

Ministry of Foreign Affairs

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Danida

Government of Ghana

COMPONENT DESCRIPTION

District Based Water and Sanitation Component

WSSPSII
Water and Sanitation Sector Programme Support
Phase II

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Country:	Ghana
Sector:	Water and Sanitation Sector
Title:	District Based Water and Sanitation Component
National Agency:	CWSA, Ministry of Works and Housing, Ministry of Local Government and Rural Development, District Assemblies
Duration:	5 years
Starting Date:	January 2004
Overall Budget Frame:	DKK 271.7 million

Description:

The aim of the Component is to contribute to poverty reduction by supporting an improvement in health and living conditions in communities through water supply and sanitation provision; enhancing decentralisation by strengthening the capacity of District Assemblies (DAs) and mainstreaming water and sanitation activities into the planning and budgeting process of the DAs. The Component is designed to build on the achievements of Danida supported WSSPSI, particularly in capacity building and to complete the shift to district level based implementation of water supply and sanitation. The strategy adopted will be a harmonised, national strategy for demand-responsive, decentralised water supply and sanitation, based on 'best practices' from different donor-supported programs. The Component will be implemented in up to 43 districts in the Volta, Eastern, Greater Accra and Central Regions through the provision of improved water and sanitation facilities coupled with hygiene promotion and education as well as infrastructure for use of available water resources for productive purposes in selected communities.

The Component has four immediate objectives:

- 1) Districts have adequate capacity for sustainable water and sanitation planning, implementation and operation and maintenance;
- 2) Improved behavioural patterns with respect to use of safe water and sanitary facilities in targeted communities and small towns;
- 3) Access to safe and sustainable water in rural areas and small towns visibly increased;
- 4) Access to sustainable environmental sanitation facilities increased in the target regions.

To reach the objectives the Component has 15 outputs in 4 groups: outputs towards capacity building of DAs, outputs towards changed behavioural patterns, outputs towards increased access to water and output towards increased access to environmental sanitation. The capacity building targets are to support up to 43 DAs to be able to plan and manage water supply and sanitation projects, including related software, using NGOs and the private sector as service providers. The physical targets are to provide up to 350,000 rural people with improved water supply, approx. 180,000 people in small towns with piped water supply, construction of latrines with hand washing facilities in 950 schools and 75 health clinics, 50 public latrines, and cover at least 20 small towns with examples of improved environmental sanitation. In addition a smaller number of installations for use of water for productive purposes, as well as a number of rainwater harvesting water supplies will be constructed.

The Component will be implemented by 1) DAs, acting as implementers of water supply and sanitation and related software, 2) Community Water and Sanitation Agency, acting as facilitator, support organisation and overall administrator, 3) Environmental Sanitation Unit under the Policy Directorate of MLGRD, acting as support organisation, as well as NGOs, and the private sector.

A Regional Approval Committee will be established in each region, comprising CWSA, MLGRD, Regional Coordination Planning Unit and the Management Advisor, to evaluate DA water and sanitation plans and community sub-projects hereunder for implementation. A Component Coordination Committee, comprising MWH, MLGRD, MEYS and RDE will be established to oversee overall progress and endorse yearly budgets.

The component management structure is designed to allow for other donor agencies to take part in coordination and decision-making if pertinent.

LIST OF ABBREVIATIONS

AFD	Agence Francaise de Developement
BOO	Build, Own, Operate
CCC	Component Coordination Committee
CDO	Community Development Officers
CIDA	Canadian International Development Agency
CWSA	Community Water and Sanitation Agency
CWSP-2	Community Water & Sanitation Project, Phase 2
DA	District Assembly
Danida	Danish International Development Assistance
DBWSC	District Based Water and Sanitation Component
DKK	Danish Kroner
DWST	District Water and Sanitation Team
EHA	Environmental Health Assistants
EHO	Environmental Health Officers
EPA	Environmental Protection Agency
GES	Ghana Education Service
GoG	Government of Ghana
GPRS	Ghana Poverty Reduction Strategy
GTZ	Deutsche Gesellschaft für Technisches Zusammenarbeit
GWCL	Ghana Water Corporation Ltd.
IDA	International Development Association
IEC	Information, Education and Communication
KAPB	Knowledge, Attitudes, Practices and Beliefs
KfW	Kreditbank für Widergebäu
KVIP	Kumasi Ventilated Improved Pit latrine
MIS	Management Information Systems
MES	Ministry of Environment and Science
MEYS	Ministry of Education, Youth and Sports
MLGRD	Ministry of Local Government and Rural Development
M&E	Monitoring and Evaluation
MWH	Ministry of Works and Housing
NESPoCC	National Environmental Sanitation Policy Coordinating Council
NGO	Non-Governmental Organisation
O&M	Operation and maintenance
PO	Partner Organisation
RWST	Regional Water and Sanitation Team
SHEP	School Hygiene Education Component
SPS	Sector Programme Support
TA	Technical Assistance
TNA	Training Needs Assessment
ToR	Terms of Reference
WATSAN	Water and Sanitation (Committee)
WRC	Water Resources Commission
WSS	Water Supply and Sanitation
WSSPSII	Water and Sanitation Sector Programme Support, Phase II

Regions and Districts supported by WSSPSII

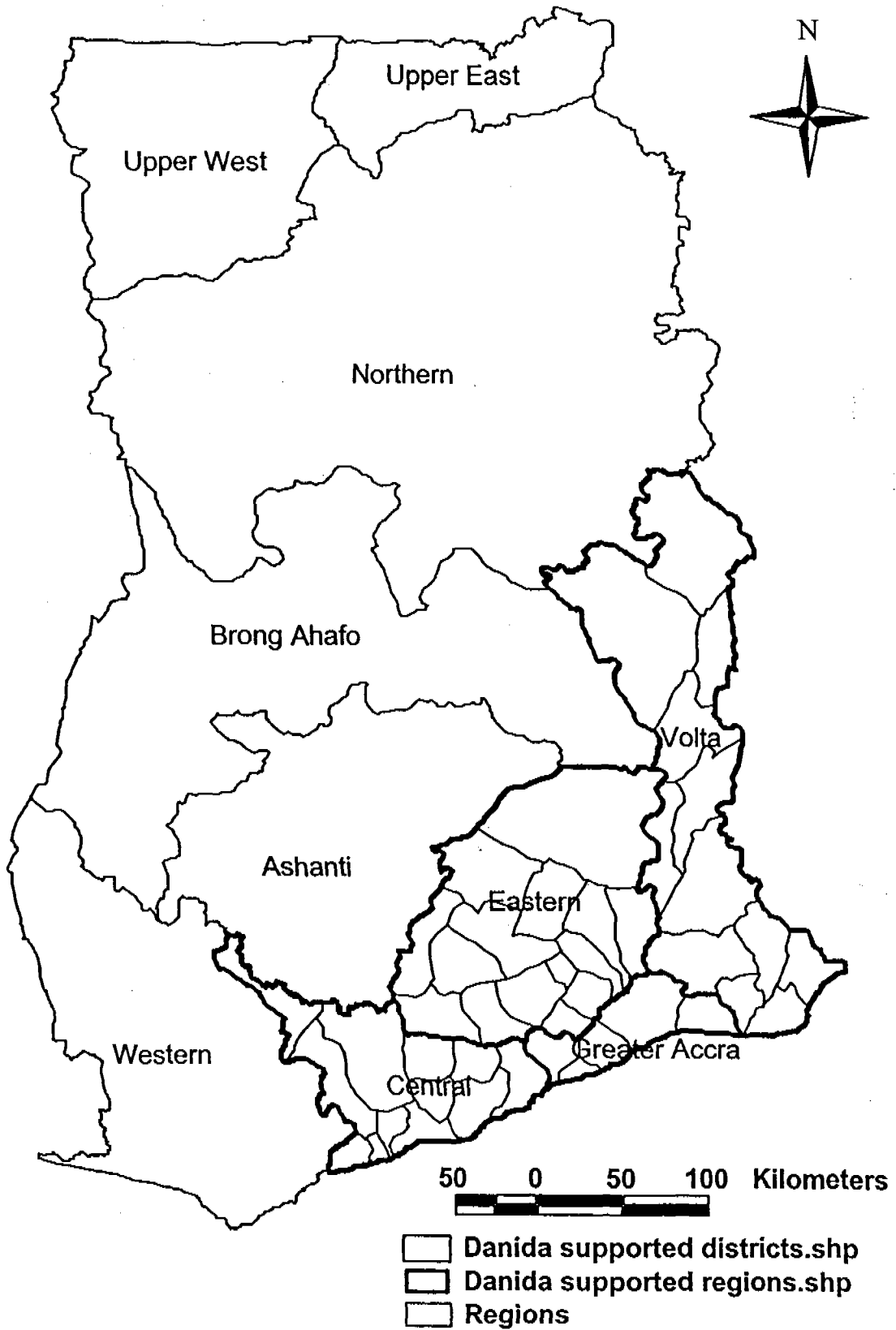


Table of Contents

Executive Summary	I
1. Introduction	1
2. Description of the component.....	3
2.1 Focus of the component	3
2.2 Implementation strategy	4
3. Logical Framework Analysis	25
3.1 Development and immediate objectives.....	25
3.2 Outputs	26
3.3 Activities	30
3.4 Inputs	37
3.5 Assumptions, risks and preconditions	39
4. Organisation, management and administration.....	41
4.1 Management of the component.....	41
4.2 Procedures for implementation	42
4.3 Financial management and procurement issues	49
5. Budget.....	53
6. Monitoring, reporting, reviews and evaluations	55
6.1 Indicators.....	55
6.2 Monitoring and reporting	56
6.3 Reviews and evaluations	57
6.4 Logical Framework - Output indicators and assumptions	57
7. Component Implementation Plan.....	58
7.1 Inception phase	58
7.2 Overall implementation plan	58

District Based Water and Sanitation Component

Annexes

- Annex 1: Logical Framework Matrix
- Annex 2: Detailed Budget
- Annex 3: Job description for the Management Advisor (International)
- Annex 4: Typical Project Cycle for a community Hand pump and Sanitation Scheme
- Annex 5: Environmental Considerations & Mitigation
- Annex 6: Planning Procedures
- Annex 7: Draft Principles for CWSA management fee

Executive Summary

Previous Danida involvement in the sector

The assistance of the Government of Denmark towards the improvement in the provision of water and sanitation facilities in Ghana commenced in 1993 with the implementation of the Volta Region Rural Water and Sanitation Project (Phase I and Phase II). As part of Danida's Sector Programme Support (SPS), assistance was extended to the Eastern and Greater Accra Regions in addition to the interventions in Volta Region with effect from 1999. A Sector Capacity Building Component and components to support integrated water resources management were also included as part of the SPS. In September 2001, a Water Supply and Sanitation component for small towns in Greater Accra Region was introduced. All the above components are to be completed by the end of 2003.

The problems of the sector

Key problems in the rural water and sanitation sector are a fairly low coverage of safe water supplies in rural communities and small towns in the four regions (25-45% according to the 2000 statistics) and a low coverage by sanitary latrines (indications are as low as 10-20% coverage but the statistics is not very reliable). The main problems are caused among other things by:

- Insufficient capacity in the regions and especially in the districts to plan, implement and sustain the management water supply and sanitation installations
- Limited knowledge, attitudes, practices and beliefs about the needs for safe sanitation
- Limited funds available at the district level to implement new systems for water supply and sanitation.

Scope of the component

The aim of the District Based Water and Sanitation component is to contribute to poverty reduction by supporting an improvement in health and living conditions of residents in the identified communities through provision of sustainable water supply and sanitation systems.

The main areas of support are *capacity building at district level*, improvement of behavioural patterns with respect to use of safe water and sanitary facilities, improved access to safe water in rural areas and small towns and improved access to environmental sanitation facilities in the target regions.

The emphasis will be on creating capacity at district level for the decentralised provision of water and sanitation services and provision of hygiene promotion in order to better target the poor and make better use of local water resources.

The development objective of the Component is: *'Health status and quality of life improved in targeted communities and small towns of Volta, Eastern, Greater Accra and Central Regions'*.

This component objective contributes to the overall water sector support programme objective of:

'Sustainable reduction of poverty achieved through improved water supply, sanitation and hygiene education as well as increased knowledge and better use of the water resources in Ghana' primarily through achievement of the following aims:

- Increased productivity of the rural population through improved health and reduced time for collection of water
- Improved financial situation of the rural population through reduced spending on health care costs and increased options for productive use of water.

The component has four immediate objectives:

1. *'Districts have adequate capacity for sustainable water and sanitation planning, implementation and operation and maintenance'*
2. *'Improved behavioural patterns with respect to use of safe water and sanitary facilities in targeted communities and small towns'*
3. *'Access to safe and sustainable water in rural areas and small towns visibly increased in Volta, Eastern, Greater Accra and Central Regions'*
4. *'Access to sustainable environmental sanitation facilities increased in the target regions'*.

The component has a budget of 271.7 million DKK over five years, with an expected start January 2004.

The District Based Water and Sanitation Component is designed to build on the achievements of WSSPSI, particularly in sector capacity building and to complete the shift to district level based implementation of water supply and sanitation facilities based on district and community level planning and management. The strategy adopted will be a harmonised, national strategy, based on 'best practices' from different donor-supported programmes, such as the first phase of WSSPS, and the IDA supported CWSP-2. Decentralisation, district, and community level capacity building will ensure sustainability of the facilities in the longer term.

Potential beneficiary communities will be identified based on poverty criteria; however a demand responsive approach will be adopted in the final selection of beneficiary communities. Beneficiary communities will be expected to demonstrate a real demand for improved water and sanitation facilities by participating in the planning, contributing to the capital costs and making a commitment to maintaining the facilities.

District Water and Sanitation Plans will be prepared indicating community profiles that would constitute the framework for participation in the component and for prioritisation of poor communities. In support of the national decentralisation process, additional responsibility for planning and physical investments has been transferred from CWSA to the District Assemblies (DAs). In this connection, the Regional Approval Committee will evaluate the incoming sub-project proposals from the DAs and will evaluate the DAs capacity to handle the projects according to transparent criteria agreeable to the Regional Co-ordinating Council.

Capacity building

A number of capacity building activities will be undertaken at different levels, such as:

Regional level

Given the transfer of responsibility for component implementation from the regional to the district level, the role of the regional staff, in particular in the regional CWSA offices, would shift from implementation to facilitation, technical assistance, promotion monitoring and quality assurance. This requires sharpening the skills of the regional staff in supervision and monitoring.

District level

At the district level, the capacity building initiatives would entail DA members and officials, community level actors and the private sector. The preparation and implementation of the district water and sanitation plans by the DA staff would require the development of their skills in planning and budgeting, preparation of tender documents, evaluation of tenders, supervision and management of contracts. The DA staff would also require skills in financial management and reporting the scope of which will be determined in discussion with the DAs and CWSA.

Community level

The training at the community level would be aimed at equipping the WATSAN committees and the Water and Sanitation Development Boards with the relevant skills to enable them function as a responsible community organisation and at creating a general awareness and understanding of O&M needs and the need for proper hygiene behaviours among the traditional leaders, community elders.

Private sector

The involvement of the private sector in the provision of goods and services will continue under this programme. The capacity of the private sector will therefore be developed to enable them meet the performance requirements, for example as area mechanics, latrine artisans and local contractors and consultants.

Improved knowledge, attitudes and practices

Improved access to water and sanitation facilities is necessary but not sufficient to decrease water and sanitation related diseases. To bring about real improvements in health, the installation of facilities has to go hand in hand with their proper use and maintenance. The hygiene promotion aims to encourage a wide range of actions among men, women and children that help break the chain of water and faeces borne diseases.

The hygiene promotion will focus on the most critical hygiene behaviours, which will be identified through a review of existing Ghanaian documentation combined with international experience. The methods used will consist of a combination of community involvement in decision making, participatory hygiene promotion and social marketing. The methods used will be cultural and gender sensitive. The aim of the hygiene promotion is not only to teach scientific concepts (where needed), but more importantly to enable men, women and children in the community to overcome constraints to change.

Intensive hygiene promotion will be carried out in the communities, where water and/or sanitation facilities are installed. More extensive hygiene promotion using social marketing will have a broader audience at regional or national level.

As a matter of principle all physical implementation has to be accompanied by appropriate related software activities. The activities and the budget for this will be approved by the Regional Approval Committee at the same time as approving the physical installation.

Water supply in rural communities and small towns

The coverage of water and sanitation facilities will be established in a demand-responsive manner in up to 43 districts in the Volta, Eastern, Greater Accra and Central Regions.

The water facilities to be provided include the following options:

- Rehabilitation of existing water systems
- Boreholes and hand-dug wells fitted with hand pumps
- Small towns water supply systems supplied by mechanised boreholes or by treated surface water (using simple technologies).
- Connection to existing GWCL pipelines (as a last option)
- Rainwater harvesting (where feasible)
- Water will also be provided for productive purposes to support income generation activities in the communities, where this is judged possible in small scale without endangering the sustainability of the supplies of potable water for the communities.

Gravity pipe schemes based on surface water should be used only with great caution towards the long term yields of the sources.

The technical solutions have been chosen based on their simplicity and their proven track record in Ghana and at the same time a concerted effort is made to train the users and the locally responsible committees in operation and maintenance of the facilities. Likewise a system is introduced for monitoring of the state of operation and maintenance to mobilise support from both districts and the regional CWSA offices in case of problems.

Environmental sanitation

The need for interventions

The need for interventions in the area of environmental sanitation is based on the facts that:

- coverage of institutional latrines is low
- coverage for on-site sanitation is low and promoting household latrines remains a major challenge to many DAs
- environmental sanitation is a daily 'headache' of many DAs who are faced with problems of excreta management in the congested 'core' of small towns, refuse collection and disposal as well as collection of septage and treatment, storm-water drainage and sillage conveyance (the same problems faced by larger urban towns and cities)
- many districts have inadequate bye-laws with regard to environmental sanitation and/or inadequate enforcement of such bye-laws.

Proposed overall strategy

The strategy for support within the area of environmental sanitation will include:

- Hygiene promotion in general and renewed efforts for promotion of household latrines
- Implementation of school latrines with hand washing facilities, combined with hygiene promotion and hygiene education (under the SHE Component)
- supporting small towns to undertake environmental sanitation assessments and audits to aid the development of plans for incremental improvement in excreta management and disposal/treatment, refuse collection and disposal/treatment, as well as infrastructure for sullage and storm-water conveyance (as part of District Water and Sanitation Plans)
- financing of limited but high priority initiatives consistent with District Water and Sanitation Plans and shall be competitively selected from submitted plans from participating DAs – districts can apply for further support for priority interventions upon completion of initial projects, depending on availability of funds.

With respect to sanitation, the types of facilities to be provided are:

- Institutional KVIP latrines with hand washing facilities at schools and health clinics
- A limited number of sanitary household latrines for demonstration purposes
- Solid waste collection and disposal systems (to be coordinated by MLGRD)
- Storm water and sullage drains to be constructed in selected small towns, where there are clearly documented environmental or health related problems (to be coordinated by MLGRD)
- Disposal facilities for liquid and semi-liquid sanitary waste.

Promotion of household latrines

Promotion of household latrines will mainly be done through campaigns targeting behavioural changes. However, demonstration latrines can be installed in special cases e.g. in areas where intensive hygiene promotion and installation of school latrines is taking place. A study to be completed during the inception phase will propose detailed strategies for the promotion of household latrines and personal hygiene at community level.

Institutional latrines

Schools will be identified for renovation of existing latrines and construction of new latrines by DA staff and GES/SHEP (see the SHE Component). The plans should take the existing plans for school improvements into account. Priority will be given to schools in poor communities.

Schools will qualify for school latrines under the condition that appropriate water supply for hand washing is available or can be provided, that existing sanitation facilities are not appropriate, and that the school staff organise a gender-balanced system for cleanliness and O&M of these latrines. Selected staff will participate in training on the proper use and O&M.

Institutional latrines will be based on the multi-compartment KVIP design. The latrines will be provided with simple hand washing facilities. Separate latrines will be provided for girls and boys (same number of cubicles).

Management of solid and liquid waste

Management of solid and liquid wastes in small towns is an area that has not attracted much attention in Ghana so far in terms of experience, guidelines and support structures. On the other hand almost all districts claim that management of solid wastes is a difficult task for them, taking up a large part of their scarce resources. Thus there are good reasons to experiment with solutions that are well suited for the problems as they are found in small towns and peri-urban areas. The experience gained should be made available to a larger circle of interested parties e.g. through the MLGRD unit for environmental sanitation (supported by Component Four of WSSPSII). The sub-projects should be designed so that experience is gained also on the management and awareness issues of environmental sanitation.

