

The United Republic of Tanzania

Ministry of Health and Social Welfare



Study to Review Current Human Resource Capacity and Costs of Scaling up Sanitation and Hygiene in Tanzania August 2012

Environmental Health and Sanitation
Ministry of Health and Social Welfare
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Tanzania

Map of Tanzania Showing Case Study Areas and Dar es Salaam





Symbol	Representation
	Case study areas visited
	Dar es Salaam

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VOLUME 2 Research Approach and Tools

List of Acronyms and Abbreviations

AfDB	African Development Bank
ARU	Ardhi University
CBO	Community Based Organisation
CCHP	Council Comprehensive Health Plan
CLTS	Community Led Total Sanitation
CORPs	Community Own Resource Persons
DAWASA	Dar es Salaam Water and Sanitation Authority
DAWASCO	Dar es Salaam Water and Sanitation Company
DUWASA	Dodoma Urban Water and Sanitation Authority
DWST	District Water and Sanitation Team
EHA	Environmental Health Assistant
EHO	Environmental Health Officer
EWURA	Energy and Water Utility Regulation Authority
FBO	Faith Based Organisation
GSF	Global Sanitation Fund
HR	Human Resource
HW	Hand Washing
IRDPA	Institute of Rural Development Planning
LGA	Local Government Authority
MDG	Millennium Development Goal
MOFEA	Ministry of Finance and Economic Affairs
MOEVT	Ministry of Education and Vocational Training
MOHSW	Ministry of Health and Social Welfare
MoU	Memorandum of Understanding
MOW	Ministry of Water
MUHAS	Muhimbili University of Health and Applied Sciences
NEMC	National Environmental Management Council
NGO	Non-Governmental Organisation
O&M	Operation and Maintenance
PHAST	Participatory Hygiene and Sanitation Transformation
PMO-RALG	Prime Minister's Office – Regional and Local Governments
RWST	Regional Water and Sanitation Team
RWSS	Rural Water Supply and Sanitation
S&H	Sanitation and Hygiene
SNV	Dutch Non-Governmental Organisation
TA	Technical Assistance or Technical Adviser
TASAF	Tanzania Social Action Fund
ToR	Terms of Reference
ToT	Training of Trainers
TSSM	Total Sanitation and Sanitation Marketing
TZS	Tanzanian Shilling
UDOM	University of Dodoma
UDSM	University of Dar es Salaam
UNICEF	United Nations Children's Fund
VPO-DOE	Vice President's Office, Division of Environment
WASH	Water Sanitation And Hygiene
WSDP	Water Sector Development Programme
WSS	Water Supply and Sanitation
WSSA	Water Supply and Sanitation Authority

Acknowledgements

The study team from Grontmij A/S of Denmark and Ardhi University of Tanzania would like to express its sincere gratitude to all stakeholders met, including public institutions and parastatals, local authorities, water and sanitation authorities, consultants, contractors, artisans, NGOs and other development partners, training institutions and individual sector professionals. Their assistance was very helpful and valuable, without which this study would not have been possible. We are also grateful to WaterAid for leading the report and to UNICEF and SHARE for funding this study.

It is our sincere hope that the study will prove useful for all stakeholders in Tanzania.



This material has been partially funded by UK aid from the Department for International Development (DFID). However, the views expressed do not necessarily reflect the department's official policies.

Executive Summary

Introduction

In 2009, the Joint Water Sector Review mandated the Ministry of Health and Social Welfare (MOHSW) to carry out a comprehensive study that would lay the foundations for a National Campaign for Sanitation and Hygiene. MOHSW is the lead ministry in the implementation of the National Campaign.

This study on Current Human Resource Capacity and Costs of Scaling up for Sanitation and Hygiene in Tanzania was commissioned in January 2012 in close cooperation between MOHSW, Water Aid, UNICEF, SHARE, Global Sanitation Fund and other key sector stakeholders. The study provides assessments in the following two areas:

- Human Resource Capacity – Assess existing and required human resource capacity (government, private sector and NGOs) to deliver a national programme, including the institutional set up or structures required for the coordination and implementation of national sanitation and hygiene activities.
- Financing – Identify costs of scaling up sanitation promotion and related software costs during and beyond the lifespan of the National Campaign; assess potentials to leverage finance from households for sanitation improvement; identify ‘pinch points’ and ways in which public finance can be used to stimulate private and household investment.

The study has included a literature review, questionnaire surveys and interviews with public sector institutions, NGOs, the private sector and training institutions. Data were collected at central and regional levels and in four case study districts.

Main Findings

The study shows that the biggest capacity challenge is found at district, ward and village levels. It identified both a shortage of staff and a need for training and other capacity development in district councils and health centres as well as for artisans, village health workers and Community Own Resource Persons (CORPs). The planned establishment of a new District Department of Environment and Cleanliness, which is to focus purely on prevention, is expected to help strengthen the focus on and priority given to sanitation and hygiene promotion. However, it is essential that it is staffed with sufficient qualified staff.

Currently there is a shortage of staff in MOHSW’s Water, Food and Sanitation Unit, which at the time of the study had two vacant positions and two staff on long-term study leave. There is a need to both fill the vacant positions as soon as possible and employ additional staff in the Unit. The proposed increase in staffing levels should be seen in the light of the ambitious commitment that the Government of Tanzania made at the High Level Meeting of the Sanitation and Water for All Partnership held in April 2012, where Tanzania committed itself to ensuring that an additional 27 million people gain access to sanitation by 2015.

National NGOs play an important role in the sector and are expected to continue doing so in the future when more funds are available. The capacity of many national NGOs appear to still be weak and it is expected they will continue to need training and support from international NGOs and others in the near future.

Due to the lack of funding for sanitation and hygiene promotion activities, the extent to which consultants and contractors have been involved in the sector has been very limited. For increased involvement of consultants and contractors, there needs to be a higher demand for consulting services, i.e. more sanitation and hygiene related assignments. As private companies normally pay higher salaries than public sector institutions and NGOs, it is expected that the private sector will be able to attract the most qualified staff within both the social/facilitation/promotional field and the technical field.

Although there are currently a sufficient number of graduates within various disciplines for the future needs of the sanitation and hygiene sector, training institutions still require further support. More funding should be made available to enabling them to employ additional lecturers, purchase new books and other teaching materials, and improve their infrastructure.

For the purpose of this study, the target group for future sanitation and hygiene promotion is the population currently not using improved latrines. The aim of scaling up activities is to reach the MDG sanitation target for 2015 and further improvements after this in line with the draft National Sanitation and Hygiene Policy prepared by MoHSW in 2009.

This study has developed four scenarios for the “software” costs of scaling up sanitation and hygiene promotion at community/ household level:

Four Cost Scenarios for Community/Household “Software”

Cost Scenario	Total Costs (in USD)
Scenario 1 (National Sanitation and Hygiene Campaign)	75,761,000
Scenario 2 (Mixture of approaches)	121,258,000
Scenario 3 (Mtumba approach)	90,402,000
Scenario 4 (CLTS approach)	14,478,000

Cost scenario 4, which is based on the cost estimate for the roll-out of the CLTS approach, is very low compared to the other three scenarios, yet CLTS training activities may need to be supplemented with follow-up activities. Cost scenario 2 is based on the use of a mixture of participatory approaches, including training of local artisans, and appears the most realistic cost scenario. However, it is not within the scope of this study to assess the effectiveness and efficiency of the different approaches and it is therefore suggested that a more detailed budget for scaling up is prepared when the future approaches and activities have been determined in connection with the preparation of a comprehensive National Sanitation and Hygiene Programme.

Two cost scenarios have been prepared for the “software” and “hardware” costs of scaling up sanitation and hygiene promotion in schools.

Two Cost Scenarios for School Sanitation and Hygiene Promotion

Cost Scenario	Total Costs (in USD)
Scenario 1 for primary schools only (National Sanitation and Hygiene Campaign)	147,800,000
Scenario 2 for primary and secondary schools (development partners)	457,200,000

It should be noted that cost scenario 1 is for primary schools only, whereas cost scenario 2 is for both primary and secondary schools. This is, however, not the only reason why cost scenario 2 is approximately three times as high as cost scenario 1. Another important reason is the cost per latrine drop hole, including handwashing facility and related sanitation and hygiene promotion/education. The unit cost used in scenario 2 is thus two times as high as the one used in scenario 1. The study team does not have a detailed break-down of the unit costs used for the two scenarios and cannot therefore suggest which is most realistic. It is, however, expected that the higher unit cost, as used for cost scenario 2, includes a higher amount for construction of appropriate school handwashing facilities and for sanitation and hygiene promotion/education. Furthermore, the unit cost used for cost scenario 2 is similar to the cost indications in the National School WASH guidelines issued in 2010.

It is emphasized that the above cost scenarios are estimates, which should only be used to indicate the potential budget needed to cover the costs of scaling up sanitation and hygiene promotion. It is suggested that a more detailed budget for scaling up is prepared when the future approaches and activities have been determined in connection with the preparation of a comprehensive National Sanitation and Hygiene Programme. Unit costs may be lower once capacities are strengthened at various levels and when/if the private sector gets more involved than is currently the case, which should be considered when preparing more detailed budgets.

There appears to be three main ways to leverage, or encourage, household investments in latrine and hygiene improvements, namely (not in any order of priority):

- Comprehensive sanitation and hygiene promotional activities, using agreed approaches and means of communication;
- Households being given different latrine options to choose from, with a focus on appropriate, low-cost latrine options;
- Microfinance for sanitation with loans/access to revolving funds for households and/or sanitation service providers.

Recommendations and Suggestions

The following recommendations and suggestions should be seen as inputs to the further discussions on capacity development strategies and options of how to leverage household investments in improvements and to the development of more detailed budgets for specific activities in connection with the scaling up of sanitation and hygiene promotion.

1. The number of staff in MOHSW's Water, Food and Sanitation Unit should be increased to at least ten. Six staff members should thus be in place by July 2012 and 10 staff members by the middle of 2013. The current two vacancies should thus be filled as soon as possible. The additional three staff should also be employed as soon as possible, preferably in 2012 or the beginning of 2013.

If in the future, staff members are given long-term study leave, then it is suggested that other appropriately qualified MOHSW staff are seconded full time to the Unit. The increase in the staffing level should be seen in the light of the ambitious commitment that the Government of Tanzania made at the High Level Meeting of the Sanitation and Water for All Partnership held in April 2012, where Tanzania committed itself to ensuring that an additional 27 million people gain access to sanitation by 2015.

2. The establishment of the new District Department for Cleanliness and Environment is considered an important initiative in order to get much more attention to prevention and as part of this to sanitation and hygiene promotion. It should be ensured that qualified staff are transferred to/recruited for the department, with at least three of them having sanitation and hygiene knowledge and skills.
3. There is a serious shortage of environmental health staff in the health centres and dispensaries. Additional environmental health staff should be recruited, so each health centre has preferably two Environmental Health Officers (EHOs), but at least one EHO with a diploma or a degree. An Environmental Health Assistant (EHA) with a certificate could be employed as the second environmental health staff in the health centre and/or other health staff offered specific training in sanitation and hygiene promotion. It is recognised that dispensary staff play a critical role in linking villages with the ward and district levels. However, considering the current general lack of environmental health staff it is not considered realistic to “insist” there should be an EHA in each dispensary. Staff in the dispensaries should be offered specific training in sanitation and hygiene promotion.
4. The biggest capacity gaps are among staff at district, ward and village levels and capacity development should focus on these levels. In addition to training or follow-up training of district staff, support in the form of on-the-job training should be provided to the weakest districts by regular visits by NGOs and/or other resource persons. District staff and possibly NGOs would then be responsible for capacity development of ward level staff, including follow-up support. The level and type of support required for each district should be determined based on simple capacity gap assessments within the individual districts.
5. Community Own Resource Persons (CORPs), village health workers and artisans are those closest to households. They should be provided with training or follow-up training on sanitation and hygiene promotion and continued support should also be provided, for example holding regular meetings and exchange visits to neighbouring villages. It should also be explored whether it is possible to provide some type of incentives to CORPs and other volunteers at village levels.
6. Artisans should be trained on latrine construction as well as marketing skills and be provided with some back-up support after the training, either by the health centres, NGOs or other resource persons. Very importantly, the training of artisans should take place at the same time as other promotional activities in the local area to encourage demand for services. Guidelines and working tool kits should be provided in connection with the training. Based on on-going pilot activities funded by the Water and Sanitation Program (WSP), the potentials of involving hardware stores and suppliers in the marketing of household toilets and handwashing facilities should also be further explored.

7. Selected teachers from each primary and secondary school should be trained, as already planned, in connection with the introduction of the national school WASH guidelines. This should ideally be combined with ensuring all schools have sufficient and appropriate latrines and handwashing facilities, both because these are important for the children's health and well-being, but also in order to allow the children to put their new hygiene knowledge into practice.
8. There should be some development activities for central level staff, particularly the four main ministries involved (MOHSW, MOEVT, MOW and PMO-RALG). Topics should include new sanitation and hygiene promotion developments, and monitoring and evaluation including data management. Local NGOs and private sector consultants should also be invited to participate in some of the same training sessions to strengthen their skills and exchange experiences with other sector stakeholders and resource persons.
9. As an important part of capacity development, district, ward and village level staff and volunteers should be provided with specific and easy-to-use household-level sanitation and hygiene guidelines on key topics, similar to the national guidelines provided by MOEVT for school WASH. Training should be provided to all target groups on key topics in connection with the distribution of these guidelines. A training of trainers approach should be used.
10. The current transport problems for district and health centre staff working with sanitation and hygiene promotion should be solved, through access to bicycles, motorbikes and/or cars and fuel. Different options of how best to ensure transport access at different levels should be explored.
11. Today many short training courses are conducted by NGOs and individual private consultants. In order to ensure a higher level of sustainability and to increase the capacity to conduct relevant short training courses, the option of institutionalising some short, tailor-made training courses in existing training institutions should be explored. There are indications that Ardhi University, University of Dar es Salaam, Muhimbili University of Health and Applied Sciences, and the Institute of Rural Development and Planning may have some capacity to conduct relevant training courses. It is suggested to investigate this in further details and also to investigate whether some of the vocational training centres will be able to conduct short training courses for artisans in the construction of latrines and whether some of the Schools of Environmental Health Sciences would be able to conduct short training courses in environmental health issues.
12. It is important to build on existing training packages and materials where they exist. The aforementioned training institutions have little experience with the development and delivery of training courses related to sanitation and hygiene, and so it is suggested that initially they should collaborate with relevant consultants or NGOs to develop this expertise.
13. Based on the findings and recommendations of the recent sanitation microfinance study, the potential and the options for future microfinance arrangements for sanitation improvements should be further explored, including the experiences with revolving funds and the possibilities of involving established microfinance institutions.
14. Public finance for sanitation and hygiene should mainly be used for promotional activities,

capacity development at different levels, including refresher courses and technical support, monitoring and evaluation, research and development and similar “software” areas. Public finance should also be used to ensure that sufficient and adequate sanitation and handwashing facilities are available in schools, health centres and key public locations like markets and bus stations.

15. It is suggested that as part of the preparation of the National Sanitation and Hygiene Programme an assessment is made of the outcomes and the value of money of using different approaches (PHAST, CLTS, TSSM, Mtumba etc.). This would among others be an important input to the preparation of a more detailed estimate of the costs of scaling up sanitation and hygiene activities.
16. Most sanitation and hygiene promotion activities are implemented at district and lower levels and the majority of public sector funding should therefore be transferred to the Local Government Authorities (LGAs) or in some cases to NGOs working at district and lower levels.

1 Introduction

This introductory chapter lists the objectives and scope of the study and includes a brief description of the research methodology and the limitations of the study.

1.1 Background

In 2009, the Joint Water Sector Review mandated the Ministry of Health and Social Welfare (MOHSW) to carry out a comprehensive study on Human Resource and Institutional Capacity for the provision of sanitation and hygiene services at household level and in schools in Tanzania. The aim of the study was to better understand the gaps in the enabling environment and to lay the foundations for a national programme. Since then, considerable progress has been made in the sector with the development of a Memorandum of Understanding (MoU) between relevant Ministries, establishment of technical working groups and, most importantly, the development of the National Sanitation and Hygiene Policy.

Furthermore, there is a considerable momentum to improve the provision of water, sanitation and hygiene (WASH) in schools whereby guidelines for use have been developed and the national school water, sanitation and hygiene strategy is being finalised.

Most significantly, there is a much needed injection of finance into the sector for the Water Sector Development Programme (WSDP) National Campaign for Sanitation and Hygiene, including school WASH. This campaign started in the first quarter of 2012. As stated in the Terms of Reference (ToR), for this study (Annex 1) this new funding marks a shift in the role of MOHSW, and specifically that of the Water, Food and Sanitation Unit which leads this scale up of sanitation and hygiene activities.

On the above background, this Study to Review Current Human Resource Capacity and Costs of Scaling up for Sanitation and Hygiene in Tanzania was commissioned in January 2012 in close cooperation between MOHSW, WaterAid, UNICEF, SHARE and other key sector stakeholders.

1.2 Objectives and Scope of Study

As mentioned in the ToR (Annex 1), two parameters essential for the success of the National Sanitation and Hygiene Campaign and for the scale up of sanitation coverage over the medium to long term are to be assessed, namely:

- **Human Resource Capacity** – Assess existing and required human resource capacity (government, private sector and NGOs) to deliver a national programme, including the institutional set up or structures required for the coordination and implementation of national sanitation and hygiene activities.
- **Financing** – Identify costs of scaling up sanitation promotion and related software costs during and beyond the lifespan of the National Campaign; assess potentials to leverage finance from households for sanitation improvement; identify ‘pinch points’ and ways in which public finance can be used to stimulate private and household investment.

These two parameters or objectives are further elaborated in the following main research questions listed in the ToR (Annex 1):

I) Human Resource and Institutional Capacity

- 1) What additional capacity and skills does the Ministry of Health and Social Welfare at Central level require to effectively deliver the National Campaign and Global Sanitation programme in the short and medium term?
- 2) What capacity (numbers of staff, type of staff, expertise, skill sets) to support sanitation and hygiene promotion currently exists at local government levels and what changes would be required for the successful delivery of the National Campaign?
- 3) What capacity currently exist in the private and NGO sector and how can this be supported so that the latter can play a full role in the National Campaign and beyond?
- 4) What training exists to enable people to work in the sector? Are there in-country education and training institutions for sanitation and hygiene promotion?

II) Financing

- 1) Assuming that the following 'software' costs will be financed by public finance¹ under the national campaign (and subsequent sector investments), what are the costs of scaling up promotional activities, mobilizing communities, capacity building, training, hygiene promotion and monitoring and evaluation?
- 2) What potential exists to leverage household investment in latrine and hygiene improvements? Where are the 'pinch points' (where existing financing arrangements create disincentives) for household investment in sanitation?
- 3) Beyond the lifespan of the campaign, how can public finance best be targeted to maximise household investments and stimulate private sector and NGO engagement?

As to the scope of this study, the following has been agreed:

- For the purposes of this study, sanitation refers to safe disposal of human excreta, or in other words toilets/ latrines at household level, in schools, health centres and public places (like bus stops and market centres);
- For the purposes of this study, hygiene refers mainly to handwashing practices and the availability of handwashing facilities with water and soap at household level, in schools, health centres and public places (like bus stops and market centres);
- The human resource (HR) capacity and costs of solid waste management are not covered by this study;
- The financing/cost part of the study focuses on the costs of scaling up sanitation promotion and related software costs and does not cover the hardware costs like for example sewerage in urban areas.
- The study covers Mainland Tanzania only.

¹ *In line with the National Policy*

1.3 Research Methodology

1.3.1 Research Methods and Tools

In line with the methods mentioned in the ToR (Annex 1) and based on stakeholder discussions during the preparatory phase of the study, it was agreed to use the following research methods and tools:

Table 1: Research Methods/Tools

Research Methods/ Tools	Description	Remarks
Literature review	This includes collection and review of existing data and documents.	WaterAid and MOHSW as well as other key stakeholders have provided a number of key documents. Additional documents were collected in connection with the questionnaire survey and the semi-structured interviews/ meetings.
Questionnaire survey	Questionnaires have been used to collect quantitative primary information from the public sector, parastatal institutions, district/ municipal councils, the private sector, NGOs and educational/ training institutions. Information has been collected from central, regional and district levels.	Two questionnaires have been used, namely one for the HR demand side (public sector, parastatals, district/ municipal councils, private sector, NGOs) and one for the HR supply side (educational/ training institutions).
Semi-structured interviews/ meetings	Semi-structured interviews/ meetings have been used to collect qualitative information from key persons in the institutions mentioned in table 2 below and from other persons with good sector knowledge.	There have been semi-structured interviews with one person at a time and also interviews/ meetings with several persons, e.g. members of a District Water and Sanitation Team (DWST). Five checklists of questions were used for the different interviews/ meetings.

The above-mentioned research tools are included in Volume 2 of this report.

Annex 2 contains a list of key persons met/contacted and Annex 3 lists key documents reviewed.

1.3.2 Workforce Categories

As agreed during the stakeholder meeting of February 10th 2012, the assessment of the existing situation and the estimates of capacity shortages and gaps have included the following workforce categories:

Technical staff

- Engineers – degree level (environmental, civil, water and sanitation)
- Technicians – diploma level (environmental, civil)
- Technicians – certificate level
- Skilled artisans – attended formal training (latrine builders and others)

Social/environmental health staff

- Social scientists, environmental health staff etc. – degree level
- Social development workers, environmental health staff etc. – diploma level
- Social development workers, environmental health staff etc. - certificate level
- Animators – attended formal training (for example village health workers)

Management and finance staff

- Management and finance staff – degree level
- Management and finance staff – diploma level
- Management and finance - certificate level
- Management and finance - other

Assessments of unskilled labour HR requirements or the extent of voluntary efforts have not been captured in the study.

1.3.3 Case Study Areas and Informants

The following case study selection criteria were agreed during the stakeholder meeting of February 10th 2012.

- The case study areas should include: one remote rural district, one “normal” rural district, one urbanising rural district, one “real” urban area (city/municipality/town)
- The case study areas should have different geographical characteristics, i.e. be from the different “zones”: Lake Zone, Central Zone, Coastal Zone and Southern Highlands Zone
- One of the pilot districts for the Global Sanitation Fund project in the Dodoma Region, i.e. one of the following three districts: Bahi, Chamwino and Kongwa

The following case study areas were selected after further consultations with MOHSW and WaterAid:

- Lake Zone: Shinyanga town/municipality, Shinyanga Region (“real” urban area)
- Central Zone: Chamwino district, Dodoma Region (remote rural district, GSF-funded pilot district)
- Coastal Zone: Kibaha town, Coastal Region (“normal” rural district)
- Southern Highlands Zone: Mufindi district, Iringa Region (urbanizing rural district)

There is no centralised sewerage system in any of the case study areas, so the Urban Water and Sewerage

Authorities (UWSSA) were not interviewed. Instead, the UWSSA in Dodoma (where there is centralised sewerage) was interviewed.

Table 2 below lists the number of institutions at different levels from which information was obtained through questionnaires and semi-structured interviews.

Table 2: Overview of Institutions Providing Information

Questionnaire/ Semi-Structured Interviews	Respondents/ interviewees
Questionnaire for public sector, parastatals, Local Government Authorities, WSSAs, contractors and NGOs	Public sector institutions and parastatals – central level (8) Public institutions – regional level (2) Water Supply and Sewerage Authority (1) Local Government Authorities (5) Private contractors (4) NGOs (13) In total 33 institutions, with 33 questionnaires
Questionnaire for educational/ training institutions	6 training institutions, with 6 questionnaires
Interviews/ meetings with public sector, parastatals, district/ municipal councils, WSSAs, consultants, contractors and NGOs	Public sector institutions and parastatals – central level (9) Public institutions – regional level (1) Water Supply and Sewerage Authority (1) Local Government Authorities (5) Wards representatives (7) Private consultant (1) Artisans (4) Local NGOs (12) In total 40 institutions, with 40 interviews
Interviews/ meetings with educational/ training institutions	6 educational/ training institutions, with 6 interviews

In addition, further information was obtained through informal discussions with a number of stakeholders.

Details on the institutions from which data were collected are included in Volume 2, which also includes the two questionnaires and the checklist of questions for semi-structured interviews.

1.4 Limitations of Study

Though HR shortages and gaps are recognized as one of the main constraints to progress in achieving the goals and targets set for sanitation and hygiene, there are also other challenges and constraints. An important challenge relates to the allocation of inadequate funds of sanitation and hygiene promotion. Other challenges and constraints, are mentioned in this report, but are not analysed in detail.

