included activities for rural water supply activities in some districts (such as data collection and analysis and a spare parts network). The project will benefit from experience gained and will expand and strengthen activities currently in place.

Under the ARA water resources management, Catchments' Committees have been established in three basins, with a consulting role particularly for making decisions on water allocation in case of drought. ARA governance mechanisms include a board of directors, consisting of public and private sector and representatives from water consumers.

4.7 Capacity building

The stakeholder consultation conducted as part of the LFA project development identified capacity building as a pre-condition for efficient project implementation and attainment of planned targets towards the sustainability of interventions. This is fully in line with the Government's priorities for strengthening capacities at all levels, particularly at the sub-national levels.

In addition to the provision of community and school water and sanitation facilities, the project seeks to establish and strengthen, under the existing sector structures and through specific activities, the capacities of Government at district and provincial levels and other stakeholders directly involved in the project implementation (NGOs, CBOs, FBOs and private sector). The capacity of UNICEF Country Office will be also reinforced for effective and efficient project management.

Through these interventions, the project will contribute not only to improved project implementation but also to long-term sector development, particularly in terms of strengthening national capacities for rural water supply and sanitation programme planning, co-ordination and implementation. The investment to be made in capacity building under this project will consequently contribute to maximising the results from other projects and funds, allowing sustainable access to safe water and sanitation facilities as a result of improved planning, implementation, supervision and monitoring.

4.7.1 Government

As indicated in the Sections above, for adequate implementation and management of the current project, the capacities of the primary stakeholders must be definitely reinforced. The table 7 below indicates that only two staff (both from Sofala province; and none from Manica and Tete provinces) have university degrees. Furthermore, at the district level there are only medium level technicians.

The project will, therefore, strengthen Government capacities at provincial and district levels through financial support in recruitment of additional and skilled technical expertise to ensure the fulfilment of roles and responsibilities as indicated in Section 4.1.3 for effective project implementation. Based on findings from the consultation meetings with provincial and district authorities, the project will support the recruitment of a total of 12 WASH experts with university degrees for DPOPH (4 for each DPOPH) and 18 WASH medium level technicians for the districts (one technician for each district).

Table 7: Capacity Available in targeted provinces/districts

MANICA PROVINCE					
DAS/DPOPH	0	3	3	2	0
DAF/DPOPH	0	2	4	0	0
Gôndola	0	1			
Guro	0	1			
Machaze	0	1			
Manica	0	1			
Mossurize	0	1			
Sussundenga	0	1			
TOTAL MANICA	**0**	**11**	**7**	**2**	**0**
SOFALA PROVINCE					
DAS/DPOPH	2	7	1	1	4
DAF/DPOPH	0	2	2	0	0
Chemba	0	1			
Dondo	0	1			
Gorongosa	0	1			
Maringue	0	1			
Muanza	0	1			
Nhamatanda	0	1			
TOTAL SOFALA	**2**	**15**	**3**	**1**	**4**
TETE PROVINCE					
DAS/DPOPH	0	12	6	1	4
DAF/DPOPH	0	4	2	0	0
Zumbo	0	1			
Angonia	0	1			
Chifunde	0	1			
Changara	0	1			
Tsangano	0	1			
Maravia	0	1			
TOTAL TETE	**0**	**12**	**8**	**1**	**4**

All technical experts will be recruited by the Government and through a competitive and transparent process as per Government procedures (in line with UNICEF procedures). The project approach for assistance in recruitment of these technical experts will be in accordance with the Government capacity building strategy that is fully supported and being adhered to by sector partners.

The project will support the salaries, at the Government civil service rate, of 18 recruited medium level experts for districts for a period of four years (out of five years planned). At the same time, financial support will also be provided to cover the salaries of the recruited 12 experts with university degrees for a period of four years (out of six years planned). In both cases, this financial assistance will be provided while the Government at district and provincial levels respectively is undertaking the process for full integration of the recruited experts into the Government civil service structure at district and provincial levels. It is, therefore, expected that by the end of the project implementation period, all recruited experts are fully integrated into the Government civil service structure as staff and their salaries will be entirely supported by the Government.

Additionally, the project will subsidise housing costs for the recruited experts – particularly at provincial level - for a period of four years (out of six years) while DPOPH in parallel is taking actions to facilitate the recruited staff to get access to housing funds promoted by "Fundo de Fomento para a Habitação", an independent body also under the Ministry of Public Works and Housing. This assistance is due to the non-existence of public accommodation, which impacts on staff performance and retention. Office equipment and materials will be provided, including supervision funds for district, DPOPHs and DNA (co-shared with UNICEF through its core resources) to ensure adequate project monitoring and supervision.

The sector has had positive experiences in the recruitment and retention of staff as part of its capacity development strategy under the decentralisation process. Between 1996 and 2005, a total of 37 qualified technicians have been recruited through the support of SDC, of which 30 work at the sub-national levels and seven at the national level. Twenty-eight technicians out of 30 at the sub-national level, corresponding to 93 per cent, have been fully integrated into the Government civil service structure and the rest are in the process of being integrated. This approach has proved its effectiveness in reinforcing sub-national capacities for planning, co-ordination and leadership of WSHP programmes. The challenge now is to build capacity closer to the users by strengthening district human resources and skills for the management and supervision of WASH activities. Unlike other Ministries (such as Health and Education), the Ministry of Public Works and Housing does not have representation at district level and the Government aims at strengthening district authority capacity to undertake water and sanitation activities rather than establishing an independent unit. This strategy has the support of sector donors and other partners.

The project staffing integration strategy will also use and complement the ongoing experience of the Programme for Decentralised Planning and Finance (PPFD) funded by the World Bank to assist the Government in its decentralisation policy, which has the following strategic outputs: (i) recruit and train two staff (public works technician and accountant) for each district to be integrated later in the civil servant system; ii) provide basic equipment and operational funds; and iii) provide funds for investment works for social infrastructure development (water and sanitation, schools, roads, etc).

4.7.2 NGO/CBO/FBOs

The NGOs and CBOs/FBOs are sector partners and implementing agencies/service providers and the project will count on their active participation. They will be primarily engaged in providing technical assistance for community capacity development, including community mobilisation; training of community committees and activists, community facilitators from Government institutions and CBOs/FBOs; and training of local artisans and mechanics to promote household latrine construction and repair of water points. They will also assist district Government and community leaders in selecting target communities and prioritising interventions.

Through the engagement of NGO/CBO/FBOs, the project will contribute to strengthening their capacities, particularly for staff that will be directly involved in the project implementation. The focus will be on training in: (*i*) WASH procedures and approaches included in the National Water Policy and its implementation strategies; (*ii*) application of participatory techniques and tools for demand creation (DRA/PHAST/PEC) and community empowerment to promote the adoption of safe hygiene

practices. Extensive training will be provided to the community/faith based organisations, in order to ensure continuity of the project supported activities.

4.7.3 Private Sector

The private sector (drilling companies, suppliers, consultants) is a key project implementation partner for WASH service delivery to communities/end-users. The private sector's participation will greatly contribute to the sustainability of WASH services by providing quality services and establishing mechanisms for spare part availability in close proximity of the end-users. The informal private sector, such as community artisans and mechanics that will be involved in the construction of improved household latrines and operation and maintenance of water supply facilities, are also crucial for the sustainability of interventions.

According to a survey conducted by DNA with WSP/WB support there are 31 companies (of which 21 are private and 10 are semi-public) involved in drilling of boreholes for rural water supply[7]. The number of companies operating in the country has grown significantly in comparison with past years. However, despite this improvement, the private sector's capacity remains limited both in terms of quantity and skills of staff for quality service delivery. These limited capacities are being overstretched by the non-integrated project/programme planning process of various donor/government funded projects ongoing in the country. It is not uncommon to find several bidding processes being advertised by different supporting agencies for the drilling of water supply boreholes, rather than having a common provincial drilling programme a situation that increases the drilling costs.

The project will, therefore, enhance and maximise the technical and managerial capacity of the private/public sector through: (*i*) preparing and sharing the provincial rural water supply and sanitation business plans; (*ii*) strengthening the skills of the private sector for the preparation of bidding proposals; (*iii*) improving quality and effectiveness of service delivery; (*iv*) technical support to community artisans and mechanics; (*v*) establishment and management of spare parts networks closer to the end-users (particularly the suppliers of the hand pumps and spare parts).

4.7.4 UNICEF

The UNICEF Mozambique Country Office, jointly with the Government of Mozambique and other UN agencies is in the process of developing its new Country Programme (2007–2009). The process includes the review and adjustment of the office structure to efficiently manage UNICEF supported programmes.

The Water, Sanitation and Hygiene programme staff will be comprised of four international officers, five national officers and three programme assistants (Annex 5). A lesson learned from the previous Country Programme indicated the need to increase field level monitoring, technical support and training, and support to overall coordination by UNICEF staff to improve counterparts' capacities and technical skills and ensure effective project implementation and sustainability. In this regard, two (out of existing four) internationally recruited WASH officers at L4 and L3 post and one of nationally

[7] We Consultant - Assessment of drilling capacity in Mozambique; outsourced by DNA/WSP

recruited officer at NOB post will be fully assigned to and supported by the project. A brief description of their role and responsibilities is given in annex 6.

Additionally the project will support the recruitment of three national experts: one expert in water and procurement; one in sanitation and hygiene promotion; and one in accounting/budget management. This technical team will be based in the targeted provinces of the project and will provide daily technical support to the provinces and districts. The outlines of Terms of the Reference of these field staff are attached (Annex 6).

Expanding UNICEF's technical and related capacity building support to the targeted provinces and districts is crucial in attaining the results proposed by the project, a strategy mutually supported by the Government of Mozambique, the Embassy of the Netherlands in Maputo and UNICEF.

4.8 Improved knowledge management

The documentation and dissemination of sector best practices remains limited particularly in regards to best approaches for data collection tools and GIS mapping for rural water supply and sanitation services. The sector has gained valuable rural WASH experiences over the years specifically approaches for demand response, user ownership and technology options however these experiences have not been compiled, analysed and disseminated at country level, and often even within provinces/districts. Meanwhile, a significant number of implementing agencies is emerging as a result of increased donors and sector partners' commitment to support the WASH sector in country. It is therefore critical that mechanisms for the documentation and sharing of project experiences are established, ensuring the replication of best practices and lessons learned.

Steps are currently being taken for overall improvement of Information Management Systems in the sector. The harmonisation of data and indicator collection tools for water and sanitation within the country (between DNA and INE) in line with the JMP is a priority for the sector. UNICEF and other partners are assisting DNA in its discussions with INE in light of the national census that will be carried out in 2007. The census will provide ample opportunities for establishing standardised sector indicators, data collection tools and methodologies. This opportunity will be utilised to improve the national and provincial data banks for water and sanitation, including GIS/mapping of water sources in all the three provinces with a focus on increasing the monitoring capacity at the district level.

The project will build on UNICEF's active participation and contribution in sector co-ordination mechanisms such as GAS and Donor Group to ensure that field experiences feed into national strategy development actions and that the project benefits from other WASH supported projects. All project studies, evaluations and the results of other routine review processes (annual and mid-term reviews) will be shared at national, provincial and district level fora.

UNICEF has recognised world-wide experience and expertise in the areas of sanitation, water, school sanitation, hygiene promotion and health. The project will also benefit from these experiences, as well as from other regional and international water supply and sanitation networks such as IRC, NETWAS and CDC (also supporting the MoH/department for Environmental Sanitation of which UNICEF/WASH work with). The WB/WSP is also a significant source of information and reference pertaining to good practices in the water and sanitation sector.

4.9 Strategic partnerships

The WASH programme will establish and harness various partnerships both at national and local levels to implement the project. Within the UN system and through the technical assistance that both UNICEF and WHO provide to MISAU, collaboration will be strengthened for effective water quality monitoring. Partnership will be also reinforced with SDC, WSP-WB, JICA, EU and Austrian Co-operation in the areas of strategic planning (provincial WASH business plans), technology options research, GIS mapping and capacity development at sub-national level.

At the district level, partnerships with international NGOs will be forged to efficiently leverage resources and support knowledge management. Local NGOs well positioned in the field will be stimulated to develop and fund water supply and sanitation activities and expand their community projects to integrate sanitation and hygiene promotion activities. In addition, they will be crucial partners in assisting district annual planning and reviews activities.

Partnerships with school supporting agencies and organisations will be established and strengthened to maximise resources. Meanwhile partnership with the private sector will be encouraged for school WASH interventions including provision of school hygiene supplies, establishment of spare parts networks, training of community artisans and mechanics, funding promotional hygiene activities, and development of low cost technology options.

UNICEF Mozambique has had positive experiences entering into partnership with NGOs (PSI, WaterAid, CARE) and other UN agencies (WFP) for the implementation of health and WASH projects under both emergency and regular programmes.

These partnerships have shown a valuable contribution to strengthen decentralised capacity (district planning), information management systems (GIS/mapping), introduction of more affordable technologies (rope pump), improved monitoring and evaluation tools at field level and performance evaluation mechanisms for the sector (Joint Review).

4.10 Working with the private sector

As discussed in the proposal, the project will seek partnerships with the private sector both in the informal and formal sectors in terms of the manufacturing of sanitation components (sanitation demonstration centres), training of artisans and mechanics for water points repair. The involvement of local manufacturers will be also strengthened in order to promote water treatment at household levels using a combination of H2S kits and "Certeza" (low cost disinfection product).

The establishment of reliable hand pumps and spare part networks close to the users requires strong partnership between the private sector and the Government (facilitating and creating an enabling environment for adequate private sector participation). In this regard, the project will aim at bringing together private sector and government stakeholders to enable more ambitious and coherent interventions.

The private sector, as a crucial service provider, will be widely involved in project implementation especially in the concerted efforts of constructing community and school WASH facilities, and undertaking researches and studies towards the development of the provincial WASH Master Plans.

4.11 Emergencies

In Mozambique emergency preparedness and response activities are guided by the National Contingency Plan annually developed by the Government through its National Disaster Management Institute (INGC) and line Ministries, and with active participation of the donor community. Based on this National Contingency Plan and the mandate of each UN agency, the UN agencies prepare the UN Contingency Plan aiming to support the implementation of the Government Contingency Plan. There are also sector coordination sub-groups in Water and Sanitation, Health and Nutrition, food security, Education, Protection of the vulnerable groups and in Communication. Under the UNICEF-supported Country Programme of Cooperation, emergency preparedness and response is mainstreamed in all programmes including the WASH Programme, and support is being provided through enhancing the Government's capacities for planning and timely response to emergency situations, including measures such as the pre-positioning of WASH emergency supplies.

The need for more timely, predictable and effective humanitarian action including the collective ability to efficiently respond to crises and disasters has been the driving force behind the humanitarian agenda globally. Within the context of the United Nations (UN) Reforms regarding to the Humanitarian Response, UNICEF has been given a mandate within the Inter-Agency Standing Committee (IASC) Cluster Leadership framework and further to its work on Core Commitments for Children in Emergency, to assume a lead coordinating role in the area of WASH in additional to the area of Nutrition.

The areas identified for project implementation are historically prone to droughts and floods. In drought emergency situations, for example, groundwater sources are depleted, resulting in the drying up of a significant number of shallow wells. The increased water demand then places enormous pressure on the few functioning deep wells, which often results in their breakdown. The vulnerability of the population to these disasters is both a cause and a result of poverty and poor access to sustainable water supply. The project is expected to break this vicious cycle through saving time, reducing household health costs, increasing the use of safe water and stimulating income-generating projects including multiple uses of water. In particular, communities will plan and decide on the location of water facilities in areas where the risk of damage due to flooding is minimised and where they will still be accessible during disaster events.

At the same time, it must be noted that due to the several climatic shocks in the country the smooth implementation of regular activities might be compromised, as emergency situations often times divert resources (particularly human resources at the sub-national level) and overrule previously agreed priorities to respond to emergency needs. The project will minimise this risk by increasing and strengthening Government capacities to plan for emergency activities at the district and provincial levels, as well as optimising the capacities of other implementing partners.

Although the proposed project has no specific emergency component, co-ordination with emergency programmes will be sought in order to ensure that approaches towards the sustainability of WASH

facilities are taken into account in the planning of emergency interventions and are integral part of the vulnerability reduction and mitigation strategies. In case project funds will be allocated to support WASH emergency needs, prior written and formal approval of the Netherlands Government will be requested. Furthermore UNICEF will raise funds from other sources, including its own in times of emergency, to augment the longer term vision of this particular project.

5. APPRAISAL ISSUES

5.1 Governance appraisal and stakeholder analysis

Governance in the sector and affiliated institutions and agencies has improved significantly through the overall Government reforms and new policies being introduced and applied in the country. The Programme Aid Partnership (PAP) has provided an important framework for joint (Government and its partners) planning, funding and monitoring of sector's indicators towards the reduction of poverty in its entire dimension. For the water and sanitation sector, the establishment of this partnership and the review of the National Water Policy including National Water Law and Strategy for Water Resource Management, has contributed significantly to the harmonisation of sector-wide visions, priorities and development strategies. Under the above framework sector partners are actively participating in the establishment and monitoring of sector performance indicators, joint planning and funding.

Decentralisation has become a reality and the districts have consequently assumed the primary role in sectoral planning. Government reforms at the district level included the review and adjustment of district Government structures as per its new roles and responsibilities. Since 2006 and with core support from the World Bank all 128 districts have received funds (about 300,000 USD per year) to implement sector plans (at small scale) in line with district plans and priorities. This represents a shifting of the roles of provincial institutions that should now provide the necessary skills and expertise to districts for effective design and implementation of the district plans.

At the same time, decentralisation presents an unprecedented opportunity for the increased involvement of users in development initiatives and the need for heightened and renewed attention to capacity development at the community level. Communities do not only participate in, but also bear the responsibility for operation and maintenance of each activity and contribute to planning, design and implementation. Whereas former projects were often considered to be owned by either the Government or a donor, emphasis is now on community ownership and governance.

However, much is needed in terms of empowering communities so they may assert and claim their rights to be fully involved in the implementation of the project activities, in their longer-term operation, maintenance and management. Particular attention should be given to community leadership and its crucial role in upholding community rights and equitably managing WASH facilities including the financial management of users' fees.

In this regard, monitoring activities would not be limited to solely assess the technical and financial aspects of the project but will also assure the analysis pertaining to sustainability issues including the level of community ownership.

5.2 Social appraisal

Mozambique economic growth continues to be strong, with a rate of 7.7 per cent in 2005. The country however remains one of the poorest countries in the world, ranking 168 out of 177 in the 2005 Human Development Index. Dependence on external aid continues to be high, accounting for almost half (47 per cent) of the total resources and 13.6 per cent of GDP in 2005. Over 50 per cent of the population are living below the poverty line.