Criteria for selection of pilot environmental sanitation projects could include that it is an innovative solution to an environmental health problem that it contains relevant description of the context and that the prospects for sustainability are good. The communities touched by the project should be involved in the planning.

Crosscutting issues

In line with Danida and Government of Ghana policies a number of crosscutting issues are taken into account in the design of the component. Gender issues and HIV/AIDS have already been integrated in the previous phase of the programme in the form of action plans. Such action plans will be improved (if needed) and followed up on during the implementation. An analysis of the environmental impact of the component has been made and relevant mitigation measures included.

Synergies with other components of WSSPSII

The component has clear synergies with several other components in the water sector programme and with other Danida supported activities, in particular

- The School Health Education Component in terms of the joint promotion of school latrines and hygiene promotion
- The Policy, Management and Monitoring Support Component in terms of support to capacity building at district level and in terms of support development of environmental sanitation experience in small towns and rural areas (coordinated by MLRD)
- The general Danida support to the decentralisation process, where the water and sanitation sector is seen as an opportunity for an early implementation of the principles.

Other assistance to the sector

In addition to Danida, currently, KfW of Germany is offering assistance to four districts in the Eastern region for the period 2002-2005 and with a total of 33 water supply schemes for small towns in Volta and Eastern Regions. The EU has recently mobilised feasibility studies for support to water supply schemes in small towns in Central Region. Several donors are active in implementation of water supply and sanitation in other regions, working through CWSA. Among these are: Agence Francaise de Developement, AFD, CIDA, USAID, World Bank, all supporting implementation of rural water supply and sanitation. The Dutch Government has been supporting implementation of urban water in municipalities in Greater Accra Region through GWCL.

Management set-up

While planning and implementation will gradually be transferred to the DAs, CWSA will have an important role in management of the Component, such as capacity development for staff of DAs, guidance on technical issues, quality assurance of physical installations and management set-up, and post-installation monitoring and maintenance. An important aspect of the monitoring will be to ensure that a pro-poor strategy is pursued. Specifically it must be secured that poor communities are not denied access to safe water and sanitation because of their limited economic capacity. Similarly, districts that have limited technical and administrative capacity to come forward with sub-projects for funding by Danida, should be given special attention to overcome their difficulties. CWSA will be provided with a team of international and national specialists to assist with these tasks.

In each region, a Regional Approval Committee will be established with the mandate to evaluate sub-projects under the district water and sanitation plans submitted for funding. The Approval Committees will also monitor capacity building for DAs and take a stake in securing a fair regional and social distribution of the funds available under the DBWS Component.

A Component Coordination Committee will be established with a view to coordinate implementation, monitoring and reporting vis-à-vis GoG and Danida.

1. Introduction

The assistance of the Government of Denmark towards the improvement in the provision of water and sanitation facilities in Ghana commenced in 1993 with the implementation of the Volta Region Rural Water and Sanitation Project, which ended in 1996. The second phase commenced in 1996. As part of Danida's Sector Programme Support (SPS), assistance was extended to the Eastern and Greater Accra Regions in addition to the interventions in Volta Region with effect from 1999.

Interventions in the three regions were being described by separate Component Descriptions for each region. A Sector Capacity Building Component and Components to support Integrated Water Resources Management were also included as part of the SPS. In September 2001, a Water Supply and Sanitation component for small towns in Greater Accra Region was introduced. Activities under this component started in February 2002. Within the framework of the SPS document, all the components are expected to end by December 2003.

Key problems in the water and sanitation sector are a fairly low coverage of safe water supplies in rural communities and small towns in the four regions (25-45 % according to the 2000 statistics) and a low coverage by sanitary latrines (indications are as low as 10-20 % coverage but the statistics is not very reliable). The main problems are caused among other things by:

- Insufficient capacity in the regions and especially in the Districts to plan, implement and sustain the management water supply and sanitation installations
- Limited knowledge, attitudes, practices and beliefs about the needs for safe water and sanitation
- Limited funds available at the district level to implement new systems for water supply and sanitation.

The Government of Ghana (GoG) has requested Danida for continued assistance in the Water Sector. The Government of Ghana has facilitated a number of stakeholder workshops to elicit views for the new SPS. These workshops culminated in a joint GoG/Danida workshop in December 2002 to discuss pertinent issues.

As a sequel to the December 2002 workshop, a formulation and assistance mission held further consultations and conducted workshops with CWSA officials and other stakeholders on the vision and strategic direction of the components of the new WSSPSII. These workshops and consultations have, for the District Based Water and Sanitation Component that is described herein, resulted in consensus on the decentralised structure of the component and transferring responsibility for service provision activities to the District Assemblies. It was also agreed to harmonise as much as possible the best practices of the varying approaches of the other donor funded water and sanitation projects in the country. In this connection, the component would strive at ensuring compliance with the National Community Water and Sanitation Sector Strategy and Policy.

The same three regions as before will be supported but now under one combined component. The component will further be extended to one additional region, Central Region.

In addition to Danida, KfW of Germany is offering assistance to four districts in the Eastern region for the period 2002-2005 and with a total of 33 water supply schemes for small towns in Volta and Eastern Regions. The EU has recently mobilised feasibility studies for support to water supply schemes in small towns in Central Region. Several donors are active in implementation of water supply and sanitation in other regions, working through CWSA. Among these are:

- Agence Francaise de Developement, AFD, active in the northern regions
- CIDA working on implementation of rural water (boreholes and hand pumps) in Northern Region, including mapping of groundwater resources
- USAID supporting a regional water project, likely to support rural water and sanitation in Northern Region (implemented by NGO's)
- World Bank , supporting implementation of rural water supply and sanitation among other things
- Apart from this the Dutch Government has been supporting implementation of urban water in municipalities in Greater Accra Region through GWCL.

The World Bank has recently announced that it is planning to extent its water and sanitation project to include four districts in Central region from the end of 2005. Should this materialise, close coordination with the Bank will be required in that area.

2. Description of the component

2.1 *Focus of the component*

The aim of the District Based Water and Sanitation Component is to contribute to poverty reduction by supporting an improvement in health and living conditions of residents in the identified communities through provision of sustainable water supply and sanitation systems.

The main areas of support are capacity building at district level, improvement of behavioural patterns with respect to use of safe water and sanitary facilities, improved access to safe water in rural areas and small towns and improved access to environmental sanitation facilities in the target regions.

The emphasis will be on creating capacity at district level for the decentralised provision of water and sanitation services and provision of hygiene promotion in order to better target the poor and make better use of local water resources.

The component would result in the development of the capacity of key DA staff in the preparation and implementation of District Water and Sanitation Plans and in the role of service providers and of capacity building and hygiene promotion at community level. The component would also facilitate mainstreaming water and sanitation activities into the planning and budgeting process of the DAs. The component would likewise support the development of the capacity of the private sector and of the actors at the regional and community levels.

Hygiene and, sanitation promotion and awareness raising will be an important element of the component and will ensure that the full benefits of water and sanitation will be achieved.

The coverage of water and sanitation facilities will be implemented in a demand-responsive manner in up to 43 districts in the Volta, Eastern, Greater Accra and Central Regions.

The water facilities to be provided include the following options:

- Boreholes fitted with hand pumps
- Hand-dug wells fitted with hand-pumps
- Small towns water supply systems supplied by mechanised boreholes.
- Small towns water supply systems supplied by treated surface water.
- Connection to existing GWCL pipelines (as a last option)
- Gravity piped schemes (where the reliability of the water source can be documented)
- Rehabilitation of existing water systems
- Rainwater harvesting (where feasible)
- Water will also be provided for productive purposes to support income generation activities in the communities, where this is judged possible in small

scale without endangering the sustainability of the supplies of potable water for the communities.

Gravity piped schemes based on surface water can be used only with great caution towards the long-term yields of the source.

With respect to sanitation, the facilities to be provided are:

- A limited number of sanitary household latrines (for demonstration purposes in districts where Danida has not worked before or in connection with special campaigns)
- Institutional KVIP latrines at schools and health clinics
- Solid waste collection and disposal systems (to be coordinated by MLGRD)
- Storm water and sullage drains to be constructed in selected small towns, where there are clearly documented environmental or health related problems (to be coordinated by MLGRD)
- Disposal facilities for liquid and semi-liquid sanitary waste.

During the first two years of the component, the four districts (Birim North, Birim South, West Akim and Suhum Kraboa Coaltar) currently being supported by KfW in the Eastern region would be excluded from the component. However, they would be included if KfW decides to withdraw from the region as has been indicated. Likewise there will be a coordination with other donors supporting developments in small towns (e.g. KfW and the EU).

The capacity building objective shall prevail over the speed of provision of the facilities.

2.2 *Implementation strategy*

General strategy

The District Based Water and Sanitation Component is designed to build on the achievements of WSSPS I, particularly in sector capacity building and to complete the shift to district level based implementation of water supply and sanitation facilities based on district and community level planning and management. The strategy adopted will be a harmonised, national strategy, based on 'best practices' from different donor-supported programs, such as Danida's first SPS phase, and the IDA supported CWSP-2. Decentralisation, district, and community level capacity building will ensure sustainability of the facilities in the longer term. Implementation speed will probably be limited in the first years of the Component but is expected to accelerate as decentralisation is successfully achieved.

Potential beneficiary communities will be identified based on poverty criteria, however a demand responsive approach will be adopted in the final selection of beneficiary communities. Beneficiary communities will be expected to demonstrate a real demand for improved water and sanitation facilities by participating in the planning, contributing to the capital costs and making a commitment to maintaining

the facilities. International experience has shown that there is a much greater success rate in sustaining the facilities when the community feels involvement and ownership.

District Water and Sanitation Plans will be prepared indicating community profiles that would constitute the framework for participation in the component and for prioritisation of poor communities. In support of the national decentralisation process, the responsibility for planning and physical investments has been transferred from CWSA to the District Assemblies (DAs). In this connection, the Regional Approval Committee will evaluate the incoming sub-project proposals from the DAs and will evaluate the DAs capacity to handle drilling contracts, and small towns' water supply contracts according to transparent criteria agreeable to the Regional Coordinating Council.

Not all DAs possess the same administrative and technical capacity. Therefore, during the initial period of WSSPSII there is likely to be relatively much focus on capacity building to ensure that the districts can assume the leading role as the implementers of the services. Intense efforts will be made to strengthen the capacity of the weaker districts, while some implementation may take place based on schemes planned under Phase I. During the second year of the programme it is expected that implementation widely can take place based on the district driven procedures and plans, even if this still is at a reduced pace. Where possible staff from CWSA will be co-opted to assist in the capacity building efforts.

Sector harmonisation

Harmonisation of the various donors' approach to water supply and sanitation planning, implementation, monitoring and capacity building has been on the top of the agenda for many years. A comparison between the concept papers developed jointly by Danida and CWSA as part of the preparation of this component, and the CWSP-2 shows only few, but important, differences in policy and strategy.

These are:

- i) The CWSP-2 requires that the DAs make a 5% contribution to construction costs of community facilities. WSSPSII does not at present require any contribution by DAs.
- ii) The CWSP-2 relies heavily on the private sector to provide software services, whereas the WSSPSII emphasizes capacity building of DAs and using DA staff such as EHAs.
- iii) CWSP-2 subsidises household latrines. Danida did that too during Phase I of WSSPS but has abandoned this practice during the second phase in accordance with Ghanaian national policy.

Ad i) The 5% DA contribution used by CWSP-2 is not official national policy. Until the Government has adopted a national policy on this issue WSSPSII does not require a 5% DA contribution. Should it be decided to make a 5% DA contribution mandatory, HIPC funds may be used for this purpose, according to GoG officials. However, the 5% community contribution will be maintained. It should be noted that also the community contribution seems to be eligible for funding through HIPC funds. As regards piped schemes, no local contribution will apply for the time being.

It is a clear risk that a contribution reduced to a very low level will endanger the creation of a real local ownership. Further reductions should therefore only take place after careful evaluation of the potentially negative impacts. For very poor communities methodologies of cross subsidy in one form or another could be an alternative. Introduction of credit schemes is another alternative to be considered.

Ad ii) This component will balance the use of the private sector as service providers to DAs with capacity building of DAs and use of DA staff

Ad iii) It is against Danida and GoG policies to subsidise household latrines except for demonstration purposes.

Support Area 1: Capacity building at district level

The Component will include capacity building initiatives at the district and community levels. Capacity will also be built at the regional level in particular critical skills

Regional level

Given the transfer of responsibility for component implementation from the regional to the district level, the role of the regional staff, in particular in the regional CWSA offices, has shifted from implementation to facilitation, supervision monitoring and quality assurance. This requires sharpening the skills of the regional staff in supervision and monitoring. All the training programmes at the various levels will be conducted by relevant institutions, with CWSA assisted by the TA team being responsible for coordinating this.

District level

At the district level, the capacity building initiatives will entail DA officials, community level actors and the private sector. The preparation and implementation of the district water and sanitation plans by the DA staff will require the development of their skills in planning and budgeting, preparation of tender documents, evaluation of tenders, supervision and management of contracts. The DA staff will also require skills in financial management and reporting the scope of which will be determined in discussion with the DAs and CWSA.

The CWSA Regional Offices, assisted by the technical assistance team, will be responsible for conducting training needs assessments of the individual districts and prepare training plans on the basis of these. Care should especially be given to resource-weak DAs, for instance in the Central Region. The plans must continuously be updated.

Strengthening the environmental health departments at district level.

Since the transfer of responsibility for Environmental Health and Sanitation from the MoH in 1995 to the MLGRD and the promulgation of the Environmental Sanitation Policy in 1999, the EHOs have been faced with lack of resources and have been

under-utilised. However a number of the EHOs and CDOs, who were assigned to WSSPSI, have made substantial contributions to its success.

A number of the EHOs will continue to be used in WSSPSII and their number will gradually increase, in particular to accelerate the provision of sanitation. When appropriate the DA can outsource some specific assignments to PO's.

Capacity building of the EHOs and CDOs will be outsourced by CWSA to a qualified NGO or a consultancy company, who has the expertise of doing capacity building of field workers with regard to gender sensitive community mobilisation, O&M and hygiene promotion. Special emphasis will be given to improve methods for promotion of sanitation and hygiene. The capacity building will be based not only on lessons learned from different regions and donors, which will be documented at the resource centre at CWSA Head Office, but also international best practices. Reuse of existing material when appropriate is encouraged. A prioritised training plan for the EHOs and CDOs will be prepared based on a focussed training needs assessment.

Community level

The training at the community level will be aiming at equipping the WATSAN committees with the relevant skills to enable them function as a responsible community organisation and at creating a general awareness and understanding of O&M needs and the need for proper hygiene behaviours among the traditional leaders and community elders. The training programme for the WATSAN committees and the WSDBs include the following:

- Identification of needs (use of the problem tree¹)
- Planning
- Mobilisation of funds
- Environmental health and cleanliness
- Motivation and morale
- Hygiene promotion
- Conflict resolution
- Community organisation (minutes writing, mobilisation, book-keeping etc.)
- Basic maintenance of facilities (for pump caretakers)

Private sector

The involvement of the private sector in the provision of goods and services will continue under this programme. The capacity of the private sector will therefore be developed to enable them meet their performance requirements, for example:

Area Mechanics: The component is expected to continue the linkage with the Danida/KfW funded programme in CWSA for the supply and stocking of spare parts to organise refresher training programmes for existing area mechanics and initial training for newly identified area mechanics on the maintenance of water facilities.

¹ A problem tree is a graphical illustration of the hierarchy of various sub-problems leading to the key problem which the activities of the component are aiming at reducing or removing.

The component will also organise training sessions on marketing, funds management and the sale of spare parts for the area mechanics.

Latrine artisans: In addition to being equipped with latrine construction techniques, the latrine artisans will be provided with social marketing and entrepreneurial skills. The expectation is that the artisans will become proactive and accelerate the pace of latrine construction in parallel with the promotion taking place through promotion campaigns organised by the component..

Consultants and contractors: A series of workshops and seminars will be organised for consultants and contractors. This will be complemented with on the job coaching. The rationale is to ensure quality control and compliance with standards.

Establishing a works department at district level

The concept of establishing Works Department (WDs) at the district level has been under discussion for some time between the MWH, MRT, MLGRD and the NESPoCC, and a pilot activity in support of district roads development has been established in the Volta Region. However, the organisational structure, staffing, job-descriptions and resource allocation for a broader implementation initiative have not yet been agreed for nationwide application. Although, district works departments could provide some support to the water sector, the extent of this is unclear. It is significant that the structure of the WDs has been defined for six pilot districts (four in Volta Region and two in Greater Accra Region); appointments to key positions have also been made. If found relevant, pilot activities in the six districts of Volta and Greater Accra Regions can be funded under the budget line for district capacity building of this component. The pilot activities will be coordinated closely with the feeder road component of the Danida road and transport SPS.

Support Area 2: Improved knowledge, attitudes and practices in relation to environmental and sanitary problems

Access to water and sanitation facilities is necessary but not sufficient to decrease water and sanitation related diseases. To bring about real improvements in health, the installation of facilities has to go hand in hand with their proper use and maintenance. The hygiene promotion aims to encourage a wide range of actions among men, women and children that help break the chain of water and faeces borne diseases.

The hygiene promotion will focus on the most critical hygiene behaviours, which will be identified through a review of existing Ghanaian documentation combined with international experience. The methods used will consist on a combination of community involvement in decision making, participatory hygiene promotion and social marketing. The methods used will be cultural and gender sensitive. The aim of the hygiene promotion is not only to teach scientific concepts (where needed), but more importantly to enable men, women and children in the community to overcome constraints to change.

Intensive hygiene promotion will be carried out in the communities, where water and/or sanitation facilities are installed.

More extensive hygiene promotion using social marketing will have a broader audience. The social marketing methods could comprise radio programmes, popular theatres, calendars, posters, songs etc, depending on the recommendations of an initial survey of experience in Ghana on the best approaches to achieving behavioural changes with regard to hygiene and sanitation.

A package of software activities will be developed for each of the physical facilities for example for point water sources, piped water supply, school latrines, public toilets etc. Some sanitation and hygiene promotion activities will be carried out without the provision of any physical facilities, for example issue based campaigns on guinea worm, latrine promotion, hand-washing, training of latrine artisans etc.

The component will on a pilot scale experiment with software activities related to new aspects, for example solid waste collection, water for productive use, drainage, multiple village piped water scheme etc. Experiments could for example be community mobilisation and organisation for management of the facilities, promotion for behavioural change and private sector involvement

As a matter of principle all physical implementation has to be accompanied by appropriate related software activities. The activities and the budget for this should be approved by the Regional Approval Committee at the same time as approving the physical installation.

Support Area 3A: Community water supply

Least cost option

In facilitating the choice of the most appropriate water supply technological option for a community, two main interrelated factors should be taken into account; sustainability and costs. Sustainability is a function of the continuity of the water source and the technology, whereas costs have two elements, capital costs and operations and maintenance cost. Selection criteria should be based on least cost, but with the understanding and knowledge based on detailed investigations, that the water source would be sustained at a reasonable quantity and quality.

Shallow wells

Shallow wells are drilled with a small mud-drilling rig and are equipped with NIRA pumps. The technique represents a somewhat cheaper option than the deep borehole and should be selected whenever the hydrogeological conditions allow.

Hand-dug wells

Hand-dug wells have also proved to be economic and viable water supply technologies in areas where the aquifer is shallow and where the overburden comprises loose or friable material. The wells are by necessity up to 1.5 meters diameter and can be sunk up to 18 meters or more. The well should be lined (at least partially) using concrete rings or brickwork. With large diameter wells it is essential to provide a raised cover slab so as to avoid contamination from the surface. The well is

then equipped with a low lift hand pump and apron similar to a mechanically drilled well.

Boreholes and hand pumps

Experience in the first phase indicated that mechanically drilled deep boreholes equipped with a hand pump are likely to be the most common least cost technological option for rural water supplies as dictated by local hydrogeological conditions. Boreholes (or tube-wells) lined with uPVC casing up to 100 meters deep and equipped with deep well hand pumps have proved to be adequate to serve communities of up to 300 people. Robust and easily maintained hand pumps are essential for the sustainability of the facility. The Ghana modified India MKII, the Afridev, the Nira and the Vergnet pumps all fulfil this requirement. However, the standardisation of pumping technology will greatly affect the ease of operations and maintenance. The use of the Ghana modified India MKII pump necessitates the use of the very costly stainless steel risers and therefore it has been decided that in this Component the Afridev pump with PVC risers shall be used for deep aquifers and the NIRA pump (which uses PVC risers) shall be used for shallow aquifers. The introduction of the Afridev pump will initially entail much work with training and retraining of area mechanics and with the establishment of stocks of Afridev spare parts but the cost advantage certainly justifies the move. Notwithstanding the preference for the Afridev hand pump, the Ghana Modified Indian MK.II hand pump would also be considered where feasible (including future cheaper options for stainless steel pipes).