The report includes, and is based on, the data it was possible for the study team to collect from various institutions, often after several meetings and phone calls. An attempt was made to collect the same type of detailed staff data from all key institutions involved in the sector. However, the staff data available in the individual institutions differed, which is the reason for the variance and the gaps in the staff data included in this report. From some institutions data on the number of management and finance staff were included, but from a substantial number of institutions data on this staff category were not provided. The analysis of staff data has therefore focused on the other two staff categories of technical staff and social/environmental health staff.

The collection of financial information proved particularly challenging. Financial information was collected through 1) the literature review, particularly two studies conducted recently by WaterAid on the potential of microfinance for sanitation and the effectiveness of public finance for household sanitation in Dar es Salaam; and 2) interviews with key stakeholders. A number of questions on finance were thus included in four out of five checklists of questions used for interviews with different categories of stakeholders. It was, however, very difficult for the interviewers to get much information or views in this respect, one reason being that cost information is not readily available and another that it was not possible to organise meetings with people authorised to provide such information.

Most data on the cost of current or recent sanitation and hygiene promotion activities collected from the districts/municipalities visited were not consistent and/or very scarce. After much follow-up, some information was obtained from MOHSW and development partners shortly before the submission of the draft report. Some development partners have subsequently provided additional financial information. This information has been used to update the report.

As from July 2012, there will be 152 Local Government Authorities (LGAs) in Mainland Tanzania. Primary data were collected from four districts/municipalities. The sample was thus very small. Some district and ward level data were, however, also collected at central level. Despite this, there are several gaps in - and uncertainties about - the data included in this report for LGA and ward level institutions.

Some information is included in this report on short-term training courses being offered by different programmes and projects. It is, however, outside the scope of this study to provide a full overview of all the capacity development activities taking place in individual (water and) sanitation projects/ programmes and in other relevant programmes and initiatives. Furthermore, the list of training institutions and their relevant long-term training programmes may not be exhaustive.

Rough estimates of future capacity requirements are included in this report, but it is emphasised that some of the estimates on the number and qualifications of future staff required are very preliminary. Likewise the estimates provided for “software” costs of scaling up sanitation and hygiene promotion are very rough and only indicate the magnitude of the funds needed.

2 Sanitation and Hygiene Sector Context

This chapter includes an overview of the demographic and socio-economic situation of Tanzania as well as the sanitation and hygiene situation with focus on Mainland Tanzania. The legal and policy framework of the sanitation sector as well as the main sanitation and hygiene programmes and initiatives are also described.

2.1 Demographic and Socio-Economic Characteristics

Based on the 2002 Population and Housing Census, the National Bureau of Statistics estimates² the total population of Tanzania was just over 43 million in 2010, with 26% living in urban and 74% in rural areas. The estimated annual population growth rate was 2.9%. In 2010, the life expectancy at birth was 55 years, with a slightly higher life expectancy for women (56 years) than for men (53 years).

The adult literacy rate was 71%.

It is estimated that the average annual per capita income in 2009 was TZS 693,185 indicating an increase of 10.3% from 2008 to 2009.³

According to the 2007 Household Budget Survey⁴, 33.6% of the population in Mainland Tanzania lived below the basic needs poverty line (TZS 13,998 per adult for 28 days) while 16.6% fell below the food poverty line (TZS 10,219 per adult for 28 days). The level of poverty was highest in rural areas where 37.6% lived below the basic needs poverty line and 18.4% below the food poverty line. The level of poverty was lower in Dar es Salaam than in other urban areas, with 16.4% of the population in Dar es Salaam below the basic needs poverty line, while the corresponding figure was 24.1% for other urban areas.

2.2 Characteristics of Sanitation and Hygiene Sector

2.3 Sanitation and Hygiene Situation

The 2007 Household Budget Survey found that 93% of households in Mainland Tanzania reported using some type of toilet which is very similar to the findings of the household budget surveys in 1991/92 and 2000/01. The reported toilet use was somewhat lower in rural than urban areas, with 90% of rural households reporting using a toilet while the corresponding figures for Dar es Salaam and other urban areas were 99% and 97%, respectively.

The 2010 Demographic and Health Survey found that 13% of households in Tanzania (Mainland Tanzania and Zanzibar) used improved toilet facilities that were not shared with other households. The corresponding figure was 12% for Mainland Tanzania, where 9% of rural households and 22% of urban households used improved toilets that were not shared with other households. In Mainland Tanzania, nearly 14% of all survey households practiced open defecation, while 8% of households used a shared toilet. It was much more common for urban households (24%) to share toilet facilities with other households than it was for rural households (2%), while more rural than urban households did not use a toilet, 18% and 2% respectively. The table below gives further details on toilet use.

² National Bureau of Statistics, Ministry of Finance: *Tanzania in Figures 2010*, June 2011

³ National Bureau of Statistics: *Demographic and Health Survey, 2010*, April 2011

⁴ National Bureau of Statistics: *Household Budget Survey 2007*, January 2009.

3 Table 3: Household Use of Toilet/Latrine Facilities, Mainland Tanzania, 2010

Type of Toilet/ Latrine	Urban Households (%)	Rural Households (%)	Total Households (%)
Improved, not shared			
Flush/pour flush to piped sewer	0.9	0.0	0.2
Flush/pour flush to septic tank	4.2	0.1	1.1
Flush/pour flush to pit latrine	10.2	1.5	3.8
VIP latrine	1.9	0.6	0.9
Pit latrine w. slab	4.4	6.3	5.8
Subtotal	21.6	8.5	11.8
Non-improved			
Any toilet shared with other households	24.4	2.0	7.8
Flush/pour flush not to sewer/septic tank/pit latrine	2.1	0.1	0.6
Pit latrine without slab/ open pit	49.8	71.4	65.8
No facility/bush/field	2.0	17.8	13.7
Other	0.0	0.2	0.1
Missing	0.1	0.0	0.0
Subtotal	78.4	91.5	88.0
Total	100.0	100.0	100.0

Source: National Bureau of Statistics: Demographic and Health Survey 2010, April 2011

WaterAid, UNICEF and SNV recently carried out a mapping of school WASH in 16 districts (2,697 schools), which showed that 6% of these schools did not have any latrines and only 11% met the MOEVT “minimum” standards of 20 girls and 25 boys per drop hole. 52% of girls’ latrines did not have doors and therefore no privacy. 92% of the surveyed schools did not have functional hand washing facilities with water and only 1% had soap.

According to information received from MOEVT in 2012, there are 18,000 primary schools in Mainland Tanzania. 23% of these schools have latrines, which are both appropriate and have sufficient drop holes. MOEVT has plans to increase this proportion to 50% by 2015, but lack of budget is a severe constraint. The ministry has thus not had any Government budget allocated for school sanitation and hygiene since 2009.

The study team's case studies showed a similar situation, with district and municipal councils reporting an insufficient number of latrines in many schools and often those toilets that were there were not appropriate. No schools appeared to have considered the special menstrual requirements of adolescent girls and very few schools had handwashing facilities close to existing toilets. The table below gives further details on this situation.

4 Table 4: Schools Toilets and Handwashing Facilities in Five Districts/Municipalities

District/Municipality	Schools Toilets	School Handwashing (HW) Facilities
Kibaha District (Population according to 2002 Census: 131,242)	18 out of 36 schools w. sufficient and appropriate toilets; no attention to menstrual hygiene requirements of adolescent girls.	None of schools have HW facilities close to toilets.
Chamwimo District (No population data in 2002 Census, as this is a newly established district)	83 out of 110 primary schools have sufficient and appropriate toilets. 5 out of 26 secondary schools have sufficient and appropriate toilets; no attention to menstrual hygiene requirements of adolescent girls.	Approx. 83 out of 110 primary schools have HW facilities close to toilets with water and soap. Unknown how many secondary schools have HW facilities close to toilets (see comment below table).
Shinyanga District (Population according to 2002 Census: 276,393)	110 out of 128 primary schools have good toilets; the latrines of the remaining 18 schools do not meet standards; 27 secondary schools have sufficient toilets but do not pay attention to menstrual hygiene requirements of adolescent girls.	Neither primary nor secondary schools have HW facilities close to toilets or soap.
Shinyanga Municipality (Population according to 2002 Census: 134,523)	None of 54 primary and 23 secondary schools have sufficient and appropriate toilets; no attention to menstrual hygiene requirements of adolescent girls.	None of the schools have HW facilities close to toilets.

District/Municipality	Schools Toilets	School Handwashing (HW) Facilities
Mufindi District (Population according to 2002 Census: 282,071)	All 175 primary schools have toilets, but not sufficient and appropriate; no attention to menstrual hygiene requirements of adolescent girls nor to special requirements of disabled persons; some toilets are pour flush in areas with scarcity of water. The number of drop holes need to be increased with 26%. The 51 secondary schools have sufficient but not appropriate toilets as no attention to menstrual hygiene requirements of adolescent girls.	135 out of 175 primary schools have no HW facilities; HW facilities are available in 40 schools as a result of VTC Incomet training on construction of school tippy taps. Secondary schools do not have HW facilities close to the toilets.

Source: Interviews with five District/Municipal Councils, February-March 2012

Note: Adequate toilets mean they fulfil the quality standards; sufficient toilets mean the number of toilets is sufficient.

The study team has not attempted to cross-check the data received from the five District/Municipal Councils. It should be noted, though, that the handwashing data in a mapping study from May 2011⁵ for Chamwimo District are quite different to the data provided by the Chamwimo District Council in February 2012. According to the 2011 mapping, only eight out of 136 schools had some water available for handwashing and none of them had soap, while in February 2012, the Chamwimo District Council said that 83/110 primary schools have HW facilities close to toilets with water and soap.

The sanitation situation in the same five Districts/Municipalities' health centres and dispensaries were reported to be somewhat better, whereas there was a lack of public toilets in areas such as markets and bus stands. In most health facilities and public toilets, there were no handwashing facilities close to the toilets. The two tables below give further details on these issues. The visits to some dispensaries, health centres and schools confirmed the situation described by the wards and districts.

⁵ in the School Water, Sanitation and Hygiene Mapping in 16 Districts of Tanzania – May 2011

5 Table 5: Toilets and Handwashing Facilities in Health Facilities in Five Districts/ Municipalities

District/Municipality	Toilets in Health Facilities	Handwashing Facilities in Health Facilities
Kibaha District (Population according to 2002 Census: 131,242)	The one health centre in the district has insufficient number of toilets; 22 dispensaries have sufficient toilets, but only in six dispensaries are the toilets adequate.	There are HW facilities close to the health centre toilets; There are HW facilities close to toilets in two dispensaries.
Chamwimo District (No population data in 2002 Census, as this is a newly established district)	Two out of five health centres have sufficient and appropriate toilets 48 out of 56 dispensaries have sufficient and appropriate toilets.	Two out of five health centres have HW facilities close to latrines, but water is not sufficient Two out of 56 dispensaries have HW facilities as such, while in others there are buckets with water.
Shinyanga District (Population according to 2002 Census: 276,393)	All four health centres have sufficient and appropriate latrines 37 dispensaries have sufficient but not appropriate latrines.	No HW facilities and soap close to toilets in health centres and dispensaries.
Shinyanga Municipality (Population according to 2002 Census: 134,523)	The one health centre in the district has sufficient and appropriate toilets. 27 dispensaries have sufficient and appropriate latrines.	Staff toilets have water and soap, but no HW facilities close to toilets for patients No data on HW facilities in dispensaries obtained.
Mufindi District (Population according to 2002 Census: 282,071)	All five health centres have latrines, but not sufficient and appropriate as they do not consider gender and disabled persons and some are pour flush toilets although there is a scarcity of water. Some of the 59 dispensaries in the district have enough toilets but not appropriate, while others have too few toilets.	There was reported to be HW facilities and soap in most toilets in the health centres. No data on HW facilities in dispensaries obtained.

Source: Interviews with five District/Municipal Councils, February-March 2012

Note: Adequate toilets mean they fulfil the quality standards; sufficient toilets mean the number of toilets is sufficient.

6 Table 6: Public Toilets and Handwashing Facilities in Five Districts/Municipalities

District/Municipality	Public Toilets	Handwashing Facilities in Public Toilets
Kibaha District (Population according to 2002 Census: 131,242)	Only the market centre has a public toilet with two drop holes for men and women each.	No HW facilities.
Chamwimo District (No population data in 2002 Census, as this is a newly established district)	3/21 temporary market places have temporary toilets, but these have poor structures and poor cleanliness.	No HW facilities.
Shinyanga District (Population according to 2002 Census: 276,393)	There are 2 public toilets operating on business basis, but they are in poor condition.	No HW facilities.
Shinyanga Municipality (Population according to 2002 Census: 134,523)	There are 2 public toilets at bus stands and 6 at the market, but not clean and appropriate; not enough public toilets at the central market which many people visit.	Approx. 50% of public toilets have HW facilities.
Mufindi District (Population according to 2002 Census: 282,071)	There are a few public toilets like at one bus stand and at three markets, all operating on business basis. But there are not enough public toilets.	No HW facilities.

Source: Interviews with five District/Municipal Councils, February-March 2012

Note: Adequate toilets mean they fulfil the quality standards; sufficient toilets mean the number of toilets is sufficient.

The discussions and visits in seven wards within the districts/municipalities mentioned in Table 6 confirmed the poor situation as far as institutional toilets and handwashing facilities are concerned.

As mentioned in the Terms of Reference, little data is available about hygiene practices in Tanzania. A survey conducted by UNICEF in 2009 among 5,000 households in seven districts found that less than 40% of respondents reported washing their hands after using the toilet. Furthermore, hand washing was not common after attending to a child who had defecated or before handling food.

2.2.2 Legal and Policy Framework

The main legislation related to sanitation and hygiene is the Public Health Act of 2009 and the Water Supply and Sanitation Act of 2009.

Tanzania's National Development Vision 2025 has as one of its goals to achieve 95% improved sanitation coverage. One of the goals of the Mkukuta II (in English: National Strategy for Growth and Reduction of Poverty II)⁶, which covers the period 2010/11 - 2014/15, is "increasing access to affordable clean and safe water; sanitation and hygiene". The operational targets for sanitation and hygiene are:

- Access to improved toilet and functional hand washing facilities at household and public places, particularly schools, health facilities, transport facilities (improved toilets at household level increased from 23% rural and 27% urban (in 2010) to 35% rural and 45% urban) in 2015;
- Proportion of population with access to improved sanitation facilities increased;
- Proportion of schools with improved sanitation facilities increased;
- Proportion of households connected to the public sewage system increased from 18% in 2010 to 22% in 2015;
- Solid waste collected in urban centres increased from 47% in 2008 to 85% in 2015;
- Storm water management in urban centres strengthened.

Strategies include i) developing and implementing a clean sanitation and hygiene policy and plan for participatory sanitation and hygiene promotion and marketing, ii) establishing a dedicated budget, supported by monitoring of resources, outcomes and outputs, iii) rehabilitating and expanding sanitation and hygiene facilities and ensuring systems for sustainability and iv) enhancing and expanding impact evaluation.

MOHSW has developed the Draft National Sanitation and Hygiene Policy, which is expected to be approved soon. According to this, the current status of hygiene and sanitation in Tanzania is suffering from chronic neglect, with sanitation and hygiene still low on the agenda of political platforms and receiving low priority from communities and the public sector. It recognises, though, that the Government has made significant efforts to address this situation with the "Mtu ni Afya" campaign in the early 1970s as one of the important initiatives.

The specific objectives of the Draft National Sanitation and Hygiene Policy are:

- To sensitise the community on behavioural changes towards improved hygiene and sanitation practices.
- To mobilise communities, including school communities to form water, sanitation and hygiene user groups, charged with the duties of ensuring sustained improved water supply, hygiene and sanitation.
- To enhance collaboration for transformed hygiene practices, sanitation and water supply in crucial areas including households, schools, and institutions and in public and in private places.
- To reduce morbidity and mortality due to poor hygiene and sanitation by improving water supply, sanitation and hygiene in an integrated manner.

The Government of Tanzania is one of the 32 African countries to have signed the 2008 eThekweni Declaration to establish specific public sector budget allocations for sanitation and hygiene programmes. The aspiration is that these sanitation and hygiene allocations should be a minimum of 0.5% of the GDP.

⁶ Ministry of Finance and Economic Affairs: National Strategy for Growth and Reduction of Poverty II, NSGRP II, July 2010

During the High-Level Meeting of the Sanitation and Water for All Partnership held on 20th April 2012, in Washington DC, USA, the Government of Tanzania committed itself to joining the partnership. In the statement to the High-Level Meeting, it is mentioned that the Government is committed to increase the access to (improved) sanitation to 53% by 2015 and recognizes that to address the current sanitation and water crises will require massive resources.

2.2.3 National Sanitation and Hygiene Campaign/Programme⁷

The National Sanitation and Hygiene Campaign or Programme, funded by the African Development Bank (AfDB) under the Water Sector Development Programme (WSDP), focuses on rural areas and aims to improve household and school sanitation and hand washing facilities. It is estimated that during the four to five year campaign, 1.3 million household latrines will be improved and 700 schools will have improved toilet and handwashing facilities constructed. The total budget for the National Campaign is USD 20 million, with USD 13 million for activities promoting improved household sanitation and hygiene practices and USD 7 million for improved school toilet and handwashing facilities.

The National Campaign will use various approaches, including Participatory Hygiene and Sanitation Transformation (PHAST), Community Led Total Sanitation (CLTS), Mtumba and Sanitation Marketing.

The campaign will include, but not be limited to, the following activities:

- Training of facilitators in among others CLTS triggering;
- Training of masons in the construction, upgrading and marketing of latrines and hand washing facilities; the campaign will build on existing innovations in financing fundi businesses;
- Engaging professional agencies to coordinate messaging;
- Carrying out experiential marketing events;
- Airing supportive radio programming through dramas/soap operas, short spots etc.
- Developing training and promotion materials;
- Improving school sanitation and hand washing facilities; and
- Establishing and implementing a monitoring system; this will include documenting lessons and experiences and promoting innovations and local innovations.

The Directorate of Preventive Health Services within MOHSW is to coordinate the National Campaign. Much of the campaign funding is foreseen to be transferred to Local Government Authorities (LGAs) for supervision, monitoring, CLTS triggering, hand washing promotion etc. Other important stakeholders include MOEVT, PMO-RALG, and MOW, NGOs, development partners and the private sector, including marketing agencies.

The implementation of the National Campaign started with introductory meetings with some LGAs in the first quarter of 2012. MOHSW is planning to implement the National Campaign in phases, where Phase 1 will cover 42 districts. From end of April to June 2012, it is planned to train 100 district facilitators in CLTS, i.e. two or three facilitators per district. The district facilitators will then train others at ward level, particularly staff at health centres. Later, activities will be expanded to cover the remaining LGAs. This means the National Campaign may be implemented in both rural and urban areas.

⁷ The following section is based on the concept note received from MOHSW on 1 February 2012.

2.2.4 GSF-funded Sanitation and Hygiene Programme

The Global Sanitation Fund (GSF) is funding a new sanitation and hygiene programme, which focuses on three rural districts in Dodoma Region; Bahi, Chamwino and Kongwa. Its overall goal is to see “communities with increased access and use of improved sanitation facilities and with changed sanitation and hygiene behaviours at scale”. Its supports progression of sanitation and hygiene in Tanzania at two levels:

- To help strengthen national knowledge, skills and systems through supporting
 - Development of a national M&E framework;
 - Development of a national Information, Education and Communication (IEC) strategy for sanitation and hygiene;
 - Training national resource persons and organisations for the national roll out of the modified Total Sanitation & Sanitation Marketing (TSSM);
 - Addressing knowledge gaps on supply chains, identification of approaches for sustaining motivation of community mobilisers, and how to reach the most vulnerable/hard to reach for behaviour change on sanitation and hygiene;

- District implementation at scale to provide a ‘magnifying glass’ for learning on the process of taking to scale specific sanitation and hygiene interventions, which are in the early stages of planning to be scaled up country wide through:
 - implementing at scale across three districts of Dodoma Region; Bahi, Chamwino and Kongwa, a number of interventions whilst also trialling the national strategies and systems notes above;
 - implementing interventions across districts including:
 - The modified TSSM approach;
 - Support for sanitation centres or supply chains;
 - IEC for behaviour change;
 - Training of teachers in hygiene education;
 - Establishment of hand washing facilities in all schools and health facilities.

The programme, which is expected to start around the middle of 2012, has a duration of five years and a budget of USD 5 million.

2.2.5 Other Major Sanitation and Hygiene Initiatives

The following are other major sanitation and hygiene initiatives:

- The Health Village and Environmental Health and Sanitation Programme supported by MOHSW;
- Annual Environmental Health and Sanitation Competition conducted by MOHSW.
- The Total Sanitation and Sanitation Marketing and Hand Washing Programme implemented in 10 districts with support from the Water and Sanitation Programme (WSP).
- Sanitation and hygiene activities in seven learning districts in Mainland Tanzania and Zanzibar supported by UNICEF, with PHAST training, training of artisans in latrine construction and marketing and establishment of sanitation resource centres; this includes an integrated health, nutrition, and WASH communication package (implemented in partnership with PSI) for improved household practices with promotion of use of improved toilets, handwashing with soap, household water treatment, and proper handling of children’s faeces.

- UNICEF is starting its support to water supply, sanitation and hygiene promotion activities in six new districts.
- WaterAid is supporting the piloting of sanitation and hygiene promotion in some wards in three rural districts and two urban municipalities in Dar es Salaam; training has been provided on the Mtumba approach, sanitation centres constructed in rural wards and the gulper technology for emptying of pits has been introduced in urban wards.
- A school WASH partnership between the four key ministries (MOHSW, MOEVT, MOW, PMO-RALG), two universities and a range of national and international NGOs supported by SNV, WaterAid and UNICEF to develop the National Schools Guidelines and Toolkits and pilot them in a number of districts across Tanzania.
- Plan International Tanzania is implementing water supply and sanitation activities in several districts using the CLTS and previously also the PHAST approach.
- An 'advocacy alliance' of sanitation and hygiene stakeholders coordinating efforts to advocate for improved sanitation and hygiene using the mass media and event based activities.

3 Human Resource Capacity in Sanitation and Hygiene Sector

The first section of this chapter includes details of the existing human resource (HR) capacity in the public sector at central, regional and district/municipal level as well as the HR capacity at ward and village level, in the private sector and among NGOs. The second section contains rough estimates of the required future HR capacity as well as the shortages and gaps compared to the existing situation. Section three gives an overview of the training institutions and the study programmes of most relevance to the sanitation and hygiene sector, the number of graduates and the conditions under which the education takes place. It also provides an overview of some short training courses that have been conducted. The last section compares the differences in salaries and other benefits among sanitation sector staff employed in public and private sector and by NGOs.

3.1 Existing Human Resource Capacity

3.1.1 Public Sector and Parastatals – Central Level

A Memorandum of Understanding (MoU) has been signed between the four main ministries involved in the sanitation and hygiene sector, namely the Ministry of Health and Social Welfare (MOHSW), the Ministry of Water and Irrigation (now the Ministry of Water), the Ministry of Education and Vocational Training (MOEVT) and the Prime Minister's Office – Regional Administration and Local Government (PMO-RALG). The purpose of the MoU is to bring these four main sector partners together to facilitate cooperation and coordination when carrying out their sanitation and hygiene responsibilities. The organizational framework for carrying out the MoU comprises a National Sanitation and Hygiene Steering Committee, a Technical Committee and Thematic Working Groups. The Steering Committee is to meet at least two times per year and may also include a member of the Ministry of Finance and Economic Affairs (MOFEA).

Ministry of Health and Social Welfare (MOHSW)

MOHSW is responsible for providing overall leadership on sanitation and hygiene by chairing, convening and coordinating the National Sanitation & Hygiene Steering Committee, coordinating the formulation of

policy, guidelines and strategies for hygiene and sanitation, coordinating the drafting of legislation and regulations, and for setting standards for sanitation and hygiene as part of protecting public health.⁸ The MoU between the four ministries and the draft National Sanitation and Hygiene Policy do not distinguish between institutional responsibilities in rural and urban areas. This indicates that MOHSW is the lead ministry in relation to sanitation and hygiene promotion in both rural and urban areas, though MOW has the responsibility for sewerage in urban areas (see further details under MOW).