The sero-prevalence among 15-49 year-olds had increased from 13.6 per cent in 2002 to 16.2 per cent in 2004. The highest rates are being registered in the central and southern regions of the country, particularly in the province of Sofala, where prevalence is 26.5 per cent. Among adolescents, the gender disparity continued to be acute, with three times as many girls as boys aged 15-19 living with HIV/AIDS in 2005. Estimates indicate that there are currently 1.6 million orphans in Mozambique and that more than 20 per cent of these are directly due to AIDS[8]. The AIDS epidemic has reduced the life expectancy of Mozambicans from 41 years in 1999 to 38.1 years in 2004[9]. Furthermore, the cyclic drought situation in the country continued to be a threat to the survival and healthy development particularly of children and woman.

Illiteracy rate decreased from 61 per cent in 1997 to 54 per cent in 2003[10] however more than half of Mozambican adults are illiterate with serious gender, residential and geographical disparities. There are almost twice as many illiterate Mozambican women as men (68 per cent versus 37 per cent). Among women, women in rural areas have higher illiteracy rate than women living in urban areas (81 per cent versus 42 per cent). However, a positive trend is noted among younger women who have increasingly higher literacy rate than women are in older age-groups which in turn, positively impacts youth participation in social development activities.

5.3 Technical appraisal

Mozambique has an emerging and relatively strong water and sanitation private sector including drilling companies, geophysical investigation and technical supervision and researchers. There are a total of 31 companies (private and semi-government) in the country. Additionally, five NGOs are also involved in drilling at small scale and mostly working through their own funds. Fifty-seven per cent of the companies are based in Maputo, however 70 per cent of the drilling machines can be found in the provinces.

[8] Impacto Demografico do HIV/SIDA em Moçambique, INE, 2004.
[9] Without AIDS, the life expectancy would have been of 46.4 years in 2004. See "Impacto Demograpfico do HIV/SIDA em Mocambique", INE/MISAU May 2004.
[10] INE, 1997 Population Census and 2003 IAF.

Table 8: Drilling Companies and Average Cost per Borehole							
Province	**Company Office based**	**ONG**	**EPAR**	**Private companies**	**Total drilling machines**	**Private Companies machines**	**Average Costs per borehole (USD)**
Maputo	16	3	1	12	40	38	6,251
Gaza	4	1	1	2	8	5	7,890
Inhambane	2	0	1	1	3	2	8,358
Manica	**2**	**0**	**1**	**1**	**6**	**1**	**6,346**
Sofala	**3**	**1**	**1**	**1**	**6**	**4**	**6,493**
Tete	**1**	**0**	**1**	**0**	**0**	**0**	**4,915**
Zambézia	1	0	1	0	4	0	5,032
Nampula	4	0	1	3	4	4	6,191
Cabo Delgado	1	0	1	0	0	0	6,146
Niassa	2	0	1	1	0	0	6,312
Sources: We Consultant - Assessment of drilling capacity in Mozambique; outsourced by DNA/WSP							

The total drilling capacity is estimated at 2,220 boreholes per year. So far an average of 1,300 bore holes have been drilled yearly utilising only 60 per cent of the total capacity. In Mozambique, the average cost of drilling is about US$ 151 per meter that includes geophysical investigation, the drilling itself, construction of the apron, supply of the hand pump and VAT taxes. The average cost is about US$ 6,500 for a 43 meter deep borehole.

An analysis of the water points constructed over the past three years (2003 – 2005) indicates that the proportion of the boreholes in relation to the shallow wells is 3 to 1 as they are more reliable even in drought situations. The overall hydro-geological situation of the project area is characterised by deep aquifers that in some cases could reach over 70 meters in depth.

The country has standardised since the 1990s the Afridev hand pump (for wells up to 45 meters) and is currently involved in assessing other suitable and affordable alternative technology options for deep and shallow wells that meet minimal health standards and that users can sustain. A research project for introduction and local production of the rope pump is being carried out in Cabo Delgado, Niassa, Nampula and Zambézia provinces with technical support from SKAT and financial assistance from SDC/CARE International, and DFID/UNICEF/WaterAid.

With regards to the Afridev hand pump, the country has sufficient local capacity for the manufacturing of pumps and spare parts - Agro Alfa, Kanes and Afridev Internacional are local companies that are producing Afridev hand pumps and spare parts of good quality. A significant number of water projects are procuring hand pumps through the local market, although some (very few) continue to procure from abroad, due to the limited production capacity. The main challenge is now related to finding an appropriate pump for deeper aquifers, which users can sustain.

Availability of spare parts in close proximity of the end-users is a major concern, particularly for rural water supply. Despite the country having local hand-pump suppliers and manufacturers, pumps and spare parts are often not available, even in provincial capitals consequently undermining community commitment and efforts towards continuous maintenance of the water supply facilities.

For the sanitation component of the project, the improved traditional latrine has been agreed upon as the minimal standard for rural sanitation in line with the National Water Policy. Upgraded technology options are also promoted and available for families who can afford the full cost. According to the latest studies the average cost for the most adequate technical options (improved traditional latrine and improved pit latrines) is between US$ 12 and US$ 43 depending on soil stability. Families contribute at least 10 per cent of the overall costs of the construction, as per Government strategies. The project will maximise the opportunities to increase family contributions using an equitable and sustainable approach.

5.4 Environmental appraisal

The National Environmental Management Programme (NEMP), approved by the Council of Ministers in 1995, seeks to promote and implement sound environmental policy. The NEMP, formulated by the Ministry for Co-ordination of Environmental Affairs (MICOA), is the master plan for the environment in Mozambique and contains a National Environment Policy, a proposal for Framework Environmental Legislation and Environmental Strategy. The implementation of the NEMP requires a range of actions at all levels and across sectors. In accordance with the NEMP, MICOA, in close co-ordination with other ministries, private and civil groups, is working towards:

- Development of inter-sectoral policies for sustainable development;
- Development and promotion of integrated resource-use planning;
- Promotion of sector legislation and of establishment of norms and criteria for environmental protection and sustainable use of the countries' natural resources; and
- Creating conditions for law enforcement and environmental monitoring.

MICOA was entrusted with the authority to oversee the implementation of the NEMP. To this effect, environmental rules and regulations have been (and are being) devised. In this regard MICOA evaluates policies of other ministries as well as their capacity to promote and implement sound environmental policy.

The country relies mostly on groundwater resources for rural water supply and the quality of groundwater in some coastal and inland areas is poor. No environmental assessment has yet been carried out in the provinces where the project will be implemented. However, the potential negative environmental implications are considered negligible as communal water supply facilities are dispersed hence are unlikely to deplete aquifers. The construction of wells and boreholes, generally conform to a well-defined standard to protect groundwater supplies in Mozambique. In addition, Afridev pumps, used in the project intervention, usually restrict abstraction rates to less than one litre per second. The introduction of rope pump will also be beneficial to shallow water areas (costal communities). It is therefore argued that the water supply interventions proposed by this project will not on have any adverse effects on the groundwater resources.

Although, in view of excreta disposal facilities, sub-surface water might be polluted with faecal contamination. However, this is considered to be negligible, especially where groundwater levels are deep, which is the case for most of the project locations. In areas where groundwater levels are close to the surface other technology options such as ECOSAN latrines, which have been developed specifically to protect sub-surface waters, will be applied.

5.5 Human resources appraisal

The overall national (Government and the private sector) capacities remain limited despite visible progress and massive financial support over the last few years. Skilled human resources and retention are key challenges for the water and sanitation sector: at national level only 38 per cent of the 202 WASH staff have a university degree, 27 per cent have a medium level degree, 11 per cent only have a basic level degree and 24 per cent are non-qualified assistants[11]. At sub-national levels (provincial and district) a significant number of staff are non-qualified assistants and basic level degrees. The following table (No. 9) indicates the number of staff working in the sector in all provinces, which represents 6 per cent of the total civil servant work force.

Strengthening staff capacity at the district level will require extraordinary efforts. However, the Government decentralisation reforms and its operational plans such as the PPFD will provide growing opportunities to strengthen the capacity of the districts. The PPFD has planed the recruitment of two medium level staff for each district, which will be an opportunity to further reinforce and consolidate the process of district development. This project will complement this programme with recruiting an additional staff for each district, specifically to deal with water and sanitation matters.

Table 9: Basic data on Civil Servants and WASH staff in Mozambique

Niassa	7,164	288	3.2
Nampula	15,776	668	4.2
Cabo Delgado	7,598	460	6.1
Zambezia	12,828	557	4.3
Tete	**8,076**	**581**	**7.2**
Manica	**7,094**	**370**	**5.2**
Sofala	**10,061**	**735**	**7.3**
Inhambane	7,203	389	5.4
Gaza	7,853	495	6.3
Maputo	22,338	2,075	9.3
Total	**105,991**	**6,618**	**6.2**

The sector's capacity to attract, recruit and retain skilled staff is one of the major threats to profound sector development, as it hinders effective project management and overall sector co-ordination and planning. The sector has adopted its human resource development strategy and the related human resources capacity building plan has been developed for the operationalisation of the strategy. Sector partners have showed their willingness to support the implementation of the plan. The capacity building component, proposed under the current project, is in light of this sector strategy and plan.

Training and research institutions are still emerging and therefore, their capacities need also to be strengthened. At present, the Water and Sanitation Training Centre (CFPAS), the Catholic University and the Pedagogical University are the main institutions involved in technology development, basic training, GIS mapping of water facilities, and conducting profile studies on sanitation and hygiene.

[11] Capacitaçao e Desenvolvimento Institucional da DNA e das DPOPHs; DNA, 2005

6. CONSULTATION AND DESIGN PROCESS

6.1 Stakeholder consultation

Stakeholder consultation processes were carried out prior to and during the formulation of the project. The existing various forums in the sector were used to ensure as wide consultation as possible with key sector actors, namely:

- **The Water and Sanitation Coordination Group (GAS)** – This is a Group responsible for co-ordinating the water and sanitation sector. It comprises the concerned Government Departments of the Ministry of Public Works and Housing and the Ministry of Health, Donors and NGOs.

- **The Donor Core Group:** – It is a core group of the main donors in the sector, comprising of the Netherlands, WSP/WB, SDC, EU, ADB and UNICEF. This is a group of donors that supports the Government efforts in the sector providing technical assistance for policy review, capacity development, information management and service delivery.

Furthermore, a consultation with main project stakeholders was the key approach adopted during the project formulation, in order to guarantee stakeholders' commitment, common understanding and close collaboration. Once the three provinces were selected, a consultation process was conducted to ensure that the Provincial and District Authorities were duly informed and had an opportunity to share ideas, build consensus and develop commitment to "the end product". The result of this consultation was the joint selection of the 18 districts (6 per province) by the National/Province/District Authorities.

With each province, the current water and sanitation coverage, the target figures and the number of new users were discussed, as well as the existing resources at the provincial and district levels. In addition, discussion was held on the weaknesses and constraints along with opportunities and the necessary actions to strength local capacities to achieve the project targets in terms of new users in water and sanitation in districts.

Consultation with all project stakeholders will continue to be the key approach to guarantee and secure stakeholders' commitment and ownership and ensure the sustainability of the project outputs. In that regard further planning and review processes will involve project stakeholders and planning and project cycle management tools (RBM) will be applied for more comprehensive analysis.

The project planning process will follow a bottom up approach, starting at district level with the development, through a participatory consultative process, of district annual work plans, which will fit into the annual provincial plans and feed into the national annual plans (PES). Through the project review meeting, plans will be refined and adjusted as appropriate. Project recommendations will be made in a participatory manner and decisions of the project steering committee will be widely shared with all project stakeholders and sector partners (such as GAS members). The consultative process will be applied at all levels and throughout the project cycle, particularly at each project milestone stage.

6.2 Process of problem analysis and logframe development

The process for project problem analysis and logframe development was facilitated by a professional national consultant with recognised skills in LFA and familiarity with the water and sanitation sector in the country. Several consultation meetings involving the Netherlands Embassy, National Water Directorate and UNICEF took place to harmonise views and priorities and reach consensus on key project issues.

Two full days were spent on problem identification, development of a cause-effect problem tree, objective tree and LFA matrices (end-user and institutional). This process involved representatives from Government institutions at national and provincial levels (senior officials from DNA, reference to National Water Director and heads of rural water, sanitation and planning departments; DPOPH – Maputo Director), the Netherlands Embassy in Maputo, UNICEF and GAS members (JICA and WaterAid). Other sector partners (WSP/WB, SDC) were involved in informal consultations and were very receptive to the proposal. Throughout the entire project development process, the leadership from DNA, through its Directors (Director and Deputy Director) was strong and proactive.

A key finding from this process was that capacity building, particularly at district and end-user levels, is a pre-condition for the success of the project. It was recommended and agreed that the sector should move from project planning to a more holistic programmatic planning process if the MDG targets are to be achieved. Therefore, this project is an entry point for a programmatic approach by creating an enabling environment and conditions for sector development through (*i*) building and strengthening capacities not only at project area level but also taking into consideration the national and provincial capacities (*ii*) supporting cross-national priority issues such as spare parts networks and private and public sector capacities for adequate service delivery.

The results from the analysis and planning process (LFA matrices) are presented in Section 2 of this project proposal, while Section 3 provides a detailed analysis of sector priorities and challenges.

7. IMPLEMENTATION

As per the project LFA, this project will address two main components:

- **Access to water and sanitation**: through increasing and improving access to safe water and adequate sanitation and improving knowledge and skills for the adoption of safe hygiene practices;
- **Capacity building**: through development and strengthening Government institutional capacities at the district and provincial levels for improved performance of their roles and responsibilities that in turn, will contribute to project sustainability.

Both components will be implemented in three provinces: Manica, Sofala and Tete provinces, in the selected 18 districts.

7.1 Management Arrangements

The project management structure comprises of three inter-related functions:

Coordination and Oversight: the National Directorate for Water (DNA) will maintain its role as "the National Authority", responsible for overall project coordination and oversight at the national level, and as chair of the National Steering Committee.

Technical Assistance, Capacity Building and Funding: UNICEF will be responsible for the overall financial management of the project and will provide the required technical assistance, capacity building and coordination mechanisms to guarantee the quality and the quantity of the services within an agreed timeframe, and proceed with the required disbursements according to the contractual arrangements.

Implementation: the project executive management authority is under the responsibility of the Provincial/District Governments, acting as "The Client" for all legal intentions and purposes. In each Province there is a Provincial Cabinet, headed by the Provincial Governor that will be the sole legal entity to authorise the signature of contracts with Third Parties according to the rules and contractual procedures legally established in Mozambique.

Proposed Management structure

This project will not require the setting up of parallel management structures. Instead, it will seek to strengthen the capacity of various levels of the Government, from the district to the province.

*Two **steering committees*** involving key project stakeholders will be established at national and provincial levels and will undertake overall project co-ordination/management; approval of annual plans (including procurement plans); review of project progress indicators; and the identification of constraints and measures for overcoming those constraints. The steering committees will have an important consultative and deliberative role bringing together all "Actors-Stakeholders" to analyse the progress and constraints and take eventual corrective measures, including re-allocation of resources (the "only" Forum with such Authority).

At national level the "**National Steering Committee"** will involve representatives from the following institutions at their decision-making level: DNA (Director and heads of DAR, DES, GPC, DAF); Ministry of Education/School Sanitation Unit; Ministry of Health/Environmental Health Department, representatives of the three Provinces and UNICEF/WASH. The Netherlands Embassy will participate as "an observer". The steering committee leadership will be under the responsibility of the **DNA Director** who is also responsible for overall project oversight. It will meet, at least, once per year, at the beginning of each year, and will review the progress, accomplishment and achievement of the "ending" year work plan, will take the corrective measures and will approve the current annual plan.

At Provincial level the "**Provincial Co-ordination/Steering Committee"** will be responsible for approval of annual project provincial plans including training plans; review of project progress; identification of constraints and agreement of measures to overcome these constraints. The Committee will involve (but not be limited to) representatives from DPOPH, DPEC, DPS, DPP at decision-

making levels; and the concerned District Administrators. The steering committee leadership will be the responsibility of each respective **Provincial Governor**. The Provincial Steering Committee will meet, alt least, twice per year, being the first meeting prior to the national steering committee meeting and the second meeting at mid-year for normal annual progress review and this meeting will be held on a rotation basis in each of the target districts.

The overall project management will be undertaken at three inter-linked levels:

(i) at the national level, and under the responsibility of UNICEF in close coordination with DNA;
(ii) at provincial level and under the leadership of DPOPHs in coordination with DPE and DPSs; and
(iii) at district level and under the leadership of District Governments with technical support from DPOPHs.

The specific roles and responsibilities of the key project stakeholders are described below:

National Directorate of Water – DNA will:

(i) provide overall project oversight and liaise with the Ministry level partners;
(ii) organise and chair the National Steering Committee annual sessions;
(iii) provide technical supervision through its main national departments: rural water department (DAR) and the sanitation department (DES); planning department (GPC); liaise with provincial level and take an active role in terms of "the baseline studies and the provincial master plans"; and
(iv) support the improvement and linkage of the national and provincial information and management systems (data-bases, data collection tools, publications, etc).

UNICEF will:

(i) undertake overall project management and technical guidance;
(ii) ensure through the water and sanitation section of the UNICEF Office the smooth and timely inter-link between the UNICEF internal management procedures and the executive level requirements, namely for the programme, financial and supply related issues;
(iii) procure equipment and materials (offshore and local) relevant to project implementation in accordance with UNICEF rules and regulations;
(iv) ensure timely approval of project implementation plans through the Steering Committees;
(v) liaise and establish a close coordination with the National Authority – National Directorate for Water (DNA) and the main national departments and with the three Provincial Directorate of Public Works and Housing (DPOPHs) and the respective water and sanitation department (DAS);
(vi) disburse funds timely to the DPOPHs for contract financial execution and project implementation, in general. The disbursement of funds will be made in accordance with UNICEF rules and regulations and based on approved annual plans;

(vii) provide technical, capacity building and coordination support to the three provinces through an Inter-Provincial Team that will guarantee a direct support to the DAS/DPOPH in each province in all technical and managerial related matters;
(viii) prepare donor reports (progress and annual reports); and
(ix) facilitate timely and effective co-ordination and information sharing among stakeholders and partners.

Provincial Directorate of Public Works and Housing will:

(i) implement the project as per approved annual plans and with technical assistance from UNICEF inter-provincial team;
(ii) organise and participate actively in the Provincial Steering Committee sessions;
(iii) coordinate project activities with district authorities, the health and education sectors, in addition to other provincial stakeholders (NGOs, CBOs/FBOs);
(iv) assist districts in planning and consolidate project annual implementation plans with support from the inter-provincial technical assistance;
(v) coordinate the preparation of the required baseline studies and the provincial master plan;
(vi) improve the provincial data-base and collection tools in coordination with national and district authorities;
(vii) prepare and manage bidding processes and contracts for the construction/rehabilitation of WASH facilities including PEC, studies and evaluations; and
(viii) ensure timely and effective field level implementation and supervision.

