

AFRICAN DEVELOPMENT BANK

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UNITED REPUBLIC OF TANZANIA

**ARUSHA STRATEGIC SANITATION PLAN  
PREPARATION**

**APPRAISAL REPORT**

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September 2007

## Table of Contents

1	BACKGROUND .....	1
1.1	Origin of the Project .....	1
1.2	Sectoral priorities .....	1
1.3	Problem definition.....	2
1.4	Beneficiaries and stakeholders.....	3
1.5	Partnerships.....	4
2	PROJECT.....	4
2.1	Impacts .....	4
2.2	Outcome .....	5
2.3	Outputs.....	5
2.4	Activities .....	7
2.5	Risks .....	10
2.6	AWF Value Added.....	10
2.7	Costs and Financing .....	10
3	PROJECT IMPLEMENTATION .....	11
3.1	Recipient.....	11
3.2	Implementation arrangements and capacity .....	12
3.3	Performance Plan .....	12
3.4	Implementation schedule.....	13
3.5	Procurement of Services and Goods .....	13
3.6	Accounting and Auditing .....	15
3.7	Disbursement Arrangement.....	15
3.8	Progress Monitoring and Reporting .....	16
4	PROJECT BENEFITS .....	16
4.1	Effectiveness and Efficiency .....	16
4.2	Sustainability .....	16
5	CONCLUSIONS AND RECOMMENDATIONS .....	17
5.1	Conclusions.....	17
5.2	Recommendations.....	17
	Annex 1 = Map of Tanzania and the Project Area .....	1
	Annex 2 – Terms of Reference .....	1
	Annex3 Project Budget.....	1
	Annex 4 Implementation Schedule .....	1

## List of Acronyms

AfDB	African Development Bank
AMC	Arusha Municipal Council
AUWSA	Arusha Urban Water and Sewerage Authority
AWF	African Water Facility
CBOs	Community Based Organisations
CWS	Cities Without Slums
EMIS	Environmental Management Information System
EPM	Environmental Planning Management
HCES	Household Centred Environmental Sanitation
<i>MKUKUTA</i>	<i>Mkakati wa Kukuza Uchumi na Kupunguza Umaskini Tanzania (NSGRP)</i>
NAWAPO	National Water Policy
NSGRP	National Strategy for Growth and Reduction of Poverty ( <i>Swahili MKUKUTA</i> )
ROSA	<b>R</b> esource <b>O</b> riented <b>S</b> anitation <i>concepts</i> for peri-urban areas in Africa.
SAP	Sustainable Arusha Project
SDP	Sustainable Dar es Salaam Project (within the Sustainable Cities Programme – SDP - of HABITAT)
UCLAS	University College of Lands and Architectural Studies

## Strategic Results Framework

Hierarchy of Objectives	Expected Results	Beneficiary Reach	Indicator, Source	Target and Timeline	Risks and Strategies
<p><b>GOAL</b></p> <p>To contribute to overall improvement of sanitation in the Arusha Municipality through a viable programme of investment in the infrastructure defined by a strategic approach to planning</p>	<p><b>IMPACT</b></p> <p>Arusha Municipality implements developments in sanitation with a balanced set of policy, regulatory, institutional, financial and technical strategies, within social and environmental constrains</p>	<p>City Residents and businesses</p>	<p>Indicator</p> <p>The city's Annual and Business Plans reflect Strategic Principles</p> <p>Source</p> <p>Annual Plans and Budgeting systems</p>	<p>Beginning in 2010</p>	<p>Inadequate funding for to realise the objectives could result in proposals not being implemented and ultimately forgotten.</p>
<p><b>PURPOSE</b></p> <p><b>To develop and initiate the implementation of the sanitation strategic plan to improve the functioning of services for storm water, solid waste, human and domestic waste and drinking water supply to meet the basic needs of residents</b></p>	<p><b>OUTCOME</b></p> <ul style="list-style-type: none"> <li>• Policy and regulatory framework propitious for rational development of sanitation <i>established</i> at the municipal level</li> <li>• A structure of service provision with appropriate roles for all actors <i>defined</i></li> <li>• Capacity to mobilise Investments by all actors <i>increased</i></li> </ul>	<p>Municipal Council and Sanitation Stakeholders</p>	<p><b>Indicator</b></p> <ul style="list-style-type: none"> <li>• Revision of Municipal Sanitation by-laws</li> <li>• Number and Type of service providers</li> <li>• Amount of fund mobilized</li> </ul> <p>Source</p> <ul style="list-style-type: none"> <li>• Environmental Management information system</li> </ul>	<p>Within one year of completion of plan AMC begins to progressively amend sanitation bye-laws as recommended</p> <p>Number of Franchises in crease according to demand</p> <p>AMC acquires Capital Grants and households increase own investment in sanitation</p>	<p>Political buying into the strategic plan may take a time longer than required for successful implementation</p>

<b>ACTIVITIES</b>	<b>OUTPUTS</b>				
1. Preparation, Start-up and Project Management	1. Consensus on execution achieved	AMC, AUWSA Population residing in the pilot areas, and stakeholders	1. Project Charter	1. At end of Week 4	<b>Risk</b> <ul style="list-style-type: none"> <li>The Environmental Management Information System is may not be available to accommodate the results of the situational analysis.</li> </ul> <b>Mitigation</b> <ul style="list-style-type: none"> <li>Include installation of new GIS programme under the study</li> </ul>
2. Current Situational Assessment	2. Baseline Situational Analysis report prepared		2. Documentation available and data entered into EMIS	2. At end of week 24	
3. Identification of Strategic Options	3. Strategic Options documented		3. Strategic Options Report accepted by stakeholders	3. At week 28	
4. Evaluation of Options	4. Strategic Framework		4. Pilot works completed and feedback from uses available	4. At week 32	
5. Pilot works Implementation	5. Pilot Works implemented		5. Implementation Plan accepted by the Stakeholders Workshop	5. At week 48	
6. Preparation of Implementation Plans	6. Strategic Sanitation Implementation Plan prepared				

## EXECUTIVE SUMMARY

Arusha is amount the top five most important cities of Tanzania with 81% of the population of 340,000 living in unplanned settlements in an area constituting of 75% of the 9,200 hectares of the present area of the city. Low soil permeability renders on-site disposal of waste water difficult and unhygienic, a situation compounded by high density of housing in the low income areas where the relocation of pit latrines is almost impossible.

Sewerage covers only 12% of the area of the city and even less as a percentage of households connected. Storm-water drainage is impossible in the unplanned settlements which lack streets and road drainage. Solid waste collection is complicated by the difficulty of access and shortage of collection equipment, in turn compounded by non-payment for services by residents. In general the difficulties experienced by central service providers in recovering costs of service provision contribute to problems of facilities development and maintenance.

The Arusha Municipal Council has started to confront the problems of provision of sanitation services with the rest of municipal services first within the Sustainable Arusha Project and more recently through a UN-HABITAT study for Cities Without Slums (CWS). These projects have introduced the strategic approach implicit in the Environmental Planning Management paradigm forming the basis of Sustainable Cities Projects but have lacked or failed to obtain follow up financing.

The proposed Strategic Sanitation Plan Development intends to close the resulting gaps by providing the AMC and its partner the Arusha Urban Water and Sewerage Authority with a Strategic Plan and Implementation Programme that will guide the continuous improvement of sanitation in Arusha on an incremental basis based on the principles of dynamic financial planning which matches developments to available funding.

The strategic plan relies on a wide range of solutions which go beyond simple supply augmentation through technical developments, to include strategies that tap the resources of a wide variety of stakeholders including households, neighbourhoods, the civil society and private sector and capacity building to resolve sanitation issues.

The project will include development of a Strategic Framework, an Implementation Plan and Programme and will include Pilot Works. The Framework will propose a wide variety of combinations of technical strategies that are compatible with of institutional solutions for service provision and financing mechanisms within the constraints imposed by risks and social and environmental impacts. The Pilot works will, in the early stages of assignment, serve to generate demand and then inform and residents on the variety of technology and other dimensions of strategy, and towards the end demonstrate the application of proposed strategies. The Implementation Plan will provide *modus operandi* to render the strategies operational. Most significantly it will provide the AMC and AUWSA a basis to seek funding from external and internal sources.

The project will showcase Strategic Planning as an important IWRM tool in the provision of urban sanitation services and is therefore within a key focal area of the AWF. When successful the approach may be used in other cities after Dar es Salaam and Arusha. The resulting recommendations constitute a preparation that is necessary to leverage funding from external and internal resources for development of sanitation in Arusha. These resources include the non cash contributions that the less affluent community members can make when given the opportunities for self provision as well as the distinctive competence of the private sector and civil society when incentives are created for them to do so. External sources include the Capital Development Grants programme and the Water Sector Development Programme under the central Government Ministries of Local Governments and of Water respectively.

It is therefore recommended that a grant of **EUR 654,000** be made available to the Arusha Municipal Council for the purposes of the present project.

# 1 BACKGROUND

## 1.1 Origin of the Project

1.1.1 Arusha is among the five largest cities of Tanzania, having been upgraded to the status of a Municipality in July 2005. An estimated 81% of its population of 340,000 lives in unplanned settlements in an area of the city constituting 75% of the total of 9200 hectares.