Within MOHSW, the Environmental Health, Hygiene and Sanitation Department is responsible for the aforementioned tasks, with particular responsibility assigned to the Water, Food and Sanitation Unit under this department. The Environmental Health, Hygiene and Sanitation Department has 23 staff members. Five of them are in the Water, Food and Sanitation Unit. Of these five, two are on study leave for their master degrees. One will return around June 2012 and the other in 2013. In April 2012, the Unit had two vacancies because of recent retirements. These two vacancies are expected to be filled by June 2012. This means that by June 2012 the Water, Food and Sanitation Unit will have a total of 6 staff working in the unit and from the middle of 2013 when the last person returns from study leave it will have seven staff members. Although staff in the Water, Food and Sanitation Unit have the main responsibility for sanitation and hygiene promotion, other staff in the Environmental Health, Hygiene and Sanitation Department can also assist as and when needed.

The seven staff members of the Unit are assigned duties as follows:

- Head of Unit;
- Two staff who coordinate on sanitation (including the National Sanitation and Hygiene Campaign and the new GSF programme)
- One staff who coordinates on food safety;
- One staff who coordinates on water safety (household water treatment and safe storage);
- One staff who works with the database for monitoring of progress; and
- One staff who works on hygiene issues.

According to the Water, Food and Sanitation Unit, seven staff members are sufficient to carry out its increased sanitation and hygiene promotion tasks in connection with delivery of the National Sanitation and Hygiene Campaign and the programme supported by the Global Sanitation Fund. This assessment is supported by MOHSW's Environmental Health, Hygiene and Sanitation Department.

However, other stakeholders have indicated that seven staff members in the Water, Food and Sanitation Unit will not be sufficient to carry out all the national-level tasks in connection with the commitments made by the Government at the High Level Meeting of the Sanitation and Water for All Partnership held in April 2012 in Washington DC, USA. Tanzania has thus committed itself to meet the MDG target for sanitation, which means that an additional 27 million people are to gain access to sanitation by 2015. Some stakeholders have suggested that, in order to carry out all national-level tasks in this connection, the number of staff in the Water, Food and Sanitation Unit should be increased to ten to 14. The study team agrees there appears to be a need to increase the number of MOHSW staff working specifically with sanitation and hygiene related tasks; for further details reference is made to section 3.2.1.

There appears to also be a need to improve the working conditions of the staff in Water, Food and Sanitation Unit, so they are all ensured sufficient office space and working equipment such as computers.

⁸MoU between four ministries, MOHSW, MOETV, PMO-RALG and MOWI

Ministry of Water (MOW)

MOW has the responsibility for coordinating the Water Sector Development Programme (WSDP) resources for sanitation and hygiene, setting standards for sewerage and water facilities/infrastructure/services, coordinating monitoring, evaluation and assurance of water and wastewater facilities/infrastructure/services and for supervising, monitoring, and reporting on the performance of water and sewerage utilities⁹.

MOW's role in relation to sanitation and hygiene promotion has changed in recent years. MOW was until recently responsible for sanitation and hygiene promotion activities under the WSDP. With the signing of the MoU between the four main ministries involved in sanitation and hygiene promotion, this responsibility has moved to MOHSW, with the exception that MOW has maintained the responsibility for sewerage and on-site sludge management in urban areas.

The Sanitation Section is part of the Community Management and Capacity Building Department within MOW's Rural Water Supply Division. This section consists of four staff members, three engineers and one community development officer. Two community development positions within the department are vacant and have been so throughout 2011. In addition to filling these two vacancies, the section would like to add another two engineers to its staffing, which would bring this to a total of 8 employees. MOW recognises that improved sanitation and hygiene promotion has been paid less attention than improved water supply due to the very limited funding previously allocated by the Government and its development partners to sanitation and hygiene promotion.

MOW's Urban Water Supply and Sanitation Division employs five environmental engineers working on both water supply and sanitation. They spend an estimated 30% of their time on urban sanitation issues. The Division does not have any staff members with a social science background. According to the Division's own assessment, its staff members have the required knowledge and skills to deal with urban sanitation issues though they still require some training.

Prime Minister's Office – Regional Administration and Local Governments (PMO-RALG)

PMO-RALG is responsible for coordinating planning of sanitation and hygiene projects from LGAs and ensuring clarity of responsibilities for operation and maintenance, coordinating the provision of technical assistance to LGAs, coordinating LGA budgets and for coordinating institutional streamlining and capacity building for LGAs¹⁰.

PMO-RALG is also involved in:

- supervision, monitoring and reporting on school WASH through quarterly reports
- supporting the capacity building of LGA, school staff and teachers
- managing of WASH in schools.

PMO-RALG has a Sector Coordination Division which is responsible for LGA coordination and monitoring in relation to among others sanitation and hygiene promotion. The Division is also responsible for coordination with other sectors. The Division has four staff including two engineers, one social scientist and one management/finance staff member. It has not been possible to establish how much time these staff members use on sanitation and hygiene promotion activities. The Sector Coordination Division has no vacancies but would like to recruit an additional three engineers and four social scientists within the

⁹ MoU between four ministries, MOHSW, MOETV, PMO-RALG and MOWI

¹⁰ MoU between four ministries, MOHSW, MOETV, PMO-RALG and MOWI

next five years, or transfer staff from Regional Secretariats or LGAs to the Sector Coordination Division.

Ministry of Education and Vocational Training (MOEVT)

MOEVT is responsible for:

- coordinating policy guidelines development for School WASH in collaboration with MOHSW
- setting standards formulation for school WASH
- coordinating implementation of school WASH
- supervising, monitoring, and reporting on school WASH through the inspectorate and school census forms
- supporting capacity building of LGA and school staff and teachers pre-service and in-service on WASH in the curriculum and management of WASH in schools
- coordinating development of materials for inclusion of WASH in the school curriculum¹¹.

MOEVT's Environmental Unit is the main unit involved in school water supply, sanitation and hygiene. In April 2012, it consisted of three environmental health/social scientists who collaborated with one engineer from the Engineering Department. The Unit also works with other departments including the Inspectorate, the Special Education and Primary School Departments. The Unit had no vacancies and while there are currently enough staff members, the Unit plans to recruit two additional social/ environmental health scientists within the next five years.

Ministry of Community Development, Gender and Children (MCDGC)

MCDGC is responsible for development, coordination, monitoring and evaluating the implementation of community development, gender, children and family policy and programmes¹². At the time of the study, the Community Development Department of MCDGC had in total 21 staff members, mainly social scientists and some artisans. Within the next five years it would like to recruit an additional 28 staff, mainly artisans. The MCDGC has community development staff at district and ward levels and they are often involved in other sector programmes including water supply, sanitation and hygiene promotion.

MCDGC has 64 training centres, which provide short training courses for community development staff. Nine of these have included sanitation and hygiene issues among their training topics.

Vice President's Office, Division of Environment (VPO-DOE)

VPO-DOE is responsible for the overall environmental policy and regulation, formulation, coordination and monitoring of environment policy implementation in Tanzania¹³. At the time of the study, VPO-DOE employed two engineers and assessed it had sufficient staff to perform tasks related to sanitation and hygiene. It had no vacancies, but would within the next five years like to recruit an additional seven staff, four engineers and three social/environmental health scientists.

Energy and Water Utility Regulation Authority (EWURA)

EWURA is responsible for technical and economic regulation of the electricity, petroleum, natural gas and water sectors. Its functions includes among others licensing, tariff review, monitoring performance

¹¹ MoU between four ministries, MOHSW, MOETV, PMO-RALG and MOWI

¹²From <http://www.mcdgc.go.tz/index.php/mcdgc>

¹³From <http://www.vpo.go.tz/environment/utawala>

and standards with regards to quality, safety, health and environment and protecting the interests of consumers¹⁴.

EWURA's Water and Sewage Division had at the time of the study ten staff, nine engineers and one management/finance staff member, and no vacancies. The Division assessed itself as having sufficient staff, but would within the next five years like to recruit another three engineers. EWURA has plans of establishing a sanitation unit after the launch of the National Sanitation Policy.

National Environmental Management Council (NEMC)

NEMC is mandated to undertake enforcement, compliance, review and monitoring of environmental impact assessments, research, to facilitate public participation in environmental decision-making, raise environmental awareness and collect and disseminate environmental information. NEMC has the right/duty to intervene if households cause environmental pollution, but may in practice play a very limited role in relation to household sanitation.

NEMC has four directorates, namely the Directorate of Environmental Compliance and Enforcement, Directorate of Environmental Impact Assessment, Directorate of Environmental Information and Communication Outreach and Directorate of Environmental Planning and Research. It is NEMC's assessment that its responsibilities related to sanitation and hygiene fall across all four directorates. At the time of the study, NEMC had sufficient staff to perform its tasks related to sanitation and hygiene. It emphasized that it is not an implementing agency for sanitation activities but a supervisor/inspector and enforcement body.

Staff Turn-over, Skills and Knowledge, Environment and Motivation

Except for MCDGC, all staff dealing with sanitation and hygiene in the institutions mentioned above had BSc. or MSc. degrees. The turn-over among these staff categories was low, while it was reported to be difficult to recruit engineers and either difficult or not so easy to recruit social and environmental health scientists. MCDGC found it straightforward to recruit community development officers. At the same time several institutions reported that most of the often many applicants for vacancies were qualified and they had rarely had to re-advertise a position. Generally, the knowledge and skills of new graduates were said to meet with the institutions' expectations.

All staff were assessed as either very competent or competent, but also needing some training. All institutions reported providing some training for their staff, both for existing and newly recruited staff.

The following are the main training needs mentioned by the central-level institutions interviewed as part of this study (not in any order of priority):

- updates on new developments in sanitation and hygiene promotion e.g. new approaches and technology
- training in monitoring and evaluation
- training in report writing skills, especially in English
- training on national sanitation and hygiene guidelines once developed
- training in environmental epidemiology

In addition, MOHSW's Environmental Health, Hygiene and Sanitation Department suggested that

¹⁴ From: <http://www.ewura.com/overview>

additional funding should be provided for more staff to do MSc. and PhD studies, with specific focus on sanitation and hygiene promotion.

Most institutions complained of low Government salaries, which were not keeping up with inflation and not competitive with the salaries offered by the private sector and NGOs. Furthermore, no allowance was paid for extra time worked. According to one interviewee, many people were more attracted to seek employment with private companies and NGOs than with the Government. However, the Government's initiative to cover some costs for further studies was much appreciated and a strong motivation for many employees. Higher job security in the public sector than in the private sector may also have been a motivating factor for people to seek employment or remain in the public sector, though this was not mentioned by any interviewees.

Other challenges were also mentioned during interviews with central-level institutions, namely (not in any order of priority):

- Low budget allocations for sanitation and hygiene promotion; several interviewees indicated this as the far biggest challenge for the sector.
- Lack of national sanitation and hygiene guidelines; many different approaches are used, but there is not one set of guidelines providing an overview and indicating when different approaches are appropriate to use; such guidelines should be developed.
- The delay in launching the National Sanitation Policy.
- Lack of or disorganised data on sanitation and hygiene.
- Insufficient work equipment like computers and, in some institutions, insufficient office space.

3.1.2 Public Sector - Regional Level

The role of the Regional and City Council Authorities is to monitor the implementation of national sanitation and hygiene policy, regulations, guidelines, as well as supervise, coordinate and control the quality and standards of sanitation and hygiene services delivery at council level. According to the draft Sanitation and Hygiene Policy, the Regional City Council Authorities are to establish a regional Sanitation and Hygiene Management Team with the necessary skills and essential tools to facilitate the provision of sanitation and hygiene services¹⁵.

At the time of this study, no regional Sanitation and Hygiene Management Teams had been established. However, Regional Water and Sanitation Teams (RWSTs) are in place, consisting of the representatives of the following regional staff: Water Engineer, Planning Officer/Economist, Health Officer, and Community Development Officer/Sociologist. Their main responsibilities are coordination of RWSS activities within the region; overseeing, monitoring and providing technical advice to LGAs. The Regional Secretariat has similar functions¹⁶.

Information was obtained from two regions, namely the Coast and Shinyanga Regions. In the Coast Regional Secretariat, which has overall monitoring and coordination responsibilities, there was one engineer who is responsible for the Secretariat's tasks related to the water sector. There were three vacancies in the Secretariat. In Shinyanga Region staff data were obtained for the Infrastructure Department which had a total of 12 staff. While it is unknown how much of their time they spent on sanitation and hygiene related

¹⁵ MOHSW: *National Sanitation and Hygiene Policy, Draft, May 2009*

¹⁶ *Document received from MOW in Shinyanga Region*

activities, it is expected to be very little.

At the time of the study, the RWST in Shinyanga had six members, five men and one woman. The RWST reported their main tasks related to sanitation and hygiene to be coordination of RWSS activities within the region, monitoring, supervision and reporting, guidance to LGAs, reviewing district water and sanitation plans and ensuring quality of the work of consultants and contractors. RWST members have received training on PHAST only and felt they needed additional training in order to perform their tasks as a RWST, for example on different types of appropriate latrines. They complained of low salary levels and lack of incentives.

3.1.3 Water Supply and Sanitation Authorities

The 19 regional Water Supply and Sanitation Authorities (WSSAs) are autonomous public utilities established by the then Waterworks Act and are recognised by the Water Supply and Sanitation Act, 2009. DAWASA (Dar es Salaam Water and Sanitation Authority) was established by a separate act and is the owner of the assets for water supply and sewerage services in its franchise area of the Dar es Salaam Region, and Kibaha and Bagamoyo Districts. DAWASCO (Dar es Salaam Water and Sewerage Company) is a public corporation responsible for operating the water supply and sewerage services in the DAWASA franchise area through a lease contract¹⁷.

Sewerage systems are available in DAWASA's franchise area and in the service areas of ten out of the 19 regional WSSAs, namely Mbeya, Songea, Moshi, Mwanza, Dodoma, Morogoro, Iringa, Tabora, Tanga and Arusha WSSAs. The ten WSSA had in total 16,133 sewerage connections in 2010/2011, which means that only approximately 4% of households within their service areas have sewerage connections. DAWASA had 18,568 sewerage connections, which corresponds to approximately 3% of households within its franchise area¹⁸.

As mentioned in EWURA's Annual Performance Report for 2010/2011, regional WSSAs have been graded into three categories:

Category A: These WSSAs financially meet all their annual costs for O&M, including staff costs, energy costs and some contributions to investment. There are 13 WSSAs in this category: Arusha, Dodoma, Iringa, Mbeya, Morogoro, Moshi, Mtwara, Mwanza, Shinyanga, Tabora, Musoma, Songea and Tanga.

Category B: These WSSAs financially meet their operation and maintenance costs, including only part of the energy costs. These utilities receive Government subsidies to cover the remaining costs for energy. There are four WSSAs in this category: Bukoba, Kigoma, Singida and Sumbawanga.

Category C: These WSSAs financially contribute to their operation and maintenance costs and receive Government subsidies to cover energy costs and some staff salaries. There are two WSSAs in this category: Babati and Lindi.

All ten regional WSSAs providing sewerage services are in category A. DAWASCO also provides sewerage services and is assumed to fulfil the same criteria as for WSSAs in category A.

One of the indicators used to assess the performance of the WSSAs and DAWASCO is their staff productivity, i.e. the number of staff per 1,000 water and sewerage connections. The average for 2010/2011 for all 19 WSSA was 8.4 staff/1,000 connections while the corresponding figure in 10.1/1,000 connection in 2008/2009. An

¹⁷EWURA: Annual Performance Report for the Regional Water and Supply and Sanitation Authorities, 2010/2011

¹⁸Ibid

even more positive trend was seen for DAWASCO, where the staff productivity had improved from 12 staff/1,000 connections in 2008/2009 to 6.7 staff/1,000 connections in 2010/2011.

As there is no sewerage service in any of the case study areas, Dodoma Urban WSSA (DUWASA) was interviewed to get an indication of the sanitation and hygiene related HR capacity among the regional WSSAs providing sewerage services.

At the time of the interview, DUWASA focused on water supply and central sewerage system, which served 13% of the population in its service area. Although DUWASA's sanitation-related focus was on operating the sewerage system - and encouraging household connection - it had also conducted some promotion activities on proper use of latrines and water through the annual "Water Week" campaigns (at a cost of TZS 3 million).

The Technical Department of DUWASA has sewerage among its responsibilities. At the time of the study, it had in total 13 staff, including two engineers, two diploma technicians and nine skilled artisans. It is unknown what proportion of their time they spent on sanitation related activities. DUWASA's Technical Department reported to have sufficient staff to perform sanitation related tasks, but would within the next five years like to recruit a social scientist and some skilled artisans.

DUWASA had no problems attracting qualified staff for vacant positions and at the time of the study it normally took only one month to fill a vacant position. Generally, DUWASA staff were said to have the required knowledge and skills and were well motivated. Employees were also reported to be satisfied with employment conditions.

All engineers and technicians in DUWASA's Technical Department were assessed as very competent and the artisans as competent, but all needing some training. DUWASA's Technical Department reported providing training to all categories of existing and newly recruited staff.

According to DUWASA, the City Council is in charge of on-site sanitation in Dodoma. DUWASA did, though, have one truck for emptying of septic tanks. At the time of the study there were three other septic tank emptying trucks in Dodoma, one operated by the City Council and two by private companies. It has not been possible to assess whether this septic tank emptying capacity is sufficient to cater for all the households using on-site sanitation facilities. For further information on emptying services offered by the private sector, reference is made to section 3.1.6.

Attention has been paid to improving the capacity of the weaker regional WSSAs as well as district and township WSSAs. The implementation of a capacity building programme for seven regional WSSAs, four National Projects, 47 District WSSAs, and ten Township WSSAs thus started in 2009, with focus on among others improved management capacity¹⁹. The programme does not focus on improved HR capacity specifically related to sanitation and hygiene promotion. However, generally strengthening the capacity of the WSSAs will put them in a better position to also deal with sewerage and on-site sanitation issues.

Capacity Building –¹⁹RODECO and NIRAS: Capacity Building for Regional and District Water Supply and Sanitation Authorities, Final Draft, Programme, July 2010

3.1.4 Public Sector – District and Municipal Level

The councils are responsible for planning, coordinating, implementing, monitoring and evaluating sanitation and hygiene aspects, in collaboration with communities and other stakeholders in the council. This includes hygiene and sanitation for schools and other institutions and public places as well as at community level. According to the draft Sanitation and Hygiene Policy, the councils are to establish a Sanitation and Hygiene Committee which will be answerable to the council through the Council Social Service Committee²⁰. Such committees have not yet been established, but there are District Water and Sanitation Teams (DWSTs) in place consisting of seven members; the District Executive Director, District Planning Officer, District Water Engineer, District Community Development Officer, District Health Officer, District Education Officer and the District Treasurer. The Programme Operational Manual lists the following tasks for the DWSTs: organise baseline surveys, prepare annual plans, appraise applications and proposals, select communities qualifying for RWSS support, facilitate formation of water user entities, manage financing, contract, supervise, coordinate and monitor activities and provide support for training of communities. The DWST is expected to meet on a regular monthly basis²¹.

According to the draft National Sanitation and Hygiene Policy, every council is to have an annual comprehensive Sanitation and Hygiene Plan.

In the districts visited, the Health, Water and Education Departments of the District Councils were the departments most involved in sanitation and hygiene promotion activities. Sanitation and hygiene promotion activities did not appear to have been assigned to specific staff members within these departments; rather all staff members were reported to have some involvement in such activities as they were integrated with other activities. A new department is planned to be established in the District Councils as per July 2012, i.e. the Department for Cleanliness and Environment (*Idara ya Usafi na Mazingira*). MOHSW's Environmental Health, Hygiene and Sanitation Department considers this a good development as the new district council department would focus purely on prevention, including sanitation and hygiene promotion. The exact responsibilities and functions of the new department are still under discussion and the staffing level has therefore not been determined. However, in the view of MOHSW's Environmental Health, Hygiene and Sanitation Department, this new district council department would need to have around six to seven staff.

The following table shows the number of DWST members in the five districts/municipalities, which were visited, their tasks as mentioned by members themselves and the sanitation and hygiene promotion training received.

²⁰MOHSW: *National Sanitation and Hygiene Policy, Draft, May 2009*

²¹*Extract of Programme Operational Manual for the WSDP received from MOW*

Table 7: DWST Members, Tasks and Training in 5 Districts/ Municipality

District/Municipality	DWST Members	DWST Tasks	DWST Training
Kibaha District (Population according to 2002 Census: 131,242)	Eight members, of which five women and three men	<ul style="list-style-type: none"> - District WSS planning - WSS coordination - Facilitation - M&E - Managing WSS services in district Meetings normally monthly	Seven out of eight had been trained in facilitation of sanitation and hygiene improvements, including promotion. One of the women had not received training.
Chamwimo District (No population data in 2002 Census as this is a newly established district)	Seven members, of which three women and four men	<ul style="list-style-type: none"> - District WSS planning - Follow-up on on-going water projects Meetings are quarterly	All had been trained in facilitation of sanitation and hygiene improvements, including promotion
Shinyanga District (Population according to 2002 Census: 276,393)	Eight members, of which seven men and one woman	<ul style="list-style-type: none"> - Monitoring and supervision of sanitation and hygiene projects Reporting on same projects Meetings were monthly, but now quarterly	Members had received introductions, but no real training on sanitation and hygiene promotion
Shinyanga Municipality (Population according to 2002 Census: 134,523)	Ten members, of which seven men and three women	<ul style="list-style-type: none"> - Promotion of environmental sanitation - Water quality management Meetings should be quarterly, but the last meeting was three years ago	Two men and one woman had received training
Mufindi District (Population according to 2002 Census: 282,071)	Seven members, of which one woman and six men	<ul style="list-style-type: none"> - Supervision of facilitation and technical consultants - Supervision of WSS Activities Meetings normally quarterly	Six men had received one-week training on sanitation and hygiene improvements, while the woman had received none.

Source: Interviews with DWSTs/District Councils, February-March 2012

Some of the tasks listed by the DWSTs are included in the DWST Terms of Reference (TOR) developed under the Water Sector Development Programme (WSDP), but many tasks are not included. The DWSTs did not appear to have adjusted the general WSDP TOR to fit with their specific local situation and the actual work being undertaken.

The DWSTs in Kibaha and Chamwimo districts had a gender-balanced composition, whereas the other three DWSTs were dominated by men, with two of them having only one female member.

The DWST in Shinyanga Municipality seemed less active than the DWSTs in the four rural districts.

Nearly all the mentioned DWST tasks relate to planning, coordination and monitoring of WSS activities. Only one DWST, namely the Kibaha DWST, mentioned facilitation as one of their tasks. None of them said that they did training for other structures or persons at lower levels. Only the Kibaha district DWST members felt they had the knowledge and skills they needed to perform their work, but also they would still like additional training on new sanitation technologies. Furthermore, only Kibaha DWST mentioned it had all sanitation and hygiene guidelines and other materials it needed to carry out its tasks and that felt motivated to carry out its duties.

The four other DWSTs reported they lacked the necessary sanitation- and hygiene-related skills, such as project management and supervision skills, knowledge of different types of latrines and handwashing facilities, operation and maintenance of sanitation facilities and PHAST. All four teams lacked specific sanitation and hygiene guidelines and materials and complained of lack of funds for sanitation and hygiene activities, despite submission of annual plans. The lack of priority and the limited funding for sanitation and hygiene were reported as main reasons why several DWST members were not much motivated to carry out their DWST tasks.

The DWSTs/District Councils identified the following main capacity challenges in their respective districts:

- Shortage and inadequate knowledge and skills of human resources dealing with sanitation and hygiene, including shortage of Environmental Health Officers (EHOs) and adequately trained artisans and inadequate knowledge and skills in mobilisation and facilitation in approaches such as PHAST;
- Too few staff in the District Health Department and there are not separate curative and preventive divisions;
- Lack of/insufficient funds for sanitation and hygiene from district sources and from central government;
- Conservative socio-cultural traditions and norms; and
- Lack of resources such as transport, information and education materials, and other working tools.

The following were the main suggestions from the DWSTs/District Councils:

- Training of various stakeholders on sanitation and hygiene issues and skills;
- More training to be offered to artisans and they should be offered to form their own village associations, so they can work as a team;
- Increased budget for sanitation and hygiene activities, provision of transport, information materials, and tools;
- Comprehensive awareness-raising programmes on hygiene and sanitation issues;

- Government should provide sufficient budget for awareness-raising and NGOs should participate in provision of training on awareness-raising topics and skills;
- Use of by-laws of District Councils;
- Involvement of communities' own resources, such as Community Based Organisations (CBOs) and Faith Based Organisations (FBOs), in the sanitation and hygiene campaign; also communities should be encouraged to help vulnerable people to construct improved latrines;
- Increased enrolment of environmental health workers in training institutions and employment of more of them;
- Recruitment of the required qualified staff, e.g. environmental engineers and municipal and industrial services engineers; and
- The new Environment and Cleanliness Department to be established in Municipal and District Councils should employ environmental engineers and municipal and industrial services engineers as they are much qualified within this area.