The borehole and pump installation would come as three packages, namely:

(a) Borehole drilling, (b) well pad construction and (c) pump supply installation and caretaker training. The head works should be completed with a concrete apron and drainage channel to ensure that spillage water does not infiltrate back into the ground near the borehole. In addition it is preferable to fence around the head works to stop the incursion of animals. The surplus water can be channelled into a vegetable garden or used for watering animals.

Borehole siting would be carried out by specialist consultants who would work closely with the WATSAN committees to ensure the community preferences for the location are taken into account for both domestic and productive purposes.

In support of the schools hygiene education program, where ever possible, a borehole or shallow well should be located adjacent to the community school in order to facilitate and reinforce the hand washing educational message. In remote schools where latrines are constructed and where a water supply is not available within 300 meters a borehole or shallow well should be provided on the premises, if at all feasible.

In low yielding hard rock wells 'hydro fracturing' techniques can be used to increase their yield. However, this is an expensive procedure and there are a limited number of skilled contractors in Ghana. The success rate of using this technique should be evaluated before adopting its use throughout the component.

Rainwater harvesting

This technique has been used successfully on a very small scale, mainly household, by collecting and storing rainwater from the house roofs during the rainy season. Because of the long dry season and the prohibitive costs of building water catchments and storage, it should be seen as a supplementary measure to be promoted at the local level, e.g. households and schools.

Operation and maintenance of community water supplies

Operations & maintenance of the community water supply facilities will become the responsibility of the WATSAN committees who will appoint a pump caretaker for day-to-day maintenance. For major repairs, the WATSAN committee should make use of the local private sector. In WSSPSI area mechanics have been trained and spare parts made available at local stores. Refresher training and the training of new mechanics would take place in WSSPSII in collaboration with the CWSA/K.f.w initiative.

Water for productive purposes

Where surplus water exists over and above the domestic requirements it can be used for communal productive purposes such as garden watering and brick making. The district planning process should take this into account.

However, potable water supply should be prioritised at all times, but when excess water is available and when the community is in agreement, then minor installations for conveying water at short distances from existing or new hand pumps to watering points for animals or for watering of small scale crop production can be implemented. The community decides on the necessary issues of payment for water and maintenance of the systems before supplementary installations are made.

Productive use of water can be promoted through the construction of dug-outs and improvement of water points with minor works where this will benefit the poorer sections of the population, e.g. in the dryer areas of for example Northern Volta, where feasible (c.f. ongoing WRC study of water resources available for productive use of water).

Separate boreholes or piped schemes for productive water can only be considered when a more detailed programme strategy for support has been adopted (depending on a closer review of the requests). The strategy should consider sustainability, the level of user contribution (higher than for potable water) and the poverty reduction aspects in the proposed projects.

Planning procedures for community water supplies

Based on the experience from Phase I and taking the challenges in the decentralisation to the districts into account a proposal for a revised planning process has been made including identification of the responsible organisation for each step. The planning procedures are attached in Annex 6.

Collection of community contribution

The community's contribution can come from a variety of sources. The manner in which the community contribution is collected be left entirely to the community itself.

The size and speed with which the contributions will be collected are affected by the confidence in the component by community leaders and members. Confidence can be expected to be lower where conditions are imposed on the community from external sources long before actual planning and construction starts. It is important that the component and other parties at regional and district level have reciprocal, time-bound obligations.

Therefore, preferably a reciprocal, written agreement (memorandum of understanding) be signed at the beginning of the planning phase at two levels:

- Between the CWSA and the DA, and
- Between the DA and the community.

The agreements would state the roles and obligations of each party, including time limits for specific actions from all parties. In this context it is important that planning and design work start soon after the first instalment is made and that tendering and construction starts soon after the second instalment is paid.

Officials from Ministry of Finance and Economic Planning have indicated that the DAs can apply for use of HIPC funds to pay for the 5% community contribution for poor communities.

Support Area 3B: Small Towns Water Supplies

Planning procedures for small towns water supplies

Based on the experience from Phase I and taking the challenges in the decentralisation to the districts into account a proposal for a revised planning process has been made including identification of the responsible organisation for each step. The planning procedures are attached in Annex 6.

Design criteria

The systems shall be designed with preference to supply through public stand posts and with only a limited number of house connections when the source is sufficient. House connections shall be metered.

The design shall include drainage of stand post and house connection to a soak pit or a drain leading out of populated areas. Stand post shall be placed based on consultations with the community.

The design criteria shall basically correspond to those indicated in the Small Towns Water and Sanitation Policy, CWSA.

It should be noted that the 45 lpcd, indicated in the design criteria is based on the following assumptions:

- A population growth of 3% over ten years. If there are reasons to believe that the growth would be higher, this should be taken into account. In this

connection it should be remembered that it is often seen that the very introduction of a safe and reliable water supply in a town immediately increases its growth rate; the water supply systems attracts migrants to the town.

- That 20% of the population is supplied with water from house connections at a rate of 60 lpcd and 80% of the population is supplied through public stand posts at a rate of 20 lpcd.
- 10% of physical loss, and
- 10% of domestic consumption allowed for institutions and commercial consumers

Population growth rate is indicated 'as per regional average'. As mentioned above, it should be noted that the growth rate has already been taken into account when fixing the average per capita design consumption. A differentiated approach in the estimation of the population growth should be applied as explained above.

The physical loss is, under this programme, to be set at 20%, which is considered a more realistic figure, but even such a loss demands a high degree of discipline on the part of the population (no illegal connections and prompt repair of even minor leakage at any time and at any place of the system). This will increase the average design consumption to 50 lpcd.

When comparing this figure with actual consumption figures from 10 small towns water supply schemes during Phase I it was found that only two schemes were actually producing more than 15 lpcd. One was producing 21 lpcd and the maximum production figure was 26 lpcd. However, there were reasons to believe that the high production in this specific case was due to high leakage rates rather than high water consumption by the consumers.

With the above in mind the design criteria should be reviewed during the inception phase taking the above actual consumption figures into account as well as the considerations on factors that may increase the future water demand. Likewise the CWSA draft policy for small towns water supplies should be consulted.

Normally a storage volume of 30% would be considered sufficient for systems based on boreholes but the 50% allowed for in the criteria should be maintained as they will, to a certain degree, alleviate the effects of short duration power break downs. However, if for safety reasons the design criteria for pipe works are kept at the high level (40-50 lpcd) it should be considered to keep the normal level of 30% storage, so that expensive design are not implemented - especially where it may be much more economical to add extra storage as the need arises at a later stage. Water quality also might deteriorate at high storage times.

Pressures as high as 60 meters as allowed for in the criteria should not be allowed as they increase the cost of piping dramatically. Instead, a pressure zoning of the system should be attempted if the location of different groups of boreholes allows for such zoning. Under no circumstances should pressure-reducing valves be introduced as they are very difficult to service and adjust.

The criteria indicate the use of galvanised steel piping for exposed, above ground, pipes. However, the use of galvanised piping will depend on the corrosiveness of the water. If the water has corrosive properties, it may be chosen to use PE piping even in exposed places. Alternatively, stainless steel piping may be used above ground e. g. at stand posts.

Since there is no risk of pathogenic bacteria entering the systems supplied from boreholes, regular chlorination plants should not be introduced here. If colonies of iron or sulphate bacteria form in the distribution system or pathogenic bacteriological contamination occur due to e. g. leaks and vacuum in the system, one off chlorination can be applied at that time by simply adding a solution of sodium hypo chlorite in the reservoir.

For schemes where the groundwater is found to contain excessive iron or manganese, it should be considered to construct a simple aeration and sand filtration plant. For surface water schemes, the simplest possible treatment method should be applied, which according to Ghanaian experience give a safe water quality (e.g. roughing followed by slow sand filtration).

Water quality

GWSA has earlier adopted the 1993 WHO guidelines for Drinking Water Quality for urban water supplies. However, standards for rural drinking water supplies seem to be under preparation by the Ghana Standards Board and the EPA. Until further decisions are made (e.g. during the Inception Phase or later) the Component will undertake chemical and biological testing of all new and rehabilitated water sources based on a pragmatic application of the WHO standards with an understanding that they should be seen as a guideline only and that strict compliance is not mandatory. The guiding principle being that the water source should be an improvement of the existing situation and should not be a health hazard. Particular problems that have been noted in some areas of Ghana have been high concentrations of fluorides, iron, manganese, sulphate and salts.

Rehabilitation of existing schemes

High priority will be given to the rehabilitation and repair of existing schemes that have failed or are operating at low efficiency. A simple repair may bring a past investment back into use. A prerequisite will be to ensure that the water source is viable and of good quality and that the community undertakes that they will be in charge of the future operations and maintenance of the scheme.

Gravity piped schemes

In hilly areas it may be possible to tap perennial springs and pipe the water by gravity to communities located at lower elevations. These schemes can be more economical to develop than surface water as the water may not require treatment. However, careful analysis of minimum flow is required to ensure the sustainability and quality of the source. In addition, the protection of the spring should be designed with the utmost care. Both minimum flows and protection measures should be 'on the safe side' before opting for gravity schemes.

Surface water intakes

The preferred type of raw water supply is groundwater based and whenever that possibility exists it shall be explored. However, in low lying areas where ground water is not available it may be necessary to abstract water from surface sources such as streams, rivers or lakes. By definition these schemes will be more expensive to construct and operate than ground water sources, as it is likely that the water will have to be mechanically pumped and treated. Detailed feasibility studies should be undertaken before embarking on such schemes.

Connections to GWCL mains

The policy regarding connections to GWCL mains remains unclear. However, CWSA has made it clear that this is considered to be the last option when other options have been ruled out. This is because of the potentially high operational costs and uncertainty of future water tariffs. Should the policy of GWCL change and its capacity to deal with small towns' water supply improve significantly, an Annual Sector Review can decide to endorse connection to GWCL mains as a response to small town water supply. However, preconditions for such a decision would be i) that the capacity and willingness of GWCL to provide sufficient quantities of drinking water to that particular small town is fully documented and ii) that the division of responsibility between GWCL, CWSA and the community in the particular small town has been explicitly agreed upon by all parties.

Operation and maintenance of small towns water supplies

The Water and Sanitation Development Boards, (WSDBs), already formed during the initial planning stage will be responsible for management, operation and maintenance of the systems. The WSDBs will receive training in financial management, including calculation of tariffs allowing for operational costs, expenses for preventive maintenance and sums to be set aside for repairs and renewals. The training experience gained in the GTZ supported small towns programme in Volta and Eastern Regions would seem to be a good starting point for the training of WSDBs. The WSDBs will after careful analysis be free to select any method of managing the system using their own staff who would then be trained by the DA staff assisted by CWSA or relying on the services of private contractors. BOO arrangements may also be considered, see below.

In the ongoing Volta Community Water and Sanitation WSSPSI Component the monitoring of installations revealed that a large proportion of these were in a state of disrepair or malfunction. Also an analysis from Volta region shows that proper allocation of funds to O&M will facilitate ultimately significantly higher coverage rates compared to a situation where all (the limited) funds are devoted to investment in new schemes. The Component has therefore embarked on a special exercise called Monitoring of Operation and Maintenance, MOM.

The methodology implies careful audits of all systems in close dialogue with the communities and subsequent follow up by repairs/rectifications. This is followed by regular follow up visits to the communities. The results are very promising and it is therefore recommended that the districts adopt this methodology and create a district

MOM unit along the same lines as that of the Volta Component. CWSA shall assist the DA staff with this.

Build own and operate options

CWSA and the World Bank have received funds from the Public-Private Infrastructure Advisory Facility (PPIAF), which is a multi donor technical assistance facility that aims to help improve developing country infrastructure through private sector involvement. After visiting 20 small towns in six regions, six small towns have been selected as pilots using different options of public-private contracts and relationships. Generic model contracts and guidelines for both the provision and management of both water and sanitation have been prepared and the management process will be closely monitored. The outcome of the pilots will provide the basis for future policy and practice of private participation in the water sector.

Support Area 4: Environmental sanitation

Definition of environmental sanitation

The component uses a fairly broad definition of environmental sanitation, basically identical to the water-related environmental sanitation activities specified by the MLGRD Environmental Sanitation Policy and relevant for rural areas and small towns. The component's definition therefore comprises:

- Construction of latrines
- Collection and sanitary disposal of wastes (including solid wastes, liquid wastes, excreta, industrial wastes, health care and other hazardous wastes)
- Storm drainage
- Cleansing of thoroughfares, markets and other public spaces
- Control of water related pests and vectors of disease
- Environmental sanitation education and
- Inspection and enforcement of the relevant regulations

The major aims will be installation and promotion of institutional latrines with hand washing facilities, promotion of hygiene and household latrines and promotion of environmental sanitation solutions which can solve or minimise water related environmental health problems. Within the facilities for promotion of small-scale projects a fairly open approach will be taken initially depending on how well argued the wishes of the districts are. However, it is expected that the main activities will deal with collection and disposal of solid and liquid wastes and drainage of sillage and storm water.

The need for interventions

The need for interventions in the area of environmental sanitation is based on the facts that:

- coverage for on-site sanitation is low and promoting household latrines remains a major challenge to many DAs
- environmental sanitation is a daily 'headache' of many DAs who are faced with problems of excreta management in congested 'core' parts of small towns, refuse collection and disposal as well as collection of septage and treatment, storm-

water drainage and sullage conveyance (the same problems faced by larger urban towns and cities)

- many districts have inadequate bye-laws with regard to environmental sanitation and/or inadequate enforcement of such bye-laws.

Proposed overall strategy

The strategy for support within the area of environmental sanitation will include:

- Hygiene promotion in general and renewed efforts for promotion of household latrines
- Implementation of school latrines with hand washing facilities, combined with hygiene promotion and hygiene education (under the SHEC)
- supporting small towns to undertake environmental sanitation assessments and audits to aid the development of plans for incremental improvement in excreta management and disposal/treatment, refuse collection and disposal/treatment, as well as infrastructure for sullage and storm-water conveyance (as part of District Water and Sanitation Plans)
- financing limited but high priority initiatives consistent with DWSPs and shall be competitively selected from submitted plans from participating DAs – districts can apply for further support for priority interventions upon completion of initial projects, and depending on availability of funds.

Household latrines

The most important requirement of a latrine is to isolate excreta from the environment thereby breaking the disease transmission vector. A basic, safe, hygienic, low cost improved pit latrine will be promoted during the project for household use. This basic improved pit latrine consists of a simple rectangular reinforced concrete slab with a vent pipe, which is placed over a pit will provide for the minimum requirement. In firm ground a simple ring beam or collar of brickwork or concrete can be used to support the slab. However, in soft ground the pit may need lining either partially or fully. Excavation of the pit and construction of the latrine superstructure would be the responsibility of the individual householder. The slab can be relocated when the pit is full.

Two other types of improved pit latrine are commonly used in Ghana, the Sanplat and the Mozambique Latrine. The Sanplat consists of a small rectangular concrete slab with one keyhole shaped hole for wastes, the slab is supported over the pit on wooden poles, a ventilation pipe is usually provided to the rear of the slab. This is not recommended as the poles will eventually rot away and is therefore not considered safe. Whereas, as the name suggests, the Mozambique latrine was developed in that country as a low cost slab for mass production. It consists of a circular concrete slab, slightly domed to reduce the need for reinforcement. The circular shape allows the slab to be rolled into position from the place of manufacture. The original design had one keyhole for waste and was equipped with plug to seal the hole. In Ghana, it is usual to provide a ventilation pipe. Where the ground is unstable the pit is lined with block work.

The well-known Kumasi Ventilated Improved Pit latrine (KVIP) latrine is an option for those that can afford them. However, they are very expensive as shown below and should not be actively promoted by the Component other than for public or institutional use. The KVIP incorporates a lined double pit that can be used alternatively and easily emptied. When one pit is full the other is used and after one year the content of the first pit is converted to compost and pathogens have died off. The pit can then be emptied by hand-tools and the compost used as soil conditioner. Operations and maintenance of household latrines is the responsibility of the householder who may request advice from the EHA.

Promotion of household sanitation

Based on the experience available in Ghana (Danida, CIDA, WB) there seems to be very low priority for household latrines. All programmes have had difficulties in meeting their targets even in spite of generous subsidies given earlier. Therefore a study will be conducted on existing knowledge about cultural barriers to change, the motivating factors and options for improved campaign and promotion with the aim of either securing higher effect from the promotion or assurance that the health improvements can be obtained in other ways. The study will be completed during the inception phase. The output will be recommendations on one or more approaches to test in pilot phase. In case of positive results with any of the approaches, an up-scaling to cover the entire intervention area can be decided.

Until the results of the testing are available, household sanitation will be promoted by EHA's and CDOs assisted by the WATSANs and WSDBs through the general gender sensitive hygiene promotion and intensive campaigns.

A number of latrine artisans have been trained by other programs and are present in all districts and in many towns. To the extent possible, the Component will utilise these builders. Preference will be given to artisans who are already established and known in the area. The Component will train more latrine artisans in both construction and marketing skills. The training will include the construction of a wide range of latrine options, so that they can provide the type that potential customers can afford, like and which fit to the soil condition. The training will also include social marketing.

Demonstration latrines can be installed in special cases where intensive hygiene promotion and installation of school latrines is taking place. Completed demonstration latrines will be subject to inspection by DA staff supported by CWSA and the technical assistance that will issue a completion certificate indicating satisfactory work. Artisans who fail to maintain good standards will not receive the final payment and will be blacklisted.

Institutional latrines

An inventory of the condition of existing institutional and public latrines will be carried out. Based on this inventory a review of the most appropriate design and O&M of these latrines will be carried out taking into consideration gender aspects. This will form the basis for a revision of the guideline (if needed).

School latrines

Some of the reasons for installing latrines in schools are:

- **Effective learning:** Children perform better if surrounded by a hygienic and clean environment.
- **Enrolment of girls:** The lack of private sanitary facilities for girls can discourage parents from sending girls to school and contribute to the drop out and absence of girls, particularly at puberty.
- **Reduced risks for disease and worm infestation:** If school sanitation and hygiene facilities are absent, or are badly maintained and used, schools become health hazards.
- **Environmental cleanliness:** Proper facilities will prevent pollution of the environment and limit health hazards for schools, families and the community at large.
- **Implementing children's rights:** Children have the right to be as healthy and happy as possible. Good health and sanitation contribute to a happy childhood.

Schools will be identified for renovation of existing latrines and construction of new latrines by DA staff and GES/SHEP. The plans should take the existing plans for school improvements into account.

Schools will qualify for school latrines under the condition that appropriate water supply for hand washing is available or can be made available, that existing sanitation facilities are not appropriate and that the school staff organise a gender-balanced system for cleanliness and O&M of these latrines. Selected staff will participate in training on the proper use and O&M. Priority will be given to schools in poor communities. If relevant, private schools may also qualify for support with institutional latrines. However, in this case the beneficiary contribution is 50%.

School latrines will be based on the multi-compartment KVIP design of 6 to 10 cubicles. The latrines will be provided with simple hand washing facilities. Separate latrines will be provided for girls and boys (same number of cubicles). For schools with small children it should be considered to provide special compartments with smaller key holes and perhaps with more light as it has been experienced that small children may be afraid of using adult sized compartment. For schools with girls in puberty the chosen design must give the girls sufficient privacy.

One male and one female compartment can be set aside for the staff in the school, while the remaining compartments will be for the children. Urinals may be considered as a less expensive alternative to some of the compartment for male students and teachers.

Intensive hygiene promotion in schools which have received latrines will be carried out by SHEP, through the SHE component.

Latrines in public health units

Public health units can also be identified for renovation of existing latrines and construction of new latrines by DA staff and the District GHS. These plans should take the existing health estate plans into account.

Public health units will qualify for latrines under the condition that appropriate water supply for hand washing is available, that existing sanitation facilities are not appropriate, and that the health staff organise a system for cleanliness, O&M of these latrine. The staff will participate in training on the proper use and O&M of these new latrines. Priority will be given to Public Health Units in poor communities.

Public Health Unit latrines will be based on the multi-compartment KVIP design of 4 to 8 cubicles. The design should leave sufficient privacy for women to use.

One male and one female compartment can be set aside for staff at the public health unit, while the remaining compartments can be used by the patients.