District Governments will:

(i) support project management and implementation at the community level, through its community-based structures and with assistance from community based organisations (NGOs/CBOs);
(ii) develop district plans with assistance from provincial teams;
(iii) define the target locations-villages and monitoring the execution of the related water and sanitation activities;
(iv) co-ordinate with DAS-DPOPH and district stakeholders (health, education sectors; NGOs, CBOs/FBOs);
(v) promote sustainability mechanisms for improved management, operation and maintenance of water points at community level; and
(vi) promote self-help construction of household latrines through advocacy and support of demonstration centres.

7.2 Core project team

The core project team will be comprised of:

Province/District:

As outlined in the project management structure, DPOPHs and its water and sanitation (DAS) and finance (DAF) departments of Manica Sofala and Tete provinces and the six target District Administrations and respective Planning and Infra-structures departments are the key institutions that will be involved in the project management execution. The existing staff from these institutions will be directly or indirectly utilised and additional staff will be recruited to reinforce the respective institutions.

The new technical experts to be recruited:

- 18 water supply and sanitation district medium level technicians (one for each six districts in Sofala, Manica and Tete provinces) under the Planning and Infra-structure departments , to provide technical assistance with solid expertise in hand pump technology (AFRIDEV) and related technical fields, plus expertise in implementing hygiene and sanitation programmes;
- 12 technical officers with university degrees (four for each DPOPH of Sofala, Manica and Tete provinces): (*i*) one water engineer with procurement experience, one sanitation engineer and one social science expert to reinforce the DAS; (*ii*) one economist or finance expert or an experienced accountant to reinforce the DAF.

All staff will be recruited under the competitive bidding process. The Provincial Team will be financially supported by the project during a four year period (2007 to 2010), while the last two years (2011 and 2012) will be covered by DPOPH resources. Similarly, the District Officer will be financially supported by the project during the first four years (2008 to 2011), while the last year (2012) will be covered by the District (meaning to be enrolled under the Government salary).

The Terms of Reference (TOR) of each of the above positions will be negotiated in due time with each Province and each District in order to abide with above conditions as well as to include the specific requirement of each Province/District

UNICEF will:

UNICEF will have an inter-provincial team of three professionals that will comprise of:

- One Senior Water Engineer with experience in groundwater and hydrogeology and with solid experience in procurement and biding processes and contract management;

- One Sanitation Engineer or a Sociologist with extensive experience in rural sanitation and social science approach for demand creation and response for participatory community involvement and sustainability of water and sanitation facilities at community level; and

- One Economist with solid experience in finance and accounting and with experience in budget and finance related matters including contract management.

This Inter-Provincial team will be fully assigned to and will undertake frequent missions to the three provinces and for operational reasons will be based in Beira, in Sofala province. The respective Outlined TORs are attached in Annex 6.

7.3 Timeframe

The total duration of the project is 6 years and a half (July 2006-2012).

The project will have an inception phase that starts in the second semester of 2006 with the feasibility study of the project (TOR Annex 11). The inception phase aims to (i) further assess the project stakeholders' capacities at provincial and district levels (including UNICEF) and the financial and management commitment within the partner organisations, and (ii) undertake preparatory works for the development of baseline studies. These activities are planned to facilitate the successful project launch and implementation from January 2007.

The project implementation period is for six years starting from January 2007 to December 2012. During the first year, emphasis will be on capacity development (recruitment of staff, procurement of key supplies), as a prerequisite for effective project implementation, and conducting base line studies and stimulating demand creation for construction of WES facilities at community and school levels. The depth and breadth of activities and results are expected to increase proportionally up to the end of the project. The table below shows the expected results for each year up to 2012

Table 10: Project planned results 2006-2012

Results	2006	2007	2008	2009	2010	2011	2012	TOTAL
Feasibility study	1							
Province/District assessment	3-18							
Project launched and team established	X							
Capacity building:								
• persons trained		202	802	902	1,002	1,002	1,002	4,572
• institutions strengthened		4	22	22	22	22	22	21
• equipment – nr institutions indicated		3	9	9				
Studies:								
• Baseline studies		9	9					18
• Project impact studies		1					1	2
• Other studies *				1	1	1		3
Technical results:								
• new water points users		50,000	140,000	210,000	300,000	210,000	90,000	1,000,000
(1,000,000 users/500 =2,000 new water points)		100	280	420	600	420	180	2,000
• rehabilitated water points users			25,000	50,000	50,000	50,000	25,000	200,000
(200,000users/500=400 rehab. water points)			50	100	100	100	50	400
• new sanitation users		50,000	100,000	150,000	200,000	250,000	250,000	1,000,000
(1,000,000 users/5 = 200,000 new latrines)		10,000	20,000	30,000	40,000	50,000	50,000	200,000
• schools reached by water supply & sanitation		10	50	80	100	100	60	400
• people with improved hygiene behaviour		30,000	90,000	150,000	250,000	340,000	340,000	1,200,000

* ex: strategy and market study for spare parts network promotion; development of monitoring system .

7.4 Project timeframe (July 2006 – Dec 2007)

The feasibility study will go ahead as planned during July and August 2006.

After the feasibility study and once the project is approved, the inception phase will continue with start-up activities as above described from September to December 2006.

Effective implementation will start from January 2007, and one of the primary activities that will be undertaken after the approval of the project is the preparation of the annual plan through a participatory process. Below, however, is the draft of the proposed project activities for the first year.

Table 11: Project activities in the second semester 2006 and 1st year (2007)

Activities	2006						2007											
	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12
Inception phase:																		
Feasibility study:	=																	
a) Maputo work	=																	
b) Province/District visits	=																	
c) Final report		=																
Preparatory field works for the development of baseline studies			=	=	=	=												
Project launching and co-ordination:																		
a) project agreement signature						=	=											
b) identification of staffing needs, recruitment						=	=	=	=									
c) identification of technical assistance needs, recruitment						=	=	=	=									
d) procurement of equipment									=	=	=	=						
e) establishment & dissemination of project guidelines, indicators and flows of information								=	=	=	=	=	=	=				
f) design & dissemination of the project monitoring tools and monitoring plan												=	=	=				
g) project promotion in districts and preparation of 1st year work plans								=	=	=	=	=	=					
h) support to provinces in planning & procurement											=	=	=	=	=	=	=	=
i) planning and 4 months review meetings								=				=					=	
Capacity building component:																		
a) design of capacity building plans and training materials for DNA, DPOPH & district staff (procurement, execution)										=	=	=	=	=	=	=	=	=
b) business-oriented service providers mapping (private sector, NGO/CBO) at province/district level & selection of partners to be trained												=	=					
c) design of capacity building plans and training materials for business-oriented partners (procurement, execution)														=	=	=	=	
d) formal training of district staff														=	=	=	=	=
e) formal & on-the-job training of DPOPH/DNA staff															=	=	=	=
f) training of business-oriented partners																	=	=
Technical component:																		
a) baseline studies in districts (ToR, procurement where appropriate, execution)											=	=	=	=	=	=	=	
b) project awareness & planning at district level; identification of the first business packages														=	=	=	=	=
c) procurement and execution of first business																=	=	=

Activities	2006						2007											
	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12
packages																		

7.5 Project milestones (July 2006 – Dec 2007)

The project milestones during the first year of the project are listed below:

• Feasibility study – August 2006	Month (-)2
• Preparatory field works for the development of baseline studies	Month (-) 4
• Project launch and dissemination	Month 1
• DPOPHs recruited experts in function	Month 3
• District medium level technicians in place	Month 6
• Project guidelines and monitoring plan disseminated	Month 8
• 1st year project annual plan approved	Month 8
• Baseline studies executed	Month 11
• Capacity building plans and materials approved	Month 12
• District staff trained	Month 12
• 1st business packages executed	Month 12

7.6 Inputs

To support the capacity for project delivery, the project contributes with the following inputs:

a) Human resources

A total of 18 water supply and sanitation district medium level technicians (1 for each 6 districts in Sofala, Manica and Tete provinces) will be financially supported by the project during the first four years (2008 to 2011). The District will support the last years (2012).

A total of 12 technical officers with university degrees (4 for each DPOPH of Sofala, Manica and Tete provinces) will be financially supported by the project during the first four years (2007 to 2010). The Province, DPOPH, will support the last two years (2011 and 2012).

An inter-provincial team of three professional experts recruited by UNICEF will be financially supported by the project during the entire period of the project duration.

Series of capacity building activities and training for skills development will be provided at district level. These activities will include the development of training materials and exchange of lessons learned and best practices. It is foreseen that 4,500 people at community level or district level will be trained as hygiene promoters, community activists, hand pump caretakers, among others. All these capacity building and training activities are included in the overall strategy and respective implementation plan to ensure and build up a solid "bridge" for the sustainability of the programme outputs.

b) Supplies and equipment

In order to successfully support project activities, the Planning and Infrastructure department at the district level, will be provided with the following equipment:18 motorbikes (1/district), 18 computers and printers, 18 photocopy machines, office furniture and office stationery, 18 water quality test kits, 18 GPS, camping equipment, digital cameras among others.

Furthermore, the DPOPH – DAS department at the provincial level will be provided with the following equipment: 6 vehicles (2 per Province), 4 computers and printers, 1 photocopy machine, office furniture and office stationery, water quality test kits, GPS, camping equipment, digital cameras etc.

7.7 Contracting and procurement

UNICEF procurement of services and supplies is undertaken through a process of competitive and transparency bidding, involving three or more qualified agencies or short-listed suppliers. In the case of individual consultants, the selection process requires that at least three potential consultants are considered. Where appropriate, UNICEF enters into Project Co-operation Agreements with NGOs and such agreements are used where the Government and UNICEF jointly agree to work in partnership with an NGO. These internal procedures, rules and regulations are applied to various procurement scenarios, irrespective of the source of funding

The Government procurement procedures for supplies and services are aligned with UNICEF's and bilateral partners' procedures, although capacities to implement the procedures remain a concern. The Government of Mozambique at high level is strongly committed to fighting corruption and the procurement procedures established are therefore aimed at increased transparency and competitive bidding processes for services outsourced from public and private sectors.

Under the current project:

- UNICEF will undertake the procurement of project supplies (vehicles, IT equipments, water quality equipments, GPS among others), in accordance with its procurement procedures outlined above.

- The DPOPH, with assistance from UNICEF, will undertake the procurement of project's services such as drilling, KAP studies, Master Plans development, Hygiene promotion activities including the recruitment of medium level technicians and WASH experts for district and provincial levels.

7.8 Accounting and auditing

The procedures for accounting and auditing will be in accordance with the UN harmonised approach newly elaborated in the Framework for Cash Transfers to Implementing Partners. The new procedures are intended to contribute to reduced transactions costs for national implementing partners and to

increase the UN Agencies' focus on strengthening national capacities for programme management and accountability.

UNICEF will seek assurance on the progress in implementation of agreed programme work plan activities and on financial management capacities of partners which in turn, increases the importance of programme monitoring by UNICEF. In this regards, UNICEF will no longer obtain assurance over the use of funds through the review of receipts and vouchers submitted by partners but will rather seek assurance on the progress of agreed programme activities and on financial management capacity of the partners.

Under the above procedures, the project's priorities will include the strengthening – through intensive training and closely monitoring – of the financial management capacity of DPOPHs and districts in managing development processes.

Audits conducted by UNICEF's Office of Internal Audit will also cover the utilisation of the project funds, which will become an integral part of UNICEF's resources. Similarly, the project review will be in line with Country Office Programme review mechanisms under the Country Programme of Co-operation. These currently comprise both annual and mid-term reviews. Working through UNICEF, the Government of the Netherlands will be able to scrutinise project accounts for cash advances, reimbursements and the purchase of supplies. The UNICEF Country Office will prepare and submit by end of March a progress report for each year. A consolidated report will be prepared in the last year of the project. The reports will include information on the utilisation of funds and will be based on data provided by the provinces/districts, as well as findings from UNICEF field monitoring and from the UNICEF Programme Management System (ProMS).

7.9 Recording project-specific new WASH users

As part of the Government-UNICEF Programme of Cooperation, this project will become an integral part of UNICEF's regular planning and monitoring processes. The five year Integrated Monitoring and Evaluation Plan (IMEP) developed at the beginning of the country programme is reviewed annually to reflect priority data collection needs in support of planning and decision-making processes for the realisation of children's and women's rights. The IMEP comprises key programme indicators and their related targets, current baseline data and means of verification.
For the Water, Sanitation and Hygiene (WASH) programme, key indicators for the IMEP include access and use of safe water sources; access and use of improved sanitation facilities; percentage of schools with access to sanitation, water and hand washing facilities; Gross and Net Enrolment Rates in the lower educational primary level; drop-out rate among girls; diarrhoea prevalence among children below five years old; number of cholera cases reported; percentage of caregivers practising appropriate hand washing.

The data indicators are related to UNICEF's supported provinces, districts and municipalities and feed into the national sector data. The IMEP for the WASH programme also includes the development of key programme policies and strategies, such as research and development of appropriate technology options for water and sanitation for schools, communities and households; guidelines for sanitation; strategies for achieving the MDGs, as well as for the mitigation of the impact of HIV/AIDS in the water and sanitation sector, in support of the implementation of the National Water Policy.

The data collection for the above indicators is undertaken through the existing national mechanisms established at the sub-national and national levels. Each of the provincial Directorates of Public Works and Housing, in their water and sanitation departments, maintains a database on water supply, which comprises technical (location of the water point, depth, yield, type of pump, water quality) and social information (number of users, members of the maintenance and management committees by sex, contribution amount from users for maintenance of the water point). The database also includes information on the year in which the water point was constructed/rehabilitated and the source of funds, specifying the name of the supporting agency. The information from these databases feeds the national database located in DNA. The sanitation component of the database requires further improvement and the sector is currently relying on information from national surveys such as the Demographic Health Surveys (DHS) undertaken in 1997 and 2003.

UNICEF has been supporting DNA in the integration of sector database information into the national database of social and demographic statistics (ESDEM), which has been developed with support from UNICEF. ESDEM - which uses DevInfo software - is used as a national monitoring tool to monitor progress against international and national targets, such as the MDGs and the PARPA. ESDEM contains data from all of the national sources, such as the demographic and health surveys and sector data, and is continually updated with new data by staff based at the National Institute of Statistics (INE), supported by UNICEF. In 2005, ESDEM was disseminated at the sub-national level, with user seminars held in each of the provinces. The goal is to make social and demographic data that will support the district planning process more readily available to planners at the sub-national levels.

The current project will use and strengthen the existing national monitoring mechanisms (rather than building new systems) for recording new users under the project, including those that will benefit from the rehabilitation of the existing water supply facilities. Particular support will be provided to improve the data collection system (and feedback) at the district level, through the training of district staff (from Government, NGO's and CBOs) and the provision of resources. In addition, the project will assist in the mapping of water and sanitation facilities in the project provinces using the GIS tools. These activities will be carried out in close partnership with other supporting agencies working in the project area, such as the Austrian Cooperation, EU, JICA, The Netherlands, WSP/WB, and SDC.

Complementing the national monitoring mechanisms, joint field trips involving staff from UNICEF, DNA, DPOPHs, the district authorities and, where appropriate, other international partners, will be conducted regularly to the project area. Through these field trips, monitoring of project implementation progress and verification of project results – including the number of new users – will be undertaken, in addition to the identification of measures to overcome possible project constraints.

Furthermore, project-specific studies and assessments, such as KAP and profile studies, will be carried out to identify community/families knowledge, attitude and practices in relation to the use of water and sanitation facilities and the adoption of safe hygiene practices, which will form the basis for project planning and implementation. The baseline surveys will be carried out from the project inception, capturing indicators outlined in the logframe, including the number of currently-served and un-served people in implementation districts of the project area, which will form the basis for monitoring numbers of new users. These baseline surveys will also serve to verify the appropriateness of the indicators, and in some cases, their means of verification in the project logframe. They will further serve as a testing bed of the monitoring system designed for the implementation of the project,

and as a useful triangulation mechanism for both the MDG and the country programme databases. Data collected will be geographically tagged where possible using GPS technologies appropriate for GIS-based databases.

7.10 Third-party monitoring of results

As part of the UNICEF-Government Programme of Co-operation, the project will be included in the regular planning and review process of the Country Programme. An independent third-party will be engaged to undertake the verification of the project results, including mechanisms established for project management and the recording of project end-users. The existing bodies and systems will be utilised (rather than setting up parallel systems) and building on sector experiences, sector co-ordination bodies such as the Water and Sanitation Co-ordination Working Group (GAS) and other sector partners working in the project area will be engaged to carry out independent project monitoring. Under the UNICEF-GoM mid term review (2004), GAS members actively participated in the monitoring of UNICEF WSHP funded projects in Zambézia, Sofala and Inhambane and provided feedback that was very critical in adjusting programme implementation for better results. The project will build upon this experience and will involve GAS members and sector partners in monitoring project results in the project areas.

The rationale for engaging third-party project monitoring is to establish reliable and objective monitoring systems, which also serve to verify information from field reports and support field trip observations and findings from project staff. Third party monitoring will also provide an essential platform for detailed progress reports and annual reports and for the strategic development of both the project itself and the project monitoring plans. Third-party monitoring will become part of the overall project monitoring system, which will be comprised of:

- reports from implementing partners (DNA, DPOPHs, district authorities, NGOs/CBOs engaged, training/facilitating institutions) and project officials;
- communities analysing their community action plans and maps;
- project visits/reports by central and local government officials and UNICEF staff;
- project records regarding water points, sanitation facilities, and any distribution of materials project review/co-ordination meetings at district, provincial and national levels; and
- project field visits/reports by the third-party monitoring agencies.

The above tools (evaluations, field trips, partners' reports) will assist the project to:

- monitor the numbers of new users reached by the project;
- provide information on indicators to both the MDG and programme databases;
- provide feedback to project partners in the field and at central level;
- prioritise project activities and make strategic changes if required;
- prepare progress and annual reports to DGIS;
- discuss implementation details in joint meetings;
- satisfy internal organisational reporting needs for DGIS and UNICEF;
- learn lessons from innovative project initiatives; and
- use the information for adjusting existing strategies or developing new ones.

7.11 External monitoring and management

Annual Joint Reviews will be carried out together with DGIS (and their external advisers) from years 1-6, with a joint Mid-term Review after year three. The terms of reference for these review missions will be drafted and agreed jointly with DGIS. These reviews will focus on assessing project progress and providing guidance to the project.