3.1.5 Ward and Village Levels

According to the draft National Sanitation and Hygiene Policy, the Ward Executive Officer is responsible for involving the Community Social Service Committee in promoting sanitation and hygiene and ensuring that the most vulnerable are able to access programmes and facilities.

The Ward Health and Education Coordinators, as well as staff at health centres, dispensaries and teachers often play, an important role in connection with sanitation and hygiene activities at both ward and village levels.

The Social Services Committee at the village/street level is responsible for involvement of households in sanitation and hygiene concerns and in ensuring that the most vulnerable receive support from other community members²². In some villages, artisans/latrine builders, village health workers and animators play an important role in sanitation and hygiene promotion activities.

Health Centres/Dispensaries

Health centres, among others, are responsible for

- i. inspection of sanitary and hygiene conditions in a range of settings including markets, butchers, restaurants and water points,
- ii. sanitation and hygiene promotion
- iii. collection of data on sanitation and hygiene from village health workers and village executive officers.

Dispensary employees also carry out some sanitation and hygiene promotion activities.

The following table shows the number of health centres and dispensaries in the five districts/municipalities visited and the number and the education of the staff assigned to among other duties deal with sanitation and hygiene promotion.

²² MOHSW: *National Sanitation and Hygiene Policy, Draft, May 2009*

Table 8: Staff Responsible for Sanitation and Hygiene in Health Centres and Dispensaries

District/Municipality	No. of Health Centres	No. of Dispensaries	Staff Responsible for Sanitation & Hygiene
Kibaha District (Population according to 2002 Census: 131,242)	1	22	Two EHOs w. diplomas; 14 registered nurses; 14 enrolled nurses w. certificates; seven medical attendants w. 1 one-year course; four village health workers
Chamwimo District (No population data in 2002 Census as this is a newly established district)	5	56	All health workers w. diplomas in each of the Health Centres
Shinyanga District (Population according to 2002 Census: 276,393)	4	41	Four health centres: in total six EHOs w. diplomas and seven EHA w. certificates 41 dispensaries: No EHOs, three EHAs w. certificates
Shinyanga Municipality (Population according to 2002 Census: 134,523)	1	41	One health centre: two EHOs w. degrees, seven EHOs w. diplomas 41 dispensaries: No EHOs, three EHAs w. certificates.
Mufindi District (Population according to 2002 Census: 282,071)	5	59	Five health centres: seven EHOs w. diplomas, seven EHAs w. certificates 59 dispensaries: No EHOs or EHAs; EHOs from the district hospital work in the dispensaries on a rotational basis.

Source: Interviews with five District/Municipal Councils, February-March 2012

Using 2002 population data, the number of persons per health centre varied from more than 130,000 in Kibaha District and Shinyanga Municipality to around 57,000 in Mufindi district. The number of persons per dispensary varied from around 6,600 in Shinyanga District to around 3,300 in Shinyanga Municipality.

As can be seen from the above table, some health centre and dispensary staff dealing with sanitation and hygiene have diplomas in environmental health (Assistant EHOs), whereas others had certificates in environmental health (EHAs). According to Government regulations, there should be at least one EHA in each dispensary and at least two assistant EHOs in each health centre. However, as interviews in seven wards showed it was more common that staff dealing with sanitation and hygiene promotion were health assistants and nurses with certificates, and sometimes diploma-level nurses, health officers or clinical officers.

In some health centres and dispensaries all staff took it in turns to do sanitation and hygiene promotion. The education of EHOs and EHAs includes good sanitation and hygiene practices, whereas environmental health issues are not specific elements of the education of health officers, clinical officers etc.

It was common among all categories of staff that only a very small part of their working time was dedicated to sanitation and hygiene promotion activities. The main sanitation and hygiene promotion activities appeared to be small sanitation and hygiene “talks” for patients before the treatment started. These “talks” covered topics including the importance of using latrines, hand washing at specific times and good food hygiene. The time devoted to such activities varied considerably, from one day per week to every working day, with each “talk” lasting 10-30 minutes.

Health centre and dispensary staff working on sanitation and hygiene complained that they received very little training on these issues, apart from what they had learned at school, and many of them would like to have some additional or refresher training. Furthermore, they felt they did not have the guidelines and other materials needed to deal properly with their sanitation and hygiene tasks.

Lack of transport was a big challenge for many health centre and dispensary staff. One exception was a health officer in a dispensary who had been given a motorbike and fuel to visit remote villages. Other staff suggested that they should be given a bicycle so they could reach different villages.

Many health centre and dispensary staff complained their salaries were very low compared to the type and amount of work they did, which was a disincentive for them.

Schools

Interviews at district and ward level showed that some schools have included hygiene and sanitation topics in their curricula and/or in extracurricular school activities. Several secondary schools were reported to have hygiene and sanitation topics incorporated in their geography, biology and/or science subjects, whereas such topics were less common in the curriculum of primary schools. Some primary schools have extra-curricular sanitation and hygiene activities through different clubs such as environmental/health clubs.

Some primary school teachers in the five case study districts/municipalities had received specific training on sanitation and hygiene, from NGOs and/or the district health and education departments, but most teachers only have basic sanitation and hygiene knowledge, based on their teachers’ college training. In addition, there was reported to be a lack of documentation in the form of guidelines and teaching materials.

The lack of appropriate school toilets and hand washing facilities makes it often impossible for pupils to put their new knowledge on sanitation and hygiene into practice. There is therefore a high risk that information related to use of toilets and good hygiene practices like hand washing after use of toilets become rather theoretical.

Village Level

The following table gives an overview of the main “structures” and persons involved in the construction of latrines and in sanitation and hygiene promotion at village level as reported by the five District/ Municipal Councils.

Table 9: Persons Involved in Sanitation and Hygiene Promotion at Village Level

District/ Municipality	Latrine Builders	Village Health Workers	Animators	Others
Kibaha	Four in each village, but not all active; in one particular ward only one is active	Four village health workers per village	All home based care nurses and medical attendants in each dispensary	Religious leaders, hamlet chairmen, prominent elderly persons (wazee maarufu), health staff
Chamwimo	74, of which 24 are active	148, of which 38 are active	154, of which 35 are active	Eight CBOs, three women's groups, 11 youth groups, 14 cultural groups Religious groups
Shinyanga D.	Almost ten per ward; they are active when there is an on-going project	Five in each ward	Five in each ward	Groups of aged people.
Shinyanga M.	About ten per ward	38; they are active when there is a sanitation project	38; they are active when there is a sanitation project	28 community organisation resource persons (CORPS) trained on VIP construction
Mufindi	Average 15 per ward	No data received	No data received	No data received

Source: Interviews with five District/Municipal Councils and interviews at ward level, Feb-March 2012

Further information on local latrine builders is included in section 3.1.6.

Some village health workers and animators have been trained on different sanitation promotion approaches, mainly by NGOs. In Chamwimo District Council there had been training on CLTS, PHAST, Mtumba and child-to-child approaches. However, in general village health workers and animators were reported to have insufficient knowledge and skills. Religious leaders and various groups had not received any specific training on hygiene and sanitation and were said to use their general knowledge.

Lack of transport for so-called lead promoters was reported as a major barrier, with the suggestion to provide them with at least a bicycle.

3.1.6 Private Sector

The following are the main categories of private sector actors who play a role in the sanitation and hygiene sector:

- Consultants in connection with training, facilitation, promotion, design and construction supervision for institutional toilets and sewerage, studies.
- Contractors in connection with construction of institutional toilets, sewerage systems.
- Manufacturers of toilet components, hand washing facilities and soap as well as local stores selling their products, cement and other materials for construction or improvement of latrines.
- Artisans constructing new latrines and improving existing ones.
- Septic tank and pit emptying companies.

Consultants

A list of 14 consulting engineering companies active in the sanitation sector was obtained from the Association of Consulting Engineers in Tanzania (ACET). The following is from the 2011 Directory published by ACET. The data in the table below were extracted from this publication.

Table 10: Consulting Companies Active in the Sanitation Sector

	Name of Company	Number of Key Staff	Other Staff	Examples of Sanitation and Hygiene Projects
1	Apex Engineering Co. Ltd	3	Highway engineers, structural engineers, WSS engineers	-
-	Doch Ltd	3	20 staff, with seven engineers, one surveyor, three technicians and nine support staff	Solid waste management in Dar es Salaam
3	Don Consult Ltd	2	14 technical staff, with nine engineers, one hydrologist, two hydrogeologists and two draughtsmen	Water supply and sewerage works, Morogoro Municipality; Kibaha urban WSS project; Monduli water supply project
4	Ewarema Consult Ltd		12 engineers, several technicians and other staff	Urban sector rehabilitation programme, Tabora and Mwanze water and sewage
5	FBNE Ltd	4	Four professional engineers	-

	Name of Company	Number of Key Staff	Other Staff	Examples of Sanitation and Hygiene Projects
6	Geocenta Ltd	2	14 staff, with four engineers, five technicians, one surveyor, four support staff	-
7	Interconsult Ltd		37 professional staff and 22 technicians	
8	Iteco Consult Ltd	6	20 staff, including 15 technical staff	
9	Mark Consult Ltd	10	25 technical staff, including ten engineers, 12 technicians, three land surveyors	
10	Nimeta Consult	9		Arusha Strategies Sanitation Plan preparation project; Technical and facilitation services, RWSSP Tabora District
11	Norplan Tanzania Ltd		Six consulting engineers, ten professional engineers, eight graduate engineers, four technicians, 11 trainees	
12	Poyry Tanzania Ltd	9		Urban water supply, Mwanza, Phase II; Mtwara water supply project; design and supervision – Dar es Salaam water supply and sewage projects
13	NDI Consulting Group Ltd		11 Engineers, two technicians	
14	UWP Consulting (T) Ltd	4	20 staff, including ten engineers, three technicians and other staff	

Most consultancy companies are found in cities such as Dar es Salaam, as well as larger towns.

The staffing indicated in the ACET publication, and in Table 10, is assumed to be for permanent employees of the companies. In addition, many companies employ freelance consultants to carry specific assignments. Although none of the companies mentioned above appear to employ community development specialists, sociologists or other “software” staff, they may still employ freelance consultants with such backgrounds for specific assignments.

According to the Director of a consultancy company involved in sanitation, sanitation had been a neglected area for the past 15 years: it was sometimes difficult to find engineers with detailed knowledge and skills related to sanitation. As an example he mentioned that the company had wanted to employ an engineer/technician to work on a rural sanitation assignment, but at that particular time it proved difficult to find a qualified person willing to work in the specific location.

Some stakeholders have indicated that consultants working on the WSDP have provided both technical and facilitation support at district, ward and village levels. However the consultants were generally weak on facilitation, indicating that there may be a need for training of private sector staff in this area. Alternatively it may also indicate that private companies have not employed the right people for these facilitation tasks, but rather assigned them to technical staff.

In general, private companies pay higher salaries than public sector institutions and NGOs. It is therefore expected that the private sector will be able to attract the most qualified staff within both the social/facilitation/promotional field and the technical field, if and when there are more sanitation and hygiene related assignments available.

Contractors

A list of 20 contractors active in the sanitation sector was obtained from the Contractors’ Registration Board (CBR). They are registered in a separate category as “sanitation and plumbing contractors” and have as a minimum six to seven staff and a minimum annual turn-over of TZS 22 million.

Four contractors were included in the questionnaire survey, one in Shinyanga Municipality, one in Kibara District and two in Dar es Salaam. One of them also provided consultancy services. This company employed two animators, whereas none of the other three contractors employed any social/environmental health staff. The four companies employed a total of 61 technical staff (59 men and two women) as shown in the table below.

Table 11: Staff Composition of Four Contractors

Employees	Engineers (Degrees)	Technicians (Diplomas)	Technicians (Certificates)	Skilled Artisans	Total
Male	9	1	29	20	59
Female	2				2
TOTAL	11	1	29	20	61

Most staff of the four companies were technicians with certificates and skilled artisans.

The two companies in Dar es Salaam had most employees, with 19 and 20 technical staff respectively, while the other two companies had ten technical staff each. Although the sample size is very small, this indicates that contractors based in rural districts and smaller towns are generally smaller in terms of the number of staff than those in Dar es Salaam and other cities. This is also the general experience of the study team. Furthermore, most contractors are found in Dar es Salaam and other cities and larger towns.

Two out of the four companies planned to recruit new technical staff within the next five years, namely 21 persons in total. Most companies had a low turn-over for the different technical staff categories, though one company reported a high turn-over for all technical staff except skilled artisans. All four companies found it either “easy” or “not so easy” to recruit new technical staff. None reported such recruitment to be “difficult”. Most employees were reported to be either very competent or competent, although most required some training. Most companies provided some training to their existing staff.

Manufacturers and Local Stores

Most toilet/latrine components in Tanzania, at least in rural areas, are manufactured on-site by artisans and small contractors (institutional latrines mainly). Materials for construction of latrines and handwashing facilities were easily available in the areas where the four latrine builders interviewed worked (see below). The same was mentioned by district and ward staff in the four districts, although some said the price of materials increases as you get closer to remote areas. According to some interviewees, soap was also easily available. Other stakeholders indicated, however, that the availability of materials is often an issue in remote villages, where people have to travel relatively long distances to purchase materials needed for construction of latrines.

Some portable toilets, which can be hired for different events, are produced in Dar es Salaam. Efforts have not been made to investigate the capacity of this manufacturer, as this is not a product widely distributed for sale.

Artisans

In the four districts visited, some latrine builders had received training from health officers or NGOs, others reported on-the-job training and thereby some practical experience in building latrines. However, many latrine builders were reported to have inadequate knowledge and skills. In addition, the demand for their services is low, which means they are not able to maintain their knowledge and skills as many only become active when there is a specific sanitation project in their area. Latrine builders were also reported to lack proper guidelines and working tools.

Four artisans (three young men and one young woman) were interviewed, two in Kibaha District and two in Mufindi District. They had all been trained by NGOs in the construction of latrines and handwashing facilities, two for a total of 15 days (two training courses of ten and five days, respectively) and the other two for five days. They had been given some tools and guidelines during their training, but at the time of the interview three out of the four didn't have sufficient tools. All four would like additional training, two on latrine planning and design skills and two on sanitation and hygiene promotion techniques.

Two latrine builders had also trained young people in their villages. All four were members of informal village artisan associations. Two mentioned they help each other complete latrine building contracts/work and look for new work, while the other two mentioned as a membership benefit that they help each other build latrines at their own houses at a low cost.

All four did latrine building as a part-time occupation only, having farming as their main occupation. One had an average monthly income of TZS 90,000–60,000 from construction of latrines and handwashing facilities, another TZS 40,000–30,000. Two had constructed handwashing facilities at a school, but otherwise all four appeared to only build household latrines. All mentioned as their main challenge that households' demand for their services was very low due to people's low income levels as well as their low awareness of the importance of using latrines and handwashing facilities.

Septic Tank and Pit Emptying Services

A study in 2010 found that the majority of the Dar es Salaam households with on-site sanitation used pit diversion/flooding empty their pits, while others used either manual emptying services or mechanical desludging by trucks²³. At the time of the mentioned study, Dar es Salaam's three municipalities had two vacuum trucks that were operational. Other trucks were operated by private companies. It is not known how many truck for emptying of septic tank and pits are currently operating in Dar es Salaam or whether they are able to meet the demand for emptying services.

As mentioned earlier, the situation is similar in Dodoma where different institutions also offer emptying services, i.e. the City Council and DUWASA each have one truck, while two other trucks are operated by private company/companies. Like in Dar es Salaam it has not been possible to assess whether the current truck emptying capacity in Dodoma meets the demand.

A cheaper alternative to vacuum trucks has been developed with WaterAid support, the so-called gulper. This consists of a motorbike with an attached tank and pump that is used to remove waste from latrines. Another advantage of the gulper is that it can get into narrow streets which are not accessible for trucks. The gulper was tested in Ilala and Temeke Municipalities within Dar es Salaam by local community based organisations (CBOs). Initially the gulper services were only used by a limited number of households, due to the limited number of operators. Loans were later provided to some groups which facilitated the extension of the services.

The gulper services have proved successful and a MoU between WaterAid and Water for People has been drafted for implementing the gulper pit emptying service in other urban areas, including the City of Mwanza. Furthermore, ten additional unplanned wards of Dar es Salaam have been identified for scaling up of the gulper services²⁴.

3.1.7 NGOs

TaWaSaNet is a network for local NGOs active in the water supply and sanitation sector in Tanzania. It has provided a list of 23 NGOs active in the sanitation and hygiene promotion sector. The study team has added two additional local NGOs to this list, bringing the total number of local NGOs involved in sanitation and hygiene promotion up to 25. It has not been possible for TaWaSaNet to indicate the size or give other characteristics of the different local NGOs. A number of international NGOs are involved in the sanitation and hygiene sector, the main ones being AMREF, Care International, Concern Worldwide, Oxfam, Plan International, SNV, WaterAid and World Vision.

²³ Trémolet, S. and Binder, D.: *A study for WaterAid, Evaluating the Effectiveness of Public Finance for Household Sanitation in Dar Es Salaam, Tanzania, August 2010*

²⁴ *WaterAid: Piloting innovative and effective approaches for the scaling up of sanitation and hygiene promotion in urban and rural areas of Tanzania, funded by Irish Aid, 2011*

The assessment of the NGOs' HR capacity has been limited to local NGOs as all or most international NGOs are not directly implementing activities themselves, but rather partnering with local NGOs and CSOs for this purpose. Information was collected from 13 local NGOs through a questionnaire and some additional questions were answered by nine local NGOs.

Table 12: Staff Composition of 13 Local NGOs

Employees	Technical staff	Social and Env. Health Staff	Management and Finance Staff	Total
Male	113 (92%)	33 (49%)	22 (61%)	168 (74%)
Female	10 (8%)	35 (51%)	14 (39%)	59 (26%)
TOTAL	123 (100%)	68 (100%)	36 (100%)	227 (100%)

Table 12 shows the staff and gender composition of 13 local NGOs, which have an average of 17 to 18 staff each. They did not indicate whether all reported staff members were full-time staff, but based on other information received from the NGOs this is not assumed to be the case. 54% of their staff were technical staff, 30% social/environmental health staff and 16% management and finance staff. The staff were fairly evenly distributed among the different educational levels.

Several of the local NGOs reported they would like to employ additional staff but lacked funds to pay their salaries. Over the next five years, the 13 NGOs would on average each like to employ an additional ten staff. A few of the NGOs had no paid staff and relied solely on volunteers. Several of them complained it was a challenge to attract and retain qualified staff because of their low salaries and rural location. Some understaffed NGOs reported they coped with this situation by cooperating with staff of other institutions, for example the District Councils, while others employ part-time staff or consultants for specific tasks. Others tried to ensure that existing staff work effectively by providing them with training in how to manage their duties.

Most NGOs considered their staff to be competent and some very competent, although they still needed on-the-job, management, reporting and documentation training. Most NGOs provided some training to their staff, both newly recruited and other staff. The training appeared to be mainly in the form of internal on-the-job training and/or workshops and training sessions organised by others.

Approximately half of the NGOs interviewed felt that the knowledge and skills of new graduates met their expectations while others complained new graduate lacked practical knowledge and some were too ambitious. All nine NGOs who answered questions on staff satisfaction and motivation considered the working atmosphere to be good and their staff to be satisfied with their employment conditions, but also reported low motivation among staff due to low salaries and the general lack of funds to implement activities.

The number of women and men in decision-making positions was equal or almost equal for the nine NGOs which answered this question. In some NGOs there were more women than men in these positions and in two out of nine there were more men than women.

The NGOs mentioned the following as the main challenges within their organisations:

- Insufficient funds to develop the organisation and to implement activities
- Lack of office equipment
- Lack of transport
- Insufficient staff training

The NGOs considered the main challenge to achieving the Government's goals for sanitation (access to toilets) and hygiene (handwashing) to be the lack of funds allocated to the sector and the insufficient number of staff working in the sector. In addition, some staff working on sanitation and hygiene promotion had inadequate qualifications.

To counter the mentioned challenges, some NGOs suggested that development partners and Government institutions should provide more funding for sanitation and hygiene and importantly should enter into more partnerships with local NGOs and CSOs. One NGO also had a long-term goal of fund-raising by selling latrine slabs. One NGO suggested that "the few staff we have (in the sector) need to go in the field and should not only sit in workshops, seminars and meetings".

The NGOs were asked about their annual budgets for sanitation and hygiene promotion activities. The annual budgets of the four NGOs that responded to this question ranged from TZS 20 million for two NGOs, TZS 50 million for one NGO and TZS 122 million for the last NGO. International NGOs like WaterAid and multilateral agencies like UNICEF often work with local NGOs. It is their assessment that the capacity of many local NGOs is still weak. In addition to lack of funding, which is often needed to attract qualified staff, a number of local NGOs have only a few years' experience in the sector due to limited funding.

3.2 Required Human Resource Capacity, Shortages and Gaps

3.2.1 Public Sector – Central and Regional Level

MOHSW is the lead ministry in the sanitation and hygiene sector and will take the lead in implementing the National Sanitation and Hygiene Policy and the National Sanitation and Hygiene Campaign/ Programme as well as having some involvement in the implementation of other sanitation and hygiene initiatives like the GSF-funded programme. At the time of the study, MOHSW's Environmental Health, Hygiene and Sanitation Department had 23 staff members. Five of them were in the Water, Food and Sanitation Unit. Of these five, two were on study leave. The Unit had two vacancies, but they were expected to be filled by June 2012. By this time, the Unit will therefore have a total of six staff and from the middle of 2013, when the last person returns from study leave, it will have seven staff members.

In view of the study team, there is a need to increase the number of staff in MOHSW's Water, Food and Sanitation Unit from the currently established 7 positions to at least ten positions. The proposed increase in the staffing level should be seen in the light of the ambitious commitment that the Government of Tanzania made at the High Level Meeting of the Sanitation and Water for All Partnership held in April 2012. Tanzania has thus committed itself to ensuring that an additional 27 million people gain access to sanitation by 2015. The first step is to fill the current vacancies in the Unit and as soon as possible thereafter to employ the additional staff.

Until recently, MOW's Sanitation Section within the Rural Water Supply and Sanitation Division had the day-to-day responsibilities for sanitation and hygiene promotion in rural areas. At the time of the study this section had four staff members and two vacancies, bringing the established staff positions to six. After the responsibilities for rural sanitation and hygiene promotion have been transferred to MOHSW, it is suggested to consider dissolving the Rural Sanitation Section in MOW and integrating the staff into other sections of the Rural Water Supply and Sanitation Division.

It is not within the scope of this study to assess whether this should lead to a reduction in the total staffing of the Rural Water Supply and Sanitation Division or not. However, it should be noted that according to the MoU between the four ministries, MOW will also in the future have a role to play in relation to sanitation and hygiene. This does, however, not appear to require full-time input from several staff members, but rather to be a role that can and should be fulfilled by staff also working with water supply issues. Such an arrangement may also support the integration of water supply, sanitation and hygiene issues. It appears sufficient for MoW in the future to have staff providing part-time inputs to rural sanitation equivalent to two full-time positions.

At the time of the study, MoW's Urban Water Supply and Sanitation Division had five engineers working part time with sanitation, which appears sufficient. However, considering the increased attention that needs to be given to on-site sanitation in urban and peri-urban areas, it appears beneficial to employ or transfer one social or community development staff member to this Division.

At the time of the study, other ministries and institutions at central level considered themselves having sufficient staff dealing with sanitation and hygiene issues.

Table 13: Existing Sanitation and Hygiene Staffing and Future Requirements of Key Ministries

Institution	Technical Staff	Social/ Environmental Health Staff		Remarks
	Existing	Existing	Future	
MOHSW		3	10	MOHSW's plan is to have six staff by end June 2012 and seven staff by middle of 2013. An additional three staff to be recruited as soon as possible.
MOETV	1	3	3	Three in Environmental Unit and one in Engineering Dept.
MOW, Rural Sanitation	3	1	1	
MOW, Urban Sanitation	1.5		1	Five engineers using around 30% of time on sanitation. One social staff to be recruited/ transferred

PMO-RALG	2	2	2	The Sector Coordination Division has two engineers, one social staff and one management/ financial staff; in this table the management/financial staff is included under social staff
Total	7.5	9	17	

As shown in the table, the four key ministries currently has in total the equivalent of 16.5 full-time staff working with sanitation and hygiene, while it is estimated that the equivalent of 22.5 full-time staff will be required in the future. The estimated future requirement foresees a small reduction in the number of technical staff working with sanitation and hygiene and an increase in the number of social/ environmental health staff.