Public latrines

In public places for example a bus stand or market, an existing association or management committee can apply for a public latrine (but not for a 'neighbourhood latrine'). Applications will qualify under the condition that appropriate water supply for hand-washing is available and that existing sanitation facilities are not appropriate. The association or management committee will be responsible for the running of the facility, however it might be agreed to lease out this latrine. The public latrine might become a pay toilet in order to ensure the financial sustainability. The day-to-day management will participate in training on the proper use and O&M of these new latrines.

Management of solid and liquid wastes

Management of solid and liquid wastes in small towns is an area that has not attracted much attention in Ghana so far in terms of experience, guidelines and support structures. However, as part of the development of the urban infrastructure programmes for large cities and municipalities some guidelines (e.g. for preparation of district Waste Management Plans and for planning and construction of landfills) have been made under the auspices of Ministry of Environment and Science, EPA and MLGRD. However, it is the impression that most of the effort has gone into solutions that are most relevant for larger towns and cities. On the other hand almost all districts claim that management of solid wastes is a difficult task for them, taking up a large part of their scarce resources. Thus there are good reasons to experiment with solutions that are well suited for the problems as they are found small towns and peri-urban areas. The experience gained should be made available to a larger circle of interested parties e.g. through the MLGRD unit for environmental sanitation (supported by the Policy, Monitoring and Management Support Component of WSSPSII). The sub-projects should be designed so that experience is gained also on the management and awareness issues of environmental sanitation.

Criteria for selection of pilot environmental sanitation projects could include that it is an innovative solution to an environmental health problem, that it contains relevant

description of the context and that, it will be sustainable. The communities touched by the project should be involved in the planning.

Gender strategy

Much work has already been done in promoting gender awareness and balance in the water and sanitation sector. Gender awareness is found to be high lightened in existing information and training materials. Moreover, a high degree of gender balance has been achieved in the health and community development staff at the district level.

The gender strategy for the water and sanitation sector which was prepared in 2001 has the following elements:

- Main-streaming gender issues
- Gender awareness training
- Gender balanced staffing
- Gender training for community leadership
- Focus on women's participation at all levels.

However recent studies shows that even though organisations are endeavouring to integrate gender into their organisational policy and structures, high illiteracy, poverty, cultural, religious and social barriers hinder its effective implementation.

Therefore the focus in the WSSPSII will be on ensuring that the existing gender guidelines and information and training material are consistently used and regularly monitored. If need be the guidelines will be adjusted based on experience. The national strategy will be followed, but special emphasis will be given on ensuring that gender awareness continues to be included in information materials and in applying gender-sensitive selection criteria for membership in various decision making bodies and committees, giving access to training opportunities, and ensuring the active participation of women at all levels.

Monitoring reports will include a chapter on gender participation and balance, which will be submitted to the RAC for their comments and suggestions. A gender coordinator could be appointed among the regular regional staff to ensure that reports are prepared, gender issues are taken into account systematically and that barriers are identified and solutions found. However the responsibility still lies with the management.

HIV/AIDS

In Ghana the number of people living with HIV/AIDS is 360,000 of which 330,000 are adults between 15 and 45 years equivalent to 3% of the adult population.

Access to safe water and sanitation is indispensable for people living with HIV/AIDS and for the provision of home-based care to AIDS patients. Water is needed for bathing patients and washing soiled clothing and linen. Safe water is necessary for taking medicines. Nearby latrines are necessary for weak patients. Finally, water is

needed to keep the house environment and latrine clean in order to reduce the risk of opportunistic infections. Water and sanitation provision increases the sense of dignity of both patients and caregivers,

For people living with HIV/AIDS (this includes households/family members of HIV positive people) improved water handling, sanitation and hygiene is even more important than among healthy people. In communities where HIV/AIDS is an important problem hygiene education could be specifically targeted at caregivers and volunteers involved in home-based care.

It is worth noting that the composition of the water user population might be changing in some communities. Particularly in rural areas water users are increasingly sick, elderly, widowed or orphaned – with a small but growing number of child-headed households.

To the extent possible water supply points and latrines should be accessible close to where they are needed. This not only reduces the burden of distance – for example, fetching water by care-givers or those who are weak – but also reduces the risk of girls and women being raped while fetching water or relieving themselves in remote places, and thus reduces vulnerability to infection with HIV. The design of the water systems need to take into account that those fetching water may be children or older people who have particular requirements (pump handles not too high, pumping not too heavy, the wall of the well not too high etc.). This is especially relevant where these tasks fall increasingly to children and the elderly as a consequence of AIDS.

Clean water is crucial for infant feeding. If a mother is HIV positive, there is a one in three risk that she may transmit the virus to her baby through breast milk even if the child was born HIV negative.

Infected people and their families can become excluded from community-based water and sanitation decision-making due to the stigmatisation of HIV/AIDS victims. Extra efforts are therefore needed to ensure that the voices of people living with HIV/AIDS are heard, either directly or indirectly by representation.

Institutional impact of HIV/AIDS

- Loss of skilled staff leading to delays and reduced quality of planning and construction of WS systems
- Decrease in staff, resulting in lower construction capacity
- Decrease in staff, resulting in reduced technical support for operation and maintenance and quality monitoring
- Decrease in staff, resulting in reduced capacity to carry out hygiene education (decrease in water sector staff or staff of the Ministry of Health that is even more overburdened by the epidemic)
- Reduced budget which may affect provision of new systems and financing of community capacity building and hygiene promotion activities
- Reduced morale possibly resulting in delivering of less and lower quality services

- Possible stigmatisation in target communities of staff known to be HIV positive, which may compromise their effectiveness.

Organisations who are implementing the component can adopt ILO Code of practice, which contain fundamental principles for policy development and practical guidelines from which concrete responses can be developed in the following key areas:

- Prevention of HIV/AIDS
- Management and mitigation of the impact of HIV/AIDS on the world of work
- Care and support of workers infected by HIV/AIDS
- Elimination of stigma and discrimination on the basis of real or perceived HIV status.

Environmental considerations

With reference to the Danida guidelines for environmental impact assessment the component can be classified as category C because the pollution risks from the water supply installations the sanitation installation are considered to be low.

The Small Towns Water and Sanitation Policy of CWSA, contains a comprehensive reporting format for an Environmental Impact Assessment (EIA) of the systems to be introduced. The format will be followed but the descriptions should be brief and to the point. Particular attention should be given to the following issues during the assessment:

- Possible lowering of the shallow groundwater level as a result of the abstraction of deep groundwater.
- Possible pollution of shallow ground water or streams from latrines.
- Introduction of a protection zone around the watershed feeding the groundwater reservoir
- Drainage of spilled water from public stand posts and hand pumps.
- Disposal of wastes emptied from latrines.
- Disposal of sullage water in households following increased water consumption.
- Possible polluting effects of garbage dumps on existing shallow wells or streams.

The EIA shall be submitted to the Environmental Protection Agency (EPA) and the Water Resources Commission (WRC) for approval together with the application for granting of water abstraction rights (approval is only relevant for large schemes using more than 5 l/s on average). The CWSA shall assist the DA with the preparation of both the preliminary and the final application for abstraction of water as well as the preparation of the EIA (refer Annex 3 for details).

Synergies with other components

It is important to tap the potential synergy between the DBWSC and the other components. Particular synergies seem to exist with the SHE Component where

- Priority should be given to install latrines in schools belonging to communities, where DBWSC has installed water supply facilities.
- Priority should be given for intensive sanitation promotion in communities, where schools have appropriate latrines.
- Hygiene promotion will be stronger if the messages are harmonised with messages from the school hygiene education programme
- IEC material and experiences will be shared between DBWSC and SHE Component.

The DBWS Component also has clear synergies with the PMMS-component especially with regard to activities on:

- District Water and Sanitation Planning
- Capacity building at district level, including transparency in procurement (good governance).
- Strengthening of the district management, in particular the Works Departments and the EHS-departments
- Sector related policies.

Several of the above activities also have clear relations to the Danida supported decentralisation process (outside the water sector programme).

3. Logical Framework Analysis

3.1 Development and immediate objectives

The development objective of the Component is: *'Health status and quality of life improved in targeted communities and small towns of Volta, Eastern, Greater Accra and Central Regions'*.

This component objective contributes to the overall programme objective of *'Sustainable reduction of poverty is achieved through improved water supply, sanitation and hygiene education as well as increased knowledge and better use of the water resources in Ghana' primarily through the following impacts:*

- *Increased productivity of the rural population through improved health and reduced time for collection of water*
- *Improved financial situation of the rural population through reduced spending on health care costs and increased options for productive use of water.*

The emphasis will be on creating capacity at district level for the decentralized provision of water and sanitation facilities and provision of water supply and sanitation facilities in order to better target the poor and make better use of local water resources.

The component has four immediate objectives:

Immediate objective 1:

'Districts have adequate capacity for sustainable water and sanitation planning, implementation and operation and maintenance'.

This will enable the districts, using the services of the private sector, to fulfil their role of:

- Being service providers of Water Supply and Sanitation installations,
- Ensuring that the communities operate and maintain the water supply and sanitation installations
- Ensuring the better use of local water resources

Immediate objective no 2:

'Improved behavioural patterns with respect to use of safe water and sanitary facilities in targeted communities and small towns'.

This will be promoted to secure that the health benefits of the installations will be achieved as much as possible and to ensure that the barriers for a broader implementation of especially household latrines are lowered.

Immediate objective no 3:

'Access to safe and sustainable water in rural areas and small towns visibly increased in Volta, Eastern, Greater Accra and Central Regions'.

This will be provided by increasing coverage in the four regions of:

- Simple rural water supply based on point sources in villages (or if need be in the form of linked piped schemes)
- Small towns piped water supply installations,
- Limited infrastructure to enable available water resources to be used for productive purposes.

Immediate objective no 4:

'Access to sustainable environmental sanitation facilities increased in the target regions'.

26 - 30/6?

This will be promoted by increasing coverage in the four regions of:

- Institutional latrines with hand washing facilities, mainly in schools
- Environmental sanitation in the form of demonstration projects on solid and liquid waste management.
- Planning of environmental sanitation facilities integrated into normal district development planning procedures.

The capacity building objective shall prevail over the speed of provision of the facilities.

3.2 Outputs

Outputs related to capacity building at district level

Five outputs are related to the capacity building at district level:

Output 1.1: Districts have prepared District Water and Sanitation Plans (DWSPs) according to approved standards.

This output will primarily be characterised by the number and the quality of the district plans. Criteria for assessment of the quality of DWSPs will be reviewed/developed during the Inception Phase.

Output 1.2: Districts have mobilised communities, prioritised activities and actively support gender balanced community organisations for implementation and O&M of water and sanitation facilities

The output is based on a number of interactions with the communities and their organisations (primarily WATSANs and WSDBs). The district staff as well as private sector is used for both demand creation, training of stakeholders and promotion of hygiene and O&M, all with the support of CWSA where needed.

Output 1.3: Districts capable of defining sub-projects, tendering the works and supervised construction of installations using the private sector

This output comprises the districts ability to plan and implement physical and software projects through partly their own staff, partly through involving the private sector, consultants as well as contractors. The capacity building aims at

enabling the districts to play the role as initiator, facilitator and monitor, including significant elements of technical QA and financial management.

MM Output 1.4: Districts have provided relevant training and support for community organisations, artisans, area mechanics and other relevant local actors

In the decentralised system the districts will be the key local authority which will be responsible for securing sufficient capacity not only within their own organisation but also at the lower levels. Districts therefore need to be able to organise training and capacity building at unit and community level. The activities will focus on training relevant for the water sector towards a wide circle of stakeholders and will be based on involvement of both district staff and private sector. CWSA will support the districts where necessary.

Output 1.5: Districts are monitoring water and sanitation aspects on a regular basis

Due to the importance of directing efforts also at the O&M of the facilities the Districts need to institutionalise the MOM activities, so that the situation in the area is monitored regularly, action plans for remediation of problems are made and followed up on and final outcomes reported to the regional level (and on to the national level). CWSA will cooperate with the districts to implement the MOM system.

Outputs related to promotion of hygiene

Three outputs support the objectives on change of behaviour in relation to hygiene:

Output 2.1: Relevant strategy for community mobilisation and promotion of hygiene behaviour is developed

Due to the frustrating experience in many programmes about the lack of progress in promotion of household latrines it is deemed necessary to review existing experience on how to overcome barriers for adoption of household sanitation and improved hygiene practices. Behaviours that are most critical for health will also be identified. Based on the findings, the existing promotion strategy can be modified/updated to form the basis for future promotion activities.

Output 2.2: Districts have conducted participatory, hygiene promotion in communities receiving physical facilities (water points and latrines)

The districts will, with assistance from CWSA and partly using private sector, implement participatory hygiene promotion in all communities receiving physical facilities. The promotion will typically start before construction starts and be continued after the installations are complete to secure that the facilities are also used and maintained in the right way.

MM Output 2.3: Districts have carried out issue-specific hygiene promotion campaigns assisted by CWSA and other expertise .

A number of more general issue specific campaigns may be needed for promotion of various issues, such as promotion of household toilets, hand-washing practices, awareness of environmental sanitation needs etc.

Outputs related to increased access to water supply

The increased access to water supply is supported by the following five outputs:

Output 3.1: Communities have with assistance from CWSA and the districts developed adequate organisational structures for implementation and O&M of water supply systems

The organisational structures are primarily WATSANs and WSDBs which will initially be formed to promote physical projects, but after relevant training later be used also in the O&M phase.

Output 3.2: Increased access to sustainable water for rural communities in Volta, Eastern, Greater Accra and Central Regions through implementation of a total of approximately 1,150 individual water points (deep and shallow boreholes, hand dug wells and rehabilitated wells)

The facilities are expected to serve around 350,000 persons and will be implemented by private sector contractors, supervised by consultants and district staff, assisted by CWSA

Output 3.3: Increased access to sustainable water supplies in small towns through implementation of 20-30 schemes covering a total population of approx. 180,000

A number of schemes for small towns' water supplies have already been planned under Phase I (but not implemented). Depending on the final approval of these (including the very large scheme for Dangme East and Dangme West in Greater Accra Region) the funds set aside for this activity could prove to be easily committed. It is likely that there will be a need for further funds within the five year duration of the programme.

WWSM Output 3.4: Community organisations have taken the responsibility for the operation, financial management, preventive maintenance and repairs of the installations

The community organisations (WATSANs and WSDBs formed under output 3.1 will be further trained with an emphasis on the ability to manage the facilities that they receive through the programme. The capacity building will comprise formal training and sparring/consultancy during the take over period and the initial O&M phase

The aim is 80% of all the Danida supported water facilities will be in working conditions at any given time during the phase (also at the end of the phase). This means that both installations made in Phase II as well as the ones made during Phase I are to be operational throughout Phase II.

Output 3.5: A limited number of facilities for productive use of water installed on a pilot basis

The number and types of facilities for productive use of water will depend highly on two factors:

- The demands presented by the districts and communities

- The opportunities identified by the ongoing study of the suitability water resources (Current WRC activity)

However, in the target regions the number of locations where special facilities are justified is expected to be modest. At this stage no special funds have been set aside for this activity, since it is closely related to the individual water point in the communities. If the opportunities are documented to be significant and the demand is high, it may be necessary to allocate a special budget line for the activities.

Outputs related to improved environmental sanitation

The objective on access to sustainable environmental sanitation facilities is supported by five outputs:

Output 4.1: Increased experience and awareness available on environmental sanitation problems and potential solutions

The output is created in steps, initially through analysis of the existing Ghanaian and international experience, throughout the implementation period through dissemination of current experience and finally at the end through documentation of the gained experience.

Output 4.2: Environmental sanitation problems and solutions addressed as part of the District Water and Sanitation Plans

The long-term aim is that the solutions to the environmental sanitation problems in the districts are fully integrated into the normal district planning routines, including prioritisation of funds for different purposes.

Output 4.3: Small-scale sustainable environmental sanitation projects have been completed in 30 selected communities/small towns

A total of some 30 environmental sanitation projects is expected to be implemented in at least 20 different small towns. The projects proposals should comprise both physical improvements and the related social and management interventions.

Output 4.4: Increased access to well functioning institutional latrines at schools and market places in target regions

A total of 1,025 institutional latrines in schools and health centres plus 50 public latrines serving approximately 60,000 persons and 1,000 demonstration household latrines serving 10,000 people is aimed at. The structures will be implemented using private sector contractors and supervision through consultants.

mom Output 4.5: Districts/Communities have taken responsibility for the environmental sanitation facilities

The community organisations (WATSANs and DWSBs formed under output 3.1) and the districts will be further trained with an emphasis on the ability to manage the environmental sanitation facilities that they receive through the programme. The capacity building will comprise both formal training and sparring/consultancy during the take over period and the initial O&M phase.

The aim is that 80% of all the Danida supported sanitation facilities will be in working conditions at any given time during the phase (also at the end of the phase).

3.3 Activities

The outputs appearing in section 3.2 are shown below in italics and the corresponding possible activities are listed after each output:

Activities related to adequate capacity at district level

Output 1.1 Districts have prepared District Water and Sanitation Plans (DWSPs)

- Training of districts in making DWSPs
- Hiring of consultants (where needed)
- CWSA staff will be travelling to the districts and will assist the district staff with the validation of district data on demography and existing water and sanitation installations. This activity may already have been partly carried out prior to the start of the component.
- CWSA staff will assist the district staff in preparing the DWSPs. This activity will already partly have been carried out prior to the start of the component within the three 'old' regions.

Output 1.2 Districts have mobilised communities, prioritised activities and actively support community organisations for implementation and O&M of water and sanitation facilities

- Capacity and training needs analysis of the relevant district staff, the EHAs and the private sector in fulfilling their role in supporting community management and O&M prepared and training plans implemented.
- Training of district staff according to needs identified above, for example in various participatory tools and techniques to enable them to effectively educate and inform the traditional leaders and community members
- Various IEC materials including flipcharts, folders, games, cards, radio programmes and videos will be prepared for community education and information on O&M, O&M cost of facilities and roles and responsibilities of the WATSAN/WSDB, the traditional leaders and the community members by CWSA using the private sector
- DA staff will hold workshops in the selected districts and inform of all the features of the component
- District 'promoters' (EHAs) will be trained. Issues for the training will be identified in a TNA
- District promoters hold meetings in all communities to inform of the possibilities offered by the Component
- Communities that are interested in receiving support complete the application forms handed out by promoters
- Districts assist the communities in preparing proposals for sub-projects using the EHAs, other community workers, and the private sector and with the help of CWSA as the need may be

- District staff verifies information on application and bank account and meets with WATSAN/WSDB
- District staff prepares prioritised short list of communities to benefit.
- DWSC and DA approve shortlist
- Communities selected are informed.

Output 1.3 Districts capable of defining sub-projects, tendering the works and supervised construction of installations using the private sector

- District staff compiles packages of sub-projects for construction.
- CWSA staff carries out quality control of packages with respect to technical issues and cost estimates.
- Facilities Management Plans worked out by communities assisted by DA staff are signed.
- DA collects the 5% community contribution
- Private consultants are engaged to do detailed design and preparation of tender documents.
- DA launches tenders, evaluate tenders and sign contracts with the selected contractors (depending on capacity as assessed by Regional Approval Committee).
- Private consultants carry out supervision assisted by communities and using standardised checklists.
- Preliminary handing over of installations is done to DA. Consultants assist with inspection.
- Installations are handed over to communities who take charge of O&M and financial management

Output 1.4 Districts have provided relevant training and support for community organisations, artisans, area mechanics and other relevant local actors

Training of WATSANs and WSDBs:

- CWSA will review/prepare training manuals for WATSANs/WSDBs with piped water and handpump facilities respectively, ensuring that methodology includes the involvement of the traditional leaders and community elders.
- CWSA at regional level will prepare a short list of Consultants that can be used for WATSAN and WSDB training. This is to ensure quality.
- Consulting firms, will carry out community management training of WATSANs/WSDBs including O&M cost estimation, tariff setting, appropriate revenue mechanisms, efficient revenue collection, financial record keeping, prudent utilisation of funds, transparency and preparation of Facilities Management Plans
- All beneficiary communities will be educated and informed about issues related to O&M, O&M cost and roles and responsibilities with special focus on traditional leaders. This is done by the DA using EHAs and the private sector assisted by the CWSA as need be.

Training of area mechanics:

- CWSA will ensure that appropriate tools are available and field tested from preferably a local manufacturer.
- Using training material from Phase I (modified to suit the requirements related to the introduction of the Afridev pump), DA staff, assisted by CWSA as the need may be, trains area mechanics in the maintenance of hand pumps.
- DA staff encourages private retailers to stock spare parts.
- DA staff encourages area mechanics to market their services towards the communities.
- DA staff, assisted by CWSA as the need may be, assist WATSAN/WSDBs in drawing up contracts with private contractors for the maintenance of the installations.
- Communities call for assistance from DA staff when the need arises. DA staff provides such assistance assisted by CWSA as the need may be.