7.12 Evaluation

Evaluation will cover the verification of progress made, including project design, approaches applied and results, with the aim of determining its efficiency, effectiveness, impact, sustainability, and the relevance. Project evaluation will include both regular UNICEF evaluations of its programmes and evaluations specific to the project.

The Integrated Monitoring and Evaluation Plans (referred to in Section 7.9 above) are developed with the involvement of all project officers (from Programmes, M&E and Operations) and senior management and take into consideration the M&E plans from other institutions and agencies (plans for DHS and other national surveys) to ensure consistency of data. The development of the IMEP draws from programme logframes and leads the country office to revise logframes, simplifying and streamlining the indicators and means of verification based on feasibility, priority data and analysis needs. The IMEP is reviewed and adjusted during the UNICEF Annual and Mid-Term reviews. As part of the annual IMEPs, evaluation of project indicators is undertaken.

Findings from the evaluation feed into the overall UNDAF evaluation conducted in the penultimate year of a multiyear country programme. The UNICEF country office will use *the Programme Evaluation Standards* as a reference for the development of the evaluation process, in order to ensure the desired evaluation results. These include standards related to utility, feasibility, propriety and accuracy. Drawing from the Programme Evaluation Standards, UNICEF has also developed a set of *Evaluation Report Standards* that detail the key content and quality aspects of reports; these clarify expectations with evaluation teams and will be used by COs in reviewing, accepting or rejecting final evaluation reports submitted. COs use the *Evaluation Terms of Reference Guidelines* as a means of clearly establishing all of the above quality standards.

In addition to these procedures, an external party, under mutually agreed terms of reference, will complete a Final Evaluation of this project in 2012.

7.13 Reporting Arrangements

UNICEF will report once a year on this programme to the donor at an agreed time frame and following an agreed-upon format, including status of progress against monitoring indicators listed in the proposal. The progress report will be based on information received from the provinces/districts where the programme is implemented, in addition to findings of UNICEF monitoring visit. At the end of the programme cycle, an independent evaluation of the programme will be conducted based upon Terms of Reference jointly agreed with the donor. The findings of the evaluation will be the basis for developing a final report to the donor. Both annual progress reports and final report will include

financial information, based on UNICEF Programme Management System (ProMS). Financial data will provide disaggregated information about utilisation of funds against each programme objectives.

The reporting to the donor will be done at such a time that it will also feed into the development by DNA of the Review of the Plano Economico e Social, which is the Government annual review report of progress made on an annual basis for implementing the Poverty Reduction Strategy (PARPA). As such, inputs of this particular programme will be included into the GoM monitoring documents that are used to inform the Annual Joint Review conducted by the GoM and the 18 donors contributing to the Direct Budget Support (the G18) in March/April of each year. UNICEF will also ensure that financial inputs of this programme are included into the State Budget, by providing to the DNA each year in May the amount of funds that will be spent under this programme during the following financial year.

8. RISKS AND THEIR CONTROL MEASURES

The stakeholder consultation meeting identified the following project risks and the related control measures:

Table 12: Risks and Control Measures

Risks	Control measures
• Vulnerability to natural disasters (droughts, floods and cyclones).	Reinforcement of staff at provincial level through recruited staff; Co-ordination with programmes/projects that support emergency preparedness and response activities (UNICEF WSHP programme).
• Weak coordination at all levels.	Establishment of project steering committees; Consider expansion of GAS Forum to provincial level.
• Inadequate monitoring and evaluation systems.	Review and develop project monitoring tools, particularly for recording WES new users. Undertake baseline and impact studies.
• Weak financial management capacity at all levels	On-the-job training through the TA; development of financial guidelines.
• Difficulties in recruitment and retention of staff.	Support recruitment of staff and their accommodation for a period of four years.
• Weak community management structures for adequately maintaining their water facilities.	Community empowerment; establishment and training of water committees.
• Spare parts network not available.	Partnership with private sector, including the informal private sector.
• Limited private sector capacity including NGOs.	Development of business plans; skills improvement through training activities.

9. PROJECT ANNUAL OUTPUTS AND BUDGET

The Budget is presented in Annex 1 – and comprises three financial tables:

- **Overall Project Budget** (Annex 1.1.) is about USD 42,408,600, of which USD 27,464,000 (equivalent to 65 per cent) will be funded under the UNICEF-Netherlands partnership; USD 8,335,800 (equivalent to 20 per cent) by UNICEF; USD 5,528,400 (equivalent to 13 per cent) by the Government of Mozambique; and USD 1,080,000 (equivalent to 3 per cent) by communities;
  - **UNICEF Country Office proposed project support cost** (Annex 1.2) being estimate at 20 percent of the project cost;
  - **UNICEF Regular Resources (R&R) Funds contribution to the Project** (Annex 1.3).

The Project Annual Outputs and respective Cash Flow Projections are presented in Annex 2 – and comprise of two tables:

- **Annual Projections of Project Outputs** (Annex 2.1);
- **Annual Cash Flow Projections per Contributor (GoN, UNICEF, GoM, Communities) and per Output** (Annex 2.2).

The funds under the UNICEF-Netherlands partnership will cover most of the investment costs and fund disbursement will be undertaken in accordance with UNICEF rules and procedures and the requested **Estimated Disbursements of the Government of The Netherlands Contribution per year is**:

Table 13: Estimated project disbursements per year

(USD)

2006	2007	2008	2009	2010	2011	2012	TOTAL
435,200	1,861,100	3,728,800	5,165,800	6,575,800	5,786,700	3,911,000	**27,464,400**

ANNEX 1.1

Government of Netherlands and UNICEF Partnership for WASH in Eastern and Southern Africa
Mozambique Proposal
OVERALL PROJECT BUDGET

Un: USD

Expenditures	Target	Unit Cost/percapita cost	TOTAL	UNICEF/GoNeth.	%	UNICEFR&R		GoMozambique	%	Communities	%
TECHNICAL COMPONENT:											
Water Supply New Users:											
New water points users in rural areas	1,000,000	16	16,000,000	11,200,000	70%	2,080,000	13%	2,080,000	13%	640,000	4%
Sub-total Water Supply New Users	1,000,000		***16,000,000***	***11,200,000***		***2,080,000***		***2,080,000***		***640,000***	
Water Supply Rehabilitated:											
Rehabilitated water points users	200,000	5	1,000,000	700,000	70%	130,000	13%	130,000	13%	40,000	4%
Sub-total Water Supply Rehabilitated	***200,000***		***1,000,000***	***700,000***		***130,000***		***130,000***		***40,000***	4%
Sanitation:											
New sanitation users:	1,000,000										
Actions to stimulate demand and supply	(per capita)	3	3,000,000	1,500,000	50%	750,000	25%	750,000	25%		
Building improved traditional latrines	200,000	20	4,000,000	1,600,000	40%	1,000,000	25%	1,000,000	25%	400,000	10%
Sub-total Sanitation			***7,000,000***	***3,100,000***		***1,750,000***		***1,750,000***		***400,000***	
School Water Supply and Sanitation:											
Schools reached in 6 years	400	12,000	4,800,000	3,840,000	80%	672,000	14%	288,000	6%		0%
Sub-total School Water Supply&Sanitation			***4,800,000***	***3,840,000***		***672,000***		***288,000***		***0***	0%
Hygiene, Education&Sanitation Promotion											
People with improved hygiene behaviours	1,200,000	3.50	4,200,000	2,100,000	50%	1,050,000	25%	1,050,000	25%		
Sub-total Hygiene, Education & Sanitation			***4,200,000***	***2,100,000***		***1,050,000***		***1,050,000***		***0***	0%
Studies:											
Baseline studies	18	25,000	450,000	225,000	50%	225,000	50%		0		0%
Project impact studies	2	150,000	300,000	150,000	50%	150,000	50%		0		0%
Mastr Plan per Province	3	200,000	600,000	300,000	50%	300,000	50%		0		0%
Sub-total Studies			***1,350,000***	***675,000***		***675,000***				***0***	0%
CAPACITY DEVELOPMENT COMPONENT:											
Strengthening institutions:											
District staff (18) subsidies ****	5 years	200/person/month	216,000	172,800	80%			43,200	20%		
Province staff (12) subsidies ***	6years	400/person/month	345,600	230,400	67%			115,200	33%		
Province staff housing (6casas)	6 years	500/house/month	216,000	144,000	67%			72,000	33%		
Functioning costs at district level (18offic.) *	5.0 years	10,000/person/year	900,000	900,000	100%						
Supervision costs at DPOPH level (3) **	6.0 years	40,000/province/year	~~720,000~~	~~432,000~~	60%	~~288,000~~	40%				
Oversight costs at DNA level **	6 years	50,000/year	~~300,000~~	~~180,000~~	60%	~~120,000~~	40%				
Sub-total Strengthening Institutions			***2,697,600***	***2,059,200***	76%	***408,000***	15%	***238,400***	9%	***0***	
Training:											
Development of training plans and materials	12	20,000	240,000	240,000	100%						
Exchange lessons learned/best practices	60	3,000	180,000	90,000	50%	90,000	50%				

Expenditures	Target	Unit Cost/percapita cost	TOTAL	UNICEF/GoNeth	%	UNICEF&R		GoMozambique	%	Communities	%
Training activities	4500 trainees	50	225,000	225,000	100%						
Sub-total Training			***645,000***	***555,000***	**86%**	**90,000**	**14%**	***0***		***0***	
Equipment:											
Purchase of equipment for Provinces *****			***550,000***	***550,000***	100%						
UNICEF COSTS:											
External audit	2	25,000	50,000	50,000	100%						
UNICEF direct support costs			822,000			822,000	100%				
UNICEF country level project support		-13	3,294,000	2,635,200	80%	658,800	20%				
Total UNICEF Costs			**4,166,000**	**2,685,200**	**64%**	**1,480,800**	**36%**	**0**		**0**	

PROJECT INDICATIVE BUDGET ***27,000,000***

* Perdiems, travel & fuel, office material, vehicle&equipment maintenance, communications, in **18 districts** of Tete, Manica and Sofala provinces.

** Perdiems, travel, fuel, office material, equipment maintenance, communications, meetings, bank charges: **3 DPOPHs offices** and **DNA**.

*** 4 Officers with University degree for each DPOPH

**** 1 medium level technician for each district

***** 6 vehicles (2/ DPOPH); 18 motobikes (1/distrct); 30 computer– printers (1/district + 4/DPOPH); 21 Photocopy maquines (1 /district + DPOPH); 21 water quality kits (1/district + DPOPH); 24 GPS (1/district + 2/DPOPH); 21 Camping tents (1/district+ DPOPH); 3 scan (1/DPOPH); 3 Digital camera (1/DPOPH).

ANNEX 1.2

Government of Netherlands - UNICEF Partnership for WASH in Eastern and Southern Africa
Mozambique Proposal
UNICEF COUNTRY OFFICE PROPOSED PROJECT SUPPORT COSTS

PART 1: International Professional Officers					
L-4	Person-year	160,000	1	160,000	
L-3	Person-year	130,000	1	130,000	
Part 2: National Professional Officers					
Senior Water Engineer	Person-year	50,000	1	50,000	
Senior Sanitation Engineer	Person-year	50,000	1	50,000	
Economist	Person-year	48,000	1	48,000	
NO-B	Person-year	40,000	1	40,000	
Part 3: General Services staff (PA/secretary)					
Drivers	Person-year	10,000	2	20,000	*
	Total (1 year)			**498,000**	
UNICEF National and International Professional Staff Costs	**Total (6 years)**			**2,988,000**	
Part 4: Other project support costs:					
External Audit					
Transportation - vehicles	Nos	25,000	3	75,000	*
Communication - HF sets	Nos	5,000	3	15,000	*
Logistics support cost	Amount/year	30,000	6	180,000	*
Monitoring visits	trips	4,000	6	24,000	
Auditing costs	per year				
Others (Computer equipment, printers, scanners, GPS)		12,000	1	12,000	
Sub-total Other Project Support Costs:				**306,000**	

* Alternative: Rent-a-car system instead of buying 3 vehicles and other related costs including drivers - sub-total to be reconsidered: 290,000 USD for a period of 6 years.

Annex 1.3

Government of the Netherlands and UNICEF Partnership for WASH in Eastern and Southern Africa

Mozambique Country Office

UNICEF RR FUNDS CONTRIBUTION TO THE PROJECT

Heading	Quantity	Unit	Duration (Year)	Unit Price (USD)	Total Amount (USD)
PERSONNEL					**312000**
Expatriate Staff					
WES Co-ordinator	*0.3*	*Person*	*6*	*140000*	252000
Local Personnel					
WES National Officer	*0.5*	*Person*	*6*	*50000*	60000
TRANSPORT					**400000**
subcontracted transport					**200000**
field missions - travel					**200000**
OTHER SERVICES					**110000**
Communication					**60000**
Monitoring					**50000**
TOTAL					**822000**

Annex 2.1

UNICEF - Government of the Netherlands Partnership for WASH in Eastern and Southern Africa

Mozambique Country Office

ANNUAL PROJECTION OF PROJECT OUTPUTS

#	Annual Outputs Projections	Year							Total Output
		2006	2007	2008	2009	2010	2011	2012	
1	Users of New Water Supply		50,000	140,000	210,000	300,000	210,000	90,000	**1,000,000**
2	Users of Rehabilitated water supplies:			25,000	50,000	50,000	50,000	25,000	**200,000**
3	Users of new Rural Sanitation		50,000	100,000	150,000	200,000	250,000	250,000	**1,000,000**
4	Schools with good WASH		10	50	80	100	100	60	**400**
5	Practitioners of Hygiene		30,000	90,000	150,000	250,000	340,000	340,000	**1,200,000**
6	Studies	3	10	6	1	1	1	1	**23**
7	Number of institutions with improved capacity		4	22	22	22	22	22	**114**
8	Number of persons with additional skills		202	802	902	1,002	1,002	662	**4,572**
9	Number of institutions with extra equipment		3	9	9				**21**

Annex 2.2

Government of the Netherlands - UNICEF Partnership for WASH in Eastern and Southern Africa

Mozambique Country Office

ANNUAL CASH FLOW PROJECTION PER OUTPUT AND CONTRIBUTOR

	YEAR	2006					2007				
Budget Item	Output Description	GON	UNICEF	GoM	Community	Total	GON	UNICEF	GoM	Community	Total
1	New Water Supply	0	0	0	0	0	560,000	104,000	104,000	32,000	800,000
2	Rehabilitated water supplies:	0	0	0	0	0	0	0	0	0	0
3	Rural Sanitation	0	0	0	0	0	155,000	87,500	87,500	20,000	350,000
4	School Water and Sanitation:	0	0	0	0	0	96,000	16,800	7,200	0	120,000
5	Hygiene Education and Promotion	0	0	0	0	0	52,500	26,250	26,250	0	105,000
6	Studies	50,000	50,000	0	0	100,000	137,500	137,500	0	0	275,000
7i)	Institututional Capacity Building					0	195,600	68,000	0	0	263,600
7ii)	Number of persons additional skills					0	64,500	15,000	0	0	79,500
7 iii)	Extra equipment	150,000				150,000	200,000				200,000
8	UNICEF Support	235,200	58,800			294,000	400,000	237,000			637,000
Total Budgets by year		435,200	108,800	0	0	544,000	1,861,100	692,050	224,950	52,000	2,830,100

Annex 2.2

	YEAR	2,008					2,009				
Budget Item	Output Description	GON	UNICEF	GoM	Community	Total	GON	UNICEF	GoM	Community	Total
1	New Water Supply	1,568,000	291,200	291,200	89,600	2,240,000	2,352,000	436,800	436,800	134,400	3,360,000
2	Rehabilitated water supplies:	87,500	16,250	16,250	5,000	125,000	175,000	32,500	32,500	10,000	250,000
3	Rural Sanitation	310,000	175,000	175,000	40,000	700,000	465,000	262,500	262,500	60,000	1,050,000
4	School Water and Sanitation:	480,000	84,000	36,000	0	600,000	768,000	134,400	57,600	0	960,000
5	Hygiene Education and Promotion	157,500	78,750	78,750	0	315,000	262,500	131,250	131,250	0	525,000
6	Studies	112,500	112,500	0	0	225,000	100,000	100,000	0	0	200,000
7i)	Institututional Capacity Building	418,800	68,000	0	0	486,800	418,800	68,000	0	0	486,800
7ii)	Number of persons additional skills	94,500	15,000	0	0	109,500	99,500	15,000	0	0	114,500
7 iii)	Extra equipment	100,000				100,000	100,000				100,000
8	UNICEF Support	400,000	237,000			637,000	425,000	237,000			662,000
Total Budgets by year		3,728,800	1,077,700	597,200	134,600	5,638,300	5,165,800	1,419,450	920,650	204,400	7,708,300

Annex 2.2

	YEAR	2,010					2,011				
Budjet Item	Output Description	GON	UNICEF	GoM	Community	Total	GON	UNICEF	GoM	Community	Total
1	New Water Supply	3,360,000	624,000	624,000	192,000	4,800,000	2,352,000	436,800	436,800	134,400	3,360,000
2	Rehabilitated water supplies:	175,000	32,500	32,500	10,000	250,000	175,000	32,500	32,500	10,000	250,000
3	Rural Sanitation	620,000	350,000	350,000	80,000	1,400,000	775,000	437,500	437,500	100,000	1,750,000
4	School Water and Sanitation:	960,000	168,000	72,000	0	1,200,000	960,000	168,000	72,000	0	1,200,000
5	Hygiene Education and Promotion	437,500	218,750	218,750	0	875,000	595,000	297,500	297,500	0	1,190,000
6	Studies	100,000	100,000	0	0	200,000	100,000	100,000	0	0	200,000
7i)	Institututional Capacity Building	418,800	68,000	0	0	486,800	325,200	68,000	93,600	0	486,800
7ii)	Number of persons additional skills	104,500	15,000	0	0	119,500	104,500	15,000	0	0	119,500
7 iii)	Extra equipment										
8	UNICEF Support	400,000	237,000			637,000	400,000	237,000			637,000
Total Budgets by year		6,575,800	1,813,250	1,297,250	282,000	9,968,300	5,786,700	1,792,300	1,369,900	244,400	9,193,300