Currently, the Regional Secretariat and the RWST play a small role only in connection with sanitation and hygiene activities. As this situation is not foreseen to change much in the future, it is not assessed to be necessary to increase the number of sanitation and hygiene staff at regional level.

There was found to be some HR capacity gaps, i.e. lack of knowledge and skills, at both central and regional levels. Detailed training needs assessments are not part of this study and the following are therefore only indications of key areas in which capacity may need strengthening at central and regional levels:

- New developments in sanitation and hygiene promotion, including among others various approaches, the range of technologies (e.g. latrines, handwashing facilities);
- Monitoring and evaluation, including data management and how monitoring data are used for planning purposes; **the** capacity in this area may be strengthened as a combination of developing guidelines/ manuals/ systems and tailor-made training;
- Planning tools and guidance; the national Sanitation and Hygiene Programme, the development of which has just started, is expected to be a good guidance in this connection; it could for example give an overview of different participatory approaches, the lessons learned from using them in Tanzania;
- Report writing skills

3.2.2 Regional and District WSSAs

Currently, the regional and district WSSAs' involvement in the sanitation sector appears to be limited to sewerage systems and the operation of one or two trucks for emptying of septic tanks. At the time of the study, only 11 cities/towns have sewerage systems and all WSSAs operating these systems are according to EWURA's assessment in Category A, i.e. in the group of best performing regional WSSAs. It has not been possible to obtain data on the sanitation-related HR capacity of these WSSAs, or from a representative sample of them. However, as an indication of the capacity levels, DUWASA (in Dodoma) mentioned it has no problems attracting qualified staff for vacant positions and generally its employees assigned tasks related to sanitation have the necessary knowledge and skills, though needing some training.

Regional WSSAs in categories B and C as well as district WSSAs may, however, have increased sanitation-related responsibilities in the future and may need to strengthen their HR capacity within this area. It has not been possible within the framework of this study to assess the current HR capacity of these WSSAs

to deal with sanitation issues. However, a three-year capacity building programme started in 2009 with the purpose of strengthening among others the management capacity of the weaker regional WSSA and the district WSSAs. This programme does not focus on improved HR capacity specifically related to sanitation, but it is believed that generally strengthening the capacity of these WSSAs will put them in a better position to also deal with sewerage and on-site sanitation issues.

WSSAs are public utilities with at least some level of financial autonomy and are thus expected to be able to attract qualified staff if and when they may need to employ additional staff with specific expertise related to sanitation, at least if they prioritise to provide attractive remuneration packages.

3.2.3 District Councils and Municipalities

The councils are responsible for planning, coordinating, implementing, monitoring and evaluating sanitation and hygiene aspects, in collaboration with communities and other stakeholders in the council. This includes hygiene and sanitation for schools and other institutions and public places as well as at community level. At the time of the study, sanitation and hygiene promotion activities did not appear to have been assigned to specific staff members within the health, water and education departments, which were those most involved in sanitation and hygiene promotion activities.

Together with lack of funding, this may be the reason why sanitation and hygiene promotion has often been given relatively low priority in many districts. As a rough estimate, there may in each district/municipality be the equivalent of two staff members spending 50% of their working time on sanitation and hygiene promotion. This figure will be used to make a rough estimate of the shortage of district staff working with sanitation and hygiene promotion.

A new department is planned to be established in the district councils as per July 2012; the Department for Cleanliness and Environment (Idara ya Usafi na Mazingira). This department will focus purely on prevention, including sanitation and hygiene promotion. In the view of MOHSW's Environmental Health, Hygiene and Sanitation Department, this new district council department would need to have around six or seven staff.

The department would have other responsibilities than sanitation and hygiene promotion, so it is a very rough estimate that the new Department for Cleanliness and Environment (Idara ya Usafi na Mazingira) may need three to four staff with expertise in sanitation and hygiene promotion. Some of the staff will already be available in the districts, but it is expected that many districts will have to recruit additional staff with the required qualifications.

According to Government regulations, there should be four environmental health staff in each Council Health Management Team at LGA level and according to MOHSW all environmental health staff at LGA level should have a degree. However, in April 2012, there were only a total of 85 EHOs with degrees employed in the whole Tanzanian health system. A number of these were employed in MOHSW at central level and some are assumed to work at zone and regional level, which leaves very few EHOs with degrees for the 152 LGAs in Mainland Tanzania. Some assistant EHOs with diplomas may be employed at district level, but as of April 2012 there were only 1,700 assistant EHOs in the Tanzanian health system and many of these are likely to be in the health centres.

Table 14: Rough Estimate of Existing LGA Sanitation and Hygiene Staffing and Future Requirements

	Technical Staff	Social/ Environmental Health Staff	Total Staff	Remarks
Future required staff in 152 LGAs – rough estimate	152	304	456	One technical staff/LGA and two social or env. health staff/LGA
Existing staff in 152 LGAs – rough estimate	76	76	152	Equivalent of two staff spending 50% of time on sanitation and hygiene, equivalent to one full-time staff/LGA
Shortage of staff – rough estimate	76	228	304	Shortage of on average two staff/ LGA

As shown in Table 14, it is estimated that in the future each LGA will need two full-time social/ environmental health staff and one full-time technical staff to work with sanitation and hygiene promotion, i.e. a total of 456 staff in the 152 LGAs in Mainland Tanzania. As a very rough estimate, there is currently the equivalent of 152 staff members working full-time with sanitation and hygiene in the LGAs, which gives a total shortage of 304 staff. It is thus foreseen that the LGAs in total will need to recruit or reallocate 228 social/ environmental staff and 76 technical staff to work with sanitation and hygiene.

The interviews with five DWSTs indicate that there is a need for much capacity development for existing district staff related to sanitation and hygiene, including training on planning and management, sanitation and hygiene promotion approaches, low-cost latrines and handwashing facilities, and monitoring. The district interviews also indicate that there is a lack of specific sanitation and hygiene guidelines and materials.

To reach the targets set for sanitation and hygiene, it is important that LGAs focus on behaviour change and affordable technical solutions, not least as household sanitation and hygiene improvements are to be paid by households themselves. There should therefore be a particular focus on strengthening the behaviour change capacity of district staff, both in connection with training activities and the development and distribution of guidelines.

The capacity varies, however, among the many LGAs and it is suggested that the level and type of support for each individual LGA is determined based on simple capacity gap assessments.

3.2.4 Ward and Village Levels

According to data provided by MOHSW in June 2012, there are 687 health centres (491 Government and 196 private) and 6,571 dispensaries (4,231 Government and 2,340 private) in Mainland Tanzania. According to MOHSW, it is required to have at least two Assistant EHOs in each health centre and one EHA in each dispensary, but this is clearly not the case today.

Table 15 shows the existing number of environmental staff compared with the officially required environmental health staff in health centres and dispensaries.

Table 15: Environmental Health Staff in Health Centres and Dispensaries

	Assistant EHOs	EHAs	Total Environmental Health Staff
Future required environmental staff in health centres and dispensaries	1,376	6,571	7,945
Existing staff in health centres and dispensaries	1,700	600	2,300
Shortage of staff	-326	5,971	5,645

Compared to the official requirements, there is a shortage of 5,645 environmental health staff in the health centres and dispensaries. This shortage means that the sanitation and hygiene promotion activities are carried out by other health staff who do not have environmental health issues like sanitation and hygiene as specific elements of their education. Furthermore, the interviews in four districts indicate that very few of these health staff had attended short training courses on sanitation and hygiene promotion.

In addition, many health centres have a general shortage of staff which has led to preventive activities like sanitation and hygiene promotion often being paid less attention than the treatment of patients. The situation is the same at the dispensaries. The interviews in four districts thus showed that health centre and dispensary staff used a very small proportion of their time on sanitation and hygiene promotion and that their main activity was “talks” to patients on sanitation and hygiene issues before starting treatment or dispensing medicine.

In addition to a shortage of staff, there is thus a lack of knowledge and skills among many health staff on sanitation and hygiene promotion issues and approaches. Also EHOs, assistant EHOs and EHAs would need some additional training as well as guidelines in order to keep up with the development in sanitation and hygiene promotion approaches. The indications from interviews in four districts are that most school teachers only have basic sanitation and hygiene knowledge from their teachers’ college training and lack relevant guidelines and teaching materials. The lack of appropriate school toilets and handwashing facilities makes it often impossible for pupils to put their new knowledge on sanitation and hygiene into practice.

Artisans, village health workers and animators appear to be the most important structures/ persons at village level as far as sanitation and hygiene promotion is concerned. Some have received training, mainly from NGOs, but generally they appear to have insufficient knowledge and skills. Furthermore, interviews in four districts indicate that several of those that were trained are not active any more. According to MOHSW, there are on-going discussions with among others UNICEF and WHO on providing some incentives/ remuneration to community/village health workers. Some LGAs already provide token incentives, but according to MOHSW the level and type of these differ significantly. Sanitation and hygiene promotion is only one of the many tasks of the community/village health workers and the incentives would “cover”

all their tasks. The discussions on incentives are still at an early stage and MOHSW was not able indicate what level or type of incentives may be provided. In the experience of the study team, the provision of incentives to volunteer staff is an issue that requires thorough discussion because of the sustainability issues involved and the cost implications. Community/village health workers and other CORPs have very important tasks which is an important argument in favour of incentives and remuneration. However, if incentives are to be provided in the form of money it will be important that sufficient funds are available to do so over a long period of time. Alternative incentives could for example be certificates, exchange visits to neighbouring villages, awards based on performance like the number of latrines constructed/improved and used.

3.2.5 Private Sector

Due to the lack of funding for sanitation and hygiene promotion activities, the extent to which consultants and contractors have been involved in the sector is very limited. There are consulting companies with some sector experience among their staff and in addition they normally employ free-lance consultants for specific assignments. The same is the case with contractors. Consultants who in connection with the WSDP have provided both technical and facilitation support at district, ward and village levels have been assessed as generally weak on the facilitation, i.e. the “software”. This indicates there is a need for training for private sector staff within this area. However, it may also indicate that the private companies have not employed the right people for these facilitation tasks, but rather left them to technical staff. As private companies normally pay higher salaries than public sector institutions and NGOs, it is expected the private sector will be able to attract the most qualified staff within both the social/facilitation/promotional field and the technical field. The first requirement is, however, that there is a higher demand for consulting services, i.e. more sanitation and hygiene related assignments.

There appears to be the required capacity to manufacture the materials needed for construction of latrines, but the availability of materials is often an issue in remote villages and, where available, the prices are often higher than in other areas. Many artisans have inadequate knowledge and skills in latrine construction and marketing skills. In addition, the demand for their services is low which means they are not able to maintain the knowledge and skills they may have. Another consequence is that many of them are not active or only become active when there is a specific sanitation project in their area. Many artisans were reported to lack proper guidelines and tools for construction of latrines.

WSP is piloting a somewhat different approach where local hardware stores are trained in marketing of household latrines and business skills and engage local artisans to construct the latrines. There is no detailed assessment of these pilot activities as yet, but there are indications this may an effective approach. The approach is only in its first pilot stage and it has therefore not been possible for the study team to assess the capacity of hardware stores and suppliers to play an increased role in the marketing of household latrines. The study team supports this approach being explored further with a view to increasing the involvement of the private sector in the sanitation and hygiene sector.

Some private companies, as well as WSSAs, offer septic tank and pit emptying services in urban areas. It has, however, not been possible within the scope of this study to assess their capacity and whether they meet the demand for emptying services. The gulper is an interesting alternative, consisting of a motorbike with an attached tank and pump that is used to remove waste from latrines, which has been piloted in some unplanned areas of Dar es Salaam and is now being introduced in other urban locations in Tanzania.

3.2.6 NGOs

There is a number of local and international NGOs active in the sanitation and hygiene sector. The assessment of the HR capacity of NGOs has been limited to local NGOs as all or most international NGOs are not directly implementing activities themselves, but rather partnering with local NGOs and CSOs for this purpose.

Interviews indicate that generally the staff and volunteers of local NGOs show a high level of dedication to the work they do and are satisfied with their working environment. Insufficient funds for salaries, staff training as well as activities were a challenge for most of the local NGOs interviewed. According to several stakeholders, the capacity of many local NGOs is weak and much training and support is needed. In addition to lack of funding, which is often needed to attract qualified staff, a number of local NGOs have only a few years' experience in the sector as organisations, due to the limited funding that has been available in the sector.

3.3 Development of HR Capacity

3.3.1 Training Institutions and their Graduates

The following sections have brief descriptions of the study programmes that appear of most relevance to the sanitation and hygiene sector, the number of graduates and the conditions under which these programmes are implemented.

Technical Training Programmes

Ardhi University (ARU) in Dar es Salaam has three relevant BSc study programme, namely in a) Environmental Engineering where the number of graduates during the period 2007-2010 ranged from 36 to 43 per year; b) Municipal and Industrial Services Engineering where the first batch of ten students graduated in 2010 and c) Environmental Science and Management, which started recently and therefore has not yet produced any graduates. ARU also has an MSc programme with a smaller number of graduates, ranging from two in 2007 to nine in 2009. In addition, ARU has a PhD programme, where the first student graduated in 2011.

ARU estimates that 90% of students who graduated in 2011 now work with sanitation and hygiene. Some work in the public sector, e.g. in MOW, others in the private sector and some are self-employed. It was reported to be easy for ARU graduates to find jobs and that tracer studies show the graduates normally meet the expectations of their employers.

Sokoine University of Agriculture (SUA) has a BSc in Environmental Science. It was not possible to obtain any further data from SUA.

University of Dar es Salaam (UDSM) has a BSc programme in Water Resources Engineering, which includes relevant sanitation subjects such as solid waste management and wastewater treatment. The programme had 20 graduates in 2007 and around 30 annually for 2008-2011. UDSM has two MSc programmes in a) Water Resources Engineering, with four to eight graduates per year for the period 2007-2011, and in b) Integrated Water Resources Management with the number of graduates for the period 2007-2011, ranging from 27 in 2008 to 15 in 2011. There is also a PhD programme in Water Resources Engineering, which had a

total of three graduates in 2007-2008. In addition, UDOM started an MSc programme in 2011 in Integrated Sanitation Management, which will soon produce its first graduates. According to UDSM, graduates in water resources engineering do not fully meet the demands of their employers as they lack practical experience. Most graduates have found work in the water sector, which for some includes sanitation and hygiene. They mainly work in urban areas.

The two vocational training centres in Shinyanga and Iringa, respectively, have one year certificate programmes in plumbing and masonry, which had in total of 45-59 graduates per year for the period 2007-2011. The two training centres reported it to be easy for their graduates to find work, with most of them being self-employed. It was not possible for the two training institutions to estimate how many of their graduates have work related to sanitation.

Social/Environmental Health/"Software" Training Programme

Muhimbili University of Health and Applied Sciences (MUHAS) has a BSc programme in Environmental Health Sciences, with the number of graduates per year increasing from 15 in 2007 to 29 in 2011, and a MA programme in Health Policy and Management, where the number of graduates per year has ranged from five in 2007 to 12 in 2010. MUHAS used to have a diploma programme in Environmental Health but this has been discontinued after the last five students graduated in 2007.

According to MUHAS approximately 50% of the graduates from 2011 now work with sanitation and hygiene, with most having found work in district councils and some in the public sector (assumed to mean at central and regional levels). UDSM has a BA programme in Sociology where the number of graduates has varied significantly with in total 960 graduates over the five-year period 2007-2011, i.e. on average 192 graduates per year. UDSM has or has had a PhD programme in Sociology, where there were three graduates in 2007-2008.

The Institute of Rural Development and Planning (IRDP) in Dodoma has a BSc programme in Environmental Planning and Management with 75-80 graduates per year between 2007 and 2011, though a bit lower in 2010, where there were 55. IRDP also runs a Post Graduate Diploma Programme in Environmental Planning, where the number of graduates per year has ranged from seven to 15 between 2007 and 2011. Due to lack of funding, IRDP study programmes do not include adequate practical exposure, which mean graduate do not fully meet the expectations of employers. At the time of the study most graduates found work with LGAs and some with NGOs, but it was reported often not to be easy for graduates to find jobs. The graduates' main areas of work are: environmental management, community development and water and sanitation. IRDP estimates that about 80% of last year's graduates now work with sanitation and hygiene.

Mpwapwa School of Hygiene as well as the Schools in Ngudu, Kwimba in Mwanza Region and the Schools of Environmental Health, Tanga and Kagemu in Kagera Region have diploma programmes in Environmental Health Sciences. Certificate programmes were discontinued in 2007. No data on graduates were obtained from these schools. The University of Dodoma has recently started degree programmes in Medicine and General Nursing, which focus more on cure than prevention, and are therefore of less relevance for sanitation and hygiene promotion than the other study programmes mentioned.

The different training institutions' students come from all over Tanzania, including a significant number from remote rural areas. MUHAS and IRDP thus assessed that approximately 30% of its students come from

those areas, while VETA in Shinyanga estimated this to be the case for 45% of its students. MUHAS and UDSM have some international students, e.g. from India and Uganda.

UDSM reported a high drop-out rate of 20% among its students in the water resource engineering and sanitation management programmes, while other training institutions reported drop-out rates of 1-5%.

Many university students get Government loans through the Higher Education Student Loan Board, the size of which depends on the economic status of the student's guardian. Based on the information that is available to the study team, it is not possible to indicate whether these loans are sufficient to ensure that young people from low-income families are generally able to enrol in and complete a higher education. Some of the training institutions mentioned they have plans of providing new study programmes of relevance to the sanitation and hygiene sector. In the coming year, IRDP is thus planning to start a new BSc programme in urban development and environmental management with an annual intake of 180 students. Other training institutions were not able to provide further details and it appeared that the detailed planning had not yet started.

Learning/ Teaching Environment

The six training institutions interviewed mainly employed lecturers with PhD or MSc/MA degrees for the above-mentioned study programmes. Only 19% of lecturers and other staff employed for these study programmes were women. Nearly all training institutions mentioned they had insufficient lecturers and practical instructors, with high average lecturer/student ratios. There were in total 41 vacancies in the six training institutions by the end of 2011, mainly for environmental health/social staff. MUHAS thus had several vacancies in the areas of public health and environmental health due to insufficient Government funding. The six training institutions would like to employ an additional 103 staff over the coming five years. This would more than double the number of staff and does not appear realistic.

All training institutions reported they received many applications when advertising vacant positions and that generally there were a number of qualified applicants among them. One training institution mentioned it as an incentive for lecturers, including applicants for lecturer positions, that they have the possibility of doing research consultancies and attending further training.

In order to reduce the impact of having too few permanent lecturers and practical instructors, several training institutions employed lecturers on a temporary basis.

Nearly all lecturers and other staff were reported to be competent or very competent, but still needing some training. All training institutions provided some training to their staff, both new and other staff members.

The training institutions reported the following as their main constraints:

- Insufficient number of lecturers and practical instructors;
- Inadequate and insufficient number of books and documents, equipment like computers;
- Inadequate and insufficient number of class rooms and other infrastructure like libraries and accommodation for their lecturers at campus;
- Low salaries and allowances for lecturers and other staff;

The main cause of these constraints was identified as insufficient Government funding for the training institutions. UDSM reported as an additional challenge in connection with their new MSc study on integrated sanitation management that the Department lacked lecturers and practical instructors with adequate sanitation knowledge and experience.

In conclusion, it is the assessment of the study team that a sufficient number of graduates within various disciplines are being produced by various training institutions to cater for the future needs of the sanitation and hygiene sector, but that there is a need for more funding to be made available to the training institutions to alleviate their challenges, i.e. enabling them to employ additional lecturers, purchase new books, other teaching materials and equipment and improve their infrastructure.

3.3.2 Short Training Courses

Training on PHAST, 1998-2008²⁵

- 75 persons at national level trained as trainers
- 90 regional facilitators trained in 15 regions
- 1,425 district staff from 80 districts trained as trainers
- 1,300 staff trained in 200 wards as trainers
- More than 10,000 CORPS trained in 2,000 villages

The above figures show that around 13,000 persons were trained on PHAST from 1998-2008, which is a very significant training effort. On average five CORPs were thus trained in each village, on average 34 district- and ward-level staff were trained as trainers in each of the 80 districts and 165 staff at national and regional levels were trained as trainers and facilitators.

A training-of-trainers (ToT) approach was used with the district team training the ward level and the latter training the CORPs at village and sub-village levels. The CORPs were – or are - responsible for PHAST activities in their individual villages. In some training on the PHAST approach was complemented with training of artisans on the construction of improved latrines.

Training on CLTS, Handwashing and Latrine Construction, 2008-2010²⁶

WSP has supported the following training in ten districts:

- 90 district facilitators on CLTS, but it turned out no WSDP funding was available for training at ward and lower levels afterwards
- 505 CORPs on handwashing, with approx. one CORP/village
- 470 masons on latrine construction, with approx. one mason/village

Training on Mtumba, 2008-2011²⁷

In the WaterAid-supported project in eight wards of six districts, the following training has been conducted:

- 22 persons were trained as trainers and resource persons, with three from each of four local NGOs as implementing partners, one focal person from each of six districts and some from WaterAid;

²⁵ MOHSW: *Overview of the Participatory Hygiene and Sanitation Transformation (PHAST) Approach in Tanzania 1999-2010, Presentation at the Sanitation Scale Up Meeting in Dar es Salaam, July 2010*

²⁶ Information received from WSP in April 2012

²⁷ Information received from WaterAid in April 2012

- 235 persons in eight wards, i.e. at sub-village, village and ward levels and including EHOs/ health officers from health centres; 20-35 persons were trained in each ward.

WaterAid employed a consultant to conduct the training of trainers and resource persons, while the local NGOs did the training at ward, village and sub-village levels. During the coming two years, an additional 40 key experts are planned to be trained on the Mtumba approach, while refresher training is planned for others.

Planned training on CLTS, starting in May 2012²⁸

MOHSW is planning the following CLTS training to start in the near future in connection with the National Sanitation and Hygiene Campaign:

- 50 national and regional facilitators
- 10 facilitators on average in each LGA
- three facilitators in each ward
- two animators in each village

According to PMO-RALG in July 2012 there will be 152 LGAs in Mainland Tanzania. If CLTS were to be implemented in all LGAs, then 1,520 persons would need to be trained at this level, 13,680 persons at ward level (assuming there is on average 30 wards per LGA) and 45,600 at village level (assuming there is on average 150 villages within each LGA).

A ToT approach similar to the one described above for PHAST is expected to be used for CLTS.

Training on School WASH, 2010-2012

In 2010, the first training course was conducted for national trainers on the use of the national School WASH guidelines and toolkits as part of the piloting and later roll-out of these. At the time of the study, more than 100 National School WASH facilitators had been trained. They will be involved in the implementation of the National Sanitation and Hygiene Campaign, including the training of district facilitators from 42 LGAs.

Implementers of Short Training Courses and Training Packages

Currently, most short training courses related to sanitation and hygiene promotion are conducted by NGOs and individual consultants. Out of the six training institutions interviewed, IRDP was the only one that appeared to have recent experience with short training courses of some relevance to sanitation and hygiene promotion. In 2011, IRDP had provided a short training course on environmental management, where the course fee per participant was TZS 500,000 per week.

IRDP estimated it could do four short training courses per year and some of other training institutes had similar estimates. Nearly all training institutions indicated they would have the capacity to and would be interested in conducting short sanitation and hygiene related training courses in the future.

For sustainability reasons, some short training courses should be institutionalised within existing training institutions. In the medium to long term, this would also increase the capacity to conduct tailor-made training courses of relevance to the sector, i.e. increase the number of institutions and persons who would be able to design, arrange and conduct short training courses within different fields.

²⁸Information received from MOHSW in April 2012

The study team has not been in a position to assess in detail the individual training institutions' capacity to deliver future short training courses. But the indications are that Ardhi University, University of Dar es Salaam, Muhimbili University of Health and Applied Sciences, and the Institute of Rural Development and Planning may have some capacity to conduct relevant short training courses.

It would also be relevant to investigate in further detail whether some of the vocational training centres would be able to conduct short training courses for artisans in the construction of latrines and whether some of the Schools of Environmental Health Sciences would be able to conduct short training courses, including refresher training, in environmental health issues. Considering that these training institutions have very little, if any, experience with the development and delivery of tailor-made short training courses related to sanitation and hygiene, it is expected they will need support in connection with the first courses they develop, arrange and deliver. This support may be provided by consultants and NGOs with experience in the respective topics.

As described above, a number of training courses have been provided over recent years on various sanitation and hygiene approaches (PHAST, CLTS, Mtumba, Total Sanitation and Sanitation Marketing, school WASH). Artisans have also been trained in the construction of latrines. Some training packages and materials thus exist. It is not within the scope of this study to assess the appropriateness of these training packages and materials, but it will be important to build on existing packages and materials, where they exist.