Output 1.5 Districts are monitoring water and sanitation aspects on a regular basis

- DA staff sets up a monitoring and evaluation system and prepares forms for the WATSAN/WSDBs to use. The principles of the system to be harmonised with CWSA for it to fit with the regional and thereby the national system, including periodic updating as needed. Where appropriate, sex desegregated data will be collected.
- CWSA will train the district staff in the needs and methodologies for O&M of water supply and sanitation facilities
- DA staff pays periodic visits to the communities (following the MOM principles developed by the Volta component) to assist the WATSAN/WSDBs in solving concrete problems related to technical, management or financial issues.
- In collaboration with the WATSAN/WSDBs the EHA in charge will make an assessment of the result of the performance monitoring and based on this take necessary action towards rectification of any malfunctioning facilities.
- The performance monitoring result are communicated to the DA and Regional CWSA for their information and necessary action. (Especially when a problem is becoming 'permanent' it is essential that the DA takes action.

Activities related to the introduction of improved hygiene practises in the communities

Output 2.1 Relevant strategy for community mobilisation and promotion of hygiene behaviour developed

Envisaged activities:

- Review of existing knowledge on how to minimise barriers towards behavioural changes with regard to hygiene and adoption of sanitary latrines

- Update/revision of a gender balanced strategy for hygiene promotion
- Hygiene promotion material from phase I components is updated and streamlined with that prescribed by the National Strategy
- District hygiene promoters (EHA's) will be trained on the revised strategy for hygiene and sanitation promotion.

Output 2.2 Districts have conducted hygiene promotion campaigns in communities receiving physical facilities (water points and latrines)

Possible activities to support this output are:

- Hygiene promotion activities are planned together with the WATSAN/WSDBs.
- EHAs assisted by WATSAN/WSDBs carry out hygiene promotion in the communities.
- WATSAN/WSDBs continue carrying out hygiene promotion on their own
- EHAs visit the communities regularly to do follow-up and monitor the effect of the hygiene promotion
- If need be EHAs gives refresher courses to WATSAN/WSDBs in hygiene promotion.

Output 2.3 Districts have carried out issue-specific hygiene promotion campaigns assisted by CWSA and other expertise

The following steps are envisaged for this process:

- Setting up detailed criteria for funding of projects
- Elaboration of campaign needs and plans (part of District Water and Sanitation Plan)
- Preparation of campaign or training package
- Approval of campaign or training package
- Tendering and contracting
- Supervision and contract management
- Implementation of issue-based campaign
- Follow-up and Monitoring of the impact

The distribution of responsibilities for the different activities are shown in Annex 6.2 Planning Procedures

Activities related to outputs on water supply installations

Output 3.1 Communities have with assistance from CWSA and the districts developed adequate organisational structures for implementation and O&M of water supply systems.

The following activities are envisaged for this output:

- The WATSAN/WSDBs are formed at the stage of preparing the sub-project.

- Bank account for community contribution is opened and the agreed commitment fee (presently at 5%) is raised.
- Consultants and DA staff will train and assist WATSANs/WSDB to prepare the proposal and send this to the district for prioritisation and approval.

Output 3.2 Increased access to sustainable water for rural communities in Volta, Eastern, Greater Accra and Central Regions through implementation of some 1100 no's of boreholes and 160 hand dug wells

The flow of activities leading to this output is a series of inter-woven activities with different actors. Some of the activities are mentioned under other outputs but repeated here for the sake of completeness. The ones marked in bold are specific to this output:

- **Setting up detailed criteria for funding of projects (including poverty prioritisation) (Inception Phase)**
- Elaboration of District Water and Sanitation Plan
- Information meetings at DAs
- Community mobilisation & hygiene promotion
- WATSAN formed
- Elaboration of community application
- Pre selection of sub-projects
- Preparation of sub-projects prepared
- Sub-project packages approved by RAC
- **Detailed design and tender doc's prepared**
- **Tendering, evaluation & award**
- Hydrogeological investigation
- Construction & supervision / contract management
- O&M training for WATSAN and the caretakers who will do the day-to-day management and routine maintenance
- **Completion & hand-over**
- Follow-up and monitoring of O&M

The division of responsibilities for the above activities are outlined in Annex 6.3 Planning Procedures

Output 3.3: Increased access to sustainable water supplies in small towns through implementation of 30 schemes covering a total population of approximately 180,000 persons

The flow of activities leading to this output is a series of inter-woven activities with different actors. Some of the activities are mentioned under other outputs but repeated here for the sake of completeness. The ones marked in bold are specific to this output:

- **CWSA reviews design criteria for small towns water supplies (inception Phase)**

- Setting up detailed criteria for funding of projects (including poverty reduction criteria) (inception Phase)
- Elaboration of District Water and Sanitation Plan (see under output 1.1)
- Information meetings at DAs
- Community mobilisation & hygiene promotion
- Community submit application
- Pre selection of sub-projects
- Sub-projects prepared
- Sub-project packages approved
- WSDB formed,
- Detailed design and tender documents prepared
- Tendering, evaluation & award
- Hydrogeological investigation (if needed)
- Supervision construction /contract management
- Management model for day-to-day management selected
- O&M training and day-to-day management of the water supply for WSDB and the day-to-day managers
- Completion & hand-over
- Follow-up and monitoring of O&M
- Expansion for new connections. *(Assist DAs develop processes for connections, expansions, limitations)*

The division of responsibilities for the above activities are outlined in the Annex 6.4 Planning Procedures

Output 3.4: Community organisations have taken the responsibility for the operation, financial management, preventive maintenance and repairs of the installations

Planned activities:

- Training of community members and WATSAN/WSDBs in planning for the management of the facilities.
- The principles agreed upon in the Facilities Management Plan are now applied to the actual facilities and the DA staff, assisted by CWSA as the need may be, assists the WATSAN/WSDBs in calculating tariffs allowing for operational costs, expenses for preventive maintenance and sums to be set aside for repairs and renewals.
- DA staff trains WATSAN/WSDBs in bookkeeping and management of bank accounts.
- DA staff, assisted by CWSA as the need may be, carries out on the job training of WATSAN/WSDBs in operation and preventive maintenance of the facilities, which have now been handed over to the communities.

Output 3.5: A limited number of facilities for productive use of water installed on a pilot basis

Planned activities:

- Review of potential for productive water in the targeted regions (performed by WRC and evaluated by CWSA for further action)
- Review of proposals received from the districts
- Setting up a strategy
- Implementation of the chosen strategy as part of the daily operation of the component.

Activities related to the outputs on environmental sanitation

Output 4.1: Increased experience and awareness available on environmental sanitation problems and potential solutions

The following activities are envisaged for this output:

- Review of existing information and experience on removal of barriers for behavioural change with regard to hygiene and sanitation
- Feed back from component experience (ongoing throughout the duration of the component)
- Modification of implementation guidelines if relevant (EPA and MLGRD)

Output 4.2: Environmental sanitation problems and solutions addressed as part of the District Water and Sanitation Plans

Activities are envisaged for this output:

- Assessment and audits of environmental sanitation management in a number of districts
- Test methodology for integration of results of the assessments and audits in a few districts
- Feed back from experience of implementation of demonstration projects
- Modification of planning guidelines if relevant (EPA and MLGDR)

Output 4.3: Small-scale sustainable environmental sanitation projects have been completed in 30 selected communities/small towns

The flow of activities leading to this output is a series of inter-woven activities with different actors. Some of the activities are mentioned under other outputs but repeated here for the sake of completeness. The ones marked in bold are specific to this output:

- **Setting up detailed criteria for funding of demonstration projects**
- **Promotion of fund for sub-projects**
- **Survey of local needs**
- **Technical evaluation and prioritisation**
- **Funding of local contribution.**
- **Proposal for investment**
- **Setting up management structure for day-to-day management and O&M**
- **Tendering and contracting**
- **Supervision and contract management**

- Initial promotion of environmental health
- Commissioning/take over of facilities
- Intensive project promotion and awareness raising
- O&M training
- Operation and maintenance
- Follow-up and monitoring of O&M.

The division of responsibilities for the above activities are outlined in Annex 6.5 Planning Procedures

Output 4.4: Increased access to well functioning institutional latrines at schools and market places in target regions

The flow of activities leading to this output is a series of inter-woven activities with different actors. Some of the activities are mentioned under other outputs but repeated here for the sake of completeness. The ones marked in bold are specific to this output:

- **Setting up of detailed criteria for funding of projects**
- Survey of schools without adequate latrines
- Promotion of school latrines towards the potential sites
- **Securing commitment from school leadership PTA and SHC**
- **Technical evaluation and prioritisation**
- **Elaboration of proposal for investment**
- **Tendering and contracting**
- **Supervision and contract management**
- Initial hygiene promotion
- Commissioning/take over of latrines
- O&M training
- Operation and maintenance
- Follow up and monitoring of O&M.

The division of responsibilities for the above activities are outlined in Annex 6.6 Planning Procedures.

3.4 Inputs

Contribution by Government of Ghana

The government of Ghana will provide the following:

- Funds to carry out general monitoring of the development within the sector, e.g. coverage statistics etc
- Cost of office accommodation at the CWSA Head Office (or similar suitable location in Accra) for the international consultants
- Funds to cover the salaries and allowances of all members of the RWSTs in the four regions

- Funds to cover the recurrent expenditure (fuel, maintenance cost of vehicles and equipment etc) of the four regional offices and the head office
- Funds to cover the salaries and allowances and operational costs of the up to 43 DWSTs
- Office accommodation, furniture and cost of utilities of the four regional offices (including facilities for the consulting teams) and up to 43 DWST offices
- Funds to cover the launch of the component at the regional and district levels (apart from any costs covered by CWSA as part of their management fee).

Inputs by Danida

Danida would provide the following:

- 100% of the cost of the provision of water facilities (the remaining 5% after the community contribution will be reserved for covering inflation and/or an increased number of installations)
- Up to 100% of the cost of the limited number of household for demonstration purposes
- 100% of the cost of institutional latrines (only 50% for private schools)
- Up 100% of the investments in the environmental sanitation demonstration facilities
- 100% of the cost for the procurement of the services of local consultants and an international technical assistance team to offer advisory support to the component
- 100% of the cost of capacity building and training of district staffs
- Cost of 8 vehicles (To secure transport needs of the international and national advisors)
- Cost of office equipment for the advisors
- Direct budget support of DKK 35,000 per annum to each DA for the first two years
- Costs for community mobilisation and training (Incremental costs for the districts for training, promotion, project related operations and administration etc)
- Management fee to CWSA to cover incremental costs, both operational costs and additional staff input²
- Various component expenses as specified in the detailed budgets.

International technical, international experts

Long-term advisors:

- Management Advisor, Team Leader (53 mm)

² The total CWSA management fee is calculated as 5% of the cost of water supply installations, sanitation installations, capacity development of DAs, and mobilisation costs. 70% of the fee is allocated to Regional offices and 30% to CWSA HQ. A model is proposed where the fee is calculated on a performance base where 80% of the fee is based on the actual above investments, whereas the last 20% is based on a evaluation of achievement of the O&M goals for the project. A lower percentage of well functioning facilities will thus lead to a similar pro rata reduction in the last 20% of the administration fee.

- Assistant Management Advisor, MOM specialist (42 mm)
- Financial Advisor (53 mm)
- Engineering Advisor (Water Supply and sanitation) (42 mm)
- Hydrogeologist (42 mm)
- Community development/hygiene promotion Advisor (42 mm)

Pool of international short-term specialist:

- Various categories of specialists (45 mm)

National consultants

Long-term consultants:

- One financial specialist per region (55 mm/region)

Pool of Ghanaian short-term consultants for:

- Various categories of specialists (100 mm).

The international specialist and Ghanaian the long-term financial specialists will be contracted on the basis of an international tender. However, the financial specialists are supposed to be identified during the inception phase in consultation with CWSA. The Ghanaian short-term specialists will be contracted directly by CWSA on the basis of ToR agreed on between the management of CWSA and the Team Leader of the TA team.

3.5 Assumptions, risks and preconditions

Assumptions

The following assumptions that are critical to the success of the Component are made:

Enactment of the Local Government Service Act

It is assumed that parliament would have enacted the Local Government Service Act that would place the recruitment, deployment and control of all staff under the DAs. This would facilitate the capacity building of the DAs and strengthen the process of preparing and implementing the district water and sanitation plans.

Adoption of fiscal decentralisation and financial management system

It is expected that GoG would take the necessary steps to ensure:

- adoption of the proposed fiscal decentralisation system
- composite budgeting introduced and enforced in all districts
- training of core staff in composite budgeting
- introduction of appropriate financial procedures and mechanisms to ensure transparency and accountability

Apart from the above major assumptions a number of less important assumptions are stated in the LFA matrix, Annex 1. It is expected that the component will monitor both the above major assumptions and the ones in the LFA matrix.

Risks

The following risk that may hamper achievement of the planned results have been identified:

Implementation speed is slow due to low capacity of District Assemblies

It is assessed that in 2002, around half of the DAs in the three regions included in phase I have the capacity to effectively assume their responsibilities and functions as stipulated in the Component. The other half and probably most of the districts in Central region will require substantial assistance by CWSA in terms of actual help to prepare packages of sub-projects, tender procedures etc., as well as continued capacity building. There are some aspects of DAs capacity that are outside the area of influence of CWSA and the Component, such as the above mentioned assumption of enactment of the Local Government Service Act.

Adoption of national procurement policy

Late enactment of the Procurement Bill and subsequent late establishment of public procurement institutions will delay decentralisation of procurement. The water sector programme will follow and review the situation and take steps to further support the districts with training and capacity building in this regard.

Inability of the District Assemblies to contribute their financial quota

Given the limitations of the common fund allocated to the DAs, their ability to provide timely finances to complement donor funds (if such contributions are indeed introduced by the national policy and subsequently by the component) is doubtful. This could jeopardise programme implementation and affect the attainment of the envisaged coverage rates in the GPRS.

None of the risks are considered of immediate danger to the successful implementation of the Component.

4. Organisation, management and administration

4.1 Management of the component

Notwithstanding the transfer of responsibilities to the DAs for planning and the provision of physical investments, CWSA will have an important role in management of the Component, performing the following functions:

- Provide technical assistance, capacity building and supervision to the districts (e.g. preparation of water and sanitation plans, preparation of tender documents, supervision and monitoring of works),
- Support in mobilisation of communities
- Participate in tender evaluation at district and regional levels,
- Assisting DAs to prepare investment programmes and review disbursement requests (no objection),
- Ensure that facilities conform to national standards,
- Ensure post-construction monitoring of facilities at regional level.
- Plan and monitor progress in sub-sector at regional level.

CWSA is expected in collaboration with the DA to prepare annual plans for capacity building and organisational development for each district. The TA team will assist with this. The plan must be based on TNA of the relevant staff of the district and coordinated with other related initiatives.

Regional Approval Committee

In each region, a Regional Approval Committee will be established. It will meet under the chairmanship of the Regional Coordinating Director and comprise the following:

- Regional Economic Planning Officer, (Volta, Eastern, Greater Accra and Central Regions - each in their respective region)
- Regional Budget Officer, (Volta, Eastern, Greater Accra and Central Regions - each in their respective region)
- Regional Director, CWSA (Volta, Eastern, Greater Accra and Central Regions - each in their respective region)
- Regional Director, Ghana Education Service, (Volta, Eastern, Greater Accra and Central Regions - each in their respective region)
- Management Advisor (Danida representative).

The Regional Approval Committee will be responsible for the evaluation of the sub-projects under the district water and sanitation plans submitted for funding. In performing this role, the committee will screen and prioritise the sub-projects according to a transparent set of criteria. The criteria for prioritisation will include adherence to the key principles of the national strategy, considerations for poor and vulnerable groups and other criteria to be further developed in consultation with CWSA, MLGRD and other relevant stakeholders.

Particularly the issue of securing the poverty focus of the DBWS Component is a concern to Danida. Hence, special effort should be made to monitor the pro-poor aspects of the planned activities and remedial action taken to overcome possible social imbalances. Similarly, should the experience show that resource-weak DAs encounter difficulties in formulating and implementing sub-projects, the RAC must ensure that initiatives are taken to address this problem.

The Regional Approval Committee will meet twice in a year to approve the district work plans for submission to the Component Coordination Committee. Furthermore, the Regional Approval Committee will review the progress on utilisation of funds and in general provide information to the Component Coordination Committee.

Component Coordination Committee

The Component Coordination Committee will comprise the following:

- SPS Coordinator of Royal Danish Embassy,
- Chief Executive CWSA,
- Director of Water, Ministry of Works and Housing,
- Representative of Ministry of Local Government and Rural Development,
- Representative of Ministry of Education, Youth and Sports
- Representative of the National Development Planning Commission,
- Ministry of Finance and Economic Planning.

The Component Coordination Committee will

- Oversee flow of funds and disbursement,
- Submit proposed annual component budgets to the SPS Steering Committee
- Resolve technical and managerial issues,
- Ensure implementation of recommendations and decisions of joint Annual Sector/Technical Review (ASR),
- Track progress of implementation.

The CCC meets at least quarterly or wherever otherwise required.

Should other donors and key stakeholders be interested in getting a seat in the CCC, Danida welcomes this. For instance, there are indications that during the next phase of the CWSP, the World Bank will provide assistance to selected districts in Central Regions. Should this become a reality, joint implementation mechanisms and modalities should be considered. For instance this may take the form of the World Bank becoming a member of the CCC and development of the RAC as a joint structure for Danida and World Bank funded initiatives.

4.2 *Procedures for implementation*

Prior to the commencement of the Component, support will have been provided to the DAs for the preparation of District Water and Sanitation Plans. These plans will set out the framework needs and options for drinking water and the potential use of

water for productive purposes. The needs for household, public and school latrines, and environmental sanitation in rural communities and small towns will also be identified. The plans will indicate the needs of the poorest communities within the district. The plans will also include the provisions to be made for operation and maintenance of existing installations. CWSA is already developing the methodology for District Water and Sanitation Planning and are providing training to DAs in order to carry out the planning exercise. MLGRD and MES have prepared a manual for preparation of District Waste Management Plans that will also be of assistance. It is expected that at the outset of WSSPSII most DWSPs will be ready for evaluation and subsequent implementation of subprojects selected, based on expressed demands, from the plans.

Planning

Planning at component level (national and regional level)

A number of planning activities have to take place at component level partly at start-up partly on a recurrent (mostly annual) basis. One of the most important recurrent planning activities is the allocation of framework budgets (and targets) for each region, so that the framework for planning of implementation activities and allocation of resources in the regions can take place.

The following process is envisaged:

1. CWSA reports on expected end of year implementation status and proposes initial targets for the following year (including 'leftovers' from last year)
2. Danida (RDE) proposes total component allocations for the coming year
3. Available budget is allocated to the regions based on a number of criteria (c.f. principles listed below)
4. Regions comment on draft allocation
5. OCC proposes regional budget allocations to Programme Steering Committee
6. CWSA Regional Offices work out detailed consequences/plans
7. RAC approves proposed plans
8. RAC approves projects according to the agreed priorities
9. Districts implement the projects with support from CWSA.

The prioritisation criteria may comprise:

- The needs in terms of number of un-served population in each region within the category of communities looked at (Community water supply: <2000, Small towns: 2000-15,000 persons)
- Poverty targeting, meaning higher priority to regions, districts and communities with high incidence of overall poverty as well as extreme poverty
- Implementation efficiency so far within the programme, meaning if money from the previous period could not be allocated properly, figures should not be raised even though the coverage or the poverty profiles point in that direction, unless there are specific reasons for expecting better results in the coming year
- Phase-out of districts and regions when they approach full coverage (>80%) within a category. This may for example apply to Volta region after a few more years of intervention.

It is suggested that a model is developed during the inception phase for allocation of funds between the regions and for prioritisation of districts in the regions and finally for allocation of funds for specific projects. Poverty targeting must be a key element of the model. When an acceptable model is arrived at, the same basic principles can be used to set up targets for each region.

Not all districts may receive funding from Danida every year. Should capacity constraints on the side of RWST or other parts of the implementation structures require so, or if poverty concerns argue for this, can the RAC decide temporarily or permanently to halt or not to start the DBWS activities in selected districts.

The table below contains a first proposal for an allocation model.