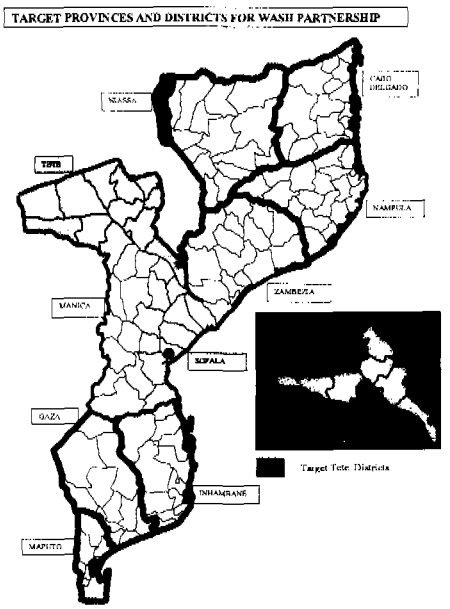
Annex 2.2

	YEAR	2013					Totals				
Budget Item	Output Description	GON	UNICEF	GoM	Community	Total	GON	UNICEF	GoM	Community	Total
1	New Water Supply	1,008,000	187,200	187,200	57,600	1,440,000	11,200,000	2,080,000	2,080,000	640,000	16,000,000
2	Rehabilitated water supplies:	87,500	16,250	16,250	5,000	125,000	700,000	130,000	130,000	40,000	1,000,000
3	Rural Sanitation	775,000	437,500	437,500	100,000	1,750,000	3,100,000	1,750,000	1,750,000	400,000	7,000,000
4	School Water and Sanitation:	576,000	100,800	43,200	0	720,000	3,840,000	672,000	288,000	0	4,800,000
5	Hygiene Education and Promotion	595,000	297,500	297,500	0	1,190,000	2,100,000	1,050,000	1,050,000	0	4,200,000
6	Studies	75,000	75,000	0	0	150,000	675,000	675,000	0	0	1,350,000
7i)	Institututional Capacity Building	282,000	68,000	136,800	0	486,800	*2,059,200*	408,000	*230,400*	0	2,697,600
7ii)	Number of persons additional skills	87,500	15,000	0	0	102,500	555,000	90,000	0	0	645,000
7 iii)	Extra equipment					0	550,000				550,000
8	UNICEF Support	425,000	237,000			662,000	2,685,200	1,480,800			4,166,000
Total Budgets by year		3,911,000	1,434,250	1,118,450	162,600	6,626,300	27,464,400	8,335,800	5,528,400	1,080,000	42,408,600

Description	TETE PROVINCE

Netherlands	27,464,400	9,154,667
UNICEF	8,335,800	2,778,600
Government	5,528,000	1,842,666
Communities	1,080,000	360,000

2006-2012



Basic Data Tete Province

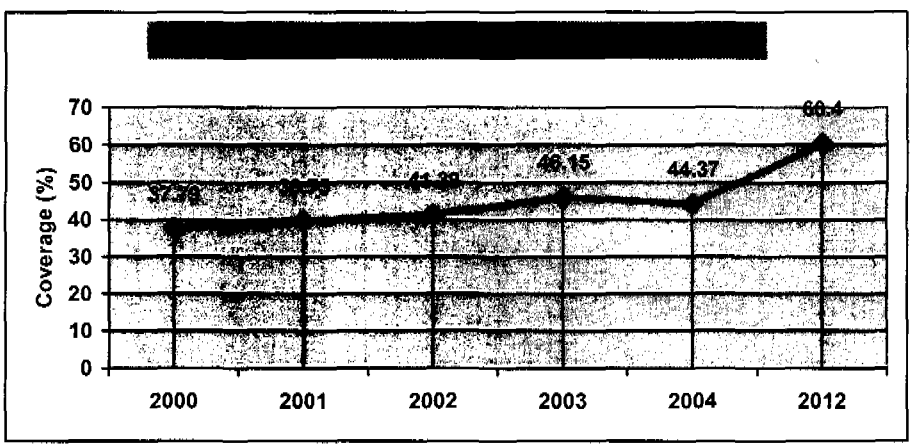
Rural Population: 1,349,280
Urban Population: 162,552

Water Coverage:

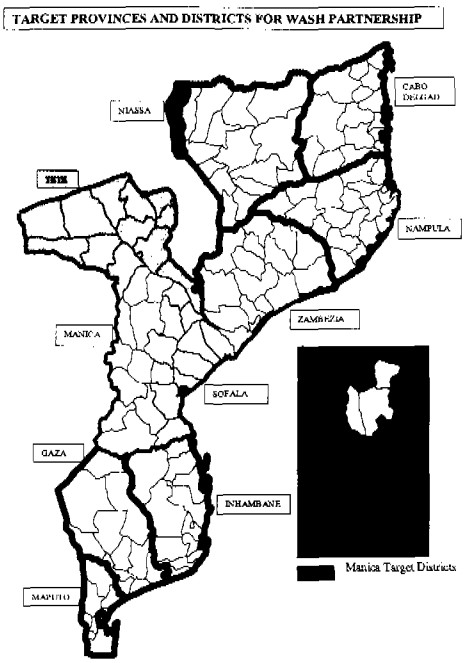
Zumbo	48,803	24	60,108	70
Angonia	335,312	34	396,079	70
Chifunde	60,716	42	66,620	70
Changara	148,419	42	166,413	70
Tsangano	146,486	43	173,120	70
Maravia	67,061	48	76,763	70

Sanitation Coverage: 53.2%
HIV/AIDS prevalence: 16.6%
Poverty Rate: 60.0%
U5MR: 206/1000
Stunting Prevalence: 45.6%
Primary School Attendance: 52%

New users of safe drinking water:	348,638
New users of sanitation facilities (households):	70,000
School WASH beneficiaries (schoolchildren)	140 schools (50,000)
Hygiene promotion:	360,000 people
Capacity development:	1,525 people
Institutions with increased capacity:	7



Description	MANICA PROVINCE		
	Netherlands	27,464,400	9,154,667
	UNICEF	8,335,800	2,778,600
	Government	5,528,000	1,842,666
	Communities	1,080,000	360,000
	[redacted]		
	2006-2012		



Basic Data Manica Province

Rural Population: 976, 671
Urban Population: 344,561

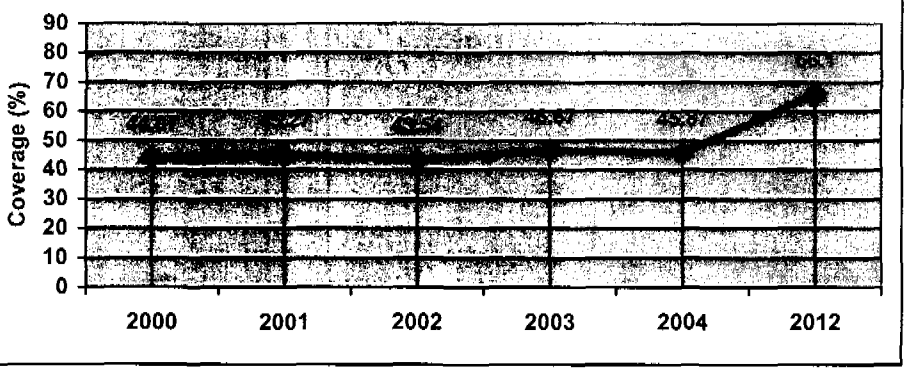
Water Coverage

[redacted]				
Gondola	219,600	53	227,308	70
Guro	41,726	70	38,447	70
Machaze	86,557	52	96,323	70
Manica	291,021	37	401,828	70
Mossurize	148,104	47	164,785	70
Sussundenga	131,359	39	157,903	70

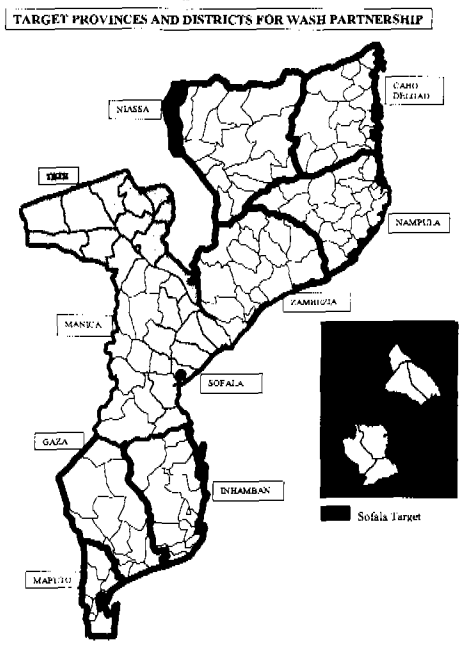
Sanitation Coverage: 46.6%
HIV/AIDS prevalence: 19.7%
Poverty Rate: 44%
U5MR: 184/1000
Stunting Prevalence: 39%
Primary School Attendance: 67%

New users of safe drinking water:	343,789
New users of sanitation facilities (households):	70,000
School WASH beneficiaries (schoolchildren):	140 schools (50,000)
Hygiene promotion:	360,000 people
Capacity development:	1,525 people
Institutions with increased capacity:	7

[redacted]



Description	SOFALA PROVINCE		
	Netherlands	27,464,400	9,154,667
	UNICEF	8,335,800	2,778,600
	Government	5,528,000	1,842,666
	Communities	1,080,000	360,000
	2006-2012		



Basic Data Sofala Province

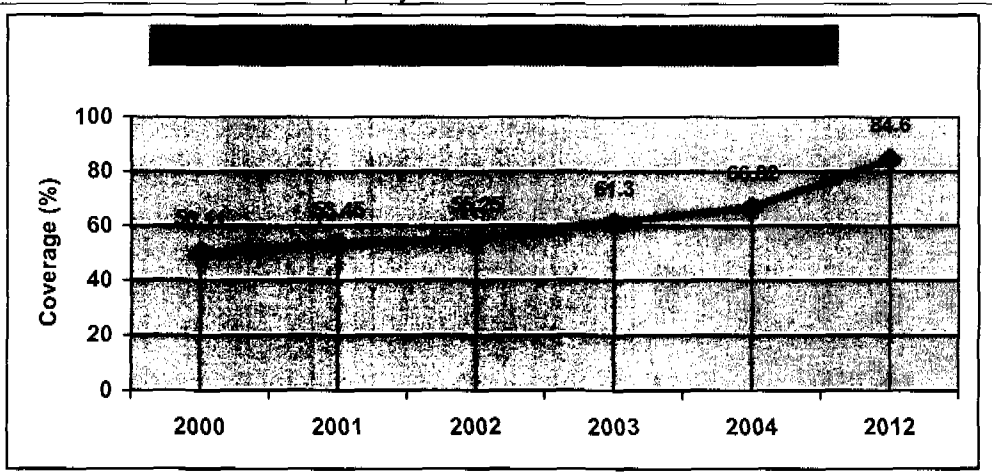
Rural Population: 967,529
Urban Population: 670,292

Water Coverage:

Chemba	42,334	45.2	37,756	70
Dondo	190,523	34.8	244,241	70
Gorongoza	94,111	18.8	103,786	70
Maringue	65,879	23.9	72,652	70
Muanza	12,140	43.8	9,860	70
Nhamatanda	214,134	20.0	274,174	70

Sanitation Coverage: 29.5%
HIV/AIDS prevalence: 26.6%
Poverty Rate: 36%
U5MR: 205/1000
Stunting Prevalence: 42%
Primary School Attendance: 60%

New users of safe drinking water:	352,709
New users of sanitation facilities (households):	60,000
School WASH beneficiaries (schoolchildren):	120 schools (40,000)
Hygiene promotion:	360,000 people
Capacity development:	1,525 people
Institutions with increased capacity:	7



ANNEX 4:

WATER COVERAGE PROJECTIONS FOR PROJECT DISTRICTS

PGR=	0.024	N2012-2004	8

Provinces	P2005	PB2005	C2005	P2012	PB2012	C2012
Tete	1,349,280	584,500	**44.4%**	1,631,179	348,638	**57.2%**
Manica	975,671	436,000	**45.9%**	1,179,514	343,789	**66.1%**
Sofala	967,529	636,500	**66.8%**	1,169,671	352,709	**84.6%**

Key Legend

P: Population
PB: Population Benefited Drinking Water
C: Coverage Rate (%)
PGR: Population Growth Rate

Target Coverage 70.0%

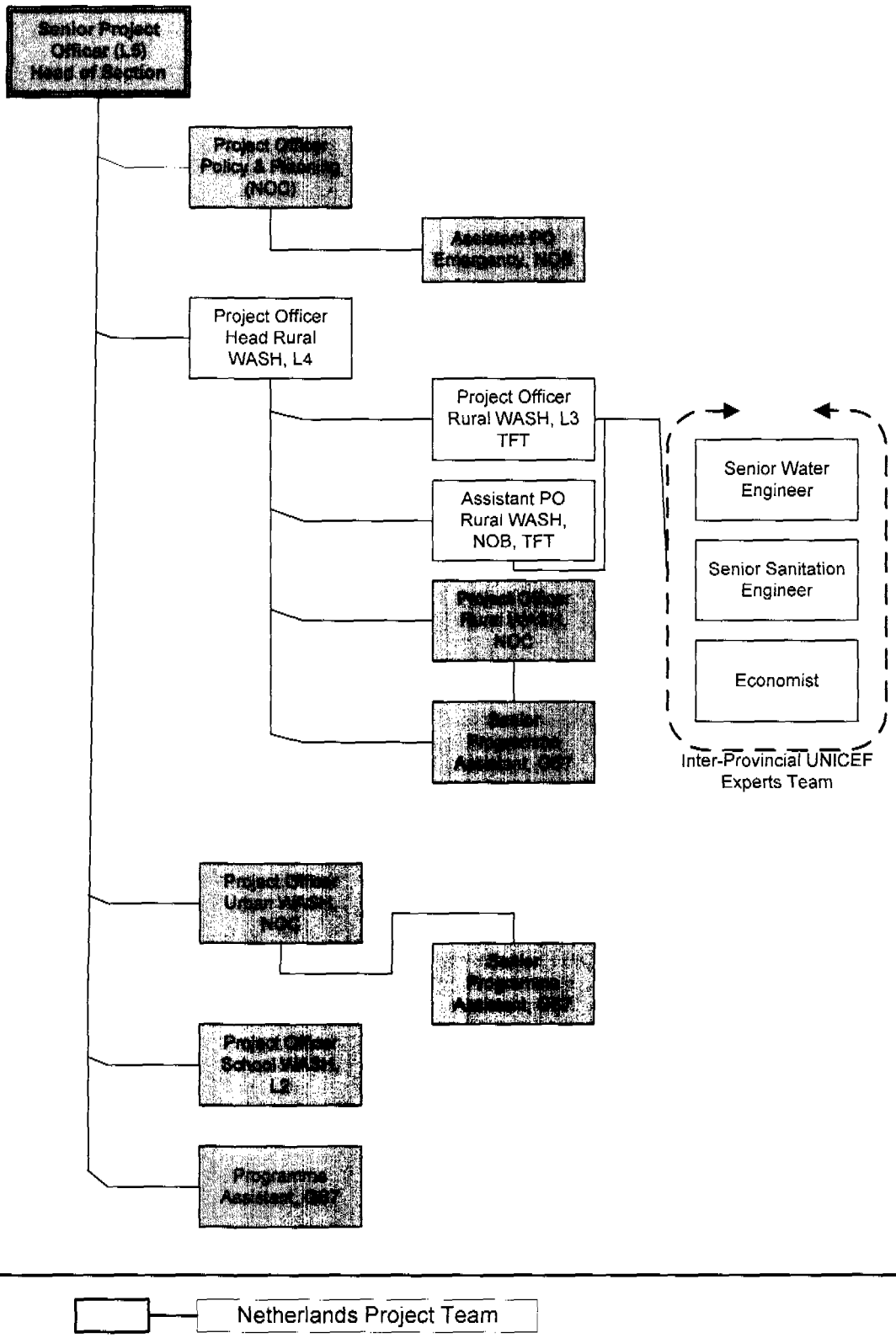
Manica	P2005	C2005	P2010	PGR	P2012	PB2005	PB70%	Dif PB
Gondola	219,600	53.0%	224,709	0.6%	227,308	116,388	159,116	42,728
Guro	41,276	70.0%	39,368	-1.2%	38,447	28,893	26,913	NA
Machaze	86,557	52.0%	92,951	1.8%	96,323	45,010	67,426	22,416
Manica	291,021	37.0%	360,857	5.5%	401,828	107,678	281,280	173,602
Mossurize	148,104	47.0%	159,026	1.8%	164,785	69,609	115,350	45,741
Sussundenga	131,359	39.0%	148,507	3.1%	157,903	51,230	110,532	59,302
Total	**917,917**						**Total Manica**	**343,789**

Sofala	P2005	C2005	P2010	PGR	P2012	PB2005	PB70%	Dif PB
Chemba	42,334	45.2%	39,224	-1.9%	37,756	19,135	26,429	7,294
Dondo	190,523	34.8%	224,834	4.2%	244,241	66,302	170,969	104,667
Gorongoza	94,111	18.8%	100,455	1.6%	103,786	17,693	72,650	54,957
Maringue	65,879	23.9%	70,320	1.6%	72,652	15,745	50,856	35,111
Muanza	12,140	43.8%	10,568	-3.4%	9,860	5,317	6,902	1,585
Nhamatanda	214,134	20.0%	252,491	4.2%	274,174	42,827	191,922	149,095
Total	**619,121**						**Total Sofala**	**352,709**

Tete	P2005	C2005	P2010	PGR	P2012	PB2005	PB70%	Dif PB
Zumbo	48,803	24.0%	56,075	3.5%	60,108	11,713	42,075	30,363
Angonia	335,312	34.0%	374,689	2.8%	396,079	114,006	277,255	163,249
Chifunde	60,716	42.0%	64,591	1.6%	66,620	25,501	46,634	21,133
Changara	148,419	42.0%	160,185	1.9%	166,413	62,336	116,489	54,153
Tsangano	146,486	43.0%	163,743	2.8%	173,120	62,989	121,184	58,195
Maravia	67,061	48.0%	73,382	2.3%	76,763	32,189	53,734	21,544
Total	**806,797**						**Total Tete**	**348,638**
							Total Target Districts	

ANNEX 5

UNICEF WASH PROGRAMME STAFF STRUCTURE



A. UNICEF Project Support Staff

WASH Project Officer (L4), Head of Rural Water and Sanitation Component

The WASH Project Officer (L4) will be responsible for overall implementation and management of the Rural component of the WASH programme under the general guidance of the WASH section Chief. The project officer will provide specific technical support in the following areas: (*i*) affordable technologies to increase access to water, sanitation and hygiene facilities in rural areas, including installation of child friendly facilities in schools; (*ii*) capacity development strategies at all levels; (*iii*) planning, monitoring and evaluation, including more sustainable information management systems; and (*iv*) management processes through participatory approaches. In liaison with participating Ministries and donors, s/he will ensure that the project is moving towards planned targets consistent with the relevant national and international policy objectives, including technical contribution in SWAp and other coordination fora (joint partners review). S/he will be assisted by one international officer (L3) and one National Project Officer (NOB) based in Maputo. The team will be responsible primarily for the management of the WASH partnerships with the Netherlands Government.