1.1.2 Such a large proportion of unplanned settlements introduce major challenges in the provision of municipal services, not least of which is sanitation. Sewerage covers only 12 per cent of the area. Within this some households refuse to connect to the central system. Effluent from the treatment plant does not meet the national environmental standards. In the case of on-site sanitation, in a large area of the city percolation rates of the characteristic black cotton soil are low resulting in poor performance of the pit latrines and septic tank soak-aways. Combined with the relatively flat terrain at the bottom of the Mount Meru, storm-water is equally a problem especially in the unplanned areas while in the planned areas existing drainage network cannot cope with the high flows.

1.1.3 In view of the above problems, and to complement other related initiatives addressing the provision of key municipal services to the public, the Arusha Municipal Council presented a proposal to the African Water Facility for financing the preparation of a sanitation master plan for the municipality. In view of changes in the planning methodology towards more participatory, adaptive and flexible strategic planning, as evidenced in the city's Environmental Planning Management (EPM) approach, during consultations with the AWF mission sent to appraise the proposal the municipal authorities agreed to adopt a strategic approach to the sanitation planning which is the subject of the present report.

1.1.4 In opting for adopting the Sanitation Strategic Planning methodology the city has set itself on a path of piloting this innovative approach to sanitation. Strategic planning departs from the traditional approaches to planning in many respects: it emphasises flexible and adaptive approaches to changes in the environment including demands, continuous improvements and upgrading on a programmatic rather than blue print basis and is participatory not just in planning but in service delivery. It should result in mobilizing non-traditional resources for implementation of sanitation including beneficiary communities own resources, and it should re-establish donor confidence in increasing capital flows to sanitation. Its continuous improvement dimension implies that implementation will not stall while awaiting the injection of bulk funds from external support agencies, but will proceed in a manner that matches available funds from various sources constituting a *dynamic financial planning*.

1.1.5 The current proposal as revised following the AWF mission in April/May 2007 is for funding the development of the Arusha Municipality Strategic Sanitation Plan. Sanitation is construed here in its broader sense to encompass water supply, human and household liquid and solid wastes as well as storm-water drainage.

## 1.2 Sectoral priorities

1.2.1 Tanzania has always held the need for provision of water supply and sanitation high in its national development plans and was ahead of the international community in setting up target for total provision of service in 1971 two decades ahead of the International Drinking Water Supply and Sanitation Decade. These good intentions were thwarted by the economic

realities following the oil crises of that decade, and possibly the national policies of the era. Currently development is driven by the MUKUKUTA vision written into the national poverty reduction strategy. Within it water supply and sanitation are accorded a significant priority in that “the [National Strategy for Growth and Reduction of Poverty (NSGRP)]strategy focuses on three main clusters of outcomes and actions related to poverty reduction, namely (i) Growth and reduction of income poverty; (ii) Improvement of quality of life and social well-being and (iii) Good governance and accountability. For the first cluster the outcome target is broad based and equitable growth with a focus on reduction of basic needs poverty and food poverty, particularly in rural areas where poverty is most prevalent. The second cluster focuses on improving the quality of life and social-well being, improved nutrition and containing extreme vulnerability. The third cluster aims at sustained conducive development environment, encompassing macroeconomic stability and good governance.

1.2.2 Within the context of its poverty reduction efforts the Government of Tanzania (GOT) has made commendable strides in developing the water and sanitation sector. The national responsibility for leadership in sanitation is vested in the Ministry of Health and Social Welfare on issues related to policy and in the Ministry of Water as regards implementation. Local Governments (District, Town, and Municipal Councils) are responsible for provision of urban services which include sanitation. In 2002 the Ministry of Water formulated the National Water Policy (NAWAPO) was formulated with a mission of “integrated and sustainable management, development and use of water resources in Tanzania and subsequently a national Water Sector Development Strategy and Programmes providing a road map to meet the Millennium Development Goals. In 2006 the Ministry of Health and Social Welfare has formulated a National Environmental Health, Hygiene and Sanitation Strategy which together with the WSDP incorporate current thinking on sanitation.

1.2.3 At its level the Municipality has formulated a 5 year strategic plan (2006 - 2011) whose vision is: “The Arusha Municipal Council strives to have a stable economy which will enable its residents to have affordable services, alleviate poverty and live in a peaceful environment under good governance.”

### **1.3 Problem definition**

1.3.1 As earlier stated, the major problem is that the city’s sanitation infrastructure is primarily related to the large proportion of unplanned settlements. Yet even in the planned settlements, the sewerage system covers 12%, of the areas and has problems that remain unresolved. *For these areas the proposed planning methods are expected to arm the concerned authorities with practical strategies to resolve the problems with the means available.*

1.3.2 The on-site systems present different problems in planned and in unplanned settlements, with the low soil permeability as a common factor. In the unplanned settlements the high density of housing implies that there is often inadequate space for location of pit latrines, which fill up quickly when used by a large number of people. Various methods of emptying ultimately lead to unsanitary living conditions and pollution to water courses.

1.3.3 Performance of the solid waste function is hindered by the lack of collection capacity in terms of number and condition of tipper trucks inaccessibility of some areas especially in the unplanned settlements. As a result, collection is concentrated at the city centre (CBD) and high income areas. In the peri-urban areas most of the solid waste is burned or buried in the household yard. Although the City has introduced private sector operation in the form of franchises, difficulty of access to plots in the unplanned settlements requires different

solution for collection in these cases. Inadequate cost recovery risks to jeopardize the functioning of the initiative which ought to be up-scaled.

1.3.4 Storm drainage is tied to the road network. During heavy rainfalls storm water with high load of silt washed from bare soil on the slopes of Mount Meru clogs the storm drains resulting in flooding. Parts of the system are under capacity. It is again in the unplanned settlements where the very absence of a road networks with attendant storm drainage leads to flooding of living areas, with loss of property, risk of spread of water borne diseases such as cholera and dysentery. Storm water is also used for clothes washing and bathing in by children. When the quality is low this can accelerate the transmission of diseases.

1.3.5 Finally, water supply also presents problems in these unplanned settlements. There are very few private connections, and in many areas the supply to these areas is intermittent. In some of these areas there are local groundwater based sources such as springs and shallow wells and boreholes. However the use of pit latrines, given the density of housing, may have a negative effect on the quality of water. Water supply also plays a role in the other dimensions of sanitation since the affordable level of supply also sets a constraint on the feasible choices of the human waste disposal technology.

1.3.6 The problems of sanitation fall within a larger scope of the community infrastructure in the city. Initiatives in the recent past and those on-going include the DANIDA assisted Sustainable Arusha Development (SAD) which has left plans for piloting the EMP in selected areas of two wards in Arusha as well as the UN Habitat study within the framework of the Cities Without Slums (CWS) programme that has proposed up-scaling the SAD to the full ward level. However these initiatives require funding for implementation of the proposals. The Municipality hopes to obtain part of this funding from the Capital Development Grants programme which covers the entire Republic but requires cities to prepare Business Plans that demonstrate viability of their programmes.

1.3.7 The problems and possible solutions have other dimensions that are not technical. Central services providers such as the AMC and AUWSA have challenges and inherent limitations. Centrally provided services have problems of adequate cost recovery, which in turn reduces autonomy and ability to invest in expansion of service provision, and operations and maintenance. Alternative forms of provision may offer opportunities but are constrained by existing policy and regulatory frameworks, institutional set up and human and organisational capacity.

1.3.8 The proposed plan should therefore identify sustainable solutions, in a participatory process, that will enable the city and partners to plan and implement capital programmes with internally mobilised resources as well as apply for external funding, and meet the social objectives of the citizens of Arusha with respect to total sanitation. It will serve as a pilot application of strategic sanitation planning in Tanzania after Dar es Salaam.

## **1.4 Beneficiaries and stakeholders**

1.4.1 The beneficiaries of the project are primarily the Arusha Municipal Council and the Arusha Urban Water and Sewerage Authority as the key agencies involved in sanitation planning. Since however the planning is ultimately intended for the residents, the ultimate beneficiaries are the residents of Arusha municipality, as well as the collaborating CBOs/NGOs and the local private sector whose roles will be impacted by the plan developed as a result of this project.

1.4.2 As sanitation impacts on many spheres of life, the following stakeholders of the project have been identified:

- Pangani River Basin Organisation
- Ministry of Water
- EWURA – Energy and Water Utilities Regulatory Authority
- Ministry of Health or its Regional Representation in Arusha
- Department of the Environment and the National Environmental Management Council (NEMC)
- Private sector operating in the sanitation sub-sector in Arusha – current and potential
- Businesses operative in Arusha, especially the wet businesses and industry
- The Resource Oriented Sanitation concepts for peri-urban areas of Africa (ROSA)

## 1.5 Partnerships

1.5.1 In view of its involvement in the CWS the UNHCS-Habitat is considered an important partner in the sub-sector as well the past donors such as DANIDA and prospective donors. The University College of Lands and Architectural Studies (UCLAS) has previously provided assistance to the City at a higher and cross-sectoral level and should be considered a possible partner in various ways related to sanitation.

1.5.2 The ROSA Project has a strong relevance to the proposed study as it focuses on the resource perspective of sanitation, thus raising opportunities for increased incentives for participation in sanitation service provision based on opportunities for gains.

1.5.3 For purposes of the strategic plan, the Terms of Reference incorporate an examination of the structure of service provision with the intention of widening the partnerships among beneficiaries, private sector non-governmental and governmental agencies in the service provision in all feasible areas including those that have already been achieved under the recent initiatives.