Table 1. Allocation principles

Type of intervention	Inter-Regional planning	Regional Planning (prioritisation of district mobilisation)	Specific allocation
Capacity building	Equal priority across regions. Special funds available for Central region	Priority on weak districts and districts with high poverty incidence	Allocated along with projects.
Community water supplies (<2000 pop.)	Parameters: 1. number of unserved persons per region 2. Number of unserved people times 'Poverty index' *(to be further defined)	Parameters: 1. number of unserved persons per district 2. Readiness of districts (scale from 1-5) 3. Number of unserved people times 'Poverty index' *(to be further defined)	1. Readiness of districts (scale from 1-5) 2. Number of unserved people times 'Poverty index' *(to be further defined)
	Principle: Two pools, 50% allocated based on gross needs 50% allocated on poverty indicators	Principle: 1. General Ranking of districts according to parameter 1+2 2. Poverty ranking based on all three parameters. Half of communities are selected from each list	• Readiness of community
Small towns water supplies (2-15,000 pop)	As for community water supply	As for community supplies	1. Readiness of WSDB and town management 2. Poverty index for the town
School latrines	Number of schools not having latrines	Readiness of schools and district	No single projects but only packages
Environmental sanitation demonstration projects	Initially: According to number of people living in small towns Later: combine above with success-criteria	Initially: According to number of people in each district living in small towns. Later: combine above with success-criteria	• Feasibility of proposed idea • Innovative character • Spread over different categories of interventions

* The poverty index should preferably be based on GPRS indicators

Planning at district level

From the start of the Component, all DAs will be invited to participate. DAs that come forth and ask to be included will be assisted by RWST to in turn assist communities to develop sub-projects under the DWSP. DAs will be assessed according to whether they have

- District Water and Sanitation Plan prepared (CWSA will, if needed, assist the districts with the final preparation of the plans using the 'Trainers Guide on District Water and Sanitation Planning' prepared during Phase I by CWSA under the Sector Capacity Building Programme).
- Demonstrated ability to carry out the different elements of project implementation spanning from community mobilisation over preparation of tender documents, tendering, contracting and supervision.
- Special need of Water and Sanitation. (Guinea Worm infested areas)
- Commitment on the part of the district to contribute to the cost of installations (if relevant).

DAs that are assessed to be lacking in one or more of these aspects, will be offered assistance from RWST. It is expected that in the first year of the Component, only a smaller number of DAs will participate. In year 2, more DAs are expected to make use of the resources offered by the Component.

The project cycle in a district

The project cycle at District level consists of the following sequence of events³:

- **Information meeting at DA level.** CWSA will arrange for a workshop to be held at the DA to inform of the scope of the Component and of the institutional arrangements. The DA will also be informed of the budgetary provision for the first years intervention in the district. (Two interventions in each district are foreseen).
- **Information campaign in communities.** Members of the DA will travel to all communities to inform of the Component and of the opportunities it offers to the communities.
- **Requests for support by the communities.** Application forms will be distributed to the communities and the interested communities who are also prepared to put up their contribution will submit applications to the DA.
- **Pre-selection of communities.** The DA will, taking into consideration the budgetary provision for the first year's intervention pre-select the first batch of communities. Selection criteria will include: Poverty, commitment to contribute financially, special needs (Guinea worm infested communities and equity considerations).

³ This schedule is similar to the schedule used in the IDA funded CWSP-2.

- Formulation of community proposals and sub-projects. The DA will through the EHAs and the engagement of private sector consultants assist the communities in planning for their proposed installations. WATSANs will be formed and the future management of the installations will be discussed.
- Final selection and packaging of sub-projects. DAs will, assisted by CWSA, perform the final selection of sub-projects and will package them into suitable lots taking economy of construction into consideration. DA's will collect the 5% community contribution.
- Preparation of detailed designs and tender documents. DAs will engage private consulting firms who, guided by CWSA, will prepare the designs and the documents using existing CWSA standards. Where ever possible bore hole drilling contracts should be consolidated in order to achieve economies of scale.
- Launching of tenders. DAs will launch all tenders (except those to be determined otherwise by the Regional Approval Committee).
- Opening and evaluation of tenders. If tender sums are within the DA limit, tenders are opened by DA, if above, tenders are opened by the regional tender board. DAs, assisted by CWSA as the need may be, evaluate all tenders. If tender sum is above DA limit, the regional tender board endorses the tender evaluation report. DA signs all contracts (except those to be determined otherwise by the Regional Approval Committee).
- Construction. DA assisted by private firms and communities supervises construction. CWSA assists with contracts that are more complex such as gravity schemes or small town reticulations.
- Strengthening community management. WATSANs are trained in O&M and financial management. Hygiene promotion is planned and initiated.
- Follow-up support to communities. DA staff will regularly visit communities to assist WATSANs in solving problems. Management advice and refresher training may be needed as part of the follow-up.
- Spare parts and repair services. Area mechanics are trained and informed of outlets of spare parts. New outlets for spare part sales are established.
- Preliminary and final handing over inspections. Preliminary and final handing over performed by DA staff and or consultants. Support is given to caretakers at the same time.
- Monitoring and evaluation. DA staff establishes monitoring and evaluation system and reports regularly to CWSA regional level.

Estimation of unit costs and contributions

Costs and community and district contributions

For the water supply the community contribution will be 5%. At the outset there will be no other user charges applied by the WSSPSII.

The Component's implementation of procedures for district contribution and the level of it, will await a national policy decision on district contributions. A national policy is assumed to be in place within the first year of implementation and it is expected that some level of DA contribution will be made mandatory across the sector. At present the IDA financed CWSP-2 apply a 5% DA contribution. Danida will not follow this practice until the GoG has clarified its policy on DA contribution and on small town water supply schemes.

[The following sector refers to the situation that GoG decides to pursue the practice of collecting a 5% contribution from DAs:]

In order to enable both DAs and communities to assess their willingness and ability to participate in the component activities, the cost implications, i.e. the amount to be mobilised, are to be presented already in the information and selection phases. The implication of this necessity is that contributions will not be determined on the basis of actual construction costs in a specific community but will have to be calculated before decisions are made by the community based on standard predetermined unit costs as shown in the table below.

The small town component in the IDA funded CWSP-2, Phase 2, has calculated the average costs per capita for new systems *including boreholes* at USD 40 and at USD 32 for rehabilitated systems. The figures are based on a large amount of data obtained from systems actually constructed. These figures will form the basis for the calculation of contribution under this programme. Communities and possibly DAs will contribute to the cost of all installations, piping, and mechanical/electrical installations excluding the cost of the boreholes and their equipment and excluding the cost of surface water intakes.

The contribution per capita will thus be calculated based on a cost of USD 35 for new schemes and USD 27 for rehabilitation of schemes. (The cost of the boreholes and their equipment and the cost of surface water intake has been estimated at USD 5 per capita. The contributions are to be calculated based on the present number of inhabitants in the towns).

Table 2. Unit costs (USD) for water supply

Technology	Unit Costs USD	Basis for Contribution	Contribution 5% USD	Number of persons served	Contribution per capita USD
Drilled wells with deep-set hand pump	9,000 ⁴	9,000	450	300	1.50
Shallow well with low lift hand pump	4,500	4,500	225	150	1.50
Hand-dug wells with low lift hand pump	3,000	3,000	150	150	1.00
Small Towns – ground water source	240,000 including boreholes	210,000 excluding boreholes	10,500	6,000	1.75
Small Towns – surface water source	270,000 (incl. intake & treatment)	210,000 (excl. intake & treatment)	10,500	6,000	1.75
Rehabilitated Small Towns system	192,000	192,000	9,600	6,000	1.60

Table 3. Unit costs for sanitation (in Cedis)

Technology	Unlined	Lined
Basic improved pit latrine (Excl. materials for superstructure)	435,000	650,000
Mozambique Latrine	650,000	900,000
Improved pit latrine (Incl. Superstructure materials)	700,000	950,000
Household KVIP	N/A	2,250,000
Institutional KVIP 6 cubicles	N/A	40,000,000
Institutional KVIP 10 cubicles	N/A	70,000,000

The per capita contribution has been calculated as shown in Table 4.

Table 4. Per capita contribution

System Cost/Contribution	New systems (USD)	Rehabilitated systems (USD)
Cost per capita including boreholes	40	32
Estimated cost per capita of boreholes	5	5
Cost per capita excluding boreholes	35	27
Cost of system (example 6,000 inhabitants) excluding boreholes	210,000	162,000
Community Contribution 5%	10,500	8,100

Household latrines for demonstration:⁵ In general, Danida will not subsidise household latrines. However, for demonstration purposes, up to 1,000 latrines may be

⁴ The figure seems to be on the high side of the costs experienced in Volta Region, e.g. a total of 7,000 USD for a deep borehole (including 40 % for failures), an Afridev hand pump and hydrogeological investigations.

⁵ Danida's Sector Policy on Water Supply and Sanitation, 2000 states that: 'Household latrines are private property and, in general, subsidisation of private latrines should be avoided – and in no case exceed the level applied by the respective governments; private latrine production should be promoted'.

partly or fully paid for. The exact modalities for this have not yet been defined. However, preliminary thinking suggests that these latrines will typically be given to households in areas with unusually low coverage, or as part of piloting of different strategies for latrine promotion. The allocation of the demonstration latrines should be coordinated with the recommendations coming out of the sanitation promotion study and pilot tests mentioned earlier.

School latrines: Current experience shows that demand for school latrines far outstrips supply. To avoid lengthy waiting lists, schools will be allowed to apply directly (independent from community applications) for assistance. Danida will provide the school latrines with hand washing facilities free of charge to public schools. Maintenance will be the responsibility of designated school staff, supported by the school health management committee. Only schools that have or can arrange hand washing facilities for the use of the students will qualify for a latrine. When relevant, some of the latrines to be installed for male students and teachers may be replaced by urinals instead.

Private schools may also be considered for school latrines. However, in this case a 50% contribution by the school will be required.

Health unit latrines: Health units may also request assistance for the construction of latrines and should follow the same procedure as for schools as described above. Maintenance will be the responsibility of designated health unit staff.

Other public latrines: Danida will fund up to 20 public latrines at markets, bus stops or other congested places. No community contribution will apply. The district will, if a contribution is introduced contribute the percentage defined by the national policy. Maintenance will be the responsibility of the designated entity.

4.3 Financial management and procurement issues

Financial management

The overall financial administration of the component shall, in terms of the Danida contribution to the organisations to be supported under The District Based Water and Sanitation Component, be in accordance with current guidelines, for the time being, the 'Guidelines for Financial Management' and the 'General Guidelines for Accounting and Auditing through Governmental and Parastatal Organisations and NGOs' (MoFA 2003). On an annual basis, as part of the joint Ghana-Denmark Annual Sector Review, the rolling budget for the next financial year will be presented, and the budgetary commitments by Danida will be confirmed.

Flow of funds

(a) Component Account

The procedure for managing programme funds commences with the signing of the Programme Agreement. The Controller and Accountant-General shall, at the request of the Ministry of Works and Housing, authorise the Bank of Ghana to establish an

account to be operated by CWSA, the co-ordinating agency for the management of the District-based Water and Sanitation Component. The account to be referred to as the 'CD 1 Component Account' will be a non-domiciled foreign exchange account whose purpose will be to receive transfers from Danida and make expenditures, including foreign payments. It is therefore vital that the account is not fettered by administrative requirements for transferring funds abroad.

This account will be part and parcel of the Consolidated Fund of the Republic of Ghana and so will be so identified and designated to enable balances on it to be consolidated in the Government position. The operation of the Component Account will be the responsibility of the CWSA and it will be expected to employ standard financial management procedures (multiple signatories, submission of financial statements and audits). Information on the balances and disbursements on this account will be submitted to the Ministry of Finance and Economic Planning on a monthly basis by the Bank of Ghana, copied to the Ministry of Works and Housing and the Royal Danish Embassy.

A flexible procedure is being adopted that should enable other donors participate with Danida in the financing of water and sanitation interventions. The basis will be the adoption or acceptance of a common work plan. Budgetary support funds will be released by Danida into the Component Account on the basis of work plan and budget approved by the Component Coordination Committee (CCC).

(b) Operational Accounts

Procedures for programme management require that an Operational Account be established for the exclusive use of each partner organisation. In the case of the CWSA Head Office, the Controller and Accountant-General shall request the Bank of Ghana to set up an operational account for its exclusive use. This will be a regular FOREX account which will be fed from the Component account, on the basis of approved budgets and Work Plans and subject to the submission of detailed financial accounts for the previous but one full quarter.

With respect to the Regional CWSAs, Operational Accounts shall be created at each Office to receive funds for the implementation of the District Water and Sanitation Plans. The Regional Operational Account will be the conduit for payment to District Assemblies and the Sanitation and Environmental Health Units (SEHU) of the Ministry of Local Government and Rural Development. To minimise the diminution in the value of the cedi funds due to high levels of inflation, it is proposed that the account will be a regular FOREX account.

As much as possible the Operational Accounts shall be held in the same branch of the banks as the Component Account to reduce delays introduced when transfers are made to different branches even within the same bank.

Funds will be disbursed to District Assemblies on the approval of Regional Approval Committees, based on work plans and quarterly financial statements. Disbursement information will be forwarded to the Regional CWSA to be collated and forwarded to the sector Ministry and the Ministry of Finance and Economic Planning. To facilitate

the tracing of funds and auditing of the accounts, the funds approved and allocated to the District Assemblies (and based on approved work plans) are not to be co-mingled with the general funds of the District Assemblies.

Funds for sub-projects approved by the Regional Approval Committees will be transferred from the Regional CWSA Operational Account subject to certification that approved contracts have been awarded. The Quarterly meetings of the CCC will ensure that funds will not sit idle in accounts.

The Steering Committee will approve quarterly budgets based on financial statements prepared by the CWSA Regional Offices.

It will be the responsibility of the District Assemblies and SEHU of MLGRD to record the disbursement of Danida funds for reporting to the MLGRD and donors, according to the MTEF format.

Tendering and contracting

The National Procurement Policy will be followed.

As part of the integration into the government financial system, guidelines for contract awards proposed under the fiscal decentralisation system should be adopted when approved by government. The details of the guidelines for handling of tenders are presented in the table below:

Tender Boards	Building & CE Works	Approving Authority
District	Up to USD 100,000	District Assembly
Regional	Up to USD 1 million	Regional Minister
Central	Up to USD 1million	Central Tender Board
Central	Above USD 5 million	Cabinet

Source: Ghana Fiscal Decentralisation; Road Map Report. September 2002, page 24

Consistent with the principle and practice of the national (government of Ghana) tendering system, if a tender value exceeds the limit of USD 100,000 the tenders are launched at the regional or national level (depending on the value) where the tenders would be opened. In concert with the national tendering procedure, the tenders would be evaluated at the regional level and similarly awarded at that level. Finally the district signs the contract.

Accounting and auditing

Accounting

The accounting systems of CWSA and other partner organisations must provide the component management as well as Danida and the GoG with an up-to-date financial status and present timely financial reports to Danida and GoG. The system shall provide efficient control and monitoring of component funds and other assets made available to the component. The Water Directorate must prepare reports on a quarterly basis for GoG and Danida on their utilisations of funds. Danida holds the

right to withhold payment of funds until sufficient documentation has been received on previous expenditures. The financial management specialists of the WSSPSII will be tasked with assisting partner institutions in building adequate financial disbursement and monitoring systems.

Auditing

Component accounts shall be audited every financial year. With prior approval of the RDE competent local auditors may be appointed from either the Ghana Audit Service or any reputable accounting firm operating in Ghana. However, Danida reserves the right, at any time to field a special audit, to conduct financial and physical audits. Submission of final audits will be subject to approval by the RDE's representative prior to submission to Danida. For component accounting and audits the general Danida rules as given in the Framework for Accounting, General Guidelines and Guidelines for Decentralised Accounting apply. Audits should also evaluate the degree to which 'value for money' has been achieved, for example by comparing to standard unit prices.

5. Budget

The budget presented here is prepared on the basis of the above strategy and activities. The budget is estimated on the basis of constant prices medium 2003. In line with common Danida practice contingencies of approximately 4% are included. The total Danida contribution is estimated at DKK 271.7 million. The present budget provides the financial framework for the component only. Detailed annual budgets must be prepared for the individual regions in conjunction with the annual implementation plans and presented to the WSSPSII Steering Committee for approval.

Reshuffling of funds between the major budget lines require approval by the Annual Sector Review and require prior endorsement by the Steering Committee.

Danida Water and Sanitation Sector Support Programme II
District Based WSS Component Budget

MTEF code	Activity/Input	Quantity	DKK	
			Unit cost	Total
	Output 1. Support to district capacity building			9,910,000
31	District Capacity Building	Prov. Sum	-	1,500,000
31	Capacity building Central Region	Prov. Sum	-	1,500,000
321	Local Consultants, long term	225	10,000	2,250,000
321	Local consultants and PO's, short term	75	20,000	1,500,000
321	Project preparation fund	30	20,000	600,000
43	Initial mobilisation, district block grant	80	32,000	2,560,000
	Output 2. Community Mobilisation and training			16,362,591
3	Software support to projects		9.2%	16,362,591
	Output 3. Water supply installations			119,550,480
416	Deep wells with handpumps	930	64,800	60,264,000
416	Shallow wells with handpumps	165	32,400	5,346,000
416	Hand dug wells with handpump	160	21,600	3,456,000
416	Small Towns*, ground water based	10	1,728,000	17,280,000
416	Small Towns*, surface water based**	10	1,944,000	19,440,000
416	Rehabilitated Small Towns	10	1,376,448	13,764,480
Notes:	* Size of small towns 6,000 example			
	** includes possible investment in Dangme East&West..			
	Output 4. Environmental Sanitation			57,576,014
414	Household latrines	1,000	304	303,614
414	School Latrines 8 cubicles	950	45,540	43,263,000
414	Health centre Latrines 6 cubicles	75	36,432	2,732,400
414	Public latrines 8 cubicles	50	45,540	2,277,000
414	Small Towns Env.Sanitation	30	300,000	9,000,000
	5. CWSA Related costs			12,050,966
3	CWSA Management Fee		5.00%	10,050,966
43	CWSA Initial costs			2,000,000
	6. International TA Contract			44,770,000
322	Management Adviser	53	120,000	6,360,000
322	Assistant Management Advisor	42	120,000	5,040,000
322	Financial Advisor	53	120,000	6,360,000
322	Engineering Advisor	42	120,000	5,040,000
322	Hydrogeologist	42	120,000	5,040,000
322	Sociologist/Socioeconomist	42	120,000	5,040,000
322	International advisers' pool	45	150,000	6,750,000
321	Pool of national consultants	100	15,000	1,500,000
321	Financial consultants (national)	220	12,000	2,640,000
43	Equipment	Prov. Sum	200,000	200,000
33	Consumables and operating costs	Prov. Sum	800,000	800,000
	7. Various expenses			3,190,000
32	Pilot activities for documentation (in 3.1.15)	Prov. Sum		250,000
	Support for central spare part outlet	Prov. Sum	750,000	750,000
432	Cars	8	180,000	1,440,000
32	Audits	5	150,000	750,000
	8. Contingencies		3.8%	8,284,796
TOTAL DBWS COMPONENT				271,694,848

* Note: The budget allocations are indicative only and actual allocation will depend on the contents of the District W&S Plans and technical considerations.

6. Monitoring, reporting, reviews and evaluations

6.1 Indicators

As a minimum the indicators mentioned in the GPRS Monitoring & Evaluation plan draft document will be used (please see below). Further key indicators will be developed jointly during the Inception Phase. Besides a limited number of measurable output indicators, also impact-monitoring studies will be considered. Output indicators at activity level will not be useful for reporting purposes, while they may be used for the day-to-day management of the Component.