Participants in Short Training Courses

Some stakeholders have indicated that currently the participants in sanitation and hygiene related training courses are not always the most relevant persons to train.

Naturally, it is very important that the participants in training courses are able and motivated to use the new knowledge and skills they obtain from the courses. First of all, the institutions sending one or several staff members on a specific training course have to be committed to using the new knowledge and skills that their staff will gain during the training course. If the training course is on facilitation skills on the CLTS approach, then it is important that the institution sending staff for training is committed to using the CLTS approach afterwards and have the financial resources to do so.

In order to encourage institutions to select the most relevant persons for a training course, clear training outcomes for each individual participant could be formulated during the training course. This could for example be "xx number of CLTS community meetings to be facilitated during the coming six months" or "xx number of latrines to be improved or xx number of new latrines to be constructed by community members". Some type of reward may be linked to achieving the agreed targets.

3.4 Differences in Salaries and Other Benefits

There were many complaints from public sector and training institutions on the low salary levels. The following are the salary ranges for different categories of environmental health staff:

Table 16: Salary Levels for Environmental Health Staff in Public Sector

Staff Category	Salary Level/ Month	Additional Benefits
Environmental Health Assistant (EHA), with certificate (two years)	TZS 150,000-435,000	Pension payments Payment for overtime Health insurance Extra leave paid every three years
Assistant Environmental Health Officer (EHO), with diploma (three years)	TZS 320,000-860,000	
Environmental Health Officer (EHO), with degree (four years)	TZS 435,000 – 1,150,000	

Source: MOHSW and Notice from President’s Office, Department of Public Services Management, 2009

MOHSW confirmed that the 2012 salaries for environmental health staff are still within the above-mentioned ranges, although salaries are reviewed and adjusted annually. The salaries and benefits of public servants with other educational background are assumed to be at similar levels as those mentioned above.

The average salaries in the private sector are said to be significantly higher than those in the public sector, however no statistics are available. The Association of Consulting Engineers in Tanzania was for example not able to provide any statistics or indications on salary levels. Information from one consulting company indicates that an engineer with five years’ experience receives a monthly salary ranging from TZS 2 million to TZS 3.5 million. In addition, various benefits are provided. This indicates that salaries in the private sector may be two or three times higher than in the public sector. The private sector information should, however, be used with caution, as it was gathered from only one company.

The study team has not collected specific salary information from local NGOs, but the general information received from nine local NGOs indicates that the salary levels are often low or very low as many local NGOs active in the sanitation and hygiene sector have insufficient funds for activities, salaries or staff training. A salary survey conducted in 2011 among 35 international NGOs indicates that the salary levels for international NGOs are relatively similar to those mentioned above for the private sector.

As mentioned in section 3.1.1, Government employees much appreciate the Government’s initiative to cover some costs for further studies. To the knowledge of the study team, such costs are not covered to the same extent by private sector employers or by local NGOs.

4 “Software” Cost of Scaling up Sanitation and Hygiene Activities

The first section of this chapter lists the current financing sources for sanitation and hygiene “software”, while the second section provides an overview of current training and other “software” costs. Section three includes several scenarios for the “software” costs of scaling up community/ household as well as school sanitation and hygiene promotion. The last section outlines potential ways of leveraging household investments in latrine and hygiene improvements.

4.1 Financing Sources for Sanitation and Hygiene “Software”

Some financial support for sanitation and hygiene promotion has been provided through the WSDP, which is funded by development partners and the government. The original allocation for sanitation and hygiene promotion in rural areas was approximately USD 20,000 per district per year. However, disbursement has been delayed and erratic, with the average disbursement per LGA in 2007-2008 being approx. USD 2,400, in 2008-2009 it was USD 16,400 and in 2009-2010 USD 2,100.²⁹ According to a study for the 2009 Review of the Water Sector, the WSDP’s allocations for sanitation and hygiene were little more than tokenistic. Roughly 1% of the total WSDP budget was thus expected to be spent on sanitation and hygiene promotion, three quarters of which is for sewerage systems in a few towns³⁰.

However, the sanitation and hygiene promotion funding through the WSDP has recently increased significantly, with the African Development Bank’s allocation of USD 20 million for the National Rural Sanitation and Hygiene Campaign/Programme. The second financing source is the Health Basket Fund. Funds from this are allocated to districts according to an allocation formula as well as to PMO-RALG for supervision and the balance for central MOHSW. From the Health Basket Fund the Council Comprehensive Health Plans (CCHPs) are prepared. Contributions made to the districts increased from 0.75 USD per capita in 2007-2008 to 1.25 USD per capita in 2009-2010. The environmental health staff can request funding for sanitation and hygiene promotion, but this area is not always prioritised when District Councils forward their requests to MOHSW. Under the CCHP, sanitation and hygiene activities are considered as Community Health Interventions which is allocated 2-5% of the CCHP budget³¹.

The third main type of funding is from development partners, including NGOs, for various area-based programmes and projects, some of which focus on sanitation and hygiene promotion only and others which are integrated water supply, sanitation and hygiene promotion programmes and projects. Some development partners have also provided funding national-level activities like development of the draft National Sanitation and Hygiene Policy and the school WASH guidelines.

4.2 Overview of Current Training and Other “Software” Costs

It proved particularly challenging to obtain data on the costs of implementing different approaches to sanitation and hygiene promotion. Most data on the cost of current or recent sanitation and hygiene promotion activities collected from the districts/municipalities visited were either inconsistent or scarce. After much follow-up, some information was obtained from MOHSW and development partners shortly before the submission of the draft report. A range of agencies including UNICEF, WaterAid, Care Tanzania, Plan Tanzania and others subsequently provided additional financial information and this has been used to update this report.

4.2.1 Use of PHAST and CLTS Approaches

The above-mentioned agencies provided examples of the costs of using participatory sanitation and hygiene promotional approaches.

²⁹ Trémolet, S. and Binder, D.: *Evaluating the Effectiveness of Public Finance for Household Sanitation in Dar Es Salaam, Tanzania, August 2010.*

³⁰Taylor, B: *Situation Analysis of Women, Children and the Water, Sanitation and Hygiene Sector in Tanzania, Extended Analysis for the Joint Water Sector Review 2009 etc., September 2009*

³¹Trémolet, S. and Binder, D.: *Evaluating the Effectiveness of Public Finance for Household Sanitation in Dar Es Salaam, Tanzania, August 2010, and information from WaterAid.*

Example 1 – PHAST only

- (a) In May 2008 one agency facilitated a PHAST methodologies training workshop involving 15 ToT and 19 District officials at a total cost of TZS 3,809,000 (equivalent to USD 3,000 by then). This means that the cost per participant was USD 88.24. This cost figure included training materials, subsistence allowance and transport.
- (b) Another agency facilitated the use of the PHAST approach in one district at a total cost of USD 300,000, equivalent to about TZS 470 million. The interventions covered all 37 wards and all 168 villages in the district and included the all costs such as of four national facilitators, participants in the training, PHAST tool kits, fuel and hall charges but did not include costs of salaries for Government staff.

The interventions included:

- Advocacy and orientation to district level stakeholders, including councillors, Members of Parliament, Heads of Departments, NGOs etc. (70 people for one day);
- Training of the District Facilitation Team (12 people for 12 days);
- Advocacy and orientation at ward level (37 wards each one day);
- Training of ward facilitators (five per ward, 37 wards for 10 days);
- Advocacy and orientation at village level (168 villages each one day);
- Training of CORPs (five to ten per village for eight days, depending on village size, 168 villages);
- Community planning (168 villages, every three days).

Example (a) gives the cost of one specific training course, whereas example (b) gives the cost of implementing the PHAST approach at all levels within a district, which had 37 wards and 168 villages. The costs in the two examples are therefore not comparable.

Example 2 – PHAST and Training of Artisans

In another district the use of the PHAST approach and training of sanitation artisans was done at a total cost of USD 250,000, equivalent to around TZS 393 million. This amount excluded the salaries of Government staff.

The interventions covered all 27 wards and all 124 villages in the district.

Out of the total amount, USD 150,000 was spent on the use of the PHAST approach, with interventions similar to those described for Example 1 (b) above. USD 100,000 was spent for the training of sanitation artisans for ten days. One artisan per village was trained. The cost covered residential cost of the participants, two facilitators from a national NGO, construction materials for three types of latrines for demonstration that were constructed at four different training venues, transport and training materials.

Example 3 – PHAST and CLTS Combined Approach

In one district, an agency facilitated hygiene/sanitation promotion to the target communities using PHAST and CLTS methodologies. The training was conducted for 60 participants in March 2010 at a total cost of TZS 6,628,000 (equivalent to USD 5,000 or USD 83.33 per capita). The topics covered during this training were the meaning of hygiene and sanitation, problems that contributes to the pollution of water sources and its way forward that in order to mitigate identified bad behaviours, challenges faced by local mason during construction of improved sanitation facilities and what should be done in order to ensure each household has a latrine.

It should be noted that the costs given in the examples discussed above could vary depending on a number of factors such as geographical location, availability of training facilities and other resources.

4.2.2 Use of Mtumba Approach

During the period 2008-2011, the cost of Mtumba trainings, artisans' and animators' technical and entrepreneurship training, M&E of projects and similar activities ranged from TZS 40-50 million per ward per year. This was the funding provided by WaterAid to local implementing partners (local NGOs), who had staff working full time on activities. This amount covered their salaries and operational costs for community mobilisation, sensitisation, triggering, training at different levels including for artisans, and supervision of the construction of sanitation centres.

The costs of purchasing two motorbikes were included, as was the construction of one ward sanitation centre (the average cost of constructing a ward sanitation centre was TZS 16-18 million). It should be noted that the Mtumba approach is not designed to have sanitation centres and training in each ward using project funds directly. Instead, the wards that implement the approach are selected strategically such that the whole district may be covered by project-funded activities in four to six wards only (with sanitation centres and trained artisans). Further triggering in the rest of the wards is then to be achieved through trained artisans and animators as they market sanitation products.

The cost which goes directly to construction of sanitation centre, purchasing motorbikes and training the artisans is about TZS 33,000,000 while TZS 17,000,000 is spent by the implementing partner in office management, salaries and project monitoring for a period of one year. With the above cost per ward, the total training, support, monitoring and other "software" cost for a district may be TZS 300 million/USD 192,000 per year (six wards x TZS 50,000,000) for three years, i.e. a total of TZS 900 million/USD 576,000 per district, assuming one district will have only six wards which will have the fully fledged Mtumba package. In addition, the above-mentioned project is a pilot project and it may be possible to reduce the cost per ward or per district when actual implementation takes place - possibilities are thus being explored to reduce the cost of constructing sanitation centres. The 2011/12 performance report indicates that the cost of a sanitation centre now stands at TZS 10 million.

4.2.3 Handwashing Initiative and TSSM

WSP is planning a detailed study of the cost of the Handwashing Initiative and the Total Sanitation and Sanitation Marketing (TSSM) Approach applied in ten districts of Tanzania. In preparation for this there was a planning mission in May 2011. The report from this mission includes some preliminary costs, which are as follows³².

The TSSM cost USD 1.35 per person per year, while the handwashing initiative cost USD 3.48 per person per year. These costs include those of households, villages and the project. For the handwashing initiative, 84% of the cost (for soap and other items) was paid by households, 9% by villages and 7% (approx. 0.24 USD per person per year) were used for demand generation.

4.2.4 Budget for Future Use of CLTS

The following cost estimate for the future use of CLTS has been provided by MOHSW. The cost is per district, assuming that on average a district has 20 wards and that on average each ward has five villages.

³² Naaf, A: *Field Report, Technical Guidance for costing methodology and field protocols, Global Scaling Up Rural Sanitation and Hand Washing, May 2011*

Table 17: MOHSW Budget for CLTS Training

Activities	Estimated Cost (TZS)
Advocacy for district and ward officials	17 million
Training of district officials	8 million
Triggering in villages, 20 x 5 x 700,000 TZS	70 million
Follow-up and monitoring, 20 x 800,000 TZS	16 million
Motivations to animators and data collectors, 20 x 3 x 100,000 TZS	6 million
Transport	3 million
Total per district	120 million

TZS 120 million is equivalent to USD 76,500.

The above costs do not include training of national and regional facilitators. MOHSW estimates 50 such facilitators should be trained. Furthermore, the mentioned costs do not include salaries for Government staff.

4.3 “Software” Cost Estimates of Scaling up Sanitation and Hygiene Promotion**4.3.1 Cost Scenarios: Community/Household Sanitation and Hygiene Promotion****Background**

During the stakeholder workshop for this study on April 27th 2012, there was much discussion as to whether the costs of using different approaches can be used to make a rough estimate of the “software” costs of scaling up sanitation and hygiene promotion activities. There was agreement that the costs are not directly comparable as they cover different types of activities and as some total costs include salaries and operational cost for implementing staff (such as transport), whereas other cost figures do not.

Some participants also mentioned that the outcome and value of money of using the different approaches should be assessed before comparing the costs and before estimating the “software” costs of scaling up. It is outside the scope of this study to make such an assessment of the outcomes and value of money of using different approaches. This may, however, be done in connection with the preparation of the National Sanitation and Hygiene Programme, which started recently.

For the purposes of this study, it was recommended during the stakeholder workshop that the unit cost of 10 USD per household is used for preparing a rough estimate of the “software” cost of scaling up. This is the unit cost used for the National Sanitation and Hygiene Campaign and is based on the experiences of MOHSW and the TSSM project in 10 pilot district.³³ Staff in MOHSW stated that the 10 USD per household covers the cost of facilitation services from national to village level, which may imply that transport is

³³ *Concept Note, Tanzania Water Sector Development Program, Rural Sanitation and Hygiene Program, received from MOHSW on 1 February 2012.*

included. Several attempts were made to get a breakdown of the unit cost of 10 USD per household, but this was not possible. 10 USD per household has therefore only been included as one of four cost scenarios presented below.

After submission of the draft report, some development partners provided additional cost data which have been used for Cost Scenarios 2 and 3 presented below. Cost scenario 4 is based on MOHSW's budget for future use of the CLTS. The cost data received from the WSP on the use of the Total Sanitation and Sanitation Marketing approach and the Handwashing Initiative are preliminary and appear to include costs covered by both households and public funds/the programme and have therefore not been used in the preparation of the following cost scenarios.

The costs of Government salaries are not included in the cost scenarios below.

It has not been clearly defined in the TOR what "scaling up sanitation promotion and related software costs" means. For the purpose of this study, the population currently not using improved latrines has therefore been considered the target group for future sanitation and hygiene promotion (see also the further explanation under Cost Scenario 1). Scaling up activities aims to reach the MDG target by 2015 and further improvements after this in line with the draft Sanitation and Hygiene Policy.

Cost Scenario 1, based on Cost Estimates of National Sanitation and Hygiene Campaign

This cost scenario is based on the unit cost of USD 10 per household, which is the cost used in the on-going National Sanitation and Hygiene Campaign, funded by AfDB under the Water Sector Development Programme. As mentioned in section 2.1, the National Bureau of Statistics estimates the total population of Tanzania was just over 43 million in 2010, with 26% living in urban and 74% in rural areas, i.e. 31.8 million and 11.2 million, respectively. As the latest coverage data for improved latrines is also from 2010, these 2010 population estimates have been used for the following calculations.

The Demographic and Health Survey conducted in 2010 found that 11.8% of the total population used improved latrines, with 8.5% of the rural population and 21.6% of the urban population using improved latrines. It should be noted that when people use a shared toilet they are considered to use an unimproved latrine, which is an issue that has raised some discussion in Tanzania and elsewhere. Currently, it is unknown what proportion of the population washes hands at critical times. For the purpose of making a rough estimate of the costs of scaling up, the population currently not using improved latrines has therefore been considered the target group for future sanitation and hygiene promotion. The following target group calculations are based on an average household size of five persons.

Table 18: Cost Scenario 1

	Population	Households	Households Using Unimproved Latrines	Costs of S&H Promotion
Rural	31.8 million	6,364,000	5,823,060	58,230,600
Urban	11.2 million	2,236,000	1,753,024	17,530,240
Total	43.0 million	8,600,000	7,576,084	75,760,840

Using a unit cost of 10 USD per household, the total “software” costs of scaling up sanitation and hygiene promotion activities at household and community level would thus be USD 75,760,000.

Cost Scenario 2 – Based on Rough Cost Estimates from Development Partners

This cost scenario is based on the additional cost data and calculations provided by development partners in May 2012. These are based on the costs of using different approaches like PHAST, Mtumba and TSSM and include a detailed cost breakdown as shown in Annex 6 to this report. The total rough cost estimate per district for community/household interventions is USD 779,000, calculating with an average district of 30 wards and 150 villages. The rough estimate of national level costs is USD 2,850,000.

With this scenario, the total cost would be as follows:

Table 19: Cost Scenario 2

	Cost Estimate per District (in USD)	No of Districts	Total Costs (in USD)
District Level	779,000	152	118,408,000
National Level			2,850,000
Grand Total			121,258,000

Cost Scenario 3 – Based on Mtumba Cost Estimates

This cost scenario is based on the additional cost data and calculations provided by WaterAid in May 2012 for use of the Mtumba approach. The total rough cost estimate per district for community/ household interventions is USD 192,000. Training of national-level trainers and other activities at national level are not included in this cost estimate. The national level costs from Cost Scenario 1 have therefore been included in this cost scenario for comparison.

With this scenario, the total cost at district level and below would be as follows:

Table 20: Cost Scenario 3

	Cost Estimate per District (in USD)	No of Districts	Total Costs (in USD)
District Level	576,000	152	88,552,000
National Level			2,850,000
Grand Total			90,402,000

Cost Scenario 4 – Based on CLTS Cost Estimates from MOHSW

This cost scenario is based on the cost data provided by MOHSW for use of the CLTS approach. The total rough cost estimate per district for community/ household interventions is USD 76,500. Training of national-level trainers and other activities at national level are not included in this cost estimate. The national level costs from Cost Scenario 1 have therefore been included in this cost scenario for comparison.

With this scenario, the total cost at district level and below would be as follows:

Table 21: Cost Scenario 4

	Cost Estimate per District (in USD)	No of Districts	Total Costs (in USD)
District Level	76,500	152	11,628,000
National Level			2,850,000
Grand Total			14,478,000

Overview and Comments on Community/Household Cost Scenarios

Table 22: 4 Cost Scenarios for Community/Household “Software”

Cost Scenario	Total Costs (in USD)
Scenario 1 (National Sanitation and Hygiene Campaign)	75,761,000
Scenario 2 (Mixture of approaches)	121,258,000
Scenario 3 (Mtumba approach)	90,402,000
Scenario 4 (CLTS approach)	14,478,000

Cost Scenario 4, which is based on the cost estimate for the roll-out of the CLTS approach, is very low compared to the other three scenarios, which suggests that the CLTS training activities may need to be supplemented with other activities, including follow-up activities. Cost Scenario 2 is based on the use of a mixture of participatory approaches, including training of local artisans, and appears the most realistic cost scenario. However, it is not within the scope of this study to assess the effectiveness and efficiency of the different approaches and it is therefore suggested that a more detailed budget for scaling up is prepared when the future approaches and activities have been determined in connection with the preparation of a comprehensive National Sanitation and Hygiene Programme.

4.3.2 Cost Scenarios: School Sanitation and Hygiene Promotion

The scope of this study covers “software” costs only, and not hardware costs such as school latrines and handwashing facilities. It has not been possible for the study team to get separate unit costs for the “software” costs of sanitation and hygiene promotion in schools, because sanitation and hygiene promotion in schools is largely conducted at the same time as appropriate latrines and handwashing facilities are constructed or existing ones are rehabilitated. It should also be mentioned that without appropriate school latrines and handwashing facilities, students will not be able to put new sanitation and hygiene knowledge into practice and the sanitation and hygiene promotion/education will be less

effective than if such facilities are available. For these reasons, both hardware and software costs have been included in the two cost scenarios presented below and in the cost information from WaterAid.

Cost Scenario 1, based on Cost Estimates of the National Sanitation and Hygiene Campaign

The National Sanitation and Hygiene Campaign calculate a unit cost of USD 500 per drop hole and USD 10,000 per school to improve the sanitation and hygiene situation, including supervision and monitoring. This cost may include the installation of handwashing facilities and improved sanitation and hygiene education in schools, though this is not clearly stated in the Concept Note for the Sanitation and Hygiene Campaign. It is assumed in the National Campaign budget that the construction of an average of 20 latrine drop holes per school will be sufficient to have a ratio of 40 girls and 50 boys, respectively, per drop hole.

According to information from MOEVT, there are 18,000 primary schools (see also section 2.2.1) and 77% of these, i.e. 13860 schools, do not have a sufficient number of appropriate latrine drop holes. MOETV estimates that as little as 1% of the schools have a sufficient number of appropriate handwashing facilities. Approximately 4,000 primary schools thus have a sufficient number of appropriate latrines, but not sufficient handwashing facilities. For this cost scenario, USD 2,000 per school has been used as a rough estimate to cover the costs of improved handwashing facilities and improved sanitation and hygiene education.

Training of national-level trainers and other activities at national level are not included in the above-mentioned unit cost. The national level costs estimated by some stakeholders (see Cost Scenario 2 below) have therefore for comparison reasons been included in this Cost Scenario.

Table 23: Cost Scenario 1 for Primary Schools

	Cost Estimate per School (in USD)	No of Rural Primary Schools Needing Improved S&H Facilities	Total Costs (in USD)
Schools needing latrine & HW facility improvements	10,000	13,860	138,600,000
Schools needing only HW facility improvements	2,000	4,000	8,000,000
National Level			1,200,000
Grand Total			147,800,000

The cost of improving the sanitation and hygiene situation in secondary schools should also be added to this.

Cost Scenario 2, based on Cost Estimates from some stakeholders

The recent experience of various development partners is that the cost of one school latrine drop hole is nearly double that used in the National Sanitation and Hygiene Campaign, i.e. nearly 1,000 USD. This figure includes handwashing facilities and related sanitation and hygiene promotion/education.

In their calculations of the costs of improved sanitation and hygiene in schools, development partners estimate that USD 3,000,000 is needed per LGA. The rough estimate of national level costs is USD 1,200,000.

Table 24: Cost Scenario 2 for Primary and Secondary Schools

	Cost Estimate per LGA (in USD)	Number of LGAs	Total Costs (in USD)
District Level	3,000,000	152	456,000,000
National Level			1,200,000
Grand Total			457,200,000

School Sanitation and Hygiene Cost Information from WaterAid

It is WaterAid's recent experience that one school latrine drop hole costs on average TZS 650,000/USD 415. WaterAid also supports the construction of handwashing facilities, urinals, and rainwater harvesting systems and incinerators in schools. When the costs of these facilities are included, the cost per school latrine drop hole is USD 961,000. The recent unit costs paid by WaterAid and other development partners thus appear to be similar.

Overview and Comments on School Cost Scenarios

Table 25: 2 Cost Scenarios for School Sanitation and Hygiene

Cost Scenario	Total Costs (in USD)
Scenario 1 for primary schools only (National Sanitation and Hygiene Campaign)	147,800,000
Scenario 2 for primary and secondary schools (development partners)	457,200,000

It should be noted that Cost Scenario 1 is for primary schools only, whereas Cost Scenario 2 is for both primary and secondary schools. This is, however, not the only reason why Cost Scenario 2 is approximately three times as high as Cost Scenario 1. Another important reason is the cost per latrine drop hole, including handwashing facility and related sanitation and hygiene promotion/education. The unit cost used in Scenario 2 is thus two times as high as in Scenario 1.

The study team does not have a detailed break-down for the unit costs used for the two scenarios and therefore cannot suggest which of them is most realistic. It is, however, expected that the higher unit cost, used for Cost Scenario 2, includes a higher amount for construction of appropriate school handwashing facilities and for sanitation and hygiene promotion/education. Furthermore, the unit cost used for Cost Scenario 2 is similar to the cost indications in the School WASH guidelines.

It is emphasized that the Cost Scenarios presented above for community/household and school sanitation and hygiene promotion are estimates which should be used only to show the magnitude of the budget needed to finance the scaling up sanitation and hygiene promotion. It is suggested that a more detailed budget for scaling up is prepared when future approaches and activities have been identified in connection with the preparation of the National Sanitation and Hygiene Programme. Unit costs may be lower once capacities are strengthened at various levels and if/when the private sector becomes more involved.