## 2 PROJECT

### 2.1 Impacts

2.1.1 The goal of the proposed project is to contribute to overall improvement of sanitation in the Arusha Municipality through a viable programme of investment in the infrastructure defined by a strategic approach to planning. As results of the availability of the plan it is expected that AMC will

- Within the national system and at the municipal level remove any barriers and create new incentives in the policy and regulatory framework for rational development of sanitation
- Assign appropriate roles in the service provision for individual households, neighbourhoods, communities, CBOs and private operators and the AWUSA and AMC in the sector of

sanitation, that better utilises the resources of these layers in more efficient service provision

- Facilitate investments by all actors in the technical solutions to problems of sanitation, through the use of wider range of technologies with greater benefits residents
- Establish innovative financial mechanisms for investment operation and maintenance of sanitation facilities in the city, including non cash contributions in self delivery
- Develop the capacities of individuals, organisations in the implementation of the plan, through continuous awareness creation, technical support to communities and implementers and a viable institutional environment.

## 2.2 Outcome

2.2.1 The objective of the proposed project is to endow AMC and its partners involved in the provision of sanitation services with a broad set of strategies and a detailed implementation plan to improve the functioning of services for storm water, solid waste, human and domestic waste and drinking water supply to meet the basic needs of residents to meet the demands of residents currently underprovided with the services. These strategies will include wide selection of technological solutions, institutional arrangements that make use of community and private sector resources, social capital– including awareness and capacity building and financial identifying appropriate financial arrangements to mobilize financial resources in cash credit and kind to finance the provision of infrastructure’s capital and recurrent costs.

2.2.2 The Strategic Sanitation Plan for the Arusha Municipality consists of

(a) a **Strategic Framework** as a set of viable strategies in the five principles axes of policy and regulation, institutional arrangements, technical solutions, financing mechanisms and capacity building, that may be applied by different actors under given local conditions within the various physical delimitations of “zone” as defined by the HCES.

(b) As part of the strategy formulation a number of **Pilot Interventions** with a demonstrational effect will be implemented, and

(c) a detailed **Improvement Plan and Programme** outlining the sequence of investments under varying scenarios of availability of investment financing – the dynamic financial planning.: It shall detail the planned outputs of the investment programme, according to their timing, and resources requirements, It also cover an analysis of the impacts on the social and environmental spheres and possible risks with mitigating measures. It shall thus serve as basis for preparation of funding proposals to external donors.

2.2.3 The project outcomes, based on the outputs and the intermediate results above, are that the city will implement a policy and regulatory framework to implement the principles of strategic planning in the city; that it will structure the provision of services by devolving roles to appropriate levels and increase the flow of capital funds to sanitation by applying for capital grants from the Central Government and mobilize the resources of households and communities.

## 2.3 Outputs

2.3.1 The deliverables from the activities to be detailed in section 2.4 below, fall within six

distinct categories: The first four lead to the development of the Strategic Framework, while the fifth serves as a bridge to the development of the sixth and the beginning of implementation of the recommendations.

### **Output 1: Detailed Execution Consensus**

2.3.2 The Detailed Execution Consensus (DEC) is a charter negotiated among all concerned with the execution of the project, established at the start based on the Terms of Reference, and clarifying a common vision of the overall results of the intervention and the different roles of players. It will define interfaces among all concerned.

### **Output 2: Baseline Situational Analysis (Assessment of Current Situation and Outcomes)**

2.3.3 The Assessment of Current Situation and its outcomes will cover all the areas of sanitation defined in paragraph 1.1.5 along all of the five axes and will detail the existing situation so as to present the *priorities* and problems in detail, the sector's strengths and weaknesses as well as opportunities and threats to development. This analysis will be based to large extent on existing information as duly supplemented by field data collected as found necessary. It will consist of text reports and presentation of information in various appropriate forms including thematic maps in hard and soft copy forms.

### **Output 3: Strategic Options**

2.3.4 Within the same scope and axes, this deliverable will present a wide range of possible options with their implications as well as *the feasibility of combinations*. This output will serve as the primary input to the next – evaluation of feasible solutions.

### **Output 4: Strategic Sanitation Framework**

2.3.5 This output will be a documentation of preferred service combinations following a multi-criteria analysis of possible options. The Strategic Sanitation Framework shall include implementation methodologies that optimize results of the proposed strategies which will incorporate participatory decision making, and the inclusion of appropriate forms of community contracting within the procurement methods etc

### **Output 5: Pilot Works**

2.3.6 Pilot works will be executed in this project to achieve results at **two** levels. In the early stages in order to show-case available solutions such as model forms of sanitary service levels and technologies demonstration works will be implement in selected areas according to their demonstrative capacity. These will include works identified in the past studies including the UN Habitat Cities Without Slums.

2.3.7 Following the formulation of the Strategic Framework, pilot implementation of the key strategies recommended will begin. The recommended procedures such as Annual Work Programme, selected institutional arrangements with accompanying financial mobilization strategies will be included in the Pilot Implementation and feedback will be incorporated in the Final Plan Report

2.3.8 To illustrate the principle of dynamic planning the project will operate with a fixed budget and the Planning Team shall prioritise interventions. Target areas shall be in the Elerai and Daraja Mbili wards as identified in earlier projects others shall lie in the central systems operated by AMC/AUWSA relating to treatment of wastewater and solid waste.

## **Output 6: Implementation Plan for subsequent phases**

2.3.9 This output of the project will be a consolidation of the different area plans and shows the identified shortfall that need to be met with an indicative time frame and financial requirement. It shall thus show planned activities required to meet the identified priorities, with cost estimates and indicators of economic, social and environmental feasibility of each action. The implementation plan will be used to draw up annual plans for funding and by identified actors including the Municipal Local Capital Expenditure Programme, external funds and individual households programme that require Municipal technical Assistance input to implement. It will also include a framework for monitoring performance and progress in attain the strategic plan objectives.

2.3.10 The six outputs constitute a Strategic Sanitation Plan for the Arusha Municipality.

## **2.4 Activities**

### **General Approach**

2.4.1 Detailed descriptions of the project activities are given in Annex 2 of this Report in the form of Terms of Reference. Hereunder is a description of the main elements of the activities leading to the above mentioned outputs.

2.4.2 The Municipality's Implementation Team and Consultants shall adopt the strategic approach in the definition of the plan in accordance with the principles of Environmental Management Planning for municipal services provision and Household Centred Environmental Sanitation with the broad field of Strategic Sanitation Planning.

2.4.3 Data collection shall be fully participatory and gender sensitive. The consultant shall take care to disaggregate the community to observe differences in perspectives between men and women and among different other groupings and cultural and geographic settings. To this end the study shall draw on the guidelines provided by the African Development Bank and Government's Gender Policies. In particular persons in charge of data collection shall reflect appropriate competences to meet this requirement

2.4.4 The areas to be covered include (a) Drinking Water Supply in areas not adequately covered by the AUWSA distribution system (b) on site sanitation systems for disposal of Faecal wastes and Grey water (c) off-site sewerage Sanitation (d) Solid Wastes and Storm-water Drainage. The solution to be sought should reflected an integrated approach covering areas of (i) policy and regulatory reforms, (ii) institutional structures for service provision (iii) technical solution (iv) financial mechanism and finally (v) human and organisational capacity. In addition solutions should be tested against their social and environmental impacts.

2.4.5 For purposes of the project the Municipal Areas shall be divided into logical area subdivisions reflecting a degree of homogeneity of key factors affecting delivery of sanitation. These sub-divisions need to be agreed at start up and should be used for sampling

when necessary, for generalisation of results and aggregation to the citywide level in the finalization of the Strategic Plan.

### **Preparation, Start-up and Project Management**

2.4.6 Within this activity the Clients Implementation Team shall undertake the procurement of the Consultants Team to be delegated the responsibility of execution of a significant part of the project, and the detailed work programme, team building and the Launching Workshop. During Execution the Team will be responsible for overall execution as detailed in section 3. Together the two teams shall identify available sources of information, agree on criteria to be used in assessments and evaluations, define roles for stakeholders in the study and present results at a **Launching Workshop** aimed at obtaining a shared vision of the assignment.

### **Current Situational Assessment and Determination of Priorities**

2.4.7 The project shall undertake a review of existing sources of information and supplement them where necessary with field data collection and analysis in order to determine the existing situation with respect to the provision of sanitation services, as well as the consequences of the current state. Field data collection shall include appropriate combinations of forms of rapid and participatory appraisals and more formal quantitative surveys. These assessments will cover each of the sub-sectors of water supply; excreta, grey and wastewater and solid waste collection, treatment and disposal; and storm-water drainage. The data will cover areas of policy and regulatory Framework; Institutional Structures of service provision, technical parameters and candidate solutions; Financing mechanisms, Human Resources and Organisational Capacity.

2.4.8 The result of the analysis shall be documented in a report on Situational Analysis while new information collected shall be entered into the Environmental Management Information Systems (EMIS) to be developed concurrently ,

### **Identification of Strategic Options**

2.4.9 The project shall develop potential technical solutions to bridge the gaps between the user priorities and the existing situations based on the state of the art and experiences in similar situations. In the subsequent stage of evaluation the final test will include acceptance of solutions by the concerned stakeholders. Where lack of information is likely to impair rational choice the project shall prepare adequate information on technical options and communicate them to stakeholders. Promotion, information communication and educations shall consequently form an important part of this activity.

2.4.10 The various alternatives shall be presented in the Strategic Options Report to facilitate the next stage of selection. The solutions shall be documented so as to serve as a catalogue for similar decisions in the future as environmental variables and peoples priorities change.