Programme objective	Verifiable indicators	Means of verification
Sustainable reduction of poverty is achieved through improved water supply, sanitation and hygiene education as well as increased knowledge and better use of the water resources in Ghana.	-GPRS indicators on Poverty Targets. -GPRS indicators for access to water and sanitation	GPRS Statistics
Development objective		
Health status and quality of life improved in targeted communities and small towns of Volta, Eastern, Greater Accra and Central Regions	<ul style="list-style-type: none"> • Reduced incidence of water and sanitation related diseases • Reduced number of children with stunted growth • Less efforts spent on collecting water in rural areas • Increased use of water for productive purposes in selected communities 	Impact surveys (CWSA reports. Statistical Services reports)

Immediate objectives	Verifiable indicators	Means of verification
1. Districts have adequate capacity for sustainable water and sanitation planning, implementation and operation and maintenance	No of districts that have planned and implemented water supply and sanitation projects Operation and maintenance systems in place	Progress reports, annual stake-holder and participatory programme reviews.
2. Improved behavioural patterns with respect to use of safe water and sanitary facilities in targeted communities and small towns	The exact formulation of the indicators will be defined after a KAPB survey has identified the most critical behaviours and the prevalence of these	KAPB surveys (sometimes using proxy indicators for behaviour if direct measurement is too complicated or inaccurate)

3. Access to safe and sustainable water in rural areas and small towns visibly increased	<ul style="list-style-type: none"> • No of household with access to safe water • No's of communities and small towns adequately using, managing and sustaining improved water supply • No of districts with functioning private sector delivery system of goods and services to support and sustain DA based water supply. • Production using productive water increase 	CWSA monitoring statistics
4. Access to sustainable environmental sanitation facilities increased in the target regions	<ul style="list-style-type: none"> • 85% of the schools in the targeted regions have access to sanitary school latrines and are using and maintaining the systems. More than 20 communities/small towns have improved their environmental sanitation facilities and the O&M of the facilities 	GES statistics Baseline descriptions from sub-project descriptions. End of component situation from district reporting through MLGRD
Process Indicators		
Number of relevant applications for water supply improvements	Key indicator for capacity in districts and communities for planning	
Number of relevant applications for environmental sanitation improvements	Key indicator for capacity in districts and communities for planning	
District Water & Sanitation Plans integrated into District Medium Term plans	Important for ensuring long-term sustainability of water and sanitation projects	District Assembly planning reports

6.2 Monitoring and reporting

The component sets up a monitoring system able to track and report on relevant indicators (cf. LFA Matrix, Annex 1). Some indicators will be part of the general GPRS monitoring, whereas others will be needed for internal management and progress reporting. The Water Directorate of MWH will coordinate all monitoring in collaboration with MLGRD, based on data collected by CWSA and the districts.

The Annual Sector Review Agreement (ASRA) procedures and the technical reviews will be the mechanism for revisions and adjustments to the component.

6.3 Reviews and evaluations

As part of WSSPSII, the component will be subject to annual reviews (ASRA), undertaken jointly by Danida and Ghanaian partners and possibly other donors. Reviews may have a different focus and emphasis from year to year and will not necessarily be full-scale reviews for individual components. In addition to annual WSSPSII reviews, Danida may decide in collaboration with the Steering Committee to undertake technical assessments on specific issues at any time during the component period.

Technical reviews and evaluations of the component or parts of it may be carried out during or by the end of the component period.

6.4 Logical Framework - Output indicators and assumptions

Output indicators and assumptions are shown in an LFA matrix for the component in Annex 1.

7. Component Implementation Plan

7.1 *Inception phase*

An inception phase of three months is envisaged with the following main activities:

- Mobilise consultants team, including tendering and hiring of local consultants under international TA contract
- Review existing situation in the four regions (especially in Central Region) to understand the present level of implementation, the available capacity at district level, training needs etc
- Based on the above develop plans for capacity building
- Develop model and criteria for budget allocations and prioritisation projects, based on needs and poverty criteria (cf. Section 5.3.1)
- Review existing knowledge
 - on KAPB barriers and motivating for peoples acquisition of sanitary latrines
 - on hygiene behaviours in order to identify critical behaviour, barriers and motivating factors for change of the hygiene related behaviour
- Based on the sanitation promotion study above, revise the components promotion strategy, including propose pilot testing.
- Review design criteria for water supply in light of the low actual water demand figures
- Review LFA including especially indicators and means of verification
- Review/revise mobilisation strategy and training materials
- Review/revise financial management principles
- Elaborate detailed work plans
- Elaborate QA systems as necessary
- Review/propose revision of the component budget
- Elaborate Inception report for approval by CCC and Programme Steering Committee.

The above list is not necessarily exhaustive. The consultant team and CWSA are expected to add extra items as appropriate.

7.2 *Overall implementation plan*

A draft overall implementation plan is shown in the figure below. The plan is indicative and meant to illustrate that within each main activity there will be a number of activities that are repeated over the years, typically in different communities or districts.

Figure 7.1 Draft Implementation Plan

Main Activity	Year	2003				2004				2005				2006				2007				2008			
	Quarter	-1	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20			
Inception Phase			*****																						
Capacity building of districts																									
Capacity building Central Region			*****	*****	*****	*****	*****	*****																	
Capacity building other regions					*****			*****				*****				*****									
District WS planning		*****	*****		*****			*****				*****				*****					*****				
Mobilisation of communities					*****				*****				*****					*****							
Sub Project preparation		*****					*****				*****			*****					*****						
Approval of plans/Projects			X					X				X			X					X					
Hygiene Promotion																									
Planning		*****		*****				*****				*****				*****					*****				
Campaigns in project areas					*****				*****				*****					*****				*****			
General campaigns						*****				*****				*****					*****						
Water Supply																									
Community water supply, implement.		*****	****		*****		*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****			
Small towns water supply, implement.			*****	*****	*****	*****		*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****			
Environmental Sanitation																									
Surveys and audits		*****																							
Feasibility studies and planning			*****	*****				*****				*****				*****			*****			*****			
Implementation of Evn. Sanitation Proj.					*****	*****			*****	*****			*****	*****			*****	*****		*****	*****				
Surveys School Latrines		*****	*****	*****																					
Implementation school latrines				*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****			
Progress reporting		X		X		X		X		X		X		X		X		X		X					
Annual Sector Review	X				X				X				X				X								

District Based Water and Sanitation Component

Annexes:

- Annex 1: Logical Framework Matrix
- Annex 2: Detailed Budget
- Annex 3: Job description for the Management Advisor (International)
- Annex 4: Typical Project Cycle for a community Handpump and Sanitation Scheme
- Annex 5: Environmental Considerations & Mitigation
- Annex 6: Planning Procedures
- Annex 7: Draft Principles for CWSA management fee

Annex 1: WSSPSII – Logical Framework Matrix for the District Based Water & Sanitation component

Programme development objective	Verifiable indicators	Means of verifications	Critical Assumptions - component to programme level
Sustainable reduction of poverty achieved through improved water supply, sanitation and hygiene education as well as increased knowledge and better use of the water resources in Ghana.	GPRS indicators on Poverty Targets. GPRS indicators for access to water and sanitation. ⁶	GPRS Statistics	1. Other regions in Ghana successfully supported by GOG and other donors.
Component development objective		Means of verification	Output to objective level
Health status and quality of life improved in targeted communities and small towns of Volta, Eastern, Greater Accra and Central Regions	<ul style="list-style-type: none"> Reduced incidence of water and sanitation related diseases. Reduced number of children with stunted growth Less efforts spent on collecting water in rural areas (potentially more productive time available) Increased use of water for productive purposes in selected communities 	Impact surveys <i>(CWSA reports. Statistical Services reports)</i>	1) Water and sanitation services are effectively used and are sustained in order to achieve desired quality of life and health improvements. 2) Stable socio-political climate and continued commitment to the long-term development goals of national programme (e.g., GPRS).

⁶ GPRS indicates a number of relevant indicators for monitoring progress: Some of these are:

- Poverty incidence
- Extreme poverty incidence
- Reduction in reported cases of guinea worm
- Percentage of households with access to safe water
- Percentage of households with access to adequate toilet facilities (flush or KVIP)
- Number of new functional water systems (boreholes, wells, pipes etc.) constructed
- Number of functional Water & Sanitation Board, District Water & Sanitation Committees; Community Water & Sanitation Committees
- Gross enrolment in pre-school and basic schools (primary/JSS)
- "Survival rate" to P6 and JSS3

Immediate objectives	Verifiable indicators	Means of verification	Output to Objective to level
1. Districts have adequate capacity for sustainable water and sanitation planning, implementation and operation and maintenance	X no's Districts have planned, implemented Y nos. Water supply and sanitation projects in Z no's of communities, and operation and maintenance systems in place	Progress reports, annual stakeholder and participatory programme reviews.	Continued GoG and donor commitment and financial support to decentralisation and to the sub-sector throughout the project period.
2. Improved behavioural patterns with respect to use of safe water and sanitary facilities in targeted communities and small towns	The exact formulation of the indicators will be defined after a KAPB survey (see activity 2.1) has identified the most critical behaviours and the prevalence of these ⁷ :	KAPB surveys (sometimes using proxy indicators for behaviour if direct measurement is too complicated or inaccurate)	Community members internalise hygiene promotion messages and improve behaviour practices Number of villages with sufficiently high coverage with latrines (>70 %) to expect health effects
3. Access to safe and sustainable water in rural areas and small towns visibly increased	<ul style="list-style-type: none"> • XX % of the household have access to safe water • No's of communities and small towns adequately using, managing and sustaining improved water supply • X no's districts with functioning private sector delivery system of goods and services to support and sustain DA based water supply. • Production using productive water increase 	MOM statistics	WSDBs able to sustain delivery of water services and sufficient local consultant expertise available for implementing an managing small towns schemes

⁷ Some of the selected impact indicators could be: By end 2008 in targeted regions:

1. 90% of all households which have access to safe water in the rural areas and small towns are drinking and cooking from safe water sources
2. XX% of men, women, boys and girls in the targeted households use sanitary latrines properly and YY % would like to invest in a sanitary latrine.
3. xx % of the Household have access to sanitary latrines in the targeted area
4. No faecal matters are on the floor of zz % of the latrines
5. Small children's excreta is disposed safely in XX% of the targeted households
6. % of men, women, boys and girls who practice hand washing at critical times
7. No of schools with water available for hand washing close to the school latrine
8. % of men and women in guinea worm infested areas who filter water or bring safe water when working in the fields.

Outputs	Verifiable indicators	Means of verification	Activity to output
1.1 Districts have prepared District Water and Sanitation Plans (DWSPs)	Nos. of DWSPs up to standard and used	Component MIS and progress reports, participatory M&E, surveys, implementation support missions.	
1.2 Districts have mobilised communities, prioritised activities and actively support community organisations for implementation and O&M of water and sanitation facilities	<ul style="list-style-type: none"> No of EHA's actively involved in promotion of W&S No's of communities with functioning WATSANs and WS&SDB Nos. of communities that submit acceptable proposals⁸ which are appraised and approved by DA. No of visits by CWSA supporting districts, PO's and private sector No of contracts signed between the communities and the private sector assisted by the District and CWSA 		<ul style="list-style-type: none"> DAs are committed to the program, are willing to allocate resources and provide long-term support to community initiatives. EHA's and other key staff in place and well motivated Program is adequately promoted in all eligible communities and districts so that community demand guides investment decisions GOG institutionalises the national procurement policy to facilitate easy and transparent procurement by the districts
1.3 Districts capable of defining sub-projects, tendering the works and supervised construction of installations using the private sector	<ul style="list-style-type: none"> Nos. of contracts signed by community and /or DA. Nos. of DAs with certified audited accounts as per cent of participating districts No of successfully completed contracts (technically as well as financially) 		<ul style="list-style-type: none"> District staff available for W&S activities, including training Sufficient long-term incentives for private sector/NGOs to deliver goods and services in a competitive manner. Private sector and NGOs are able to deliver quality goods and services in a timely manner
1.4 Districts have provided relevant training and support for community organisations, artisans, area mechanics and other relevant local actors	<ul style="list-style-type: none"> No's of communities trained (WATSANs and traditional leaders) Nos. of service providers (POs, TAs, artisans, contractors, suppliers, etc.,) trained and /or operational at the district/community levels. 		

⁸ Acceptable proposals require: gender balanced WATSAN committee/water board, community decision-making and service level selection, financial contribution from users, adequate management plan, community bank account, clearly defined O&M plan and hygiene promotion.

Outputs	Verifiable indicators	Means of verification	Activity to output
1.5 Districts are monitoring water and sanitation aspects on a regular basis	<ul style="list-style-type: none"> • Nos. of Districts with functioning monitoring systems providing relevant data 		EHA's and other key staff in place and well motivated
2.1 Relevant strategy for community mobilisation and promotion of hygiene behaviour developed	<ul style="list-style-type: none"> • Existence of a KAPB survey focusing on motivating factors and barriers for change of behaviour in the Ghanaian context with regard to promotion of hygiene and water and sanitation facilities • A confirmed/revised strategy has been elaborated based on the above KAPB survey. 		
2.2 Districts have conducted hygiene promotion campaigns in communities receiving physical facilities (water points and latrines)	<ul style="list-style-type: none"> • No's of communities who has received hygiene promotion • No's of men, women and children participating in the hygiene promotion <p>Depending on the result of the survey above some of the indicators could be:</p> <ul style="list-style-type: none"> • XX% of households in target areas preserving water by covering with lid • XX% of men, women and children who know the relationship between excreta, water and diseases. • XX% boys and girls in the schools with toilets who use school toilets. • XX% of the environmental sanitation facilities provided by the DA's are properly used 		
2.3 Districts have carried out issue-specific hygiene promotion campaigns assisted by CWSA and other expertise	<ul style="list-style-type: none"> • No and type of issue-specific hygiene promotion campaign • No of men, women and children participating in the hygiene promotion campaign • XX% of the households know the reasons for investing in a sanitary 		

Outputs	Verifiable indicators	Means of verification	Activity to output
	latrine. Depending on the result of the survey above some of the impact indicators could be: <ul style="list-style-type: none"> • % of latrines where water and a rubbing agent is available. • % of men and women in guinea worm infested areas who know simple methods for prevention of guinea worm. 		
3.1 Communities have with assistance from CWSA and the districts developed adequate organisational structures for implementation and O&M of water supply systems	<ul style="list-style-type: none"> • No's of gender balanced and functioning WATSANs • No's of gender balanced and functioning WS&SDBs in small towns or in multiple village piped schemes • No of WATSAN's, WS&SDB's, pump caretakers etc that understand the need for O&M of water supply and sanitation facilities 		
3.2 Increased access to sustainable water for rural communities in Volta, Eastern, Greater Accra and Central Regions through implementation of boreholes and hand dug wells with handpumps	<ul style="list-style-type: none"> • 1225 Nos. of bore holes/wells with handpumps constructed/rehabilitated, functioning and used properly. • Increase in number of persons with access to safe water (Target: + 350,000 persons) 		WATSAN committees have sufficient capacity to manage and sustain the facilities
3.3 Increased access to sustainable water supplies in small towns through implementation of 20-30 schemes covering a total population of 180,000 persons.	<ul style="list-style-type: none"> • Nos. of people served in small towns with improved water supply functioning and with O&M systems in place (new systems and rehabilitated ones) (Target: + 180,000 persons) <u>Qualifying Indicators:</u> <ul style="list-style-type: none"> • 24 hour supply • sustainable tariffs adopted • >90 % of tariffs collected • > 95 % of stand pipes are 	MOM statistics	Water Supply and Sanitation Development Boards have sufficient capacity to manage and sustain the facilities

Outputs	Verifiable indicators	Means of verification	Activity to output
	functioning (including drains etc)		
3.4 Community organisations have taken the responsibility for the operation, financial management, preventive maintenance and repairs of the installations	<ul style="list-style-type: none"> Nos. of functioning water supply and sanitation installations in YY no's. of communities % of installations functioning after two years 		
3.5 A limited number of facilities for productive use of water installed on a pilot basis	<ul style="list-style-type: none"> No's, types, capacities, purpose and use of installations 		WRC completes assessment of potential for productive water with positive result
4.1 Increased experience and awareness available on environmental sanitation problems and potential solutions	<ul style="list-style-type: none"> Overview of experience gained and available through pilot projects (technical as well as institutional and social experience) 	Programme documents available on request by interested parties	
4.2 Environmental sanitation problems and solutions addressed as part of the District Water and Sanitation Plans	<ul style="list-style-type: none"> Increased number of district plans comprising environmental sanitation issues 	Review of district plans	MLGRD and EPA willing to support modifications of planning processes for rural districts
4.3 Small scale sustainable environmental sanitation projects have been completed in 30 selected communities/small towns	<ul style="list-style-type: none"> Nos. of communities/small towns with improved environmental sanitation and O&M systems in place 	<i>MLGRD statistics (from component 4??)</i>	Districts have and make own funds available for district contributions to demonstration projects.
4.4 Increased access to well functioning institutional latrines at schools and market places in target regions	<ul style="list-style-type: none"> Nos. of institutional latrines completed, properly used and supported by adequate financing and management. No's of schools and clinics with hand washing facilities functioning and properly used No of sustainable public latrines installed and in use supported by adequate financing and management. 	GES statistics CWSA statistics (incl. MOM statistics)	Schools and districts have funds available for 10 % contributions to the investments

Annex 2: Detailed Budget

Annex 3:**Job description for the Management Advisor (International)**

- Design and assist in the implementation of appropriate strategies for the component
- Assist in developing criteria for the selection of beneficiary communities by the Regional Approval Committees
- Provide quality assurance for the key outputs of local and international advisors
- Provide back up in project management to the RWSTs particularly the Regional Directors.
- Ensure the adherence to procedures and processes in the procurement of goods and services in all spheres of component implementation
- Manage the Danida inputs in concert with the Regional Directors
- Participate in fora organised by CWSA, Danida and other relevant stakeholders.

Qualifications needed:

- A relevant university degree (Sanitary/environmental engineering, social science, public health, etc.)
- Several years of working experience with implementation of rural water supply and sanitation projects in developing countries.
- Profound management experience
- Preferably working experience from Ghana or similar countries in Africa
- Proficiency in spoken and written English.
- Good computer skills
- Experience with team work and good communication skills
- Good social intelligence and ability to adjust to different cultural settings

Success criteria:

The performance of the management advisor will be judged by the following criteria:

- The technical appropriateness and quality of the facilities implemented by the component
- The progress of implementation
- The progress of the capacity building and decentralisation process in the regions for which the advisor is responsible
- The degree to which the regional organisations, districts and WATSANs live up to the needs for O&M
- The existence and quality of the information system on water and sanitation situation in the Volta, Eastern and Greater Accra and Central regions.

Job description for the Financial Management Advisors (International)

- Design and assist in the implementation of appropriate financial management strategies for the component
- Develop a strategy for building capacity within the districts for financial and project management and participate in the implementation of this strategy
- Assist in developing criteria for the selection of beneficiary communities by the Regional Approval Committees (especially with regard to their project management capacity)
- Provide quality assurance for the inputs of the local financial advisors within the regions of his/her responsibility
- Provide back up in project management to the RWSTs particularly the Regional Directors and their Financial Management staff.
- Provide advice to district organisations within the regions of his/her responsibility
- Ensure the adherence to procedures and processes in the procurement of goods and services in all spheres of component implementation
- Manage the Danida inputs in concert with the Management advisor and the Regional Directors
- Participate in fora organised by CWSA, Danida and other relevant stakeholders.

Qualifications needed:

- A relevant university degree (Financial management, project management, etc.)
- Several years of working experience with implementation of financial management on projects/components in developing countries.
- Profound management experience
- Preferably working experience from Ghana or similar countries in Africa
- Willingness to travel and work at the district level
- Proficiency in spoken and written English.
- Good computer skills
- Experience with team work and good communication skills
- Good social intelligence and ability to adjust to different cultural settings

Success criteria:

The performance of the financial advisor will be judged by the following criteria:

- The appropriateness and quality of the financial management systems set up for the component facilities implemented by the component
- The progress of implementation
- The progress of the capacity building and decentralisation process in the regions for which the advisor is responsible
- The existence and quality the information system on water and sanitation situation in the Volta, Eastern and Greater Accra and Central regions.

Annex 4: Typical Project Cycle for a community Handpump and Sanitation Scheme

Typical Project Cycle for a community Handpump and Sanitation Scheme													
Month	1	2	3	4	5	6	7	8	9	10	11	12	
Activity													
Information Meetings at DAs	**												
Community Mobilisation & Hygiene Promotion	*****	**		**	**		**	**		**	**		
Community Submit Application	**	***											
Pre selection of sub-projects		****											
Sub-projects prepared			*****	***									
Sub-project packages approved				****									
Detailed design and tender docs prepared					*****	*****							
Tendering, evaluation & award							*****	*****					
Construction & supervision									*****	*****	*****	*****	
WATSANs formed, O&M Training									*****		*****		
Completion & handover													**
Follow-up, monitoring, trouble shooting													*****

Annex 5: Environmental Considerations & Mitigation

Introduction.

This summary focuses on what are seen to be the main areas of environmental concern within the component, namely, Excreta and Wastewater Disposal, Grey Water (or sullage) Disposal, Reuse of Dried Sludge from Latrines, Sanitary Protection of Wells and Boreholes, Water Quality Testing and Surveillance, Solid Wastes Disposal and Storm Water Drainage. The Component as a whole is in essence an environmental improvement initiative. However, in order to combat any potential negative impacts an environmental mitigation and monitoring plan has been prepared. The plan together with water quality monitoring parameters is summarised below;

Excreta Disposal and Water Supply - Existing Situation.