4.4 Leverage of Household Investment in Latrine and Hygiene Improvements

According to Government policies, households are responsible for investing in improved latrines/toilets, handwashing facilities and also for emptying latrine pits and septic tanks when they are full. However, the current low level of coverage with improved sanitation indicates that many households cannot afford such improvements and/or do not prioritise such investments over other needs.

During interviews with Ministries, local NGOs, district water and sanitation teams and ward development committees, attempts were made to collect views and suggestions on the potential to leverage or encourage household investment in latrine and hygiene improvements. Only a few institutions had suggestions, which are summarized below:

1. Community sensitisation on the importance of improved latrines;
2. Providing information on appropriate, low-cost latrine models;
3. Construction of demonstration latrines in local areas, using locally available materials;
4. Encouraging local communities to help vulnerable households construct improved latrines;
5. Supporting income-generating activities, so that households will have more money to invest in improved latrines;
6. Issue local by-laws

Due to the limited study budget, it was not possible to collect views and suggestions directly from households.

The first four suggestions mentioned above can be grouped together as sanitation and hygiene promotional activities. With the funding recently secured from the African Development Bank for the National Sanitation and Hygiene Campaign and from the Global Sanitation Fund, increased funding is now available for such promotional activities. However, additional funding is still required for the scaling up of activities to cover all districts in Mainland Tanzania. The sixth suggestion regarding issuing of local by-laws may be appropriate to explore as supplementary to promotional activities. It should also be mentioned that a manual describing different latrines options, including low-cost options, is under preparation and is expected to soon be finalised for use at different levels. The construction of demonstration latrines using locally available materials is a key aspect of the Mtumba approach to sanitation.

The fifth suggestion is supporting income-generating activities. Although this could be a potential way to leverage household investments in latrines, supporting such activities seems to be outside the mandate of national institutions and the development partners involved in the sanitation sector.

Microfinance is another way to leverage household investments in latrines and handwashing facilities; an option that was evaluated by a recent study³⁴. This study concluded that microfinance is a financial

³⁴ Trémolet, S. and Muruka, G.: *Evaluating the potential of microfinance for sanitation*, October 2011

tool that could help reduce the sanitation gap by enabling households to spread the costs of investing in household toilets and by supporting the development of sanitation service providers like masons, communal toilet block operators and/or pit latrine emptying services. The current experience with microfinance for improved sanitation is, however, limited to a few pilot programmes implemented with support from NGOs and without involvement of established microfinance institutions.

The afore-mentioned study mentions two existing sanitation microfinance programmes, namely the savings and loan programme run by the Centre for Community Initiatives and a lending programme run by MAMADO ((Maji Na Maendeleo Dodoma). WaterAid Tanzania has also provided soft loans or access to revolving funds for community-based organisations interested in starting up pit-emptying services. At the time of the microfinance study, WaterAid was exploring ways of establishing a guarantee scheme to enable community-based organisations to access loans from banks. Other NGO-run programmes, such as the CARE/iWASH programme, include an overall microfinance component for economic activities at village level but does not include a specific sanitation microfinance programme.

Some of the financial institutions consulted as part of the study appeared to be interested in providing microfinance for sanitation facilities and services. This was specifically the case with Tujijenge Tanzania Ltd, Mkombozi Commercial Bank, Dar es Salaam Community Bank, and Kenya Commercial Bank Tanzania Ltd. More traditional microfinance institutions, such as FINCA or PRIDE, showed limited interest in household-level products as they focused on lending to small-scale entrepreneurs, via income-generating loans.

An informal working group has now been established to further explore the lessons learnt from programmes piloting microfinance for improved sanitation and the potential future institutional arrangements for microfinance services such as loans to households and/or sanitation service providers and revolving funds. Microfinance is unlikely to be appropriate for the poorest and most destitute households, as most likely they will not be able to repay loans or to cover some of the investment cost through savings. The study suggests considering a reorientation of subsidies, away from expensive sewerage solutions, towards some level of subsidy for on-site sanitation for the most destitute.

The team conducting this study agrees that the provision of loans to cover part of household investments in sanitation improvements is one potentially important way of leveraging household investment in improved sanitation. It is however important that institutional arrangements make loans easily accessible in different locations, and that training needs are addressed with future microfinance arrangements. Subsidies to the most destitute could be considered, but it is essential that past experiences with different types of subsidies are carefully evaluated.

In conclusion, it is considered important that public finance for sanitation and hygiene improvements is provided for promotional activities, capacity development at different levels, including refresher courses and technical support, monitoring and evaluation, research and development and similar “software” areas. It is beneficial for capacity development to include staff in NGOs and the private sector so as to stimulate their further engagement. This could for example be in the form of relevant short training courses and sharing of information. Public finance should also be used to ensure that sufficient and adequate sanitation and handwashing facilities are available in schools, health centres and key public locations like markets and bus stations.

5 Recommendations and Suggestions

The following recommendations and suggestions should be seen as inputs to the further discussions on capacity development strategies and options of how to leverage household investments in improvements and to the development of more detailed budgets for specific activities in connection with the scaling up of sanitation and hygiene promotion.

1. The number of staff in MOHSW's Water, Food and Sanitation Unit should be increased to at least ten. Six staff members should thus be in place by July 2012 and 10 staff members by the middle of 2013. The current two vacancies should thus be filled as soon as possible. The additional three staff should also be employed as soon as possible, preferably in 2012 or the beginning of 2013. If in the future, staff members are given long-term study leave, then it is suggested that other appropriately qualified MOHSW staff are seconded full time to the Unit. The increase in the staffing level should be seen in the light of the ambitious commitment that the Government of Tanzania made at the High Level Meeting of the Sanitation and Water for All Partnership held in April 2012, where Tanzania committed itself to ensuring that an additional 27 million people gain access to sanitation by 2015.
2. The establishment of the new District Department for Cleanliness and Environment is considered an important initiative in order to get much more attention to prevention and as part of this to sanitation and hygiene promotion. It should be ensured that qualified staff are transferred to/recruited for the department, with at least three of them having sanitation and hygiene knowledge and skills.
3. There is a serious shortage of environmental health staff in the health centres and dispensaries. Additional environmental health staff should be recruited, so each health centre has preferably two Environmental Health Officers (EHOs), but at least one EHO with a diploma or a degree. An Environmental Health Assistant (EHA) with a certificate could be employed as the second environmental health staff in the health centre and/or other health staff offered specific training in sanitation and hygiene promotion. It is recognised that dispensary staff play a critical role in linking villages with the ward and district levels. However, considering the current general lack of environmental health staff it is not considered realistic to "insist" there should be an EHA in each dispensary. Staff in the dispensaries should be offered specific training in sanitation and hygiene promotion.
4. The biggest capacity gaps are among staff at district, ward and village levels and capacity development should focus on these levels. In addition to training or follow-up training of district staff, support in the form of on-the-job training should be provided to the weakest districts by regular visits by NGOs and/or other resource persons. District staff and possibly NGOs would then be responsible for capacity development of ward level staff, including follow-up support. The level and type of support required for each district should be determined based on simple capacity gap assessments within the individual districts.
5. Community Own Resource Persons (CORPs), village health workers and artisans are those closest to households. They should be provided with training or follow-up training on sanitation and hygiene promotion and continued support should also be provided, for example holding regular meetings and exchange visits to neighbouring villages. It should also be explored whether it is possible to provide some type of incentives to CORPs and other volunteers at village levels.

6. Artisans should be trained on latrine construction as well as marketing skills and be provided with some back-up support after the training, either by the health centres, NGOs or other resource persons. Very importantly, the training of artisans should take place at the same time as other promotional activities in the local area to encourage demand for services. Guidelines and working tool kits should be provided in connection with the training. Based on on-going pilot activities funded by the Water and Sanitation Program (WSP), the potentials of involving hardware stores and suppliers in the marketing of household toilets and handwashing facilities should also be further explored.
7. Selected teachers from each primary and secondary school should be trained, as already planned, in connection with the introduction of the national school WASH guidelines. This should ideally be combined with ensuring all schools have sufficient and appropriate latrines and handwashing facilities, both because these are important for the children's health and well-being, but also in order to allow the children to put their new hygiene knowledge into practice.
8. There should be some development activities for central level staff, particularly the four main ministries involved (MOHSW, MOEVT, MOW and PMO-RALG). Topics should include new sanitation and hygiene promotion developments, and monitoring and evaluation including data management. Local NGOs and private sector consultants should also be invited to participate in some of the same training sessions to strengthen their skills and exchange experiences with other sector stakeholders and resource persons.
9. As an important part of capacity development, district, ward and village level staff and volunteers should be provided with specific and easy-to-use household-level sanitation and hygiene guidelines on key topics, similar to the national guidelines provided by MOEVT for school WASH. Training should be provided to all target groups on key topics in connection with the distribution of these guidelines. A training of trainers approach should be used.
10. The current transport problems for district and health centre staff working with sanitation and hygiene promotion should be solved, through access to bicycles, motorbikes and/or cars and fuel. Different options of how best to ensure transport access at different levels should be explored.
11. Today many short training courses are conducted by NGOs and individual private consultants. In order to ensure a higher level of sustainability and to increase the capacity to conduct relevant short training courses, the option of institutionalising some short, tailor-made training courses in existing training institutions should be explored. There are indications that Ardhi University, University of Dar es Salaam, Muhimbili University of Health and Applied Sciences, and the Institute of Rural Development and Planning may have some capacity to conduct relevant training courses. It is suggested to investigate this in further details and also to investigate whether some of the vocational training centres will be able to conduct short training courses for artisans in the construction of latrines and whether some of the Schools of Environmental Health Sciences would be able to conduct short training courses in environmental health issues.
12. It is important to build on existing training packages and materials where they exist. The aforementioned training institutions have little experience with the development and delivery of training courses related to sanitation and hygiene, and so it is suggested that initially they should collaborate with relevant consultants or NGOs to develop this expertise.

13. Based on the findings and recommendations of the recent sanitation microfinance study, the potential and the options for future microfinance arrangements for sanitation improvements should be further explored, including the experiences with revolving funds and the possibilities of involving established microfinance institutions.
14. Public finance for sanitation and hygiene should mainly be used for promotional activities, capacity development at different levels, including refresher courses and technical support, monitoring and evaluation, research and development and similar “software” areas. Public finance should also be used to ensure that sufficient and adequate sanitation and handwashing facilities are available in schools, health centres and key public locations like markets and bus stations.
15. It is suggested that as part of the preparation of the National Sanitation and Hygiene Programme an assessment is made of the outcomes and the value of money of using different approaches (PHAST, CLTS, TSSM, Mtumba etc.). This would among others be an important input to the preparation of a more detailed estimate of the costs of scaling up sanitation and hygiene activities.
16. Most sanitation and hygiene promotion activities are implemented at district and lower levels and the majority of public sector funding should therefore be transferred to the Local Government Authorities (LGAs) or in some cases to NGOs working at district and lower levels.

ANNEX 1

Call for Expressions of Interest

Ministry of Health and Social Welfare

In partnership with Water Aid in Tanzania
Intends to carry out a study to review current human resource capacity and costs
of scaling up for sanitation and hygiene in Tanzania

WaterAid in Tanzania has secured funding from the DFID-funded SHARE research consortium to work together with the Ministry of Health and Social Welfare to carry out the above mentioned study. We are seeking for expression of interest from (an) international consultant(s) to be submitted by 10th June 2011.

Rationale

In 2009, the Joint Water Sector Review mandated the Ministry of Health and Social Welfare to carry out a comprehensive study in order to better understand the gaps in the enabling environment and to lay the foundations for a national programme. Since then, considerable progress has been made in the sector with the development of a Memorandum of Understanding between Ministries, technical working groups and, most importantly, the National Sanitation and Hygiene Policy. There is also considerable momentum to improve the provision of water, sanitation and hygiene in schools. Guidelines for use at district and school level have been developed this year and a national school water, sanitation and hygiene (WASH) strategy is being finalised.

Most significantly, there is a much needed injection of finance into the sector. 20m USD has also been secured from the African Development Bank, earmarked under the Water Sector Development Programme for a National Campaign for Sanitation and Hygiene (including school WASH), set to begin in July 2011. The new funding marks a shift in the role of the Ministry of Health and Social Welfare, and specifically the Environmental Health Unit, which will be leading the scale up of activities. With this in mind, the research will focus on assessing two parameters key to the success of the National Campaign, and the scale up of sanitation coverage over the medium to long term. These are:

- 1. Human Resource Capacity** - Assess existing and required human resource capacity (government, private sector, NGO) to deliver a national programme, including the institutional set up or structures required for the coordination and implementation of national sanitation and hygiene activities.
- 2. Financing** – Identify costs of scaling up sanitation promotion and related software costs during and beyond the lifespan of the National Campaign; assess potentials to leverage finance from households for sanitation improvement; identify ‘pinch points’ and ways in which public finance can be used to stimulate private and household investment.

Background

Tanzania is one of the countries in sub-Saharan Africa that is least likely to meet the MDG targets for sanitation. The Household Baseline Survey (HBS) 2007³⁵ shows that access to basic sanitation facilities has not improved in 5 years but is nevertheless close to universal access. However, the vast majority of traditional pit latrines, which are the most common type of household facility, are unimproved and unhygienic according to WHO/UNICEF Joint Monitoring Program (JMP) standards. The JMP estimates that only 24% of Tanzanians have access to an improved latrine (JMP 2010), with 21% coverage in rural areas and 32% in urban areas (national figures at 24%).

Little data is available about hygiene practices in Tanzania³⁶ but the data that does exist suggests that hand washing at critical times is not well ingrained in household behaviour. UNICEF³⁷ found that hand washing is not common after attending a child who has defecated or before handling food. Fewer than 40% of the respondents reported washing hands after using the toilet. Household surveys have not included indicators relating to hygiene though there is currently a proposal to begin monitoring whether households have a designated place for hand-washing and where water and soap are present.

A mapping of school WASH that was carried out jointly by Water Aid, UNICEF and SNV in 16 districts (2,697 schools) in Tanzania showed that the provision of water supply, sanitation and hygiene in pre, primary and secondary schools is lamentable. 6% of the schools surveyed did not have latrines at all, only 11% of the schools met the MoEVT "minimum" standards of 20 girls and 25 boys per drop hole. The facilities that exist are frequently a barrier to those children most in need of education - 96% of schools do not have facilities that are suitable or accessible to children with disabilities, 52% of girls latrines did not have doors providing dignity and privacy, and despite the fact that hand-washing with soap is the most effective and inexpensive way to prevent diarrhoea and other water-borne diseases, only 1% of the schools had soap, while 92% of schools did not have functional hand washing facilities with water.

The National Campaign

The National Campaign will be launched in July 2011 and will be financed by the African Development Bank. It will build on progress made under the Mtu ni Afya campaign and use the subsequent awareness raising efforts and networks established by Participatory Hygiene And Sanitation Transformation (PHAST), TSSM and Mtumba and other approaches. These provide a solid foundation, which in combination with a behaviour change campaign at the national level, can raise the priority of sanitation and prompt households to invest in improving their facilities, as well as improving hygiene behaviour in communities and schools.

The majority of investments at household level will support retrofitting existing latrines and installing hand washing facilities, such as tippy taps. In communities, this approach focuses on subsidizing promotion rather than hardware so that households make the decision to construct and therefore use improved sanitation and hand washing facilities. In schools, the approach involves hygiene promotion alongside improvements to water supply infrastructure, improved toilet services and hand washing facilities.

³⁵ *The Household Budget Survey (2007) was conducted by the National Bureau of Statistics (NBS) during 2007. The full survey report, published in December 2008, is available to download from the NBS website: www.nbs.go.tz*

³⁶ *(Two small surveys have been undertaken by WSP in 2006 (90 households) and by UNICEF in 2009 (5000 households)*

³⁷ *UNICEF (2009) Government of Tanzania/UNICEF Interventions in 7 Learning Districts*

The national programme will be delivered by training facilitators to trigger CLTS, training fundis (masons) to improve latrines and sell upgrades, engaging professional agencies to coordinate messaging, carrying out experiential marketing events, airing supportive radio programming, developing training and promotion materials, and improving school sanitation infrastructure. The first annual workplan has been developed. Beyond the lifespan of the campaign, there is a need to clarify the roles of Local Governments, communities and the private sector in sustaining momentum generated by the campaign.

Current policy environment and institutional arrangements

In Tanzania, sanitation and hygiene have long been something of an institutional orphan. There are four ministries with some degree of responsibility – the Ministry of Health and Social Welfare (MoHSW), Ministry of Water (MoW), Prime Minister’s Office for Regional Administration and Local Government (PMO-RALG), and the Ministry of Education and Vocational Training (MoEVT). The critical role of sanitation and hygiene in preventing disease means that the Ministry of Health and Social Welfare is the mandated ministry for sanitation and hygiene, though it has in the past been a low profile issue within the health sector.

The Ministry of Water also has a role, due to the complementarity of sanitation and water supply and the traditional linking of water supply and sewerage in urban utilities. Donors generally link funding for sanitation and hygiene with water supply funds that are channelled through MoW, confusing mandates further. The Ministry of Education is the lead ministry responsible for WASH in schools and PMO-RALG oversees local governments performance.

The Ministry of Health and Social Welfare in collaboration with other stakeholders has put efforts to develop a National Sanitation & Hygiene Policy (NSHP) have gained momentum. The draft policy is now being finalised following stakeholder consultation, and it is hoped that the policy will be approved by the new cabinet in the first quarter of 2011. The policy introduces common definitions and sets out roles and responsibilities for institutional and household sanitation with a particular focus on safe excreta disposal. Both the Public Health Act (2009) and the NSHP consider the provision of facilities at household level to be first and foremost a private matter and as such should not be subsidized by government.

However, the Government of Tanzania (GoT) commits to reviewing, developing and enforcing laws and regulations for on-site sanitation; facilitating the participation of the private sector; investigating and providing guidance on hygiene promotion and social marketing strategies and supporting the development of appropriate technologies (NSHP draft). There is also a Health Strategic Plan III for the period 2009-2015 and a National Environmental Health Strategy that was drafted in 2008. The environmental health strategy has been developed, however, funds for its implementation have not been set aside and it requires some review in the light of the recent development of the NSHP.

The presence of a Memorandum of Understanding (MoU) to clarify institutional arrangements between different line ministries with responsibility for sanitation and hygiene is expected to clarify coordination arrangements. The MoU has been signed by all four Ministries -the Ministry of Education and Vocational Training (MoEVT), the Prime Minister’s Office for Regional and Local Government (PMO-RALG), the Ministry of Health and Social Welfare (MoHSW) and the Ministry of Water (MoW). A national steering committee and technical working groups are also in the process of being established, with technical groups, which will meet regularly.

There are signs of progress towards a greater prioritization of school WASH, though this is largely still on

the side of technical level government staff, donors and INGOs. The MoHSW, with the involvement of other ministries and other sector actors, developed in 2008 a draft Strategic Plan for School Sanitation & Hygiene. Together, the four key Ministries of the Government of Tanzania have developed and are currently piloting guidelines for school water supply, sanitation and hygiene, with technical support from a wide range of organisations. Efforts are currently underway to gain cross-ministerial and political engagement and commitment.

Legislation and Regulation

There are few legislation that guide the provision of environmental health services. The Public Health Act (2009) has provisions for sanitation and hygiene, while the Water Supply and Sanitation Act (2009) extends responsibility to utilities for the management and the monitoring of sewerage, wastewater disposal (including wastewater stabilization ponds and disposal of sludge from pit latrines), on site sanitation, and strengthening of the private sector, including in unplanned settlements. Municipalities have overlapping responsibilities for waste (solid and liquid) management.

The issue of standards and targets for school WASH is currently promoting some debate, in particular with regard to school sanitation and hygiene. Questions as to who sets and monitors standards are as yet unresolved. EWURA (the Energy and Water Utility Regulation Authority) is a regulatory agency responsible for monitoring the performance of commercial water and sewerage service providers and carrying out technical and financial regulation. Its activities are financed primarily through fees and annual levies not exceeding 1% of the gross operating revenue of regulated water and sewerage service suppliers³⁸.

The National Environmental Management Council (NEMC) is responsible for overseeing the integrity of Tanzania's environment for sustainable development. NEMC is responsible for assessing and monitoring the quality of the environment, as well as providing technical arbitration and enforcing the environmental legislation.

Institutional capacity

Sanitation and Hygiene fall across the responsibilities of four Ministries, the MOHSW, MOW, PMO-RALG and MOEVT. The lack of an effective coordination mechanism and unclear responsibilities has in the past led to sanitation and hygiene often falling through the cracks.

The sanitation and hygiene sector faces major capacity shortfalls. The number of staff allocated to work full time on sanitation and hygiene at local and national level (across the 4 ministries) is limited, with only two staff identified in MOW under the Water Sector Development Programme (WSDP) and a team of twenty staff in the Environmental Health and Sanitation Unit in the Preventive Health Department of the MOHSW. Figures for MoEVT and PMO-RALG are not known. At MOHSW, there is a team of 20 staff and at local level, there is a team of 1,500.

Financing for sanitation and hygiene promotion

Sanitation policy in mainland Tanzania identifies sanitation as a household responsibility and there is an understanding that no subsidy should be given for household latrines. However, there is clearly a role for public finance for promotional activities, monitoring and evaluation, as well as in sludge management.

³⁸The Energy and Water Utilities Regulatory Authority Act, Cap 414

A recent WaterAid assessment of finance for sanitation and hygiene in Dar es Salaam mapped sources of public finance at the national level³⁹. Sanitation and hygiene were included under the Water Sector Development Programme, but the majority of expenditure was for construction, extension and rehabilitation of urban sewerage. A very small amount was allocated to rural sanitation (around \$20,000 per district), but there was confusion about how to spend these funds and they were frequently reallocated, often to water supply projects. Following the Mid-term review of the WSDP, the programme was redesigned, with a dedicated budget for agreed activities under the National Sanitation and Hygiene Campaign to be led by MOHS.

In addition, some funds to the sector are allocated via the Ministry of Health and Social Welfare through the Health Basket Fund. Contributions made to the districts from the Health Basket Fund have increased over the past three years, from 0.75 USD per capita in 2007/08, to 1 USD per capita in 2008/09 and 1.25USD per capita in 2009/10. The Environmental Health staff can request funds for sanitation from the Health Basket, however, the districts do not always prioritise this area when putting forward their requests to the central Ministry.

There are two main grants transferred to schools from the councils which are supposed to cover school infrastructure - the Capitation Grant and the Local Government Capital Development Grant. Both Capitation and Development Grants to schools represent small shares of total education expenditures. The latter is for school infrastructure improvements, including construction and rehabilitation of classrooms, teacher houses, libraries, school laboratories, administration buildings and latrines.

In 2008, Capitation Grant and Development Grant transferred to primary schools accounted for 6,436 TSh per student (5.1 USD). This is clearly inadequate given the development costs associated with providing water supply, sanitation and hygiene promotion. Given the fragmentation between several ministries and local government, analyzing budgets and expenditure is challenging, and there is very little data available. The costs of promoting sanitation and hygiene behaviour at scale beyond the life of the National Campaign are relatively unknown, as are the potential sources of finance which might be leveraged beyond the public sector. No medium term financing strategy is in place.

Key Research Questions

This study will focus on two key areas where there are considerable knowledge gaps in the sector – human resource and institutional capacity and financing⁴⁰ for the provision of sanitation and hygiene services at household level and in schools, in line with the expected deliverables of the National Campaign. It is hoped that the outputs of the research will directly influence the implementation of the campaign and the scale up of services over the medium term.

These two key areas have been selected in consultation with the Ministry of Health and Social Welfare, WSP, UNICEF and GIZ. Understanding the financial and human resource requirements for the sector is felt to be essential for the success of the campaign and for the sustainable scale up of sanitation and hygiene in Tanzania over the longer term.

³⁹Sophie Tremolet and Diane Binder (2010) *Evaluating the Effectiveness of Public Finance for Household Sanitation in Dar Es Salaam, Tanzania*

⁴⁰ The original proposal to SHARE originally included additional research areas (legislation, policy, monitoring and evaluation, promotional approaches. These have been removed in the revised proposal because they are no longer felt to be priorities or are being addressed by other initiatives.

I) Human Resource and Institutional Capacity

- 1) What additional capacity and skills does the Ministry of Health and Social Welfare at Central level require to effectively deliver the National Campaign and Global Sanitation programme in the short and medium term?
- 2) What capacity (numbers of staff, type of staff, expertise, skill sets) to support sanitation and hygiene promotion currently exists at local government levels and what changes would be required for the successful delivery of the National Campaign?
- 3) What capacity currently exist in the private and NGO sector and how can this be supported so that the later can play a full role in the National Campaign and beyond?
- 4) What training exists to enable people to work in the sector? Are there in-country education and training institutions for sanitation and hygiene promotion?