### **Evaluation of Option and Strategic Framework Formulations**

2.4.11 The preferred options combination for each area or zone shall be compiled into a

Strategic Framework. This preferred solution in each area shall match the technical solution with the institutional arrangements and based on the financial capability of the residents and the available financing mechanisms

2.4.12 These solutions shall also be subjected to impact analysis to test their robustness in view of project risks, social and environmental objectives.

### **Demonstration Works and Pilot Implementation**

2.4.13 As part of the awareness creation campaign during the plan development a number of demonstration installations will be constructed in consultation with the beneficiaries at different levels. These will act as a means to provide tangible examples of the technological choices available, to test their acceptance by the communities and community members and to harvest experiences with their implementation. The mechanisms for implementation will include the complete HCES procedure cycle including promotion, selection, implementation, monitoring and feedback.

2.4.14 Demonstration pilots will include: community water supplies in areas in the Elerai and Daraja Mbili wards which prioritised this aspect in the SAP and CWS projects; storm water drainage systems; different forms of on site sanitation systems including eco-san toilets; solid waste management systems. The technical solutions used shall be comprehensive and incorporate compatible institutional arrangements for management and proposals for financing mechanisms. Prior to their implementation these works shall be subjected to the Environmental Assessment as required by the national legislation using procedures agreed with the African Development Bank for use on the Rural Water Supply and Sanitation sub-projects.

2.4.15 In addition, for these demonstration pilots, detailed designs will be prepared for off-site systems of sewerage and solid waste landfill systems in enough detail to allow tenders to be issued for implementation.

2.4.16 A second set of Pilot works will be implemented following the definition of the Strategic Framework and shall begin in areas identified using pre-agreed criteria. For each area appropriate institutional arrangements shall be mounted, technical solutions implemented and financial mechanism put in place. These works shall provide a test case of the implementation of the Plan Strategies and shall be provide feedback into the implementation plans set forth below

### **Implementation Plans**

2.4.17 Based on the solutions of the different areas in the Strategic Framework and the feedback from the pilot demonstrations, the project shall proceed to the compilation of the Improvement Plans and Programme aimed at meeting the needs of the Arusha Municipality for sanitation, based on the determined priorities of residents and their ability to meet the required financial demands.

2.4.18 The consultant shall compile the implementation plans in a format to be agreed with the client. The document shall cover the challenges faced by the residents of Arusha with regard to sanitation in particular the consequences or outcomes of non action. It shall capture the aspirations for improvements as expressed from demand assessments, the constraints as well as opportunities identified ,present the high priority actions with a time frame for

implementation, present the costs of attaining the desired outputs in each of the strategic dimensions considered. The document shall conclude with an analysis of sustainability of the strategic actions in terms of their economic, social, gender and environmental impacts

2.4.19 The planned activities shall show the role of all sector players in the implementation and shall include a detailed framework for monitoring and reporting progress in implementation and evaluation of outcomes.

2.4.20 The results will be presented to a closing Consultative Workshop to establish consensus on the project results. Funding agencies and financial intermediaries will be invited to this workshop as part of the Funds Mobilization effort.

## 2.5 Risks

2.5.1 The project's overall goal will not be fully achieved if after the completion of the plan, the funding for programmes remains low. This has happened with the withdrawal of funding of the Sustainable Arusha Project and following the preparation of the Cities Without Slums study by HABITAT. As a means to minimize both the probability of this happening and the effect if it should happen, the study includes the viability of projects as a key criterion for inclusion in the improvement plan. In addition, the strategic approach implies that a number of financing mechanisms is considered; that an incremental approach is used; and that a number of role players are facilitated to invest own resources when that is for collective benefit.

2.5.2 The project also requires a functioning GIS system for meaningful data entry and analysis. However AMC has never implemented its GIS system provided under the Sustainable Arusha Project nor did it renew the software licence. It has applied for funding of its EMIS the environmental Management Information System with a significant GIS part, expected to be operational before the execution of the present study. Should there be a delay in the implementation of the EMIS, it could affect the present project. It is consequently necessary that the Consultant should make provision to temporarily use its software with arrangements to migrate it to the Municipal System when the latter is operational.

## 2.6 AWF Value Added

2.6.1 Preparation of WRM plans is one of the activities envisaged under the AWF focal area entitled "National IWRM: Planning and Implementation" the activity being stated as *Preparation of IWRM strategies, national action plans and related investment programmes, and support their implementation*. In this way the AWF assists in the preparation of plans to implement such long term objectives as the MDGs. Most importantly the preparation of the Strategic Plan will facilitate investments since the Implementation Plan is a preparatory tool with all the elements required for an assessment of the viability of intervention and due diligence.

2.6.2 The overall value added by the AWF is consequently the sum of implementation of IWRM principles such as strategic planning and leverage of investments made possible through the process of preparation.

## 2.7 Costs and Financing

2.7.1 The total estimated cost in the proposal is some EUR **677,400**. The cost breakdown by components is given in Table 2.1 below together with the source of funds.

Table 2.1 Cost and Financing Plan

	Total Cost EUR	AMC/AUWSA	AWF
Consultancy Services Including Workshops	449,000		449,000
Demonstration Works	90,000		90,000
Pilot Implementation	100,000		100,000
Project Management	38,400	23,400	15,000
Team Running costs	15000		15,000
Staff	18000	18,000	
Accommodation	5400	5.400	
<b>TOTAL</b>	<b>677,400</b>	<b>23,400</b>	<b>654,000</b>

2.7.2 The AMC and the AUWSA will meet the costs of the staff and facilities made available to the consultant in the execution of the project. These costs are estimated at EUR 23,400. The AWF grant will meet the costs of the Consultancy Services, the Demonstration Works and Pilot Implementation, as well as those operating costs of the AMC/AUWSA Team related to the construction of pilot works and supervision of the consultancy services totalling EUR 15,000. The total amount of funding from the AWF is EUR 654,000.

### 3 PROJECT IMPLEMENTATION

#### 3.1 Recipient

3.1.1 The recipient of the grant shall be the Arusha Municipal Council established under the Local Government Act of 1982. The Council has the autonomy similar to parastatal bodies and is body corporate with the power to borrow within set limits. The management of the grant funds shall be entrusted to the Municipal Director as the chief accounting officer.

3.1.2 The Arusha Municipality has adequate capacity to implement the present project having recently implemented the DANIDA project of a larger scale and the UN HABITAT study. The municipality has also been beneficiary of the infrastructure development project under the World Bank financed Urban Sector Project.

3.1.3 The Arusha Municipal Council shall collaborate with the Arusha Urban Water and Sewerage Authority (AUWSA) and some of the project activities will be in the domain of the latter. AUWSA was established under the Water Works Ordinance Cap 281 as amended in 1997, declared an autonomous entity by a Ministerial Order in 1998 and inaugurated in May 1999. It is governed by a Board of Directors, which may, with a prior approval of the Minister responsible for water, acquire loans and credits for purposes of investment.

## 3.2 Implementation arrangements and capacity

3.2.1 The AMC will collaborate with the AUWSA and will subcontract external expertise to guide and support the plan preparation and to train existing staff of the two organisations.

3.2.2 The AMC and AUWSA shall constitute a multi-disciplinary planning Team consisting of key staff concerned with development and operation of various aspects of the sanitation. The team shall be charged with overseeing the Consultants Assignment and implementation of the Demonstration Works and Pilot Implementation.

3.2.3 The allocation of responsibilities is given in the Terms of Reference and each participant shall be accountable for his or her deliverables.

3.2.4 The project team will be headed by a Project Coordinator who shall be named by the Recipient and whose qualifications shall be acceptable to the AWF.

## 3.3 Performance Plan

3.3.1 The performance plan draws from the Strategic Results Framework (log frame) and shows the targeted levels of the results indicators. It will be used for Monitoring as described in section 3.5 below.

Table 3.1 Performance Plan

RESULT	Indicator, Source and Periodicity	Target and Timeline
<b>Impact</b>		
<i>Arusha Municipality implements developments in sanitation with a balanced set of policy, regulatory, institutional, financial and technical strategies, within social and environmental constraints</i>		
	The city's Annual and Business Plans reflect Strategic Principles	Beginning in 2008
<b>Outcomes</b>		
<i>Policy and regulatory framework propitious for rational development of sanitation established at the municipal level</i>		
	Revision of Municipal Sanitation Bylaws	Within one year of completion of plan AMC begins to progressively amend sanitation by-laws as recommended
<i>A structure of service provision with appropriate roles for all actors defined</i>		
	Number and type of service providers	Number of Franchises and other forms of service providers increased according to demand
<i>Capacity to mobilise Investments by all actors increased</i>		
	Amount of funds mobilized	AMC acquires Capital Grants and households increase own investment in Sanitation
<b>OUTPUTS</b>		
Detailed Execution Consensus	Project Charter concluded	At end of Week 4
Baseline Situational Analysis	Documentation available and data entered into EMIS	At end of week 24
Strategic Options	Strategic Options Report accepted by stakeholders	At week 28
Strategic Framework	Pilot works completed and feedback from uses available	At week 32
Implementation Plans	Implementation Plan accepted by the Stakeholders Workshop	At week 48

### 3.4 Implementation schedule

3.4.1 The project is programmed to take a total of 15 months. It is expected that from the time the grant is approved allowing for signature and formalities leading to first disbursement a total of three months will lapse. This period will be used to recruit support consultants.

3.4.2 A total of one month is allowed for start up as described under activities. The remainder of activities will follow the pattern described in the implementation chart, provided below.