Rural Areas: In the rural areas, only a small percentage of households and schools have some form of latrine and of the few with latrines, most use a simple pit latrine in a separate building. Generally the latrines are not emptied when full, they are covered with soil, and the villagers dig a new pit. Sanitation coverage in some areas is less than 10% and the resulting indiscriminate defecation in the fields nearby communities poses a serious environmental/health issues. A major component objective is to isolate excreta and its accompanying health risk from the general environment. In most component areas the soils are mainly homogeneous and the ground water was at great depth so the likelihood of ground water pollution from onsite sanitation systems is low, except in coastal areas where the ground water is shallow.

Water supply is mainly from wells. The areas around the well are not usually fenced, and the wells are left open to the elements. Similarly, the spillage from public stand posts or water points is allowed to pond on the ground, forming a stagnant pool where animals come to drink churning the area into a mud bath.

The majority of village households have no proper means of grey water or sullage disposal. It is usually piped away from the wash basin to the outside where it is allowed to soak into the ground, or if no sink exists, the waste is thrown onto the ground. Increasing water supply service levels in a village can exacerbate this problem unless the problem is addressed.

In most villages the disposal of solid wastes is a very obvious problem, as paper and plastic wastes are indiscriminately strewn around the streets and disposal facilities are not provided. Flooding from storm water is not always seen to be a major problem although some villagers report occasional flooding problems during heavy rains. In some areas where storm water drains had been provided solid wastes are a major contributing factor to the blocking of these drains

Small Towns: In the in the more densely populated small towns (5,000 to 20,000 population), most also rely on 'on-site' disposal through latrines and cesspits. Sanitation coverage is higher in these areas. A number of the larger municipalities operate sanitation

vacuum tankers. The emptying of pit latrines and cesspits in these more densely populated areas can be improved, if the responsible and concerned authority can provide an emptying service using a vacuum tanker. The costs could be covered by user charges. However a major issue that should be addressed is how to provide facilities where septic wastes can be emptied and treated. Emphasis should be placed on introducing sanitation technology into the towns that does not require mechanised emptying, such as alternating twin pit latrines (KVIPs).

Improving Latrine Coverage:

The sanitation component should have an intensive and vigorous environmental sanitation component to improve coverage and to address the other important issues of waste water disposal, solid waste disposal and storm water drainage. The sanitation component should have two main parts,

- i) a sanitation promotion campaign, and
- ii) physical support to the construction of household and community based excreta disposal systems. This should be reinforced by health and hygiene promotion.

Sanitation promotion campaign. The EHAs and WATSANs should support the development of village and or small town environmental action plans. These plans would include identifying environmental problems in the village/town and mobilising local resources to address them e.g. constructing rainwater drainage channels, identifying sites for the disposal of solid wastes and digging waste pits. In support of the promotion campaign demonstration latrines could be constructed at strategic locations such as village centres, schools and clinics. Latrine builder training courses can be organised and the graduates given certificates of attendance. Also the use of household soakaways for sullage (wastewater) disposal should be demonstrated and promoted. Other components of the promotion campaign will include fencing around and protecting wells to keep animals from polluting the source, concrete aprons and drainage channels around public stand posts etc.

Latrine construction. The component should provide incentives for families or communities to construct the sanitation facilities. The Ventilated Improved Pit (VIP) latrine and the pour-flush toilet are technically acceptable latrine designs that will reduce the need for regular maintenance.

Schools Sanitation. All schools and clinics where latrines are constructed will be provided with a good standard of sanitation and facilities for hand washing. This will be a key demonstration strategy in the health & hygiene campaign.

Health and Hygiene Promotion. A health and hygiene promotion campaign should be staged in the component villages that will seek to i) impart knowledge and increase awareness of the need to improve hygiene practices, ii) promote good practice of collecting storing and using water, iii) improve hygienic practices for safe excreta disposal, and iv) promoting environmental improvements through solid and wastes management and disposal.

Reuse Of Dried Sludge from Pit Latrines : Since this component is primarily focusing on rural areas with rather dispersed housing clusters, most of the sanitation installations will be on-site that will not require extensive emptying services. Excreta that has been contained in a KVIP pit latrine for two years or more is safe as all pathogens, including worm ova, will have died off and is safe to use as a soil conditioner. The hygienic use of matured latrine contents manure and septic tank sludge as soil conditioner or fertilisers can be introduced into villages through demonstration and education programs.

Pit Latrine Emptying and Sludge Disposal in More Densely Populated Areas. The component should devise a strategy to improve and introduce a system for the hygienic emptying of latrines and septic tanks in the more densely populated areas. This could include expanding the services from nearby towns and/ or involving the private sector.

Grey Water Disposal : The disposal of grey water at the household level can easily be improved by households constructing simple sanitary 'soak-aways'. Similarly, providing a concrete apron around a stand post, with a drain to channel the waste water to an animal trough or to an area of vegetation, can improve the surrounding area.

Maintaining Water Quality

Limited water testing facilities are available at GWC in Ho and a Danida supported laboratory in Accra. In most deep borehole the occurrence of pollution is rare, but some deep wells have been found to be saline or have high levels of iron or fluorides. However, regular bacteriological tests should be carried out on surface water sources and any open dug wells that may exist.

Protection of Ground Water Sources. During the intensive campaign to promote latrine building, one important issue that will be taken into account is the possible pollution of ground water sources. A number of research studies have confirmed that pathogens and other pollutants do not travel far from a pit latrine or septic tank in homogeneous soils particularly as the volumes of water involved are very low. However, the risk of pollution relates to the nature of the soil and the depth of the ground water and each site should be assessed before construction to ensure that there is no water pollution potential. Current good practice adopted in many countries is that latrines or septic tanks should not be located within 50 meters of a well or borehole. Before any latrines are constructed the soils at the site should be inspected and the depth of ground water assessed to ensure that there is no potential for pollution. In small towns in which a number of boreholes have been drilled and equipped with electrical pumps the draw down should be regularly monitored to ensure that the aquifer is not being mined.

Ground Water Pollution - Mitigation: As discussed above the likely hood of ground water pollution from pit latrines or septic tanks is small. However, ground water quality testing should take place when a new borehole is drilled or when an old well is upgraded and at regular intervals there after, particularly those in the vicinity of latrine and WHO standards should be applied (i.e. WHO Guidelines for Drinking Water Quality as revised in the 1993

edition). Communities will be trained by the EHAs to alert DWST of any changes in water quality, this will trigger an immediate water test..

Sanitary Protection of Boreholes and Wells. Standard drawings will be provided that indicate the measures required for the sanitary protection of boreholes and wells that prevents surface run-off from re-entering wells carrying pollution with it. These measures should include: fencing, aprons and spillage water drainage channels, separate animal drinking troughs..

Water Quality Monitoring. All DWSTs will be provided with water testing equipment to improve water quality monitoring. This should comprise of portable equipment that can measure both chemical and biological pollutants. Water quality testing should occur after the development of a new source and at regular intervals thereafter.

Water Quality Monitoring Parameters: The basic water quality monitoring parameters include: pH and Salinity, and Biological Oxygen Demand. Total Coliforms, and Faecal Coliforms should be tested for surface water sources.

Costs and Responsibilities: The cost for these environmental mitigation and monitoring measures have been included in the component budget. DA staff would be responsible for the initial implementation of the mitigation initiative i.e. testing and monitoring. The responsibility and supervision for emptying of pit latrines or septic tanks, as well as removal and treatment of sludge will be at the community level overseen by the EHAs and the WSDB's, even if the actual job is carried out by a private entrepreneur. Should the component work in a small town in which there is a need to empty cess pits and septic tanks, it would be conditional that the local authority provide a suitable vacuum truck or contract a private sector service provider.

Conclusion

One of the overall goals of the component is to significantly improve the environmental conditions in rural areas and thereby improve the health and quality of life for the rural inhabitants. This will mainly be achieved by improving drinking water quality and quantity and by reducing indiscriminate defecation and isolating human excreta from the general environment. Water quality and quantity will be improved through the construction and rehabilitation of water schemes and by introducing water quality testing. Excreta disposal will mainly be improved through the promotion of a program of latrine building. In addition, by providing a supporting health and hygiene promotion campaign, hygienic behaviour will be improved that will ensure the maximum benefits from the investment will be obtained. The environmental review concludes that the component will generate very positive environmental impacts. Moreover, with the proposed mitigation measures, the component does not present any significant environmental risks.

Annex 6: Planning Procedures

(Draft version to be confirmed/modified during the Inception Period. It may be useful to refer to CWSP-2's POM and also what the proposed PIM would contain so contents are aligned.)

X = Prime responsibility

X = participating

(X) = assisting and supporting

Output no 1: Capacity building - Planning procedures (Draft version to be confirmed/modified during the Inception Period).

Activity	District Assembly	District WD/WST	District EHA's/EHUs	CWSA- /RO	Consultant*	Contractor*	Regional Approval Committee	Comment
Preparation of tender documents for TNA with focus on community mobilization and hygiene promotion				X				
Contract management and supervision				X				
Preparation of TNA for district staff	X	X	X		X			
Preparation of capacity building plan					X			
Approval of capacity building plan				X			X	
Preparation of tender documents for capacity building of district staff				X				
Contract management and supervision				X				
Implementation of training Plan	X	X	X	(X)		X		
Follow-up and Monitoring of capacity building				X			X	RAC reviews monitoring data

* Should be a qualified consultancy company

**Can be a qualified NGO or consultancy company.

Output no 2: Hygiene Promotion - Planning Procedures

(Draft version to be confirmed/modified during the Inception Period).

For issue-based campaigns and promotion of sanitation *

Activity	Local Communities	District Assembly	District EHA's / EHU	CWSA-RO	Regional Approval Committee	Comment
Detailed criteria for funding of projects				X	X	In particular criteria for poverty reduction.
District Water and Sanitation Plan		X	X	(X)		
Campaign or training package prepared		X	X	(X)		
Campaign or training package approved				X	X	
Tendering and contracting		X	X	(X)		Optional, based on standard Ghanaian rules.
Supervision and contract management		X				Optional
Implementation of issue-based campaign	X	X	X			Possibly assisted by PO's
Follow-up and Monitoring of the impact			X			RAC review monitoring data

* Issues could be promotion of filtering of water in guinea worm infected areas, promotion of household sanitation, promotion of hand-washing at critical times, promotion of cleanliness of household latrines etc

CWSA RO could be supported by a qualified NGO or Consultancy Company for capacity building on community mobilisation and hygiene promotion aspects (see output 1)

Output 3A: Community Water Supply Installations

(Draft version to be confirmed/modified during the Inception Period).

Activity	Local Community	WAT-SAN	District Assembly	District WD/WST	District TEHA's /EHU	CWSA-RO	Regional Approval Committee	Comment
Detailed criteria for funding of projects						X	X	In particular criteria for poverty reduction focus, and the related software package
District Water and Sanitation Plan			X	X	X	(X)		
Information Meetings at DAs			X	X	X	(X)		
Community Mobilisation & Hygiene Promotion					X	(X)		Possibly assisted by POs, Will continue after the handing over of the facilities
Community Submit Application	X				(X)			Including funding of own contribution
Pre selection of sub-projects			X	X	X	(X)		
Sub-projects prepared			X	X		(X)		
Sub-project packages approved						(X)	X	Packaging at regional level if needed to obtain significant economy of scale
WATSAN formed	X				X			
Detailed design and tender doc's prepared			X	X		(X)		For both hard and software
Tendering, evaluation & award			X	X		(X)		According to Ghanaian Rules
Construction & supervision / contract management			X	X		(X)		Private sector construct while DWST or District WD supervise construction, EHU supervise software
O&M Training for WATSAN and the caretakers who will do the day-to-day management and routine maintenance	X		X		X	(X)		PO's might be chosen as trainers.
Completion & hand-over	X		X	X		(X)		
Follow-up and Monitoring of O&M			X		X	X	(X)	RAC reviews MOM data

CWSA RO could be supported by a qualified NGO or Consultancy Company for capacity building on community mobilisation and hygiene promotion aspects (See output 1)

Output 3B: Small towns Water Supply - Planning procedures

(Draft version to be confirmed/ modified during the Inception Period).

Activity	Local Communities	WSDB	District Assembly	District WD/WST	District TEHA's / EHU's	CWSA-RO	Regional Approval Committee	Comment
Detailed criteria for funding of projects						X	X	In particular criteria for poverty reduction focus, and the related software package
District Water and Sanitation Plan			X	X	X	(X)		
Information Meetings at DAs			X	X	X	(X)		
Community Mobilisation & Hygiene Promotion					X	(X)		Possibly assisted by POs. Will continue after the handing over of the facilities
Community Submit Application	X				(X)	(X)		Including funding of own contribution
Pre selection of sub-projects			X	X	X	(X)		
Sub-projects prepared			X	X		(X)		
Sub-project packages approved						(X)	X	Packaging at regional level if needed to obtain significant economy of scale
WSDB Formed,	X		X	X	X	X		Possibly supported by PO
Detailed design and tender doc's prepared			X	X	X	(X)		For both hard and software
Tendering, evaluation & award			X	X	X	(X)		According to Ghanaian tender rules.
Supervision of construction /contract management			X	X	X	(X)		Private sector involvement
Management model for day-to-day management selected		X	X			(X)		Possibly involving private sector.
O&M Training and day-to-day management of the water supply for WSDB and the day-to-day managers	X	X	X	X		X		Possibly involving private sector.
Completion & hand-over	X		X	X		(X)		
Follow-up and Monitoring of O&M			X		X	X	(X)	RAC reviews MOM data
Expansion for new connections		X		(X)				

CWSA RO could be supported by a qualified NGO or Consultancy Company for capacity building on community mobilisation and hygiene promotion aspects (see output 1)

Output no 4A: Environmental Sanitation sub-projects - Planning procedures
(Draft version to be confirmed/modified during the Inception Period).

Step	Local Community	District Assembly	District WD/WST	District EHA's / EHU's	CWSA-RO	Regional Approval Committee	Comment
Detailed criteria for funding of projects					X	X	Including criteria for poverty reduction focus and the related software package
Promotion of fund for sub-projects		X	X	X	X		
Survey of local needs		X	X				Can be a part of District W&S Planning or a separate planning.
Technical evaluation and prioritisation		X	X		(X)		Including evaluation of
Funding of local contribution.		X					
Proposal for investment		X				X	DA proposes, RAC approves within overall allocation to the Region.
Setting up management structure for day-to-day management and O&M	X	X			(X)		
Tendering and contracting		X	X		(X)		Several environmental health facilities may be lumped into one contract
Supervision and contract management			X		(X)		
Initial Promotion of environmental health				X	(X)		Possibly assisted by PO's
Commissioning/ take over of facilities	X	X	X		(X)		
Intensive project Promotion				X			Possibly assisted POs
O&M training	X	X		X	(X)		
Operation and Maintenance	X						
Follow-up and Monitoring of O&M		X		X	X	(X)	RAC reviews MOM data

CWSA RO could be supported by a qualified NGO or Consultancy Company for capacity building on community mobilisation and environmental sanitation promotion aspects (see output 1)

Output no 4 B: Institutional latrines - Planning procedures (Draft version to be confirmed/modified during the Inception Period). Procedures shown for school latrines. Similar procedures for other insitutional latrines

Step	School Leaders / PTA	SHEP-District Coord.	District Assembly	District WD/WST	District EHA's / EHU's	CWSA -RO	Regional Approval Committee	Comment
Detailed criteria for funding of projects						X	X	Including criteria for poverty reduction focus
Survey of schools without adequate latrines		X	X					Including description of water supply options
Promotion of School Latrines		X			X			
Commitment from school leadership PTA and SHC	X	(X)			(X)			Including collection of contribution and setting up a management system of O&M
Technical evaluation and prioritisation				X		(X)		Including evaluation of water supply options and coordination with school improvement plans
Proposal for investment			X				X	DA proposes, RAC approves within overall allocation to the Region.
Tendering and contracting			X	X		(X)		Several Latrines may be lumped into one contract
Supervision and contract management				X		(X)		
Initial Hygiene Promotion	X	X			X			Assisted by school health coordinators
Commissioning/ take over of latrines	X		X	X		(X)		
O&M training	X	(X)			X	(X)		
Operation and Maintenance	X	(X)						
Followup and Monitoring of O&M		X			(X)	X	X	RAC reviews MOM data

CWSA RO could be supported by a qualified NGO or Consultancy Company for capacity building on community mobilization and hygiene promotion aspects (see output 6)

An intensive hygiene promotion campaign will be carried out in the schools, which get new latrines. This will be carried out through the SHE Component

Annex 7: Principles for CWSA management fee (First Draft)

General

CWSA is charged with promoting community water supply and sanitation through the national policy of demand driven approach. In this role CWSA is supposed to be a facilitator through development of policies and practices and through providing support to the responsible service providers, the districts. In principle CWSA should not be directly involved in implementation but should focus on support, QA and monitoring.

At national level CWSA thus has the tasks of:

- Policy development
- Development of standards, procedures and materials
- Overall planning and prioritisation
- Monitoring at national level

At regional level the main tasks of CWSA are to promote the implementation of community water supply and sanitation through management of programmes, mobilisation of districts, capacity building and technical support to implementation and to operation and maintenance.

Specific tasks of the CWSA within the DBWS component

Implementation tasks

In Annex 6 of the Component Description a number of planning procedures relevant for the implementation of the component have been proposed. Most of the steps envisaged require as indicated some form of intervention by CWSA at central or regional level, either as a prime actor or as a support to the districts or regional administrations.

Typical activities comprise:

- Mobilisation of districts
- Capacity building of district staff
- Support to planning and implementing various promotion campaigns
- Support during the implementation phase for technical implementation, including QA
- Monitoring of operation and maintenance of the installations
- Trouble shooting on various issues (both during the implementation phase and during the O&M phase of the installations.)

Component Management Tasks

CWSA are charged with a number of tasks concerned with the planning and management of the component. These task typically comprise:

- Developing practical management systems for the component
- Secretarial services for the CCC and the RAC's
- Planning and Managing the component activities according to the principles agreed
- Further development/refinement of promotion material and principles
- Further development/refinement of technical solutions and standards

- Monitoring of the component achievements and the outcomes
- Financial management of component funds according the agreed guidelines

GOG contributions to the programme

According to the country agreement the GOG is supposed to cover costs related to:

- Funds to carry out general monitoring of the development within the sector, e.g. coverage statistics etc
- Cost of office accommodation at the CWSA Head Quarter (or similar suitable location in Accra) for the international consultants
- Funds to cover the salaries and allowances of all members of the RWSTs in the four regions
- Funds to cover the recurrent expenditure (fuel, maintenance cost of vehicles and equipment etc.) of the four regional offices and the head office
- Funds to cover the salaries and allowances of the up to 43 DWSTs
- Office accommodation, furniture and cost of utilities of the four regional offices (including facilities for the consulting teams) and up to 43 DWST offices
- Funds to cover the launch of the component at the regional and district levels

Cost coverage through the CWSA Management Fee

The principle of the management fee is that it should cover the incremental costs incurred by CWSA by the participation of CWSA in the implementation of the project.

All the tasks specifically mentioned above are thus envisaged to be provided by CWSA within this agreement and any costs related to be covered either by GOG funds or by the management fee, except where otherwise specifically stated or agreed upon by Danida.

Cost coverage outside the CWSA Management Fee

It is envisaged that there will be a need for a number of special studies and consultancies in support of the component implementation.

In particular such consultancy support is concerned with:

1. Studies at component level of issues that are important for the implementation in all the four regions or even at the national level
2. Support to the capacity building at district and community level
3. Support to the management of the implementation at district level and community level, e.g. feasibility studies, supervision, contract management etc
4. Support to general promotion campaigns

The costs of such consultancies can be covered by the respective budget lines after agreement in the COC following general guidelines set up by the CSC. As a main principle the component budget can not cover consultancies to cater for activities that should normally be done by normal CWSA staff.

Incentives model for payment of the CWSA management fee

The experience so far indicates the importance that a balanced effort is made between implementing new schemes and securing proper maintenance and operation of existing schemes in order to optimise the outcome of the available funds. It is therefore proposed

that a calculation model for the administration fee is made which maintains an incentive for CWSA to keep a balanced approach.

The total CWSA management fee is calculated as 5 % of the cost of water supply installations, sanitation installations and mobilisation costs. An incentive based model is proposed where the fee is calculated on a performance base where 80 % of the fee is based on the actual investments, whereas the last 20 % is based on a evaluation of achievement of the capacity building and O&M goals for the project. A lower percentage of well functioning facilities will thus lead to a similar pro rata reduction in the last 20 % of the administration fee.

To facilitate a reasonable financial (cash) balance for CWSA over the component duration an advance payment system is proposed also for the management fee.