II) Financing

- 1) Assuming that the following 'software' costs will be financed by public finance⁴¹ under the national campaign (and subsequent sector investments), what are the costs of scaling up promotional activities, mobilizing communities, capacity building, training, hygiene promotion and monitoring and evaluation?
- 2) What potential exists to leverage household investment in latrine and hygiene improvements? Where are the 'pinch points' (where existing financing arrangements create disincentives) for household investment in sanitation?
- 3) Beyond the lifespan of the campaign, how can public finance be best targeted to maximise household investments and stimulate private sector and NGO engagement?

Methods

SHARE research funds will be used to employ (a) professional(s) with appropriate expertise who will work in partnership with a local research institute to develop the research design and appropriate methodologies.

The researchers should employ a variety of quantitative and qualitative research techniques to carry out this assessment including a literature review, questionnaires, focus group discussions, and semi-structured interviews with key stakeholders within the sanitation and hygiene sub-sectors.

The research will be carried out at the national level in Dar es Salaam, with additional case study research carried out at district and community level in a sample of rural and urban districts.

WaterAid will give regular updates to the Sanitation and Hygiene Steering committee and technical working groups. The findings will feed into a national human resource development plan and financing strategy for the sanitation and hygiene sector.

Collaborative opportunities

This study will be managed by WaterAid on behalf of the Ministry of Health and Social Welfare. The proposal has been developed in collaboration with members of the national technical committee for sanitation, which includes representatives from the Government of Tanzania and development partners. WaterAid and WSP are the lead Development Partners jointly supporting the national working group on household sanitation.

⁴¹In line with the National Policy

Anticipated outputs and timeline for research

Task	Output	Timeline
Research		
Activity plan and timeline: Planning with the MOHSW, MOW and participating partners to develop the final timeline for field research.	Final plan with activities and timeline	Start July
Literature review and consultations : Analysis of all published documents and budget documents; analysis of cross-sectoral expenditure on sanitation and hygiene.		July
Development of research approach and tools		August
Field visits: In order to document and cost promotional approaches		September
Stakeholder consultations: Consultations with a range of sector actors as part of the research exercise (Members of the various sanitation and hygiene related coordination committees and working groups, identified individual specialists, and selected Local Government Authorities).		September
Write up and analysis of findings		October
Presentation to National Steering Committee on Sanitation & Hygiene and invited guests. Before presentation to NSC, consultant to present to the Technical Committee		November
Final report	Final report	December

Timeline and format for Expression of Interest

Please send all bids to Ferdinandes Axweso and Laura Hucks at WaterAid Tanzania by Friday 10th June 2011.

Ferdinandesaxweso@wateraid.org, Laurahucks@wateraid.org

The consultant will be expected to consider the following as part of the bid:

1. Include the costs of a local research partner as part of the team.
2. Include the designated MoHSW and other sector actors at all stages.
3. Include all costs relating to the research exercise
4. Include the organisation and costs of the national working sessions and resultant production of the working session report.

Consultant requirements:

1. Proven international experience in the area of human resource capacity assessments/planning, finance and institutional development.
2. Up to date knowledge on the latest approaches to sanitation and hygiene promotion in African contexts.
3. Strong research experience with international publications in relevant areas (please submit examples as part of the bid submission).
4. Ability to work collaboratively with a local research organisation, WaterAid and the Ministry of Health and Social Welfare and a range of organisations and to allow for effective participation of a range of actors in the process.
5. Excellent communication skills and ability to translate research into practical and strategic recommendations.

MoHSW and WaterAid will:

1. Provide the consultant with access to relevant documentation related to sanitation and hygiene in Tanzania
2. Liaise with relevant authorities and provide introductory notification as appropriate
3. Recommend appropriate local consultants to consider as partners
4. Provide funds for the implementation of the assignment
5. Support the stakeholder consultation
6. Peer review the draft reports

Supervision:

The work of the main consultant will be supervised by the following:

- MOHSW – Assistant Director for Preventive Health
- WaterAid – Head of Research, Policy & Advocacy, WaterAid Tanzania
- The National Steering Committee for Sanitation and Hygiene

The contract will be issued by WaterAid on behalf of the MoHSW and partners and hence contractual obligations will be under the supervision of WaterAid Tanzania.

ANNEX 2

List of Key Persons Met/ Contacted

Public Sector/ Parastatals

Central Level

Mr. Elias Chinamo, ADEHS, MoHSW

Mr. Anyitike Mwakitalima, MoHSW

Ms. Mary Sway, WASH specialist, ESHO

Ms Theresia Kuiwite, MoEVT

Mr. Anders Mutembei, PEO, MoEVT

Mr. Amani I.B. Mafuru, MoW

Ms Catherine Bamwenzaki, MoW

Eng Amani I. B. Mafuru, MoW

Eng. Exaud Fatael, EWURA

Mr. Pawada Mohamed, Director of Administration (PMO-RALG)

Mr. Denis Bandisa, Director of Local Government (PMO-RALG)

Ms. T. N. Mollel (Assistant coordinator – Sector Coordination Division) (PMO-RALG)

Mr. J. Kayombo, NEMC

Regional Level

Eng. Ruhanyara Christopher – Acting RAS, Shinyanga

Mr. Dida Zachary – Shinyanga

Mr. Deogratias Mtembelea – Shinyanga

Mr. B. Nzungu, RAS - Kibaha

Ms R. Madenge, RAS - Dodoma

District/Town/Municipal Level

Mr. Festo Kang'ombe – Municipal Director, Shinyanga

Ms Mary Rose – DED, Shinyanga

Mr. Anderson Kuseda – DWE, Shinyanga

Victor Emmanuel – District Education Officer (DEO)

Dr Edith Kwezi – Municipal doctor, Shinyanga

Mr Machimo – Mafinga

Eng. Shaban – Mafinga

Mr Michael Pasipanofu – DEO, Mafinga

Mr. Loti, Ag DED and District Land Officer (DLO), Chamwino District Council (Dodoma)

Mr. Lusasi, District Finance Officer, Chamwino District Council (Dodoma)

Ms Kapinga, DEO (Primary Schools), Chamwino District Council (Dodoma)

Mr. Christopher, DEO (Secondary Schools), Chamwino District Council (Dodoma)

Mr. Pasponofu, Ag. Community Development Officer (CDO), Chamwino District Council (Dodoma)

Mr. Uongal, District Health officer (DHO), Chamwino District Council (Dodoma)

Mr. Ibrahim, Ag. District Water Engineer (DWE), Chamwino District Council (Dodoma)
Mr. Charles, District Medical Officer (DMO), Chamwino District Council (Dodoma)
Ms A. Mbilinyi, DED, Kibaha District Council
Mr. S. Katamba, DHO, Kibaha District Council
Mr. Magupa, DHO, Kibaha District Council
Mr. Gwamaka for CDO, Kibaha District Council
Mr. Mwiyinga for DLO, Kibaha District Council
Eng. A. Nyekele for DWE, Kibaha District Council
Mr. Shuma, District Planning Officer, Kibaha District Council

Ward Level

Mr. William Constantine Ndila – WEO, Kambarage ward, Shinyanga
Neema Kunza – Clinical Officer, Kambarage, Shinyanga
Andrew Waziri – Health officer, Chanaguha, Shinyanga
Mr. Charles Meshack Kanumba – WEO Chanaguha ward, Shinyanga
Mr. Erasto Kidenya – WEO, Igowole ward, Mafinga
Ms Erica Sanga – Igowole, Mafinga
Ms Philomena Mdemu – Igowole, Mafinga
Mr. Philip Mapunda – WEO, Kasanga ward, Mafinga
Dr. Karinga – Kasanga, Mafinga
Mr. Yusuf Mzumeni, WEO Ruvu station ward – Kibaha District Council
Mr. Philipo Mayai, Ward Health officer, Ruvu Station ward – Kibaha
Mr. Salehe Mungala, Karondo Village Chairman, Ruvu Station ward – Kibaha
Mr. Chabangi Daima, WDC member, Ruvu Station ward – Kibaha
Dr. Likopa, Ag. Health Centre Officer, Mlandinzi - Kibaha District Council
Sr. Loveness Mbagu, Nursing Officer, Mlandinzi Health Centre - Kibaha District Council
Mr. Isihaka Msungilwa, WEO, Buigiri ward – Chamwino District Council, Dodoma
Ms Halifa Iddi, Ward Education Coordinator, Buigiri ward – Chamwino District Council, Dodoma
Ms Anagrace Lutahiwa, Ward Agriculture/Livestock Extension Officer, Buigiri ward
Mr. Enock Mayau, VEO Chamwino, Buigiri ward – Chamwino District Council, Dodoma
Ms Grace Chitepete, VEO Buigiri, Buigiri ward – Chamwino District Council, Dodoma
Mr. Endesh Laideson, Health officer, Buigiri ward – Chamwino District Council, Dodoma
Mr. Aidan Lubeleje, Ward Electorate, Handali ward – Chamwino District Council, Dodoma
Ms. Devota Mbogoni, Ward Electorate (special seats), Handali ward – Chamwino District Council, Dodoma
Mr. Julius Maholi, WEO, Handali ward – Chamwino District Council, Dodoma
Mr. Pius Pearson, VEO Handali, Handali ward – Chamwino District Council, Dodoma
Mr. Emil Semwali, VEO Chanhumba, Handali ward – Chamwino District Council, Dodoma

Urban Water and Sewerage Authorities

Eng. Peter Mokiwa, Managing Director of Dodoma Urban Water and Sanitation Authority (DUWASA),
Ms Ritha John, Human Resource Officer, DUWASA
Mr. Salum, Sanitary Engineer, DUWASA
Palangyo, Technical Director, DUWASA

Private Sector

Consultants

Mr Richard J. Kimwaga, Team Leader, IWA Capacity Study

Mr Ngwisa W. Mpembe, Pöyry Tanzania Ltd, Team Member, IWA Capacity Study

Contractor

Mr. Mchome, Mchome Contrators - Kibaha

NGOs

Mr Paul Obura, WaterAid, Tanzania

Mr Herbert Kashililah, WaterAid, Tanzania

Mr Marko Msambazi, WaterAid, Tanzania

Mr Simon Chiwanga, WaterAid, Tanzania

Ms Abella Bateyunga, WaterAid, Tanzania

Mr Ferdinandes Axweso, WaterAid, Tanzania

Ms Sue Cavill, WaterAid, UK

Ms Le Huong, SNV Tanzania

Mr Rajab Amir – technician – CBRC, Shinyanga

Eng. Andrew Kwenzi – WEDECO, Shinyanga

Mr Audifos Matina – CBRC, Shinyanga

Mr Ramadhani Chambulilo – CBRC, Shinyanga

Mr John Ngeme – EEPKO

Mr John Shayo – EEPKO

Mr Edmund - EEPKO

Other Development Partners

Ms Astrid Van Agthoven, UNICEF

Ms Rebecca Budimu, UNICEF

M Wilhelmina Malima, UNICEF

Mr Jason Cardosi, WSP-Africa

Ms Nyanzobe, WSP-Africa

Mr Kaposo Boniface Mwambuli, WSP-Africa

Training Institutions

Mr Machumu – VETA Shinyanga

Mr Mahali – VTC Incomet, Mafinga

Mr Bosco Mbembe – VTC Incomet, Mafinga

Mr Loyd Mnogi – VTC Incomet, Mafinga

Prof. Katega, Department of Environmental Planning, Institute of Rural Development Planning (IRDP)

Dr. R. Mato, School of Environmental Science and Technology, Ardhi University

Dr Mkhandi – College of Engineering and Technology, University of Dar es Salaam

Prof. Gidase, College of Health Sciences, University of Dodoma (UDOM).

Others

Ms Kirsten de Vette, International Water Association

Ms Ermanna Favarette, Team Leader, AfDB Review Mission

Ms Irene Mwingira, Team Member, AfDB Review Mission

ANNEX 3

List of Key Documents Reviewed

Alabaster, R.O: *Final Evaluation of the Irish Aid Supported Sanitation Project 2008/9 – 2010/11, November 2011 (this is the WaterAid pilot sanitation project)*

Association of Consulting Engineers in Tanzania: Directory 2011

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International Water Association (IWA): *Terms of Reference, Human Resource Capacity Gap Assessments (Cap-WASH), Burkina Faso, Tanzania, Mozambique, undated*

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Ministry of Finance and Economic Affairs: *National Strategy for Growth and Reduction of Poverty II, NSGRP II, July 2010*

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Ministry of Health and Social Welfare: *Country Programme Proposal Submitted to the WSSCC for GSF Funding, Usafi wa Mazingira Tanzania (UMATA), undated*

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Ministry of Water: *Extract of Programme Operational Manual for the WSDP*

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Social and Economic Development Initiatives of Tanzania (SEDI): *A Paper Presented to National Policy Dialogue on MKUKUTA, P.E.R. Annual Consultative Meeting on 19th To 21st November 2008 at Blue Pearl Hotel, Ubungu PLAZA Dar es Salaam, Tanzania*

Summarized Report on Key Lesson Learnt during the Diagnostic Mission in Eight Regions, undated

Tanzania eThekwini Declaration Progress Mapping, September 2009

Taylor, B: *Situation Analysis of Women, Children and the Water, Sanitation and Hygiene Sector in Tanzania, Extended Analysis for the Joint Water Sector Review 2009 etc., September 2009*

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ANNEX 4

Relevant Training Programmes and their Graduates

Table 1: Degree and Diploma-level Training Programmes and Graduates

Training Institution	Name of Dept. and Programme	Degree Level	Duration (yrs)	Number of Graduates					Remarks	
				2007	2008	2009	2010	2011		2012
ARDHI UNIVERSITY	School of Environmental Science & Technology.									
	BSc-Environmental Engineering	BSc	4	41	37	43	36			
	BSc- Municipal and Industrial Services Engineering	BSc-M ISE	4				10			First batch of students graduated in 2010
	MSc- Environmental Technology and Management	MSc -ETM	2	2	6	9				
	Post Graduate Diploma in Environmental Technology & Management	PGD -ETM		1	3	2				This is a bridging course for those who studied advanced diploma of Ardhi Institute before it was elevated to a University
	Ph.D. in Environmental Technology and Management	Ph.D.	4	-	-	-	1			Ph.D. work by dissertation after heavy laboratory work in environmental technology and management.
	BSc-Environmental Science and Management	BSc -ESM	4							The course was started due to the need of handling / managing the complex environment that arises almost every day.
								No graduates yet		

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Training Institution	Name of Dept. and Programme	Degree Level	Duration (yrs)	Number of Graduates						Remarks
				2007	2008	2009	2010	2011	2012	
INSTITUTE OF RURAL DEVELOPMENT PLANNING DODOMA	Environmental Planning & Management	BSc	3	75	80	81	55	75	68	
	Environmental Planning- Post Graduate Diploma	PGD	1	7	9	11	7	15	7	
	Environmental Health Sciences	BSc	4	15	15	22	23	21	29	
MUHIMBILI UNIVERSITY OF HEALTH & ALLIED SCIENCES (MUHAS)	MA Policy and Management	MA		5	7	10	12	9		
	Diploma in Environmental Health	Diploma		5	-	-	-	-	-	This course has been discontinued.

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Training Institution	Name of Dept. and Programme	Degree Level	Duration (yrs)	Number of Graduates					Remarks
				2007	2008	2009	2010	2011	
UNIVERSITY OF DAR ES SALAAM	BSc Water Resources Engineering	BSc	4	20	28	33	30	32	
	MSc Water Resources Engineering	MSc	2	7	8	-	5	4	
	MASTERS in Integrated Water Resources Management	MASTERS	2	26	27	22	18	15	
	MASTERS in Integrated Sanitation Management								The course has no graduates yet
	Ph.D. in Water Resources Engineering	Ph.D.	4	2	1				
	Ph.D. in Sociology	Ph.D.	4	2	1				
	B.A. in Sociology	B.A.	3	203	123	233	248	153	

Table 2: Certificate-level Training Programmes and Graduates

Training Institution	Name of Dept. and Programme	Level	Duration (yrs)	Number of Graduates						Remarks
				2007	2008	2009	2010	2011	2012	
SHINYANGA VTC	Plumbing	Certificate	1	15	16	17	20	20		
	Masonry	Certificate	1	16	15	19	20	20		
VTC INCOMET	Plumbing & Masonry	Certificate	1	15	14	17	19	9		

ANNEX 5

Brief Descriptions of Relevant Training Programmes

TRAINING INSTITUTION	NAME OF THE PROGRAM	DEGREE LEVEL	BRIEF DESCRIPTION OF ELEMENTS
Institute of Rural Development Planning	Environmental Planning and Management	Degree 3 years	Environment and development, Environmental Health and Sanitation, Environmental pollution and Control, principles of Environmental planning and management
	Postgraduate diploma in Environmental Planning	Post-Graduate level 1 year	Environment and development, Environmental planning and management
University of Dar es Salaam	BSc in Civil & Water Resources Engineering	Degree 4 years	Solid waste management, wastewater treatment, civil engineering courses, hydrology and hydraulics
	MSc in Integrated Sanitation Management.	Masters 2 years	Ecological sanitation, technical aspects of sanitation, WASH policy
	MASTERS in Integrated Water Resources Management	Masters 2 years	Water and sanitation management
	Ph.D. in Water Resources Engineering	PhD 4 years	Water and sanitation management, hydrology, solid waste
	Ph.D. in Sociology	PhD 4 years	Social science subjects
	B.A. in Sociology	Bachelor 3 years	Social science subjects

TRAINING INSTITUTION	NAME OF THE PROGRAM	DEGREE LEVEL	BRIEF DESCRIPTION OF ELEMENTS
Muhimbili University of Health and Allied science	Environmental Health Science	Degree 4 years	Water and Sanitation, waste management, food and food hygiene, control of communicable diseases, health education and promotion
	Doctor of Medicine (MD)	Degree 5 years	Waste management, environmental and sanitation, communicable diseases control
	Health policy and Management	Masters 2 years	Environmental and Health
VTC - Iringa	Plumbing and Masonry	Certificate 1 year	Pipes and fittings, designing of plumbing system, sanplat fabrication
University of Dodoma (UDOM)	Doctor of Medicine (MD)	Degree 5 years	Medicine
	Nursing	Degree 4 years	General nursing
	Midwifery	Degree 4 years	Midwifery
	Mental health	Masters 2 years	Nursing-mental health

TRAINING INSTITUTION	NAME OF THE PROGRAM	DEGREE LEVEL	BRIEF DESCRIPTION OF ELEMENTS
Ardhi University	Environmental Engineering	Degree 4 years	Introduction to Environmental Engineering, Sewerage and drainage Engineering, Environmental Health and Epidemiology, Solid waste management and Technology, Wastewater treatment technology, Industrial wastewater treatment, Environmental Impact Assessment, Engineering Workshop, Hazardous Waste Management etc
	Municipal and Industrial Services Engineering	Degree 4 years	Sewerage and drainage Engineering, Solid waste management and Technology, Wastewater treatment technology, Industrial wastewater treatment, Environmental Impact Assessment, Occupational Health and Safety, Basic and Ecological Sanitation, Environmental Health and Epidemiology, Engineering Workshop etc.
	Environmental science and Management	Degree 4 years	Introduction to Environmental Science, Environmental Health and Epidemiology, Solid waste management and Technology Hazardous Waste Management
	Post-Graduate Diploma in Environmental Technology and Management	Post-Graduate level 2 years	Environmental Technology and Management, Research Methodology, Solid Waste Management and Technology, Water Supply and Sanitation, Project Management, Engineering Workshop Hazardous Waste Management
	Masters in Environmental Technology and Management	MSc. 2 years	Environmental Technology and Management, Research Methodology, Environmental Law and Pollution, Ecological Sanitation, Environmental Statistics etc.
	Ph.D. in Environmental Technology and Management	Ph.D. 4 years	Any relevant topic in Environmental Science and Engineering suiting the candidate's and country interests.

TRAINING INSTITUTION	NAME OF THE PROGRAM	DEGREE LEVEL	BRIEF DESCRIPTION OF ELEMENTS
Sokoine University of Agriculture (SUA)	Environmental Science	Degree 4 years	
Ngudu, Kwimba in Mwanza Region	Diploma in Environmental Health Sciences	Diploma level 2 years	
School of Environmental Health Tanga, Tanga Region	Diploma in Environmental Health Sciences	Diploma level 3 years	
School of Environmental Health Kagemu in Kagera Region	Diploma in Environmental Health Sciences	Diploma level 3 years	
Mpwapwa School of Hygiene	Diploma in Environmental Health Sciences	Diploma level 3 years	

ANNEX 6

Cost Details for Sanitation and Hygiene Scale Up in Mainland Tanzania

ROUGH COST ESTIMATES FOR SANITATION & HYGIENE SCALE UP IN MAINLAND TANZANIA
(2012-2016)

LIST OF ACTIVITIES AND UNIT COSTS PROVIDED BY DEVELOPMENT PARTNERS IN MAY 2012

	Community/ Household "Software" Costs per LGA	Community/ Household Total "Software" Costs for 152 LGAs	School WASH Hardware and Software Costs per LGA	School WASH Total Hardware and Software Costs for 152 LGAs
LGA LEVEL ACTIONS (ASSUMING AN AVERAGE OF 30 WARDS AND 150 VILLAGES IN EACH LGA)				
One day advocacy and sensitisation of district stakeholders on S, H, & SWASH (DED, DC, LGA heads of Dept, MPs, Councillors, FBOs, NGOs, Private Sector, etc.) 100 people x \$50 = \$5,000 x 2 sessions = 10,000	10.000	1.520.000		
Training of District WASH team (10 people) + Ward teams (3x30 wards) on S&H & HHWTS– 2 sessions (without SWASH) = \$70,000 x 2 = 140,000	140.000	21.280.000		
Advocacy & orientation at ward level for 1 day (e.g. 10 WDC members x 30 wards x \$30) = \$9,000	9.000	1.368.000		
One day Advocacy and orientation at village level (including CORPs selection) - \$ 200 x 150 villages in the district = 30,000	30.000	4.560.000		

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CORPs training for 6 days (4-10 CORPs/village or mtaa) 10 x 8days x \$15 x 150 villages = \$180,000	180.000	27.360.000		
Training of artisans on 3 latrine options incl. marketing/ entrepreneurship, and animation skills + constr. of e.g 4 san centres with practical demo structures (\$ 20,000 x 4 = 80,000), for 10 days (2 artisans/ village): 2 x 10 days x \$30 x 150 villages = \$90,000 + 80,000 = \$170,000	170.000	25.840.000		
Community planning for 2 days (1st day drafting the plan, 2nd day presenting plan to all villagers) = 20 ppt village planning team x \$ 10 x 150 villages x 2 days = 60,000	60.000	9.120.000		
Support to implementation of community S&H plans (supplies, materials, remunerations, transport, working tools, etc) - \$ 25,000/district	25.000	3.800.000		
Follow up, monitoring, supervision incl half-yearly district stakeholder review events = \$ 20,000 x 2 = 40,000	40.000	6.080.000		
NGO costs (salaries, facilities, utilities, reporting, etc) = 100,000	100.000	15.200.000		
	15.000	2.280.000		
Total per district	779.000	118.408.000	3.000.000	456.000.000

NATIONAL LEVEL EVENTS				
Stakeholder Advocacy and orientation at national level (Govt & dev partners in WASH, Health, & Education sectors, Learning Institutions, CSOs, FBOs, Private sector, etc. (4 sessions x \$50,000 = 200,000)		200.000		-
Training/orientation of National WASH Team (Multi-sectoral - Water, Health, CD, etc. including NGOs and Freelance) on S&H, HHWTS and SWASH 100 ppts x 10 days x USD 100 = 100,000 x 2 sessions = 200,000		200.000		-
Training of Regional WASH Teams on S&H, HHWTS + SWASH - 5ppts/region x 10 days x USD 100 x 2 sessions x 25 regions =		250.000		-
Policy, Guidelines & manuals development, printing & dissemination Lump sum \$ 300,000		300.000		100.000
IEC/Marketing activities & materials (Lump sum) \$500,000 for district-level activities		500.000		100.000

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Admin, Management, Support to implementation, Networking costs etc. (Lump sum) \$1,000,000		1.000.000		500.000
IEC/Marketing activities & materials (Lump sum), 100,000 for national-level activities		100.000		200.000
Follow up, supervision, technical support, monitoring and evaluation		300.000		300.000
Total National Level Actions	-	2.850.000	-	1.200.000
Total LGA level + National Level Actions		121.258.000	-	457.200.000
GRAND TOTAL (Community/Household S&H + SWASH) in TZ Mainland		578.458.000		

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