Table 3.2 Implementation Schedule

Client	1	2	3	4	5	6	7	8	9	10	11	12
Project Management												
Project Start up												
Current Situational Analysis												
Identification of Options												
Evaluation of Options												
Implementation Plan Preparation												
Demonstration												
Pilot Implementation												

### 3.5 Procurement of Services and Goods

3.5.1 Procurement arrangements are summarized in Table 3.5 below. All procurement of goods, works and services financed by AWF will be in accordance with Tanzania’s national procurement regulations which were adjudged compatible with international practice by a the Bank Group Procurement Assessment and subsequent missions that monitored implementation of the recommendations of the Assessment

3.5.2 Civil Works amounting to EUR 185,000 will be implemented in several lots not exceeding EUR 15,000 each through Community Contracting as recommended by the ILO as a means of making procurement attain social objectives.

Table 3.5 Procurement Arrangements

Categories of Expenditure	ICB	NCB	Other <sup>1</sup>	Shortlist	NBF <sup>2</sup>	Total
<b>1. Civil Works</b> Pilot works			185,000 [185,000] <sup>3</sup>			185,000 [185,000]
<b>2. Goods</b> 2.1 Pilots works Goods			5,000 [5,000]			5,000 [5,000]
2.2 Office support			15,000 [15,000]			15,000 [15,000]
<b>3. Consultant Services</b> 3.1 Study				449,000 [449,000]		449,000 [449,000]
<b>4. Miscellaneous</b> 4.1 Staff costs and office accommodation					23,400	23,400
<b>Total</b>			205,000 [205,000]	449,000 [449,000]	23,400	677,400 [654,000]

3.5.3 Goods. Goods estimated at EUR 5,000 consisting primarily of Solid Waste Equipment under the Pilot Works and Office support (EUR 15,000) will be acquired through National Shopping.

3.5.4 Consultant Services: Consultant Services, *estimated at EUR 449,000* will be procured through competition on the basis of an international **shortlist** using the selection procedure combining technical quality with price consideration. The Consultants service will be to support the Project Team in the manner explained in the Terms of Reference.

3.5.5 Miscellaneous Expenses: The cost of staff of the implementing agencies and the limited office accommodation provided by the AMC will be met by the Recipient and its partners

3.5.6 With the exception of the Consultant Services, procurement will be subject to post review by the AWF. For that reason the recipient will maintain accurate records of procurement steps including bidding documents, evaluation reports and signed evaluation forms, minutes of the opening and all meetings of the review team.

3.5.7 With regard to the Consultant Services, the Recipient shall obtain a prior “no objection” from the African Water Facility in respect of the evaluation criteria, the final evaluation report of the proposals, and the draft contract before signature.

<sup>1</sup> National Shopping and Direct Purchase

<sup>2</sup> Non-Bank Funded

<sup>3</sup> AWF Financing

## 3.6 Accounting and Auditing

3.6.1 The project's funds will be accounted for in accordance with *the Financial Manual of the Government relating to Local Government capital expenditures*, incorporating the specific additional requirements of the AWF. They will therefore be subject to internal audit by the Government as well as external audit under arrangements specified by the AWF. The audit of the project shall include an audit of the Special Account as stated in section 3.7 below:

## 3.7 Disbursement Arrangement

3.7.1 The Special Account method will be used for disbursement of funds from the AWF. The project will open a Special Account with local commercial bank, into which the advances will be deposited. The Special Account will be replenished on the condition that the preceding advance has been utilized and justified up to at least 50 percent and that the other advances have been fully justified. The external Audit of the project shall include an audit of the use of the special account and attestation that: i) the requests for replenishment of the revolving fund submitted are consistent with relevant information, ii) the internal controls and procedures used for their preparation, are reliable enough to justify the requests for replenishment, and iii) the goods and services financed from the special account have been received by the project.

3.7.2 To protect the interests of the recipient and the AWF, the bank holding the special account must issue an irrevocable undertaking that:

- funds held in the Special Account will not, under any circumstances, be set off, seized or attached to satisfy amounts due to the bank by the project (for example by attachment) or be used as sundry collateral;
- monthly statements of the Special Account will be issued and communicated to the project; and
- the account and related documents will be placed at the disposal of the Bank staff and its appointed auditors.

3.7.3 The expected Expenditure Schedule is shown in the Table 3.4 below

Table 3.4: Expenditure Schedule.

	Q1	Q2	Q3	Q4	Total
Consultants	130,180	103,770	116,388	98,663	<b>449,000</b>
Demonstration works	45,000	45,000			<b>90,000</b>
Pilot implementation			50,000	50,000	<b>100,000</b>
Project Implementation					
Team Running Costs	4,500	3,500	3,500	3,500	<b>15,000</b>
Staff and accommodation	5,850	5,850	5,850	5,850	<b>23,400</b>
TOTAL	185,530	158,120	175,738	158,013	<b>677,400</b>

### **3.8 Progress Monitoring and Reporting**

3.8.1 The recipient shall collect and process information necessary to monitor the attainment of results as indicated in section 2.3 or as duly revised. Furthermore he shall prepare and share with stakeholders the progress Reports of the project in the form acceptable to the AWF. The reports shall show progress in the implementation of procurement and execution of the project, present the reasons for any deviations and make provisions in the subsequent periods for their correction. The Reports shall also cover the financial aspects in terms of commitments, expenditures and disbursement.

## **4 PROJECT BENEFITS**

### **4.1 Effectiveness and Efficiency**

4.1.1 The plan elaboration is an intermediate step in the implementation of improved sanitation development in Arusha. It will provide a roadmap for development of sanitation services in Arusha based on a detailed knowledge of the problems and opportunities, the preferences of the beneficiaries as well as their capacity to participate in the determination of their destiny. It is founded on innovative principles of greater involvement, opening opportunities for a wider variety of technological solutions, service provision and resources mobilization options

4.1.2 It is expected that the Strategic Sanitation Plan will offer solutions that were not available under the old paradigm. Review of policy will create an incentives base propitious to rational development. By delegating roles to the lowest feasible levels the central macro- and meso- institutions, it will free up resources to focus on critical areas that require attention at the appropriate levels while giving extra opportunity for beneficiaries to exercise decisions at their level.

4.1.3 By facilitating informed choice, it is expected to significantly improve willingness to pay for services for which there is true “effective” demand – an expressed need backed by willingness to sacrifice resources to access the services.

4.1.4 By applying the incremental approach the communities will be able to implement the comprehensive programme without necessarily waiting for large bulk investments from international donors. It is expected that this in turn will be an incentive for external donors to be attracted by better prospects of aid effectiveness.

4.1.5 Of immediate significance, the implementation programme will allow the Arusha Municipality and the Arusha Urban Water Supply Authority to prepare financing proposals to present to the central ministries responsible for Local Governments and Water for funding under the Capital Development Grants and the Waters Sector Development Programme currently under implementation. In this manner the project will leverage funding from external sources

### **4.2 Sustainability**

4.2.1 Consistent implementation of the results of the Plan will ensure sustainability. The incremental approach already mentioned, together with the fact that alternative complementary financing mechanisms will be investigated as part of the project, imply that with the Strategic Plan in hand the Municipality of Arusha and its partners can programme

development works in the field of sanitation regardless of the available funding. When large capital grants are made available implementation will cover a longer planning period, but even with the annual local annual capital budget the little increments will ultimately add up to a massive asset build up over time.

4.2.2 Sustainability is also guaranteed by intensive participation of the users in determining technological solutions that meet their needs.

4.2.3 Especially the works constructed under the pilot programme will have a higher chance of sustainability, since those provided at household level will have a high input of the individual household in terms of choice of service level and product quality and a significant stakes in cost sharing. Those to be managed collectively, either at community, neighbourhood or even municipal level will have adequate arrangements for funding of maintenance and operation as well as organizational arrangement and capacity, and beneficiary awareness provided under the project.

4.2.4 The limited works envisaged as demonstration and pilot implementation will be subject to Environmental and Social Assessment prior to execution using procedures under the Rural Water and Sanitation Programme given their scale.

## **5 CONCLUSIONS AND RECOMMENDATIONS**

### **5.1 Conclusions**

5.1.1 The proposed Strategic sanitation plan is required to respond to the need for progressive improvement of sanitation in the City of Arusha in a manner that matches available resources, and in-keeping with the changing social, technological economic and environmental and political context. The Plan will be flexible and adaptive and incorporate a diversity of role players and strategic choices. The strategic approach is already embraced by the AMC and AUWSA which have started implementation of strategic planning within the framework of the Strategic Arusha Project and the AWUSA strategic plan.

5.1.2 The proposal is suitable for financing from the African Water Facility as it falls within the Facility's focal area of preparation of strategies and plans and within the capital investment focal area as a preparation intervention. A major outcome of the Strategic Plan is to facilitate a broad cross-section of players to find a role in services provision that may include mobilization of own resources. It is expected that the households and private sector will identify niches in the financing improvements and development. However the bulk of capital funding will be expected from Government and External donors. The Arusha sector players will use the Implementation Plan as a basis for applying for funding initially from the Capital Development Grants under the office responsible for local governments<sup>4</sup> and the Water Sector Development Programme within the Ministry of Water, and subsequently from other external donors through the Government of Tanzania.