WASH Project Officer (L3), Rural Water and Sanitation component

The WASH Project Officer (L3), working under the guidance and supervision of the WASH Project Officer (L4) coordinator of rural WASH activities, will be directly responsible for the management and implementation of the WASH partnership with the Netherlands Government, namely to provide technical support for: (*i*) preparation of annual work plans at decentralized levels including budgets and monitoring and evaluation tools; (*ii*) development of partnerships with other donors and NGOs working in project areas; (*iii*) sound procurement management practices as per Government procedures and UNICEF standards; (*iv*) effective overall supervision of field works including assurance that technical guidelines and specifications for water and sanitation infrastructures are properly followed; (*v*) development of capacity gap analysis, including identification of training needs and elaboration of plans; and (*vi*) timely preparation and compilation of donor progress reports.

WASH Assistant Project Officer (NOB)

The WASH Assistant Project Officer (NOB) will work under the guidance of the WASH Project Officer (L3), and will be responsible for assisting in the implementation of the WASH partnership with the Netherlands in the following areas: (i) support preparation and consolidation of annual works plans at District and Provincial levels, including budget disbursements plans and supply inputs; (ii) assist in the preparation of bidding processes and management of contracts; (iii) undertake regular field visits to Provinces and Districts to ensure that project implementation is according to plans and established annual targets; (iv) support management processes in ProMS (requisitions and payment requests), and specifically the timely liquidation of advanced funds; (v) support preparation of annual and mid-year reviews, including data collection and written contributions for donor progress reports.

UNICEF Inter-Provincial Team "outline" ToR

1. SENIOR WATER ENGINEER

[redacted]

Employer:	UNICEF
Title of Post:	Rural Water Supply Expert – Senior Water Engineer
Location:	Beira/Sofala Province with frequent travel to target provinces (Sofala, Tete and Manica) and all 18 target districts
Duration:	10-11 months (renewable)
Reporting to:	Project Officer Rural WASH, L3
Duties:	General: Provide technical assistance for the implementation of the rural water component of the WASH Partnership Project in the target Provinces. Annual Work Plan: Support the provincial and district teams in the preparation of annual work plans; Procurement and Management: Support the timely procurement and contract management for borehole drilling and well construction in each province/district Capacity development: Provide on the job trainings (technical supervision and specifications, contract management and operation and maintenance) for provincial and district staff and end-users. Technical implementation: supervise the drilling works and provide advice on technology options/specifications for water facilities with focus on sustainability (quality of works, supply chain/spare parts commercialization; community participation and operation in maintenance of water schemes). Monitoring and Evaluation: Provide technical assistance for preparation of M&E tools (Master Plans, GIS/Mapping/data bases); undertake regular field visits (at least 3 days/week); participate in project mid-year and annual reviews; prepare compilation of data for progress reports (water component).
Experience	A minimum of 5 years of work experience in the area of water supply, specifically on groundwater drilling and hand pump installation and maintenance.
Other Skills	Computer skills as a user (Microsoft package: Word, Excel, Powerpoint).
Education	University degree in Civil Engineering, Geology/Hydrogeology with specialty in rural water supply/hydraulics
Language Skills	Portuguese and English

2. SENIOR SANITATION ENGINEER

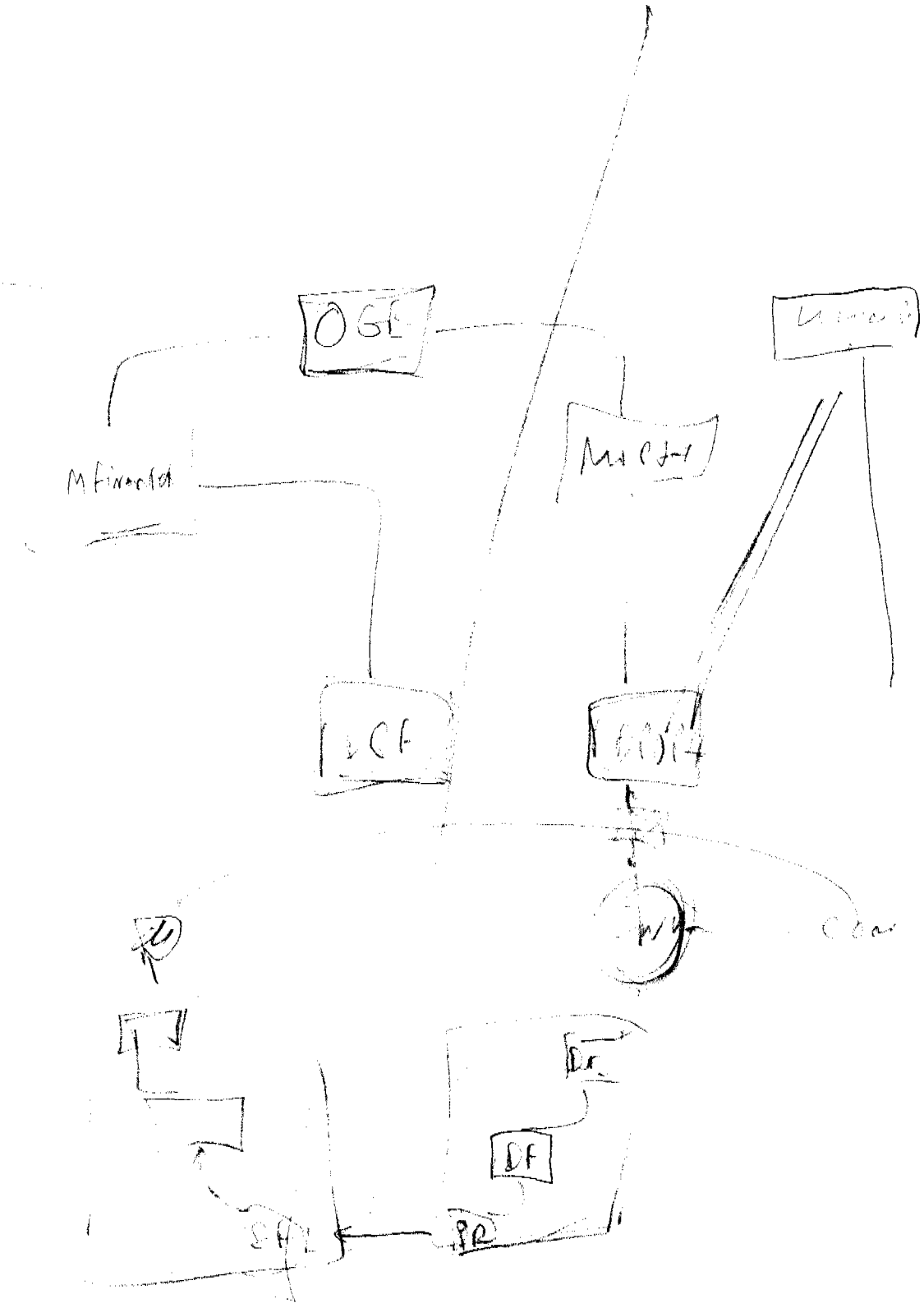
[redacted]

Employer:	UNICEF
Title of Post:	Rural Sanitation/PEC Expert – Senior Sanitation Engineer or Social Scientist
Location:	Beira/Sofala Province with frequent travel to target provinces (Sofala, Tete and Manica) and all 18 target districts
Duration:	10-11 Months (renewable)
Reporting to:	Project Officer Rural WASH, L3
Duties:	General: Provide technical assistance for the implementation of the rural sanitation and hygiene component of the WASH Partnership Project in the target Provinces. Annual Work Plan: Support the provincial and district teams in the preparation of annual work plans; Procurement and Management: Support preparation of bidding processes and contract management for PEC/sanitation Capacity development: Provide on the job trainings for project staff and end-users at province and district level (new technology options for sanitation, hygiene promotion and participatory methodologies) Technical implementation: supervise the construction of household sanitation facilities and hygiene promotion activities with focus on: quality of works; establishment of demonstration centres; promotion of local materials; and household/community participation. Monitoring and Evaluation: Provide technical assistance for preparation of KAP studies and M&E tools (GIS/Mapping); undertake regular field visits (at least 3 days/week); participate in project mid-year and annual reviews; prepare compilation of data for progress reports (sanitation)
Experience	A minimum of 5 years of work experience in the area of sanitation and hygiene promotion, specifically on affordable technology options and participatory methods for behaviour change
Other Skills	Computer skills as a user (Microsoft package: Word, Excel, Powerpoint) and others.
Education	University degree in Sanitary Engineering or Sociology with specialty in rural sanitation and hygiene promotion.
Language Skills	Portuguese and English

3. FINANCE/ACCOUNTANT - ECONOMIST

[redacted]

Employer:	UNICEF
Title of Post:	Finance/Accountant Expert – Economist
Location:	Beira/Sofala Province with frequent travel to target provinces (Sofala, Tete and Manica) and all 18 target districts
Duration:	12 Months (renewable)
Reporting to:	Project Officer Rural WASH, L3
Duties:	General: Provide technical assistance on financial and administrative matters for an efficient implementation of the WASH Partnership Project Annual Work Planning: Support the provincial and district teams in the preparation of annual budget including disbursements plans; Procurement and Management: Support the planning of annual budgets and procurement plans; establish funding and effective accounting systems, ensure timely liquidation of advances; prepare data for financial reports. Capacity development: provide on the job trainings on accounting/financial management of project funds for project staff at province and district level. Project Implementation: prepare accounting processes and provide advice on sound financial procedures with focus on accountability and transparency (efficient contract management, timely payments, establishment of accounting monitoring tools) Monitoring and Evaluation: Undertake regular field visits (at least 2 days/week); support project mid-year and annual reviews; prepare financial data for progress reports (budget and financial analysis component).
Experience	A minimum of 5 years of work experience in the area of financial project accounting/management, specifically in the water and sanitation sector.
Other Skills	Computer skills as a user (Microsoft package: Word, Excel, Powerpoint) and others financial/accounting software.
Education	High degree in Accounting/Finance/Economy.
Language Skills	Portuguese and English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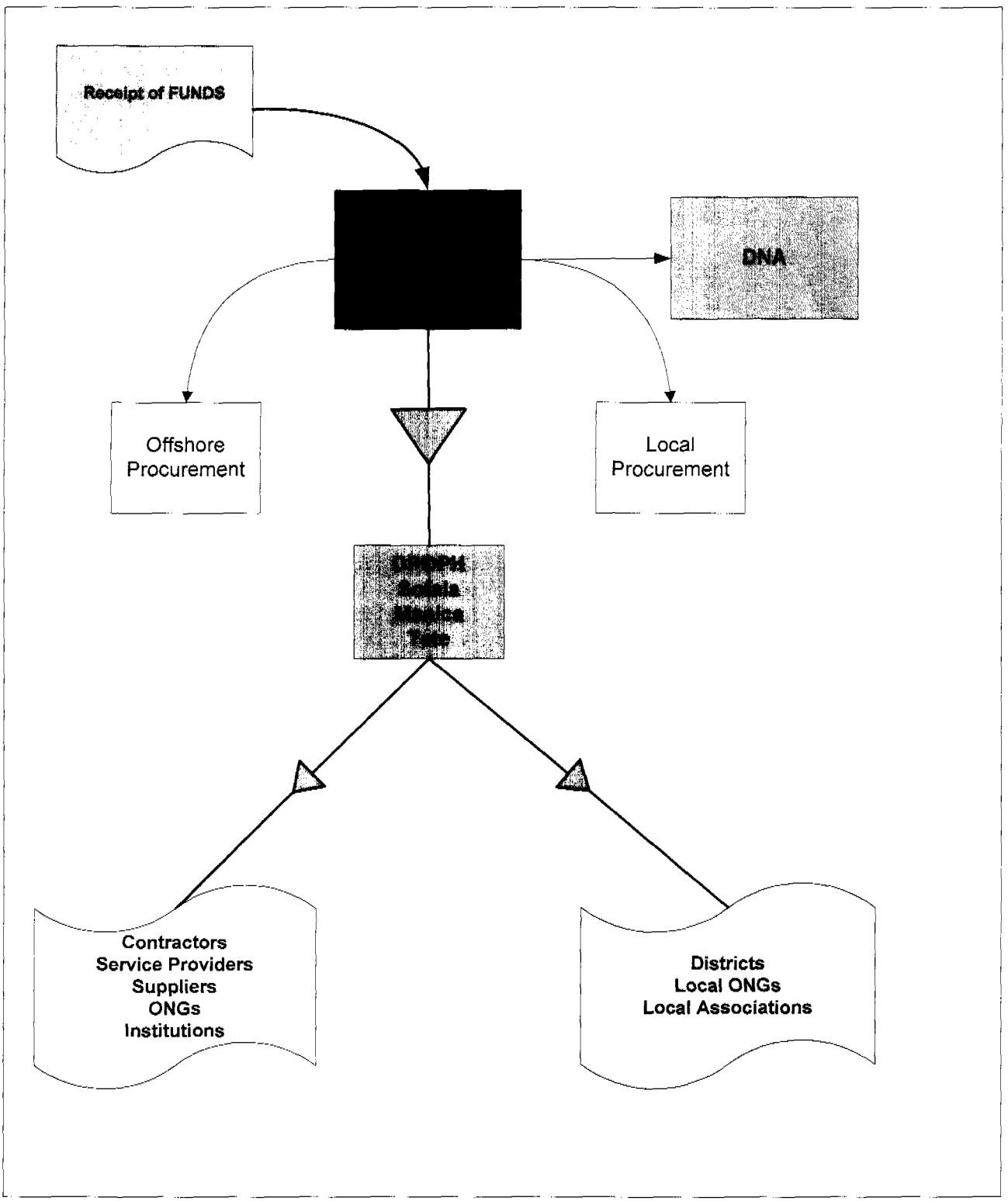
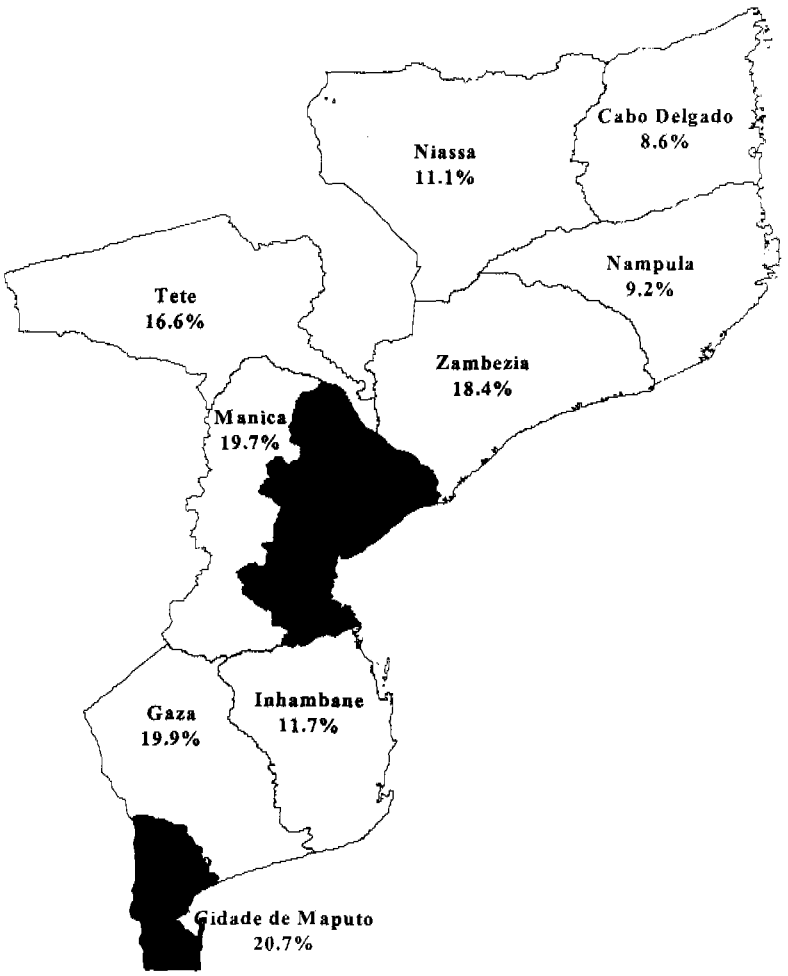
ANNEX 6

PROJECT CASH FLOW DIAGRAM



HIV/AIDS Prevalence Rate in 2004

Estimated Percentage of adults (15 to 49 years) living with HIV/AIDS



Legend

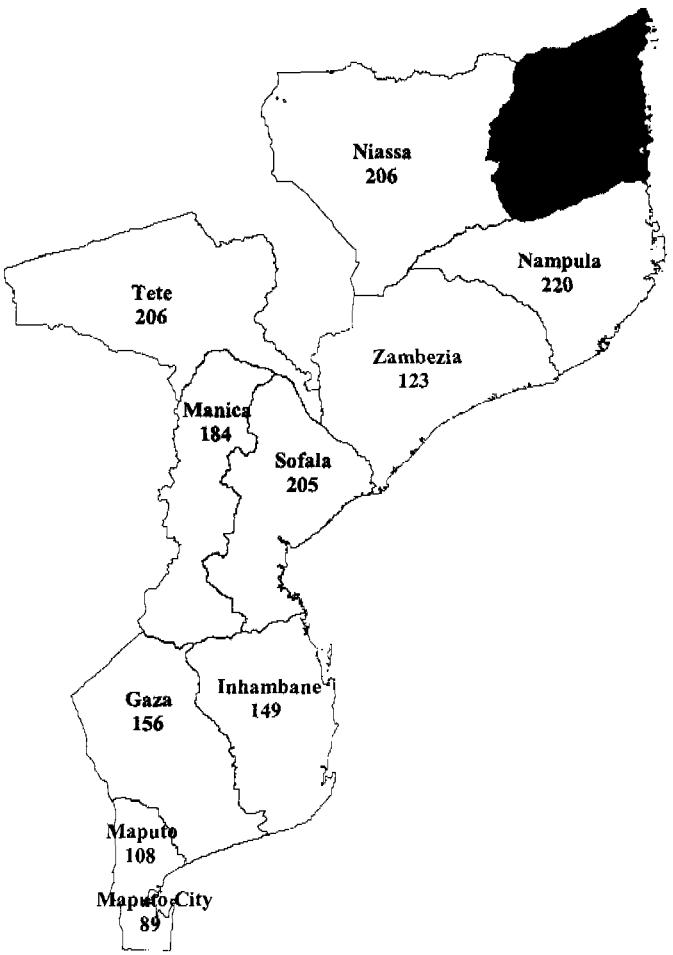
Below 10% prevalence
Between 10% and 20% prevalence
Above 20%

2004 National Prevalence Rate Among Adults: 16.2%

Source: MISAU, Ronda 2004

Under-five Mortality Rate

Probability of dying before reaching five years of age (per 1,000 live births)



Legend

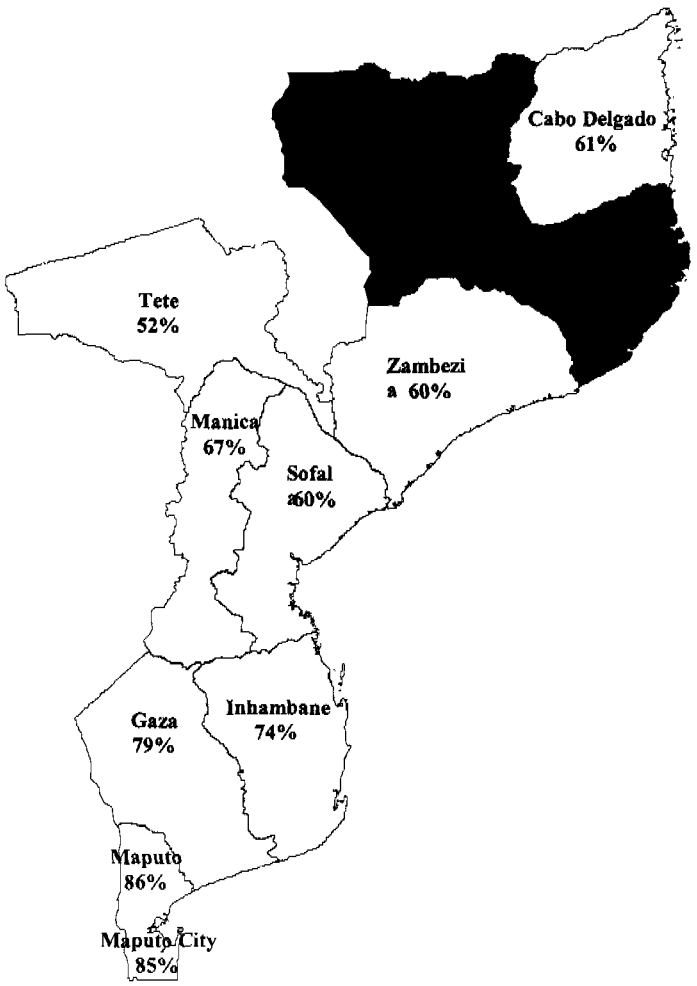
Below 150
Between 150 and 220
Above 220

National Under-Five Mortality Rate: 178 deaths per 1,000 live births
Urban Areas: 143 per 1,000
Rural Areas: 192 per 1,000
Among Children of Mothers with No Education: 200 per 1,000
Among Children of Mothers with Secondary Education: 87 per 1,000

Source: DHS 2003

Net Primary School Attendance Rate (EP1)

Percentage of Children of EP1 School Age (6 to 10 years old) Attending the First Five Years of Primary School (EP1)



Legend

Above 80%
Between 50% and 80%
Below 50%

National Net Primary School Attendance Rate (EP1): 61%
Urban Areas: 76%
Rural Areas: 55%
Among Girls: 59%
Among Boys: 63%

Source: IAF 2002/2003

ANNEX 10: FINANCIAL AND ECONOMIC APPRAISAL

1. INTRODUCTION

The proposed Government of the Netherlands and UNICEF WASH partnership for Mozambique will target 18 districts in three Provinces (Sofala, Tete and Manica) with the following key objectives:

- increase access to and use of safe water supply for 1 million people (schools and poor rural communities currently un-served) and 200,000 people have access to rehabilitated water points;
- promote and support the construction of household latrines for 1 million people (about 200,000 households);
- enhance knowledge and skills of 1.2 million people (particularly caregivers) regarding appropriate hygiene practices especially hand washing with soap or ash, after toilet use and before eating/feeding;
- ensure that 140,000 schoolchildren in 400 primary schools practice good hygiene;
- strengthen Government capacities at district (18 districts) and provincial (3 provincial water and sanitation departments) levels for WASH planning, co-ordination, management and supervision; and
- ensure that 4,500 persons have appropriate skills and knowledge on WASH issues (planning and procurement, contract management, hygiene promotion, HIV/AIDS prevention, self-help construction of HH latrines, operation, maintenance and management and gender mainstreaming).

In line with international (MDGs) and national targets (PARPA) relating to water and sanitation, the project will support two main components, namely, access to water and sanitation and capacity development.

Investment profile is as follows:

(a) Total project cost: US $ 42.41 million, comprising of:

- US$ 27.5 million requested from Government of Netherlands
- US$ 8.3 million from UNICEF regular resources
- US$ 5.5 million form the Government of Mozambique
- US $ 1.1 million from the communities and households

(b) Government of Netherlands funds will cover:

- 70% of new water supply (*GoM 13 %, UNICEF 13% and Community 4%);*
- 70% of rehabilitated water (*GoM 13 %, UNICEF 13% and Community 4%);*
- 44% of Sanitation improved *(GoM 25%, UNICE 25%, and Community 4%);*
- 80% School water supply and sanitation *(GoM 6% and UNICEF 14%);*
- 50% of hygiene promotion *(GoM 25% and UNICEF 25%);*

- 50% of Baseline, impact studies and master plan per province *(UNICEF 50%);*
- 81% of capacity building *(GoM 6% and UNICEF 13%); and*
- 69% of UNICEF operational costs.

The purpose of this appraisal is to:

(i.) discuss the channels through which the funds will flow and identify risks;
(ii.) determine financial and economic feasibility of the project; and
(iii.) analyze different tariff regimes to ensure that revenues generated are sufficient to cover both the Operating and Maintenance including Human Resource costs and leave a surplus sufficient for replacement of facilities after the expiry of their economic lives.

2. POLICIES AND STRATEGIES

2.1 General Development

One of the most significant developments in the water and sanitation sector in Mozambique during the last decades was the development of the National Water Policy (NWP) by the Government of Mozambique (GOM) in 1995, which signaled a radical change both in the provision and management of water supplies and also in how the country's vital water resources are managed. After decades of top-down planning in both the provision and management of water supplies, the NWP called for the decentralization of water service provision, a greater role for the private sector especially in urban water supply management and the adoption of the demand responsive approach in the rural water sub-sector. Other significant pieces of legislation have been the Water Tariff Policy (1998) and the Institutional Framework for Delegation of Water Supply Management (1998).

2.2. The legal framework of rural water supply

The legal framework for the rural water sector is formulated in the water law of 1991, the National Water policy and the Rural Water Transition Plan. The Most important element in this policy is the introduction of the demand responsive approach (DRA). This would normally mean the following:

1. The water users take the initiative by expressing their interest in addressing their water problem.
2. The water users become the owner of the water supply system once delivered and the communities will manage the system themselves.
3. The water users contribute to the construction and to the operation and maintenance of the system, in labour and/or money (O&M in cash or in kind).

An implementation manual for rural water supply projects (*Manual de Implementação de Projectos de Abastecimento de Água e Sanemaneto Rural*) has been formulated and distributed for more detailed explanation and operationalisation of the demand responsive approach in Mozambique (first version in 1999, later adapted in second version in 2002).

2.3 Analysis of Financial and Operational Risks

(a) ***Risk of funding duplication at community level*** – If there is uncoordinated access and disbursement of grants for community water projects, communities initially interested in contributing to the water projects may become uninterested in the face of the possibility of an additional grant which they may not require contribution. In addition, supply risk mitigation may be achieved through better coordination of available grants through the Water Management Boards/Committees and other coordination forums as well utilisations of common procedures between partners.

(b) ***Water source risk*** – The source viability risk is related to the hydrologic variability of the source, and whether there is sufficient water available at the source to meet the project's water demands over the whole design life, as well as the demand for the source water by other water users. Mitigation of this risk would require appropriate water resource assessment at the level of WSBs.

(c) ***Technical design and operations risks*** –This includes over design, which would raise the investment cost required, or the technical design failing to accurately project water demands, in effect under-sizing the systems. To mitigate this risk a review of technical designs by competent engineers is required to ensure that the design is sufficient and necessary. Risk of increased costs, beyond inflation levels, can also affect project viability.

Revenue risks – Revenue risk arises primarily as a result of inadequate willingness to pay for the new service or of cost recovery tariffs being outside the affordability envelope of the targeted users. A related point is the prevalence of competitive water sources especially rivers, unprotected wells and lakes where the payment is either at zero price or lower than the project water price. To mitigate this risk, ability and willingness to pay must be assessed through community consultations and affordability assessment, with the community coming up with ways that the most vulnerable have access to the water.

(i.) ***Lack of understanding of revenue generation by water projects:*** If the investments are not directly linked to income-generating activities, using market models, the willingness to pay for the water may be affected.

(ii.) ***Management Capacity*** – The capacity to manage the financial and technical aspects of the water project also poses a risk.

3. FINANCIAL AND ECONOMIC ANALYSIS

3.1 Basic Assumptions

The basic assumptions in the course of developing the financial projection of the project are the following:

- The overall practice is that people collect water from more than one water points depending on the water use. If it is for non-drinking purposes, they go for the nearest water point. If it is for drinking purposes, they may go for the protected water point. The

government drinking water policy is that the people only use protected sources that should deliver a minimum of 20 liters per person and are located within 500 meters walking distance from the house.

- In the year 2001, 12.5 million people were living in the rural areas, representing 70 per cent of the total population. Of this total only 41 per cent have access to potable and reliable drinking water. This percentage is the national average and does not present a very reliable estimate due to pertinent monitoring/measurement problems and problems in the definition of coverage.

- The project implementation period is considered to be **6 years** starting in 2006 (inception phase), and ending in 2012. The economic life of the project is estimated to be 20 years ending in 2026.

- During implementation period 50,000 beneficiaries will start using the completed water projects from 2007, growing to a total of 1,200,000 beneficiaries in 2012, and stabilising at this level for the rest of the project economic lifetime. It is assumed in the analysis that the final beneficiaries will be utilising installations at the rate of 20-25 liters per capita including multi-use demand for schools or kitchen gardens. The demand is seasonally variable with the facilities used with a seasonal factor of 0.9. The price of water is assumed to be US$ 0.28 per m^3 of water with an increase of 7 per cent per annum.

- The current Operating and Maintenance expense is estimated at US$ 0.054 and is adapted from a community water study commissioned by UNICEF in 2005 (footnote source), with annual increases of 5 per cent per annum.

- Unaccounted for Water (UfW) is inevitable due to splashing as water is collected and due to normal leakages. However this is not considered to be significant enough to affect the results of this analysis.

- The overall water production is estimated on the basis of the daily operating hours of 8 hours per day.

- In line with the policy, the schemes are required to cover Operating and Maintenance costs and in addition sufficient funds equivalent to the depreciation of the capital items in the grant are set aside to replace those items at the end of their economic lifetime. All investment costs by all stakeholders will be financed through grants to be availed by the project.

- Depreciation allowance is estimated by straight-line method for each type of scheme based on the total capital of the scheme and its 20-year economic life. In addition to meeting the Operating and Maintenance costs, the sales of water are assumed to be used to cover the replacement costs of capital times for both water and sanitation (in schools).

- Water sales will remain to be the main and the sole source of the revenue of the water supply schemes all throughout the plan period.

3.2 Financial Analysis

The disbursement of the funds will be spread out over the six years in line with the pace of the project implementation.

(a) Affordability Analysis

The Mozambique GDP per capita a day is rated at US$ 0.44. Assuming the daily consumption of 20 liters a day at US$ 0.00028 liter, the expected expenditure per day is US$ 0.0056 per capita a day. This value is less than 2 per cent of the household income.

Therefore the project conforms to the affordability criteria of less than 5 per cent of household income. We expect that with increase of the growth rate of the economy, poverty levels will be alleviated and the projected increased tariff levels will be affordable: The 5 per cent project increase per annum is less than the expected growth in Mozambique GDP.

(b) Income and Expenditure Analysis

Table 4 of the Annex shows the projected sales revenue over the period 2007-2026 which total to US$ 145,887,493 by the end of the period. This taken against Operating and Maintenance expenses of US$ 22,314,554, the net income of US$ 123,572,939 is projected.

The Net Income of US$ 82,463,939 is the accumulation of net results of the years starting with a deficit of US$ 3,725,471 in 2007 and improving to US$ 5,187,196 in 2020.

(c) Financial Feasibility Analysis

Table 1 below shows the results of the **Financial** Feasibility Analysis. Here the total revenue generated from sales is netted off against Operations and Maintenance expenses, depreciation and investment costs in order to obtain the net cash flow on to which a discount factor of 10 per cent is applied in order to obtain the Net Present Value of the project.

The result is a positive NPV of US$ 3,777,125 and a Financial Internal Rate of Return of 11 per cent which is higher the discount rate of 10 per cent.

Table 1: Results of the Financial Feasibility Analysis

Year	Revenues	Residual Value of Assets	Investment	Expenditures (O&M)	Replacement	Nets Cash Flow	Accumulated Cash Flow
2007	102,200	0	3,805,771	21,900	0	(3,725,471)	(3,725,471)
2008	470,222	0	5,395,914	98,879	0	(5,024,571)	(8,750,042)
2009	1,111,583	0	7,565,914	229,375	0	(6,683,706)	(15,433,748)
2010	2,065,790	0	9,690,200	418,308	0	(8,042,718)	(23,476,466)
2011	2,907,005	0	8,807,200	577,645	0	(6,477,840)	(29,954,306)
2012	3,440,179	0	5,844,000	670,814	0	(3,074,635)	(33,028,941)
2013	3,680,991	0	0	704,354	0	2,976,637	(30,052,304)
2014	3,938,661	0	0	739,572	0	3,199,089	(26,853,215)
2015	4,214,367	0	0	776,551	0	3,437,816	(23,415,398)
2016	4,509,373	0	0	815,378	0	3,693,995	(19,721,404)
2017	6,031,286	0	0	1,070,184	0	4,961,102	(14,760,301)
2018	6,905,219	0	0	1,179,878	0	5,725,342	(9,034,960)
2019	7,905,786	0	0	1,300,815	**0**	6,604,971	(2,429,989)
2020	9,051,334	0	0	1,434,149	0	7,617,185	5,187,196
2021	10,362,872	0	0	1,581,149	0	8,781,724	13,968,920
2022	11,864,453	0	0	1,743,217	0	10,121,236	24,090,156
2023	13,583,612	0	0	1,921,896	**0**	11,661,715	35,751,871
2024	15,551,877	0	0	2,118,891	0	13,432,986	49,184,858
2025	17,805,344	0	0	2,336,077	0	15,469,267	64,654,125
2026	20,385,338	0	0	2,575,525	0	17,809,814	82,463,939
Discount Rate						**10%**	
NPV						**3,777,125**	
IRR						**11%**	

3.3 Economic Analysis

The purpose of this analysis is to establish the expected net macro socio-economic benefits accruing from implementation of the project. Given the centrality of water in the country economy and the importance of sanitation, the list of direct and indirect benefits is wide ranging:

i. **Health Benefits:** Increased access to safe drinking water and good hygiene practices is expected to result in reduced **disease burden**, especially water borne diseases. This will in turn reduce the **cost of health care** to the households and thus **increased savings.** The household members, especially women are likely to engage in more **productive activities** with the **time saved** and with **good health.**

ii. **Education benefits:** increased access to water will remove the burden of fetching water thus freeing **valuable time for girls** to go to school. Reduced disease burden amongst children will improve **performance** in schools thus **maximizing the investments placed into education.**

iii. **Economic benefits:** (i) Water is both a social and economic good and its sales are likely to stimulate economic growth and opportunities in the regions. The stimulation of demand for sanitation facilities and tools also provides an opportunity for development of small-scale component, for example slabs, rakes, wheelbarrows, production units. (ii) The improved access to water by livestock will result in sustaining livelihoods and reduce poverty. It may also provide

for alternative supplementary foods such as small-scale kitchen and school gardens using labor saving techniques. (ii) **Reduced distance** and time taken to fetch water reduces physical and emotional stress and frees time for other economic activities including childcare. In many cases the economic activities around water occupy a significant proportion of village's micro economy. There are also direct and indirect multiplier effects around the supply of water that lead to macro economic growth.

iv. **Security benefits:** increased and equitable access to water reduces competition for water, especially in the pastoral areas, and thus reduces conflicts. To the government a reduced security risk reduces expenditure. To the beneficiaries reduced security risks enhances quality of life and allows them to engage in socio economic activities.

v. **Reduced cost of emergency response:** (i) It is expected that with increased sustainability and reliability of water supply the populations will be less vulnerable to drought and the **long-term cost of emergency response** will decrease significantly. (ii) With increased availability of water supply and improved hygiene the incidence of diarrhea related outbreaks, the most expensive being cholera and typhoid, will reduce along with attendant costs.

vi. **Empowerment of women:** Increasing women participation in socio economic activities is a key strategy in poverty reduction. The project will provide avenues for participation by women during implementation and post commissioning. In addition there is the economic benefit in the development of community institutions and human resources for management, operations and maintenance of water supply.

vii. **Sustainability:** The project emphasis on beneficiary participation, use of appropriate technology and environmental conservation and new institutional infrastructure under the sector reforms will provide for sustainability of project investments into the future. This will reduce the cost of replacement or rehabilitation.

viii. **Stimulating local economy:** (i) The construction phase will stimulate local economic activities, through local procurement of skills and material and the increased incomes will stimulate demand for various goods and services. The presence of water in an area almost always guarantees the growth and sustainability of schools, health centers, health services and private sector initiatives especially in the arid and semi arid areas. (ii) This project will seek to stimulate additional funding from other donors, private sector and government to leverage more investment in the sector.

Quantification of the benefits

It is difficult to quantify all the social and health benefits that will result from the water supply, hygiene and sanitation project interventions targeting 1,200,000 rural people. However it is possible to develop an indicative analysis based on historical data, studies and experiences. This analysis supplements the financial feasibility developed in section 3.2.

(i) Assumptions

The calculation methodology is mainly guided from a WHO study: *Evaluation of the Costs and Benefits of Water and Sanitation Improvement at the Global Level (Hutton and Halle,. WHO, 2004).*

(ii) Results of the economic feasibility analysis

The **annex 2** shows the detailed calculations to determine the **costs avoided** in health care and also value of time-savings. The analysis shows that the costs saved per capita in

(i) Avoiding direct expenditure to the health sector - inpatient and outpatient costs are US$ 0.8 per capita per year;
(ii) Avoiding direct expenses to the households in transport, accommodation (during inpatient period) and the income gained (assuming 53 per cent of the time saved in avoiding care giving is used for economic gain) – US$ 0.42 per capita per year;
(iii) Parents avoiding costs of losing productive days as they take care of children - US$ 0.13 per capita per year;
(iv) Avoiding school absenteeism resulting from both inpatient and outpatient - US$ 0.14.

Total per capita direct and indirect health costs avoided are **US$ 1.50.**

(v) Time savings for improved access to water is - US$ 1.74;
(vi) Time savings for improved access to sanitation - US$ 1.39;

Total per capita value of time-savings in accessing water and sanitation is US**$ 3.13** and the total per capita value.