### **5.2 Recommendations**

5.2.1 It is consequently recommended that an amount of EUR 654,000 be granted to the Arusha Municipal Authority to meet the purposes of the project described herein under the

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<sup>4</sup> PMO-RALG; Prime Minister's Office – Regional and Local Government

normal conditions of the AWF, in particular that:

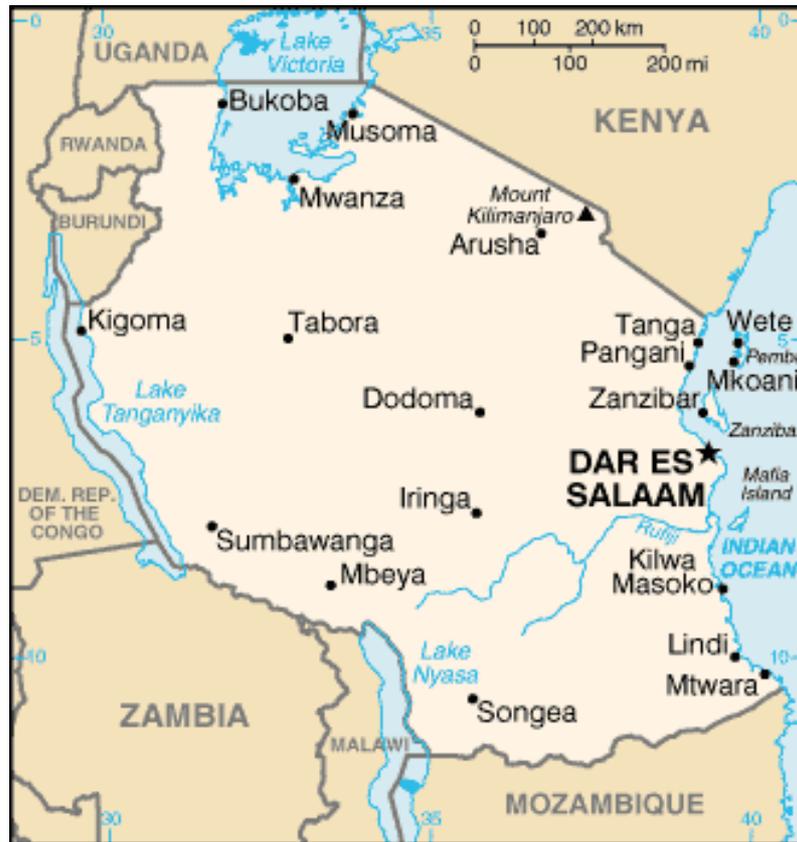
Condition for first disbursement:

5.2.2 Prior to first disbursement the Recipient shall have opened a special account with a local bank to disburse the proceeds of the grant.

Other Conditions

5.2.3 There are no other Conditions

## Annex 1 = Map of Tanzania and the Project Area



### Disclaimer

This map has been drawn by the African Water Facility exclusively for the use of the readers of the report to which it is attached. The names used and the borders shown in it do not imply on the part of the Facility and its members any judgement concerning the legal status of the territory nor any approval or acceptance of these borders

## **Annex 2 – Terms of Reference**

## **Terms of Reference for the Development**

### **Arusha Sanitation Strategic Plan**

#### **1. BACKGROUND AND RATIONALE**

##### **1.1. Background**

1.1.1. The Arusha Municipal Council (AMC) has, jointly with the Arusha Urban Water and Sewerage Authority (AUWSA), submitted a proposal to the AWF for funding a project aimed at assisting the two authorities to prepare a Strategic Sanitation Plan and incorporating an Implementation Programme to render operational the strategy. The present Terms of Reference describes the Consultancy Services that will be required to implement the Project and the interface with the Arusha Municipal Council.

##### **1.2. Sector and Project Area**

1.2.1. An estimated 81% of its population of 340,000 lives in unplanned settlements in an area of the city constituting 75% of the total of 9,200 hectares. Such a large proportion of unplanned settlements would introduce major challenges in the provision of municipal services, not least of which is sanitation. Sewerage covers only 12 per cent of the area within which some households refuse to connect to the central system. Effluent from the treatment plant does not meet the national environmental standards. In the case of on-site sanitation, in a large area of the city percolation rates of the characteristic black cotton soil are low resulting in poor performance of the pit latrines and septic tank soak-aways. Combined with the relatively flat terrain at the bottom of the Mount Meru, storm-water is equally a problem especially in the unplanned areas while in the planned areas existing drainage network cannot cope with the high flows.

##### **1.3. Rationale**

1.3.1. As institutions with the responsibility for provision of sanitation services in Arusha, the Municipal Council and the Urban Water and Sanitation Authority need to have a strategic base on which to found the planning, and implementation of the sanitation improvements. A strategic plan will serve to identify the financial requirements of desired improvements so that through a process of dynamic financial planning these improvements may be scheduled according to the available financial resources.

1.3.2. More importantly the strategic nature of the plan would allow it to propose solutions to strategic issues, constraints and problems. It would define clear roles for a wider cross-section of stakeholders; establish a road map for addressing policy and regulatory issues constraining a rational development of the service infrastructure and provision; identify diverse feasible technical solutions that may be adopted under the various local situation in different parts of the city; and identify requirements in terms of financial resources, human and institutional capacity to meet the objectives of providing sanitation services in the city of Arusha.

## **2. OBJECTIVES**

### **2.1. Purpose of the Project**

The objective of the proposed project is to endow AMC and its partners involved in the provision of sanitation services with a broad set of strategies and a detailed implementation plan to improve the functioning of services for storm water, solid waste, human and domestic waste and drinking water supply to meet the basic needs of residents to meet the demands of residents currently underprovided with the services.

### **2.2. Anticipated Impact**

2.2.1. As results of the availability of the plan it is expected that AMC will

- Obtain within the national system and establish at the municipal level a policy and regulatory framework propitious for rational development of sanitation
- Establish a structure of service provision with appropriate roles for individual households, neighbourhoods, communities, CBOs and private operators and the AWUSA and AMC in the sector of sanitation
- Facilitate investments by all actors in the technical solutions to problems of sanitation
- Establish innovative financial mechanisms for investment operation and maintenance of sanitation facilities in the city
- Develop the capacities of individuals, organizations in the implementation of the plan

## **3. NATURE AND SCOPE OF SERVICES**

### **3.1. Project Outputs**

3.1.1. The project outputs are expected to be: A Detailed Execution Consensus at the start of the Project; an Assessment of the Current Status of Sanitation; Strategic Options identified; a Strategic Framework based on the feasibility of Options; Pilot Works; and finally an Improvement Implementation Plan and Programme.

### **3.2. Key activities**

3.2.1. The activities with specific tasks to attain the above outputs are presented below and the responsibilities for their achievement are given in chapter 4.

3.2.2. The Municipality's Implementation Team and Consultants shall adopt the strategic approach in the definition of the plan in accordance with the principles of Environmental Management Planning for municipal services provision and Household Centred Environmental Sanitation with the broad field of Strategic Sanitation Planning.

3.2.3. Data collection shall be fully participatory and gender sensitive. The consultant shall take care to disaggregate the community to observe differences in perspectives between men and women; and among different other social groupings and cultural and geographic settings. To this end the study shall draw on the guidelines provided by the African Development Bank and Government's Gender Policies. In particular persons in charge of data collection shall reflect appropriate competences to meet this requirement

3.2.4. The areas to be covered include (a) Drinking Water Supply in areas not adequately covered by the AUWSA distribution system (b) on site sanitation systems for disposal of Faecal wastes and Grey water (c) off-site sewerage Sanitation (d) Solid Wastes and Storm-water Drainage. The solution to be sought should reflected an integrated approach covering areas of (i) policy and regulatory reforms, (ii) institutional structures for service provision (iii) technical solution (iv) financial mechanism and finally (v) human and organisational capacity. In addition solutions should be tested against their social and environmental impacts.

3.2.5. For purposes of the project the Municipal Areas shall be divided into logical subdivisions reflecting a degree of homogeneity of key factors affecting delivery of sanitation. These subdivisions need to be agreed at start up and should be used for sampling when necessary, for generalisation of results and aggregation to the citywide level in the finalization of the Strategic Plan.

### **3.3. Preparation, Start-up and Project Management**

3.3.1. The output of the activity will be a Charter of the Project stating the consensus reached on the mode of implementation, following clarification of Terms of References, assessment of available sources of information, existing institutional responsibilities with regard to sanitation planning and provision. The less tangible output will be the value added by Project Management throughout the period of execution of the study.

3.3.2. The Clients Implementation Team shall undertake the procurement of the Consultants Team to be delegated the responsibility of execution of a significant part of the project, and the detailed work programme, team building and the Launching Workshop. During Execution the Team will be responsible for overall execution as detailed in section 3.

3.3.3. The Consultants shall undertake the collection and analysis of information required to inform discussion leading to the Consensus and to ;

- agree Assessment criteria in the form of generic and other indicators of sector performance that shall be used throughout implementation;
- identify current players in the sector, as well as complete the list of stakeholders
- agree on demarcation of homogeneous areas for the purpose of study as stated in paragraph 2.4.4 above
- identify available existing data and secondary sources on technical solutions,
- identify suitable financial and economic planning models and Institutional Capacity Building Tools

- undertake a Launching Workshop which should culminate in a shared vision of the project outcomes on a consensual basis.

3.3.4. A period of two weeks following the arrival of the Consultant's team is allowed for this activity involving partners' Implementation Team and the Consultants. The report shall be used as a basis for the Launching Workshop.

### **3.4. Current Situational and Outcomes Assessment and Determination of Priorities**

3.4.1. The Consultant shall undertake a review of existing sources of information and supplement them where necessary with field data collection and analysis in order to determine the existing situation with respect to the provision of sanitation services. Field data collection shall include appropriate combinations of forms of rapid and participatory appraisals and more formal quantitative surveys. These assessments will cover all the sub-sectors of ***water supply, human and household liquid and solid wastes as well as storm-water drainage*** and will include but not be limited to:

#### ***Policy and Regulatory Framework Environment***

- Laws, decrees, regulations in force at the national and local levels that regulate the provision of service, and its interaction with the physical and social ***environment***
- International treaties, standards, best practices and experiences especially regarding social, gender and environmental contexts of service provision
- barriers to application of strategic planning principles and solutions such as shortcomings in the policy, and regulatory systems;

#### ***Institutional Structure of Service Provision***

- Analysis of market characteristic of service provision, and opportunities for unbundling,
- impacts of current institutional structures for service provision;
- Performance of the institutions currently responsible for sanitation provision including the internal arrangements and responsibilities within AMC and AUWSA.

#### ***Technical Solutions***

- Current sanitation practices in different communities, with regard to defecation, clothes and utensils washing, generation and disposal of solid wastes;
- Indicators of consequences of current sanitation practices, relating to the incidences of sanitation related diseases, user assessment of convenience etc.
- Quantities and loads of waste generated and amount and intensity/distribution of storm-water
- Coverage of services, conditions of facilities, user expectations technical problems and constraints;
- Inventory of current services and infrastructure (Asset Mapping), conditions performance effectiveness and impacts; cross sectoral impacts

- Thematic mapping of environmental constraints such as topography, geology hydrology, hydrogeology, land use planning,
- Existing practices in generation, transportation treatment and disposal of waste and management of storm water;
- On-going programmes of improvement of services.
- User expectations and attitudes to known technical solution;

### ***Financial Mechanisms***

- Financial performance of existing structures,
- Estimates of costs of service provision,
- Constraints in raising capital for development of sanitation facilities and credit assess for small service providers
- Opportunities in terms in terms of new forms of capital and microfinance for users and small enterprises
- Regulatory barriers to use of innovative financing and investment on non-cash resources

### ***Capacity Requirements***

- Actual and latent capacity of households, neighbourhoods and private sector in service provision
- Strengths and weaknesses, and capacity requirements of current and possible future players

3.4.2. The result of the analysis shall be documented in a report on Situational Analysis while new information collected shall be entered into the Environmental Management Information Systems (EMIS) to be developed concurrently.

### ***Needs Assessment Surveys and Consultations***

3.4.3. The Consultants shall undertake consultations and surveys using methods appropriate for the purpose to properly define the sanitation needs, objectives for the population for each of the sub-sectors in terms of infrastructure, and institutional arrangements.

3.4.4. The Consultant shall be careful to integrate the needs and aspirations of each significant social grouping and gender through an design of data collection. In particular the views of men and women shall be obtained collectively and separately for objectivity.

3.4.5. Social equity in needs assessment should continue beyond the plan preparation by building adequate institutional safeguards to ensure this equity.

### **3.5. Identification of Strategic Options**

3.5.1. The Consultant shall develop technical potential solutions to bridge the gaps between the user priorities and the existing situations based on the state of the art and experiences in similar situations. In the subsequent stage of evaluation the final test will include acceptance of solutions by the concerned stakeholders. Where lack of information is likely to impair rational choice the project shall prepare adequate information on technical choice and communicate them to stakeholders. Promotion, information, education and communication shall consequently form an important part of this activity which shall include:

- Development of alternative changes to policy and regulatory frameworks;
- identification of possible roles for the household, neighbourhood, CBOs and NGOs, as well as small to large privates sector in the regular service provision;
- development of community contracting systems.,
- compilation of alternative technical solutions with standard designs, with documentation of advantages and disadvantages under conditions established in different parts of the city;
- identification of alternative resource mobilization mechanisms include those of households and communities in cash, kind and self management;
- changes to role of Central and Local Government regarding financing of Sanitation Infrastructure, in view of externalities and monopolistic character of some aspects of sanitation provision
- identification of possible mechanism for HR and Institutional Capacity building in the sector including incubator.

3.5.2. The various alternatives shall be presented in the Strategic Options Report to facilitate the next stage of selection. The solutions shall be documented so as to serve as a catalogue for similar decisions in the future as environmental variables and peoples priorities changes.

### **3.6. Strategic Framework Formulations**

3.6.1. The preferred options for each area or zone shall be compiled into a Strategic Framework. A preferred solution in each area shall be one that matches the technical solutions which meet the priorities and preferences of residents, with the institutional arrangements and based on their financial capability and the available/proposed financing mechanisms.

3.6.2. Thus for each zone or aggregation of zones as necessary, and each sub-sector the Strategic Framework shall show:

- A set of technically feasible solutions, with economic, cost and financial implications; and corresponding to each solution;
- Possible institutional arrangements for service delivery, with a set of attendant policy and regulatory measures for implementation of the arrangements;
- Appropriate and feasible financial mechanisms that may be adopted; this may include

facilitation of access to credit with possibilities of use of guarantees

- Capacity building requirements to institute necessary changes and attain sustainability of service provision

3.6.3. The solutions shall furthermore be subjected to an impact analysis to establish their robustness in terms of possible risks, environmental and social impacts

### **3.7. Demonstration Works and Pilot Implementation**

3.7.1. Demonstration works will be constructed in consultation with the beneficiaries at different levels as a means to provide tangible examples of the technological choices available, for demonstrating their capabilities and disadvantages, testing their acceptance by the communities and community members and harvesting experience with their implementation. The mechanisms for implementation will include the complete HCES procedure cycle including promotion, selection, implementation, monitoring and feedback. The consultant role in this aspect shall consist in preparing technical specifications and procuring necessary services for their execution, and during implementation observing the beneficiaries reactions to the systems. The Clients Project Implementation Team shall be responsible for consultation with communities.

3.7.2. Demonstration works will include: community water supplies in areas in the Elerai and Daraja Mbili wards which prioritised this aspect in the SAP and CWS projects; storm water drainage systems; different forms of on site sanitation systems including eco-san toilets; solid waste management systems. The technical solutions used shall be comprehensive and incorporate compatible changes in the institutional and organisational arrangements and proposals for financing mechanisms.

3.7.3. In addition detailed designs will be prepared for off-site systems of sewerage and solid waste landfill systems in enough detail to allow tenders to be issued for implementation.

3.7.4. A second set of pilot works will **follow finalization of the Strategic Framework** and will be used to test the principles therein.. The pilot works will be developed in areas identified using pre-agreed criteria and implemented in accordance with the Strategic Framework. They shall consequently include appropriate institutional arrangements and financial mechanisms. These works will provide a further opportunity to refine proposals to be included in the final Implementation Plan.

3.7.5. Both demonstration and pilot works shall be subject to Environmental Assessment in accordance with the national legislation and using procedures agreed with the African Development Bank for use in the Rural Water and Sanitation Programme.

### **3.8. Implementation Plans**

3.8.1. Based on the solutions of the different areas in the Strategic Framework and the feedback from the pilot demonstrations, the project shall proceed to the compilation of the Improvement Plans and Programme aimed at meeting the needs of the Arusha Municipality for sanitation based on the determined priorities of residents and their ability to meet the required financial demands.

3.8.2. The results will be presented to a closing Consultative Workshop to establish consensus on the project results.

3.8.3. The plan shall identify **objectives to be achieved** to attain required improvements, **actions** with **cost estimates** of these actions to meet these objectives, **resources** required including financing, and **timing of the actions** in accordance with the expressed needs and assessed demands of the beneficiaries in different areas (wards, catchments etc.).

3.8.4. For each sub-sector as relevant the plan shall cover the issues of **resource value of waste** and hence strategies for recovery, re-use and alternative methods of disposal. The plan shall include with an **evaluation of economic, social and environmental impacts** as described after paragraph 3.8.17 below and conclude with a function Framework for Monitoring and Reporting on progress in implementation..

3.8.5. The Plan should take into consideration the following aspects in respect of each sub-sector:

#### ***On-site Sanitation***

3.8.6. On-site sanitation is suited to institutional arrangement aimed at supporting self provision by individual households. Central agencies such as the AMC have a role in defining appropriate incentives for safe disposal of liquid wastes and resultant sludge, providing technical assistances and support to households and private sector agencies involved. The implementation plan shall describe the appropriate institutional arrangements for this purpose.

3.8.7. Technical solutions shall include appropriate designs of Ventilated Improved Pit latrines and versions of the Ecological Sanitation systems suited to different areas in Arusha, designs of pit privies and septic tanks with suitable methods of disposal and or re-use of the liquid train (effluents) and solids (sludge), and grey water. Improvement plans should consist of demarcation of areas of the city where these solutions are feasible and preferred by residents, standard designs and plans, drawings with indicative costs, and a flow chart showing the methodology for selection.

3.8.8. Regulatory provisions should include recommendations in the revision of housing inspection and building permit approvals related to construction of sanitary facilities.

#### ***Neighbourhood and autonomous community systems***

3.8.9. Solutions involving groups of households in a neighbourhood or community systems, such as condominium sewers, should have appropriate institutional arrangements indicating the role of the community, the private supplier and the Municipal level agency involved. Demarcation of suitable area will also be on the GIS map produced within the SSF. Standard designs will be supplemented with technical assistance to be provided by the central agencies.