In the economic feasibility analysis (T**able 2),** it is assumed that the health cost avoidance and value of time saved remain constant although it may increase with due to rising health and labor costs and associated opportunity costs. Based on the assumptions the net cash flow increases to US$ 28,050,314 inclusive of the US$ 95,448,479 accruing from the avoidance of health costs and time-savings.

At a discount rate of 10 per cent per annum, the Economic Net Present Value increases from US$ 30,663,895 as calculated in the financial feasibility analysis, to US$ 93,934,133. The Economic Internal Rate of Return increases to 44 per cent from the 11 per cent derived in the financial feasibility analysis.

While recognizing the likely effects of clean water and sanitation on mortality rates, no attempt has been made to quantify these.

TABLE 2: ECONOMIC FEASIBILITY ANALYSIS

Year	Revenues	Residual Value of Assets	Value Time Saved	Health Cost	Expenditures (O&M)	Investment	Nets Cash Flow	Accumulated Cash Flow
2007	102,200	0	388,500	38,188	21,900	3,805,771	(3,298,784)	(3,298,784)
2008	470,222	0	1,670,550	164,206	98,879	5,395,914	(3,189,814)	(6,488,598)
2009	1,111,583	0	3,690,750	362,781	229,375	7,565,914	(2,630,175)	(9,118,773)
2010	2,065,790	0	6,410,250	630,094	418,308	9,690,200	(1,002,374)	(10,121,147)
2011	2,907,005	0	8,430,450	828,669	577,645	8,807,200	2,781,278	(7,339,869)
2012	3,440,179	0	9,324,000	916,500	670,814	5,844,000	7,165,865	(174,003)
2013	3,680,991	0	9,324,000	916,500	704,354	0	13,217,137	13,043,134
2014	3,938,661	0	9,324,000	916,500	739,572	0	13,439,589	26,482,723
2015	4,214,367	0	9,324,000	916,500	776,551	0	13,678,316	40,161,039
2016	4,509,373	0	9,324,000	916,500	815,378	0	13,934,495	54,095,534
2017	6,031,286	0	9,324,000	916,500	1,070,184	0	15,201,602	69,297,136
2018	6,905,219	0	9,324,000	916,500	1,179,878	0	15,965,842	85,262,978
2019	7,905,786	0	9,324,000	916,500	1,300,815	0	16,845,471	102,108,449
2020	9,051,334	0	9,324,000	916,500	1,434,149	0	17,857,685	119,966,134
2021	10,362,872	0	9,324,000	916,500	1,581,149	0	19,022,224	138,988,358
2022	11,864,453	0	9,324,000	916,500	1,743,217	0	20,361,736	159,350,093
2023	13,583,612	0	9,324,000	916,500	1,921,896	0	21,902,215	181,252,309
2024	15,551,877	0	9,324,000	916,500	2,118,891	0	23,673,486	204,925,795
2025	17,805,344	0	9,324,000	916,500	2,336,077	0	25,709,767	230,635,562
2026	20,385,338	0	9,324,000	916,500	2,575,525	0	28,050,314	258,685,876
Discount Rate							**10%**	
NPV							**67,648,259**	
IRR							**44%**	

4. CONCLUSIONS

1. Sustainability

Both the financial and economic feasibility analyses demonstrate that the project, which aims to improve water and sanitation for 1,200,000 people, is sustainable within the assumptions enumerated above. The financial sensitivity analysis indicates that the project will be highly sensitive to tariff regimes. However when the economic benefits are considered in addition to the financial considerations, the projects sensitivity to tariff regimes is reduced so that even with a 50 per cent reduction in initial tariff the project ENPV and EIRR are still positive.

2. Fiscal Impact

The project is expected to have a positive fiscal impact on Government finances by increasing the amount of funds spent on development in water and sanitation facilities and reducing the level of future recurrent expenses on operating and maintenance.

3. Policy Impact

The project will contribute to the implementation of the water policy and thus assist the Government to achieve the country's goals. UNICEF has successfully advocated for pro poor interventions in the Arid and Semi Arid areas and also for investment by the Ministry of Education in school sanitation and hygiene. In the Hygiene and Sanitation sector the project will assist the Government in developing strategies for implementing the policy. UNICEF will continue policy dialogue with government and other partners to ensure that the programmes are designed for achieving results for children and ensuring women participation and empowerment.

Table 4 - Income and Expenditure

Year	Water Consumption (m3)	Water Sales Revenues (US$)	Expenditure O& M (US$)	Gross Income (US$)	Taxs and Debt Services (US$)	Net Income (US$)
2007	365,000	102,200	21,900	80,300	0	80,300
2008	1,569,500	470,222	98,879	371,344	0	371,344
2009	3,467,500	1,111,583	229,375	882,208	0	882,208
2010	6,022,500	2,065,790	418,308	1,647,482	0	1,647,482
2011	7,920,500	2,907,005	577,645	2,329,360	0	2,329,360
2012	8,760,000	3,440,179	670,814	2,769,365	0	2,769,365
2013	8,760,000	3,680,991	704,354	2,976,637	0	2,976,637
2014	8,760,000	3,938,661	739,572	3,199,089	0	3,199,089
2015	8,760,000	4,214,367	776,551	3,437,816	0	3,437,816
2016	8,760,000	4,509,373	815,378	3,693,995	0	3,693,995
2017	10,950,000	6,031,286	1,070,184	4,961,102	0	4,961,102
2018	10,950,000	6,905,219	1,179,878	5,725,342	0	5,725,342
2019	10,950,000	7,905,786	1,300,815	6,604,971	0	6,604,971
2020	10,950,000	9,051,334	1,434,149	7,617,185	0	7,617,185
2021	10,950,000	10,362,872	1,581,149	8,781,724	0	8,781,724
2022	10,950,000	11,864,453	1,743,217	10,121,236	0	10,121,236
2023	10,950,000	13,583,612	1,921,896	11,661,715	0	11,661,715
2024	10,950,000	15,551,877	2,118,891	13,432,986	0	13,432,986
2025	10,950,000	17,805,344	2,336,077	15,469,267	0	15,469,267
2026	10,950,000	20,385,338	2,575,525	17,809,814	0	17,809,814
		145,887,493	**22,314,554**	**123,572,939**		**123,572,939**

Table 5 - Financial Feseability Analysis

Year	Revenues	Residual Value of Assets	Investment	Expenditures (O&M)	Replacement	Nets Cash Flow	Accumulated Cash Flow
2007	102,200	0	2,879,100	21,900	0	(2,798,800)	(2,798,800)
2008	470,222	0	5,737,300	98,879	0	(5,365,956)	(8,164,756)
2009	1,111,583	0	7,857,300	229,375	0	(6,975,092)	(15,139,848)
2010	2,065,790	0	10,017,300	418,308	0	(8,369,818)	(23,509,666)
2011	2,907,005	0	9,242,300	577,645	0	(6,912,940)	(30,422,606)
2012	3,440,179	0	6,675,300	670,814	0	(3,905,935)	(34,328,541)
2013	3,680,991	0	0	704,354	0	2,976,637	(31,351,904)
2014	3,938,661	0	0	739,572	0	3,199,089	(28,152,815)
2015	4,214,367	0	0	776,551	0	3,437,816	(24,714,998)
2016	4,509,373	0	0	815,378	0	3,693,995	(21,021,004)
2017	6,031,286	0	0	1,070,184	0	4,961,102	(16,059,901)
2018	6,905,219	0	0	1,179,878	0	5,725,342	(10,334,560)
2019	7,905,786	0	0	1,300,815	**0**	6,604,971	(3,729,589)
2020	9,051,334	0	0	1,434,149	0	7,617,185	3,887,596
2021	10,362,872	0	0	1,581,149	0	8,781,724	12,669,320
2022	11,864,453	0	0	1,743,217	0	10,121,236	22,790,556
2023	13,583,612	0	0	1,921,896	**0**	11,661,715	34,452,271
2024	15,551,877	0	0	2,118,891	0	13,432,986	47,885,258
2025	17,805,344	0	0	2,336,077	0	15,469,267	63,354,525
2026	20,385,338	0	0	2,575,525	0	17,809,814	81,164,339
Discount Rate						**10%**	
NPV						**3,155,670**	
IRR						**11%**	
NPV (8%)						**10,639,967**	
NPV (12%)						**(1,055,180)**	

Table 6 - Economic Feseability Analysis

	Without Project				With the Project		
Year	Beneficiaries	Revenue Water Sales	Value Time Lost	Total Health Cost	Revenue Water Sales	Value Time Lost	Total Health Cost
2007	50,000	0	777,000	81,250	102,200	388,500	43,063
2008	215,000	0	3,341,100	349,375	470,222	1,670,550	185,169
2009	475,000	0	7,381,500	771,875	1,111,583	3,690,750	409,094
2010	825,000	0	12,820,500	1,340,625	2,065,790	6,410,250	710,531
2011	1,085,000	0	16,860,900	1,763,125	2,907,005	8,430,450	934,456
2012	1,200,000	0	18,648,000	1,950,000	3,440,179	9,324,000	1,033,500
2013	1,200,000	0	18,648,000	1,950,000	3,680,991	9,324,000	1,033,500
2014	1,200,000	0	18,648,000	1,950,000	3,938,661	9,324,000	1,033,500
2015	1,200,000	0	18,648,000	1,950,000	4,214,367	9,324,000	1,033,500
2016	1,200,000	0	18,648,000	1,950,000	4,509,373	9,324,000	1,033,500
2017	1,200,000	0	18,648,000	1,950,000	6,031,286	9,324,000	1,033,500
2018	1,200,000	0	18,648,000	1,950,000	6,905,219	9,324,000	1,033,500
2019	1,200,000	0	18,648,000	1,950,000	7,905,786	9,324,000	1,033,500
2020	1,200,000	0	18,648,000	1,950,000	9,051,334	9,324,000	1,033,500
2021	1,200,000	0	18,648,000	1,950,000	10,362,872	9,324,000	1,033,500
2022	1,200,000	0	18,648,000	1,950,000	11,864,453	9,324,000	1,033,500
2023	1,200,000	0	18,648,000	1,950,000	13,583,612	9,324,000	1,033,500
2024	1,200,000	0	18,648,000	1,950,000	15,551,877	9,324,000	1,033,500
2025	1,200,000	0	18,648,000	1,950,000	17,805,344	9,324,000	1,033,500
2026	1,200,000	0	18,648,000	1,950,000	20,385,338	9,324,000	1,033,500

Table 7 - Economic Feseability Analysis

Year	Revenues	Residual Value of Assets	Value Time Saved	Health Cost	Expenditures (O&M)	Investment	Nets Cash Flow	Accumulated Cash Flow
2007	102,200	0	388,500	38,188	21,900	2,879,100	(2,372,113)	(2,372,113)
2008	470,222	0	1,670,550	164,206	98,879	5,737,300	(3,531,200)	(5,903,313)
2009	1,111,583	0	3,690,750	362,781	229,375	7,857,300	(2,921,560)	(8,824,873)
2010	2,065,790	0	6,410,250	630,094	418,308	10,017,300	(1,329,474)	(10,154,347)
2011	2,907,005	0	8,430,450	828,669	577,645	9,242,300	2,346,178	(7,808,169)
2012	3,440,179	0	9,324,000	916,500	670,814	6,675,300	6,334,565	(1,473,603)
2013	3,680,991	0	9,324,000	916,500	704,354	0	13,217,137	11,743,534
2014	3,938,661	0	9,324,000	916,500	739,572	0	13,439,589	25,183,123
2015	4,214,367	0	9,324,000	916,500	776,551	0	13,678,316	38,861,439
2016	4,509,373	0	9,324,000	916,500	815,378	0	13,934,495	52,795,934
2017	6,031,286	0	9,324,000	916,500	1,070,184	0	15,201,602	67,997,536
2018	6,905,219	0	9,324,000	916,500	1,179,878	0	15,965,842	83,963,378
2019	7,905,786	0	9,324,000	916,500	1,300,815	0	16,845,471	100,808,849
2020	9,051,334	0	9,324,000	916,500	1,434,149	0	17,857,685	118,666,534
2021	10,362,872	0	9,324,000	916,500	1,581,149	0	19,022,224	137,688,758
2022	11,864,453	0	9,324,000	916,500	1,743,217	0	20,361,736	158,050,493
2023	13,583,612	0	9,324,000	916,500	1,921,896	0	21,902,215	179,952,709
2024	15,551,877	0	9,324,000	916,500	2,118,891	0	23,673,486	203,626,195
2025	17,805,344	0	9,324,000	916,500	2,336,077	0	25,709,767	229,335,962
2026	20,385,338	0	9,324,000	916,500	2,575,525	0	28,050,314	257,386,276
Discount Rate							**10%**	
NPV							**67,026,804**	
IRR							**44%**	

unicef

"UNICEF-THE NETHERLANDS ACCELERATED WASH INITIATIVE"

Terms of reference for a feasibility study on the proposed Government of Netherlands and UNICEF partnership for the acceleration of water and sanitation MDG goals in Mozambique:

1. Background

A funding proposal for a partnership between Government of Mozambique (GoM) /UNICEF and Government of the Netherlands for the acceleration of the Water and Sanitation MDG targets for water supply and sanitation in Mozambique is under development.

The overall goal of the project is; To accelerate the Water and Sanitation MDG targets for water supply and sanitation in 3 Provinces of Mozambique.

The proposed funding is to reach 1.0 million new water and sanitation users and to promote good hygiene practitioners. The total funding for the project is estimated at US$43 million, broken down as follows:

- GoN – US$ 27 million
- GoM – US$ 4.8 million
- Community contribution – US$ 4.9 million
- UNICEF – US$ 6.3 million

The draft proposal has been developed by the Government of Mozambique (Water and Sanitation sector) and UNICEF with active involvement of Sector Partners. The Embassy of The Netehrlands in Mozambique was fully involved in the entire process.

The proposal has two main components, service delivery and capacity building, specifically :

- Development of new water supply facilities for 1.0 million new users
- Rehabilitated of defunct water supply infrastructure serving 200,000 people
- Water supply facilities, sanitation and hygiene education in 400 schools for over 140,000 school children
- Household sanitation demand creation in the rural areas.
- Hygiene and sanitation education for 1.2 million people
- Institutional capacity development in the three Provinces and Districts
- Capacity building for over 7,200 people from the Provincial and District Departments, Community Promoters, Operation and Maintenance Operators, and others.

The proposed partnership has a strong emphasis on attaining sustainability of all project outputs way beyond the end of the project so that new water supply and sanitation users continue to sustain and enjoy the services created by the partnership.

2. Justification of the assignment:

GoM/UNICEF developed the proposal as above mentioned and held, as much as possible, discussions with other stakeholders (GoM line ministries, donors, GAS, NGOs and the concerned Provinces). The proposal (not yet reviewed as indicated below) is attached to the present TOR.

A Review mission of the Mozambique proposal was held during 27 March to 4 April by Mr. Roland P.A.. Rodts – Advisory Group Department Environment and Water under the request of Mr. Dick Van Ginhoven, DGIS, Ministry of Foreign Affairs, Government of Netherlands. The purpose of the Review mission was to clarify the main institutional and implementation arrangements and respective report is attached to the present TOR.

As a result of the Review mission and further developments, it was recommended by Mr. Dick Van Ginhoven, DGIS, Ministry of Foreign Affairs, Government of Netherlands, that a cost-benefit analysis and a feasibility study should be carried out similar to the one done for Kenya.

Furthermore and since the proposal was to be adapted and reviewed according to the Review recommendations, it was decided that the revised proposal should be submitted together with the feasibility study and cost-benefit analysis.

Thereby the urgency the feasibility study and cost benefit analysis. Due to the above, UNICEF decided to hire IRC on a "single source basis". It is still planned to conclude the revision of the proposal as well the study by mid June 2006.

The feasibility study is meant to determine whether the institutional capacity as well as the financial and management commitment within the partner organisations, described in the project proposal as being essential to achieve the project results in the time frame considered, are and will be available as programmed.

3. Purpose of the assignment;

A study of the feasibility of the proposed partnership outputs is to be conducted to assess the capacity of the existing institutional and human resources and infrastructure, planned to be made available to the project, in order to achieve the proposed targets in the time specified.. Specifically, the study will assess:

- The likelihood of the financial and other contributions as pledged by the various parties becoming available in time and in the amount, numbers and volume agreed for the purposes as budgeted. This to be completed by a detailed description of the associated risks in case these contributions are delayed or fail to be released or mobilized at all.

- The capacity within the Private Sector as identified in the project proposal, to deploy skills and equipment required to meet development of new and rehabilitation water supplies to reach around 200,000 people per year for a total of 1.0 million by 2011 *(refer to the detailed work plan for planned outputs)*
- The capacity in the targeted districts the proposed number of latrines per month in each district for five years to reach 200,000 families by 2011.
- The capacity of existing institutional infrastructure (Government, Private Sector, NGOs and UNICEF) and arrangements planned to deliver this partnership.
- The capacity of the sector to absorb the funding proposed and controls therein for the management of these funds.
- The degree to which there is clarity with the targeted partner organisations, as to their role and responsibilities in delivering the results of the project.
- The degree of complimentarity (or overlap) with the sector programmes and projects currently planned or being implemented in the participating line ministries Water, Health and Education

4. Methodology:

The study will involve a brief desk review, visits and discussions with responsible line ministries in Government, GAS, UN agencies, NGOs and private firms in the sector. It will also include visits to the three Provinces and at least five districts and communities.

5. Supervision:

Mr. Manuel Freitas, Chief, Water Environmental Sanitation Section, UNICEF Mozambique and Mr. Kees Konstapel, First Secretary, Water and Sanitation, Royal Netherlands Embassy, Maputo.

6. Final Product:

The consultant(s) are/is expected to submit a detailed report on the findings of the study on areas for inquiry listed under item 3 above. The report will at least include a detailed risk assessment, a risk mitigation strategy, accompanied by a matching list of agencies involved in both, as well as the budgetary implications of the implementation of the risk mitigation measures proposed. The report shall be presented in three hard copies and three CD-ROM copies.

8. Estimated duration of contract: Three weeks (to be discussed – tentatively between 22 May to 15 June)

9. Qualifications required: Experienced consultants/consultancy firms familiar with Mozambique and knowledge on the functioning of Government. Consultants must have analytical skills and meet requisite university qualifications. They must have demonstrated ability to work with minimum supervision. Local Consultants with recognized capacity to participate in the above study are available and could be indicated.

10. Reference materials:

- Proposal documents, budgets, activity plans, financial economic analysis report
- Sector reform documents
- Sector Funding mechanisms, in particular the funding from Government of Netherlands to the GoM
- Draft PARPA II
- Strategic Sector Planning Document(s)
- Others