### ***Central Sewerage System***

3.8.10. The Central Sewerage System may continue to meet the needs of businesses and households where feasible under a central authority such as AUWSA. The plan shall detail regulatory changes required to optimise the operation of the central sewerage system, technical solutions including rationalization, progressive rehabilitation and expansion of the network, treatment and disposal to meet the environmental standards, financing mechanisms to implement the economic and financial sustainability of the institutions, as well as institutional and human resources capacity building.

3.8.11. The areas of the city that can be feasibly supplied with central sewerage under a full cost recovery system should be demarcated and progressive developments with cost implications shall be presented.

### ***Storm-water Drainage***

3.8.12. A thematic map of the risks and negative impacts of poor storm-water drainage shall be developed in relation to the existing natural and constructed systems, from which a set of improvement works will be derived with costs for different solution options.

3.8.13. The plan shall show where storm drainage may be introduced ahead of street infrastructure development and where such incremental development represents a tangible improvement.

3.8.14. Improvement solutions shall include awareness enhancement and training of community leadership on storm-water issues, land management practises that impact on drainage management, and the health and environmental impacts of poor storm-water drainage management.

3.8.15. Institutional recommendations shall show the distribution of responsibility for construction and maintenance among households, communities, CBOs NGOs and the Ward and Municipal Committees. The consultant shall relate experiences such as the Hanna Nassif programme in the SCP in Dar es Salaam.

### ***Solid Waste Management***

3.8.16. The Plan shall include solutions with cost estimates that recognise and promote the resource value of solid waste, create awareness of the hygiene issues and therefore raise standards of collection and disposal, develop appropriate strategies for formal and informal waste separation and recycling to reduce the public health and environmental impacts of solid waste.

3.8.17. Institutional arrangements will incorporate appropriate self provision by households, promotion of small private operators

### ***Impact Analysis of the Plan***

3.8.18. The plans shall include a detailed impact assessment of the actions from an Institutional, Financial, Economic, Environmental and Social points of view as well as associated Risks. The Impact assessment should include an analysis of the interaction of the project sub-sector to eliminate address issues of conflicting objectives and duplicative efforts and to enhance synergy in development. At each stage of development efforts undertaken shall be shown to be incremental improvements.

3.8.19. In accordance with legal requirements of Tanzania and Guidelines of the African Development Bank the Plans shall be subjected to an Environmental and Social Impacts analysis leading to the drawing up of detailed report and a summary.

### ***Performance Monitoring and Reporting Framework***

3.8.20. The Consultant shall compile a results based Performance Monitoring and Reporting Framework for use during the implementation of the Strategic Plan. The Plan shall show the desired results with carefully selected indicators, means of measurement with a time frame for attainment of results. If necessary additional measures for data collection may be built into the Plan components.

## **4. IMPLEMENTATION STRUCTURE**

### **4.1. A Steering Committee**

4.1.1. A Steering Committee headed by Municipal Executive Director and representing all stakeholders shall be established to provide overall direction to the project. The Steering Committee shall be made up of:

- Municipal Executive Director
- Managing Director of Arusha Urban Water and Sewerage Authority
- Director of Decentralization – PMORALG
- Director of Environmental Health – Ministry of Health
- Representative of the Ministry of Gender
- Representatives of the Department of the Environment/National Environmental Management Council
- Representative of Bureau of Statistics
- Representatives of Council of NGOs

4.1.2. The Municipal Executive Director shall oversee the contract with the firm of Consultants for the Execution of the Project and shall designate the Project Coordinator to head the AMC/AUWSA Team whose composition and responsibilities are defined below and which will interact with the Consultant in the execution of the study.

4.1.3. The Managing Director the Arusha Urban Water and Sanitation Authority shall also be a member of the Steering Committee and shall in turn designate two members represent AUWSA in the AMC/AUWSA Team.

- 4.1.4. A firm of consultants shall be required to provide the services of experts in the following disciplines:
- Team Leader with competences in the field of Strategic Sanitation Planning;
  - Expert in Gender and Social Impacts Analysis
  - A Financial Analyst with expertise in Institutional Appraisal of utilities;
  - An Environmental Expert
  - Sanitary Engineer
  - Solid Waste Management Expert
  - Urban Hydrologist and Storm Drainage Designer;
  - An Expert in Labour Based Methods
  - An Information Technology specialist with experience in urban infrastructure GIS.
- 4.1.5. In addition the Consultants shall indicate that the home office will provide necessary backing on sundry skills required for execution of the assignment.
- 4.1.6. The experts are to dedicate an estimated 720 workdays over a period of about 48-52 weeks to deliver the services under their responsibility as described under section 5 below within the overall framework described in 3, above.
- 4.1.7. The Consultant will employ local support staff in the form of drivers, secretaries, field enumerators and survey assistants within the duration of the assignment

## **5. RESPONSIBILITIES OF THE CONSULTANT**

### **5.1. General**

- 5.1.1. The Consultant shall provide own office and personnel accommodation which shall be deemed included in fees.
- 5.1.2. The consultant shall provide for transport of own staff. The transport provided by the Consultant shall be adequate to cater also for members of the AMC/AUWSA implementation team supervising the assignment.
- 5.1.3. The Consultant shall make arrangements to directly acquire information from sources other the Client.

### **5.2. Care and diligence**

- 5.2.1. The Consultant is to exercise care and diligence in the execution of responsibilities under the project. Within the overall framework of the scope of work the consultant shall be accountable for the following:
- Undertake all tasks and activities necessary for the realization of the plan preparation for which the Terms of Reference has designated roles
  - Assist the Arusha Municipality in preparation of bid documents required to tender the demonstration and pilot works

- Supervise construction of these works, and observe the public acceptance, use of facilities, noting any pertinent observations concerning acceptance
- Assist the Implementation Team in presenting the project and Outputs to Stakeholder Workshops.

### **5.3. Submission of Outputs (Interim and Final Reports) and Progress Reports**

5.3.1. The Consultant shall submit an Inception Report together with the proposal for a Data Entry Form within two weeks of start of work. Thereafter the consultant shall submit monthly Progress Reports in a format to be agreed with the client.

5.3.2. The Consultant shall also submit interim reports covering documentation of all proposed outputs as detailed in the Scope of Work and responsibilities of the consultant. The reports shall be presented first in the draft form and following incorporation of the comments by the client submitted in their final draft version. At the end of the project the Interim reports will be consolidated into a final report subdivided into appropriate volumes.

5.3.3. Payment of fees shall be conditional upon acceptance of the Interim Reports and Final report by the Client and the AWF in accordance with a schedule to be agreed at negotiation.

## **6. RESPONSIBILITIES OF THE CLIENT**

6.1.1. AMC and the AUWSA shall constitute an expert team of key staff committed and available at all times to the project, who shall avail necessary information to the consultant and execute steps for which it is responsible in the project.

The AMC/AUWSA team shall:

- Manage the project including executing the Agreement with the AWF
- Procure the services of consultants and the required computer software and hardware
- Administer the Consultancy Contract
- Arrange for consultants to access information in its care, and liaise with other local sources of information
- Review the inputs of the consultants and arrange for execution of recommendations as work progresses
- The AMC/AUWSA team shall also execute the Pilot Works under community contracting methods in accordance with procedures established under the UNHABITAT CWS project.

6.1.2. Other stakeholders shall

- Obtain representation on the Steering Committee
- Make available information required for the study
- Obtain representation in the Stakeholders Workshop
- Obtain regular briefing on progress of project on a quarterly basis

## **7. DATA AND DOCUMENTATION AVAILABLE TO THE CONSULTANT**

7.1.1. The following reports shall be made available to the Consultant

- ADB Gender Policy
- ADB Environmental and Social Impact Assessment Guidelines
- (Draft) ADB Policy on Urban Development
- UNHABITAT report on Cities Without Slums
- DANIDA assisted Sustainable Arusha Project

## Annex3 Project Budget

### BUDGET

	Person-weeks	EUR	
<b>International Consultants</b>			216,000
Project Director	32	96,000	
Financial & Institutional Expert	8	24,000	
Environmental Expert	12	36,000	
Solid Waste	10	30,000	
Urban Hydrologist	10	30,000	
<b>National</b>			72,000
Sanitary Engineer	72	54,000	
Economist	4	3,000	
Social and Gender Expert	16	12,000	
IT	2	1,500	
Labour Based Methods Expert	2	1,500	
Local support staff including enumerators, survey assistants etc		30,000	30,000
<b>Travel and Per diems</b>			90,000
International		22,500	
Local		22,500	
Per diems		45,000	
Field Data collection including Surveys and Equipment Rentals		25,000	25,000
Report production incl. Office Equipment		10,000	10,000
Workshops (2)		6,000	6,000
<b>Demonstration and Pilot Works</b>			190,000
Demonstration Works		90,000	
Pilot Implementation		100,000	
<b>Project Implementation Team</b>			38,400
Running Costs (AWF funded)		15,000	
*Staff Costs		18,000	
*Office Accommodation		5,400	
			677,400
		Arusha	23,400
		AWF	654,000

## Annex 4 Implementation Schedule

	Client											
	1	2	3	4	5	6	7	8	9	10	11	12
Project Management	█	█	█	█	█	█	█	█	█	█	█	█
Project Start up	█											
Current Situational Analysis		█	█	█	█							
Identification of Options						█						
Evaluation of Options							█					
Implementation Plan Preparation								█	█	█	█	█
Demonstration		█	█	█	█							
Pilot Implementation							█	█	█	█	█	█